



PROJECT MANUAL

INCLUDING SPECIFICATIONS
FOR CONSTRUCTION OF THE

MAYA LIN SEALANT & WALL COATING REPAIRS

ALAMEDA UNIFIED
SCHOOL DISTRICT

825 Taylor Ave,
Alameda, CA 94501

SECTION 00 01 10

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825 TAYLOR AVE ALAMEDA, CA**

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SECTION 01 11 00

SUMMARY OF WORK

PART 1. GENERAL

1.01 SUMMARY

A. Base bid Abbreviated Written Summary / Scope of work: Briefly and without force and effect upon the Contract Documents, the work of the Contract can be summarized to include as follows:

1. Demolition of existing sealants
2. Preparation of previously painted surfaces.
3. New sealants at openings.
4. Concrete crack repairs as needed.
5. Installation of new silicon elastomeric wall coatings

1.02 REFERENCES AND REGULATORY REQUIREMENTS

A. Refer to Section 01 42 13 - References.

1.03 PROJECT LOCATION

A. The project address is:
Maya Lin Elementary
Taylor Avenue
Alameda, CA 94501

1.04 CONTRACT DOCUMENTS

A. The general nature and extent of the work and the appurtenant facilities are shown on the Drawings under the title: Maya Lin Sealant and Wall Coating Repairs.

B. Perform work within the Limit of Work line indicated on the Drawings and per the discretion of the District.

C. DRAWINGS

1. Drawings such as irrigation plans, utility plans, etc., are essentially diagrammatic. Actual runs indicated on the drawings shall be followed as closely as coordination with the work of other trades will permit. The exact routing of such improvements and locations of equipment shall be governed by site conditions, obstructions, and locations of other utilities as acceptable to the District.
2. In the event that discrepancies arise over dimensions, product references, omissions, or written statements, these conflicts shall be immediately brought to the District's attention by the contractor. If available, this may be accomplished with the use of a "Request for Information" (RFI) form. While awaiting direction or clarification from the District, the contractor shall re-direct work as necessary so as not to cause delay to the project.
3. If discrepancies arise between plans, details, or specifications, the order of descending

precedence shall be: 1.) Specifications 2.) Details 3.) Plans (ex. Details have precedence over Plans, yet Specifications have precedence over both).

4. Products, materials, labor, etc., installed or performed without proper clarification, or prior to District acceptance shall be the Contractor's sole responsibility and shall be removed, repaired, replaced, and/or reinstalled per the District direction at no additional cost to the District or its agents.

1.05 CONTRACTOR'S DUTIES

A. Provide and pay for:

1. Labor, materials, equipment, tools, construction equipment machinery, and other facilities and services necessary for proper execution and completion of the Contract.
2. Water and temporary utilities required for construction.
3. Other facilities and services necessary for proper execution and completion of work to provide a facility capable of operation.
4. Legally required sales, consumer, and use taxes.
5. Permits:
 - a. The District shall obtain and pay for the building permits, utility cut-offs and hook-ups including, but not limited to: water, gas, and electrical meters, sanitary and storm sewer connection fees as required.
 - b. The contractor shall obtain and pay for other permits required by District, County and other agencies, including but not limited to business licenses and hauling, dumping, and grading permits as applicable.
 - c. Provisions of required permits and licenses, whether obtained by the District Representative or the contractor, shall become a part of the Contract Documents and shall be adhered to by the contractor.
6. Comply with latest adopted edition of the governing building code and other codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on performance of the work. Nothing in the Drawings or Specifications shall be construed to permit work not conforming to these applicable laws, ordinances, rules, and regulations. In case of conflicts between code requirements, the most restrictive shall apply; except that where the requirements of these Specifications exceed code requirements, the Specifications shall govern.
7. Attend pre-scheduled on-site job conference meetings and/or any special meetings as may be required by the District Representative.
8. Promptly submit written notice to the District Representative of any observed variance in Contract Documents from legal requirements. Appropriate modifications to Contract Documents will be performed by the District Representative to incorporate such necessary modifications.
9. Contractor shall assume responsibility for work performed and known to be contrary to such requirements.
10. Enforce strict discipline and good order among the contractor's or sub-contractor's

employees per the discretion of the District Representative.

11. Prior to bidding, the contractor shall visit the site to become familiar with existing conditions and the requirements of the work.
12. The contractor shall be held to have examined the site and to have compared it with the Drawings and Specifications, to have carefully examined all of the Contract Documents and to have satisfied himself as to the conditions under which the work is to be performed before entering in this Contract. No allowance shall subsequently be made on behalf of the contractor on account of an error on his part or his negligence or failure to acquaint himself with the conditions of the site.
13. All discrepancies found shall be brought to the attention of the District Representative by the contractor prior to bid date.
14. Examine site and verify that site conditions are acceptable to begin any work. Verify that work specified elsewhere has been completed to an appropriate stage to begin any applicable work. This includes, but is not limited to: lines, grades and surfaces prepared by others. Notify the District Representative in writing of any irregularities or unacceptable conditions. Start of work by contractor shall indicate contractor's acceptance of site conditions.
15. Throughout the job the contractor shall be responsible for the general safety of the public and shall take appropriate means at no extra cost to District to provide a safe and secure job site to the satisfaction of the District Representative.
16. Verify all measurements, materials and systems taken from the Drawings and Specifications. Contractor shall be responsible for all investigations, field measurements, surveying, layouts, and coordination necessary to properly fit, install and complete the work required, including integration of new work into, and with existing.
17. Contractor shall deliver, receive, store, protect, install and apply all materials in accordance with manufacturer's and/or industry specifications and instructions unless specifically modified and shown otherwise in the Contract Documents. All installations shall be tight, smooth, level, straight, true to line, and secure.

1.06 PROTECTION OF PROPERTY, MATERIALS AND WORK

- A. Contractor shall be held responsible insofar as his operations are concerned for the care, protection, and preservation of the adjoining premises, buildings, trees, landscaping, utilities, walks, streets, and adjacent properties from damage resulting from or incidental to this Contract.
- B. Protect all existing structures, planted areas and improvements not designated for removal. Any damage to existing structures including asphalt paving, utilities, and fixtures shall be replaced to an "as was" or better condition, at contractor's expense, per the direction and satisfaction of the District Representative.
- C. All materials and equipment, both before and after installation, shall be properly protected by the contractor from the weather and other hazards and kept in a clean and orderly manner.
- D. All utility piping and conduit stub-outs, and parts or equipment left unconnected shall be capped, plugged, or otherwise properly protected by the contractor to prevent damage or the

intrusion of dirt or other foreign matter.

- E. Materials and equipment damaged or containing defects developed before acceptance of the work shall be replaced with new at the contractor's expense.

1.07 WORK SEQUENCE / SCHEDULE

- A. The sequence and scheduling of the work to be performed by the contractor shall be subject to review and acceptance by the District Representative. The contractor shall submit a Submittal Progress Log and Schedule in accordance with Section 01 33 00 – Submittals prior to starting work. Project schedules shall conform to Specification Section 01 32 10.

1.08 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall coordinate storage and haul routes around jobsite to not impact the existing amenities on site.
- B. Contractor shall confine operations to areas immediately within the proposed project sites.
- C. Develop and utilize construction access and haul routes as per the rules and regulations pertaining to the locale in which the work is to be performed and per the discretion of the District Representative.
- D. Do not encumber site with materials or equipment.
- E. Contractor shall limit use of premises for work and construction operations to allow for work by other contractors.
- F. Conduct operations so as not to cause unnecessary delay or hindrance to other contractors
- G. Conduct, adjust, correct, and coordinate work with others to prevent project discrepancies and/or delays.
- H. Contractor shall assume full responsibility for protection and safekeeping of products stored on premises and work performed until final acceptance of the work.
- I. Contractor shall move stored products under contractor's control which interfere with operations of the District.
- J. Contractor shall obtain and pay for use of additional storage or work areas needed for construction operations.
- K. Contractor shall secure perimeter of entire construction site, including limit of work and staging areas, until final acceptance of the work.

1.09 WORK HOURS AND WORK DURING ONGOING ACTIVITIES

- A. Refer to Contract Requirements, Hours of Labor, for more information.
- B. When connecting new utilities to existing, and similar operations, the contractor shall time and coordinate with District Representative, facility operators, and utility companies such operations to minimize interference with existing activities and operations.

1.10 MATERIALS

- A. All materials and equipment used in the work herein specified shall be in a new, first-class condition (unless otherwise noted or scheduled), suited to the intended use.
- B. Materials shall be delivered to the site and stored in original containers sheltered from the elements, but readily accessible for inspection by the District Representative until installed.
- C. Materials of the same general type shall be of the same make and quality throughout the work to provide uniform appearance, operation, and maintenance.
- D. Equipment specified by manufacturer's number shall include all accessories, controls, etc., listed in catalog as standard equipment. Furnish optional or additional accessories as specified.
- E. Where no specified make of material or equipment is specified, any product by a reputable manufacturer which conforms to the requirements of the Construction Documents may be used with the District Representative's acceptance.
- F. Materials and equipment shall be current products by manufacturers regularly engaged in the production of such products.
- G. All equipment items shall be supported by service organizations, which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the Specified Warranty Period.

1.11 NUISANCE WATER

- A. The contractor shall protect the work at all times from damage and shall take measures to prevent delays in the progress of the work caused by nuisance water, such as rainfall, irrigation water and groundwater.
- B. The contractor shall dispose of nuisance water using appropriate mechanical means at their sole expense and without adverse effects upon the District, or any other property.
- C. The contractor shall comply with any and all applicable non-point source pollution regulations required by the District.

1.12 REFERENCE POINTS

- A. The contractor shall leave all existing stakes and reference points in their existing locations unless directed or authorized otherwise by the District Representative. The contractor shall set additional stakes and reference points as necessary to properly establish horizontal and vertical controls required for the work.

1.13 COORDINATION:

- A. The contractor shall coordinate all items of work to assure efficient and orderly sequence of installation of construction elements.
- B. The contractor shall make provisions for accommodating items installed by the District or under separate contracts.
- C. The contractor shall coordinate and cooperate fully with all other agencies, sub-contractors, or utility company personnel furnishing labor, materials, or services, so that the work, as a whole, shall be executed in the most efficient manner and without conflict or delay.
- D. The contractor shall verify that characteristics of interrelated operating equipment are compatible and coordinate work having interdependent responsibilities for installing of mechanical, irrigation, or electrical work, which may be indicated diagrammatically on Drawings.
- E. The contractor shall coordinate space requirements and installation of work, which is indicated diagrammatically on Drawings.
 - 1. Follow routing shown for pipes, and conduits as closely as possible, run lines parallel with lines of construction edges whenever possible.
 - 2. Utilize spaces efficiently for other installations, for maintenance, and for repairs.
 - 3. Work out all conditions involving work of all trades in advance of installation. If necessary, and before work proceeds in areas with constricted clearances, prepare supplementary drawings for District Representative review, showing all work in "tight" areas. Provide supplementary drawings and additional work necessary to overcome spatially constricted conditions.
- F. Differences or disputes concerning coordination, interference or extent of work between divisions shall be decided by the District Representative.
- G. Access Doors and Panels:
 - 1. Coordinate access door and panel requirements with each trade installing work to which access must be available to the District Representative from time to time.

1.14 CUTTING AND PATCHING:

- A. Contractor shall be responsible for all cutting, fitting, or patching of work which may be required to make its several parts come together properly and fix it to receive or be received by work of other trades.

- B. Any cost caused by defective or poorly timed work shall be borne by the responsible party, as determined by the District Representative. Contractor shall not endanger any work, persons or construction by cutting, digging, or otherwise, and shall not alter the work of any other contractor except as acceptable to the District Representative.
- C. Patching of all openings for new installations and all openings resulting from the removal or relocation of any installations shall be done with material of the same type adjoining openings and as acceptable to the District Representative.

1.15 CLEANING DURING CONSTRUCTION:

- A. Execute weekly cleaning operations to keep the work, site, streets, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris resulting from construction operations.
- B. The District Representative may, at any time during construction, order general cleanup of the site at no additional cost to the District.
- C. Provide on-site containers for the collection of waste materials, debris and rubbish.
- D. Remove hazardous waste materials, debris, and rubbish from the site periodically and properly dispose of such materials at legal disposal areas.
- E. Location of legal disposal sites and all costs incurred from waste disposal and transportation shall be the responsibility of the contractor.
- F. Waste material or debris shall not be buried or burned on the site.

1.16 PROJECT COMPLETION

- A. Conform to Section 01 77 00 - Contract Closeout.
- B. The contractor shall, at completion of the project, leave all work installed properly operating and in a thoroughly clean condition.
- C. Thoroughly instruct the District Representative and any applicable operation and maintenance personnel in the contents of the "operations and maintenance manual." Refer to Section 01 77 00 – Contract Close Outs.

PART 2. PRODUCTS - Not Applicable

PART 3. EXECUTION - Not Applicable

END OF SECTION

SECTION 01 32 10

PROJECT SCHEDULES AND REPORTS

PART 1. GENERAL

1.01 SUMMARY

- A. The Master Project Schedule shall be based on the following dates.

1.02 SCHEDULE

- A. Overall project schedule of 120 calendar days
 - March 31st – Issue of NTP
 - June 12th – July 29: Construction period
- B. The characteristics, format and detail of the Master Project Schedule shall be reviewed by the District's Representative and evaluated for conformance with the contract duration specified, the requirements contained herein, and the sufficiency of detail to enable monitoring of work under the Contract Documents and coordinating with that of other contractors
- C. The Master Project Schedule shall be critical path method and shall include the following information:
 - 1. Time scales no greater than weekly.
 - 2. No activity on schedule shall have duration longer than fifteen (15) workdays, with exception of submittal, approval, fabrication and procurement activities, unless otherwise approved by District's Representative. Activity durations shall be total number of actual workdays required to perform that activity.
 - 3. The start and completion dates of all items of Work, their major components, and milestone completion dates, if any.
 - 4. District's-furnished materials and equipment, if any, identified as separate activities.
 - 5. Dependencies (or relationships) between activities.
 - 6. Processing/approval of submittals and shop drawings for all Contract required material and equipment. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates. Include time for submittals, resubmittals, and reviews by District's. Coordinate with accepted schedule for submission of shop drawings, samples and other submittals. Contractor shall be responsible for all impacts resulting from resubmittal of shop drawings and submittals.
 - 7. Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity. Include time for fabrication and delivery of manufactured products for the Work. Show dependencies between procurement and construction.
 - 8. Activity description: what Work is to be accomplished and where.
 - 9. Activity durations shall be in Workdays.

- D. Contractor shall monitor progress of Work and adjust Master Project Schedule each month to reflect actual progress and any anticipated changes to planned activities. 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.
- E. Contractor to plan for one pre-construction meeting.
- F. District's reserves right to require Contractor to adjust, modify, or clarify any portion of schedule which may be deemed to be insufficient for monitoring of Work or approval of partial payment requests. No additional compensation will be provided for such adjustments, modifications, or clarifications.
- G. Updating, changing or revising of any report, curve, schedule or narrative submitted to District by Contractor under this Contract, nor District'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 Completion date or milestone dates or of modifying or limiting, in any way, Contractor's obligations under this Contract.
- H. Overall time of completion and time of completion for each milestone shown on Master Project Schedule shall adhere to times provided in this document unless an earlier (advanced) time of completion is requested by Contractor and agreed to by the District's. Any such agreement shall be formalized by a Change Order.
 - 1. District's 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 the 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.
- I. Master Project Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Contract schedule and monitoring actual progress as compared to Master Project Schedule rests with Contractor.
- J. Failure of Master Project Schedule to include any element of the Work or any inaccuracy in Master Project Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract. District's acceptance of 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 District's, or act to relieve Contractor of its responsibility for means and methods of construction.
- K. Acceptance of Contractor's schedule by District's will be based solely upon schedule's compliance with Contract requirements.
 - 1. By way of Contractor assigning activity durations and proposing sequence of Work, Contractor agrees to utilize sufficient and necessary management and other resources to perform work in accordance with the schedule.

2. Upon submittal of schedule update, updated schedule shall be considered "current" schedule.
 3. Submission of Contractor's schedule to District's shall not relieve Contractor of total responsibility for scheduling, sequencing, and pursuing Work to comply with requirements of Contract Documents, including adverse effects such as delays resulting from ill-timed work.
- L. Submittal of Master Project Schedule, and subsequent schedule updates, shall be understood to be Contractor's representation that the schedule meets requirements of Contract Documents, and that Work shall be executed in sequence indicated on the schedule.
- M. Following acceptance of Contractor's Master Project Schedule, Contractor shall monitor progress of Work and adjust schedule each month to reflect actual progress and any anticipated changes to planned activities.
1. Each schedule update submitted shall be complete, including all information requested for the original Master Project 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.
 3. Updating the schedule to reflect actual progress shall not be considered revisions to the schedule. Since scheduling is a dynamic process, revisions to activity durations and sequences are required on a monthly basis.

1.03 TIME IMPACT EVALUATION FOR CHANGE ORDERS, AND OTHER DELAYS

- A. When Contractor is directed to proceed with changed work, the Contractor shall prepare and submit, within five (5) calendar days from the direction to proceed, a time impact evaluation (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 the Contractor proposes to incorporate the changed work in the schedule, and how it impacts the current schedule update critical path. The Contractor is also responsible for requesting time extensions based on the TIE's impact on the critical path. The diagram must be tied to the main sequence of schedule activities to enable District's to evaluate the impact of changed work to the scheduled critical path. Contractor shall be required to comply with these requirements for all types of delays such as, but not limited to, Contractor/Subcontractor delays, adverse weather delays, strikes, procurement delays, fabrication delays, etc.
- B. Contractor shall be responsible for all costs associated with the preparation of Time Impact Evaluations, and the process of incorporating them into the current schedule update. The Contractor shall provide District's with four (4) copies of each TIE.
- C. Once agreement has been reached on a TIE, the Contract Times will be adjusted

accordingly. If agreement is not reached on a TIE, the Contract Times may be extended in an amount District's allows, and the Contractor may submit a claim for additional time claimed by contractor.

- D. Time Extensions. The Contractor is responsible for requesting time extensions for time impacts that, in the opinion of the Contractor, impact the critical path of the current schedule update.
- E. Where an event for which District is responsible for impacts the projected Completion date, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment and material the Contractor would expend to mitigate District's caused time impact. The Contractor shall submit its mitigation plan to District's within seven (7) calendar days from the date of discovery of said impact. The Contractor is responsible for the cost to prepare the mitigation plan.
- F. 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.
- G. No time will be granted under this Contract for cumulative effect of changes.
- H. District will not be obligated to consider any time extension request unless requirements of Contract Documents are complied with.
- I. Failure of the Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.
- J. If the Contractor does not submit a TIE within the required five (5) calendar days for any issue, it is mutually agreed that the Contractor does not require a time extension for said issue.

1.04 "LOOK AHEAD" SCHEDULE

- A. Contractor shall be required to provide a 3 week "look ahead" project schedule at each weekly construction meeting. This schedule shall identify each task to be completed on that workday for the following three-week time period.
- B. Weekly Construction Reports. On a weekly basis, Contractor shall submit a weekly activity report to District for each workday, including weekends and holidays, when worked. Contractor shall develop the weekly construction reports on a computer-generated data-base capable of sorting daily Work, manpower and man hours by Contractor, Subcontractor, area, sub-area, and change order work. Upon request of District, furnish computer disk of this data base. Obtain District written approval of weekly construction report data base format prior to implementation. Include in report:
 - 1. Project name and Project number.
 - 2. Contractor's name and address.

3. Weather, temperature and any unusual site conditions.
4. Brief description and location of the day's scheduled activities and any special problems and accidents, including Work of Subcontractors. Descriptions shall be referenced to CPM scheduled activities.
5. Worker quantities for its own Work force and for Subcontractors of any tier.
6. Equipment, other than hand tools, utilized by Contractor and Subcontractors.

1.05 RECOVERY SCHEDULE

- A. When any critical path item is delayed by more than five (5) working days, Contractor shall provide a "recovery" schedule within three (3) working days. This schedule shall identify how the Contractor proposes to achieve the necessary project milestones.

1.06 COMMENCEMENT OF WORK

- A. Before commencing any portion of Work, Contractor shall inform District's Representative as to time and place at which Contractor wishes to commence Work, and nature of work to be done, in order that District's Representative may make proper provision for inspection of Work, and for making measurements necessary for record and payment. Information shall be given to District's Representative a reasonable time in advance of time at which Contractor proposes to begin Work, so that District's Representative may make necessary preliminary work without inconvenience or delay to Contractor.

PART 2. PRODUCTS - Not Applicable

PART 3. EXECUTION - Not Applicable

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1. GENERAL

1.01 SUMMARY

A. Scope of work:

Submit all items specified herein and as noted elsewhere in the Contract Documents.

B. Related sections:

1. All pertinent sections of the specifications

1.02 SCHEDULE OF SUBMITTALS

A. Within five (5) working days from date of Notice of Proceed, the contractor shall submit to the District a comprehensive list of all submittals and the Submittal Progress Log and Schedule (refer to Section 01 11 00-Summary of Work) for review and acceptance. The submitted list shall be broken down by specification section, material / product and other applicable information. **The log shall be reviewed and accepted prior to submission of actual submittals.**

B. Upon acceptance by the District's Representative, the list and Progress Schedule shall become part of the Contract Documents. **All project submittals shall be submitted to the District's Representative within Fifteen (20) working days from the date of the Notice To Proceed unless noted otherwise.**

C. Coordinate the Progress Schedule with all trades sub-contractors, material suppliers, owners etc. to ensure adherence to the schedule.

D. Revise and update the Progress Schedule on a monthly basis to reflect on-going construction conditions and sequences.

E. Submit one copy of the Progress Schedule monthly to the District's Representative showing all revisions for review and comment. Coordinate this submittal with Progress Payment requests or as acceptable to the District's Representative.

1.03 IDENTIFICATION OF SUBMITTALS

A. Identify each submittal with the following information:

1. Date and revision dates
2. Project title and number
3. The names of:
 - Sub-contractor
 - Supplier
 - Manufacturer
 - Separate detailer when pertinent

4. Identification of specification section and title
5. Identifications of product or material (the submitted product must be clearly identified, circled or highlighted on each page as applicable).
6. Applicable standards
 - Identification of deviations from Contract Documents
 - Contractor's stamp, initialed or signed, certifying review of submittal, verification of field measurements, and compliance with Contract Documents.

PART 2. PRODUCTS

2.01 PRODUCT LITERATURE

- A. Submit one (1) digital copy of the manufacturer's printed data and instructions to the District's Representative for review. Two (2) hard Copies shall be submitted when physical samples are required.
- B. Clearly indicate, by colored highlight or colored stamp (USING A COLOR THAT WILL COPY), which portion of the literature is submitted to be reviewed for compliance with the Contract Documents.

2.02 SHOP DRAWINGS

- A. Shop drawings shall be drawn accurately to a scale sufficiently large to depict all aspect of the items and its methods of connection to the work. Submit shop drawings to the District's Representative in the quantity specified in "PRODUCT LITERATURE" above.
- B. Review of the shop drawings by the District's Representative shall not relieve the contractor of the responsibility for errors and/or omissions in the design of adequate connections or satisfactory construction of the work or conformance to applicable codes, etc.
- C. Clearly indicate, by colored highlight or colored stamp (USING A COLOR THAT WILL COPY), the desired deviations from the Drawings (as applicable).

2.03 SAMPLES

- A. Samples shall be of the actual article(s) to be furnished.
- B. Where required submit two (2) samples to the District's Representative for review. One (1) sample shall be returned to the contractor and one (1) shall be retained by the District's Representative.
- C. When specifically acceptable to the District's Representative the returned sample(s) may be used in the work as an installed item.

- D. Construct the work or re-submit in accordance with the District's Representative's review.

2.04 COLORS AND PATTERNS

- A. As required in related sections of these Specifications, submit actual color chips of specified colors and patterns as applicable to the actual material proposed for use in the work. Submit quantity as noted in "SAMPLES" above.

2.05 OPERATIONS AND MAINTENANCE MANUAL

- A. Submit one (1) electronic and one (1) physical copy of Operations and Maintenance manuals.
- B. Unless specified elsewhere, all manuals shall be bound in identical plastic binders approximately 8.5" x 11" in size and shall contain at least the following:
 - 1. Label on the front cover and binding edge stating general nature of the manual
 - 2. Neatly typed table of contents.
 - 3. Complete instructions regarding operation and maintenance of all equipment to be furnished as part of the work.
 - 4. Complete list of replaceable parts with part numbers and name and address of nearest supplier.
 - 5. Copies of all guarantees and warranties issued.
 - 6. Copies of reviewed shop drawings.
 - 7. Photographs of exposed work before final covering, if required by the District's Representative.
- C. When the manual includes manufacturer's catalog "cut-sheets", clearly indicate the actual items installed in the project.
- D. Substitutions shall be submitted in compliance with general conditions and must include the substitution request form. Reference Specification section 01 42 13

PART 3. EXECUTION

3.01 SUBMITTAL ORGANIZATION

- A. Unless otherwise directed by the District's Representative, organize all submittals in categories by specification section number from which the submittal was requested and submit all at one time in format as described in "MANUALS" above.

- B. District's Representative reserves the right to reject incomplete or partial submittals.
- C. Contractor is to maintain and update the comprehensive submittal log prior to each weekly construction meeting. Contractor to bring copies and review outstanding submittals weekly.

3.02 SUBMITTAL REVIEW

- A. Contractor shall sign or stamp all submittals as verification that the submittal complies with the Contract Documents.
- B. The District's Representative shall review all submittals and respond with one of the following markings:
 - 1. No Exceptions Taken
 - 2. Exceptions Taken (See attached comments)
 - 3. Furnish as Corrected
 - 4. Revise and Resubmit
- C. The District's Representative's review of submittals shall not relieve the contractor from responsibility for deviations from the Construction Documents unless the contractor has called the District's Representative's attention to such deviations and secured written acceptance, nor shall it relieve the contractor from the responsibility for errors and/or omissions in shop drawings or other data.

3.03 RESUBMITTAL REQUIREMENTS

- A. General:
 - 1. The contractor shall make all submittals in advance of scheduled dates of installation to provide ample time for District's Representative's review, for possible revision and re-submittal, placing orders, necessary delivery lead times and for delivery to project site.
 - 2. In scheduling, the contractor shall allow at least ten (10) full working days for the District's Representative's review following receipt of the submittal. If a submittal is time sensitive, the contractor shall clearly indicate this on the submittal and the District's Representative shall make all reasonable effort to review the submittal and respond by the time it is needed.
- B. Financial impact of delays due to contractor's tardiness or multiple reviews of submittals or submission of submittals after 20 days of NTP will be back charged as necessary to the Contractor and shall not be at the temporal of financial expense of the District's.

END OF SECTION

SECTION 01 33 10

PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1. GENERAL

1.01 SUMMARY

A. Scope of work:

Submit all items specified herein and as noted elsewhere in the Contract Documents.

1. Wherever in the Contract Documents a material, article, or process is indicated or specified by trade, patent, proprietary name, or name of manufacturer, such specification shall be deemed to be followed by the words, "or equal, as accepted in writing by the District's representative".
2. The naming of more than one manufacturer in a section does not imply that all products produced by such manufacturers are acceptable for use on the project. Where more than one proprietary name, process, product, etc. is specified, the contractor may provide materials or equipment of any one of the manufacturers specified, only if full compliance with other portions of the Contract Documents can be provided and the product is acceptable to the District's representative.

B. Related sections can include, but may not be limited to the following

1. Section 01 33 00 – Submittals
2. All other applicable sections of the Specifications

1.02 MATERIALS

A. Unless otherwise specifically provided in the Contract Documents, all equipment, material, and articles incorporated into the work shall be new and suitable for the purposes intended.

B. Reference to any equipment, material, article or patented process, by trade name or catalog number shall not be construed as limiting competition. Specifications designating a material, product, or service by specific brand or trade name, with only one name listed is

1. Required to be used since it is a unique product application
2. Used as a standard of quality which must be satisfied without compromise
3. The only brand or trade name known to the District's representative

1.03 SUBSTITUTIONS

A. Materials and equipment for the work shall be the standard product of a manufacturer regularly engaged in the production of such materials and equipment. Product options or substitutions shall not be the basis for any price increase above the original bid price for the Contract.

B. Substitutions which are equal in quality, efficiency, durability and utility to those specified will be permitted, subject to the following provisions:

1. All substitutions must be favorably reviewed and accepted by the District's

representative in writing prior to implementation.

2. Submit to the District's representative, not later than twenty (20) working days from date of Notice of Proceed, a typewritten list containing a thorough side-by-side description of each proposed substitute item or material compared with the specified item as specified in Section 01 33 00. Comparison shall be attached as part of properly executed substitution request form.
 3. Provide sufficient data, drawings, samples, literature and other detailed information which demonstrates to the District's representative that the proposed substitute is equal in quality, operating efficiency, and durability of the material specified.
- C. The District's representative shall review such proposed substitutions and determine if a substitution is acceptable.
- D. Favorable review shall not relieve the contractor from complying with the requirements of the Contract Documents, and the contractor shall be responsible for all expenses for any changes resulting from acceptable substitutions which affect other parts of the work.
- E. Failure of the contractor to submit proposed substitutions and request forms for review in the manner specified shall be sufficient cause for rejection by the District's representative of any substitutions otherwise proposed.
- F. Failure to place orders for specified equipment or material sufficiently in advance of the scheduled date of installation shall not be considered a valid reason upon which the Contractor may base a request for any substitutions or for any deviations from the Contract Documents.
- G. The first or only named manufacturer is the basis for the project design and the use of alternative-names, second-names, or unnamed manufacturer's products may require modifications in the project design and construction.
1. Costs incurred due to requests, changes or revisions resulting from substitutions requiring drawings or services of the District's representative or project consultants to facilitate purchase, installation or erection of any portion of the work, shall be borne by the contractor. A flat hourly rate, as agreed upon, shall be paid by the contractor whether the change is accepted or not. This fee shall be deducted, and paid, from Contract moneys due to the contractor as determined by the District's representative.
- H. Contractor shall furnish full information concerning the material or articles being proposed for substitution.
1. Testing of a proposed substitute material to assure compliance with the Specifications may be required by the District's representative at the contractor's expense.
 2. Samples shall be submitted for review as specified in Section 01 33 00.
 3. Equipment, material, and articles installed or used by the contractor without required review, shall be at the contractor's risk.
- I. Substitutions shall comply with or exceed all requirements of size, function, structure, durability, and appearance without exception.
1. Use of accepted substitutions shall in no way relieve the contractor from responsibility for compliance with the Contract Documents after installation.

2. The contractor shall assume all extra costs caused by the use of such substitutions where they affect other work or trades.

1.04 SUBSTITUTION REQUEST FORM

- A. All requests for alternate materials or substitutions shall be submitted on the attached Substitution Request Form with descriptive information outlining the equivalent characteristics of the alternate product or material.

PART 2. PRODUCTS - Not applicable.

PART 3. EXECUTION

3.01 SUBSTITUTION REQUEST FORM

- A. For all proposed substitutions, the contractor shall complete the attached Substitution Request Form, attach all substantiating back-up literature and submit to the District's representative within time limit specified above.

END OF SECTION

ATTACHMENT: Substitution Request Form

SUBSTITUTION REQUEST FORM

DATE:

TO: DISTRICT'S REPRESENTATIVE

PROJECT: Maya Lin Sealant and Wall Coating Repairs

SPECIFIED ITEM: Section ____ Page ____ Item Number ____ Paragraph

DESCRIPTION:

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: (put N/A where not appropriate)

Manufacturer: _____ Color:

Model Number: _____ Material:

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the requests; applicable portions of the data are clearly identified.

Attached data also includes description of changes to Contract Documents which the proposed substitution requires for proper installation.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings. If, in fact, it does affect dimensions, the contractor shall provide shop drawings, accurately showing changes to documents.
2. The undersigned shall pay for changes to the design, including engineering design, detailing, and construction costs caused by the requested substitution.
3. The proposed substitution shall not adversely affect other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts are locally available for the proposed substitution.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

Submitted by:

Signature: _____ Title: _____

License Category: _____ License Number: _____

Firm: _____ Phone No.: _____

Address: _____ Fax No.: _____

Telephone: _____

DISTRICT'S REPRESENTATIVE REVIEW:

* NO EXCEPTIONS TAKEN * EXCEPTIONS TAKEN (SEE ATTACHED COMMENTS)

* FURNISH AS CORRECTED * REVISE AND RESUBMIT

By: _____

Date: _____

Comments:

Attachments:

SECTION 01 42 13

REFERENCES

PART 1. GENERAL

1.01 SUMMARY

- A. This section covers abbreviations, definitions, and the general requirements for regulatory requirements pertaining to the work. This section shall be supplementary to all other abbreviations, definitions, and regulatory requirements mentioned or references elsewhere in the Contract Documents
- B. Scope of work:
 - 1. Reference Standards
 - 2. Abbreviations
 - 3. Definitions
- C. Related sections can include, but may not be limited to the following:
 - 1. All applicable sections of the Specifications.

1.02 REFERENCES AND REGULATORY REQUIREMENTS

- A. Refer to latest editions of the references stated herein.
- B. Work shall comply with the requirements of all applicable codes, laws, rules, regulations, and standards of applicable code enforcing authorities. Nothing in the drawings or specifications shall be constructed to permit work not conforming to the applicable laws, ordinances, rules, and regulations. In case of conflicts between code requirements, the most restrictive shall apply; except that where the requirements of these Specifications exceed code requirements, the Specifications shall govern.
- C. The following codes and specifications are hereby referenced and considered part of these Contract Documents.
 - 1. State of California Department of Transportation Standard Specifications, Current Edition
 - 2. California Building Code.
 - 3. California Mechanical Code.
 - 4. California Plumbing Code.
 - 5. California Fire Code.
 - 6. Uniform Mechanical Code.
 - 7. American Society for Testing and Materials.

8. American Association of State Highway and Traffic Officials.
 9. California Administrative Code (Title 8, 19, 22, and 24)
 10. Uniform Plumbing Code.
 11. National Electrical Code (NEC) (NFPA-70, 2014 Edition) ANSI-C1. With California Amendments
 12. National Fire Protection Association.
 13. Occupational Safety and Health (ACT) Standards.
- D. Other statutes, ordinances, laws, regulations, rules, orders and codes specified in other sections of the Specifications or bearing on the work.
1. State and Local Public Health Codes.
 2. State Fire Marshall.
 3. Safety Orders of Division of Industrial Safety.
 4. State of California Public Utilities Commission.
 5. State of California Electrical Code (SEC).
 6. State of California Low Voltage Electrical Safety Orders (CAL/OSHA).
 7. Americans with Disabilities Act (ADA).
 8. Consumer Products Safety Commission Guidelines (CPSC).

1.03 ABBREVIATIONS

- A. Abbreviations for numerous common references, terms and materials used throughout the specifications include:

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturers Association
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Traffic Officials.
ACI	American Concrete Institute
AEIC	Association of Edison Illuminating Companies
AFI	Air Filter Institute
AIA	American Institute of Architects
AIEEE	American Institute of Electrical and Electronic Engineers
AISC	American Institute of Steel Construction
AJCHN	American Joint Committee on Horticultural Nomenclature
AMCA	Air Moving and Conditioning Association
ANSI	American National Standard Institute
APA	American Plywood Association

APWA	American Public Works Association
ARI	American Refrigeration Institute
AHSRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BC	Base of Curb
BFP	Backflow Preventer
BOC	Back of Curb
CB	Catch Basin
CL	Center Line
CONC	Concrete
CO	Clean Out
CS	U.S. Commercial Standards
CSI	Construction Specifications Institute
DG	Decomposed Granite
DHI	Door Hardware Institute
DI	Drain Inlet
EOC	Edge of Concrete
FG	Finish Grade of Softscape
FGMA	Flat Glass Marketing Association
FL	Flow Line
FM	Factory Mutual
FOC	Face of Curb
FS	Finish Surface of Hardscape
GA	Gypsum Association
HP	High Point
IBC	International Building Code
IFC	International Fire Code
INV	Invert
LP	Low Point
MH	Manhole
NAAMM	National Association of Architectural Metal Manufacturers
NAFM	National Association of Fan Manufacturers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electric Manufacturers Association
NFC	National Fire Code
NIC	Not In Contract
NFPA	National Fire Protection Association
NLMA	National Lumber Manufacturers Association
NSF	National Sanitation Foundations
NTS	Not To Scale
PDI	Plumbing and Drainage Institute
PL	Property Line
PS	Product Standard, U.S. Department of Commerce

PVC	Polyvinyl Chloride
RIS	Redwood Inspection Service
SDI	Steel Deck Institute
SDI	Steel Door Institute
SFPA	Southern Forest Products Association
SMACNA	Sheet Metal & Air Conditioning Contractors National Association, Inc.
SS	Sanitary Sewer
SD	Storm Drain
TC	Top of Curb
TYP	Typical
UL	Underwriters Laboratory, Inc.
UON	Unless Otherwise Noted
WM	Water Meter
WCLIB	West Coast Lumber Inspection Bureau
WIC	Woodwork Institute of California
WWDA	Wood Window and Door Association
WWPA	Western Wood Products Association

1.04 DEFINITIONS

Reference to Drawings: Where the words "shown", "indicated", "detailed", "noted", "scheduled". or words of similar import are used, it shall be understood that reference is made to the Drawings accompanying these Specifications, unless otherwise noted.

Addendum: The word "Addendum" shall mean written and/or graphic modifications to the contract documents provided to holders of the Contract Documents prior to the opening of bids. Addenda shall be issued by the City's Representative.

Alternates: The word "Alternates" shall be understood to mean alternate products, materials, equipment, systems, methods, units of work or elements of the construction, which may, at the City's option and under the terms established by the Contract Documents, be added to, or deleted from the work.

Approvals: The words "approved", "approval", "acceptable", "acceptance", shall mean acceptance by the City's Representative is required.

Contract Change Order: The words "Contract Change Order" shall mean a change order authorization to the contractor, covering changes to the Contract found by the City's Representative to be necessary for the proper completion or construction for the whole work required by the Contract, and establishing the basis of payment and/or time adjustments for the work affected by the changes, also sometimes referred to as a "Change Order".

Contract Documents: The words "Contract Documents" shall mean the documents contained within the:

1. Agreement
2. Notice Inviting Bids
3. Description of Project
4. General Conditions
5. Special Provisions
6. Construction Details

7. Performance Bond
8. Payment Bond
9. Bid Forms
10. Addenda

Clarifications and other modifications issued by the AUSDs Representative prior to and after execution of the Contract.

Directions: The words "directed", "designated", and "selected", shall mean the directions, designations, selection, of the City's Representative, unless otherwise noted.

Drawings: The word "Drawings" shall mean the official project bid or construction plans, plan details, profiles, typical cross sections, working drawings, shop drawings, supplemental drawings, and/or reproductions thereof, accepted or issued by the City's Representative, which show the locations, character, dimensions, and details of work to be performed. All such documents are to be considered as a part of the Drawings.

Equals: The words "or equal", "equal to", "approved equal", "or approved equal" and "equivalent", shall mean "equal to or acceptable in the opinion of the City's Representative," unless stated otherwise.

Language: Words and phrases requiring an action or performance, such as "perform", "provide", "install", "furnish", "connect", "test", "coordinate", and words and phrases of similar import, shall be understood to be preceded by the phrase "The contractor shall" unless otherwise stated.

Modifications: The word "modifications" shall mean a written amendment to the Contract signed by both parties, a Change Order, a written interpretation issued by the City's Representative or a written order for a minor change in the work issued by the City's Representative.

Notice To Proceed: The words "Notice to Proceed" shall mean the written notice issued by the City's Representative to the contractor fixing the date on which or within which dates the contractor shall start to perform the contractor's obligations under the Contract Documents.

Perform: The word "perform" shall mean that the contractor, at his expense, shall perform all operations including necessary labor, tools, and equipment and further including the furnishing and installation of materials that are indicated, specified, and required to complete such the conditions of the Contract and Contract Documents.

Project: The word "project" shall mean the total construction of the work performed under the Contract Documents.

Provide: The word "provide" shall mean that the contractor, at his expense, shall furnish and install the work, complete in place and ready for use, including furnishing of necessary labor, materials, tools, equipment and transportation.

Required: The word "required" shall mean "as required to properly complete the work and as required and acceptable to the City's Representative" unless otherwise noted.

Shop Drawings: The words "shop drawings" shall mean drawings, diagrams, schedules, and other data specifically prepared for the work by the contractor or his sub-contractor,

manufacturer, supplier, or distributor to illustrate some portion of the work.

Site: The words "Site" or "Sites" shall be understood to mean the property or properties described within the Contract Documents and indicated on the Drawings where the work shall commence.

Substantial Completion: The words "substantial completion" shall mean the time and date when the work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents so that the City's can occupy or utilize the work, or designated portion thereof, for the use for which it was intended. This shall occur only when the site improvements are 100% complete and shall exclude correction of final punch list items(s) and the execution of the Landscape Maintenance Period.

Work: The word "work" whether capitalized or in lower case, shall be understood to mean labor, materials, or both, and the entire construction encompassed by the Contract Documents.

PART 2. PRODUCTS – Not Applicable

PART 3. EXECUTION – Not Applicable

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1. GENERAL

1.01 SUMMARY

- A. Materials furnished and work performed under the Contract shall be subject to review by the District's Representative. The contractor shall be held strictly to the requirements of the Contract Documents with regard to quality of materials, workmanship, and diligent execution of the Contract. Such review may include mill, plant, shop, or field review as deemed necessary.
- B. Scope of work:
 - 1. Work performed in the absence of any prescribed inspection or observation may be subject to removal and replacement. In such a case, the entire cost of removal and replacement shall be borne by the contractor, regardless of whether the work removed is found to be defective or not.
 - 2. Testing, inspection, or other related services shall be performed by an independent consultant, testing laboratory or services selected by the District's Representative.
 - 3. Furnish labor necessary to obtain and handle testing samples at the project site or at other locations.
- C. Related sections can include, but may not be limited to the following:
 - 1. All applicable sections of these Specifications.

1.02 REFERENCES AND REGULATORY REQUIREMENTS

- A. Control of Work: Conform to the State Standard Specifications.
- B. Control of Materials: Conform to the State Standard Specifications.

PART 2. PRODUCTS

2.01 INSPECTION AND TESTS:

- A. Inspections, observations and/or testing that may be required by the Contract Documents during progress of the work shall be made by a pre-qualified, independent testing agency selected and paid for by the District's Representative. When tests indicate non-compliance, the contractor shall pay all direct and indirect costs of subsequent re-testing until compliance is established.
- B. Costs associated with testing, inspections and observations due to the following shall be the responsibility of the contractor
 - 1. Re-testing due to failure of initial samples
 - 2. Unacceptable changes in sources, lots, or suppliers of materials after original testing established compliance

3. Changes in methods or materials of construction by contractor that require testing, inspection or other related services in excess of that require by original design
4. Failure to properly notify the District's Representative at critical stages of construction
5. Requesting testing, inspection, and/or observation of work not ready.

2.02 TOLERANCES

- A. Tolerances not specifically identified shall meet the written standards and/or recognized commercial tolerances established for the specific materials or product. Refer to Section 01 42 13 - References.

PART 3. EXECUTION

3.01 EXAMINATION OF CONDITIONS

- A. Prior to installing any portion of the work, the contractor shall examine the site and verify that site conditions are acceptable to begin work of each section.
- B. Verify that work specified elsewhere has been completed to an appropriate stage to begin work of each section.
- C. Materials or products requiring installation under the supervision or inspection of a specific materials manufacturer or manufacturer's representative shall be examined and/or tested, and accepted in writing, by such representative(s) prior to installation of work.
- D. Notify the District's Representative immediately in writing of any irregularities or unacceptable conditions and re-direct work to avoid delay.
- E. Start of work by contractor shall indicate contractor's acceptance of site conditions.

END OF SECTION

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1. GENERAL

1.01 SUMMARY

A. Scope of work: Provide construction facilities and temporary controls required for the performance of the work, which may include, but are not necessarily limited to, the following:

1. Temporary utilities
2. Enclosures, barricades, and fences
3. Fire protection
4. Protection of work
5. Bottled water

B. Related sections can include, but may not be limited to the following

1. All pertinent sections of the specifications

1.02 SELECTED REFERENCE AND REGULATORY REQUIREMENTS

A. National Fire Protection Association (NFPA)

1. 10 - Portable Fire Extinguishers.
2. 241 - Safeguarding Building Construction and Demolition Operations.

B. State of California Department of Transportation Standard Specifications, Current Edition

C. California Fire Code Chapter 33

1.03 UTILITY SERVICES

A. Power and Lighting: Furnish, install, and maintain temporary wiring, poles, meter board, service entrance switch, lamps, and equipment as necessary to provide temporary lighting and power for the construction site.

B. Pay all costs for temporary electrical systems required for construction

1. Source of power shall be at location on site acceptable to the District's representative. Required temporary transmission lines shall be arranged by contractor in conjunction with the appropriate utility company.

C. Water:

1. Install temporary piping and valves downstream from permanent meter locations as acceptable to the District's representative. No temporary water services shall be installed prior to meter installation without prior District's review and acceptance.

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2. Temporary water facilities shall be installed with an acceptable reduced pressure backflow prevention unit furnished and installed by the contractor.
 3. Locate temporary sources of water route, and construct pipelines so that they do not create a hazard or interfere with public access, traffic, or construction operations.
 4. Design and construct such pipelines.
- D. Utility Costs for Contractors:
1. Distribution of temporary utility services to sub-contractors shall be contractor's responsibility and cost.

1.04 SANITARY FACILITIES

- A. Provide, install and maintain, through duration of the work, temporary sanitary facilities for use of construction personnel
- B. Sanitary facilities shall be provided, maintained with supplies as required for the number of construction personnel in compliance to local regulations.
 1. Locate such facilities a reasonable distance from all working areas.
- C. Provide weather tight and floored structures, maintained in clean and sanitary condition acceptable to the District's representative.
- D. New or existing restroom facilities shall not be used by construction personnel except with written permission from the District's Representative.

1.05 STORAGE ENCLOSURES

- A. Provide sheds and enclosures necessary for storing applicable materials and equipment.
- B. Enclosures shall be conveniently located, substantially and neatly constructed, and weather tight.
- C. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- D. For exterior storage of fabricated products, place on sloped supports, above ground.
- E. Provide off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation or potential degradation of product.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent

contamination by foreign matter.

- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.06 MAINTENANCE OF CONSTRUCTION FACILITIES

- A. All facilities shall be provided and maintained by the contractor in accordance with Cal-OSHA and applicable laws and ordinances.

1.07 SECURITY

- A. Employment of a watchman for non-construction hours shall be left to the discretion of the contractor, who shall be fully responsible for any theft or damage to any material, equipment or to portion of the work until Project Final Acceptance. Such security service shall be paid for by the contractor.
- B. All site security shall be the responsibility of the contractor.

1.08 FIRE PROTECTION

- A. Take precautions to prevent and eliminate fire hazards. The contractor shall be responsible for providing, maintaining, and enforcing any necessary or required fire prevention safeguards until Project Final Acceptance.
- B. Provide fire extinguishers on the premises during the course of construction of the type and sizes recommended by the NFPA 10 and NFPA 241 to control fires resulting from the particular work being performed. Instruct employees in their use. Place extinguishers in the immediate vicinity of the work being performed, ready for use.
- C. Fire Inspection: The contractor's superintendent shall inspect the entire project as necessary to make certain the required precautions are being adhered to.
- D. Combustible and/or flammable Building Materials: Only an appropriate working supply of flammable fuel or building materials shall be located inside of any storage facility.
- E. During the use of hazardous equipment, such as acetylene torches, welding equipment, bitumen kettles, and similar devices, no work shall start, or equipment used unless fire extinguishers of specified type and capacity are placed in the working area and available for use by workmen using such hazardous equipment.
 - 1. Extinguishers shall meet standards established by Underwriter's Laboratory, and shall be inspected at regular intervals and recharged by the contractor as necessary.

- F. Combustible and/or flammable Waste Materials. Oil-soaked rags, papers, and other highly combustible materials must be stored in closed metal containers with tightly hinged lids at all times and shall be removed from the site at the close of each day's work and more often when necessary

1.09 BARRICADES

- A. Furnish or construct fences, barricades, railing, warning lights, lights and other barricades required by law, Contract Documents, common sense or to ensure public safety.
- B. Give adequate warning to the public at all times whenever a dangerous condition exists as the result of construction work. Furnish District's representative with name, address, pager number and local telephone number of the superintendent responsible and at least one other person for the maintenance of barriers, signs, lights and other accident prevention devices for evenings and weekends.

1.10 PROTECTION OF WORK AND FACILITIES

- A. Protect adjacent property, roads, streets, curbs, planting areas, erosion control materials and other improvements during construction operations. All damaged materials shall be replaced and/or repaired at the expense of the contractor and to the satisfaction of the District's representative.
- B. Protect installed work and provide special protection where applicable.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Contractor shall install temporary construction fencing per contract documents and place signage on the fence stating, "Construction Area – Keep Out" and "No Trespassing". Signs shall be located along fence at seventy-five feet (75') on center maximum.

1.11 VEHICULAR SAFETY

- A. All motorized and/or self-propelled construction equipment shall be equipped with a reverse signal alarm (hub-cap type).

1.12 FIRST AID

- A. Provide and maintain first aid supplies as required Cal-OSHA and applicable local ordinances. Make arrangements with local emergency center and nearest hospital to receive personnel requiring medical attention, including emergencies. Such information shall be conspicuously displayed at the construction office when an office is required on the project.

1.13 ACCESS ROADS & PARKING AREAS

- A. Construct, designate and maintain specific vehicular access as required for the orderly

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progress of the work. Engineer construction access roads and parking areas as necessary to provide suitable support during all weather conditions for anticipated loads, including municipal fire apparatus. Provide adequate surface drainage without interrupting natural flow of existing drainage.

- B. Provide designated parking areas for use by construction personnel and District's representative(s) such parking areas are subject to the discretion of the District's representative.
- C. Restore temporary vehicular access and parking areas to an "as was" or better condition prior to Project Final Acceptance.

1.14 HAUL ROUTES

- A. Comply with any and all local governing ordinances and guidelines.
- B. Contractor to verify haul routes on site to not impact drip lines of existing trees to remain.

1.15 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the work. Coordinate removal of temporary facilities with the District's representative.
- B. After removal of temporary facilities, restore grounds or buildings which have been damaged or disturbed back to an "as was" or better condition subject to the discretion of the District's representative.
- C. Storm Water Pollution Prevention Plan (SWPPP)
 - 1. Contractor shall be required to adhere to the project's SWPPP requirements provided within these contract documents. Reference Appendix "A" SWPPP for more information

PART 2. PRODUCTS - Not Applicable

PART 3. EXECUTION - Not Applicable

END OF SECTION

SECTION 01 71 23

FIELD ENGINEERING

PART 1. GENERAL

1.01 SUMMARY

- A. Layout work as shown on the Drawings with the use of a Registered Civil Engineer or Licensed Surveyor and establish additional benchmarks, monuments, lines, and levels necessary for the work covered by this Contract
- B. Scope of work:

Provide such field engineering services required for proper completion of the work which may include, but is not limited to:
 - 1. Establishing and maintaining hubs, coordinate grid base lines and levels
 - 2. Structural design of shores, forms, and similar items provided by the contractor as part of his means and methods of construction
 - 3. All excavations and elevations, footings and piers required for installation of work items
 - 4. Establishing horizontal and vertical control for site construction items
- C. Related sections can include, but may not be limited to the following:
 - 1. Section 01 33 00 – Submittals
 - 2. Section 01 78 39 – Project Record Drawings
 - 3. Section 31 20 00 – Earthwork

1.02 PROCEDURES

- A. In addition to procedures directed by the District for proper performance of the work, the contractor shall:
 - 1. Locate and protect control points before starting work on the site
 - 2. Preserve permanent reference points during progress of the work
 - 3. Not change or relocate reference points or items of the work without specific review and acceptance by the District's Representative
 - 4. Promptly advise the District's Representative when a reference point is lost or destroyed or requires relocation because of other changes in the work.
 - Upon direction of the District's Representative, replace reference stakes or markers according to the original or appropriate survey control.

PART 2. PRODUCTS - Not Applicable

PART 3. EXECUTION

3.01 LAYING OUT THE WORK

- A. The Contractor shall employ a Registered Civil Engineer or Licensed Land Surveyor (hereafter referred to as Surveyor) to lay out the entire work and set grades, lines, levels, and positions throughout the site.
- B. Prior to beginning work, locate or set all general reference points, benchmarks, establish monuments and take action as necessary to prevent their destruction, then layout all lines, elevations and measurements for entire work
- C. Verify figures and dimensions shown on the Drawings, notify the District's Representative immediately of any discrepancies and re-direct work to avoid delay. Contractor shall accept responsibility for all errors resulting from failure to notify District's Representative of known discrepancies.
- D. Establish monuments on curbs, manholes or pavements with concrete embedded steel pipe with lead plug and/or brass nail with washer, as acceptable to the District's Representative.
- E. Show exact locations of the monuments if any are disrupted or destroyed on the Record Drawings in conformance with Section 01 78 39 – Project Record Drawings.

END OF SECTION

SECTION 01 77 00

CONTRACT CLOSE-OUT

PART 1. GENERAL

1.01 SUMMARY

- A. Scope of work:
- B. This section specifies administrative and procedural requirements for project close-out, that may include but are not necessarily limited to:
 - 1. Inspection and/or observation procedures
 - 2. Project record document submittal
 - 3. Operating and maintenance manual submittal
 - 4. Warranty submittal
 - 5. Final cleaning
- C. Related sections can include, but may not be limited to the following:
 - 1. All pertinent Sections of the Specifications

1.02 SUBSTANTIAL COMPLETION

- A. Refer to the General Provisions as applicable, for procedures required to establish Substantial Completion.
 - 1. Final, regular Certificate for Payment (progress payment) shall be issued when all pertinent requirements of the achieving Substantial Completion are met. Final retention payment shall be made 35 days from the date of recordation of the N.O.C.
- B. Inspection Procedures: Upon receipt of a request for inspection or observation, the District's representative shall either proceed or advise the Contractor of unfilled requirements. The District's representative shall advise the contractor of what must be completed or corrected by "punch-list" before the Certificate is issued. Upon receipt of "punch-list", contractor shall complete all work described in a timely manner subject to the discretion of the District's' Representative.
 - 1. The District's representative shall repeat inspection and/or observation when requested provided the contractor has made the request within the specified lead time and given written assurance that the "punch-list" work has been completed.
 - 2. Results of the completed inspection and/or observation shall help form the basis of requirements for Final Acceptance and if acceptable, may signal the beginning of the specified Warranty Period.

1.03 UNCORRECTABLE WORK

- A. Should the District's representative determine it is not practical or possible for the contractor to correct work that is damaged or improperly executed, an equitable

deduction from the Contract sum may be made at the sole discretion of the District's representative.

1.04 CLOSE-OUT SUBMITTALS

- A. Submit two (2) copies of the following, where applicable, in accordance with applicable Contract Documents:
 - 1. Project record documents (as-constructed) (as-builts), one digital copy in addition to two (2) printed.
 - 2. Operation and maintenance manuals
 - 3. Warranties, guaranties, and bonds
 - 4. Keys and keying schedule
 - 5. Spare parts and extra materials
 - 6. Other items required by the Specifications
- B. Specified number of copies of above close-out submittals shall be received and accepted by the District's' representative before Final Acceptance shall be given.
- C. In addition to those items previously mentioned in this section, the contractor shall submit to the District's' representative the following items before a Notice Of Completion will be filed:
 - 1. Up-to-date sub-contractor list with names, addresses and telephone numbers.
- D. Final Adjustment of Account:
 - 1. Submit a final statement of accounting to the District's representative showing all adjustments to the Contract sum.

1.05 MAINTENANCE MANUALS

- A. Submit two (2) copies of proposed manual(s) to the District's representative for review and acceptance. All maintenance manuals shall be received and accepted by the District's representative before Final Acceptance shall be given.
- B. Organize operating and maintenance data into properly indexed heavy duty 2-inch, 3-ring vinyl covered binders. Mark appropriate identification on front and spine of each binder. Manuals can include but are not limited to the following types of information:
 - 1. Emergency instructions
 - 2. Spare parts list
 - 3. Copies of warranties or actual warranty cards
 - 4. Wiring diagrams
 - 5. Recommended "turn around" cycles
 - 6. Inspection procedures
 - 7. Shop drawings and product data

1.06 DEMONSTRATION

- A. Prior to Final Acceptance, the contractor shall fully instruct District's representative's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment, and systems installed.
 - 1. Provide services of factory trained instructors from the manufacturers of each major item of equipment or system, if necessary or requested by the District's representative.
- B. Operation and Maintenance manual(s) shall be fully described at this instruction meeting.
 - 1. Review contents of manual(s) with personnel in full detail to explain all aspects of operations and maintenance such as:
 - a. Maintenance manuals
 - b. Record documents
 - c. Spare parts and materials
 - d. Tools
 - e. Fuels
 - f. Identification systems
 - g. Control sequences
 - h. Hazards
 - i. Cleaning
 - j. Warranties and bonds
 - k. Maintenance agreements and similar continuing commitments.
 - 2. As part of instruction for operating equipment, demonstrate the following procedures:
 - a. Start-up
 - b. Shutdown
 - c. Emergency operations
 - d. Noise and vibration adjustment
 - e. Safety procedures
 - f. Economy and efficiency adjustments
 - g. Effective energy utilization

1.07 WARRANTY/GUARANTY FORMAT

- A. Provide written warranties, guaranties (except manufacturers' standard printed warranties and/or guaranties), addressed to the District's representative, in the format shown at the end of this section. Manufacturers' standard printed warranties and/or guaranties shall be submitted as-is.
- B. Warranties and guaranties shall be submitted in duplicate, in the attached format, signed by all pertinent parties and by the contractor in every case, with modifications as accepted by the District's representative to suit the conditions pertaining to the warranty or guaranty. Collect and assemble written warranties and guaranties into bound booklet form and deliver bound books to the District's representative for review.

1.08 REMOVAL OF TEMPORARY FACILITIES

- A. Prior to final inspection, the contractor shall remove tools, materials, sheds, temporary power poles, temporary tree protection, and other articles from the project site. Should the contractor fail to take prompt action, the District's representative may, given 30 days

written notice, treat them as abandoned property.

1.09 FINAL SITE CLEANING

- A. Broom clean exterior paved surfaces and adjacent public streets. Utilize appropriate cleaning methods to remove spills, stains, tire tracks, etc. from all paved surfaces. Rake clean other surfaces of the site.
- B. Hose down and scrub walls and paving surfaces dirtied or stained as a result of the construction work, as directed by the District's representative.
- C. Clean and scrub all fencing material free of all dust, debris and hard water and turn over to District in an as new condition free of all spots and dirt.
- D. Remove from the site construction waste, unused materials, excess earth, and debris resulting from the work.

PART 2. PRODUCTS – Not Used

PART 3. EXECUTION – Not Used

END OF SECTION

WARRANTY/GUARANTY FORM

TO: Alameda Unified School District

We, the undersigned, do hereby warranty and guaranty that the parts of the Work described above which we have furnished and/or installed for:

Alameda Unified School District
Maya Lin Elementary School
Sealant and Wall Coating Repairs

Maya Lin Elementary
825 Taylor Avenue,
Alameda, Ca 94501

are in accordance with the Contract Documents and that all said work as installed will fulfill or exceed the Warranty and Guaranty requirements. We agree to repair or replace work installed by us, together with any adjacent work which is displaced or damaged by so doing, that proves to be defective in workmanship, material, or operation within a period of one (1) year from the date of Final Acceptance by District's representative, at no cost to the District's, ordinary wear and tear and unusual neglect or abuse excepted.

In the event of our failure to comply with the above-mentioned conditions within a reasonable time period determined by the District's representative, after notification in writing, we, the undersigned, all collectively and separately, hereby authorize the District's representative to have said defective work repaired and/or replaced and made good, and agree to pay to the District's upon demand all moneys that the District's representative may expend in making good said defective work, including all collection costs and reasonable attorney fees.

Date: _____

(Sub-Contractor, Sub-subContractor, Manufacturer or Supplier)

By: _____

Title: _____

State License No.: _____

Local Representative: For maintenance, repair, or replacement service, contact:

Name: _____

Address: _____

Phone Number: _____

SECTION 01 78 39

PROJECT RECORD DRAWINGS

PART 1. GENERAL

1.01 SUMMARY

A. Scope of work:

1. Prepare Project Record Drawings of as-constructed conditions as required by various sections of these Specifications and whenever work is installed differently than as shown in the Construction Documents as bid.
2. Maintain a continually updated Job Set of as-constructed Contract Documents at the job site for review by the District's representative at all times.

1.02 REFERENCES AND REGULATORY REQUIREMENTS

- A. State of California Department of Transportation Standard Specifications, Current Edition

1.03 SUBMITTALS

- A. Submit full Job Set to District's representative for review and acceptance prior to preparation of final clean Project Record Drawings.

1. Job Set to include all revisions made to the drawings prior to or during construction as well as any field modifications that do not match the layout in the plans.

- B. After acceptance, prepare and submit final hard copy of Project Record Drawings to District's representative at Contract Close-Out. Final Record Drawings shall be received prior to Final Acceptance per 3.02.

1.04 QUALITY ASSURANCE

- A. Job Set maintenance shall be delegated to one person on contractor's staff who will be present at all meetings.

- B. Final Record Drawings shall be clearly drafted by a competent draftsman.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store Job Set separate from Construction Document sets in a safe fire-resistant location.

- B. Protect Job Set and completed final Record Drawings from damage at all times.

- C. Maintain all documents in neat, legible condition.

PART 2. PRODUCTS – Not Used

PART 3. EXECUTION

3.01 MAINTENANCE OF JOB SET

- A. Clearly mark the designated Contract Documents as "Job Set."
- B. Record all deviations from the "as-bid" Contract Documents onto Job Set daily prior to covering of all work that has deviated.
- C. Convert schematic lay-outs to portray precise physical lay-out (including depths) of all exposed and concealed work.
- D. Clearly identify deviations by drawing a "cloud" around affected area and make sufficient notations to describe the change.
- E. Contractor shall solely bear any cost of uncovering, recording and re-covering work not recorded on Job Set.

3.02 FINAL RECORD DOCUMENTS

- A. Submit Job Set for review and acceptance by the District's representative prior to preparing final Record Drawings.
- B. After acceptance by District's representative, the contractor shall cleanly and clearly draft, all information contained in the accepted Job Set. The final Record Drawing sheet material shall be as specified above in 1.04 - Quality Assurance. One new clean complete full size as-built set of reproducible Drawings shall be provided for the District records by the contractor.
- C. Deliver the Job Set and clean bond set of final Record Drawings to the District's representative prior to Final Acceptance.

END OF SECTION

SECTION 09 96 53

SILICONE ELASTOMERIC COATINGS

PART 1. GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections as provided by AUSD apply to this Section

1.02 SUMMARY

- A. Section includes surface preparation and the application of elastomeric coatings on exterior substrates Scope of work:

1.03 RELATED SECTIONS

- A. Pertinent Sections specifying Volatile Organic Compound (VOC) Content Restrictions.

1.04 REFERENCES

- A. California Code of Regulations, Title 24, Part 11 California Green Building Standards Code, "CAL-Green".
- B. California Code of Regulations, Title 24, Part 2, California Building Code (CBC), International Building Code, with California Amendments.

1.05 SUBMITTALS

- A. Product Data & Safety Data Sheets (SDS): For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of coating system and each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 -inches (200 mm) square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- C. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
 - 3. VOC content.

D. Closeout Submittals:

1. Operation and Maintenance Data: For each type of elastomeric coating system.
 - a. Recoating Requirements: To verify compatible recoating products (typically not conventional paint).
2. Warranty: Submit specified 20-year warranty.

1.06 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Quantity: 3 percent of each material and color applied.

1.07 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 4 sq. ft (0.4 sq.m).
 - b. Other Items: Architect will designate items or areas required.
 2. Coating System Adhesion Mockups:
 - a. Apply mockups of coating system to substrate(s) both with and without primer approved by the system manufacturer.
 - b. Install 2" wide cheese cloth strips in mockups leaving a 3" tab that is not embedded in the coating.

- c. After mockup samples have cured 10 days, or time as required by the manufacturer, pull cheese cloth strips to demonstrate coating adhesion.
 - 1) Proper Adhesion: Difficult to generate enough hand-applied force to peel cheese cloth off.
 - 2) Inadequate Adhesion: Easy to hand-apply force to peel cheese cloth off (see photo below).



- d. If mockup samples provide Inadequate Adhesion, apply additional mockups using alternate primers as recommended by the manufacturer at no added cost to AUSD until Proper Adhesion is achieved.
 - e. Architect's determination of sufficient adhesion is final.
3. Final approval of color selections and coating system components will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to AUSD.
 4. Final approval of need for primer coat will be based on mockups.
 5. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 6. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- B. MPI Standards: Preparation and Workmanship; Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated for new construction and re-finished surfaces.
 - C. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.
 - D. Coordination of Work: Review other sections in which primers are provided to ensure compatibility of the total systems for various substrates. On request, furnish information on

characteristics of finish materials to ensure use of compatible primers.

1. Notify Architect of problems anticipated using the materials specified.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C), or minimum temperature recommended by manufacturer.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.09 FIELD CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing coating operation.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace elastomeric coatings that fail within specified warranty period.

1. Failures include, but are not limited to, the following:
 - a. Water penetration through the coating.
 - b. Deterioration of coating beyond normal weathering.

2. **Warranty Period: Ten (10) years from date of Substantial Completion.**

PART 2. PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: Dow AllGuard is the standard of quality against which the Architect will judge equivalency of materials.

B. Acceptable Products:

1. AllGuard Silicone Elastomeric Coating, by Dow Corning;
 - a. web: www.dowcorning.com

2. Substitutions: Approved Equal Per Division 01.

C. Typical Physical Properties – Supplied:

1. Specific Gravity: 9.64lb/gal, per ASTM D 1475.

2. Solids Content: 58.6% by weight, per ASTM D 2369.
 3. Volatile Organic Content (VOC): 55 g/L, per EPA Method 24.
- D. Typical Physical Properties – Cured:
1. Tensile Strength: > 145 psi, per ASTM D 412.
 2. Elongation: 600%, per ASTM D 412.
 3. Vapor Permeance (at 10 mils dry film thickness): 43.2 perms, per ASTM D 1653.

2.02 MATERIALS

- A. Material Compatibility:
1. Materials for use within each system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a system, products shall be recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Colors: Custom color(s) as selected by the AUSD. Custom colors of silicone elastomeric coatings require a longer lead time than other paints and coatings. Verify product production time with manufacturer to ensure product availability as required by the construction schedule.
- C. Material containers not displaying manufacturer's product identification will NOT be acceptable.
- D. Crack Fillers: Elastomeric coating manufacturer's recommended, factory-formulated crack fillers or sealants, including crack filler primers, compatible with substrate and other materials indicated.
- E. Primer: Elastomeric coating manufacturer's recommended, factory-formulated, alkali-resistant primer compatible with substrate and other materials indicated.

PART 3. EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Begin coating no sooner than 28 days after substrate is constructed and is visually dry on both sides.
- D. Verify that substrate is within the range of alkalinity recommended by manufacturer.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
1. Application of coating indicates acceptance of surfaces and conditions.

- F. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter. Comply with manufacturer's moisture content requirements.

3.02 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
 - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated.
 - 2. Perform cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
- D. Crack Repair: Fill cracks according to manufacturer's written instructions before coating surfaces.

3.03 APPLICATION

- A. Apply coatings according to manufacturer's written instructions.
 - 1. Use applicators and techniques suited for material and substrate indicated.
 - 2. Coat surfaces behind movable items the same as similar exposed surfaces.
 - 3. Apply each coat separately according to manufacturer's written instructions.
- B. Primers: Apply at a rate to ensure complete coverage.
- C. Block Fillers: Apply at a rate to ensure complete coverage with pores filled.
- D. Elastomeric Finish Coat(s): Minimum two coats with a total dry film thickness (DFT) as recommended by manufacturer.
- E. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats similar to color of topcoat but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- F. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform finish, color, and appearance.
- G. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush

marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

- H. Apply coatings to prepared surfaces as soon as practicable after preparation and before subsequent surface soiling or deterioration.
- I. Spray Application: Use spray equipment for application only when permitted by authorities having jurisdiction. Wherever spray application is used, do not double back with spray equipment to build up film thickness of two coats in one pass.

3.04 FIELD QUALITY CONTROL

- A. Testing of Coating Materials: AUSD reserves the right to invoke the following testing procedures:
 - 1. Engage the services of a qualified testing agency to sample materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 - 2. Testing agency will perform tests for compliance of materials with product requirements.
 - 3. Direct Contractor to stop coating application if test results show materials being used do not comply with requirements. Remove noncomplying materials from Project site, pay for testing, and recoat surfaces that were coated with rejected materials. Remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.
- B. Field Testing and Inspection: Provide the services of a qualified manufacturer's representative to verify acceptability of substrate and installed thickness of elastomeric coatings.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied coating does not comply with manufacturer's written recommendations or the requirements of this specification, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with specifications.

3.05 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing coating application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.06 ELASTOMERIC COATING SCHEDULE

A. Existing Exterior Concrete Substrates:

1. Elastomeric Coating System:

- a. Prime Coat: If required based on pull tests in Section 1.7, 2 above, as recommended in writing by topcoat manufacturer.
- b. Intermediate Coat: Dow AllGuard.
- c. Topcoat: Dow AllGuard, in custom color. Intermediate and topcoat total thickness as recommended by manufacturer.

END OF SECTION