



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## PROJECT MANUAL

### IT/ECONOMIC DEVELOPMENT OFFICE RENOVATIONS CIP No. #F-070

Prepared By:

City of Perris  
Engineering Department  
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**Bid Opening : 1:00 PM (PST) March 21, 2024**  
Active Bidder Website

Mandatory Pre-Bid Meeting – March 25, 2024  
Expected Award of Contract – April 30, 2024  
Mandatory Start of Construction – May 06, 2024



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## Project Information Sheet

<b>Project:</b>	<b>IT &amp; ECONOMIC DEVELOPMENT OFFICE RENOVATIONS, CIP# F-070.</b>
Bid Date Published:	March 08, 2024
Project Bid (Upload to Active Bidder):	March 21, 2024
Mandatory Pre-Bid Meeting:	March 25, 2024, at 10:00 AM (PST)
Bid Close/Opening Date:	April 11, 2024, at 1:00 PM (PST)
Expected Bid Award Date:	April 30, 2024
Mandatory Start Date:	May 10, 2024
Construction Time:	60 Calendar Days
Liquidated Damages:	\$1,000 per calendar day

### **Project Description:**

This project is a state-assisted project and prevailing wage requirements will be strictly enforced.

The project scope consists of the re-use of existing offices spaces to create new offices, new conference rooms, renovations to breakroom/kitchen area and all spaces to serve as the city's IT and Economic Development Departments. Renovations include all new finishes like flooring and base, new paint, suspended ceilings and tiles, new cabinets, counters tops, fixtures, hardware and required signage. New electrical and mechanical components will be included in the scope for proposed areas. Minor plumbing will be required to replace sink fixtures.

**All inquiries shall be in writing through Active Bidder. The last day to submit technical inquiries or request for product substitutions shall be March 28, 2024, by 1:00 PM (PST)**

**Note:** *See specifications for details regarding the above information.*

Contact Person for Purchasing Bid Package: Luis Natera  
City of Perris  
24 S D Street, Perris, CA 92570  
PH (951) 634-1187



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## DOCUMENTS CHECKLIST

Please ensure that you have completed the following documents and have submitted originals with your proposal, as only responsive bids will be considered.

- Part I Procedural Documents - Bid pages BF-1 to BF-21
  - Bid pages BF-1 to BF-12
    - Bid Schedule of Values
    - Equal Employment Opportunity Certification
    - Non-Collusion Affidavit
    - Debarment and Suspension Certification
    - Non-Lobbying Certification
    - Addenda and Signature page
  - Bid Bond BF-13A to BF-13C
  - Designation of Sub-Contractors page BF-14
  - Listing of Manufacturers page BF-15
  - Anti-Trust Claim page BF-16
  - Contractor's certification concerning worker's compensation insurance page BF-17
  - Certification of non-discrimination page BF-18
  - Experience Statement BF-19 to BF-20
  - Testing Requirements BF-21



# CITY OF PERRIS

ENGINEERING DEPARTMENT

---

## TABLE OF CONTENTS

### I. PROCEDURAL DOCUMENTS

<b>Section</b>	<b>Description</b>	<b>Page</b>
NIB	Notice Inviting Sealed Proposals (Bids)	NIB-1
	Section 1 — Notice of Bids	NIB-1
	Section 2 — Information for Bidders	NIB-2 to NIB-8
BF	Bid Form	BF-1 to BF-21
	Bid Schedule of Values	BF-7 to BF-11
	Certifications	BF-2 to BF-6
	- Equal Employment Opportunity	
	- Non-Collusion Affidavit	
	- Debarment and Suspension	
	- Non-Lobbying Certification	
	- Addenda and Signature Page	
	Bid Bond	BF-13
	Designation of Subcontractors	BF-14
	Listing of Manufacturers	BF-15
	Anti-Trust Claim	BF-16
	Certification – Labor Code Section 1861	BF-17
	Certification of Nondiscrimination	BF-18
Experience Statement	BF-19-20	
Required Tests	BF-21	
N	Notice of Award	N-1A
	Acceptance of Notice of Award	N-1B
C	Contract	C1-N
	Certificate of Contractor	C-2
PB	Payment Bond	PB-1 to PB-4
	Certificate of Contractor	PB-5
CPB	Contract Performance Bond	CPB-1 to CPB-4
	Certificate of Contractor	CPB-5
CI	Certificate of Insurance and Endorsements	CI-1
	Certificate of Insurance — Workers Compensation	CI-1A to CI-1C
	Certificate of Insurance — Comprehensive General Liability	CI-2A to CI-2C
NP	Notice to Proceed	NP-1
	Acceptance of Notice	NP-2





# CITY OF PERRIS

ENGINEERING DEPARTMENT

---

## TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Description</u>	<u>Page</u>
	State of California — Contract Award Form	NP-3
CO	Change Order	CO-1
	Approvals Required	CO-2
CSC	Certificate of Substantial Completion	CSC-1 to CSC-2
R	Release Form	R-1
	Disputed Claims	R-1
 <b>II. <u>GENERAL PROVISIONS</u></b>		
GP	General Provisions	GP-1 to GP-11
 <b>III. <u>STANDARD PROVISIONS</u></b>		
SP	Standard Provisions	
	Part I — Standard Conditions	SP-1 to SP-12
	Part II — Standard Construction Details	SP-13 to SP-23
	Part III — Submission of DBE Information	SP-23 to SP-26
	Award and Execution of Contract	
 <b>IV. <u>TECHNICAL SPECIFICATIONS</u></b>		
	Part IV - Construction Materials, Methods & Specifications And Payment Requirements	TS-1 to TS-124



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

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### **1.1 Labor Standard Provisions**

“This is a state-assisted project and prevailing wage requirements will be strictly enforced. Contractors, including all subcontractors and apprentices, must be eligible to participate. State of California Prevailing Wage-Index 2020-1 are attached of the State of California Prevailing Wage Determination made by the California Director of Industrial Relations.”

“This project is subject to Sect. 3 Economic Opportunities to Low and Very Low-Income Persons and Business Concerns. Bidders seeking Sect. 3 preference must submit a Business Certification Form and required documentation. See attached Section 3 Fact Sheet for mor information.”

### **1.2 Incorporation of and compliance With State, Federal and Local Law.**

All applicable State of California, Federal, and local laws, statutes, rules, regulations, orders, determinations, and resolutions required to be contained in public works contracts which are not specifically referenced in the Agreement are incorporated herein by this reference. The Contractor is responsible for and has an independent duty to be familiar with all State of California, Federal, and local laws, statutes, rules, regulations, orders, determinations, and resolutions related to, pertaining to, and/or associated with the work and services to be provided under the Agreement. All work and services rendered hereunder shall be provided in accordance with all laws, statutes, rules, regulations, orders, determinations, and resolutions of the City and any Federal, State or local governmental agency of competent jurisdiction.



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

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### SECTION 1 - NOTICE OF BIDS

The CITY OF PERRIS invites online bids on the city website, (Active Bidder) until 1:00 PM on April 11, 2024, for the IT/ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS CIP # F-070. The city is requesting proposals from qualified contractors to submit formal bid proposals. The work generally consists of furnishings, all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete all work in a good and workmanlike manner.

This project is a federally assisted project and Davis-Bacon (DBRA) requirements will be strictly enforced. Federal Labor Standards provisions HUD-4010 will be incorporated into the successful bidder's contract.

This project consists of the re-use of existing office spaces to create new offices, new conference rooms, renovations to the breakroom area, and ALL space to serve as the city's IT and Economic Development Departments. Renovations include all new finishes like flooring and base, new paint, ceiling tiles, new cabinets, fixtures, hardware and required signage. New electrical and mechanical will be included in the scope for proposed areas. Minor plumbing is required to replace existing sink fixtures.

As part of the Work, the Contractor shall furnish and assume full responsibility for everything required for the orderly progress and proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated into the Work including, but not limited to, drawings, materials, equipment, labor including subcontractor, transportation, construction equipment and machinery, tools, and other facilities, incidentals, and performing all operation necessary and required in conformity with the requirements in the specifications and plans. The Contractor shall perform and complete assigned work including all demolition, construction services, supervision, administrative services, coordination of all Subcontractors, tests, inspections, and other items that are necessary to and appropriate for the finishing, equipping, and functioning of the facilities and structures, together with all additional, collateral, and incidental work and services required for the completion of the provision of the Work. The City reserves the right to accept the bids and the alternate bid or reject the bids. The approved plans and specifications will be uploaded to the "Active Bidder" site.

The plans and specifications are available online to download through the Active Bidder website which can also be accessed through the City of Perris website (<https://www.cityofperris.org/our-city/city-hall/bids-rfps>). All Bidders will be required to hold their original bid prices, without change, for a period of forty-five (45) days from the date bids are opened, except to the extent relief is available pursuant to Public Contract Code, Section 5100 et. seq.

**To be considered in the selection process, interested parties shall submit their Proposals online up to the hour of 1:00 PM. on Thursday, April 11, 2024.** Late proposals will not be accepted.

**The last day to submit technical inquiries shall be Thursday, March 28, 2024, by 1:00 P.M. (PST).** All inquiries shall be submitted through Active Bidder. All addenda shall be posted on the City website and contractors are to check the site during the bidding process. All addenda are to be acknowledged for a valid submission.

**The successful bidder will have sixty (60) calendar days from the anticipated start of construction date of (Monday, May 6, 2024) to fully complete all Work. Award of Contract is expected on April 30, 2024. There is a Mandatory Pre-Bid Meeting scheduled for March 25, 2024, at 10 AM at 11 S. D. Street in Perris CA 92571.**

**Also scheduled is a Mandatory Pre-Construction meeting that will be held May 6, 2024.** The City reserves the right to reject all bids and waive informalities, irregularities in the bidding. All contractors will be required to comply with all applicable Equal Opportunity laws and regulations. The City hereby notifies all bidders that it will affirmative ensure that, regarding this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration.

Moreover, the City will not discriminate against any person or firm interested in providing goods or services to the City on the basis of race, color, religion, sex, marital status, national origin, age, veteran's status, or handicap. Bidders are advised that it has been determined that DBEs could reasonably be expected to compete for opportunities on this and that there is likely a certain percentage of availability on this project. The City also advises that participation of DBE's in the specific percentage is not a condition of award.

**MINIMUM AND PREVAILING WAGES: THE DAVIS-BACON FAIR LABOR STANDARDS ACT WILL BE ENFORCED. THE APPLICABLE WAGE DETERMINATION FOR SAID PROJECT IS THE ONE PUBLISHED 10-DAYS PRIOR TO BID AWARD.**



**SECTION 2 - INFORMATION FOR BIDDERS**

1. **Bids will be received by the CITY OF PERRIS, herein called the “Agency”, online via the (Active Bidder) website up to the hour of 1:00 PM (PST), on April 11, 2024. Late proposals will not be accepted.**
2. All bids must be made on the required Bid Form. All blank spaces for Bid Prices must be filled in, and the Bid Form must be fully completed and executed when submitted. All Bids must be submitted electronically through the City of Perris Active Bidder website. Contractors must be registered with Active Bidder to bid on City projects. Only sealed electronic bids will be received and evaluated for a bid award.
3. Each Bid must be accompanied by a Bid Bond (on the required form) payable to the Agency for ten (10) percent of the total amount of the Bid. As soon as the Bid prices have been compared, the Agency will return the Bonds of all except the three lowest responsible Bidders. When the Contract is executed, the bonds of the two remaining unsuccessful Bidders will be returned. The Bid Bond of the successful Bidder will be retained until all Contract Documents have been executed and approved, after which it will be returned. A cashier’s check or cash may be used in lieu of a Bid Bond.
4. The Agency may waive informalities, irregularities or reject any and all Bids. Any Bid may be withdrawn by written request prior to the above-scheduled time for the opening of Bids or authorized postponement thereof with right of resubmitting. The request for withdrawal shall be executed in writing by the Bidder or his duly authorized representative. Any Bid received after the bid time shall not be considered.
5. Bidders must satisfy themselves of the character of the Work to be performed by Examination of the site and reviewed of the Drawings and Specifications, including Addenda, if any. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the nature of the Work to be done.
6. The Contract Documents contain the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Agency or any other person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.
7. Bonds and Insurance Certificates must be in the form required by the Agency (substitutions may be permitted at the Agency’s discretion). The Bond Company must be authorized to do business in the State of California.
8. The Contractor will be required to submit a certificate of insurance which indemnifies the Agency for any damage to any of the work resulting from fire, explosion, vandalism, water, malicious mischief, collapse, riot, aircraft, smoke, or any acts of God.

NIB-2



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

---

9. A Payment Bond and a Contract Performance Bond (on the required form), each in the amount of one hundred percent (100%) of the Contract Price, with a corporate surety approved by the Agency, will be required for the faithful performance of the Contract.
10. Progress Payments will be made to the Contractor in accordance with the provisions of the Specifications and on itemized estimates duly certified and approved by the Agency submitted in accordance therewith, based on labor and materials incorporated into said work during the preceding month by the Contractor.
11. Attorneys-in-fact who sign Bid Bonds or Payment Bonds and Contract Performance Bonds must file with each Bond a certified and effective dated copy of their power of attorney.
12. The party to whom the Contract is awarded will be required to execute the Contract and submit the Payment Bond, Contract Performance Bond, and Insurance Certificates on the required forms within ten (10) calendar days from the date of the Notice of Award.
13. Pursuant to Government Code §4590, the Contractor may substitute equivalent securities for retention amounts, which this Contract requires. However, the Agency reserves the right to solely determine the adequacy of the securities being proposed by the Contractor and the value of those securities.
14. The Notice of Award shall be accompanied by the necessary Contract, Bond, and insurance Certificate forms. In case of failure of the Bidder to execute the Contract, the Agency may, at his option, consider the Bidder in default, in which case the Bid Bond accompanying the proposal shall become the property of the Agency. Forfeiture of the bid bond, or any deposit in lieu thereof, does not preclude the Agency from seeking all other remedies provided by law to recover losses sustained as a result of the Contractor's failure to execute a written contract to perform the work at his bid price.
15. The Agency, within ten (10) days of receipt of acceptable Labor and Material Payment Bond, Contract Performance Bond, Insurance Certificates, and Contract signed by the party to whom the Contract was awarded, shall sign the Contract and return to such party an executed duplicate of the Contract.
16. Notice to Proceed to start construction (mandatory) is scheduled for May 5, 2024. Should there be reasons why the Notice to Proceed cannot be issued for this date by City, the time may be extended by the Agency. If the Notice to Proceed has not been issued within the forty-five (45) day period or within the period mutually agreed upon, the Contractor may terminate the Contract without further liability on the party.
17. The Agency may make such investigations as it deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Agency all such information and data for this purpose as the Agency may request. A conditional or qualified Bid will not be accepted.

NIB-3



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

---

18. Award, if made, will be made to the lowest responsive, and responsible Bidder (all schedules) expected on April 30, 2024.
19. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout.
20. Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. Failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder for any obligation in respect to his bid.
21. Further, the Bidder agrees to abide by the requirements under Executive Order No. 11246 (Equal Employment Opportunity Clause), as amended, California Labor Code 1410 et. Seq., California Labor Code 1777.6, and implement Agency regulations concerning equal opportunity for apprentices.
22. All Bidders shall supply the names and address of Subcontractors as set forth in the Bid.
23. **Successful Bidder and Subcontractors shall obtain a City Business License prior to commencing any work within City limits. The license can be obtained via mail at City of Perris Business Support Center, 8839 N Cedar Ave #212, Fresno, CA 93720 or online at <https://perris.hdlgov.com/> or by phone at (951) 404-0586.**
24. The Director of the Department of Industrial Relations has ascertained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the work is to be performed for each craft or type of workman needed to execute the contract or work as hereinafter set forth (see Labor Code 1770 et. seq.). Copies of rates are on file at the offices of the City Clerk of the City of Perris. Copies shall be made available to any interested party upon request. The successful Bidder shall post a copy of such determination at each job site. Attention is called to the fact that not less than the minimum salaries and wages shall be paid on this project by all Contractors and Subcontractors. The successful Bidder shall provide the Agency with copies of certified payroll on forms provided by the Division of Labor Standards Enforcement (213) 897-2905 or other approval forms.
25. Pursuant to Section 1740 of the California Labor Code, Bidders are notified that the said wage rates shall be subject to modification to comply with revisions in Federal Minimum Wage schedules without necessity of republication.
26. Bidder understands and agrees to hold his original bid prices, without change, for a period of forty-five (45) days from the date bids are opened except to the extent relief is available pursuant to Public Contract Code, Section 5100 et. seq.
27. If the Contract cannot be awarded within a forty-five (45) day period for any reason, Bidder understands and agrees that the time to award may be extended by mutual agreement between the Agency and each Bidder.

NIB-4





# CITY OF PERRIS

## ENGINEERING DEPARTMENT

---

Bidder understand and agrees that Bidders electing not to extend their original bids more than forty-five (45) days following a request for extension by the Agency shall be treated as withdrawing their bid and will not be considered in the final award. The Bidder may withdraw his bid without further liability on the part of either party.

28. To the extent permissible under Federal policy or regulation applicable to this project, the Contractor shall be permitted to substitute securities for any monies withheld by the public agency, pursuant to the provisions of California Public Contracts Code Section 22300.
29. Since time is of the essence, Bidder agrees to commence work under this contract on or before the mandatory construction start date of May 10, 2024, and to fully complete all work on or before the 60th calendar day. The Contractor agrees that failure to complete work within the time allowed will result in damage being sustained by the City. Contractor and City agree that failure to complete the project will result in inconvenience to the citizens of PERRIS. The parties also agree that failure to complete the project on time will prevent the City from having the use of the affected facilities. Therefore, the parties agree such damages among others are, and will continue to be, impracticable and extremely difficult to determine, but that \$1,000 a calendar day is the minimum value of such costs to the City and is a reasonable amount that the Contractor agrees to reimburse the City for each calendar day of delay in finishing the work in excess of the time specified for completion, plus any authorized time extensions. Execution of the contract under these specifications shall constitute agreement by the Contractor and the City that the above indicated liquidated damage amount per calendar day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs. Said amount may be reduced by the City if work is sufficiently completed within the allotted time so that the damages are minimized.
30. No contract will be awarded to any contractor who has not been licensed in accordance with the provisions of Chapter 9 of Division III of the state Business and Professions Code, Section 7,000 et seq. The contractor shall possess the appropriate legal and necessary licenses required to complete the work as shown in the contract at the time the contract is awarded.
31. For this contract, the contractor shall possess **Classification "B" General Building License** at the time the contract is awarded. A contractor is prohibited from working on this contract with any subcontractor who is ineligible to perform work pursuant to Section 1777.1 or 1777.7 of the Labor Code.
32. The City has established a DBE Annual Goal of 7.56% (3.99% Race Neutral and 3.57% Race Conscious). Participation by MBE and WBE Contractors, suppliers and sub-contractors are encouraged.

NIB-5



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

---

- 33.** Bid prices shall include everything necessary for the completion of the work including but not limited to, materials, equipment, tools, other facilities, management, superintendents, labor, services, insurance, overhead, profit, permits, Federal, State, and Local taxes, etc.
- 34.** Bidders are required prior to submitting a bid to inspect the site of the work and satisfy themselves by personal examination or by such other means as they may prefer, as to the location of the proposed work, and of the actual conditions.
- 35.** Any information provided by the project Architect, the City, or any City personnel is not intended to be a substitute for, or a supplement to the independent verification by the Bidder to the extent such independent investigation of site conditions is deemed necessary or desirable by the Bidder. The bidder acknowledges that he has not relied upon City, City personnel, or project Architect furnished information regarding site conditions in preparing and submitting a bid hereunder. The Plans show conditions as they are believed to exist, but it is not intended nor is it to be inferred that the conditions as shown therein constitute a representation by the City or any of its officers that such conditions actually exist, nor shall the City or any of its officers be liable for any loss sustained by the Contractor as a result of any variance between any conditions as shown on the Plans and the actual conditions revealed during the progress of the project, or otherwise.
- 36.** The City disclaims responsibility for the interpretation by Bidders of data, such as projecting or extrapolating from the test holes to other locations on the site of the work, soil bearing values and profiles, soil stability and the presence, level and extent of underground water for subsurface conditions during construction operations.
- 37.** Submission of a bid by the Bidder shall constitute acknowledgement that, if awarded the Contract, the Bidder has relied and is relying on his own examination of (1) the site of the work, (2) access to the site, and (3) all other data and matters requisite to the fulfillment of the work and on his own knowledge of existing facilities on and in the vicinity of the work to be constructed under the Contract.
- 38.** The Bidders shall examine carefully the Plans and Specifications and the site of the proposed Project and shall solely judge for themselves the nature and location of the work to be done and all the conditions; and the submission of a Bid shall be deemed as conclusive evidence that a Bidder has made the necessary investigation and that the Contractor is satisfied with the conditions to be encountered, quantity and quality of the work or materials to be performed or furnished, and the requirements and provisions of the Plans and Specifications and the Contract Documents. The Bidder agrees that if he is awarded the Contract he will make no claim against the City, or any other City officials or City personnel based on ignorance or misunderstanding of any of the provisions of the Contract Documents, nor because of any unforeseen subsurface conditions except in the manner and under the circumstances as provided in the Contract Documents.

NIB-6





# CITY OF PERRIS

## ENGINEERING DEPARTMENT

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39. Each Bidder must be informed fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his Contract.
40. All applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction for the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.
41. No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any Bidder orally. Every proper request for such interpretation shall be made through Active Bidder, and to be given consideration must be received within the allotted time frame noted on Active Bidder. Any and all such interpretations and any supplemental instruction will be in the form of written addenda to the Contract Documents which, if issued, will be uploaded on Active Bidder, not later than three (3) calendar days prior to the date fixed for the opening of bids. At any time prior to an announced bid opening time the City reserves the right to issue an addendum extending the bid opening time by one or more days. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. It shall be the responsibility of each Prospective Bidder to verify that each addendum has been received applicable to the project. Bidders are responsible to check Active Bidder periodically to verify if new addenda have been posted.
42. Before submitting a Proposal, Bidders shall carefully examine the Plans, read the specifications and all other Contract Documents, visit the site of the project, and fully inform themselves as to all existing and local conditions and limitations. It is expressly stipulated that the drawings, Specifications and other Contract Documents set forth the requirements as to the nature of the work and do not purport to control the method of performing work except in those instances where the nature of the completed work is dependent upon the method of performance.
43. The quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated as stated in the Proposal, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the Proposals offered for the work under this Contract. If any error, omission, or misstatement is found to occur in the estimated quantities, the same shall not invalidate the Contract or release the Contractor from the execution and completion of the whole or any part of the work in accordance with the Specifications and the Plans herein mentioned, and for the prices herein agreed upon and fixed therefore, or excuse the Contractor from any of his obligations or liabilities hereunder, or entitle the Contractor to any damages or compensation except as may be provided in this Contract.

NIB-7



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

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44. The City reserves the right to pre-qualify all bids, post-qualify all bids, or reject all bids, not to make an award or accept the Proposal deemed most advantageous and in the best interest of the City. The City shall enter into a Contract with the lowest responsible responsive bidder whose proposal is satisfactory. A written Notice of Award will be sent to the successful Bidder(s).
  
45. **OR APPROVED EQUAL CLAUSE** -- Manufacturers or suppliers of materials and equipment may request that alternatives to specified products be considered equal and that inclusion of such alternatives be permitted in the bids. Such request must be made in writing and received by the City at Fourteen (14) calendar days prior to the date bids are to be received. Granting a request that an alternative product be considered equal to those specified may be made only by the issuance of an Addendum by the City. Denial of the request during bidding does not waive the manufacturer's or supplier's right to offer the alternative product to the Contractor after Award of the Contract. After Award of Contract, the offer will be considered as a substitution and will be considered only if the City believes the offer of substitution is equal to or superior in quality to the specified product.
  
46. As part of mobilization, the Contractor shall also provide a single place (job board, etc.) to place all required federal forms, Cal/OSHA and EEO labor compliance posters, all permits, all safety items, and any and all paperwork that must be posted in public view.
  
47. **Contractor has given the City written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by City is acceptable to Contractor.**

NIB-8



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## **NOTICE TO ALL BIDDERS**

Completion and submittal of all enclosed forms including, but not limited to sheets **BF-14 & BF-15** is required and must be included with original bid. Failure to submit the required documents shall be deemed as an incomplete bid and shall not be considered by City as a valid bid.

### **BID FORM**

Bid Close Date: April 11, 2024

Time: 1:00 PM (PST)

Place: 101 North "D" Street, Perris- Online through Active Bidder

Project: IT/Economic Development Department Office Improvements CIP#F-070

**TO THE CITY OF PERRIS**, hereinafter called the Agency, the undersigned, as Bidder, declares that he has carefully examined the location of the project, that he has examined the plans and specifications and addenda (if any), and has read the Information for Bidders, and hereby proposes and agrees, if this bid is accepted, to furnish all materials to do all work required to complete the said plans and specifications in the time and manner herein prescribed for the Bid Price set forth in the Schedule of Bid Items.

Proposal of \_\_\_\_\_, hereinafter called "Bidder", organized and existing under the laws of the \_\_\_\_\_ State of California, doing business as \_\_\_\_\_. Insert "a corporation", "a partnership", "a joint venture", or "an individual", as applicable.

No separate payment will be made for any item that is not specifically set forth in the Schedule of Bid Items. All costs, therefore, shall be included in the prices named in the Schedule of Bid Items for the various appurtenant items of work. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts, and words shall govern over figures.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid, each party thereto certifies, as to his own organization that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

Since time is of the essence, Bidder hereby agrees to commence work under this Contract on May 10, 2024 and to fully complete all work on or before the 60 calendar day in accordance with the schedule provided in Notice Inviting Bids, after receiving the Notice to Proceed. The Contractor agrees that failure to complete work within the time allowed will result in damages being sustained by the City. Contractor and City agree that failure to complete the project will result in inconvenience to the citizens of PERRIS. The parties also agree that failure to complete the project on time will prevent the City from having the use of the affected facilities. Therefore, the parties agree such damages among others are, and will continue to be, impracticable and extremely difficult to determine, but that \$1,000 a calendar day is the minimum value of such costs to the City and is a reasonable amount that the Contractor agrees to reimburse the City for each calendar day of delay in finishing the work in excess of the time specified for completion, plus any authorized time extensions. Execution of the contract under these specifications shall constitute agreement by the Contractor and the City that the above indicated liquidated damage amount per calendar day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs. Said amount may be reduced by the City if work is sufficiently completed within the allotted time so that the damages are minimized.

BF-1



# CITY OF PERRIS

## ENGINEERING DEPARTMENT

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The undersigned, as Bidder, proposes and agrees, if the proposal is accepted, that he will execute a Contract with the Agency in the form set forth in the Contract Documents and that he will accept in full payment thereof the following prices as set forth in Bid Schedules.

Quantities provided in the Bid Schedule are for the purpose of comparison only and payments will be made on the basis of actual measurement of work completed. Upon receipt of the Notice of Award, Contractor shall submit to the Agency for approval, a detailed breakdown of the Contractor's cost estimate into the various elements of materials and construction operations. When approved, this breakdown will serve as a basis for the Agency to determine partial payments.

If awarded this contract, the Bidder agrees to execute the Contract and submit the Labor and Materials Payment Bond, Contract Performance Bond, and Insurance Certificates on the required forms within ten (10) calendar days from the date of the Notice of Award. The Notice of Award shall be accompanied by the necessary Contract, Bond, and Insurance Certificate forms. In case of failure of the Bidder to execute the Contract, the Agency may at his option consider the Bidder in default, in which case the Bid Bond, or any deposit in lieu thereof, accompanying the proposal shall become the property of the Agency. Forfeiture of the Bid Bond, or any deposit in lieu thereof, does not preclude the Agency from seeking all other remedies provided by law to recover losses sustained as a result of the Contractor's failure to execute a written agreement to perform the work at his Bid Price.

The Bidder's execution on the signature portion of this proposal shall also constitute an endorsement and execution of those certifications which are a part of this Proposal.

### **EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION**

The bidder \_\_\_\_\_, proposed subcontractor \_\_\_\_\_, hereby certifies that he has \_\_\_\_\_, has not \_\_\_\_\_, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41CFR 60-1.7(b)(1)), and must be submitted by Bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt). Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract, subject to the Executive Orders, and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

BF-2



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## **Noncollusion Affidavit**

(Title United States Code Section 112 and  
Public Contract Code Section 7106)

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association or organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

BF-3



# CITY OF PERRIS

ENGINEERING DEPARTMENT

## DEBARMENT AND SUSPENSION CERTIFICATION

(Title 49, Code of Federal Regulations, Part 29)

The Bidder, under penalty of perjury, certifies that, except as noted below, he/she or any person associated therewith in the capacity of owner, partner, director, office manager:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years;
- Does not have a proposed debarment pending; and
- Has not be indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any manner involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

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Exceptions will not necessarily result in denial of award, but will be considered in determining Bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

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Note: Providing false information may result in criminal prosecution or administrative sanctions.

The above certification is part of the Proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this Certification.

BF-4



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## **NON LOBBYING CERTIFICATION FOR FEDERAL AID CONTRACTS**

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, “Disclosure of Lobbying Activities”, in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, and U.S. Code. Any person who fails to file the required certifications shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub-recipients shall certify and disclose accordingly.

BF-5





# CITY OF PERRIS

ENGINEERING DEPARTMENT

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Person who inspected site of the proposed work as a representative of your firm:

\_\_\_\_\_

Name (please print)

\_\_\_\_\_

Date of Inspection

Bidder acknowledges receipt of the following Addenda:

\_\_\_\_\_

Dated \_\_\_\_\_

\_\_\_\_\_

Dated \_\_\_\_\_

\_\_\_\_\_

Dated \_\_\_\_\_

\_\_\_\_\_

Dated \_\_\_\_\_

NAME OF BIDDER: \_\_\_\_\_

NAME AND TITLE OF SIGNING PARTY: \_\_\_\_\_

SIGNATURE OF BIDDER: \_\_\_\_\_

\_\_\_\_\_  
Contractor's California License No.

(CORPORATE SEAL)

\_\_\_\_\_  
Name of License Holder

\_\_\_\_\_  
Type of License

\_\_\_\_\_  
Expiration Date

Contact Information:

Company Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Title: \_\_\_\_\_

Company Address: \_\_\_\_\_  
\_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

BF-6





# CITY OF PERRIS

ENGINEERING DEPARTMENT

## I.T. & ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS PROJECT Schedule of Bid Items

**Bidder (Company Name):** \_\_\_\_\_

The bid prices stated below shall include all cost for profit, overhead, material, labor, transportation, taxes, installation work and all other incidental cost and work that are necessary to complete all items as specified on the project plans and delineated in the project specifications ready for use by the City.

### BASE BID ITEMS

Bid Item #	Unit	Item Description	Unit Cost	Total Figures
1.	LS	Mobilization including General Conditions, and Special Provisions	\$_____LS	\$_____
2.	LS	Permit Fees, Licensing and Fees (if applicable)	\$_____LS	\$_____
3.	LS	Construction Staging Fencing with Windscreen/Portable Restrooms /Project Signage	\$_____LS	\$_____
4.	LS	Insurance and Bonds	\$_____LS	\$_____
5.	LS	Asbestos/Lead Base Paint Testing	\$_____LS	\$_____
6.	LS	Any Utility Verification	\$_____LS	\$_____

### DEMOLITION

7.	LS	Demolition & Removal of (E) Ceiling, Flooring, Walls, Etc.	\$_____LS	\$_____
8.	LS	Demolition & Salvage	\$_____LS	\$_____

BF-7



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## INTERIOR T.I.

9.	LS	New Stud wall framing per (N) walls on A2 (170' L.F., HEIGHT TO BE VERIFIED & LENGTH)	\$_____LS	\$_____
10.	LS	Gypsum Wall Board & Plaster. Water Resistant board for kitchen & janitor closet.	\$_____LS	\$_____
11.	LS	(N) A.C.T. TILES. (Per Sheet A2.2) APPROX 4200 SF.	\$_____LS	\$_____
12.	LS	(E) T-bar to be repainted / refreshed. (N) ceiling tiles throughout full T.I. space Per. A5.	\$_____LS	\$_____
13.	LS	Urban manual double manual shade Manual mechosystems double shade. (verify final sizes)(typical 4 locations, verify)	\$_____LS	\$_____
14.	LS	Counters Per (N) Cabinets. Kitchens, Halls, Reception, Outside Offices (70' +L.F.)	\$_____LS	\$_____
15.	LS	New cabinets throughout T.I. space. Uppers & Lower. Kitchens, Halls, Reception, Outside Offices. (VERIFY WITH CITY)	\$_____LS	\$_____
16.	LS	(N) Shelving in Storage & Copier areas.	\$_____LS	\$_____

## FINISHES

17.	LS	Interior Paint and Finishes.	\$_____LS	\$_____
18.	LS	Wall Finishes (Per Ad1 paints)	\$_____LS	\$_____
19.	LS	Wall Tile clean up & Paint in (E) Restroom.		
20.	LS	Miscellaneous Exterior & Interior Finishes Not Included Elsewhere	\$_____LS	\$_____

BF-8



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## FLOORING

21.	LS	Floor Preparation & Installation	\$ _____	LS	\$ _____
22.	1570+ LF	4" Vinyl Base (Per Sheet A3)	\$ _____	LF	\$ _____
23.	4500 SF	Entire Tenant improvement space. Lvt flooring to include req. Substrate. (PER. AD2) (final sample to be provided to city for approval)	\$ _____	SF	\$ _____
24.	200 SF	Ada restroom tile flooring clean up. (Verify with city if new tile, or just clean-up.)	\$ _____	SF	\$ _____

## DOORS & WINDOWS

25.	EA	3'x7' Wood Interior Doors with Hardware. All (E) doors & Frames to be re-used. (N) Doors to match (E) door style, & frame. Hardware to match and be provided with locks per city guidelines.	\$ _____	EA	\$ _____
26.	LS	Reception Window at Entry counter. Verify with City of openings, and microphone. (See Elevation 2 & 3/ Sheet A2.4)			
27.	LS	(N) Windows in offices. Window W-1 / 3040 Fixed window. (QTY: 7)	\$ _____	LS	\$ _____
28.	LS	MISC Door Hardware or Signage.( Exit Signage, Accessibility Signage)	\$ _____	LS	\$ _____

## FURNISHINGS

29.	12 SF	(N) Movable Kitchen Bar Table, (N) Movable Plan Counter,	\$ _____	SF	\$ _____
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BF-9



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## ELECTRICAL

30.	LS	Lighting (Per Sheet E210 With Battery Backup)	\$ _____	LS	\$ _____
31.	LS	Lighting Specs per E200 QTY: Per E200)	\$ _____	LS	\$ _____
32.	LS	Wall Exit Signage Double Entry, Exit Sign With 90 Min Battery Back Up (Per Sheet E210)	\$ _____	LS	\$ _____
33.	EA	Occupancy Sensor (Per Sheet E210)	\$ _____	EA	\$ _____
34.	EA	Photocell Sensor (Per Sheet E210)	\$ _____	EA	\$ _____
35.	LS	Light Switch (Per Sheet E210)	\$ _____	LS	\$ _____
36.	LS	Outlets & Data Drops (Per Sheet E300)	\$ _____	LS	\$ _____
37.	LS	Lighting Control Panel	\$ _____	LS	\$ _____
38.	LS	Relocate (E) light fixtures	\$ _____	LS	\$ _____
39.	LS	Connections To (E) Electrical Service & Panels	\$ _____	LS	\$ _____

## MECHANICAL

40.	LS	Ducting Various Diameters With Drops (Per Sheet M200)	\$ _____	LS	\$ _____
41.	LS	Duct Parts & Dampers & Smoke Detectors	\$ _____	LS	\$ _____
42.	LS	Thermostat	\$ _____	LS	\$ _____
43.	LS	Connection to (E) Mechanical Equipment & Ducts. HVAC is (E).	\$ _____	LS	\$ _____

BF-10



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## PLUMBING

- |     |    |   |             |          |
|-----|----|---|-------------|----------|
| 44. | EA | (N) Janitor Sink in Janitor Closet.   | \$ _____ EA | \$ _____ |
| 45. | LS | Restroom Grab bars and Accessories, Behind toilet, Side toilet, Toilet Seat Covers, Sanitary Napkin Holder, Mirrors, Soap Dispenser, Hand towel, Hand Dryer. (Verify With City if replacing (E) units). | \$ _____ LS | \$ _____ |
| 46. | LS | Complete Plumbing Installation Including All Connections, Piping, Fixtures, ETC. at kitchen.  | \$ _____ LS | \$ _____ |

## FIRE

- |     |    |   |             |          |
|-----|----|---|-------------|----------|
| 47. | LS | Test and or replace as needed the existing fire alarm system /add new smoke detectors and fire extinguishers with labeling as needed. | \$ _____ LS | \$ _____ |
|-----|----|---|-------------|----------|

**TOTAL BASE BID AMOUNT FOR: I.T. & ECONOMIC DEVELOPMENT OFFICE  
IMPROVEMENTS  
(Total Lump Sum Bid Amount)**

**WRITTEN IN FIGURES**

\$ \_\_\_\_\_

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**WRITTEN IN WORDS**



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-

11

**Please note the following regarding bids:**

- Award will be based upon lowest total of all bid items (1-12) submitted to the Active Bidder website.
- Bid shall include all sales tax, and other taxes and fees.
- Contractor is required to purchase all bid items as well as install.
- Bid is for Project complete-in-place
- Quantities above are for the purpose of comparison only, and payments will be made on a basis of actual measurement of work completed (except where noted otherwise, such as lump sum work/items).
- Quantities bid documents shall include list of subcontractors and manufacturer items.
- At discretion of City some of the items may be performed by others and therefore eliminated in part or whole. In these cases, the Contractor shall not receive any reimbursement for loss of profit and other losses.
- The City reserves the right to reject any or all bids received.



# CITY OF PERRIS

ENGINEERING DEPARTMENT

BF-

12A

Please note the following regarding bids:

**A. Award, if made, will be based upon the responsible Bidder's lowest Grand Total Bid Amount of all bid items listed above. The City reserves the right to reject any or all bids received.**

The Grand Total Bid Amount stated above shall include all work and cost for work as specified on the project plans and delineated in the project specifications, whether specifically listed above or not, and all other incidental and appurtenant work that is necessary to complete the specific items of work including Bidder's overhead and mark-up, purchase of materials, tools and equipment, taxes, and all other taxes and fees, transportation cost, permit fees, testing laboratory cost, and all other costs made necessary by the Contract Documents to provide the City of Perris with a complete operational and facility meeting the approval of the City of Perris and other agencies having jurisdiction over the project.

**B. Bid is for a project complete-in-place.**

**C. Bid shall include all sales tax, and all other taxes and fees.**

**D. Quantities above are for the purpose of comparison only, and payments will be made on a basis of actual measurement of work completed. For quantities indicated as lump sum, Contractor shall be paid at the Contract per lump sum price indicated, and shall include full compensation for all work and no additional compensation will be allowed thereof.**

The undersigned, as Bidder, proposes and agrees, if the proposal is accepted, that he will execute a Contract with the Agency in the form set forth in the Contract Documents and that he will accept in full payment thereof the following prices as set forth in Bid Schedules.

Payments will be made on the basis of actual measurement of work completed. Measurements which vary from estimated quantities shall require verification by City, and a written change order will be required prior to payment. Upon receipt of the Notice of Award, Contractor shall submit to the Agency for approval, a detailed breakdown of the Contractor's cost estimate into the various elements of materials and construction operations. When approved, this breakdown will serve as a basis for the Agency to determine partial payments.

If awarded this contract, the Bidder agrees to execute the Contract and submit the Labor and Materials Payment Bond, Contract Performance Bond, and Insurance Certificates on the required forms within ten (10) calendar days from the date of the Notice of Award. The Notice of Award shall be accompanied by the necessary Contract, Bond, and Insurance Certificate forms. In case of failure of the Bidder to execute the Contract, the Agency may at his option consider the Bidder in default, in which case the Bid Bond, or any deposit in lieu thereof, accompanying the proposal shall become the property of the Agency. Forfeiture of the Bid Bond, or any deposit in lieu thereof, does not preclude the Agency from seeking all other remedies provided by law to recover losses sustained as a result of the Contractor's failure to execute a written agreement to perform the work at his Bid Price.

The Bidder's execution on the signature portion of this proposal shall also constitute an endorsement and execution of those certifications which are a part of this Proposal.



**CITY OF PERRIS**  
ENGINEERING DEPARTMENT

BF-12B

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are hereby held and firmly bound unto the CITY OF PERRIS as Agency in the penal sum of \_\_\_\_\_

\_\_\_\_\_ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns. (Note: City of Perris requires bid bond to be at least equal to 10% of bid amount).

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

The Condition of the above obligation is such that whereas the Principal has submitted to the Agency a certain Bid, attached hereto and hereby made a part hereof, to enter into a contract in writing for the \_\_\_\_\_

**NOW, THEREFORE,**

- A. If said Bid shall be rejected, or
- B. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish Bonds for his faithful performance of said Contract and for the payment of all persons performing labor or furnishing materials in connection therewith, the required Insurance Certificates, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the Agency may accept such Bid; and said Surety does hereby waive notice of any such extension.





**CITY OF PERRIS**  
ENGINEERING DEPARTMENT

BF-13A

**IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.**

**Two Witnesses  
(If Individual):**

\_\_\_\_\_  
\_\_\_\_\_

**PRINCIPAL:** \_\_\_\_\_

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**ATTEST (If Corporation):**

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**(Corporate Seal)**

**SURETY:** \_\_\_\_\_

**ATTEST:**

**By:** \_\_\_\_\_

**By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**(Corporate Seal)**

**IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.**

**THIS IS A REQUIRED FORM**



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-13B

**Any claims under this bond may be addressed to:**

**(Name and Address of Surety)**

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**(Name and Address of Agent  
or Representative for  
service of process in  
California, if different  
from above)**

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**(Telephone Number of Surety  
and Agent or Representative  
for service of process in  
California)**

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# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-13C

## DESIGNATION OF SUBCONTRACTOR

In compliance with the provisions of section 2.3 of the Standard Specifications, the Bidder shall set forth below the name and location of the mill, shop or office of each Subcontractor and the portions of the work, which will be done by that Subcontractor.

In compliance with the provisions of the Government Code, Section 4100-4108, the undersigned Bidder herewith sets forth the name and location of the place of business of each Subcontractor who will perform work or labor or render service to the Contractor on or about the construction site of the work or improvements in an amount in excess of one-half of one percent ( $\frac{1}{2}\%$ ) of the Contractor's total bid and the portion of the work which will be done by each Subcontractor as follows:

**% Of Work**

**Trade To Be Done Name License No. Address**

% Of Work	Trade	To Be Done	Name	License No.	Address

\* Identify any DBE subcontractors.



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-14



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## LISTING OF MANUFACTURERS

The Contractor shall submit this sheet with his Bid, completed, to list the manufacturers of materials he intends to use. It shall be understood that where the Contractor elects not to use the material manufacturers called for in the Specifications, he will substitute only items of equal quality, durability, functional character and efficiency as determined by the Agency. The Contractor should ascertain prior to bidding the acceptability of substitutes. Only one manufacturer shall be listed for each item.

<u>Item or Material</u>	<u>Manufacturer or Supplier</u>	<u>DBE*</u>
-------------------------	---------------------------------	-------------

No change shall be allowed of any material manufacturer listed after receipt of Bids unless the manufacturer so listed cannot furnish materials meeting the Specifications. Any manufacturer, which is not deemed to be equal-to or better in every significant respect to that required by the Contract Documents, shall be rejected at the sole discretion of the Agency. Should such change be allowed by the Agency, bidder shall provide materials meeting the specification, as determined by the Agency, and there shall be no increase in the amount of the Bid originally submitted.

\* Identify if Supplier is a DBE.



**CITY OF PERRIS**  
ENGINEERING DEPARTMENT

BF-15

**ANTI-TRUST CLAIM**

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or Subcontractor offers and agrees to assign to the Agency all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Public Works Contract or the Contract or the Subcontract. This assignment shall be made and become effective at the time the Agency tenders final payment to the Contractor, without further acknowledgment by the parties.

RESPECTFULLY SUBMITTED:

_____	_____
<b>Signature</b>	<b>Please Print</b>
_____	_____
<b>Title</b>	<b>Address</b>
_____	_____
<b>Date</b>	
_____	_____
<b>Contractor's California License No.</b>	<b>Type of License</b>
_____	_____
<b>Name of License Holder</b>	<b>Expiration Date</b>

**THE REPRESENTATIONS MADE HEREIN ARE MADE UNDER PENALTY OF PERJURY.**

\_\_\_\_\_ Federal I.D. No.

(SEAL-if Bid is by a Corporation)

ATTEST \_\_\_\_\_



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-16

## CERTIFICATION - LABOR CODE SECTION 1861

I, the undersigned Contractor, am aware of the provisions of section 3700 et. seq. of the Labor Code which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work of this Contract.

**CONTRACTOR:**

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Contractor's California License No.

\_\_\_\_\_  
Expiration Date

\_\_\_\_\_  
Federal I.D. No.

**(SEAL-if Bid is by a Corporation)**

**ATTEST** \_\_\_\_\_



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-17

## CERTIFICATION OF NON-DISCRIMINATION

On behalf of the Bidder making this proposal, the undersigned certifies that there will be no discrimination in employment with regard to ethnic group identification, color, religion, sex, age, physical or mental disability, or national origin; that all Federal, State, and local directives and executive orders regarding nondiscrimination in employment will be complied with; and that the principle of equal opportunity in employment will be demonstrated positively and aggressively.

DATED: \_\_\_\_\_

\_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name and Title)

\_\_\_\_\_  
California  
License No.

\_\_\_\_\_  
Type of License

\_\_\_\_\_  
Name of License Holder

\_\_\_\_\_  
Expiration Date

\_\_\_\_\_  
Federal I.D. No.

(SEAL-if Bid is by a Corporation)

ATTEST \_\_\_\_\_





# CITY OF PERRIS

ENGINEERING DEPARTMENT

BF-18

## EXPERIENCE STATEMENT

Bidder submits, as part of his bid, the following statements as to his experience qualifications. Bidder certifies that all statements and information set forth below are true and accurate. Bidder hereby authorizes the agency to make inquiry as appropriate regarding his experience.

## GENERAL INFORMATION

Submitted by \_\_\_\_\_

(Check One)

- A Corporation
- A Partnership
- An Individual

Principal office \_\_\_\_\_ (street address)

\_\_\_\_\_ (City, state, zip)

( ) \_\_\_\_\_ (telephone number)

( ) \_\_\_\_\_ (FAX number)

\_\_\_\_\_ (E-mail/optional)

1. If corporation:

When incorporated? \_\_\_\_\_ In what state? \_\_\_\_\_

2. How many years has your organization been in business as a contractor under your present business name?

\_\_\_\_\_

Previous business name, if changed during past three years.

\_\_\_\_\_

3. How many years of experience in similar trail improvement projects has your organization had:

As a principal contractor? \_\_\_\_\_

As a subcontractor? \_\_\_\_\_

List a minimum of three new construction park projects which your company has performed in the last five years that meets or exceeded the total scope of work for Morgan Park Phase II Project where the cost of construction for each project was at least \$1,000,000 or greater:

Name & Address of Owner/Agency	Representative and Telephone	Type of Work, Year Completed & \$ Amount
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# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-19A

4. In the past ten years, have you or your organization been debarred or suspended from eligibility to bid on city, state or federal work? \_\_\_\_\_ If so, state details below:

a. Officer(s), person(s), and organization(s) involved:

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b. Reason for such failure:

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c. Name of the surety:

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d. Description of project:

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5. In the past ten years, have you or your organization failed to complete any work awarded to you or your organization? Has any officer, member, or partner of your organization ever been an officer, member, or partner in an organization that failed to complete any work awarded to it? \_\_\_\_\_ If so, state details below:

a. Officer(s), person(s), and organization(s) involved:

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b. Reason for such failure:

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c. Name of the surety:

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d. Description of project:

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# CITY OF PERRIS

ENGINEERING DEPARTMENT

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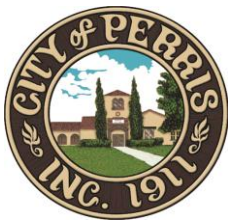
BF-19B

## DISQUALIFICATION OF BIDDERS

A bid may be rejected if it is incomplete, or if it contains any alterations of form or other irregularities of any kind including calculation errors in individual line items or the total bid. The City of Perris may reject any or all bids at any time for any reason, and the City of Perris may waive any immaterial deviation in a bid. The City of Perris' waiver of immaterial defect shall in no way modify the document or excuse the bidder from full compliance with all requirements set forth in the bid if awarded the contract. The decision respecting the existence or treatment of an irregularity, or incomplete bid, shall be determined in the discretion of the City of Perris, and that discretion will be exercised in the manner deemed by the City of Perris, to best protect the public interest in the prompt and economical completion of the work.

Any one or more of the following causes may be considered as sufficient for rejection of the bid and disqualification of the bidder as may be determined by the City of Perris.

- a. Developments, subsequent to establishment of a bidder's competency and qualifications, which in the opinion of the City of Perris would reasonably be construed as affecting the responsibility of the bidder.
- b. Conviction of a major violation of a State or Federal law, or a rule or regulation of a Federal department, board or bureau, or a State department, board or commission, relating to or reflecting on the competency of the bidder for performing construction work.
- c. More than one proposal for the same work from an individual, partnership or corporation under the same or different names.
- d. Indictment for or evidence of collusion among bidders.
- e. Failure to complete any contractual obligations satisfactorily as shown by past work for the City.
- f. Noncompliance with terms of previous or existing contracts.
- g. Previously uncompleted work, which in the judgment of the City of Perris might hinder or prevent the completion of the additional work, if awarded.



# CITY OF PERRIS

ENGINEERING DEPARTMENT

BF-20

<u>MATERIAL</u>	<u>TEST REQUIRED</u>	<u>CALIFORNIA TEST</u>
Permeable Material	Grading	202
	Sand Equivalent	217
	Durability Index	229
Imported Material (Shoulder Backing)	Grading	202
	Sand Equivalent	217
	Durability Index	229
Aggregate Subbase	Grading	202
	Sand Equivalent	217
	Resistance (R-Value)	301
Aggregate Base	Grading	202
	Sand Equivalent	217
	Resistance (R-Value)	301
	Durability Index	229
	Percentage of crushed particles	205
Screenings	Grading	202
	Loss in Los Angeles Rattler	211
	Crushed Particles	205
	Film Striping	302
	Cleanness valve	227
Asphalt Concrete (Except Open Graded)	Grading	202
	Specific Gravity	206
	(coarse & fine aggregate)	208
	Percentage of crushed particles	205
	Loss in Los Angeles Rattler	211
	Sand Equivalent	217
	Film Striping	302
	Kc Factor (CKE)	303
	Kf Factor (CKE)	303
	Stabilometer	366
	Swell	305
	Moisture Vapor Susceptibility	307
Optimum Bitumen Content*	367	
Open Graded AC, Asphalt Treated Permeable Material, Asphalt Treated Permeable Base	Grading	202
	Crushed Particles	205
	Loss in Los Angeles Rattler (500 revolutions)	211
	Durability Index	229
	Firm Striping	310 or 362 or 379



\*(Not shown in Construction Manual, use CDE frequency.)

Note: Should any potential source sampling and testing be waived by reason of previous acceptance of material from the source, there will be no reduction in contract prices by reason of such waiver.

FOREIGN MATERIALS – The requirements of the fifth paragraph in Section 6-1-08, "Foreign Materials," of the Standard Specifications shall not apply.



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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BF-21

**NOTICE OF AWARD**  
**CITY OF PERRIS**

**IT/ENGINEERING DEPARTEMENT OFFICE RENOVATIONS**

The Agency has considered the Bid submitted by you for the above-described work in response to its Notice Inviting Sealed Proposals (Bids) dated \_\_\_\_\_, 2024 and Information for Bidders.

You are hereby notified that your Bid has been accepted in the amount of \$

\_\_\_\_\_ and the Extract of Public Works contract Award has been forwarded to the California Department of Industrial Relations and the Division of Apprenticeship Standards.

You are required by the Information for Bidders to execute the Contract and furnish the required Contractor's Labor and Material Payment Bond, Contract Performance Bond, and Certificates of Insurance within ten (10) calendar days from the date of this Notice. The mandatory construction start date is \_\_\_\_\_, 2024.

If you fail to execute said Contract and to furnish said Bonds an Insurance Certificates within ten (10) days from the date of this Notice, said agency will be entitled to consider all your rights arising out of the Agency's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Agency will be entitled to such other rights as may be granted by law.

A mandatory pre-construction meeting for the contractor and all of his subs will be required prior to start of work and will be scheduled upon receipt of all contract documents.

You are required to return an acknowledged copy of this Notice of Award to the

Agency. Dated this \_\_\_\_\_ day of \_\_, 20\_\_\_\_.

**City of Perris Agency**

By: **Joh Pourkazemi, City Engineer**  
Title



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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N-1A

## ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above Notice of Award is hereby acknowledged

By \_\_\_\_\_ this

\_\_\_\_\_ Day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

Title \_\_\_\_\_

\_\_\_\_\_  
Contractor's California License No.

\_\_\_\_\_  
Expiration Date



# CITY OF PERRIS

ENGINEERING DEPARTMENT

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N-1B

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# CITY OF PERRIS

ENGINEERING DEPARTMENT

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## PUBLIC WORKS CONSTRUCTION CONTRACT

**THIS PUBLIC WORKS CONSTRUCTION CONTRACT** (“**Contract**”) is made and entered into as of the date executed by the City Manager, by and between \_\_\_\_\_, a \_\_\_\_\_, (“**Contractor**”) and the City of Perris, a California municipal corporation, (“**City**”) for a total amount of \$\_\_\_\_\_, consisting of \$\_\_\_\_\_ as set forth in Contractor’s bid (the "**Contract Amount**") and up to \$\_\_\_\_\_ in a Construction Contingency amount if approved by the City pursuant to this Contract.

### RECITALS

**WHEREAS**, pursuant to the Notice Inviting Bids, bids were received, publicly opened, and declared on the date specified in said Notice; and

**WHEREAS**, City did accept the bid of Contractor dated \_\_\_\_\_ (“**Contractor’s Bid**”); and

**WHEREAS**, the City Council has authorized the City Manager to enter into a written contract with Contractor for furnishing labor, equipment, and material for the construction of:

JOB NO.: \_\_\_\_\_  
DESCRIPTION: \_\_\_\_\_  
LOCATION: \_\_\_\_\_

(hereinafter referred to as the “**Project**”).

**NOW, THEREFORE**, in consideration of the mutual covenants herein contained, it is agreed:

#### 1. GENERAL SCOPE OF WORK

- a. Work. Contractor shall furnish all necessary labor, tools, materials, appliances, and equipment for and do the work for the Project (collectively, the “**Work**”). Said Work shall be performed in accordance with (i) all of the Contract Documents incorporated herein, (ii) the bid prices contained in the Contractor’s Bid, and (iii) the instructions of the City Manager or his/her designee (the “**Project Manager**”). By executing this Contract, Contractor warrants that Contractor (i) has thoroughly investigated and considered the scope of Work to be performed, (ii) has carefully considered how the Work should be performed, and (iii) fully understands the facilities, difficulties and restrictions attending performance of the Work under this Contract. If the Work involve work upon any site, Contractor warrants that Contractor has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of the Work hereunder.
- b. Warranty. Contractor warrants all work under the Contract (which for purposes of this Section shall be deemed to include unauthorized work which has not been removed and any non-conforming materials incorporated into the work) to be of good quality and free from any defective or faulty material and workmanship. Contractor agrees that for a period of one year (or the period of time specified elsewhere in the Contract or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the work, whichever is later) after the date of final acceptance, Contractor shall within ten (10) days after being notified in writing by the City of any defect in the work or non-conformance of the work to the Contract, commence and prosecute with due diligence all work necessary to fulfill the terms of the warranty at its sole cost and expense. Contractor shall act as soon as requested by the City in response to an emergency. In addition, Contractor shall, at its sole cost and expense, repair, remove and replace any portions of the work (or work of other contractors) damaged

by its defective work or which becomes damaged in the course of repairing or replacing defective work. For any work so corrected, Contractor's obligation hereunder to correct defective work shall be reinstated for an additional one year period, commencing with the date of acceptance of such corrected work. Contractor shall perform such tests as the City may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstatement of equipment and materials necessary to gain access, shall be the sole responsibility of the Contractor. All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the work, whether express or implied, are deemed to be obtained by Contractor for the benefit of the City, regardless of whether or not such warranties and guarantees have been transferred or assigned to the City by separate agreement and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of the City. In the event that Contractor fails to perform its obligations under this Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of the City, the City shall have the right to correct and replace any defective or non-conforming work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the City for any expenses incurred hereunder upon demand.

- c. Final Acceptance. Acceptance of the Project shall only be by action of the City Manager or his or her designee. Neither the acceptance nor any prior inspections or failure to inspect shall constitute a waiver by City of any defects in the work. From and after acceptance, the Project shall be owned and operated by City. As a condition to acceptance, Contractor shall certify to City in writing that all of the work has been performed in strict conformity with the Contract and that all costs have been paid or supplied to City for security required herein, satisfactory to City, guaranteeing such performance.

## 2. CONTRACT DOCUMENTS INCORPORATED

This Contract includes and hereby incorporates in full each of the following documents, including all exhibits, drawings, plans and specifications, attachments and addenda thereto (collectively, the "**Contract Documents**"):

- i. Notice Inviting Bids
- ii. Instructions to Bidders
- iii. Bid Forms
- iv. Contractor's Bid
- v. General Provisions
- vi. Special Provisions
- vii. Technical Specifications
- viii. Project Plans
- ix. Performance and Payment Bonds
- x. All change orders authorized after execution of this Contract.

This Contract is intended to require a complete and finished Project and anything necessary to complete the Work properly and in accordance with the law and lawful governmental regulations shall be performed and supplied by Contractor, whether set out specifically in this Contract or not. Should it be ascertained that any inconsistency exists between the Contract Documents and this Contract, the provisions of this Contract shall control, except as required and specified under law.

3. CONSTRUCTION START AND COMPLETION DATE

a. Start and Completion

The mandatory start construction date shall be the date stipulated in the Notice to Proceed issued by the Project Manager ("**Start Date**"). Contractor shall complete the Project within \_\_\_\_\_ (\_\_\_\_\_) Calendar Days from the Start Date ("**Completion Date**"). City and Contractor acknowledge and agree that at the time of execution of this Contract it is impracticable and extremely difficult to fix the actual damages that will be incurred by City if Contractor fails to complete the Project by the Completion Date. Accordingly, City and Contractor agree that liquidated damages in the amount of One Thousand Dollars (\$1,000.00) for each calendar day the Project remains incomplete beyond the Completion Date is a reasonable sum to assess as liquidated damages due to City by reason of the failure of Contractor to complete the Project. City may deduct the amount of liquidated damages from any payment due or that may become due to Contractor under this Contract. Progress payments made after the Completion Date shall not constitute a waiver of liquidated damages.

Contractor's Initials: \_\_\_\_\_

b. Force Majeure

The time period(s) specified in the Contract Documents for performance of the Work rendered pursuant to this Contract shall be extended because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, unusually severe weather, fires, earthquakes, floods, epidemics, quarantine restrictions, riots, strikes, freight embargoes, wars, litigation, and/or acts of any governmental agency, including the City, if the Contractor shall within ten (10) days of the commencement of such delay notify the Project Manager in writing of the causes of the delay. The Project Manager shall ascertain the facts and the extent of delay, and extend the time for performing the Work for the period of the enforced delay when and if in the judgment of the Project Manager such delay is justified. The Project Manager's determination shall be final and conclusive upon the Parties to this Contract. In no event shall Contractor be entitled to recover damages against the City for any delay in the performance of this Contract, however caused, Contractor's sole remedy being extension of the Contract pursuant to this Section.

4. INSURANCE AND BONDS

a. Insurance

The Contractor shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to City, during the entire term of this Contract including any extension thereof, the following policies of insurance:

- i. Commercial General Liability Insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than \$2,000,000 per occurrence, \$4,000,000 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that

has not been amended. Any endorsement restricting standard ISO “insured contract” language will not be accepted. The Product and Completed Operations coverage under the policy shall extend a minimum of three (3) years after completion of the Project. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the policy must include work performed “by or on behalf” of the insured. The policy shall contain no language that would invalidate or remove the insurer’s duty to defend or indemnify for claims or suits expressly excluded from coverage. The policy shall specifically provide for a duty to defend on the part of the insurer.

- ii. Worker’s Compensation Insurance. A policy of worker’s compensation insurance in such amount as will fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for both the Contractor and the City against any loss, claim or damage arising from any injuries or occupational diseases carrying out the work or service contemplated in this Contract. At a minimum, Contractor shall maintain Workers’ Compensation Insurance (Statutory Limits) and Employer’s Liability Insurance (with limits of at least \$1,000,000).
- iii. Business Automobile Insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with Services to be performed under this Contract, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than \$1,000,000 combined single limit for each accident.
- iv. Builder’s Risk Insurance. Contractor shall maintain Builder’s Risk (Course of Construction) insurance utilizing an “All Risk” (Special Perils) coverage form, with limits equal to the completed value of the Project and no coinsurance penalty provisions or provisional limit provisions. The policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) ordinance or law coverage for contingent rebuilding, demolition, and increased costs of construction; (5) transit coverage (unless insured by the supplier or receiving contractor), with sub-limits sufficient to insure the full replacement value of any key equipment item; (6) ocean marine cargo coverage insuring any Project materials or supplies, if applicable; (7) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Project site or any staging area.
- v. Professional Liability Insurance (Errors & Omissions). Contractor shall maintain professional liability insurance that covers the services to be performed in connection with this Contract, in the minimum amount of \$1,000,000 per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this Contract and Contractor agrees to maintain continuous coverage through a period no less than three (3) years after completion of the services required by this Contract.
- vi. Pollution Liability Insurance. Contractor shall maintain Environmental Impairment Liability insurance, written on a Contractor’s Pollution Liability form or other form acceptable to City providing coverage for liability arising out of sudden, accidental, and gradual pollution and remediation. The policy limit shall be no less than \$1,000,000 per claim and in the aggregate.

All activities contemplated in this Contract shall be specifically scheduled on the policy as “covered operations.” The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites.

vii. General Insurance Requirements.

- (1) Primary/noncontributing; Waiver of Subrogation. All of the above policies of insurance shall be primary insurance. All insurance coverage maintained or procured pursuant to this Contract shall be endorsed to waive subrogation against City, its officers, employees and agents, and its insurers or shall specifically allow Contractor or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subcontractors.
- (2) Evidence of Insurance. No work or service under this Contract shall commence until the Contractor has provided the City with Certificates of Insurance or appropriate insurance binders evidencing the above insurance coverage and said Certificates of Insurance or binders are approved by the City. In the event any of the above policies of insurance are canceled, the Contractor shall, prior to the cancellation date, submit new evidence of insurance in conformance with this Section to the Project Manager or the Project Manager’s designee, as defined in the Contract Documents and incorporated herein.
- (3) Not Limiting. Contractor agrees that the provisions of this Section 3.b(a) shall not be construed as limiting in any way the extent to which the Contractor may be held responsible for the payment of damages to any persons or property resulting from the Contractor’s activities or the activities of any person or person for which the Contractor is otherwise responsible.
- (4) Subcontractors. In the event the Contractor subcontracts any portion of the Work pursuant to this Contract, the contract between the Contractor and such subcontractor shall require the subcontractor to maintain the same policies of insurance that the Contractor is required to maintain pursuant to this Section.
- (5) Duration of Coverage. Contractor shall procure and maintain for the duration of this Contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Work hereunder by Contractor, its agents, representatives, employees or subcontractors.
- (6) City's Rights of Enforcement. In the event any policy of insurance required under this Contract does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Contractor or City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, City may cancel this Contract.
- (7) Enforcement of Contract Provisions (non-estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of

non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

- (8) Requirements Not Limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.
- (9) Notice of Cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.
- (10) Additional Insured Status. General and auto liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.
- (11) Prohibition of Undisclosed Coverage Limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.
- (12) Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.
- (13) Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the Project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.
- (14) Agency's Right to Revise Specifications. The City reserves the right at any time during the term of the Contract to change the amounts and types of insurance required by giving the Contractor ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

- (15) Self-Insured Retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by City.
- (16) Timely Notice of Claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Contract, and that involve or may involve coverage under any of the required liability policies.
- (17) Additional Insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

b. Performance and Payment Bonds

Concurrently with execution of this Contract, Contractor shall deliver to the City the following bonds:

- i. Payment Bond. Concurrently with the execution of this Contract, Contractor shall deliver to City a Payment Bond in a sum not less than one hundred percent (100%) of the total Contract Amount which secures payments to persons furnishing labor, subcontractors, and suppliers in the event of default by Contractor. The payment bond shall be unconditional and remain in force during the entire term of the Contract and shall be null and void only if the Contractor completely and faithfully pays all persons furnishing labor, subcontractors, and suppliers that have been approved in writing to perform in whole or part the services required herein.
- ii. Performance Bond. Concurrently with execution of this Contract, Contractor shall deliver to City a Performance Bond in the sum of not less than one hundred percent (100%) of the total Contract Amount which secures the faithful performance of this Contract, unless such requirement is waived by the Project Manager or the Project Manager's designee. The bond shall be unconditional and remain in force during the entire term of the Contract and shall be null and void only if the Contractor promptly and faithfully performs all terms and conditions of this Contract.

All bonds shall each contain the original notarized signature of an authorized officer of the surety and affixed thereto shall be a certified and current copy of his/her power of attorney. All bonds shall be unconditional and remain in force during the entire term of this Contract. All bonds shall be in substantially the form as provided in **Exhibit "A"**.

City shall release the Payment Bond and the Performance Bond when the following have occurred: (1) Contractor has made a written request for release and provided evidence of satisfaction of all other requirements under this Contract, (2) the work for the Project has been finally accepted by the City, and (3) after passage of the time within which lien claims are required to be made pursuant to applicable laws; if lien claims have been timely filed, City shall hold the Payment Bond until such claims have been resolved, Contractor has provided statutory bond, or otherwise as required by applicable law

c. Sufficiency of Insurer and Surety

Insurance and bonds required by this Contract shall be satisfactory only if issued by companies qualified to do business in California, rated "A" or higher in the most recent edition of Best's Rating

Guide, The Key Rating Guide or in the Federal Register, and only if they are of a financial category Class VII or larger, unless otherwise approved by the City's Risk Manager due to unique circumstances. In addition, the insurance carrier must be currently authorized by the Insurance Commissioner to transact business of insurance or be on the List of Approved Surplus Line Insurers issued by the State of California. If the City determines that the work to be performed under this Contract creates an increased or decreased risk of loss to the City, the Contractor agrees that the minimum limits of the insurance policies and the bonds required this Contract may be changed accordingly upon receipt of written notice from the City.

5. COORDINATION OF WORK

a. Representatives and Personnel of Contractor

The following principals of Contractor ("Principals") are hereby designated as being the principals and representatives of Contractor authorized to act on its behalf with respect to the work specified herein and make all decisions in connection therewith:

Name	Title
Name	Title
Name	Title

The Principals shall be responsible during the term of this Contract for directing all activities of Contractor and devoting sufficient time to personally supervise the services hereunder. All personnel of Contractor, and any authorized agents, shall at all times be under the exclusive direction and control of the Principals. For purposes of this Contract, the Principals may not be replaced nor may their responsibilities be substantially reduced by Contractor without the express written approval of City. Additionally, Contractor shall make every reasonable effort to maintain the stability and continuity of Contractor's staff and subcontractors, if any, assigned to perform the services required under this Contract. Contractor shall notify City of any changes in Contractor's staff and subcontractors, if any, assigned to perform the services required under this Contract, prior to and during any such performance.

b. Status of Contractor

Contractor shall have no authority to bind City in any manner, or to incur any obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Contract or is otherwise expressly conferred in writing by City. Contractor shall not at any time or in any manner represent that Contractor or any of Contractor's officers, employees, or agents are in any manner officials, officers, employees or agents of City. Neither Contractor, nor any of Contractor's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to City's employees. Contractor expressly waives any claim Contractor may have to any such rights.



c. City's Project Manager

It shall be the Contractor's responsibility to assure that the Project Manager is kept informed of the progress of the performance of the services and the Contractor shall refer any decisions which must be made by City to the Project Manager. Unless otherwise specified herein, any approval of City required hereunder shall mean the approval of the Project Manager. The Project Manager shall have authority, if specified in writing by the Community Services Department, to sign all documents on behalf of the City required hereunder to carry out the terms of this Contract.

d. Independent Contractor

Neither the City nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. City shall have no voice in the selection, discharge, supervision or control of Contractor's employees, servants, representatives or agents, or in fixing their number, compensation or hours of service. Contractor shall perform all services required herein as an independent contractor of City and shall remain at all times as to City a wholly independent contractor with only such obligations as are consistent with that role. City shall not in any way or for any purpose become or be deemed to be a partner of Contractor in its business or otherwise or a joint venturer or a member of any joint enterprise with Contractor.

6. PROHIBITION AGAINST SUBCONTRACTING OR ASSIGNMENT

The experience, knowledge, capability and reputation of Contractor, its principals and employees were a substantial inducement for the City to enter into this Contract. Therefore, Contractor shall not contract with any other entity to perform in whole or in part the services required hereunder without the express written approval of the City. All subcontractors shall obtain, at its or Contractor's expense, such licenses, permits, registrations and approvals (including from the City) as may be required by law for the performance of any services or work under this Contract. In addition, neither this Contract nor any interest herein may be transferred, assigned, conveyed, hypothecated or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of City. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Contractor, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, including any bankruptcy proceeding, this Contract shall be void. No approved transfer shall release the Contractor or any surety of Contractor of any liability hereunder without the express consent of City.

7. COMPLIANCE WITH LABOR AND WAGE LAWS

a. Prevailing Wages.

In accordance with the provisions of the California Labor Code, Division 2, Part 7, Chapter 1, Articles 1 and 2, Contractor and any subcontractor under Contractor is required to pay not less than the general prevailing rate of per diem wages to all workmen employed in the performance of this Contract, for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In that regard, pursuant to the California Labor Code, the Director of the Department of Industrial Relations of the State of California has determined such general prevailing rates of per diem wages. Copies of such prevailing rates of per diem wages are on file in the office of the City's Community Services Department, 227 N.

D Street, Perris, CA 92570, and are available to any interested party upon request; or may be obtained online from the Department of Industrial Relations website at <https://www.dir.ca.gov/Public-Works/Prevailing-Wage.html>. Contractor shall cause a copy of such determinations to be posted at the job site.

Contractor and any subcontractor under Contractor is subject to forfeiture of penalties to City, as provided under the provision of Section 1775 of the California Labor Code for each worker employed, for each calendar day or portion thereof, if such worker is paid less than the general prevailing rate of wages hereinbefore stipulated for any work done under this Contract, by him or by any subcontractor under him, in violation of the provisions of the California Labor Code. Penalties shall be in addition to civil penalties, restitution of wages, liquidated damages to the employee, and any other applicable penalties imposed by the Labor Commissioner pursuant to the California Labor Code, or court of law.

By entering into this Contract, Contractor certifies that neither it nor any person or firm that has an interest in Contractor's firm is a person or firm that is barred from being awarded Public Works contracts by virtue of Section 1777.1 of the California Labor Code.

Contractor and any subcontractor under him shall submit, not less than monthly to the City and to the Labor Commissioner, certified copies of the payroll records for all workmen employed in the performance of this Contract for the preceding month's pay periods, and shall comply with all statutory requirements relating to certified copies of payroll records, including the maintenance of the records, their certification, and their availability for inspection as required by Labor Code Section 1776 and the Contract Documents. Contractor and any subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement) in a format prescribed by the Labor Commissioner not less than monthly.

b. Apprenticeship Employment.

In accordance with the provisions of Section 1777.5 of the California Labor Code as amended, and in accordance with the Regulations of the California Apprenticeship Council, properly indentured apprentices may be employed in the prosecution of the Work.

Attention is directed to the provisions in Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code concerning the employment of apprentices by Contractor or any subcontractor under him.

Contractor and subcontractors under Contractor shall comply with all requirements of Sections 1777.5 and 1777.6 of the California Labor Code in the employment of apprentices.

c. Legal Hours of Work.

Eight (8) hours of labor shall constitute a legal day's work for all workers employed in the execution of this Contract, and Contractor, and any subcontractor under him, shall comply with and be governed by the laws of the State of California having to do with working hours set forth in Division 2, Part 7, Chapter 1, Article 3 of the Labor Code of the State of California as amended.

Contractor and any subcontractor under Contractor shall forfeit, as a penalty to City, twenty-five dollars (\$25) for each worker employed in the execution of this Contract, by him or any subcontractor under him, upon any of the work hereinbefore mentioned, for each calendar day during which said worker is required or permitted to labor more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of California Labor Code Section 1813, as amended.

d. Workers' Compensation.

California Labor Code Sections 1860 and 3700 provide that every employer will be required to secure the payment of compensation to its employees if it has employees. In accordance with the provisions of California Labor Code Section 1861, Contractor certifies as follows:

“I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

Contractor's Authorized Initials \_\_\_\_\_

e. Public Works Contractor Registration.

Pursuant to California Labor Code Division 2, Part 7, Chapter 1, Article 2, a contractor or subcontractor shall not be qualified to engage in the performance of any contract for public work with City, as defined in said chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5 of the same. It is not a violation of this Section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

This Contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Contractor shall cause job site notices to be posted as prescribed by regulation.

f. Contractor's Responsibility for Subcontractors.

For every subcontractor who will perform work under this Contract, Contractor shall be responsible for such subcontractor's compliance with Division 2, Part 7, Chapter 1 (commencing with Section 1720) of the California Labor Code, and shall make such compliance a requirement in any contract with any subcontractor for work under this Contract. Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure subcontractor's compliance, including without limitation, conducting a review of the certified payroll records of the subcontractor on a periodic basis or upon becoming aware of the failure of the subcontractor to pay his or her workers the specified prevailing rate of wages. Contractor shall diligently take corrective action to halt or rectify any such failure by any subcontractor.

8. DISCOVERY OF UNKNOWN CONDITIONS

- a. Pursuant to Public Contract Code Section 7104, Contractor shall promptly, and before the following conditions are disturbed, notify the City, in writing, of any: (i) material Contractor believes may be hazardous waste as defined in Section 25117 of the Health & Safety Code required to be removed to a Class I, II, or III disposal site in accordance with existing law; (ii) subsurface or latent physical conditions at the site, materially different from those indicated by information about the site made available to bidders prior to the deadline for submitting bids on the project; or (iii) unknown physical conditions at the site of any unusual nature, different from those ordinarily encountered and generally

recognized as inherent in work of the character provided for in this Contract.

- b. City shall promptly investigate the conditions, and if it finds that the conditions do materially differ, or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the work, shall issue a change order in accordance with this Contract.
- c. In the event that a dispute arises between City and Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Contractor's cost of, or time required for, performance of any part of the work, Contractor shall not be excused from any scheduled completion date set, but shall proceed with all work to be performed under the Contract. Contractor shall retain any and all rights provided either by contract or by law, which pertain to the resolution of disputes and protests between the contracting parties.

9. UNIDENTIFIED UTILITIES

To the extent required by Government Code Section 4215, City will compensate Contractor for the cost of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating utility facilities not identified by City in the Contract Documents with reasonable accuracy, and for equipment on the Project necessarily idled during such work. Nothing herein shall be deemed to require City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the project site can be inferred from the presence of other visible facilities, such as buildings, meters, and junction boxes, on or adjacent to the site of the construction; provided, however, nothing herein shall relieve City from identifying main or trunklines in the plans and specifications. If Contractor, while performing the work, discovers utility facilities not identified by City in the plans or specifications, Contractor shall immediately notify City and the utility in writing. This Contract is subject to Government Code Sections 4126 through 4216.9. Contractor must notify utilities and obtain an identification number before excavation or be subject to liability for damages to subsurface installations.

10. TRENCH EXCAVATION

Pursuant to Labor Code Section 6705, if this Contract is for more than \$25,000 and requires the excavation of any trench or trenches five feet or more in depth, Contractor shall submit, in advance of such excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. The plan shall be reviewed and accepted by the City, or a registered civil or structural engineer employed by the City to whom authority has been delegated, prior to the excavation. If the plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer. This Section shall not be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders. This Section shall not be construed to impose tort liability on the City or any of its employees. Full compensation for sheeting, shoring, bracing, sloping, and all other provisions required for worker protection shall be considered as included in the contract price shown in the appropriate Bid Item, and no additional compensation will be allowed therefor.

11. NON-DISCRIMINATION

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every Contractor

and subcontractor under Contractor for public works violating this Section is subject to all of the penalties imposed for a violation of Chapter I of the Labor Code in accordance with the provisions and of Section 1735 of said Code.

12. LICENSES, PERMITS, FEES AND ASSESSMENTS

Contractor shall obtain at its sole cost and expense such licenses, permits, registrations, and approvals as may be required by law for the performance of the services required by this Contract. Contractor shall have the sole obligation to pay for any fees, assessments and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for the Contractor's performance of the services required by this Contract, and shall indemnify, defend and hold harmless City, its officers, employees or agents of City, against any such fees, assessments, taxes, penalties or interest levied, assessed or imposed against City hereunder.

13. CONTRACTOR'S LIABILITY; INDEMNIFICATION

a. Non-Liability of City.

City, its elected and appointed officials, officers, agents and employees, shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof, or for any of the materials or other things used or employed in performing the Work, or for injury or damage to any person or persons, either worker, employees of Contractor or his subcontractors or the public, or for damage to adjoining or other property from any cause whatsoever arising out of or in connection with the performance of the Work. Contractor shall be responsible for any damage or injury to any person or property resulting from defects or obstructions or from any cause whatsoever, except the active negligence or willful misconduct of City, its employees, servants, or independent contractors who are directly responsible to City during the progress of the Work, or at any time before its completion and final acceptance.

b. Indemnification.

Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers (each, an "Indemnitee") from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with Contractor's performance of work under this Contract or its failure to comply with any of its obligations contained in this Contract, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and Contractor, or should City otherwise find Contractor's legal counsel unacceptable, then Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsels fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Contract.

Contractor obligations under this Section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty,

or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of City under any provision of this Contract, Contractor shall not be required to indemnify and hold harmless City for liability attributable to the active negligence of City, provided such active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction. In instances where City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of City.

14. SUBCONTRACTOR COMPLIANCE

Contractor shall be responsible for ensuring compliance by any subcontractor or lower tier subcontractor under it with this Contract, all State and Federal laws, codes and regulations, and Municipal Ordinances and Regulations of City.

15. THIRD PARTY CLAIM

Contractor shall notify City within 72 hours of the receipt of any third-party claim relating to this Contract.

16. CONTRACT PRICE AND PAYMENT

City shall pay Contractor for furnishing the material and doing the prescribed Work per the unit prices set forth in the Contractor's Bid. Contractor agrees to monthly progress payments as described in the Contract Documents.

No expenditure from the Construction Contingency ("**Contingency**") for any labor, equipment, materials, or any other article or service whatsoever, provided in relation to the Work shall be made without the prior written approval of City. Such expenditures and/or payments from the Contingency shall be made only pursuant to a Change Order signed by both parties. Verbal authorization to proceed with additional work shall not satisfy the requirement for a signed Change Order. No Change Orders combined shall exceed the Contract Amount plus the Contingency. The Contingency is for the sole and exclusive benefit and use of City for adjustments to the Contract Amount. The establishment of the Contingency is not to be construed as a promise, representation, or guarantee of the amount of compensable changes that may occur, which may be substantially more or less than the Contingency. Upon final completion and final payment, any portion of the Contingency that has not been expended by City for compensable changes expressly authorized by Change Order shall not be part of the total Contract Amount and shall not be payable or owed to Contractor.

a. Invoices.

Each month Contractor shall furnish to City an original invoice for all work performed and expenses incurred during the preceding month in a form approved by City's Director of Finance. By submitting an invoice for payment under this Contract, Contractor is certifying compliance with all provisions of this Contract.

All invoices shall include a copy of Contractor's Certified Payroll and proof that Certified Payroll has been submitted to the Department of Industrial Relations. Contractor shall also submit a list of the prevailing wage rates (including federal prevailing wage rates, if applicable) for all employees and subcontractors providing services under this Contract, as applicable, with Contractor's first invoice. If these rates change at any time during the term of this Contract, Contractor shall submit a new list of rates to the City with its first invoice following the effective date of the rate change.

Upon receipt and approval of an invoice by the City, City shall pay Contractor in a manner consistent with City's normal procedures for handling accounts payable, but not to exceed thirty (30) days from date received by City, unless otherwise directed by the labor compliance officer. Progress payments shall be issued upon successful completion of items listed on the Bid Schedule of Values contained in the Contract Documents, and inspection made by the City, unless otherwise directed by the Project Manager, the Project Manager's designee, or labor compliance officer. Payment to Contractor for work performed pursuant to this Contract shall not be deemed to waive any defects in work performed by Contractor.

b. Retention of Funds.

City will deduct a five percent (5%) retention from all progress payments in accordance with Public Contract Code Sections 22300 and 7201, which are hereby incorporated into this Contract. City shall permit the substitution of securities for any moneys withheld by City to ensure performance under this Contract. The retention held by the City shall be released within sixty (60) days after the date of completion of the work and the Project, as required by Public Contract Code 7107, which is hereby incorporated into this Contract. In the event of a dispute between City and Contractor, City may withhold from the final payment an amount not to exceed one hundred fifty percent (150%) of the disputed amount. The failure of City to exercise such right to deduct or to withhold shall not, however, affect the obligations of the Contractor to insure, indemnify, and protect City as elsewhere provided herein.

17. ADDITIONAL SERVICES

- a. City shall have the right at any time during the performance of the Work, without invalidating this Contract, to order extra work beyond that specified in the General Scope of Work, set forth in Section 1 of this Contract, or make changes to the Work by altering, adding to or deducting from said Work. No such extra work may be undertaken unless a written change order is first given by the Project Manager or the Project Manager's designee to the Contractor, incorporating therein any adjustment in (1) the Contract Amount, and/or (2) the time to perform this Contract, which said adjustments are subject to the written approval of the Contractor ("**Change Order(s)**"). Written Change Orders shall be made on forms prescribed by the Project Manager in accordance with the Contract Documents. Within ten (10) days after submission to the Project Manager of a Change Order that impacts the Contract Amount or the time for performance of the Work, the Contractor's representative shall provide the City's representative a written estimate of the effect of the proposed Change Order upon the Contract Amount and the actual cost of services that would be required for the change, which shall include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices and wage rates and the effect upon time for performance of the work for such Change Order. All Change Orders must be signed by the Contractor and the Project Manager (or his or her designee) prior to commencing the extra work thereunder.
- b. Any increase in compensation of up to ten percent (10%) of the Contract Amount or \$25,000, whichever is less; or any increase in the time to perform of up to one hundred eighty (120) days may be approved by the Project Manager, provided that such increase does not materially affect the Work in a detrimental manner or materially and detrimentally affect the interest of the City. Any greater increases, taken either separately or cumulatively, must be approved by the City Council.
- c. Any adjustment in the Contract Amount for a Change Order must be in accordance with the rates set forth in the Contractor's Bid and the Bid Schedule of Values. If the rates in the Contractor's Bid do not

cover the type of work or materials in the Change Order, the cost of such work or materials shall not exceed an amount agreed upon in writing and signed by Contractor and the Project Manager. Contractor is solely responsible for timely performance of the work as changed by written direction. If the cost of the Change Order cannot be agreed upon, the City will pay for actual work of the Change Order that is completed to the satisfaction of the City, as follows:

- i. Labor: The cost of labor shall be the actual cost for the wages of workers and subcontractors performing the work for the Change Order at the time such work is performed. The use of labor classifications that would increase the cost of such work shall not be permitted.
  - ii. Materials and Equipment: The cost of materials and equipment shall be at cost to Contractor or the lowest current price for which such materials and equipment are reasonably available at the time the work is performed, whichever is lower.
  - iii. Daily Reporting: Contractor must provide a daily report that includes all invoices for labor, materials and equipment costs for the work under the Change Order. The daily report must include the following: (1) list of names of workers, classifications, and hours worked; (2) description and list of quantities of materials used; (3) type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable; (4) description of other City authorized services and expenditures in such detail as the City may require. Failure to submit a daily report by the close of the next working day may, at the City's sole and absolute discretion, waive the Contractor's rights to payment for the work performed for that day.
- d. It is expressly understood by Contractor that the provisions of this Section shall not apply to services specifically set forth in the Scope of Work. Contractor hereby acknowledges that it accepts the risk that the services to be provided pursuant to the Scope of Work may be more costly or time consuming than Contractor anticipates and that Contractor shall not be entitled to additional compensation therefor. City may in its sole and absolute discretion have similar work done by other contractors. In no event shall Contractor be entitled to recover damages against the City for any delay in the performance of this Contract or the Work, while City seeks estimates from third party contractors to perform additional services.
- e. No claim for an increase in the Contract Amount or time for performance shall be valid unless the procedures established in this Section are followed.

## 18. RIGHTS, TITLE, INTEREST

Pursuant to California Public Contract Code Section 7103.5(b), in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

## 19. DEFECTIVE WORK

City's inspection of the Work and the Project shall not relieve Contractor of any obligations to fulfill this



Contract and complete the Project in accordance with the Contract Documents. Defective work and materials shall be made good. Failure of City to identify a defect, or failure of an inspector to reject any portion of the Work, is not acceptance or a waiver of poor workmanship notwithstanding payments or release of any retention in whole or in part, and shall not be construed to waive any of City's rights or remedies under this Contract.

20. TERMINATION

City may terminate this Contract in whole or in part for cause or convenience by giving ten (10) calendar days' written notice to Contractor. Where Contractor's services have been so terminated by City, said termination shall not affect any right or remedy of City against Contractor or the surety, then existing or accrued thereafter.

a. Termination for Cause

It is City's right to terminate this Contract upon Contractor's failure to comply with the provisions of this Contract, which includes, but not limited to, (1) Contractor's refusal or failure to perform the Work required under this Contract with diligence to ensure substantial completion of the Project by the Completion Date. Termination shall be effective if Contractor does not cure its failure to perform in a manner acceptable to City within ten (10) calendar days of notice of termination; (2) Contractor fails to comply with the provisions of this Contract; (3) Contractor violates any ordinance, regulation, State or Federal Law which applies to its performance under this Contract; (4) Contractor files bankruptcy or otherwise becomes insolvent; (5) Contractor makes a general assignment for the benefit of creditors; (6) a trustee or receiver is appointed for the Contractor or his property; (7) Contractor repeatedly fails to supply sufficient skilled workers or suitable materials or equipment; (8) Contractor has abandoned the Work or the Project, and/or; (9) Contractor disregards proper directives of the architect, inspector, or Project Manager under the Contract Documents. It will be at City's sole discretion to allow Contractor to remedy each cause for the termination without waiving City's right to terminate this Contract or restricting any other right or remedy under this Contract or law.

In the event that this Contract is terminated for cause, City may take over the Work and may exclude Contractor from the Project site. In exercising the right to complete the Project, City, at its sole discretion, may pursue such completion in a manner that is cost effective, timely, and beneficial to City, including but not limited to demanding that the Surety take over and complete the Work. City may demand that the Surety not utilize Contractor in said performance of completing the Work. Upon failure of the Surety to begin completion of the Work, within fifteen (15) calendar days after demand thereof, City may take over the Work and pursue its completion.

Contractor and the Surety shall be liable for damages sustained by City from the termination of this Contract under this clause, including, without limitation all cost necessary for repair and completion of the work.

City shall have the right to withhold monies otherwise payable to Contractor until the Project is complete. If City incurs additional costs, expenses, or other damages due to the failure of Contractor to perform the Work pursuant to this Contract, said expenditures shall be deducted from the amounts withheld. Should there be a balance of monies held after all expenses have been paid, the balance will be paid to Contractor upon completion of the Project.

b. Termination for Convenience

City may terminate this Contract at any time for environmental considerations, its convenience, or when it is in the best interest of City.

Upon such termination, payment to Contractor shall be the actual cost of the Work completed, suitable storage and protection of materials and equipment delivered to the Project site, but not yet incorporated into the Work, and other costs actually incurred as permitted by this Contract and approved by City up to the effective date of termination. Ten percent (10%) of the actual cost of Work completed shall be allowed for overhead and profit providing that such payments do not exceed the total Contract Amount. The amount of any payments made to Contractor prior to the effective termination date shall be deducted from the actual costs of completed Work. Contractor shall not be entitled to any claim or lien against City for any additional compensation or damages in the event of termination of this Contract.

c. Discontinuation of Work

Upon receipt of the termination notice, Contractor shall immediately discontinue the Work and placement of orders for materials, facilities and supplies in connection with the performance of this Contract, unless otherwise directed in the notice. Contractor shall promptly deliver to City all completed work, including plans, as-builts, forms, reports, and products. Any dispute regarding the amount owed to Contractor shall not diminish the right of City to receive and use such documents or materials.

21. DISPUTE RESOLUTION PROCESS

Section 20104 et seq. of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial-supervised mediation, and judicial arbitration to resolve disputes on construction claims of \$375,000 or less. Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Section is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Section shall be construed to be consistent with said statutes.

For purposes of these procedures, "claim" means a separate demand by the Contractor, after the City has denied Contractor's timely and duly made request for payment for extra work and/or a time extension, for (A) a time extension, (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the Contractor is not otherwise entitled to, or (C) an amount the payment of which is disputed by the City.

The following requirements apply to all claims to which this Section applies:

- a. Claim Submittal. The claim shall be in writing and include the documents necessary to substantiate the claim. Claims governed by this procedure must be filed on or before the date of final payment. Nothing in this Section is intended to extend the time limit or supersede notice requirements otherwise provided in the Contract for the filing of claims, including all requirements pertaining to compensation or payment for extra work, disputed work, and/or changed conditions. Failure to follow such contractual requirements shall bar any claims or subsequent lawsuits for compensation or payment thereon.
- b. Supporting Documentation. The Contractor shall submit all claims in the following format:
  - i. Summary of the claim, including references to the specific Contract Document provisions upon which the claim is based.
  - ii. List of documents relating to claim: (a) Specifications, (b) Drawings, (c) Clarifications (Requests for Information), (d) Schedules, and (e) Other.

- iii. Chronology of events and correspondence related to the claim.
  - iv. Statement of grounds for the claim.
  - v. Analysis of the claim's cost, if any.
  - vi. Analysis of the claim's time/schedule impact, if any.
- c. City's Response. Upon receipt of a claim pursuant to this Section, City shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the claim will be processed and made within 60 days after the City issues its written statement.
- i. If the City needs approval from the City Council to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the claim, and the City Council does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the City shall have up to three days following the next duly publicly noticed meeting of the City Council after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.
  - ii. Within 30 days of receipt of a claim, the City may request in writing additional documentation supporting the claim or relating to defenses or claims the City may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual Contract of City and the Contractor.
  - iii. The City's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days (if the claim is less than \$50,000, within 15 days) after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.
- d. Meet and Confer. If the Contractor disputes the City's written response, or the City fails to respond within the time prescribed, the Contractor may so notify the City, in writing, either within 15 days of receipt of the City's response or within 15 days of the City's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand, the City shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- e. Mediation. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the City shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the City issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The City and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing, unless the parties agree to select a mediator at a later time.
- i. If the parties cannot agree upon a mediator, each party shall select a mediator and those

mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

- ii. For purposes of this Section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this Section.
  - iii. Unless otherwise agreed to by the City and the contractor in writing, the mediation conducted pursuant to this Section shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has been commenced.
  - iv. All unresolved claims shall be considered jointly in a single mediation, unless a new unrelated claim arises after mediation is completed.
- f. City's Responses. The City's failure to respond to a claim from the Contractor within the time periods described in this Section or to otherwise meet the time requirements of this Section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the City's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this Section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility of qualifications of the Contractor. City's failure to respond shall not waive City's rights to any subsequent procedures for the resolution of disputed claims.
- g. Government Code Claims. If following the mediation, the claim or any portion remains in dispute, the Contractor must comply with the claim procedures set forth in Government Code Section 900 et seq. prior to filing any lawsuit against the City. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, construction claims, and/or changed conditions, including any required mediation, have been followed by Contractor. If no such Government Code claim is submitted, or if the prerequisite contractual requirements are not satisfied, no action against the City may be filed. A Government Code claim must be filed no earlier than the date that Contractor completes all contractual prerequisites to filing a Government Code claim, including any required mediation. A Government Code claim shall be inclusive of all unresolved claims unless a new unrelated claim arises after the Government Code claim is submitted. For purposes of Government Code Section 900 et seq., the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits his or her written claim to the City until the time the claim is denied, including any period of time utilized by the meet and confer conference or mediation that does not result in a complete resolutions of all claims.
- h. Civil Actions for Claims of \$375,000 or Less. The following procedures are established for all civil actions filed to resolve claims totaling \$375,000 or less:
- i. Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties or unless mediation was held prior to commencement of the action in accordance with Public Contract Code Section 9204 and the procedures in this Section. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded

within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, either party may petition the court to appoint the mediator.

- ii. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.
- iii. Upon stipulation of the parties, arbitrators appointed for these purposes shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division.
- iv. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

22. NOTICES

Any notice, demand, request, document, consent, approval, or communication either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by prepaid, first-class mail, in the case of the City, to the City Manager and to the attention of the Project Manager (with her/his name and City title), City of Perris, 101 N. D Street, Perris, CA 92570 and in the case of the Contractor, to the person(s) at the address designated on the execution page of this Contract. Either party may change its address by notifying the other party of the change of address in writing. Notice shall be deemed communicated at the time personally delivered or in seventy-two (72) hours from the time of mailing if mailed as provided in this Section.

23. ATTORNEYS' FEES

In the event that any action or proceeding is brought by either party to enforce any term or provision of this Contract, the prevailing party shall recover its reasonable attorney's fees and costs incurred with respect thereto.

24. VENUE; CALIFORNIA LAW

Legal actions concerning any dispute, claim or matter arising out of or in relation to this Contract shall be instituted in the Superior Court of the County of Riverside, State of California, or any other appropriate court in such county, and Contractor agrees to submit to the personal jurisdiction of such court in the event of such action. This Contract shall be interpreted, construed and governed both as to validity and to performance of the parties in accordance with the laws of the State of California.

25. WAIVER

Waiver by any party to this Contract of any term, condition, or covenant of this Contract shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Contract shall not constitute a waiver of any other provision or a waiver of any subsequent breach or violation of any provision of this Contract. Acceptance by City of any work or services by Contractor shall not constitute a waiver of any of the provisions of this Contract. No delay or omission in the exercise of any right or remedy by a non-defaulting party on any default shall impair such right or remedy or be construed as a waiver. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Contract.

26. RIGHTS AND REMEDIES ARE CUMULATIVE

Except with respect to rights and remedies expressly declared to be exclusive in this Contract, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

27. UNFAIR BUSINESS PRACTICES CLAIMS

Pursuant to Public Contract Code Section 7103.5, in entering into this Contract, Contractor offers and agrees to assign to the City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2, (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials related to this Contract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor without further acknowledgment by the Parties.

28. UNAUTHORIZED ALIENS

Contractor hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C. § 1101 et seq., as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Contractor so employ such unauthorized aliens for the performance of work and/or services covered by this Contract, and should any liability or sanctions be imposed against City for such use of unauthorized aliens, Contractor hereby agrees to and shall reimburse City for the cost of all such liabilities or sanctions imposed, together with any and all costs, including attorneys' fees, incurred by City.

29. ACCOUNTS, RECORDS, REPORTS, AND RELEASE OF INFORMATION

a. Records.

Contractor shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to this Contract and such other records as may be deemed necessary by the City to assure proper accounting for all project funds, both federal and non-federal shares. These records will be made available for audit purposes to the City or any authorized representative and will be retained for three (3) years after the expiration of this Contract, unless permission to destroy them is granted by the City. In the event of dissolution of Contractor's business, custody of the books and records may be given to City, and access shall be provided by Contractor's successor in interest. Notwithstanding the above, the Contractor shall fully cooperate with the City in providing access to the books and records if a public records request is made and disclosure is required by law including but not limited to the California Public Records Act.

b. Ownership of Documents.

All drawings, specifications, maps, designs, photographs, studies, surveys, data, notes, computer files, reports, records, documents and other materials (the "documents and materials") prepared by Contractor, its employees, subcontractors and agents in the performance of this Contract shall be the property of City and shall be delivered to City upon request of the Project Manager or upon the termination of this Contract, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by City of its full rights of ownership use, reuse, or assignment of the documents and materials hereunder. Any use, reuse or assignment of such completed documents for other projects and/or use of uncompleted documents without specific written authorization by the Contractor will be at the City's sole risk and without liability to Contractor, and Contractor's guarantee and warranties shall not extend to such use, reuse or assignment. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein. All subcontractors shall provide for assignment to City of any documents or materials prepared by them, and in the event Contractor fails to secure such assignment, Contractor shall indemnify City for all damages resulting therefrom. Moreover, Contractor with respect to any documents and materials that may qualify as "works made for hire" as defined in 17 U.S.C. § 101, such documents and materials are hereby deemed "works made for hire" for the City.

c. Reports.

Contractor shall periodically prepare and submit to the Project Manager such reports concerning the performance of the services required by this Contract as the Project Manager shall require. Contractor hereby acknowledges that the City is greatly concerned about the cost of work and services to be performed pursuant to this Contract. For this reason, Contractor agrees that if Contractor becomes aware of any facts, circumstances, techniques, or events that may or will materially increase or decrease the cost of the work or services contemplated herein, Contractor shall promptly notify the Project Manager of said fact, circumstance, technique or event and the estimated increased or decreased cost related thereto.

d. Confidentiality and Release of Information.

- i. Information gained or work product produced by Contractor in performance of this Contract shall be considered confidential, unless such information is in the public domain or already known to Contractor. Contractor shall not release or disclose any such information or work product to persons or entities other than City without prior written authorization from the Project Manager.
- ii. Contractor, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the Project Manager or unless requested by the City Attorney, voluntarily provide documents, declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the work performed under this Contract. Response to a subpoena or court order shall not be considered "voluntary" provided Contractor gives City notice of such court order or subpoena.
- iii. If Contractor, or any officer, employee, agent or subcontractor of Contractor, provides any information or work product in violation of this Contract, then City shall have the right to reimbursement and indemnity from Contractor for any damages, costs and fees, including attorneys' fees, caused by or incurred as a result of Contractor's conduct.

- iv. Contractor shall promptly notify City should Contractor, its officers, employees, agents or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Contract and the work performed there under. City retains the right, but has no obligation, to represent Contractor or be present at any deposition, hearing or similar proceeding. Contractor agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Contractor. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite said response.

30. NON-LIABILITY OF CITY OFFICERS AND EMPLOYEES

No elected or appointed official, officer, agent or employee of the City shall be personally liable to the Contractor, or any successor in interest, in the event of any default or breach by the City or for any amount which may become due to the Contractor or to its successor, or for breach of any obligation of the terms of this Contract.

31. INTERPRETATION

The terms of this Contract shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Contract or any other rule of construction which might otherwise apply.

32. COUNTERPARTS

This Contract may be executed in counterparts, each of which shall be deemed to be an original, and such counterparts shall constitute one and the same instrument.

33. INTEGRATION; AMENDMENT

This Contract including the attachments hereto is the entire, complete and exclusive expression of the understanding of the parties. It is understood that there are no oral Contracts between the parties hereto affecting this Contract and this Contract supersedes and cancels any and all previous negotiations, arrangements, Contracts and understandings, if any, between the parties, and none shall be used to interpret this Contract. No amendment to or modification of this Contract shall be valid unless made in writing and approved by the Contractor and by the City Council. The parties agree that this requirement for written modifications cannot be waived and that any attempted waiver shall be void.

34. SEVERABILITY

In the event that any one or more of the phrases, sentences, clauses, paragraphs, or Sections contained in this Contract shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or Sections of this Contract which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder unless the invalid provision is so material that its invalidity deprives either party of the basic benefit of their bargain or renders this Contract meaningless.

35. CONFLICT OF INTEREST

Contractor covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest,



directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Contractor's performance of work under this Contract. Contractor further covenants that in the performance of this Contract, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor without the express written consent of the Project Manager. Contractor agrees to at all times avoid conflicts of interest or the appearance of any conflicts of interest with the interests of City in the performance of this Contract.

No officer or employee of the City shall have any financial interest, direct or indirect, in this Contract nor shall any such officer or employee participate in any decision relating to the Contract which affects his or her financial interest or the financial interest of any corporation, partnership or association in which he or she is, directly or indirectly, interested, in violation of any State statute or regulation. The Contractor warrants that it has not paid or given and will not pay or give any third party any money or other consideration for obtaining this Contract.

36. WARRANTY & REPRESENTATION OF NON-COLLUSION

No elected or appointed official, officer, agent or employee of City has any financial interest, direct or indirect, in this Contract, nor shall any official, officer, or employee of City participate in any decision relating to this Contract which may affect his/her financial interest or the financial interest of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any State or municipal statute or regulation. The determination of "financial interest" shall be consistent with State law and shall not include interests found to be "remote" or "noninterests" pursuant to Government Code Sections 1091 or 1091.5. Contractor warrants and represents that it has not paid or given, and will not pay or give, to any third party including, but not limited to, any City elected or appointed official, officer, or employee, any money, consideration, or other thing of value as a result or consequence of obtaining or being awarded any Contract. Contractor further warrants and represents that (s)he/it has not engaged in any act(s), omission(s), or other conduct or collusion that would result in the payment of any money, consideration, or other thing of value to any third party including, but not limited to, any City official, officer, or employee, as a result of consequence of obtaining or being awarded any Contract. Contractor is aware of and understands that any such act(s), omission(s) or other conduct resulting in such payment of money, consideration, or other thing of value will render this Contract void and of no force or effect.

37. AUTHORITY TO EXECUTE

The persons executing this Contract on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Contract on behalf of said party, (iii) by so executing this Contract, such party is formally bound to the provisions of this Contract, and (iv) the entering into this Contract does not violate any provision of any other Contract to which said party is bound.

**IN WITNESS WHEREOF**, the parties hereto have caused this Contract to be duly executed with all the formalities required by law on the respective dates set forth opposite their signatures.

[SIGNATURES ON FOLLOWING PAGE]

**CITY OF PERRIS,**  
**a California municipal corporation**

BY:

ATTEST:

\_\_\_\_\_  
Clara Miramontes, City Manager

\_\_\_\_\_  
Nancy Salazar, City Clerk

DATE:

\_\_\_\_\_  
APPROVED AS TO FORM:  
ALESHIRE & WYNDER, LLP

\_\_\_\_\_  
Robert Khuu, City Attorney

[SIGNATURES CONTINUE ON NEXT PAGE]

**CONTRACTOR**

CONTRACTOR NAME:

CONTRACTOR'S ADDRESS:

STATE OF CALIFORNIA  
CONTRACTOR'S LICENSE NUMBER:

CONTRACTOR'S LICENSE  
EXPIRATION DATE:

CONTRACTOR'S BUSINESS  
TELEPHONE NUMBER:

EMERGENCY TELEPHONE NUMBER:

BY:

BY:

NAME:

NAME:

TITLE:

TITLE:

DATE:

DATE:

**\*Two corporate officer signatures required when Contractor is a corporation, with one signature required from each of the following groups: 1) Chairman of the Board, President or any Vice President; and 2) Secretary, any Assistant Secretary, Chief Financial Officer or any Assistant Treasurer. CONTRACTOR'S SIGNATURES SHALL BE DULY NOTARIZED, AND APPROPRIATE ATTESTATIONS SHALL BE INCLUDED AS MAY BE REQUIRED BY THE BYLAWS, ARTICLES OF INCORPORATION, OR OTHER RULES OR REGULATIONS APPLICABLE TO CONTRACTOR'S BUSINESS ENTITY.**

[END SIGNATURES]

**CERTIFICATE OF CONTRACTOR**

I, \_\_\_\_\_, certify that I am a/the

\_\_\_\_\_ (designate sole proprietor, partner in partnership, or specify corporate office, e.g., secretary) in the entity named as CONTRACTOR in the foregoing contract.

I hereby expressly certify that the name of the entity to which I am

associated is \_\_\_\_\_; that this entity is in good standing and has complied with all applicable laws and regulations, and that I have been expressly authorized by the proper parties in this entity to execute this Contract on behalf of the above named entity.

**SIGNATURE OF CONTRACTOR:** \_\_\_\_\_

\_\_\_\_\_  
**Contractor's California License No.**

\_\_\_\_\_  
**Name of License Holder**

\_\_\_\_\_  
**Type of License**

\_\_\_\_\_  
**Expiration Date**

**(CORPORATE SEAL)**

**ATTEST:**

\_\_\_\_\_

**PAYMENT BOND**  
**(CALIFORNIA PUBLIC WORK)**

**KNOW ALL MEN BY THESE PRESENTS:**

**THAT WHEREAS, CITY OF PERRIS (referred to hereinafter as "obligee") has awarded to \_\_\_\_\_ (hereinafter designated as the "Contractor") an agreement dated \_\_\_\_\_, for work described as follows:**

**It/ Economic Development Office Improvements CIP #F-070 (hereinafter referred to as the "Public Work Contract"); and**

**WHEREAS said Contractor is required to furnish a bond in connection with said Public Works Contract, providing that if said Contractor, or any of his or its Subcontractors, shall fail to pay for any materials, provisions, provender or other supplies or teams used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code, or for any amounts required to be deducted, withheld, and paid over to the Contractor and his Subcontractors pursuant to Section 18806 of the Revenue and Taxation Code with respect to such work or labor, that the Surety on this bond will pay the same together with a reasonable attorney's fee (to be fixed by the court) in case suit is brought on the bond;**

**NOW, THEREFORE, we, \_\_\_\_\_, the undersigned Contractor, as Principal, and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the \_\_\_\_\_ and to any and all material, men, persons, companies or corporations furnishing materials, provisions, provender or other supplies used in, upon, for or about the performance of the said Public Work, and all persons, companies, or corporations renting or hiring teams, or implements or machinery, for or contributing to said Public Work to be done, and all persons performing work or labor upon the same and all persons supplying both work and materials as aforesaid, excepting the said Contractor, in the sum of \_\_\_\_\_ (words) Dollars (\$ \_\_\_\_\_), said sum being not less than 100 percent of the total amount payable by the said Oblige under the terms of the said Public Work Contract, for which payment will and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.**

**THE CONDITION OF THIS OBLIGATION IS SUCH that, if said Contractor, his or its heirs, executors, administrators, successors or assigns, or Subcontractors, shall fail to pay for any materials, provisions, implements or machinery used in, upon, for or about the performance of the Public Work contracted to be done, or to pay for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of said employees of said Contractor and his Subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor as required by the provisions of Section 3247 through 3252 of the Civil Code, the Surety or Sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety or Sureties will pay a reasonable attorney fee to be fixed by the Court. In addition to the provisions herein above, it is agreed that this bond will insure to the benefit of any and all persons, companies, and corporations entitled to serve stop notices under Section 3181 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.**

**The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or additions to the terms of the said Public work Contract or to the work to be performed hereunder or the Specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.**

**No final settlement between the Oblige and the Contractor hereunder shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.**

**Principal and Surety agree that if the Agency is required to engage the services of an attorney in connection with the enforcement of this bond, the Principal and Surety shall be jointly and severally liable for all of the Agency's costs and reasonable attorney fees, whether or not litigation or arbitration is actually commenced to enforce the bond.**

**Principal and Surety agree that after completion and acceptance of the work by Agency, 10% value of the bond shall remain in effect for a 12 month period to warranty the work.**

IN WITNESS WHEREOF, we have hereunto set our hands and seals this

\_\_\_\_\_ Day of \_\_\_\_\_, 20\_\_\_\_.

PRINCIPAL:

\_\_\_\_\_

By \_\_\_\_\_

SURETY:

\_\_\_\_\_

By \_\_\_\_\_

Attorney-in-Fact

**IMPORTANT:** Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

Any claims under this bond may be addressed to:

(Name and Address of Surety)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Name and Address of Agent or Representative for service of process in California, if different from above)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Telephone Number of Surety and Agent or Representative for service of process in California)

\_\_\_\_\_

**THIS IS A REQUIRED FORM**

**ACKNOWLEDGMENT**

**A notary public or other officer  
completing this certificate  
verifies only the identity of the**

**State of California  
County of \_\_\_\_\_)**

**On \_\_\_\_\_ before me,  
\_\_\_\_\_ (insert name and title of the office**

**personally appeared**

**\_\_\_\_\_,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose  
name(s) is/are subscribed to the within instrument and acknowledged to me that  
he/she/they executed the same in his/her/their authorized capacity (ies), and that by  
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf  
of which the person(s) acted, executed the instrument.**

**I certify under PENALTY OF PERJURY under the laws of the State of California that  
the foregoing paragraph is true and correct.**

**WITNESS my hand and official seal.**

**Signature \_\_\_\_\_(Seal)**

**THIS IS A REQUIRED FORM**



**CERTIFICATE OF CONTRACTOR**

I, \_\_\_\_\_, certify that I am a/the

\_\_\_\_\_ (specify either partner or specific corporate office) of the Contractor names as Principal on the above-referenced bond. I further certify that the Principal is an entity in good standing having complied with all applicable laws and regulations and that I have been given the express power on behalf of the Principal to execute this bond.

NAME OF ENTITY:

\_\_\_\_\_

TITLE OF SIGNING PARTY:

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_

California License No.

(CORPORATE SEAL)

\_\_\_\_\_

Name of License Holder

\_\_\_\_\_

Type of License

\_\_\_\_\_

Expiration Date

**THIS IS A REQUIRED FORM**

**CONTRACT PERFORMANCE BOND**

**(CALIFORNIA PUBLIC WORKS)**

**KNOW ALL MEN BY THESE PRESENTS:**

**THAT WHEREAS, THE CITY OF PERRIS, (sometimes referred to hereinafter as "Oblige" has awarded to \_\_\_\_\_ (hereinafter designated as the "Contractor"), a contract for the work described as follows:**

**It/Economic Development Office Improvements CIP#F-70, (hereinafter referred to as the "Public Work Contract"); and**

**WHEREAS, the work to be performed by the Contractor is more particularly set forth in that certain contract for the said Public Work dated \_\_\_\_\_, (hereinafter referred to as the "Public Work Contract"), which Public Work Contract is incorporated herein by this reference; and**

**WHEREAS, The Contractor is required by said Public Work Contract to perform the terms thereof and to provide a bond both for the performance and guaranty thereof:**

**NOW, THEREFORE, we, \_\_\_\_\_, the undersigned Contractor, as Principal, and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the \_\_\_\_\_ in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), said sum being not less than 100 percent of the total amount payable by the said Oblige under the terms of the said Public Work Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.**

**THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the bounden Principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Public Work Contract and any alteration thereof made as therein provided, on his or its part, to be kept and performed at the time in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill the guarantee of all materials and workmanship; and indemnify and save harmless the Oblige, its officers and agents, as stipulated in said Public Work Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. In case suit is brought upon this bond, the said Surety will pay to Oblige a reasonable attorney's fee to be fixed by the Court.**

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Public Work Contract or to the work to be performed hereunder or the Specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

No final settlement between the Oblige and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Principal and Surety agree that if the Agency is required to engage the services of an attorney in connection with the enforcement of this bond, the Principal and Surety shall be jointly and severally liable for all of the Agency's costs and reasonable attorney fees, whether or not litigation or arbitration is actually commenced to enforce the bond.

Principal and Surety agree that after completion and acceptance of the work by Agency, 10% value of the bond shall remain in effect for a 12 month period to warranty the work.

IN WITNESS WHEREOF, this document has been executed this \_\_\_ day of \_\_\_\_\_, 20\_.

**PRINCIPAL:**

\_\_\_\_\_

By:

\_\_\_\_\_

**SURETY:**

\_\_\_\_\_

BY:

\_\_\_\_\_

Attorney-in-Fact

The rate of premium on this bond is \_\_\_\_\_ per thousand.

The total amount of premium charged: \$ \_\_\_\_\_. (The above must be filled in by corporate surety.)

**IMPORTANT:**

Surety companies executing Bonds must appear on the Treasury Departments most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

**THIS IS A REQUIRED FORM**

Any claims under this bond may be addressed to:

(Name and Address of Surety)

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---

(Name and Address of Agent  
or Representative for service  
of process in California  
if different from above)

---

---

---

(Telephone Number of Surety  
and Agent or Representative  
for service of process in  
California)

---

**THIS IS A REQUIRED FORM**

**ACKNOWLEDGMENT**

**A notary public or other officer completing this certificate verifies only the identity of the individual**

**State of California**  
**County of \_\_\_\_\_)**

**On \_\_\_\_\_ before me,**  
\_\_\_\_\_

**(insert name and title of the officer)**

**personally appeared**  
\_\_\_\_\_

**who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.**

**I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.**

**WITNESS my hand and official seal.**

**Signature \_\_\_\_\_(Seal)**

**THIS IS A REQUIRED FORM**

**CONTRACT PERFORMANCE BONDS**  
**CERTIFICATE OF CONTRACTOR**

I, \_\_\_\_\_, certify that I am a/the \_\_\_\_\_(specify either partner or specific corporate office) of the Contractor names as Principal on the above-referenced bond. I further certify that the Principal is an entity in good standing having complied with all applicable laws and regulations and that I have been given the express power on behalf of the Principal to execute this bond.

NAME OF ENTITY: \_\_\_\_\_

NAME AND TITLE OF SIGNING PARTY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

\_\_\_\_\_  
Contractor's California License No.

\_\_\_\_\_  
Name of License Holder

\_\_\_\_\_  
Type of License

\_\_\_\_\_  
Expiration Date

(CORPORATE SEAL)

ATTEST:

\_\_\_\_\_

**THIS IS A REQUIRED FORM**

## **CERTIFICATION OF INSURANCE AND ENDORSEMENTS**

The Contractor shall not commence any work under the Contract Documents until he obtains, at his own expense, all required insurance. The required insurance shall be provided by the Contractor in conformance with the requirements of Sections 6 and 7 of the General Provisions of these Contract Documents:

The insurance company or companies utilized by the Contractor shall be authorized to transact business in the State of California and to issue policies in the amounts required in said Sections 6 and 7 of the General Provisions of these Contract Documents.

No substitutions or revisions to the certificates and endorsements which follow will be accepted. If the insurance called for is provided by more than one company, a separate certificate, using the format presented, shall be provided for each company.

Contractor shall include the City of Perris, County of Riverside, their elected and appointed officials, employees, agents, Agency, Consultants as additional insured under Contractor's General Liability Policy.

ADDITIONAL INSURED AND WAIVER OF SUBROGATION- The Certificate of Insurance supplied to the City of Perris shall name the City of Perris, its officers, employees, agents, consultants, and independent contractors as additional insured and shall specify that the City of Perris be given thirty (30) days prior written notice of any modification, decrease or termination of the Contractor's Insurance coverage. The insurer shall waive all rights of subrogation and contribution it may have against the City, its officers, employees and agents and their respective insurers. Such insurance shall be subject to approval by the City Attorney.

**CERTIFICATE OF INSURANCE**

**AGENCY:                   CITY OF PERRIS**

**DESCRIPTION: \_\_\_\_\_**

**TYPE OF INSURANCE:   WORKERS' COMPENSATION INSURANCE**

**THIS IS TO CERTIFY that the policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Agency's Contract Documents, and that said policies are now in force.**

**Said company will give at least 30 days advance written notice by registered mail to the agency and Engineer prior to any material change or cancellation of said policies.**

**Nothing contained in this Certificate of Insurance shall be construed as an amendment to an existing insurance coverage.**

<b><u>Policy Number</u></b>	<b><u>Effective Date</u></b>	<b><u>Expiration Date</u></b>
-----------------------------	------------------------------	-------------------------------

**The insurance provided by said policies complies in all respects as to coverage and limits of liability with the requirements of the Workers' Compensation Insurance Laws of the State of California.**



**EFFECTIVE:** \_\_\_\_\_

_____ <b>Named Insured</b>	_____ <b>Insurance Company</b>
_____ <b>Street Number</b>	_____ <b>Street Number</b>
_____ <b>City and State</b>	_____ <b>City and State</b>

**Insurance Company Agent for  
Service of process in California**

\_\_\_\_\_  
**(Authorized Representative)  
(Attach Acknowledgement)**

_____ <b>(Name)</b>	_____ <b>(Company)</b>
_____ <b>(Street Number)</b>	_____ <b>(Street Number)</b>
_____ <b>(City)</b>	_____ <b>(City and State)</b>
_____ <b>(Telephone Number)</b>	_____ <b>(Telephone Number)</b>

**NOTICE: Substitution or revision to this certificate will be accepted. If the insurance called for is provided by more than one company, a separate certificate, using this format, shall be provided for each company.**

**ACKNOWLEDGMENT**

**A notary public or other officer completing this certificate verifies only the identity of the individual who signed the**

**State of California**  
**County of \_\_\_\_\_)**

**On \_\_\_\_\_ before me,**  
\_\_\_\_\_  
**(insert name and title of the officer)**

**personally appeared**  
\_\_\_\_\_

**who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.**

**I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.**

**WITNESS my hand and official seal.**

**Signature \_\_\_\_\_(Seal)**

**THIS IS A REQUIRED FORM**



**ENDORSEMENT:**

The Agency, the Owner's Representative, the County of Riverside, and Perris Engineering Department consultants, and each of their officers, agents, and employees are included as additional insureds under these policies but only while acting in their capacity as such and only as respects operations of the original named insured, his subcontractors, agents, and employees in the performance of the above-referenced contract.

This endorsement shall not operate to increase the Company's total limits of liability under the above-listed policies.

The insurance company hereby waives its rights of subrogation against the additional insureds.

EFFECTIVE: \_\_\_\_\_

\_\_\_\_\_  
Named Insured

\_\_\_\_\_  
Insurance Company

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
City and State

\_\_\_\_\_  
City and State

Insurance Company agent for  
service of process in California

By \_\_\_\_\_  
(Authorized Representative)  
(Attach Acknowledgment)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Company)

\_\_\_\_\_  
(Street Number)

\_\_\_\_\_  
(Street Number)

\_\_\_\_\_  
(Telephone Number)

\_\_\_\_\_  
(Telephone Number)

NOTICE: No substitution or revision to this certificate will be accepted. If the insurance called for is provided by more than one company, a separate certificate, using this format, shall be provided for each company.

**ACKNOWLEDGMENT**

A notary public or other officer completing this certificate verifies only the identity of the individual who

State of California  
County of \_\_\_\_\_)

On \_\_\_\_\_ before me,  
\_\_\_\_\_  
(insert name and title of the officer)

personally appeared  
\_\_\_\_\_

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_(Seal)

**THIS IS A REQUIRED FORM**

**NOTICE TO PROCEED**

**TO:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Project Description:** \_\_\_\_\_.

You are hereby notified to commence Work in accordance with the Contract dated \_\_\_\_\_, on or before \_\_\_\_\_, and you are to complete all work on or before \_\_\_\_\_ calendar days.

You are required to return an acknowledged copy of this Notice to Proceed to the Agency.

Dated this \_\_\_\_\_ day of \_\_\_\_\_.

City of Perris  
Agency

By: \_\_\_\_\_  
John Pourkazemi

City Engineer  
Title

**ACCEPTANCE OF NOTICE**

Receipt of the Notice to Proceed is hereby acknowledged by  
\_\_\_\_\_ , this the \_\_\_\_\_ day of

\_\_\_\_\_, 20\_\_\_\_.

By \_\_\_\_\_  
Contractor

Title \_\_\_\_\_

\_\_\_\_\_  
Contractor's California License No.

\_\_\_\_\_  
Name of License Holder

\_\_\_\_\_  
Type of License

\_\_\_\_\_  
Expiration Date

**STATE OF CALIFORNIA - DEPARTMENT OF INDUSTRIAL RELATIONS  
DIVISION OF APPRENTICESHIP STANDARDS**

TO: California Department of Industrial Relations  
Division of Apprenticeship Standards  
P.O. Box 420603  
San Francisco California 94142

FROM: AWARDING AGENCY

**EXTRACT OF  
PUBLIC WORKS CONTRACT AWARD**

**A CONTRACT TO PERFORM PUBLIC WORKS UNDER LABOR CODE SECTION 1777.5 HAS BEEN AWARDED TO:**

2. NAME OF GENERAL CONTRACTOR		3. CONTRACTOR'S LICENSE NO	
4. MAIL ADDRESS (STREET NUMBER OR P.O. BOX)		5. CITY	
		6. ZIP CODE	7. TELEPHONE NUMBER
8. ADDRESS OR LOCATION OF PUBLIC WORKS SITE ( INCLUDE CITY AND/OR COUNTY)			
9. CONTRACT OR PROJECT NUMBER		10. DOLLAR AMOUNT OF CONTRACT AWARD \$	
11. STARTING DATE (ESTIMATED OR ACTUAL) MONTH    DAY    YEAR /        /        (USE NUMBERS)		12. COMPLETION DATE (ESTIMATED OR ACTUAL) MONTH    DAY    YEAR /        /        (USE NUMBERS)	
13. TYPE OF CONSTRUCTION (HIGHWAY, SCHOOL, HOSPITAL, ETC.)		14. <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> ALTERATIONS	
15. CLASSIFICATION OR TYPE OF WORKER (CARPENTER, PLUMBER, ETC.) THAT WILL BE EMPLOYED BY THE CONTRACTOR(S)			
16. Is language included in the Contract Award to effectuate the provision of section 1777.5, as required by the Labor Code? ..... <input type="checkbox"/> Yes <input type="checkbox"/> No Is language included in the Contract Award to effectuate the provisions of Section 1776, as required by the Labor Code? ..... <input type="checkbox"/> Yes <input type="checkbox"/> No			
17. SIGNATURE		18. TITLE	19. DATE
20. PRINTED OR TYPED NAME		21. TELEPHONE NUMBERS	

Duplication of this form is permissible

DAS 13 (rev. 5/01)





CITY OF PERRIS

**CHANGE ORDER**

Order No. \_\_\_\_\_

Date \_\_\_\_\_

Contract Date \_\_\_\_\_

Project: It/Economic Development Office Improvements CIP# F-070

This Change Order # \_\_\_\_\_ changes the Agreement between the City of Perris and \_\_\_\_\_, for the It/Economic Development Office Improvements

CIP#F-070, please read it carefully. **JUSTIFICATION:**

\_\_\_\_\_  
\_\_\_\_\_

**CHANGE TO CONTRACT PRICE:**

Original Contract Price \$ \_\_\_\_\_

Current Contract Price (Adjusted by Previous Change Order(s)): \$ \_\_\_\_\_

Contract Price due to this Change Order will be increased: \$ \_\_\_\_\_

New Contract Price including this Change Order: \$ \_\_\_\_\_

**CHANGE TO CONTRACT TIME**

**Contract Time will be increased:**

*As per Paragraph 5.1 "Time For Completion and Liquidated Damages," of the original Agreement, and a total of \_\_\_\_\_ ( ) additional calendar days, from the completion date specified on the original Notice To Proceed. The new completion date is \_\_\_\_\_.*

**Date for completion of all work:**

\_\_\_\_\_  
**(Date)**

**APPROVALS REQUIRED**

*To be effective, this change order must be approved by the City of Perris and \_\_\_\_\_.*

**CITY OF PERRIS:**

Approved by: \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_:

Approved by: \_\_\_\_\_ Date \_\_\_\_\_  
**Contractor**

End of Change Order# \_\_\_\_\_  
Nothing Follow

**CERTIFICATE OF SUBSTANTIAL COMPLETION**

PROJECT: **It/Economic Development Office Improvements CIP# F-070**

---

CONTRACTOR .....

CONTRACT DATE .....

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To: City of Perris  
(OWNER)

And To: \_\_\_\_\_  
(CONTRACTOR)

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER and CONTRACTOR and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

.....  
Date of Substantial Completion

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within days of the above dated of Substantial Completion.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance, and warranties shall be as follows:

OWNER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The following documents are attached to and made a part of this Certificate:

\_\_\_\_\_

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

\_\_\_\_\_

CONTRACTOR accepts this Certificate of Substantial Completion on \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

\_\_\_\_\_  
California Contractor License No.

OWNER accepts this Certificate of Substantial Completion on \_\_\_\_\_ 20\_\_

\_\_\_\_\_  
CITY OF PERRIS

By \_\_\_\_\_

**RELEASE FORM**

NAME OF CONTRACTOR: \_\_\_\_\_

PROJECT DESCRIPTION: **It/Economic Development Office Improvements CIP# F-070**

PERIOD WORK PERFORMED: \_\_\_\_\_

Above named Contractor hereby acknowledges payment in full for all compensation of whatever nature due the Contractor for all labor and materials furnished and for all work performed on the above-referenced project for the period specified above with the exception of contract retention amounts and disputed claims specifically shown below.

RETENTION AMOUNT FOR THIS PERIOD:

\$ \_\_\_\_\_

\_\_\_\_\_  
(words)

**DISPUTED CLAIMS**

DESCRIPTION OF CLAIM

AMOUNT CLAIMED

The Contractor further expressly waives and releases any claim the Contractor may have of whatever type of nature for the period specified which is not shown as a retention amount or a disputed claim on this form. This release and waiver have been made voluntarily by Contractor without any fraud, duress, or undue influence by any person or entity.

Contractor further certifies, warrants, and represents that all bills for labor, materials, and work due Subcontractors for the specified period have been paid in full and that the parties signing below on behalf of Contractor have express authority to execute this release.

\_\_\_\_\_  
Printed Name of Contractor

Date \_\_\_\_\_

\_\_\_\_\_  
Describe Entity (Partnership, Corporation, etc.)

\_\_\_\_\_  
California Contractor's License No.

By: \_\_\_\_\_ by: \_\_\_\_\_

## **GENERAL PROVISIONS**

The work embraced herein shall be done in accordance with the applicable portions of the current edition of the “Standard Specifications for Public Works Construction” prepared and promulgated by the Southern California Chapters of the American Public Works Association and Associated General Contractors of California, except when said “Standard Specifications” are in conflict with other contract documents.

The “General Provisions” contained in said “Standard Specifications” are by this reference incorporated herein as the General Provisions of these contract documents, subject to the following modifications and additions.

1. Section 2-3, “Subcontracts” Section 2-3 of said “Standard Specifications” is amended to read:

Unless otherwise provided in Section 4100.5 of the Government Code, each bidder shall file with his bid the name and address of each subcontractor who will perform the work or labor or render service to the prime Contractor in or about the construction of the work or improvement and of each subcontractor, licensed by the State of California, who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the prime Contractor’s total bid. Only one subcontractor shall be listed for each portion of the work, which portion shall be defined in the bid. In each instance, the nature and extent of the work to be sublet shall be described. The failure of the Contractor to specify a subcontractor, or the listing of more than one subcontractor for the same portion of the work, constitutes an agreement by the Contractor that he is fully qualified to perform that portion himself, and that he shall perform that portion himself.

2. Section 3-4, “Changed Conditions” Section 3-4 of said “Standard Specifications” is amended to read:

All loss or damage arising out of the nature of the work to be done under the contract, or from any unforeseen obstructions or difficulties which may be encountered during the progress of the work and in the prosecution of the same, or from the action of the elements (except as otherwise provided in Section 6-6 hereof) or from encumbrances on the line of the work, shall be sustained by the Contractor.

3. Section 4-1.1, “General” Section 4-1.1 of said “Standard Specifications” is amended to read:

No materials, supplies or equipment for the work under this contract shall be purchased subject to any chattel, mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies and equipment installed and incorporated in the work, and

agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the City free from any claims, liens, encumbrances or charges, and further agrees that neither he nor any person, firm, or corporation furnishing any material or labor for any work covered by the contract shall have any right to a lien upon the premises or any improvement or appurtenances thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies the title of which is commonly retained by the utility company. Nothing contained in this article, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection of any right under any law permitting such persons to look to funds due the Contractor, in the hands of the City. The provisions of this article shall be inserted in all subcontracts and material contracts, and notices of its provisions and material contracts, and notices of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

4. Section 6-9, "Liquidated Damages" Section 6-9 of said "Standard Specifications" is amended to read:

It is agreed by the parties to the contract that in case all the work called for under the contract in all parts and requirements is not finished or completed within the number of calendar days as set forth in the contract, damage will be sustained by the City. Because it is impracticable and extremely difficult to ascertain and determine the actual damage which the City will sustain, in the event of and by reason of such delay, it is therefore agreed that the Contractor will pay to the City \$1,000 for each and every calendar day's delay in finishing the work in excess of the time specified for completion, plus any authorized time extensions.

The Contractor agrees to pay said liquidated damages herein provided for, and further agrees that the City may deduct the amount thereof from any monies due or that may become due the Contractor under the contract.

5. Section 7-2.2, "Laws" Section 7-2.2 of said "Standard Specifications" is amended to read:

The Contractor, his agents and employees, shall be bound by and comply with all applicable provisions of the Labor Code and with Federal, State and local laws related to labor. Particular attention is directed to:

- A. Hours of Labor: Eight hours labor constitutes a legal day's work. The Contractor shall forfeit, as a penalty to the City, \$50.00 for each worker employed in the execution of the contract by the Contractor or any subcontractor under him for each calendar day during which such worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code, and in particular, Section 1810 to Section 1815,

thereof, inclusive, except that work performed by employees shall be permitted upon compensation for all hours worked in excess of 8 hours per day and/or 40 hours per week at not less than one and one-half times the basic rate of pay, as provided in said Section 1815.

- B. Labor Discrimination: Attention is directed to Section 1735 of the Labor Code, which reads as follows:

“No discrimination shall be made in the employment of persons upon public works because of the race, color, national origin or ancestry, or religion of such persons and ever Contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter”.

- C. Prevailing Wage: The Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775 the Contractor shall forfeit as a penalty to the City, \$50.00 for each calendar day or portion thereof, for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the contract by him or by any subcontractor under him in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor.

Pursuant to State and Federal statutes, rules, orders, resolutions, and regulations, the Contractor is required to pay the higher of the State of California or Federal prevailing wages. The Contractor is required to be fully familiar with and comply with all State of California and Federal statutes, rules, regulations, orders, resolutions, and determinations which govern the payment of wages for the work and services provided for in this Agreement.

Pursuant to the provisions of Section 1770 of the Labor Code of the State of California, the City has ascertained the general prevailing rate of wages (Which rate includes employer payments for health and welfare, vacation, pension and similar purposes) applicable to the work to be done, for straight time, overtime, Saturday, Sunday and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification, or type of worker concerned. The Contractor shall pay travel and subsistence payment to each worker as such payments are defined and required in applicable collective bargaining agreements filled in connection with Labor Code Section 1773.8.

The City will not recognize any claim for additional compensation



because of the payment by the Contractor of any wage in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the City on the contract.

- D. Contractor's Licensing Laws: Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of Contractors.
- E. Apprentices: In the awarding of any contract or written order for any public work or improvement, the Director of Public Works/City Engineer, or his/her designee, shall require all contractors and subcontractors offering or agreeing to perform any work on said public improvement to provide proof of participation as a signatory to a recognized apprenticeship and/or training program under Chapter 4 (commencing at Section 3070), Division 3, of the Labor Code of the State of California and certified by the State of California Division of Apprenticeship Standards, where such programs exist for the work to be performed.

They shall also provide information concerning their experience, financial qualifications, and ability to perform said contract or subcontract, as well as to whether said contractor or subcontractor possesses, or can obtain the necessary equipment in time to perform said contract or subcontract.

Should the Director of Public works /City Engineer, or his/her designee, determine that said contractor or any subcontractor is not a signatory to a recognized apprenticeship and/or training program under Chapter 4 (commencing at Section 3070). Division 3, of the Labor Code of the State of California and certified by the State Division of Apprenticeship Standards, where such programs exist for the work to be performed, or he/she does not possess the necessary experience and financial qualifications to perform said contract or subcontract, or that he/she does not possess, or cannot obtain in due time the necessary equipment to perform said contract, the Director of Community Services, Engineer, or his/her designee, may reject the bid of any said contractor or subcontractor. If such determination affects only a subcontractor then the Director of Public Works/City Engineer, or his/her designee, may compel the contractor to substitute a subcontractor who is a signatory to a recognized apprenticeship and/or training program under Chapter 4, (commencing at Section 3070), Division 3, of the Labor Code of the State of California and certified by the State of California Division of Apprenticeship Standards, where such programs exist for the work to be performed, or who, in the opinion of the Public Works Director and/or City Engineer, or his/her designee, possess the necessary experience, financial qualifications, and equipment to perform said subcontract.

The apprenticeship provisions contained herein shall not apply to contracts of general contractors involving less than fifty thousand dollars (\$50,000.00) or twenty (20) working days or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than five thousand dollars (\$5,000.00) or fewer than five (5) working days.

6. Section 7-3, "Liability Insurance" Section 7-3 of said "Standard Specifications" is amended to read:

7-3 "Contractor's Liability and Insurance"

7.3.1 Contractor's Liability:

- (a) To the fullest extent permitted by law, Contractor hereby agrees, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the City of Perris, its officers, and their respective elected and appointed officials and members, officers, attorneys, agents, representatives, consultants, employees, directors, shareholders, successors, and assigns (individually as "Indemnities" and collectively, "Indemnities") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, expert witnesses, consultants, or other professionals and all costs associated therewith (collectively, "Claims"), to the extent arising or claimed to arise out of, in connection with, resulting from, or related to any negligent act, error, omission or failure to act of Contractor or any of its subcontractors and their respective officers, agents, servants, employees, subcontractors, material men, suppliers or Contractor's failure to perform or negligent performance of any term, provision, covenant or condition of the Agreement or the Scope of Services, including this indemnity provision. This indemnity also applies to any Claims of any type or nature asserted on behalf of any of Contractor's subcontractors. This indemnity provision shall survive the termination of the Agreement and is in addition to any other rights or remedies which Indemnities may have under the law. Payment is not required as a condition precedent to an Indemnities' right to recover under this indemnity provision. An Indemnities shall have the right to select the attorneys to represent it in the event of a Claim and at Contractor's expense. Contractor shall pay Indemnities for any attorneys' fees, consultant and expert witness fees and costs incurred in enforcing this indemnification provision. This indemnity is effective without reference to the existence or applicability of any insurance coverage which may have been required under the Agreement or any additional insured endorsements, which may extend to Indemnities.
- (b) Contractor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against any Indemnities with respect to those Claims as to which such Indemnities is indemnified under Section 7.3.1.A above, except for such Claims which are the result of such Indemnities' willful misconduct.

- (c) In the event the City of Perris, its officers, agents or employees are made a party to any action or proceeding filed or prosecuted against Contractor for such damages or other claims arising out of or in connection with the negligent performance of or failure to perform the work, operations or activities of Contractor hereunder, Contractor agrees to pay to the City and its officers, agents or employees, any and all costs and expenses incurred by the City and its officers, agents or employees in such action or proceeding, including but not limited to, legal costs and attorneys' fees.

### 7.3.2 Liability Insurance:

The Contractor shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to City, during the entire term of this Agreement including any extension thereof, the following policies of insurance.

- (a) Commercial General Liability Insurance. A policy of commercial general liability insurance written on a per occurrence basis with a combined single limit of at least \$2,000,000 bodily injury and property damage including coverage for contractual liability, personal injury, independent contractors, broad form property damage, products and completed operations. The Commercial General Liability Policy shall name the City of Perris, its officers, employees and agents as additional insured in accordance with standard ISO additional insured endorsement form CG2010(1185) or equivalent language.
- (b) Worker's Compensation Insurance. A policy of worker's compensation insurance in such amount as will fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for both the Contractor and the City against any loss, claim or damage arising from any injuries or occupational diseases carrying out the work or service contemplated in this Agreement.
- (c) Business Automobile Insurance. A policy of business automobile liability insurance written on a per occurrence basis with a single limit liability in the amount of \$1,000,000 bodily injury and property damage. Said policy shall include coverage for owned, non-owned, lease and hired cars.

All of the above policies of insurance shall be primary insurance. The insurer shall waive all rights of subrogation and contribution it may have against the City of Perris, its officers, employees and agents, and its insurers. In the event any of said policies of insurance are canceled, the Contractor shall, prior to the cancellation date, submit new evidence of insurance in conformance with this Section 7.3.2 to the Contract Officer. No work or service under this Agreement shall commence until the Contractor has provided the City with Certificates of Insurance or appropriate insurance binders evidencing the above insurance coverage and said Certificates of Insurance or binders are approved by the City.

Contractor agrees that the provision of this Section 7.3.2 shall not be construed as limiting in any way the extent to which the Contractor may be held responsible for the payment of damages to any persons or property resulting from the Contractor's activities or the activities of any person or person for which the Contractor is otherwise responsible.

In the event the Contractor subcontracts any portion of the work in compliance with Section 3.3 of the Agreement, the contract between the Contractor and such subcontractor shall required the subcontractor to maintain the same policies of insurance that the Contractor is required to maintain pursuant to this Section.

"It is hereby understood and agreed that this policy may not be canceled nor the amount of the coverage thereof reduced until (30) days after receipt by the City of a written notice of such cancellation or reduction on coverage, as evidenced by receipt of a registered letter."

### 7.3.3 Sufficiency of Insurer or Surety:

Insurance or bonds required by this Agreement shall be satisfactory only if issued by companies qualified to do business in California, rated "A" or better in the most recent edition of Best Rating Guide, The Key Rating Guide or in the Federal Register, and only if they are of a financial category Class VII or better, unless such requirements are waived by the City's Risk Manager or designee of the City due to unique circumstances. In the event the City's Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the City, the Contractor agrees that the minimum limits of the insurance policies required by this Section 5 may be changed accordingly upon receipt of written notice from the City's Risk Manager or designee; provided that the Contractor shall have the right to appeal a determination of increased coverage by the City's Risk Manager to the City Council within ten (10) days of receipt of notice from the City's Risk Manager.

## 7-4 "Workers' Compensation Insurance"

### 7.4.1 Section 7-4 of said "Standard Specifications is amended to read:

Before execution of the contract by the Board, the Contractor shall file with the engineer the following certification:

"I am aware of, and will comply with, Section 3700 of the Labor Code by securing, paying for, and maintaining in full force and effect for the duration of the contract, complete Workers' Compensation Insurance, and shall furnish a Certificate of Insurance to the engineer before execution of the contract". The City, its officers, or employees, will not be responsible for any claims in law or equity occasioned by failure of the Contractor to comply with this paragraph.

Said policy of insurance shall contain an endorsement which:

- A. Waives all right of subrogation against the City and any persons and entities designated in the Special Provisions to be listed as additional insureds in the policy of insurance provided for in Section 7-3.2 by reason of any claim arising out of or connected with the operations of Contractor or any subcontractor in performing the work provided for herein;
- B. Provides it shall not be cancelled or altered without thirty (30) days notice thereof given to the City by registered mail.

The Contractor shall require all subcontractors similarly to provide such compensation insurance for their respective employees.

- 7. Section 7-10.4.1, "Safety Orders" Section 7-10.4.1 of said "Standard Specifications" is amended to read:

The Contractor shall have at the worksite, copies or suitable extracts of: Construction Safety Orders, Tunnel Safety Orders, and General Industrial Safety Orders issued by the State Division of Industrial Safety. He shall comply with provisions of these and all other applicable laws, ordinances, and regulations, including but not limited to, the Occupational Safety and Health Act of 1970 to which particular attention is directed. He also shall have the latest edition of the "Work Area Traffic Control Handbook" published by Building News, Inc.

- 8. Section 7-13, "Laws to Be Observed" Section 7-13 of said "Standard Specifications" is amended to read:

The Contractor shall keep himself fully informed of all existing and future State and Federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies of tribunals having any jurisdiction or authority over same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any authority over the work; and shall protect and indemnify the City and all officers and employees thereof connected with the work, including but not limited to the Engineer, against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or contract for the work in relation to any such law, ordinance, regulation, order or decree the Contractor shall forthwith report the same to the engineer in writing.

- 9. Section 9-3, "Payment" Section 9-3 of said "Standard Specifications" is amended to read:

Upon the written request of the Contractor, delivered to the City at least ten (10) days in advance, and at the sole cost and expense of the Contractor, the Contractor may substitute securities for any monies held by the City to ensure the performance of the Contractor hereunder. The securities proposed to be substituted shall be specifically identified in the Contractor's notice, shall be limited to those listed in Government Code Section 16430 and to bank or savings and loan certificates of deposit, and shall be of the market value (as determined by the Finance Director of the City) at least equal to the amount of money withheld by the City. Upon the approval of the proposed substitution by the City, the securities may be deposited with the City or with a State or Federally chartered bank approved by the City as the escrow agent of the parties. The Contractor shall be the beneficial owner of these securities and shall receive interest thereon.

Section 9-3.2 of said "Standard Specifications" shall be amended to read:  
PARTIAL PAYMENTS: At the request of the Contractor, partial payments will be made on a monthly basis. The Progress Payments will be made on a monthly basis. The Progress Payment request shall be submitted on or before the 20<sup>th</sup> day of each month. The estimate may include only work completed up to and including this date. Progress pay requests showing work not accomplished by the 20<sup>th</sup> day of the month shall be rejected.

Progress payments shall be issued upon successful completion of items listed on the bid schedule of values, and inspection made by the City of Perris, unless otherwise directed by the Engineer, or labor compliance officer. A retention of five (5%) shall be withheld from this payment. In accordance with Federal Labor Standards Provisions at 29.CFR.Part 5, Section 5.9 "Suspension of Funds", the Labor Compliance Officer shall suspend all progress payments pending the resolution of alleged labor violations.

10. Section 10, "Other Provisions" Section 10 is added to said "Standard Specifications" to read:
  - 10.1 Responsibility for Work. Until the formal acceptance of the work by the City, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof and shall bear the risk of injury or damage to any part thereof by the action of the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages as are occasioned by acts of the federal government or the public enemy. In case of suspension of work from any cause whatever, the Contractor shall be responsible for all materials and shall properly store them if necessary and shall erect temporary structure where necessary.

Any other provisions of this contract to the contrary notwithstanding, to the extent required by Chapter 2.5 (commencing with Section 4150) of Division 5 of Title I of the Government Code, the Contractor shall not be responsible for the

cost of repairing, or restoring damage to the work caused by an act of God as that phrase is defined in Government Code 4151(b).

The City will not be held responsible for the care or protection of any material or parts of the work prior to the final acceptance except as expressly provided in these specifications. The City will not be responsible for any changes in the Contractor's operations due to encountering obstructions which may interfere with the work.

- 10.2 Provisions for Emergencies: Unusual conditions may arise on the work which will require that immediate and unusual provision be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as his operations make necessary to protect the public from danger or damage, or loss of life or property, which would result from the interruption or contamination of public water supply, irrigation or other public service, or from the failure of partly completed work.

Whenever, in the opinion of the engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by process of construction on account of such neglect; and whenever in the opinion of the engineer, immediate action shall be considered necessary in order to protect the public or private, personal or property interests, or prevent likely loss of human life or damage on account of the operations under the contract, then and in the event the Engineer may provide suitable protection to said interest by causing such work to be done and material to be furnished as, in the opinion of the engineer, may seem reasonable and necessary.

The cost and expense of said labor and material, together with the cost and expense of such repairs as may be deemed necessary, shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefore, duly certified by the engineer, then said cost and expense will be paid by the City and shall thereafter be deducted from any amounts due, or which become due said Contractor. Failure of the City, however, to take such precautionary measure, shall not relieve the Contractor of his full responsibility for public safety.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the City.

- 10.3 Guarantees: Besides guarantees required elsewhere, the Contractor shall and hereby does guarantee all work for a period of one (1) year after the date of acceptance of the work by the City and shall repair and replace any and all such work by the City and shall repair and replace any and all such work, together

with any other work which may be displaced in so doing, that may prove defective in workmanship and/or materials within the one (1) year period from date of acceptance, without any expense whatsoever to the City, ordinary wear and tear and unusual abuse or neglect excepted. In the event of failure to comply with the above mentioned conditions within a week after being notified in writing, the City hereby authorized to proceed to have the defects repaired and made good at the expense of the Contractor, who hereby agrees to pay the cost and charges therefore immediately on demand.

11. “Environmental Provisions” The Contractor shall, as appropriate, comply with all provisions of Public Contracts Code Section 7104 (SB1470). The requirements of this code are summarized as follows: In the event Contractor is required to dig any trench or excavation that extends deeper than four feet below the surface in order to perform the work authorized under this contract, Contractor agrees to promptly notify City in writing and before further disturbing the site if any of the conditions set forth below are discovered:

- (1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.
- (2) Subsurface or latent physical conditions at the site differing from those indicated.
- (3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in this Contract.
  - (a) City agrees to promptly investigate the conditions, and if City finds that the conditions do materially differ, or do involve hazardous waste, and cause a decrease or increase in Contractor’s cost of, or the time required for, performance of any part of the work, shall issue a change order under the procedures described in this Contract.
  - (b) That, in the event a dispute arises between City and Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Contractor’s cost of, or time required for, performance of any part of the work, Contractor shall not be excused from any scheduled completion date provided for in this Contract, but shall proceed with all work to be performed under the Contract.

Contractor shall retain any and all rights provided either by this contract or by law which pertain to the resolution of disputes and protests between contracting parties.



# **STANDARD PROVISIONS**

## **PART I - STANDARD CONDITIONS**

SP-1-1.00 GENERAL — It is the intent of these General Provisions, Standard Provisions, Project Specifications, Special Provisions, and the plans referred to herein and other documents comprising the contract for the Contractor to provide for and include all labor, materials, equipment, plant, tools, transportation, insurance, bonds, sales taxes, permits, temporary protection, traffic control, watchmen, superintendence and other work necessary to construct and complete all work specified herein, including all addenda and change orders. No separate payment will be made for any item that is not specifically set forth in the Schedule of Bid Items. All costs not specified, therefore, shall be included in the prices named in the Schedule of Bid Items and under various items of work.

The contract documents are complementary, and a requirement in one is as binding as though occurring in all. They are intended to be cooperative, to describe and provide for a complete work.

SP-1-1.01 STANDARD SPECIFICATIONS — The specifications entitled, Standard Specifications for Public Works Construction ("Greenbook"), as amended, in the General Provisions of these Specifications, shall hereinafter be referred to as the Standard Specifications. These shall be the most recent version published.

All work shall meet all requirements applicable of Federal, State, County and City regulations and codes governing safety, health, welfare, dust and sound control.

SP-1-1.02 DEFINITIONS — Attention is invited to the provisions of Section 1 — "Terms, Definitions, Abbreviations and Symbols", of the Standard Specifications and these Special Provisions. Whenever in the contract documents, the following terms are used, the intent and meaning shall be interpreted as follows:

AGENCY	City of Perris
BOARD	City Council of the City of Perris
DEPARTMENT	California State Department of Transportation (Caltrans)
ENGINEER	The City Engineer of City of Perris his properly authorized agents, such agent acting within the scope of the particular duties entrusted to them.
STATE	City of Perris

LABORATORY      The laboratory to be designated by the Engineer to test materials and work involved in the contract.

NOTICE TO CONTRACTORS      Notice Inviting Bids.

Other terms appearing in the plans, Standard Specifications and in these Special Provisions shall have the same intent and meaning specified in Section 1-2, "Definitions", of the Standard Specifications.

SP-1-1.03 EXAMINATION OF PREMISES — Before bidding on this work, all prospective bidders shall make a careful examination of the jobsite and shall thoroughly familiarize themselves with the requirements of the Contract. By the act of submitting a proposal for the work, the contractor shall be deemed to have made such study and examination and that he is familiar with and accepts all conditions of the site.

SP-1-2.00 PLANS AND SPECIFICATIONS — Attention is invited to the provisions of Section 2-5, "Plans and Specifications", of the Standard Specifications and these Special Provisions.

The Specifications, drawings, Special Provisions, Standard Specifications, Riverside County Flood Control Standards, EMWD Standards, and all supplementary documents are essential parts of the contract, and a requirement in one is as binding as though occurring in all. They are intended to be cooperative, to describe and provide for a complete work.

If, however, the provisions within the documents comprising the contract are in conflict, the most stringent in the opinion of the City Engineer shall apply.

Provide and maintain in good order at one's work site, a complete set of contract prints. All changes to the contract shall be clearly recorded on this set of prints. At the end of the project, the contractor shall transfer all changes to one (1) set of prints for submission to the City Engineer.

SP-1-2.01 SCHEME OF WORK — The work contemplated in the project consists of furnishing labor, materials, services and equipment for the work described in these Special Provisions and shown on the plans and delineated in the specifications of this project.

SP-1-2.02 TIME LIMIT — The work, both onsite and offsite, shall be completed within seventy-five(75) calendar days after commencement date given in the Notice to Proceed. The time stated for completion includes final cleanup and any testing required. Additional days will be given for days classified as rainy days by the Director of Community Services.

SP-1-2.03 AWARD AND EXECUTION OF CONTRACT — The bidder's attention is directed to the provisions of the Information for Bidders and to these Special Provisions for the requirements and conditions concerning award and execution of the Contract. A guaranty form to be signed and delivered to the Agency before acceptance is included in the proposal.

The award of the Contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements described. The award, if made, will be made within forty-five (45) days after the opening of the bids. All bids will be compared on the basis

of the Engineer's estimate of quantities of work to be done.

THE CITY RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.

All bonds in the amounts stipulated in the Information for Bidders shall be furnished by the bidder to whom the contract has been awarded and at this own cost and expense. Whenever the City of Perris has cause to believe that any such bond has become insufficient, a demand in writing may be made of the contractor for such further or additional bond as is considered necessary, considering the extend of the work remaining to be done. Thereafter, no payment shall be made upon such Contract to the contractor or any assignee of the contractor until such further or additional bond has been furnished.

Before commencing any work, the contractor shall obtain insurance required under the General Provisions of these Specifications and show proof of same. Contractor shall not allow any subcontractor to work until similar insurance required of the subcontractor has been obtained and approved by the General Contractor.

The contractor shall, in providing the insurance as provided in Sections 6 and 7 of the General Provisions, include as a provision of the insurance policy, a clause substantially in the following language:

It is hereby understood and agreed that this policy may not be canceled nor the amount of the coverage thereof reduced except upon thirty (30) days prior to written notice to the City as evidenced by receipt of a registered letter. The insurance policy shall also specify that it is primary insurance and that any insurance held or owned by the designated additional insureds shall be excess thereto and shall not be called upon to cover a loss under said policy.

SP-1-2.04 AUTHORITY OF THE CITY ENGINEER — The City Engineer shall decide all questions as to the quality or acceptability of the work performed and to the manner or performance and rate of progress of the work, all questions as to the acceptable fulfillment of the contract on the part of the contractor, and all questions as to compensation. His decision shall be final and he shall have authority to enforce and make effective such decisions and orders which the contractor fails to carry out promptly. Attention is invited to the provisions of Section 2-10 of the Standard Specifications.

SP-1-2.05 SUBCONTRACT — Attention is directed to the provisions of Section 2- 3, "Subcontracts", of the Standard Specifications as amended in the General Provisions herein and these Special Provisions.

A sheet for listing subcontractors, as required, is included in the proposal.

The Contract documents shall not create any contractual relation between any subcontractor and the City. Contractor agrees that he is fully responsible to the City for the acts and omissions of his subcontractors and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

SP-1-3.00 CHANGES IN WORK — All changes in the work, whether requested by the contractor, initiated by the City and/or caused by changed conditions, shall be undertaken only after the

issuance of a change order by the Director of Community Services. Attention is invited to Section 3 of the Standard Specifications and the provisions of Paragraph 2 of the General Provisions.

SP-1-4.00 CONTROL OF MATERIALS AND WORKMANSHIP — All materials, parts and equipment furnished by the Contractor in the work shall be new, high grade and free from defects. Quality of work shall be in accordance with generally accepted standards. Attention is invited to Section 4 of the Standard Specifications and the provisions of Paragraph 3 of the General Provisions. No used or secondhand materials, parts and equipment shall be incorporated in the project unless specifically permitted in writing by the Director of Community Services.

SP-1-4.01 TESTS OF MATERIALS AND WORKMANSHIP — All materials shall first be tested and satisfactorily passed in accordance with the requirements of the plans and these specifications, before incorporating said material in the work. Materials placed otherwise shall be considered defective and will be subject to rejection. The cost of testing of materials and workmanship shall be paid by the Contractor. The cost of re-testing of materials and workmanship shall be at the expense of the contractor. The contractor, at his expense, shall deliver materials for testing to the place and at the time designated by the Engineer. Attention is invited to Section 4-1.4, "Test of Materials", of the Standard Specifications.

SP-1-4.02 LABORATORY — The Contractor shall make all arrangements for a laboratory, designated by the City, to conduct the test requirements for the project. The contractor shall render all necessary assistance to the personnel of said laboratory to facilitate the inspection and testing of materials. Request for inspection and/or testing shall be made at least twenty-four (24) hours in advance.

SP-1-5.00 UTILITIES — The existence and location of utility structures and facilities are shown on the plans or in the Special Provisions according to records and information available to the City. Attention is called to the fact of the possible existence of other utility facilities or structures not known to the City or in a location different from that shown on the plans or in the Special Provisions. The contractor is required to ascertain the location of all underground utility structures and facilities prior to doing work that may damage such structures and facilities, including those not shown, or interfere with their service and to take such precautionary measures in the course of said work to prevent such damage or interference. Attention is invited to Section 5 of the Standard Specifications. If the contractor, while performing the work under the contract, discovers utility structures or facilities not identified in the plans or specifications or shown differently, he shall immediately notify the City in writing of such discovery and allow the City 48 hours to advise. Contractor shall continue with his work on other areas and provide utility purveyors adequate time to resolve the conflict or continue work if in the opinion of the City and utility purveyors, the construction will not impact these utilities.

SP-1-6.00 PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK — Attention is invited to Section 6 of the Standard Specifications and these Special Provisions.

SP-1-6.01 PROGRESS SCHEDULE — After notification of award and prior to starting any work, the contractor shall submit to the Engineer for approval his proposed construction schedule. Attention is invited to Section 6-1 of the Standard Specifications. The proposed construction

schedule shall be submitted on or before the date set for the preconstruction meeting between City and contractor's staff and representatives of utility companies.

SP-1-6.02 BEGINNING OF WORK — The contractor shall begin work by **May 10, 2024**. If for some reason the City does not authorize the work to begin on such date, the work shall begin on the date specified by the City.

SP-1-6.03 TIME OF COMPLETION — The contract time shall commence upon the date of issuance of the Notice to Proceed and shall continue for a period stated in the Proposal. The contractor shall diligently prosecute the project and complete all work within the contract time. Contractor agrees that failure to complete the project within the contract time shall subject him to the liquidated damages provided herein. Attention is invited to Section 6-7 of the Standard Specifications.

SP-1-6.04 PROSECUTION OF WORK — The contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control. All persons engaged in the project shall be considered by the City as employees of the contractor and he shall be held responsible for their work subject to the provisions of the contract and specifications. The contractor shall prosecute the work vigorously and diligently until completed with the minimum inconvenience and hazard to the public. Streets and other improvements in the work area shall be restored to their original condition and former state of usefulness as soon as practicable. Attention is invited to the provisions of Section 6-2 of the Standard Specifications.

SP-1-6.05 TEMPORARY SUSPENSION OF WORK — The City Engineer shall have the authority to suspend the work wholly, or in part, for such period as he may deem necessary due to unsuitable weather or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the contractor to carry out orders given, or to perform the work in accordance with these Specifications. The contractor shall immediately comply with the written order of the City Engineer to suspend the work wholly or in part. The work shall be resumed when conditions are favorable and methods are corrected, as ordered or approved in writing by the City Engineer.

In the event of a suspension of work under any of the conditions above set forth such suspension of work shall not relieve the contractor of his responsibilities as set forth under these Specifications.

SP-1-6.06 SUSPENSION OF CONTRACT — If at any time in the opinion of the City Engineer, the contractor has failed to supply adequate working force or material of proper quality or has failed in any other respect to prosecute the work with the diligence and force specified and intended in and by the terms of the contract, notice thereof in writing will be served upon him; and should he neglect or refuse to provide means for a satisfactory compliance with the contract, as directed by the City Engineer, within the time specified in such notice, the City in any such case shall have the power to suspend the operation of the contract.

Attention is invited to the provisions of Section 6-3 of the Standard Specifications. Upon

receiving notice of such suspension, the contractor shall discontinue said work, or such parts of it as the City may designate. Upon such suspension the contractor's control shall terminate and thereupon the City or its duly authorized representative may take possession of all or any part of the contractor's materials, tools, equipment and appliances upon the premises, and use the same for the purpose of completing said contract, and hire such force and buy or rent such additional machinery, tools, equipment and appliances at the contractor's expense as may be necessary for the proper conduct of the work and for completion, employ other parties to carry the contract to completion, or may employ the necessary workman, substitute other machinery or materials, and purchase the materials contracted for, in such manner as the City may deem proper; or the City may annul and cancel the contract and relate the work or any part thereof. Any excess cost arising therefrom over and above the contract price shall be charged against the contractor and his sureties, who shall be liable therefore. In the event of such suspensions, all monies due the contractor or retained under the terms of this contract shall be forfeited to the City; but such forfeiture shall not release the contractor or his sureties from liability for failure to fulfill the contract. The contractor and his sureties shall be credited with the amount of money so forfeited toward any excess of cost over the above contract price, arising from the suspension of the operation of the Contract and the completion of the work by the City as above provided, and the contractor shall be so credited with any surplus remaining after all just claims for such completion have been paid.

In the determination of the question whether there has been any such noncompliance with the contract as to warrant the suspension or annulment thereof, the decision of the City Council shall be binding on all parties to the contract.

SP-1-6.07 TERMINATION OF CONTRACT — Subject to all applicable provisions of these specifications and/or the contract, the Engineer is hereby empowered to direct the time and date of delivery of materials at the site of work and direct the time, rate and sequence of work. If contractor fails to begin delivery of material and equipment or to commence work within the time specified herein, and/or in the contract, or to maintain the rates of delivery of material, or to execute the work in a manner and at such locations as directed by the Director of Community Services, or fails to maintain the approved progress schedule in such manner as well, in the judgment of the Engineer, inure to the interests of the City, or, if in the judgment of the Engineer, the contractor is not carrying out the provisions of the contract in their true intent and meaning, written notice by the City Engineer may be served upon him and the Surety on his faithful performance bond demanding a satisfactory compliance with the contract, and with these specifications. If the contractor and/or his Surety refuses or neglects to comply with such notice within five (5) days after receiving same, or after commencing so to do, fails to continue so to do, or has assigned or sublet the contract without the consent of the Engineer, then the Engineer may exclude him from the premises and take possession thereof, together with all material and equipment thereon, and may complete the work itself, either by force account, or by letting the unfinished portion of the work to another contractor or by a combination of such methods.

In any event, the cost of the completion of said work shall be a charge against the contractor and his Surety and may be deducted from any money due or becoming due from the City, and if the sums due under the contract are insufficient, said contractor and/or his Surety shall pay to the City within five (5) days after the completion of the work all of such cost in excess

of the contract price.

The Surety, in the event that it assumes part of the work, shall take the contractor's place in this contract in all respects for that part and shall be paid by the City for all work performed by it in accordance with the terms of this contract. If the Surety assumes the entire contract, all monies remaining due the contractor at the time of his default shall be made payable to the Surety as the work progresses, subject to the terms of the contract.

**SP-1-6.08 LIQUIDATED DAMAGES** — It is hereby understood and mutually agreed by and between the contractor and the City, that the date of beginning and the time of completion as specified in the contract of the work to be done hereunder are essential conditions of this contract. Attention is invited to Section 6-9 of the Standard Specifications as amended in Paragraph 4 of the General Provisions.

The contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the contractor and the City, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality. If the said contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the City, then the contractor does hereby agree, as a part consideration for the awarding this contract, to pay to the City of Perris the amount of liquidated damages stipulated in Paragraph 4 of the General Provisions for each and every calendar day that the contractor shall be in default after the time stipulated in the contract for completing the work, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth.

The said amount is fixed and agreed upon by and between the contractor and the City because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the City would in such event sustain, and said amount agreed to be the amount of damages which the City would sustain and said amount shall be retained from time to time by the City from current periodical estimates.

**SP-1-7.00 RESPONSIBILITIES OF THE CONTRACTOR** — Attention is invited to Section 7 of the Standard Specifications as amended in the General Provisions and the provisions of these Special Provisions. The contractor shall keep himself fully informed of all existing and future State and Federal laws and county and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe comply with all such existing and future laws, ordinances, regulations, orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the City, and all officers and employees thereof connected with the work, including but not limited to the City Engineer, against any claim or liability arising from or based on the violation of any such law, ordinances, regulation, order, or decree, whether by himself or his employees. If any discrepancy or inconsistency is discovered in the plans, drawing,

specifications, or contract for the work in relation to any such law, ordinance, regulation, order or decree, the contractor shall forthwith report the same to the Engineer in writing.

SP-1-7.01 ASSUMPTION OF RISK — During the progress of the work, the City of Perris will not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any of the materials or other things used or employed in performing the work; or for injury to any person or persons, either workmen or the public; for damage to adjoining property from any cause which might have been prevented by the contractor, or his workmen, or anyone employed by him; against all of which injuries or damages to persons and property the contractor having control over such work must properly guard. The contractor shall be responsible for any damage to any person or property resulting from defects or obstructions or from any causes whatsoever during the progress of the work or at any time before its completion and final acceptance, and shall indemnify and save harmless the City of Perris and/or its officers and/or its employees from all suits or actions of every name and description, brought for, or on account of any injuries or damages received or sustained by any person or persons, by or from the Contractor, his servants or agents, in the construction of the work or by or in consequence of any negligence in guarding the same, in improper materials used in its construction, or by or on account of any act or omission of the contractor or his agents.

SP-1-7.02 LABOR — Attention is invited to the provisions of Section 7-2 of the Standard Specifications as amended in Paragraph 5 of the General Provisions.

SP-1-7.03 LIABILITY INSURANCE — Attention is invited to the provisions of Section 7-3 of the Standard Specifications as amended in Paragraph 6 of the General Provisions.

SP-1-7.04 WORKER'S COMPENSATION INSURANCE — Attention is invited to the provisions of Section 7-4 of the Standard Specifications as amended in Paragraph 7 of the General Provisions.

SP-1-7.05 PERMITS AND INSPECTION — The contractor shall obtain a no- fee excavation permit before proceeding with any work on the project.

The contractor shall call for inspections at the different stages of the work as required by the City of Perris Building Inspector. Any portion of the project completed without these required inspections shall be considered as defective and the City reserves the right to reject the affected portion of the work. The contractor shall remove rejected portion of the work upon instruction by the City without additional compensation.

City inspectors work from 8:00 a.m. until 5:00 p.m., Monday through Friday. Inspections outside these hours and legal holidays may be available through appointments approved by Director/City Engineer only, and inspector's time will be billed to the contractor at the rate of \$85.00 per hour.

SP-1-7.06 CONTRACTOR'S REPRESENTATIVE — On or before the preconstruction meeting, the contractor shall designate, in writing, a representative who shall have complete authority to act for him. An alternate representative may also be designated. The representative or alternate shall be present at all times at the worksite whenever work is in progress or whenever actions



of the elements require his presence to take measures necessary to protect the work, persons or property. Attention is invited to Section 7-6 of the Standard Specifications.

SP-1-7.07 COOPERATION AND COLLATERAL WORK — Attention is directed to Section 7-7 of the Standard Specifications and these Special Provisions.

Construction work by other contractors may be underway within or adjacent to the worksite specified herein. For this reason, the contractor shall cooperate with all such other contractors to the end that any delay or hindrance to their work shall be avoided, or conduct his operations in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by his operations, and for loss caused the other due to his unnecessary delays or failure to finish work within the time specified for completion. The Engineer reserves the right to direct the contractor to perform other or additional work at the worksite at any time in order to better coordinate the different activities on the entire project.

It is anticipated that existing utilities will not interfere with the contractor's operations. However, the contractor shall exercise due care to insure that these utility facilities are not damaged during his operations. The contractor shall call Underground Service Alert (U.S.A.), 800-227-2600, twenty-four (24) hours prior to performing any excavation on this project.

The utility locations shown on the plans are correct to the best of our knowledge. When in doubt, the contractor shall contact utility concerned before proceeding further. The agencies below may be contacted at the following telephone numbers:

AGENCY	TELEPHONE NUMBER
Southern California Edison Company	(909) 925-5999
Southern California Gas Company	(800) 662-9777
City of Perris Water Department	(909) 657-3280
Eastern Municipal Water District	(909) 928-3777
Verizon	(800) 483-5000
Spectrum	(888) 892-2253
CR&R/Waste Management /Dump	(951) 955-1000

Full compensation for conforming to the requirements of this section, not otherwise provided for, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

SP-1-7.08 PROJECT APPEARANCE — The contractor shall maintain a neat appearance to the work. Attention is invited to Section 7-8 of the Standard Specifications.

In any area visible to the public, the following shall apply:

Broken asphalt concrete, aggregate base and debris developed during removals, shall be

disposed of concurrently with its removal.

Dust caused by the passage of public traffic through the work shall be considered as resulting from the contractor's performance of the work.

Whenever the contractor fails to control dust resulting from the performance of the work, the Engineer may cause such dust to be controlled and costs thereby incurred shall be deducted from monies due or to become due the contractor.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

**SP-1-7.09 – PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS —** The Contract shall take all necessary precautions to protect in place all existing improvements not scheduled for removal. The entire cost of replacing and/or repairing said existing improvements shall be borne by the contractor. Attention is directed to the provisions of Section 7-9 of the Standard Specifications. Permit conditions, rules and regulations of agencies having jurisdiction over the contractor's operations shall be strictly complied with.

The contractor shall protect existing improvements in place wherever possible. All existing improvements which must be removed for construction shall be restored to an equal or better condition than that of the existing improvements removed or damaged. Restoration of existing improvements shall be in accordance with the Plans and Specifications and all provisions of the City of Perris Standard Plans.

The contractor shall preserve and protect from injury all buildings, pole lines and all direction, warning and mileage signs which have been placed within the right-of-way.

Full compensation for the work involved in the preservation of property as above specified shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefore.

**SP-1-7.10 PUBLIC CONVENIENCE —**

The contractor shall so conduct his operations to offer the least possible obstruction and inconvenience to the public or to the public traffic. Where existing streets are not available for use as detours, unless otherwise provided in these Special Provisions, all traffic shall be permitted to pass through the work. Convenience of residents along the street or in the vicinity of the project site shall be provided for as far as practicable. Convenience access to driveways, houses and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting streets shall be provided and kept in good condition.

Full compensation for all work involved in providing for public convenience as set forth in this section shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

**SP-1-7.11 PUBLIC SAFETY —** The contractor shall furnish, erect, and maintain such fences, barriers, lights and signs as are necessary to give adequate warning to the public at all times

that the work is under construction and of any dangerous conditions to be encountered as a result thereof in strict compliance with the latest edition of the "Work Area Traffic Control Handbook"; W.A.T.C.H. Attention is directed to Section 7-10.4 of the Standard Specifications as amended in Paragraph 8 of the General Provisions. He shall also erect such warning and directional signs as shown on plans and as requested by the Engineer. This shall include installing and maintaining all items shown on the traffic control plans.

All barricades shall be of substantial construction and painted in a distinctive color or manner so as to be clearly visible to the approaching public.

Should the City place any warning lights or barricades to protect or warn the public of any dangerous condition connected with contractor's operations, contractor shall become liable to the City at the current rental rate per night for each lantern or warning light placed by the City, plus actual labor, equipment rental and overhead costs, with a minimum charge of fifty (\$50.00) dollars per day for each obstruction or dangerous condition so barricaded or lighted.

Full compensation for all work involved in providing for public safety as set forth this section shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

#### SP-1-7.12 PUBLIC NOTICE —

The Contractor shall notify the residents/businesses and schools affected by construction in writing not less than 7 days in advance of commencement of construction or storage of material upon the streets. The notice shall include but not be limited to:

1. The time and date of commencement.
2. A copy of the proposed construction schedule.
3. Date of completion.

In addition to the above, the Contractor shall notify all affected parties if work is to begin on new portions of the project as work proceeds, especially if the work involves changes to the traffic control system.

A copy of this notification shall be approved by the City Engineer prior to its distribution.

Personal vehicles of the contractor's employees shall not be parked on the traveled way at any time, including any section closed to public traffic.

When entering or leaving roadways carrying public traffic, the contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

**SP1-7.13 SOUND CONTROL REQUIREMENTS —** If work is permitted for evening and weekends and holidays, the noise level from the contractor's operations, between the hours of 8:00 p.m. and 6:00 a.m., shall not exceed 86 db at a distance of fifty (50') feet. This requirement in no way relieves the contractor from the responsibility for complying with local ordinances regulating noise level. All other times, noise level shall be in compliance with standards.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

The contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

**SP-1-7.14 LAWS TO BE OBSERVED** — The contractor shall keep himself fully informed of Stated and National laws and County and City ordinances and regulations which in any manner affect those employed in the work or the materials used for the work or in any way affect the conduct of work. Attention is directed to Section 7.13 of the Standard Specifications as amended in Section 9 of the General Provisions.

**SP-1-7.15 ADVANCE NOTIFICATION** — It shall be the contractor's responsibility to determine and notify those agencies requiring advance notification for inspection or other purposes before beginning construction in any area of concern to said agency. A minimum of forty -eight (48) hours advance notice shall be given to the various agencies before beginning construction in the area, unless specific advance times and requirements are stated in these detailed specifications or required by the agency.

The following entities shall be notified at least seventy-two (72) hours in advance of any street closure or restriction to access by the contractor. Coordination of established service schedules will be available to the contractor at the preconstruction meeting.

Southern California Edison Company	(909) 925-5999
Southern California Gas Company	(800) 662-9777
City of Perris Water Department	(909) 657-3280
Eastern Municipal Water District	(909) 928-3777
Verizon	(800) 483-5000
Spectrum	(888) 892-2293
CR&R Waste Management /Dump	(951) 955-1000

Any others that are determined by the City Engineer, as necessary to be notified.

**SP-1-7.16 EXPOSURE OF UTILITIES IN ADVANCE OF WORK** — It shall be the contractor's responsibility to determine the true location and depth of all utilities and service connections which may be affected by or affect the work. He shall also determine what type, material, and condition of these utilities.

**SP-1-7.17 - INTERPRETATION OF DRAWINGS AND CONTRACT DOCUMENTS** — If any person contemplating to submit a bid for the proposed work is in doubt as to the correct and true

meaning of any part of the drawings, specifications, or other contract documents, or finds discrepancies in, or omissions from the drawings or specifications, he may submit to the City, a written request for an interpretation or correction thereof. The person submitting the request shall be responsible for its prompt delivery. Any interpretation or correction of the document in question will be made by Addendum duly issued and a copy of such Addendum will be mailed or delivered to the aforementioned person as well as the other prospective bidders as specified in the bid documents. **THE CITY WILL NOT BE RESPONSIBLE FOR ANY OTHER EXPLANATION OR INTERPRETATION OF THE PLANS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.**

## **PART II — STANDARDS CONSTRUCTION DETAILS**

SP-2-1.00 SCOPE OF WORK — The Contractor shall furnish, in accordance with the specifications and drawings, all plant, labor, equipment and materials required for completion of the City of Perris, **It/Economic Development Office Improvements CIP#F-070**

SP-2-2.00 DRAWINGS — Contract drawings applicable to the work to be performed under the contract are the drawings prepared by Community Works Design Group.

SP-2-3.00 SITE OF THE WORK — **Site of the work is in the City of Perris within County of Riverside, California, 11 S. “D” Street, Perris, CA 92570.**

SP-2-4.00 TIME OF COMPLETION — The work shall be completed within **Sixty (60)** calendar days in accordance with the schedule provided in Notice Inviting Bids from expected construction start date of September 6, 2022. The time stated for completion includes final cleanup and any testing required. Additional days will be given for days classified as "rain days" by the Director of Community Services.

SP-2-5.00 LIQUIDATED DAMAGES — As defined in Section 6-9 of the Standard Specifications, the amount fixed for liquidated damages for delay in completion is \$1000.00 per calendar day for each and every day over the time of completion in excess of the time specified for completion, plus any authorized time extensions.

SP-2-6.00 INSURANCE — The Contractor shall, as provided in Paragraph 6 of the General Provisions maintain public liability, vehicle liability and property damage insurance, and bodily injury insurance per Section 7-3 of the Standard Specifications and as shown in this specification.

SP-2-7.00 PRECONSTRUCTION CONFERENCE — The Contractor to whom the contract is awarded shall attend a preconstruction conference at a location and time set by the City Engineer or the Director of Community Services.

SP-2-8.00 CONSTRUCTION MEETINGS — Construction meetings will be held at the jobsite as required and as requested by the Contractor or the Director of Community Services to coordinate and discuss construction activities. Details regarding jobsite meetings will be arranged at the preconstruction conference.

SP-2-9.00 STANDARD SPECIFICATIONS — Specifications for work shall follow in order of:

Bid Specification Package Standard Specifications  
Public Works Construction Manual and Eastern Municipal Water District Specifications

References made to Standard Specifications shall mean the latest edition of the California Standard Specifications together with supplements, as published by the California Department of Transportation. Provisions for measurement and payment will not apply. In case of conflicts between plans, specifications and the above standards, the most stringent in the opinion of the City Engineer shall apply.

#### SP-2-10.00 SPECIFICATIONS AND DRAWINGS FURNISHED TO CONTRACTOR

The successful Contractor will be responsible for reproducing all specifications and drawings. At the Contractor's request copies of specifications and drawings will be furnished by the City at reproduction cost

#### SP-2-11.00 SITE INSPECTION AND VERIFICATION OF EXISTING CONDITIONS

It shall be the Contractor's responsibility to make all examinations, and field studies necessary, both surface and sub-surface, to determine the character of materials and geologic and soils conditions that will be encountered in the work and to fully determine all existing conditions affecting the project and all related cost factors.

SP-2-12.00 SAFETY — In compliance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.

When performing underground work, Contractor shall call Underground Service Alert, (800) 227- 2600, the one-call underground facility locating service, two working days prior to beginning work on the project. All underground facilities marked in response to the locating phone call shall be hand- dug and exposed prior to any use of power equipment for excavation. If there is any substantial discrepancy between the field locations of underground facilities and those locations shown on the plans, the Contractor shall notify the Engineer prior to making an excavation.

SP-2-13.00 PROTECTION OF EXISTING FACILITIES — During the installation of work, Contractor shall insure that existing facilities, fences and other structures are all adequately protected, unless otherwise stated in the plans or specifications, and that, upon completion of all work, all facilities that may have been damaged are restored to a condition acceptable to the Owner, and no error or omission on said plans shall be construed to relieve the Contractor from the responsibility of protecting any such pipe, conduit or other existing utility structure, fence or structure.

#### SP-2-14.00 EXAMINATION OF PLANS, SPECIFICATIONS AND SITE OF WORK —

The bidder shall examine carefully the site of the work contemplated. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered as to character, quality, and scope of work to be performed, the quantities of materials to be furnished, and as to the requirements of the bid proposal, plans and specifications.

When deemed necessary by the City Engineer, revisions of the contract drawings and additional detailed drawings will be issued to the Contractor during the progress of the work.

The Contractor shall inform the City Engineer a reasonable length of time in advance of the times and places at which he intends to work in order that inspection may be provided, and then the necessary measurements for records and payments may be made with minimum inconvenience.

SP-2-15.00 COMPLIANCE WITH REGULATIONS — The Contractor shall familiarize himself and comply with all applicable Federal, State, County and City and Special District rules and regulations pertaining to the job and jobsite safety.

**SP-2-16.00 POWER AND WATER SUPPLY** — The Contractor shall provide, at his own expense, all necessary power and water required for his operations under the contract. The Contractor shall provide and maintain in good order such modern power equipment as shall be adequate in the opinion of the Director of Community Services to perform in a safe and satisfactory manner the work required by the contract.

It is a misdemeanor to use water from any Public Fire Hydrant without authorization.

**SP-2-17.00 DUST ABATEMENT** — The Contractor shall furnish all labor, equipment and means required and shall carry out protective measures wherever and as often as necessary in the opinion of the Engineer to prevent his operations from producing dust in amounts damaging to property or causing nuisance. The Contractor shall be responsible for any damage resulting from dust originating from his operations. The dust abatement measures shall be continued until all required resurfacing is completed or until the Contractor has completed arrangements with the proper authorities whereby he is relieved of further responsibility. Such arrangements shall be approved by the Director of Community Services prior to their completion. Unless otherwise provided full compensation for dust abatement as described shall be considered included in the unit price paid for other items of work and no additional allowance will be made therefore.

**SP-2-18.00 COOPERATION BETWEEN CONTRACTORS** — The Contractor shall be required to cooperate fully with all utility and public agency representatives engaged in construction, relocation, altering or otherwise re-arranging any facilities interfering with the progress of the work. Full compensation for any delay or inconvenience to the Contractor's operation due to such operations as described above shall be considered included in the unit price paid for other items of work and no additional allowance will be made therefore.

**SP-2-19.00 DAILY CLEANUP AND ACCESS** — At the completion of work each day, the Contractor shall leave the work area in a clean, safe condition. Access to all adjacent properties and driveways and intersections shall be maintained at all times.

**SP-2-20.00 FINAL CLEANUP** — After completion of all other work on the project, and before making application for acceptance of the work, the Contractor shall clean the site of his operations, including any areas under the control of the City that have been used by the Contractor in connection with the work.

**SP-2-21.00 MAINTENANCE AND GUARANTEE** — As specified in Paragraph 10.3 of the General Provisions, the Contractor shall guarantee the work constructed by him for a period of one year following date of acceptance by the Owner.

**SP-2-22.00 PROTECTION OF THE PUBLIC** — The following minimum restrictions shall be maintained by the Contractor in the conduct of his work:  
It is part of the service required of the Contractor to make whatever provisions are necessary to protect the public. The Contractor shall use foresight and shall take such steps and precautions as his operations warrant to protect the public from danger, loss of life or loss of property, or from the failure of partially completed work or partially removed facilities. Conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss, or damage to life and property, due directly or indirectly to prosecution of work under this Contract.



Whenever, in the opinion of the City Engineer , an emergency exists against which the Contractor has not taken sufficient precaution for the public safety, protection of utilities and protection of adjacent structures or property, which may be damaged by the Contractor's operations and when, in the opinion of the Director of Community Services, immediate action shall be considered necessary in order to protect the public or property due to the Contractor's operations under this Contract, the Director of Community Services will order the Contractor to provide a remedy for the unsafe conditions.

If the Contractor fails to act on the situation within a reasonable time period, the City Engineer may provide suitable protection to said interest by causing such work to be done and material to be furnished as, in the opinion of the City Engineer , may seem reasonable and necessary.

The cost and expense of said labor and material together with the cost and expense of such repairs as are deemed necessary shall be borne by the Contractor. All expenses incurred by the City for emergency repairs will be deducted from the progress payments and the final payment due to the Contractor. However, if the City does take such remedial measures, the Contractor is not relieved of the full responsibility for public safety.

**SP-2-23.00 TRAFFIC CONTROL (PUBLIC CONVENIENCE AND SAFETY) STREET CLOSURES, DETOURS, BARRICADES** — The Contractor shall comply with all applicable State, County and City requirements for work in the public right-of-way. The Contractor shall provide and maintain barriers, guards, lights, signs, temporary bridges, pilot cars, arrow boards, message boards, flag persons and watch persons, advising the public of detours and construction hazards. The Contractor shall also be responsible for compliance with additional public safety requirements which may arise during construction. The Contractor shall furnish and install, and upon completion of the work, promptly remove all signs and warning devices. All work shall be accomplished in accordance with the requirements specified in Subsection 7-10 of the Standard Specifications for "Public Works Construction" latest edition. In addition, traffic control shall be provided in accordance with the State of California's "Traffic Manual", latest edition and plans.

Should the Contractor appear to be neglectful or negligent in furnishing warning and protective measures, the City Engineer or his representative may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed immediately by the Contractor at his expense. Should the City Engineer or his representative point out the inadequacy of warning and protective measures, such action on the part of the City Engineer shall not relieve the Contractor from responsibility for public safety or abrogate his obligation to furnish any pay for these devices.

Thru traffic may be detoured and adequate signs posted. Local traffic (2-ways) and access to existing driveways shall be maintained at all times.

A traffic control plan has not been provided. The Contractor shall place "No Parking Anytime" signs 48 hours prior to construction at locations approved by the City Engineer, said signs shall be of the size and type specified by the City Engineer. The Contractor is also responsible for notifying all affected businesses and residents of his scheduled work.

Unless provided, otherwise full compensation for conforming to the requirements of this section shall be

considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

**HOURS OF WORK** — Except where otherwise noted, all work shall normally be performed between the hours of 8:00 a.m. and 5:00 p.m. on Monday thru Friday except holidays. The Contractor shall obtain the approval of the City Engineer if he desires to work outside of the hours stated herein. The Contractor shall reimburse the City for any inspection and material testing outside of the City's normal working hours at the rate of \$85.00 per hour.

**SP-2-24.00 CONTRACTOR'S RESPONSIBILITY** — The Contractor shall be responsible to adhere to these specifications as closely as possible. It is the Contractor's responsibility to confer with the City Engineer and to get a written agreement as to the necessary changes prior to performing any work that is not in conformance with these specifications or the contract drawings.

**SP-2-25.00 CONSTRUCTION AND ENCROACHMENT PERMITS** — The Contractor and his subs shall procure all permits and business licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Any costs for these fees and/or permits shall be included in the prices paid for the various contract items of work listed in the Bid Form except where specified otherwise.

It is the responsibility of the Contractor to contact the applicable agencies and make himself knowledgeable and responsible to all of their requirements. The Contractor shall, at no additional cost to the City, construct the work in strict accordance with all agencies.

**SP-2-26.00 DIRT/GRINDING EXPORT** — The Contractor shall be responsible for the removal of all excess dirt, grinding or unsuitable materials, if any, created by the construction of the project. The cost for this shall be considered in the various bid items if not specified.

**SP-2-27.00 DIRT/MATERIAL IMPORT** — The Contractor shall be responsible for the import of any dirt or materials, if required, for the construction of the proposed project. The cost for obtaining, hauling and placement of any material, if not indicated, shall be considered in the various bid items.

**SP-2-28.00 COMPACTION** — All fill, sub-base, base, under pavement, curb, gutter, and sidewalks to be compacted in place to 95% relative compaction except where specified otherwise. The earthwork will be tested for compliance by a Registered Soils Engineer, as designated by the City at Contractor's expense. Any retesting by the Soils Engineer due to failure to achieve minimum compaction will be paid for by the Contractor.

**SP-2-29.00 CONSTRUCTION DETOUR AND TRAFFIC CONTROL** — Two way access to residents and business shall be maintained at all times during construction. The Contractor shall provide all signage, barricades, flaggers and warning devices necessary to adequately protect the public, through traffic and the Contractor's workers and equipment. A traffic control plan has not been provided. Contractor shall be responsible for this work. Also refer to NIB- 5, Item #30.

**SP-2-30.00 CONSTRUCTION SURVEY STAKING** — The Contractor will be responsible to supply construction staking and re-staking. Any costs for construction survey staking shall be included in the prices listed in the Bid Form except where specified otherwise.

SP-2-32.00 MOBILIZATION — Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site. The cost of mobilization shall be included in the lump sum bid price of mobilization and shall include re-mobilization for different stages of work necessary to complete the project. **Mobilization cost cannot exceed 5% of total bid price.**

SP-2-33.00 CONSTRUCTION MATERIALS AND METHODS:

GENERAL - Contractor shall contact the affected utility companies for information regarding identification, location, and depth of underground utilities.

PRESERVATION OF PROPERTY - Existing improvements in areas adjoining the property whereon demolition and removal is being performed shall be protected from damage resulting from operations of the Contractor and the Contractor shall be responsible for such damage. In like manner any building, structure, tree, shrub, or other item not designated for removal on the property where demolition and removal is being performed shall be similarly protected and preserved.

DUST CONTROL - The Contractor shall provide such dust laying equipment and methods as may be required to protect adjacent property from annoyance or damage from dust caused by his operations, and failure to control such dust shall be cause for the Engineer to stop the work until said dust is controlled, and the Contractor shall have no recourse to collect from the Town for any loss of time or expense sustained by him due to such suspension of work.

SELECTED MATERIALS - Existing materials excavated within the project limits that meet the specifications for trench backfill, topsoil, or other selected materials may be used to fulfill all or a portion of the requirements for such materials. No additional compensation will be allowed for excavation, stockpiling, overhaul, or placing selected materials encountered in the excavation unless otherwise noted. All work shall meet with the requirement of Soil's Engineer.

SURPLUS MATERIALS - The Contractor shall furnish written consent from the owner of the property where it is intended to dispose of the surplus material, unless requested by City. Surplus excavation shall become the property of the Contractor.

FURNISHING AND APPLYING WATER - Furnishing and applying water shall be considered as included in the bid price paid for the various contract items of work requiring such water and no additional compensation will be made therefore.

SP-2-34.00 FEDERAL LOBBYING RESTRICTIONS – Section 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier sub recipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal-aid contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than Federal funds have been paid for the same purposes in connection with this Federal-aid contract, the recipient shall submit an executed certification and, if required, submit a

completion disclosure form as part of the bid documents.

A certificate for Federal-aid contracts regarding payment of funds to lobby Congress or a Federal agency is included in the Proposal. Standard Form – LLL, “Disclosure of Lobbying Activities”, with instructions for completion of the Standard Form is also included in the Proposal. Signing the proposal shall constitute signature of the Certification.

The above-reference certification and disclosure of lobbying activities shall be included in each sub-contract and any lower-tier contracts exceeding \$100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
- (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or
- (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

SP-2-35.00 DISADVANTAGED BUSINESS – This project is partially federally funded, and the Contractor is encouraged to comply with Part 23, Title 49, Code of Federal Regulations entitled “Participation By Minority Business Enterprise in Department of Transportation Programs”. The Regulations in their entirety are incorporated herein by this reference.

Bidders shall be fully informed respecting the requirements of the Regulations and the Department’s Disadvantaged Business (DBE) program developed pursuant to the Regulations; particular attention is directed to the following matters:

(a) A DBE must be a small business concern as defined pursuant to Section 3 of U.S. Small Business Act and relevant regulations promulgated pursuant thereto;

A DBE bidder, not bidding as a joint venture with a non-DBE, will be required to meet the DBE goal through subcontracting or material purchases or make good faith effort to do so;

- (b) A DBE may participate as a subcontractor, joint venture partner with a prime or subcontractor, or vendor of material or supplies;
- (c) A DBE joint venture partner must be responsible for a clearly defined portion of the work to be performed in addition to satisfying requirements for ownership and control. The DBE joint venture must submit either Schedule B of the Regulations or California Department

of Transportation Office of Civil Rights form entitled "Minority/Disadvantaged/Women Business Enterprise Joint Venture";

- (d) A DBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work;
- (e) DBE's must be certified by California Unified Certification program (CUCP). Listings of DBEs certified by the CUCP are available from the following sources:
  - 1. The Caltran's "Civil Rights" web site at: <http://www.dot.ca.gov/hq/bep>.
  - 2. The Caltran's DBE Directory. This directory may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone (916) 445-3520.
- (f) When reporting, DBE participation, bidders may count the cost of materials or supplies purchased from DBEs as follows:
  - 1. If the materials or supplies are obtained from A DBE manufacturer, 100 percent of the cost of the materials or supplies. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
  - 2. If the materials or supplies are purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies. A DBE regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such building items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating or maintaining a place of business as provided in this paragraph F.1., if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract- by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this paragraph F.2.
  - 3. If the DBE is neither a manufacturer nor a regular dealer, county only the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, provided the fees are reasonable and not excessive as compared with fees charged for similar services.
- (g) When reporting DBE participation, bidders may count the participation of DEB trucking

companies as follows:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract.
2. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
3. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
4. The DBE may lease trucks from another DBE firm including an owner-operator, who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total values of the transportation services the lessee DBE provides on the contract.
5. The DBE may also lease trucks from a non-DBE firm including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it received as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE:
6. For the purposes of this paragraph G, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for the use of the leased truck. Leased trucks must display the name and identification number of the DBE.

(i) Bidders are encouraged to use services offered by financial institutions owned and controlled by DBE's.

SP-2-36-00 DBE VOLUNTARY GOAL FOR THIS PROJECT – The City has established the following goal for disadvantaged businesses (DBE) participation for this project. Disadvantaged Business (DBE) 7.56%

It is the bidder's responsibility to make a sufficient portion of the work available to subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to assure meeting the goal for DBE participation.

Bidders are encouraged to utilize the services of Caltrans and/or specialized organizations to contact interested DBEs.

SP-2-37.00 DBE RECORDS – The Contractor shall maintain records of all subcontracts entered with certified DBE subcontractor and records of materials purchased from certified DBE suppliers. Such records shall show the name and business address of each DBE subcontractor or vendor and the total dollar amount actually paid each DBE subcontractor or vendor.

Upon completion of the contract, a summary of these records shall be prepared on Form HC-43 and certified correct by the Contractor or his authorized representative, and shall be furnished to the Engineer.

SP-2-38.00 SUBCONTRACTING – Attention is directed to the provisions in Section 2-3, Subcontracts,

or the Standard Specifications, and SP-3, "Submission of DBE Information, Award, and Execution of Contract", elsewhere in these special provisions and these special provisions.

The requirement in Section 2-3.2 of the Standard Specifications that the Contractor shall perform with his own organization contract work amounting to not less than 50 percent of the original contract price is not changed by the Federal Aid requirement that the Contractor perform not less than 30 percent of the original contract work with his own organization.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of the Standard Specifications of the California Department of Transportation. This requirement shall be enforced as follows:

Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

The DBE information furnished under ST-3-1.01, "DBE Information", of these standard provisions is in addition to the subcontractor information required to be furnished under said Section 2-3, "Subcontracts" of the standard provisions.

In accordance with the Federal MBE regulations Section 23.45(f) (2) Part 23, Title 49 CFR:

- (1) No substitution of a DBE subcontractor shall be made at any time without the written consent of the Department, and
- (2) If a DBE subcontractor is unable to perform successfully and is to be replaced, the contractor will be required to make good faith efforts to replace the original DBE subcontractor with another DBE subcontractor.
- (3) The requirement in ST 2-35.00, "Disadvantaged Business", of these standard provisions that DBEs must be certified on the date bids are opened does not apply to DBE substitutions after award of the contract.

#### SP-2-39.00 PERFORMANCE OF DBE SUBCONTRACTORS AND SUPPLIERS –

The DBEs listed by the Contractor in response to the requirements in the section of these special provisions entitled "Submission of DBE Information, Award, and Execution of Contract", which are determined by the Department to be certified DBEs, shall perform the work and supply the materials for which they are listed unless the Contractor has received prior written authorization to perform the work with other forces or to obtain the materials for other sources.

Authorization to utilize other forces or sources of materials may be requested for the following reasons:

- (1) The listed DBE, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract, when such written contract, based upon the general terms, conditions, plans and specifications for the project, or on the terms of such subcontractor's or supplier's written bid, is presented by the Contractor.
- (2) The listed DBE becomes bankrupt or insolvent.
- (3) The listed DBE fails or refuses to perform his subcontract or furnish the listed materials.

- (4) The Contractor stipulated that a bond was a condition of executing a subcontract and the listed DBE subcontractor fails or refuses to meet the bond requirements of the Contractor.
- (5) The work performed by the listed subcontractor is substantially unsatisfactory and is not in substantial accordance with the plans and specifications, or the subcontractor is substantially delaying or disrupting the progress of the work.
- (6) It would be in the best interest of the State.

The Contractor shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed DBE or by other forced (including those of the Contractor) pursuant to prior written authorization of the Engineer.

If a trucking broker, who is not a DBE but was listed for DBE credit in the Contractor's DBE information, fails to pay at least 20 percent to the DBEs listed on the broker's "certified roster", the broker will no longer be eligible for DBE credit for one year.

If a DBE trucking broker was listed for DBE credit in the Contractor's DBE information on the basis of the broker's signed agreements with DBE truckers that the trucking will be performed by certified DBE truckers and if all the revenue paid by the broker is not paid to the DBEs listed on the broker's "certified roster", the broker will no longer be eligible for 100 percent DBE credit for one year.

The Contractor shall include the above information in the agreements made with trucking brokers so that brokers will be aware that they may become ineligible for DBE credit.

The Contractor shall submit monthly documentation to the Engineer that shows the amount paid to DBE truckers under trucking brokers listed in the Contractor's DBE information. The records must confirm that no less than 20 percent was paid to DBE truckers by brokers who are not DBEs and that all the revenue paid by DBE brokers was paid to DBE truckers if the Contractor indicated in the DBE information that the broker had signed agreements with DBE truckers that the trucking will be performed by DBE truckers.

### **PART III – SUBMISSION OF DBE INFORMATION, AWARD, AND EXECUTION OF CONTRACT**

SP-3-1.01 GENERAL – The bidder's attention is directed to the provisions in Section 2, "Award and Execution of Contract", of the Standard Specifications and these special provisions for the requirements and conditions concerning submittal of DBE information, award, and execution of contract.

The required DBE information shall be submitted on the "DBE INFORMATION" form.

It is the bidder's responsibility to meet the goal for DBE participation or to provide information to establish that, prior to bidding, the bidder made good faith efforts to do so.

SP-3-1.01A DBE INFORMATION – If DBE information is not submitted with the bid,



the apparent successful bidder (low bidder) and the second low bidder shall submit DBE information to the Department no later than close of business on the fourth day, not including Saturdays, Sundays and legal holidays, following bid opening.

DBE information sent by certified mail and postmarked on or before the third day, not including Saturdays, Sundays and legal holidays, following bid opening will be accepted even if it is received after said fourth day following bid opening. Failure to submit the required DBE information by the time specified will be grounds for finding the bid or proposal non-responsible. Other bidders need not submit DBE information unless requested to do so by the Department. When such request is made, the DBE information of such bidders shall be submitted so the information is received by the Department no later than close of business on the third day, not including Saturdays, Sundays and legal holidays, after said notification, unless a later time is authorized by the Department.

The bidders DBE information shall establish that the DBE goal will be met or that a good faith effort to meet the goal has been made.

Bidders are cautioned that even though their submittal indicates they will meet the stated DBE goal, their submittal should also include their good faith efforts information along with their DBE goal information to protect their eligibility for award of the contract in the event the Department, in its review, finds that the goal has not been met.

The information to show that the DBE goal will be met shall include the names of DBEs to be used, with a complete description of work or supplies to be provided by each and the dollar value of each such DBE transaction. When 100 percent of the contract item of work is not to be performed or furnished by a DBE, a description of the exact portion of said work to be performed or furnished by that DBE shall be included in the DBE information, including the planned location of said work. (Note: DBE subcontractors to whom the bidder proposes to subcontract portion of the work in an amount in excess of ½ of one percent of his total bid or \$10,000, whichever is greater, must have been named in the bid. – See section entitled “Required Listing of Proposed Subcontractors” in Section 2 of these Standard Specifications).

The information necessary to establish the bidder’s good faith efforts to meet the DBE goal may include:

- (1) The names and dates of advertisement of each newspaper, trade paper, and minority-focus paper in which a request for DBE participation for this project was placed by the bidder.
- (2) The names and dates of notices of all certified DBEs solicited by direct mail for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested.
- (3) The items of work for which the bidder requested sub bids or materials to be supplied by DBEs, the information furnished interested DBEs in the way of plans, specifications and requirements for the work, and any breakdown of items of work into economically feasible units to facilitate DBE participation. Where there are DBEs available for doing portions of the work normally performed by the bidder with his own forces, the bidder will be expected.

- (4) to make portions of such work available for DBEs to bid on.
- (5) The names of DBEs who submitted bids for any of the work indicated in (3) above which were not accepted, a summary of the bidder's discussions and/or negotiations with them, the name of the subcontractor or supplier that was selected for that portion of work, and the reasons for the bidder's choice. If the reason for rejecting a DBE bid was price, give the price bid by the rejected DBE and the price bid by the selected subcontractor or supplier. Since the utilization of available DBEs is expected, only significant price differences will be considered as cause for rejecting such DBE bids.
- (6) Assistance that the bidder has extended to DBE's identified in (4) above to remedy the deficiency in their sub-bids.
- (7) Any additional data to support a demonstration of good faith effort, such as contacts with DBE assistance agencies

SP-2-35.00 AWARD OF CONTRACT – The award of contract, if it be awarded, will be to the total lowest responsible bidder whose proposal complies with all the requirements prescribed.



**I.T. & ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS:**

**11 S. D ST, PERRIS CA**

**CLIENT**

**City of Perris  
101 North "D" Street  
Perris CA 92570  
(951) 943-6100**

**Technical Specifications**

**PLANS BY:**

**EVERETT SMITH DESIGNS  
everett@everettsmithdesigns.com  
PERRIS, CA. 92570  
951-323-2187**

TABLE OF CONTENTS

DIVISION 1 – 01000 GENERAL REQUIREMENTS

01100	SUMMARY OF WORK
01310	COORDINATION
01312	PROJECT MEETINGS
01340	SHOP DRAWINGS, PROJECT DATA, AND SAMPLES
01370	SCHEDULE OF VALUES
01410	TESTING
01420	INSPECTION OF WORK
01458	TESTING
01500	TEMPORARY FACILITIES AND CONTROLS
01600	PRODUCTS AND MATERIALS
01700	PROJECT CLOSEOUT
01720	PROJECT RECORD DOCUMENTS
01785	WARRANTIES & BONDS

DIVISION 2 – EXISTING CONDITIONS

022116	STRUCTURE DEMOLITION
028213	ASBESTOS ABATEMENT

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

SECTION 061053	- MISCELLANEOUS ROUGH CARPENTRY SECTION 061600
SECTION 061600	- SHEATHING

DIVISION 08 - OPENINGS

SECTION 081113	- HOLLOW METAL DOORS AND FRAMES
087100	- DOOR HARDWARE

DIVISION 09 - FINISHES

SECTION 092216	- NON-STRUCTURAL METAL FRAMING
SECTION 092900	- GYPSUM BOARD
SECTION 095000-	ACOUSTICAL CEILING TILE
SECTION 096513	RESILIENT FLOOR BASE
SECTION 096516	RESILIENT SHEET FLOORING
SECTION 099113	EXTERIOR PAINTING
SECTION 099123	- INTERIOR PAINTING

DIVISION 10 - SPECIALTIES

SECTION 101419	- DIMENSIONAL LETTER SIGNAGE
SECTION 101423	- PANEL SIGNAGE

DIVISION 12 - WINDOW ROLLERS

122413	WINDOW ROLLER
--------	---------------

23-2249  
2024.03.10

DIVISION 00

DIVISION 23- HEATING VENTILATING, AND AIR CONDITIONING

**PART 1 - GENERAL**

PROJECT OVERVIEW

SCOPE

REFERENCE STANDARDS

REGULATORY REQUIREMENTS

QUALITY ASSURANCE

CONTINUITY OF EXISTING SERVICES AND SYSTEMS

PROTECTION OF FINISHED SURFACES

APPROVED ELECTRICAL TESTING LABORATORIES

SEALING AND FIRE STOPPING

INTENT

OMISSIONS

SUBMITTALS

PROJECT/SITE CONDITIONS

WORK SEQUENCE AND SCHEDULING

WORK BY OTHER TRADES

SALVAGE MATERIALS

RECORD DRAWINGS

PART 2 – PRODUCTS

MATERIAL

EQUIPMENT

**PART 3 - EXECUTION**

COORDINATION

**DIVISION 26 - ELECTRICAL**

26 00 10 ELECTRICAL GENERAL REQUIREMENTS

26 05 19 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

260529 HANGERS AND SUPORTS FOR ELECTRICAL SYSTEMS

260533 RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

260544 SLEVES AND SLEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS

262416 PANELBOARDS

262726 WIRING DEVICES

265100 INTERIOR LIGHTING

I.T. & ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS

23-2249

2024.03.10

GENERAL CONDITIONS

DIVISION 00

## SECTION 01100 - MOBILIZATION

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS:

The provisions of The “Greenbook” Standard Specifications for Public Works Construction shall apply except as modified herein.

PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### WORK INCLUDED IN THE CONTRACT

A. Project Identification: I.T. & ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS

Project Location: - **11 S. D ST, PERRIS CA**

B. Owner: City Of Perris

C. Design Firm: Everett Smith Designs

D. Work Included in the Contract: All construction and services required for below **Scope 1.02**, California Building Code (CBC 2022) Type V-B, construction, of approximately 4860 sf floor area.

#### 1.02 SCOPE OF WORK:

Project Description: The Scope of work generally consists of a Tenant Improvement at an existing city building and miscellaneous related improvements as required by the plans and specifications. This project consists of the re-use of existing office spaces to create new offices, new conference rooms, renovations to the breakroom area, and ALL space to serve as the city’s IT and Economic Development Departments. Renovations include all new finishes like flooring and base, new paint, ceiling tiles, new cabinets, fixtures, hardware and required signage. New electrical and mechanical will be included in the scope for proposed areas. Minor plumbing is required to replace existing sink fixtures.

The Work of this Section shall consist of furnishing all labor, materials, equipment, appliances and services necessary for the execution and completion of all Mobilization Work as shown on the Plans and as described in the Specifications including, but not necessarily limited to, the following:

- Preparatory operations including, but not limited to those efforts necessary for the movement of personnel, equipment, supplies, and incidentals to the Work site;
- All other operations which must be performed or costs incurred prior to beginning Work on the site;
- Provision and installation of Construction Fence per Technical Specification Section 02445 Temporary Chainlink Fence;
- Provision of temporary utilities;
- Secure all required permits;
- Obtain temporary construction water & electrical service
- Submittals per Special Provisions Section 2-5.3.3 Shop Drawings and Submittals and Technical Specifications Section 01300 Submittals.



1.03 SUBMITTALS:

As a part of mobilization, all submittals as specified in various individual Sections of the Specifications shall be submitted for approval by the City in the format specified in Technical Specifications Section 01300 Submittals and within the time-frames specified in Special Provisions Section 2-5.3.3 Shop Drawings and Submittals. Submittals shall include all Materials Lists, Catalog Cuts, Shop Drawings, material and color samples, and Construction Schedule all as specified.

PART 2 - EXECUTION

2.01 GENERAL:

A. Payment: The price of this item is included in the various items of work and shall include but not limited to all activities, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for the work on this project; and for all other work and operations of the Contractor's forces which must be performed or cost incurred, prior to the beginning of work on the various contract items on the project site under the Contract. No separate payment will be made for mobilization, and no further compensation will be allowed therefore.

2.02 CLEAN-UP:

Contractor shall provide trash receptacles for collecting debris, shall remove debris from the job site at regular intervals not less than weekly and shall dispose of same in a legal manner.

END OF SECTION

SECTION 01310 – COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

A. Coordination of Work under Contract.

A. Related Requirements Specified Elsewhere:

Summary of Work: Section 01010

Products: Individual Sections - Divisions 2-16.

Provide projected construction schedule for entire work. Revise periodically.

B. Form of Schedule:

Horizontal bar chart with separate horizontal bar column for each trade or operation.

Identify each column by distinct delineation. Identify the first work day of each week.

Allow space for updating. Identify each part separately unless all work is concurrent.

C. Content of Schedule:

Provide complete sequence of construction by activity.

Shop drawings, project data and samples;

Submittal date and date review copies required.

Decision dates;

Product substitutions;

Selection of finishes.

Product procurement and delivery dates;

Dates for beginning and completion of each element of construction, including equipment

installation dates;

Testing of equipment on systems.

Show projected percentage of completion for each item of work as of first day of each month.

Provide sub-schedules to define critical portions of entire schedule.

D. Updating:

Show all changes occurring since previous submittal of schedule. Indicate progress of each activity; show completion dates.

Include major changes in scope, modified activities, revised projections, and other identifiable changes.

Provide description of current and anticipated delay factors and their impact.

E. Submittals:

Submit initial schedule within 15 days after date of Notice to Proceed. Agency Representative will review schedule and return review copy within 10 days after receipt.

If required, resubmit within 7 days after return of review copy.

Submit periodically updated schedules accurately depicting progress to first day of each month. Submit 6 copies to City Representative.

## F. Distribution:

Distribute copies of reviewed schedules to job site file, subcontractors, and other concerned parties, with instructions to coordinate.

### 1.3 RELATED SECTIONS

A. Section 01100 - Summary of the Work: Various types of Work to be coordinated, including Owner-Furnished/Contractor-Installed products and work under separate Contracts.

B. Section 01610 - Basic Product Requirements: Coordination of products, especially general requirements for system completeness and product substitutions.

### 1.4 COORDINATION

A. Coordination, General:

1. Coordinate the Work according to provisions stated in Contract General Conditions. Do not delegate responsibility for coordination to any subcontractor.

a. Anticipate the interrelationship of all subcontractors and their relationship with the total work.

b. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of work between sections. The Contractor's decisions, if consistent with the Contract Documents, shall be final. The Design Firm is not required to coordinate work between sections and will not do so.

c. Coordinate the work of subcontractors and material suppliers, so that their work is performed in a manner to minimize interference with, and to facilitate the progress of the work.

2. Coordinate utility and building services shut-downs and closures of vehicular and pedestrian thoroughfares, including access to buildings and parking areas, to minimize disruption of City activities.

3. Do not obstruct spaces required by Code in front of electrical equipment, access doors, etc.

4. Do not cover any piping, wiring, ducts, etc., until properly inspected and approved.

7. Remove and replace any and all Work under any Section which is not in accordance with the Contract Documents with other materials and Work which is in conformance with the Contract Documents. Repair or replace all other Work damaged by these operations at no increase in contract price.

8. This work shall be coordinated with all associated Work in a manner that will insure that all work will be accomplished as rapidly as the progress of the project will permit and so that no work will be delayed for want of associated work.

B. Relationship of Contract Documents: Drawings, Specifications and other Contract Documents in the Project Manual are intended to be complementary. What is required by one shall be as if required by all. What is shown or required, or may be reasonably inferred to be required, or which is usually and customarily provided for similar work, shall be included in the Work.

C. Discrepancies in Contract Documents: In the event of error, omission, ambiguity or conflict in Drawings or Specifications, Contractor shall bring the matter to attention of the City in a timely manner during the bidding period, for determination and direction by the City in accordance with provisions of the Contract General Conditions.

D. Construction Interfacing and Coordination: Layout, scheduling and sequencing of Work shall be solely the Contractor's responsibility.

1. Contractor shall verify, confirm and coordinate field measurements so that new construction correctly and accurately interfaces with conditions existing prior to construction.

2. Contractor shall bring together the various parts, components, systems and assemblies as required for the correct interfacing and integration of all elements of Work. Contractor shall coordinate Work to correctly and accurately connect abutting, adjoining, overlapping and related elements.

END OF SECTION

SECTION 01312 - PROJECT MEETINGS

1.1 GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

A. Related Requirements Specified Elsewhere:

Summary of Work: Section 01100  
Coordination: Section 01310  
Shop Drawings, Project Data, and Samples: Section 01340 Project  
Record Documents: Section 01720

B. Pre-Construction Meeting:

Schedule after insurance documents are approved. The contractor shall provide insurance documents in a timely manner per City of Perris special provisions.

Minimum Attendance:

Prime Contractor  
Major Subcontractors  
Design Firm  
Utility Representatives  
City Building and Safety Department City  
Engineer

C. Progress Meetings:

Schedule regular meetings at work site as determined by City. Hold called meetings as progress of work dictates.

The Contractor and any or all of its subcontractors shall attend these meetings as directed by the City Representative.

1.2 REQUIREMENTS INCLUDED

- A. Preconstruction meeting.
- B. Construction progress meetings.
- C. Pre-installation conferences.

END OF SECTION

SECTION 01340 - SHOP DRAWINGS, PROJECT DATA AND SAMPLES

I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

A. Submit:

Submit to the City shop drawings, project data and samples required by specification sections.

B. Related Requirements Specified Elsewhere:

General Conditions

Coordination: Section 01310

Summary of Work: Section 01010

Project Closeout: Section 01700

Products and Materials: Section 01600

C. Construction Schedule:

Designate dates for submission and dates reviewed shop drawings, project data and samples will be needed for each product.

II. SHOP DRAWINGS

Original drawings, prepared by Contractor, subcontractor, supplier or distributor which illustrate some portion of the work, showing fabrication, layout, setting or erection details.

Furnished at Contractor's expense by Contractor.

Prepared by qualified detailer.

Identify details by reference to sheet and detail numbers on Contract Drawings.

Minimum sheet size: 8 1/2" by 11".

A. Reproduction for Submittals:

Reproducible bond paper with three bond prints.

III. PROJECT DATA

A. Manufacturer's Standard Schematic Drawings:

Modify to delete information which does not apply.

Supplement standard information where applicable to work.

B. Manufacturer's Catalog Sheets, Brochures, Diagrams, Schedules, Performance Charts, Illustrations and other Standard Descriptive Data:

Clearly mark each copy to identify pertinent information. Show dimensions and clearances required.

Show performance characteristics and capacities. Show wiring diagrams and controls.

IV. SAMPLES

Physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.

A. Office Samples:

Of size and quantity to clearly illustrate:

Functional characteristics of product or material, with integrally related parts and attachment devices.  
Full range of color samples.

After review, samples may be used in construction project.

B. Field Samples and Mock-Ups:

Erect at project site at location acceptable to Engineer/Design Team.  
Construct complete, including work of all trades required in finished work.

V. CONTRACTOR'S RESPONSIBILITIES

Review shop drawings, project data and samples prior to submission.  
Verify field measurements, field construction criteria, catalog numbers and similar data. Coordinate each submittal with requirements of work and of Contract Documents.

A. Responsibility for Errors and Omissions in Submittals:

Not relieved by Landscape Design Team's review of submittals.

B. Responsibility for Deviations in Submittals from Contract Documents:

Not relieved by Landscape/Design Team's review unless Landscape/Design Team gives written acceptance of specific deviations.

Notify Agency in writing at time of submission of deviations in submittals from requirements of Contract Documents.

Begin no work requiring submittals until return of submittals with Landscape/Design Team's stamp and signature indicating review.

Distribute copies after Design Team's review.

VI. SUBMISSION REQUIREMENTS

Schedule all submittals not later than 30 days after Award of Contract.

The City will not be responsible for delays to the Contractor for any submittal not received within the specific time.

Submit 6 sets of shop drawings, catalogs, samples, etc. for City's retention, one copy for Design Team, and one copy for consultants (If require).

Transmittal letter shall be in duplicate, containing date, project title and number, Contractor's name and address, the number of each shop drawing, project data and sample submitted, notification of deviations from Contract Documents, and other pertinent data.

Submittal shall include:

Date and revision date;

Project title, number, park name or names.

Names of : Agency, Contractor, Subcontractor, Supplier, Manufacturer, separate detailer, where pertinent;

Identification of material;

Relation to adjacent structure or materials; Field dimensions, clearly identified;  
Specification section number;  
Applicable standard, such as ASTM # or Federal Specification; Space for Landscape Design Team's stamp;  
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.

VII. RESUBMISSION

A. Shop Drawings:

Revise initial drawings as required and resubmit as specified for initial submittal.

Indicate on drawings any changes which have been made other than those requested by the Design Team.

B. Project Data and Samples:

Submit new datum and samples as required for initial submittal.

VIII. DISTRIBUTION AFTER REVIEW

Distribute stamped copies of shop drawings and project data to:

Contractor's file  
Job site file  
Record Documents file  
Subcontractor  
Supplier  
Fabricator.

A. Samples:

Distribute as directed.

END OF SECTION

SECTION 01370 - SCHEDULE OF VALUES

I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

A. Related Requirements Specified Elsewhere:

Project meetings: Section 01200  
Construction schedule: Section 01310

B. Submit to City:

Schedule of Values, at least 20 days prior to first progress payment estimate. Upon Agency Representative's request, support values given with substantiating data. Quantities of designated materials.

C. Schedule of Values:

Used only as a basis for Progress Payment.

II. FORM OF SUBMITTAL

Typewritten on 8 1/2" x 11" white bond paper.

Use Table of Contents of this Specification for format for listing costs of work for Sections under Divisions 2 through 16.

Identify each line item with number and title.

III. PREPARING SCHEDULE OF VALUES

Itemize separate line item cost for work required by each section of this specification. Break to indicate total installed cost, with overhead and profit.

Round off figures to nearest dollar.

Make sum of total costs of all items listed in schedule equal to total Contract sum.

IV. REVIEW AND RESUBMITTAL

After review by City Representative, revise and resubmit schedule as required. Resubmit revised schedules in same manner.

END OF SECTION



## SECTION 01410 - TESTING

### I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

#### A. Related Requirements Specified Elsewhere:

Inspections and testing required by laws, ordinances, rules, regulations or orders of public authorities: General Conditions.

Certification of products: Respective specification sections. Cutting and Patching: Section 01045

Project Closeout: Section 01700

#### B. Independent Testing Laboratory:

Agency will employ and pay for services of an Independent Testing Laboratory to perform soil, concrete, and related testing services.

Contractor will employ and pay for services of an Independent Testing Laboratory, approved by the Agency, to perform agronomic soil test and other testing services required by the specifications.

Employment of Testing Laboratory will in no way relieve Contractor of its obligation to perform work in accord with contract.

### II. LABORATORY DUTIES; LIMITATIONS OF WARRANTY

Cooperate with Agency and Contractor; provide qualified personnel promptly on notice.

Perform specified inspections, sampling and testing of materials and methods of construction. Comply with specified standards. Ascertain compliance with requirements of Contract Documents.

Notify Engineer and Contractor promptly of irregular ties or deficiencies of work observed during performance of services.

Submit promptly 5 copies of reports of inspections and tests to Agency for further distribution. Perform additional services as required by Agency.

No authority to release, revoke, alter or enlarge on requirements of Contract Documents; approve or accept any portion of the work; perform any duties of the Contractor.

### III. CONTRACTOR'S RESPONSIBILITIES

Cooperate with Laboratory personnel, provide access to work, arrange access to manufacturer's operations.

Provide Laboratory preliminary representative samples of materials to be tested, in required quantities.

Furnish copies of mill test reports. Casual labor and facilities for access to work to be tested; to obtain and handle samples at the site; to facilitate inspection and tests; for Laboratory's exclusive use for storage and curing of test samples.

Notify Laboratory sufficiently in advance of operations to allow for its assignment of personnel and scheduling of tests.

Arrange with Laboratory and pay for additional inspections, sampling and testing required for the Contractor's convenience and when initial tests indicate work does not comply with Contract Documents.

Coordinate requests for services through City employed Testing Laboratory through Agency Representative.

END OF SECTION

SECTION 01420 - INSPECTION OF WORK

I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

A. Inspection:

The City will inspect and approve all installations and operations. All submittals to, and communication between, the Agency and the Contractor related to the work of this Contract shall be directed to the Agency Representative.

B. Notice:

The Contractor shall give the Agency Representative or an authorized representative a twenty-four (24) hour notice prior to work inspections required elsewhere in these specifications or by public agencies.

The work shall be ready for inspection at the scheduled times arranged by the Contractor. If, in the Agency Representative's sole judgment, the work is not ready and the inspection must be rescheduled, the Contractor shall be notified, shall reschedule the inspection, and shall provide twenty-four (24) hours notice of the rescheduled inspection.

In order to allow for inspection, and in addition to any inspection required by the City Building and/or Safety Department or any inspection required elsewhere in these specifications, the Contractor shall notify the responsible agency sufficiently in advance of the permanent concealment of any materials or work.

If any work is concealed or performed without the prior notice specified above, then the work shall be subject to such tests or exposure as may be necessary to prove to the Agency Representative or responsible agency that the materials used and the work done are in conformity with the plans and specifications. All labor and equipment necessary for exposing and testing shall be furnished by the Contractor at his expense. The Contractor shall replace, at his own expense, any materials or work damaged by exposure or testing.

Any inspection or approval by any representative or agent of the Agency will not relieve the Contractor of the responsibility of incorporating in the work only those materials which conform to the specifications, and any non-conforming materials shall be removed from the project site whenever identified.

C. Deputy Inspection:

The contractor shall provide and pay for all deputy inspections if needed.

D. Final Inspection:

Upon the completion of the work, the Contractor shall notify the Agency Representative seven (7) days in advance of when he desires a final inspection of the work. Engineer will make such inspection as soon thereafter as possible.

E. Defective Work:

No work which is defective in its construction or deficient in any of the requirements of the specifications shall be considered as accepted. The Contractor shall correct any imperfect work whenever discovered, before the final acceptance of the work.

F. Inspection Overtime:

The Contractor shall compensate the Agency, either upon receipt of a bill therefor or by deduction from the final amount due the Contractor, for all hours worked by the Inspector or other authorized Agency employees on Saturdays, Sundays, or legal holidays at one and one-half (1 1/2) times the employees basic rate of pay, plus current rate for overhead.

END OF SECTION

## SECTION 01458

### INSPECTION & TESTING SERVICES

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SECTION INCLUDES

A. Administrative and procedural requirements for quality control services.

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

##### 1.3 RELATED SECTIONS

A. Individual Product Specifications Sections: Specific requirements for inspections and tests.

##### 1.4 RESPONSIBILITIES

A. Testing Laboratory: City will engage and pay for the services of an independent agency to perform inspections and tests specified as the City's responsibility.

1. Where the City have engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the City, unless otherwise agreed in writing with the City.

B. Retesting: The Contractor is responsible for the cost of retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.

1. Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

C. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide

D. Coordination: The Contractor, Project Manager/Inspector, and each agency engaged to perform inspections, testing and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1. The Contractor is responsible for communicating to the Project Manager/Inspector the scheduling times for inspections, tests, taking samples and similar activities. See Section 1.5.B.
2. Contractor shall pay all costs for repeated observations, reinspection or retesting by Testing laboratory due to non-conforming Work. Costs shall be deducted by Change Order from Contract Sum.
3. Additional Tests, Inspections and Related Services: Contractor shall be charged costs for additional tests, inspections and related services, due to the following. Such costs shall be deducted by Change Order from Contract Sum.
  - a. Work is not ready to inspect when inspectors arrive.
  - b. Failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
  - c. Changes in sources, lots or suppliers of products after original tests or inspections.
  - d. Changes in means methods, techniques, sequences and procedures of construction that necessitate additional testing, inspection and related services.
  - e. Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.
  - f. Coordination time for Multiple off-site fabrication sites.
  - g. Fabrication and installation errors.
  - h. Inefficient, sporadic, or poorly organized

E. **Obligation to Perform Work According to Contract Documents:** Employment of Testing Laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents and applicable Codes.

F. **Limits on Testing Laboratory's Authority:**

1. Testing Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
2. Testing Laboratory may not approve or accept any portion of the Work.
3. Testing Laboratory may not assume any duties of Contractor.
4. Testing Laboratory shall have no authority to stop Work.

G. **Contractor's Responsibilities to Testing Laboratory:** Contractor shall make the Work in all stages of progress available for personal and continuous observation by the Testing Laboratory.

1. Testing Laboratory shall have free access to any and all parts of the Work at all times.
2. Contractor shall provide the Testing Laboratory with reasonable facilities for Testing Laboratory to obtain such information as Testing Laboratory determines is necessary for Testing Laboratory to be kept fully informed of the progress and manner of performance of the Work and character of products, according to Testing Laboratory's duties and responsibilities.
3. Observation and inspection of the Work by Testing Laboratory shall not relieve Contractor from any obligation to fulfill the requirements of the Contract.

H. **Retesting:** When materials tested fall to meet requirements herein specified, they shall be promptly corrected or removed and replaced and retested in a manner required by City's Representative. Costs involved in retesting shall be deducted by Change Order from Contract Sum.

## **1.5 TESTS AND INSPECTIONS**

A. **Tests and Inspections, General:** All construction work shall be subject to inspection by the City and the Design Team and all such construction or work shall remain accessible and exposed for inspection purposes until approved by the City.

1. The City will provide project personnel, including inspectors, to be available at the project site.
2. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of the building code or of other ordinances of the jurisdiction, including plans and specifications. Inspections presuming to give authority to violate or cancel the provisions of code, or of plans and specifications shall not be valid.
3. It shall be the duty of the contractor to cause the work to remain accessible and exposed for inspection purposes. Neither the Inspector nor the City or Design Team shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

B. **Inspection Requests:** It shall be the duty of the Contractor doing the work to notify the Inspector that such work is ready for inspection.

## SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

### I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

The Contractor shall be responsible for all specific safety requirements promulgated by any governmental authority, including the requirements of the Occupational Safety and Health Act of 1970 (OSHA) and CAL OSHA.

### II. TEMPORARY UTILITIES

#### A. Light, Power and Water:

Furnish temporary water, light and power, complete with connecting piping, wiring, lamps, meters and similar equipment as required for the work. Install, maintain, and remove temporary lines upon completion of the work. All expenses in connection with temporary services and facilities shall be paid by the Contractor.

After the Notice of Completion has been filed, the City will be responsible for payment of water and electric bills rendered for utility service through the respective permanent meters.

Any and all refunds of monies resulting from the extension of any utility service shall accrue to the Agency, irrespective of the time that refunds are made or of the manner in which payment was made for the extension.

### III. ACCESS AND FACILITIES

#### A. Access:

Provide and maintain an adequate access to the site of the project. Also provide temporary roads if any are required for prosecution of the work.

#### B. Temporary Fencing:

Contractor shall erect a temporary chain link fence around the entire perimeter of the construction and storage areas for his own security. Location and limits of fencing shall be approved by the City at initial site meeting. Fence shall be a minimum 8'-0" in height and shall have appropriate access gates. Fence shall have a good appearance. At completion of project (or sooner), Contractor shall remove fence from property with City permission.

#### C. The contractor shall provide a class 'A' field office complete with temporary non-pay telephone and fax machine

#### D. The contractor shall provide and maintain chemical toilets and wash stations, at least one for each sex. Toilets shall be disabled accessible.

#### E. The contractor shall provide access to existing electrical switch gear during construction and shall provide a temporary location for existing court lighting switches in a secured location away from construction activities as directed by city staff. Tennis court and site lighting must remain operational at all times during construction. During the disconnection and connection of power by Edison or anyone else for the installation of new metering and other equipment, the contractor shall provide, at his own expense, a 480V generator to maintain operation of the lights.

G. Storage Sheds:

Provide and maintain on the premises, where directed, watertight storage sheds for all materials which might be damaged by weather, including storage facilities for concrete test samples or other material samples required for the work.

IV. TEMPORARY SIGNBOARDS

A. Identification Sign:

Provide and maintain an identification sign in a prominent location approved by the City Representative. Signs shall be constructed of 3/4" exterior marine plywood, 4' x 8', with 1" x 4" D.F. stiffeners around all edges. Sign shall be mounted 3 feet above grade on 4" x 4" posts and adequately braced to withstand wind pressures.

Sign shall be constructed by a professional sign painter.

Sign colors shall be as selected by the Design Team. Paints shall be exterior grade to maintain high quality appearance throughout construction period.

Contractor shall be responsible for layout of sign subject to approval of the Agency Representative. Sign shall contain the following:

(PROJECT NAME, CLIENT)  
COUNCIL MEMBERS' NAMES  
UNDER CONSTRUCTION. SCHEDULED OPENING DATE  
  
DESIGN FIRM: EVERETT SMITH DESIGNS, GENERAL CONTRACTORS

V. FIRE PROTECTION

Provide general temporary fire protection for the work under this contract.

VI. TRASH REMOVAL AND CLEANING

Provide trash receptacles for collecting debris. Remove debris from job site at regular intervals.

END OF SECTION



SECTION 01600 - PRODUCTS AND MATERIALS

I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (green Book), latest adopted edition, apply except as modified herein.

A. Work Included:

Transportation and storage.  
Products list.  
"Or equal" and reference to trade names.  
Contractor's options.  
Substitutions.

B. Related Requirements Specified Elsewhere:

Schedule of Values: Section 01700.  
Shop Drawings, Project Data and Samples: Section 01340. Testing:  
Section 01410.  
Inspection: Section 01420.

II. HANDLING

A. Transportation and Storage:

Products or materials to be incorporated in the work shall be transported, handled, and stored in such a manner as to assure the preservation of their quality and fitness for the work and to facilitate inspection.

III. PRODUCTS LIST

Within 30 days after award of Contract, submit to Engineer five (5) copies of complete list of all products which are proposed for installation.

Tabulate list by each specification section. For products specified under reference standards, include with listing of each product:

Name and address of manufacturer; Trade name;  
Model or catalog designation;  
Manufacturer's data:  
    Performance and test data  
    Reference standards

IV. "OR EQUAL" AND REFERENCE TO TRADE NAMES

Whenever in the specifications any material or process is indicated or specified by patent or proprietary name or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating description of the material or process desired and shall be deemed to be followed by the words "or equivalent". However, if the material, process, or article offered by the Contractor is not, in the opinion of the Engineer, equal to that specified, then the Contractor must furnish the material, process or article specified, or one which in the opinion of the Agency Representative is the equal thereof in all essential characteristics.

If the Agency Representative shall decide to accept for use in the project a material which is not the equal of that specified, authority for the substitution shall be made in the manner

described for "Extra Work and Changes", with appropriate monetary allowance for the difference in value.

V. CONTRACTOR'S OPTIONS

For products specified only by reference standards, select any product meeting standards, by any manufacturer.

For products specified by naming several products or manufacturers, select any product and manufacturer named.

For products specified by naming one or more products, but indicating the option of selecting equivalent products by stating "or equal" after specified product, Contractor must submit request, as required for substitution, for any product not specifically named.

VI. SUBSTITUTIONS

A. General:

The Contractor may offer any material or process which he believes to be equal in all essential characteristics to that so indicated or specified; and it shall be incumbent upon the Contractor to furnish sufficient evidence to the City Representative to support his claim of equality. Said offer and supporting evidence must be submitted and approved by the City within 30 calendar days after the Award of Contract or Contractor will be deemed to have waived his right to offer substitute materials and processes.

B. Submittal:

Submit five (5) copies of request for substitution. Include in request:  
Complete data substantiating compliance of proposed substitution with Contract Documents.

For products:

Product identification, including manufacturer's name and address.

Manufacturer's literature:

Product description

Performance and test data

Reference standards

Samples.

Name and address of similar projects on which product was used, and date of installation.

For construction methods:

Detailed description of proposed method.

Drawings illustrating methods.

Itemized comparison of proposed substitution with product or method specified. Data relating to changes in construction schedule.

Relation to separate contracts.

Accurate cost data on proposed substitution in comparison with product or method specified.

C. Contractor Warrants:

It has personally investigated proposed product or method, and determined that it is equal or superior in all respects to that specified.

It will provide the same guarantee for substitution as for product or method specified.

It will coordinate installation of accepted substitution into work, making such changes as may be required for work to be complete in all respects.

It waives all claims for additional costs related to substitution which consequently becomes apparent.

Cost data is complete and includes all related costs under its contract, but excludes:

Costs under separate contracts.  
Landscape Design Team's re-design.

D. Limitations:

Substitutions will not be considered if:

They are indicated or implied on shop drawings or project data submittals without formal request submitted within 30 calendar days of award;

Acceptance will require substantial revision of Contract Documents.

Delays in delivery of specified materials will not be considered justification for substitutions.

END OF SECTION

## SECTION 01700 – EXECUTION AND CLOSEOUT REQUIREMENTS

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

### I. NOTICE

At least five (5) working days notice shall be required for final inspection; such notices shall be given to the City Representative.

### II. REMOVAL OF TOOLS AND CLEAN-UP

Upon completion of the work, the Contractor shall remove all its tools, materials, and other articles from the property of the Agency. Should it fail to take prompt action to this end, the Agency, at its option and without waiver of such other rights as I may have, may on seven (7) days notice treat them as abandoned property. The Contractor shall also sweep all floors broom clean, clean all exterior work and windows and remove all rubbish from the property of the Agency.

### III. DAMAGE

Damage to existing utilities, trees, pavements, structural support, interior area surrounding work or other property caused by the Contractor shall be restored to original condition or better at the Contractor's expense, prior to final inspection.

### IV. GUARANTEES

All guarantees required by the following Division of these Specifications shall be presented in writing to the Agency prior to final acceptance of the work and shall be in addition to the requirements set forth in the Special Provisions of these Specifications.

### V. RECORD DOCUMENTS

Submit to the Agency prior to final acceptance all record documents required by the other Divisions of these Contract Documents.

END OF SECTION

SECTION 01720 - PROJECT RECORD DOCUMENTS

I. GENERAL

The provisions of the Standard Specifications for Public Works Construction (Green Book), latest adopted edition, apply except as modified herein.

A. Related Requirements Specified Elsewhere:

Project Meetings: Section 01200.  
Coordination: Section 01310.  
Shop Drawings, Project Data, and Samples: Section 01340. Products  
and Materials: Section 01600.  
Project Closeout: Section 01700.

II. MAINTENANCE OF DOCUMENTS

Maintain at job site, one copy of:

Contract Drawings;  
Specifications;  
Addenda;  
Reviewed Shop Drawings;  
Change Orders;  
Other Modifications to Contract;  
Field Test Records;  
Construction Schedules;  
"As-Built" Drawings.

A. Storage:

Maintain documents in clean, dry, legible condition.

B. Use and Availability:

Not for construction purposes.  
Available at all times for inspection by Engineer.

III. RECORDING

A. General:

Provide red ballpoint pen for all marking.  
Label each document "PROJECT RECORD" in large, printed letters. Keep  
record documents current.  
Do not permanently conceal any work until required information has been recorded.  
These drawings shall be up-to-date and so certified by the Project Inspector at each progress  
payment request submittal.

B. Marking:

Contract Drawings. Legibly mark to record actual construction:

Depths of various elements of foundation in relation to finish floor elevation;  
Horizontal and vertical location of underground utilities and appurtenances referenced to permanent  
surface improvements;  
Location of internal utilities and appurtenances concealed in construction referenced to visible and  
accessible features of structure;

Field changes of dimension and detail;  
Changes made by Change Order or Field Order;  
Details not on original contract drawings.

Specifications and Addenda. Legibly mark up each section to record:

Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed;  
Changes made by Change Order or Field Order;  
Other matters not originally specified.

Shop Drawings. Maintain as record documents; legibly annotate drawings to record changes made after review.

"As-Built" Drawings. Agency will furnish the Contractor with one set of ozalid transparencies and one set of blue line prints showing all work required for the use of the Contractor as "as-built" drawings. The Contractor shall clearly mark on each set as specified above.

#### IV. SUBMITTAL

At completion of project, deliver record documents to Engineer. Accompany submittal with transmittal letter, in duplicate, containing:

Date;  
Project title and number;  
Contractor's name and address;  
Title and number of each record document;  
Certification that each document as submitted is complete and accurate; Signature of Contractor or its authorized representative.

NOTE: Prior to final payment, Contractor shall submit all Record Documents for review, correct all deficiencies, obtain required approvals, and deliver all approved Record Documents to the Engineer.

## SECTION 01785

### PRODUCT WARRANTIES AND BONDS

#### PART 1 - GENERAL

##### 1.1 RELATED DOCUMENTS

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

##### 1.2 SECTION INCLUDES

- A. General administrative and procedural requirements for preparation and submission of warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special Project warranties.
  - 1. Refer to the Contract General Conditions for terms of Contractor's special warranty of workmanship and materials.
  - 2. Certifications and other commitments and agreements for continuing services to City are specified elsewhere in the Contract Documents.

##### 1.3 RELATED DOCUMENTS AND SECTIONS

##### 1.4 DEFINITIONS

- A. Warranty: Assurance to City by Contractor, installer, supplier, manufacturer or other party responsible as warrantor, for the quantity, quality, performance and other representations of a product, system service of the Work, in whole or in part, for the duration of the specified period of time. The City's standard warranty form shall be used for all warranties under this Contract unless otherwise agreed to in writing by the City Representative.
- B. Guaranty: Assurance to City by Contractor or product manufacturer or other specified party, as guarantor, that the specified warranty will be fulfilled by the guarantor in the event of default by the warrantor.
- C. Standard Product Warranty: Preprinted, written warranty published by product manufacturer for particular products and specifically endorsed by the manufacturer to the CityD. Special Project Warranty: Written warranty required by or incorporated into Contract Documents, to extend time limits provided by standard warranty or to provide greater rights for City.
- E. Guaranty Period: As defined in the Contract General Conditions, guaranty period shall be synonymous with "warranty period", "correction period" and similar terms used in the Contract Specifications. Warranty period shall be one year from the date of Project Completion unless otherwise agreed to in writing by the City Representative.

##### 1.5 WARRANTIES AND GUARANTIES

- A. Warranties and Guaranties, General: Contractor shall provide all warranties and guaranties with City named as beneficiary. For equipment and products, or components thereof, bearing a manufacturer's warranty or guaranty that extends for a period of time beyond the Contractor's warranty and guaranty, Contractor shall so state in the warranty or guaranty.

- B. Provisions for Special Warranties: Contractor shall refer to Contract General Conditions for terms of the Contractor's special warranty of workmanship and materials.
- . General Warranty and Guaranty Requirements: Warranty shall be an agreement to repair or replace, without cost and undue hardship to City, Work performed under the Contract which is found to be defective during the guaranty period (warranty or guaranty) period. Repairs and replacements due to improper maintenance or operation, or due to normal wear, usage and weathering are excluded from warranty requirements unless otherwise specified.
- D. Specific Warranty and Guaranty Requirements: Specific requirements are included in product Specifications Sections of Divisions 2 through 17, including content and limitations.
- E. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties and guaranties shall not relieve Contractor of responsibility for warranty and guaranty requirements for the Work that incorporates such products, nor shall they relieve suppliers, manufacturers, and installers required to countersign special warranties with Contractor.
- F. Related Damages and Losses: When correcting warranted Work that has been found defective, Contractor shall remove and replace other Work that has been damaged as a result of such defect or that must be removed and replaced to provide access for correction of warranted Work.
- G. Reinstatement of Warranty: When Work covered by a warranty has been found defective and has been corrected by replacement or rebuilding, Contractor shall reinstate the warranty by written endorsement.
- H. Replacement Cost: Upon determination that Work covered by a warranty has been found to be defective, Contractor shall replace or reconstruct the Work to a condition acceptable to City's Representative, complying with applicable requirements of the Contract Documents. Contractor shall be responsible for all costs for replacing or reconstructing defective Work regardless of whether City has benefited from use of the Work through a portion of its anticipated useful service life.
- I. City's Recourse: Written warranties made to City shall be in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under law, nor shall warranty periods be interpreted as limitations on time in which City can enforce such other duties, obligations, rights, or remedies.
  - 1. Rejection of Warranties: City reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- J. Warranty as Condition of Acceptance: City reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment shall be required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

## **1.6 PREPARATION OF WARRANTY AND BOND SUBMITTALS**

- A. Project Warranty and Guaranty Forms: Forms for Project warranties and guaranties are included in the Contract Documents. Contractor shall submit the warranty package submittal to the Design Team, with a copy to the City Representative, for review and approval. Contractor shall:
  - 1. Refer to product Specifications Sections of Divisions 2 through 17 for specific content requirements, and particular requirements for submittal of special warranties.



2. Prepare standard warranties and guaranties, excepting manufacturers' standard printed warranties and guaranties, on Contractor's, subcontractor's, material supplier's, or manufacturer's own letterhead, addressed to City as directed by City's Representative.
  3. Warranty and guaranty letters shall be signed by all responsible parties and by Contractor in every case, with modifications only as approved in advance by City's Representative to suit the conditions pertaining to the warranty or guaranty.
- B. **Manufacturer's Guaranty Form:** Manufacturer's guaranty form may be used instead of special Project form included in the Contract Documents, if agreed to in writing by the City's Representative. Manufacturer's guaranty form shall contain appropriate terms and identification, ready for execution by the required parties.
1. If proposed terms and conditions restrict guaranty coverage or require actions by City beyond those specified, Contractor shall submit draft of guaranty to the Design Team and the City's Representative for review and approval before performance of the Work.
  2. In other cases, Contractor shall submit draft of guaranty to the Design Team and the City's Representative for approval prior to final execution of guaranty.
- C. **Signatures:** Signatures shall be by person authorized to sign warranties, guaranties and bonds on behalf of entity providing such warranty, guaranty or bond.
- D. **Co-Signature:** All installer's warranties and bonds shall be co-signed by Contractor. Manufacturer's guaranties will not require co-signature.

## **1.7 FORM OF WARRANTY AND BOND SUBMITTALS**

- A. **Form of Warranty and Bond Submittals:** Prior to completion, Contractor shall collect and assemble all written warranties and guaranties into binders and deliver binders to the Design Team, with a copy to the City Representative, for final review and acceptance. Contractor shall:
1. Prior to submission, verify that documents are in proper form and contain all required information and are properly signed by Contractor, subcontractor, supplier and manufacturer, as applicable.
  2. Organize warranty and guaranty documents into an orderly sequence based on the Table of Contents of the Project Manual.
  3. Include Table of Contents for binder, neatly typed, following order and section numbers and titles as used in the Project Manual.
  4. Bind warranties, guaranties and bonds in heavy-duty, commercial quality, durable three-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, with clear front and spine to receive inserts, and sized to receive 8-1/2 inch by 11-inch paper.
  5. Provide heavy paper dividers with celluloid or plastic covered tabs for each separate warranty. Mark tabs to identify products or installation, and section number and title.
  6. Include on separate typed sheet, if information is not contained in warranty or guaranty form, a description of the product or installation, and the name, address, telephone number and responsible person for applicable installer, supplier and manufacturer.
  7. Identify each binder on front and spine with typed or printed inserts with title "WARRANTIES AND BONDS", the Project title or name, and the name of the Contractor. If more than one volume of warranties, guaranties and bonds is produced, identify volume number on binder.
  8. When operating and maintenance data manuals are required for warranted construction, include additional copies of each required warranty and guaranty in each required manual.

## **1.8 TIME OF WARRANTY AND BOND SUBMITTALS**

- A. Submission of Preliminary Sample Copies: Unless otherwise specified, Contractor shall obtain submit sample preliminary copies of warranties, guaranties and bonds within ten days of completion of applicable item or Work with all product submittals for approval by the City..
- B. Submission of Preliminary Copies: Unless otherwise specified, Contractor shall obtain preliminary copies of warranties, guaranties and bonds within ten days of completion of applicable item or Work
- BC. Submission of Final Copies: Contractor shall submit fully executed copies of warranties, guaranties and bonds prior to Notice of Completion.
- CD. Date of Warranties and Bonds: Unless otherwise directed or specified, commencement date of warranty, guaranty and bond periods shall be the date established in the Notice of Completion.
  - 1. Warranties for Work accepted in advance of date stated in Notice of Completion: When a designated system, equipment, component parts or other portion of the Work is completed and occupied or put to beneficial use by City's Representative, by separate written agreement with Contractor, prior to completion date established in the Notice of Completion, Contractor shall submit properly executed warranties to City, as directed by City's Representative, within ten days of completion of that designated portion of the Work. Contractor shall list date of commencement of warranty, guaranty or bond period as the date established in the Notice of Completion.
- DE. Duration of Warranties and Guaranties: Unless otherwise specified or prescribed by law, warranty and guaranty periods shall be not less than the guaranty period required by the Contract General Conditions, but in no case less than one year from the date established for completion of the Project in the Notice of Completion. See product Specifications Sections in Divisions 2 through 17 of the Project Manual for extended warranty and guaranty beyond the minimum one-year duration.

### **PART 2 - PRODUCTS**

Not Applicable to this Section.

### **PART 3 - EXECUTION**

Not Applicable to this Section.

**END OF SECTION**

**SECTION 02 41 16  
STRUCTURE DEMOLITION**

**PART 1 - GENERAL**

**SCHEDULE 1 - SECTION INCLUDES**

**PRODUCT DATA SHEET 1 - Structure Demolition:**

- 1.1 Demolition of designated building structures.
- 1.2 Removal of hollow items or items which could collapse.
- 1.3 Salvage of designated items.
- 1.4 Disconnection, capping, and removal of utilities.
- 1.5 Pollution control during building demolition, including noise control.
- 1.6 Removal and legal disposal of materials.
- 1.7 Protection of designated site improvements and adjacent construction,
- 1.8 Interruption, capping or removal of utilities as applicable.

**SCHEDULE 2 - SUBMITTALS**

PRODUCT DATA SHEET 1 - Submit under provisions of Section 01 30 00 - Administrative Requirements.

PRODUCT DATA SHEET 2 - Schedule: Submit for approval demolition schedule, including schedule and methods for capping utilities to be abandoned and maintaining existing utility service.

**SCHEDULE 3 - QUALITY ASSURANCE**

PRODUCT DATA SHEET 1 - Codes and Regulations: Comply with governing codes and regulations. Use experienced workers.

**SCHEDULE 4 - STRUCTURE DEMOLITION**

PRODUCT DATA SHEET 1 - Demolition Operations: Do not damage building elements and improvements indicated to remain. Items of salvage value, not included on schedule of salvage items to be returned to Owner, shall be removed from structure. Storage or sale of items at project site is prohibited.

PRODUCT DATA SHEET 2 - Utilities: Locate, identify, disconnect, and seal or cap off utilities in buildings to be demolished.

PRODUCT DATA SHEET 3 - Shoring and Bracing: Provide and maintain interior and exterior shoring and bracing.

PRODUCT DATA SHEET 4 - Occupied Spaces: Do not close or obstruct streets, walks, drives or other occupied or used spaces or facilities without the written permission of the Owner and the authorities having jurisdiction. Do not interrupt utilities serving occupied or used facilities without the written permission of the Owner and authorities having jurisdiction. If necessary, provide temporary utilities.

PRODUCT DATA SHEET 5 - Operations: Cease operations if public safety or remaining structures are endangered. Perform temporary corrective measures until operations can be continued properly.

PRODUCT DATA SHEET 6 - Security: Provide adequate protection against accidental trespassing. Secure project after work hours.

PRODUCT DATA SHEET 7 - Items to be Salvaged for Reinstallation:

- 1.1 [Wood trim.]
- 1.2 [Light fixtures.]

PRODUCT DATA SHEET 8 - Items to be Salvaged for Delivery to Owner:

- 1.1 [Doors and hardware.]
- 1.2 [Light fixtures.]
- 1.3 [Plumbing fixtures.]
- 1.4 [Decorative elements.]

PRODUCT DATA SHEET 9 - Utilities Requiring Interruption, Capping, or Removal:

- 1.1 [Electric.]
- 1.2 [Heat.]
- 1.3 [Water.]
- 1.4 [Gas.]
- 1.5 [Sewerage.]
- 1.6 [Steam.]
- 1.7 [Cable television.]

END OF SECTION

**SECTION 02 82 13**

**ASBESTOS ABATEMENT**

**PART 1 GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. The project Scope of Work includes removal of asbestos-containing building materials (ACBM) encountered within the project area, identified as follows:
  - 1. See ACBM Report attached at the end this Section.
- B. The boundaries within which ACBM is to be removed are identified by report at the end of this section.
- C. The Contractor shall visit the site to determine the types and amounts of asbestos-containing building materials included within the project scope. [It is mandatory for the asbestos abatement Contractor to be present at the pre-bid job walk in order to understand the scope of abatement work.]
- D. All work shall conform to requirements of General Industry Safety Orders, Title 8, Chapter 4, Section 1529 of the California Code of Regulations and Title 29 of the Code of Federal Regulations Part 1926.58 and other applicable standards as listed in Section 1.02, Part F, of this document.
- E. Abbreviations are as follows:
  - 1. ACBM Asbestos Containing Building Material
  - 2. AHERA Asbestos Hazard Emergency Response Act
  - 4. CCR California Code of Regulations
  - 5. CFR Code of Federal Regulations
  - 6. DOSH Division of Occupational Safety and Health (Cal/OSHA)
  - 8. EPA Environmental Protection Agency
  - 9. MSDS Material Safety Data Sheet
  - 10. NESHAP National Emission Standard for Hazardous Air Pollutants
  - 11. OSHA Occupational Safety and Health Administration
  - 12. PCM Phase Contrast Microscopy
  - 13. PEL Permissible Exposure Limit
  - 14. TEM Transmission Electron Microscopy
  - 15. TWA Total Weight Average

**1.02 DESCRIPTION OF WORK**

- A. The work specified herein shall be the removal of ACBM by competent persons who are knowledgeable in asbestos removal and will comply with all applicable Federal, State and Local regulations.
- B. Contractor for the asbestos abatement work shall provide all labor, materials, services, insurance, registrations, notifications, reports, permits and equipment necessary to carry out the work in accordance with all applicable Federal, State and Local regulations and specifications in this document.
- C. Contractor shall be responsible for restoring the abatement work area to conditions equal to or better than original. The Contractor shall repair any damages caused during the abatement activities at no additional expense to the City. Contractor shall be responsible for all costs incurred by the City and/or the City's tenants which result from physical damage caused by Contractor, including damage due to water leakage from the work area.

- D. Contractor shall be responsible for area and personal air monitoring within the asbestos containment area during asbestos removal as required by Federal and/or Cal/OSHA regulations. Excursion air monitoring (30 minute), shall be performed as stipulated by Cal/OSHA for abatement workers. The air monitoring results, and copies of the containment entry log must be submitted to City's within 24 hours unless approval is obtained from for delayed submittal. In the event that Contractor fails to submit personal air monitoring results in the above specified timely manner City's may require Type-C air be used by abatement workers in order to continue abatement.
- E. Contractor shall submit, in writing, all requests for inspections as required herein, to be performed by the City's Inspector, 72 hours in advance. Written requests shall be submitted to City's Inspector/ Representative.
- F. All asbestos abatement work, including preparation and dismantling of containment, shall conform to the following applicable reference documents. Where conflicting or overlapping requirements or specifications exist, the more stringent requirements shall apply.
  - 1. 29 CFR Section 1926.58 (Federal OSHA)
  - 2. 29 CFR Section 1910 and 1926
  - 3. 40 CFR Part 61
  - 4. 40 CFR Part 261 and 269
  - 5. 40 CFR 763 (RE: air sampling protocols).
  - 6. CCR Title 8, Chapter 3.2, Article 2.5. Registration Asbestos Related Work
  - 7. CCR Title 8, Chapter 4, Section 5208. General Industry Safety Orders; Asbestos
  - 8. CCR Title 8, Chapter 4, Section 1529. Construction Safety Orders; Asbestos
  - 9. CCR Title 8, All other applicable requirements
  - 10. CCR Title 22, Section 66699 (re: hazardous waste regulations)
  - 11. CCR Title 16, Chapter 8 (Contractor Licensing)
  - 16. National and State Electrical Code, Plumbing Code, Building Code, and other related codes where applicable

### **1.03 LIABILITY AND INSURANCE REQUIREMENTS**

- A. Contractor for asbestos abatement work shall provide asbestos abatement liability insurance for the project. Insurance shall include true "Occurrence" asbestos claim provisions without "Sunset" clause. Refer to Supplementary Conditions.

### **1.04 QUALIFICATIONS OF CONTRACTOR**

- A. Contractor selected shall submit to the City, within 10 days after receipt of notice of such selection:
  - 1. Documentation of DOSH registration and the certification issued by the State of California Contractors License Board.
  - 2. Documentation of at least three successful asbestos abatement projects similar in scope and extent to this project. Documentation shall include:
    - a. Names and addresses of clients, type of asbestos abatement work performed and a description of size and scope for each of the three projects.
    - b. A list of citations or penalties, if any, incurred due to non-compliance with asbestos abatement project specifications and/or regulatory requirements.
  - 3. The determination of compliance with this eligibility requirement shall be at the sole discretion of the City.

## **1.05 SUBMITTALS AND NOTICES**

- A. Contractor shall submit the following reports and documentation to the City's Representative. Work shall not commence until City has approved all documentation related to the following items:
1. Detailed schedule of work to be performed; schedule shall include abatement activities and dates.
  2. Documentation that Contractor has obtained all applicable permits, registrations, notifications and licenses related to asbestos abatement work from all regulating agencies, including, but not limited to the California State contractors license, Cal/OSHA asbestos registration, Cal-OSHA work-site notification and the BAAQMD NESHAPs notification.
  3. Material Safety Data Sheets for all products that will be used for the project. This includes, but is not limited to, products used for wetting, penetrating, and encapsulating.
  4. Certificate of Insurance.
  5. List of equipment, including personal protective equipment, which will be used for the project. Contractor shall provide a record of a successful negative air HEPA filter DOP test taken within the past six months for each negative air machine and each HEPA vacuum used on the job. At its discretion, City's may accept a manufacturers DOP test certificate in lieu of the aforementioned Contractor's DOP test requirements.
  6. Work Plan which contains specific workplace practices related to site preparation and containment construction, asbestos abatement/removal procedures and hazardous waste handling, load-out and disposal procedures. The Work Plan must also include an Emergency Contingency Plan which, at a minimum, addresses procedures which shall be followed in the event of a breach of containment, power failure, water leakage and fire.
  7. Respirator fit testing records for each employee working on the project. Records must reflect that fit testing was conducted within the past six months.
  8. Proof of current training certification for an EPA/AHERA accredited Asbestos Workers course for all abatement workers.
  11. Name, address, telephone number, contact and State and Federal identification numbers for the hazardous waste transporter(s).
  12. Name, address, telephone number, contact and State and Federal identification numbers of the hazardous waste disposal facility.

## **1.06 COST ALLOCATIONS - ASBESTOS ABATEMENT FORM**

- A. Contractor shall provide the City with quantities and cost.
- B. Contractor shall visit the site to determine the types and amounts of asbestos-containing building materials included within the project scope and understand the scope of abatement work.
- C. The boundaries within which ACM is to be removed are identified by descriptions and/or drawings available from the City.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS AND EQUIPMENT**

- A. All materials required to complete the asbestos removal work shall be provided by Contractor and be in accordance with applicable regulations.
- B. Materials that become contaminated with asbestos shall be disposed of in accordance with the applicable regulations.
- C. Contractor shall provide all equipment and tools for asbestos abatement operations. This may include HEPA filtration systems, area isolation equipment and other suitable equipment. The HEPA filtered negative air machines must be maintained such that a minimum of four air changes occur per hour inside the abatement project area.

- D. Enclosures shall be built of non-combustible materials. A polyethylene barrier with a thickness of 6-10 mil shall be clearly labeled as fire retardant treated.
- E. The use of mastic removal chemicals must be approved by City prior to use. The use of solvent based mastic removers is restricted and only permitted in certain circumstances as determined by City's Inspector.
- F. A half-face respirator equipped with a dual HEPA filter cartridge shall be worn during abatement site preparation. If PAPR respirators are used, additional fully charged spare batteries must be readily available on site.
- G. Ground Fault Circuit Interrupters shall be used on all equipment and an inspection program shall be followed, as per 29 CFR 1926 Construction Industry Safety and Health Standards.
- H. Electrical extension cords shall be 12/3 gauge or larger.
- I. All electrical plugs shall have an operative ground prong. Grounding adapters shall not be used unless authorized, in writing, by City.
- J. Contractor shall provide protective clothing (disposable suits) for use by City's Inspector for jobsite inspection, final clearance inspection and retrieval of air monitoring equipment.
- O. Contractor shall have on-site a minimum of two company owned and labeled 2A, 10 B:C (or larger) fire extinguishers. One shall be located outside of containment, and the others shall be inside the containment; one fire extinguisher per 10,000 square feet and not further than 75 feet apart, starting from decontamination area entry way. The fire extinguishers shall have been inspected and certified as operative within the past 12 months.
- P. A fully stocked First Aid Kit shall be maintained and clearly labeled on the jobsite at all times.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. The work area shall be prepared in accordance with the following specified conditions:
  - 1. The entire abatement area shall be pre-cleaned. Pre-cleaning shall include HEPA vacuuming and wet wiping all horizontal and vertical surfaces. All movable items of furnishings, equipment etc., shall be secured in a clean uncontaminated room and covered with polyethylene. All non-movable items to be left in place shall be sealed in polyethylene.
  - 2. Critical barriers shall be constructed by applying polyethylene, in an airtight fashion, over all penetrations into the work area. Penetrations shall include, but are not limited to all entryways, vents, windows and drains.
  - 3. The abatement work area shall be fully contained by erection of an airtight, double layer 6-10 mil thick polyethylene sheet extending from ceiling to floor and wall to wall. A three stage decontamination unit equipped with a hot/cold water shower and 5 micron pore size water filtration unit is required for personnel entry/exit of the work area. All entrances shall have Z-flaps. All surfaces not described as part of the scope of work shall be covered with a double layer of 6-10 mil polyethylene. A sufficient number of negative air machines shall be used to maintain a pressure differential of minus 0.04 inches of water across the containment barriers at all times. A 24-hour recorder shall be installed to continuously monitor pressure differential inside the regulated work area. Negative air machines shall remain in operation 24 hours a day until final clearance of the work area is achieved.



4. A separate, multistage load-out chamber equipped with Z-flaps shall be used to remove decontaminated equipment and contained waste from the work area. Entry or exit of the work area through the load-out chamber is prohibited except in emergency situations.
  5. Contractor shall clearly mark, and label emergency exits. These emergency exits should be separately polyethylene from the rest of the containment. The polyethylene on the walls shall end at the emergency exit. The emergency exit(s) shall be critically sealed, and an overlapping sheet of polyethylene shall cover the exit. A knife shall be posted in the vicinity of the emergency exit door. The exit shall be clearly labeled and free of obstructions.
  6. Contractor shall install BAAQMD vision ports. There shall be enough vision ports available to see all of the abatement area within containment.
  7. Where it is not feasible to establish a full containment, a substitute containment which meets the purpose and intent of a full containment shall be constructed if approved by City's EH&S.
- B. Asbestos abatement operations shall not commence until the following have been approved by City:
1. Arrangements for containing and disposing of wastewater resulting from wet stripping.
  2. Work areas, decontamination enclosure systems and parts of the building required to remain in use have been effectively segregated and an inspection performed by the City's Inspector.
  3. Tools, equipment, and material waste containers are on hand.
  4. Arrangements have been made for jobsite security and safety.
  5. All Permits have been obtained, all preparatory steps taken, and the following applicable notices posted:
    - a. Federal OSHA "Asbestos Danger" Warning Signs.
    - b. Cal/OSHA Work-site Notification.
    - d. Emergency Exit Diagram (including placement of fire extinguishers).
    - e. Emergency Phone Numbers and Location of Phone; 24-hour contact list with Contractor, City's EH&S, Project Manager/Construction Manager, UC Police Department/Mt Zion Hospital Security (if applicable), utilities (client's maintenance personnel) and the nearest Emergency Hospital facility.

### **3.02 ASBESTOS ABATEMENT**

- A. Contractor shall:
1. Receive authorization from City's Inspector prior to initiating any abatement activity. The City's Inspector will conduct a preabatement inspection prior to authorizing abatement.
  2. Maintain a log of any personnel entering the containment area. Contractor shall not allow any person to enter the containment area without prior City's approval. This includes Contractor abatement personnel newly assigned to the jobsite.
  3. Provide authorized visitors with protective clothing, whenever they are required to enter the work area.
  4. Ensure that each worker and authorized visitor shall follow the approved procedures established by Contractor and/or City.
  5. Remove all existing asbestos-containing building materials (ACBM) as identified during pre-bid job walk within project demarcation. Removal will be done wet and kept wet. Contained waste shall be removed from the work area at the end of each shift if possible. Contractor shall make arrangements with the City's Representative to store the ACBM in an area that is secured (lockable) and with restricted access.
  6. Ensure asbestos fiber levels inside the containment do not exceed 1 fiber per cubic centimeter (f/cc) as determined by personal or area air samples using phase contrast microscopy analysis. If this level is exceeded, Contractor shall take immediate action to reduce airborne fiber concentrations. If this level is exceeded for two consecutive shifts, Contractor shall cease asbestos removal operations and perform necessary clean-up to reduce the airborne level to below 0.2 f/cc as indicated by subsequent air samplings.
  7. Conduct personal exposure monitoring and provide monitoring results within 24 hours after samples are taken to City.

### 3.03 ON-SITE RECORDS

- A. The following records must be available on-site throughout the entire course of the asbestos abatement work.
  - 1. Work Plan which includes Emergency Contingency Plan.
  - 2. Personal air monitoring results, both 30-minute excursion and 8 hour TWA.
  - 3. EPA/AHERA Training Certificates for each worker and Certified Supervisor.
  - 4. The most recent medical and respirator fit testing documentation for all employees.
  - 5. Material Safety Data Sheet and product information sheet for all equipment and supplies used on site.

### 3.04 CLEAN UP AND DISPOSAL

- A. The following requirements are in addition to requirements specified Section 01 74 00 - Cleaning and Section 01 74 19 - Construction Waste Management and Disposal.
- B. Asbestos waste shall be contained in a clear, 6 mil asbestos labeled bag, goose necked and taped. Such a bag shall be placed into another asbestos labeled bag, also goose necked and taped. A generator identification label shall be affixed to each bag. Double bagged, sealed and labeled containers of asbestos waste shall be removed daily, and at the end of the job, during low campus activity hours (before 7:00 a.m. and after 7:00 p.m.). All asbestos wastes shall be transported to a pre-approved (by City) Class II waste site, in accordance with CCR Title 22. City shall inspect the waste and sign the uniform hazardous waste shipping manifests prior to transporting and disposal. The City's Rep. is the only person authorized to sign the manifest and shall retain the original Yellow and Blue Generator copies of the manifest; and a copy of the Land Ban Restriction notification, in order to verify proper disposal.
- C. Hazardous Waste Shipments:
  - 1. Provide a certified weight ticket to City for hazardous waste shipments within 10 days of job site pick-up. The weight ticket shall reflect only those wastes generated at the job site and shall not include combined wastes from other UCSF or nonUCSF projects.
- D. Waste manifest forms shall be provided by Contractor and include the following information in Box 3 (Generator's name and mailing address):

City of Perris
- E. City will provide Contractor with the Generator's US EPA ID No. (Box 1 of the Manifest) for each facility involved in the project scope of work.
- F. Contaminated clothing and polyethylene shall be disposed of as hazardous waste.
- G. Wastewater from wet stripping, shower room, and worker and equipment decontamination systems shall be filtered through a filtration treatment system capable of removing all particles 5 microns or greater in size before it is discharged into the sanitary sewer system.
- H. The work area shall remain under negative pressure until City's has completed final air sampling and given approval to dismantle the containment.
- I. If requested, the primary (bottom clean layer) polyethylene barrier located above ceilings shall be left in place after clean-up as a dust barrier during ensuing non-asbestos construction activities. If contamination cannot be removed from the barrier, the Contractor shall remove it and erect a new one in the same location.

- J. All non-disposable equipment, including negative air machines shall be cleaned and decontaminated prior to removal from the containment area.

### **3.05 FINAL CLEARANCE**

- A. shall provide a final inspection of the work area upon completion of all abatement and clean up tasks. Contractor shall notify the City's Inspector 24 hours in advance of projected completion in order to schedule a final inspection.
- B. Contractor shall not encapsulate abated surfaces until the work area has passed final inspection as determined by the City's Inspector. City's Inspector shall inspect the work area surfaces for ACBM residue and debris and will identify to Contractor specific areas (if any) which require additional cleaning. If additional cleaning is required, City's Inspector shall re-inspect the work area following completion of clean up activities.
- C. Following successful passage of final inspection, Contractor shall encapsulate all abated surfaces. Once the encapsulant is dry, Contractor shall remove, and dispose of as hazardous waste, the top (dirty) layer of polyethylene. The bottom (clean) layer of polyethylene and all critical barriers which cover entryways, windows, vents, drains and any other openings into the work area shall be left in place.
- D. City's shall conduct aggressive final air clearance as specified in Article 1.02, Paragraph F and notify Contractor of analysis results in a timely fashion. Failure of final air clearance will require the Contractor to re-clean (HEPA vacuum and wet wipe all surfaces) and re-encapsulate the work area prior to any final clearance retake.
- E. Once final air clearance is attained (as determined by City's Inspector), Contractor will be given written approval to remove all remaining equipment and polyethylene from the work area and restore the work area to pre-abatement conditions.

## SECTION 06 05 73

### TREATED WOOD PRESERVATIVES - PRESSURE TREATED WOOD

#### PART 2 - GENERAL

##### SCHEDULE 0 - SECTION INCLUDES

PRODUCT DATA SHEET 0 - Preservative treatment of lumber and plywood.

##### SCHEDULE 1 - RELATED SECTIONS

PRODUCT DATA SHEET 0 - Section 06 10 00 - Rough Carpentry.

PRODUCT DATA SHEET 1 - Section 06 15 00 - Wood Decking.

PRODUCT DATA SHEET 2 - Section 06 20 00 - Finish Carpentry.

##### SCHEDULE 2 - REFERENCES

PRODUCT DATA SHEET 0 - American Wood-Protection Association (AWPA):

- 2.1 AWPA E12 - Standard Method of Determining the Corrosion of Metal in Contact with Wood.
- 2.2 AWPA M4 - Standard for the Care of Preservative Treated Wood Products.
- 2.3 AWPA P5 - Standard for Waterborne Preservatives.
- 2.4 AWPA P23 - Standard for Chromated Copper Arsenate Type C (CCA-C).
- 2.5 AWPA P25 - Standard for Inorganic Boron (SBX).
- 2.6 AWPA P26 - Standard for Alkaline Copper Quat Type A (ACQ-A).
- 2.7 AWPA P27 - Standard for Alkaline Copper Quat Type B (ACQ-B).
- 2.8 AWPA P28 - Standard for Alkaline Copper Quat Type C (ACQ-C).
- 2.9 AWPA P29 - Standard for Alkaline Copper Quat Type D (ACQ-D).
- 2.10 AWPA P47 - Standard for DCOI/Imidacloprid/Stabilizer, Waterborne (EL2).
- 2.11 AWPA P48 - Standard for Copper Azole Type C (CA-C).
- 2.12 AWPA T1 - Use Category System: Processing and Treatment Standard.
- 2.13 AWPA U1 - Use Category System: User Specification for Treated Wood.

PRODUCT DATA SHEET 1 - Permanent Wood Foundation (PWF) Design Specification, ANSI/AF&PA PWF-2007.

PRODUCT DATA SHEET 2 - Permanent Wood Foundations, Design and Construction Guide, Southern Pine Council. Publication #400.

PRODUCT DATA SHEET 3 - Hawaiian Local Building Code Standards.

##### SCHEDULE 3 - SUBMITTALS

PRODUCT DATA SHEET 0 - Submit under provisions of Section 01 30 00 - Administrative Requirements.

PRODUCT DATA SHEET 1 - Product Data: Manufacturer's instructions for use, including requirements for storage, cutting, and finishing.

PRODUCT DATA SHEET 2 - Preservative Treatment Certification: Treating plant's certification of compliance with specified standards, process employed, and preservative retention values.

#### SCHEDULE 4 - QUALITY ASSURANCE

PRODUCT DATA SHEET 0 - Wood Treatment Plant Qualifications: Wood treatment plant experienced in performing work of this section licensed by Viance, LLC.

PRODUCT DATA SHEET 1 - Source Quality: Obtain treated wood products from a single approved source.

PRODUCT DATA SHEET 2 - Preservative Treatment: Mark each piece of plywood and lumber to show compliance with specified standards.

PRODUCT DATA SHEET 3 - Independent Third Party Inspection:

2.1 Provide plant inspections.

PRODUCT DATA SHEET 4 - Kiln Dry after Treatment (KDAT): Provide kiln dry material as indicated or required.

2.1 Kiln dry after treatment to 19 percent maximum moisture content for lumber and 18 percent for plywood in accordance with AWWA T1, Section 7 - Drying After Treatment (lumber) and AWWA T1, Section :F: Pressure treated composites (3c) kiln drying after treatment.

#### SCHEDULE 5 - DELIVERY, STORAGE, AND HANDLING

PRODUCT DATA SHEET 0 - Exposure: Prevent wood products against moisture and dimensional changes, in accordance with instructions from treating plant.

#### SCHEDULE 6 - WARRANTY

PRODUCT DATA SHEET 0 - TIMBERSAVER PT Manufacturer's Warranty: Provide manufacturer's standard 20-year transferable limited warranty for pressure-treated wood.

PRODUCT DATA SHEET 1 - TIMBERSAVER 40 Manufacturer's Warranty: Provide manufacturer's standard 40-year transferable limited warranty for pressure-treated wood.

PRODUCT DATA SHEET 2 - Ecolife (EL2) Manufacturer's Warranty: Provide manufacturer's standard lifetime limited warranty for pressure treated wood.

PRODUCT DATA SHEET 3 - Preserve CA Manufacturer's Warranty: Provide manufacturer's standard lifetime limited warranty for pressure treated wood.

PRODUCT DATA SHEET 4 - Preserve ACQ) Manufacturer's Warranty: Provide manufacturer's standard lifetime limited warranty for pressure treated wood.

#### PART 3 - PRODUCTS

##### SCHEDULE 0 - MATERIALS

PRODUCT DATA SHEET 0 - Dimension Lumber: As specified in Section 06 10 00 - Rough Carpentry.

PRODUCT DATA SHEET 1 - Structural Plywood: As specified in Section 06 10 00 - Rough Carpentry.

PRODUCT DATA SHEET 2 - Finish Lumber and Plywood: As specified in Section 06 20 00 - Finish Carpentry.

PRODUCT DATA SHEET 3 - Fasteners and Metal Hardware In Preservative Treated Wood : For treated wood and where wood is in ground contact, subject to high relative humidity, or exposed to weather, provide corrosion resistant steel fasteners with hot-dip zinc coating per ASTM A153/A153M, provide corrosion resistant hardware per ASTM A653 / A653M Class G-185 in compliance with building code requirements.

#### SCHEDULE 1 - PRESERVATIVE PRESSURE TREATMENT OF WOOD

PRODUCT DATA SHEET 0 - Preservative treatment for above ground use continuously protected from liquid water:

- 3.1 Treatment: TimberSaver PT (SBX) in accordance with AWPA U1 and P5 and P25.
  - A. For protection against North American subterranean termites, decay and insects, 0.25 lb/cu ft (4kg/m3) Disodium Octaborate Tetrahydrate (DOT) minimum retention (0.17 lb/cu ft (2.7 kg/m3) as B2O3 equivalent) retention.
  - B. For protection against North America subterranean termites, Formosan termites and insects, use 0.42 lb/cu ft. (6.7 kg /m3) Disodium Octaborate Tetrahydrate (DOT) minimum retention (0.28 lb/cu ft. (4.5 kg/m3) as B2O3 equivalent) in accordance with AWPA U1 or Hawaiian building code standards as appropriate.
  - C. All lumber and Plywood treated with TimberSaver PT shall be protected from exposure to the weather during transit and storage. TimberSaver PT treated products shall be stored out of ground contact and protected against exposure to liquid water.
- 3.2 Treatment: TimberSaver 40 (SBX) in accordance with AWPA U1 and P5 and P25.
  - A. For protection against North American subterranean termites, Formosan termites and insects use 0.42 lb/cu ft. (6.7 kg /m3) Disodium Octaborate Tetrahydrate (DOT) minimum retention (0.28 lb/cu ft. (4.5 kg/m3) as B2O3 equivalent) in accordance with AWPA U1 or Hawaiian building code standards as appropriate.
  - B. All lumber and Plywood treated with TimberSaver 40 shall be protected from exposure to the weather during transit and storage. TimberSaver 40 treated products shall be stored out of ground contact and protected against exposure to liquid water.
- 3.3 Treat wood in the following locations:
  - A. All framing lumber, studs, sill plates, floor joists, roof rafters, trusses, plywood,
  - B. Interior sheathing, furring strips, flooring, moldings and wood trim.

#### SCHEDULE 2 - INSTALLATION

PRODUCT DATA SHEET 0 - Framing and Sheathing: Comply with installation requirements in Section 06 10 00 - Rough Carpentry.

PRODUCT DATA SHEET 1 - Millwork and Trim: Comply with installation requirements in Section 06 20 00 - Finish Carpentry.

PRODUCT DATA SHEET 2 - Preservative Treated Wood:

- 3.1 Surface treatment of field cuts: All field cuts on members that provide structural support to a permanent structure shall be field treated in accordance with AWPA M4.

PRODUCT DATA SHEET 3 - Wood Foundation System: Install in accordance with the following:

- 3.1 Permanent Wood Foundation (PWF) Design Specification, ANSI/AF&PA PWF-2007.
- 3.2 Permanent Wood Foundations, Design and Construction Guide, Southern Pine Council. Publication #400.

END OF SECTION

SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wall sheathing.
2. Sheathing joint and penetration treatment.

B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for plywood backing panels.
2. Section 072500 "Weather Barriers" for water-resistive barrier applied over wall sheathing.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated plywood complies with requirements. Include physical properties of treated materials.
3. For fire-retardant treatments, include physical properties of treated plywood both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5516.
4. For products receiving waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

B. LEED Submittals: Provide special submittals conforming to Section 018113 - Sustainable Design Requirements for the following:

1. LEED Credit MR Cost Data: Provide special materials cost data breakdown data.
2. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
3. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional. Include statement indicating location of manufacturer and point of extraction, harvest, or recovery for each raw material used in regionally extracted and manufactured materials. Indicate distance to Project and fraction by weight of each regionally manufactured material that is regionally extracted.

4. Certificates for Credit MR 6: Chain-of-custody certificates indicating that products specified to be made from certified wood comply with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product.
5. Product Data for Credit IEQ 4.1: For adhesives, documentation including printed statement of VOC content.
6. Product Data for Credit IEQ 4.4: For composite wood products, documentation indicating that product contains no urea formaldehyde.

### 1.3 QUALITY ASSURANCE

- A. Testing Agency Qualifications: For testing agency providing classification marking for fire-retardant-treated material, an inspection agency acceptable to authorities having jurisdiction that periodically performs inspections to verify that the material bearing the classification marking is representative of the material tested.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Ratings: As tested according to ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency. FireResistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

### 2.2 WALL SHEATHING

- A. Glass-Mat Gypsum Sheathing: ASTM C 1177/1177M.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. CertainTeed Corporation.
    - b. Georgia-Pacific Building Products.
    - c. National Gypsum Company.
    - d. Temple-Inland Building Products by Georgia-Pacific.
    - e. United States Gypsum Company.
  2. Type and Thickness: Regular, 1/2 inch thick.



## 2.3 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. For wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- C. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached.
  - 1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C 1002.
  - 2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C 954.

## 2.4 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

- A. Sealant for Glass-Mat Gypsum Sheathing: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials, recommended by sheathing manufacturer for application indicated and complying with requirements for elastomeric sealants specified in Section 079200 "Joint Sealants."
- B. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
  - 1. Table 2304.9.1, "Fastening Schedule," in the ICC's International Building Code.
  - 2. ICC-ES evaluation report for fastener.
- D. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

- E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- F. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

### 3.2 GYPSUM SHEATHING INSTALLATION

- A. Comply with GA-253 and with manufacturer's written instructions.
  - 1. Fasten gypsum sheathing to cold-formed metal framing with screws.
  - 2. Install panels with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
  - 3. Install panels with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
- C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent panels without forcing. Abut ends over centers of studs, and stagger end joints of adjacent panels not less than one stud spacing. Attach at perimeter and within field of panel to each stud.
  - 1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of panels.
  - 2. For sheathing under stucco cladding, panels may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- D. Vertical Installation: Install vertical edges centered over studs. Abut ends and edges with those of adjacent panels. Attach at perimeter and within field of panel to each stud.
  - 1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of panels.
  - 2. For sheathing under stucco cladding, panels may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- E. Seal sheathing joints according to sheathing manufacturer's written instructions.
  - 1. Apply elastomeric sealant to joints and fasteners and trowel flat. Apply sufficient amount of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.
  - 2. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.

END OF SECTION

SECTION 08 14 00  
INTERIOR WOOD DOORS

PART 4 - GENERAL

SCHEDULE 1 - SECTION INCLUDES

PRODUCT DATA SHEET 1 - Interior wood doors of the following types:

- 4.1 Raised panel doors.
- 4.2 Barn doors.
- 4.3 Plantation louver doors.
- 4.4 Custom Woodbar French doors.
- 4.5 French doors.

SCHEDULE 2 - RELATED WORK

PRODUCT DATA SHEET 1 - Section 06 10 00 - Rough Carpentry.

PRODUCT DATA SHEET 2 - Section 09 21 16.33 - Gypsum Board Area Separation Wall Assemblies.

PRODUCT DATA SHEET 3 - Section 08 71 53 - Security Door Hardware.

PRODUCT DATA SHEET 4 - Section 08 83 13 - Mirrored Glass Glazing.

SCHEDULE 3 - REFERENCES

PRODUCT DATA SHEET 1 - American with Disabilities Act (ADA).

PRODUCT DATA SHEET 2 - National Fire Protection Association (NFPA): NFPA 80 - Standard for Fire Doors and Other Opening Protectives.

SCHEDULE 4 - SUBMITTALS

PRODUCT DATA SHEET 1 - Submit under provisions of Section 01 30 00 - Administrative Requirements.

PRODUCT DATA SHEET 2 - Product Data: Manufacturer's data sheets on each product to be used, including:

- 4.1 Preparation instructions and recommendations.
- 4.2 Storage and handling requirements and recommendations.
- 4.3 Installation methods.

PRODUCT DATA SHEET 3 - Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

- 4.1 Indicate locations of blocking and reinforcements required for installing wood doors.

PRODUCT DATA SHEET 4 - Verification Samples: For each finish product specified, two samples, representing actual product, color, and finish.

PRODUCT DATA SHEET 5 - Manufacturer's Certificates: Certify products meet or exceed specified requirements.

PRODUCT DATA SHEET 6 - Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment, cleaning and maintenance of wood doors.

## SCHEDULE 5 - QUALITY ASSURANCE

PRODUCT DATA SHEET 1 - Manufacturer Qualifications: Minimum five years experience in manufacturing wood doors.

PRODUCT DATA SHEET 2 - Installer: Experienced with installation of similar products, and acceptable to the manufacturer.

PRODUCT DATA SHEET 3 - Mock-Up: Provide a mock-up for evaluation of fabrication techniques and application workmanship.

- 4.1 Install in areas designated by Design Team.
- 4.2 Do not proceed with remaining work until installation is approved by Design Team.
- 4.3 Rebuild mock-up until satisfactory results are achieved.

## SCHEDULE 6 - DELIVERY, STORAGE, AND HANDLING

PRODUCT DATA SHEET 1 - Store products in the manufacturer's unopened packaging until ready for installation.

PRODUCT DATA SHEET 2 - Protect finished surfaces from soiling or damage during handling and installation.

## SCHEDULE 7 - PROJECT CONDITIONS

PRODUCT DATA SHEET 1 - 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 recommended limits.

## SCHEDULE 8 - WARRANTY

PRODUCT DATA SHEET 1 - Manufacturer's Warranty: Provide manufacturer's standard limited warranty for materials.

## PART 5 - PRODUCTS

### SCHEDULE 1 - MANUFACTURER

PRODUCT DATA SHEET 1 - Acceptable Manufacturer: Trimlite, L.L.C., which is located at: 901 S. W. 39th St.; Renton, WA 98055; Toll Free Tel: 800-929-3371; Tel: 425-251-8685; Fax: 425-251-8999; Email:[request info \(mikem@trimlite.com\)](mailto:request_info@mikem@trimlite.com); Web:[www.trimlite.com](http://www.trimlite.com)

PRODUCT DATA SHEET 2 - Substitutions: Not permitted.

PRODUCT DATA SHEET 3 - Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

### SCHEDULE 2 - INTERIOR WOOD DOORS

PRODUCT DATA SHEET 1 - Raised Panel Doors:

- 5.1 Configuration: 1-Panel, 2-Panel, 2-Panel with Larger Panel, 3-Panel, 4-Panel, 5-Panel Equal, and 6-Panel.
- 5.2 Factory primed.
- 5.3 Double Hip: 3/4 in (19 mm).
- 5.4 Door Thickness: 1-3/8 in (35 mm).
- 5.5 Door Thickness: 1-3/4 in (44.5 mm).
- 5.6 Single Hip: 1-1/4 in (32 mm).
  - A. Door Thickness: 1-3/4 in (44.5 mm).
  - B. 2-Panel and 3-Panel Designs Only

- 5.7 Door Height: 6 ft 8 in (2032 mm).
- 5.8 Door Height: 7 ft 0 in (2134 mm).
- 5.9 Door Height: 7 ft 6 in (2286 mm).
- 5.10 Door Height: 8 ft 0 in (2438 mm).
- 5.11 Door Height: Custom, refer to the Drawings.
- 5.12 Door Width: 18 in (457 mm).
- 5.13 Door Width: 24 in (610 mm).
- 5.14 Door Width: 26 in (660 mm).
- 5.15 Door Width: 28 in (711 mm).
- 5.16 Door Width: 30 in (762 mm).
- 5.17 Door Width: 32 in (813 mm).
- 5.18 Door Width: 34 in (864 mm).
- 5.19 Door Width: 36 in (914 mm).
- 5.20 Door Width: 42 in (1067 mm).
- 5.21 Door Width: Custom, refer to the Drawings.

PRODUCT DATA SHEET 2 - French Doors: Factory primed finish.

- 5.1 Configuration: 1-Lite
- 5.2 Factory Primed.
- 5.3 Door Thickness: 1-3/8 in (35 mm).
- 5.4 Door Width: 18 in (457 mm).
- 5.5 Door Width: 24 in (610 mm).
- 5.6 Door Width: 26 in (660 mm).
- 5.7 Door Width: 28 in (711 mm).
- 5.8 Door Width: 30 in (762 mm).
- 5.9 Door Width: 32 in (813 mm).
- 5.10 Door Width: 34 in (864 mm).
- 5.11 Door Width: 36 in (914 mm).
- 5.12 Door Width: 42 in (1067 mm).
- 5.13 Door Width: Custom, refer to the Drawings.
- 5.14 Door Height: 6 ft 8 in (2032 mm).
  - A. Beading: 3/8 in (9.5 mm).
  - B. Stiles: 4-1/2 in (114 mm).
  - C. Top rail: 4-7/16 in (113 mm).
  - D. Bottom rail: 9-3/16 in (233 mm).
- 5.15 Door Height: 7 ft 0 in (2134 mm).
  - A. Beading: 3/8 in (9.5 mm).
  - B. Stiles: 4-1/2 in (114 mm).
  - C. Top rail: 6-7/16 in (163.5 mm).
  - D. Bottom rail: 11-3/16 in (284 mm).
- 5.16 Door Height: 7 ft 6 in (2286 mm).
  - A. Bottom panel.
  - B. Beading: 3/8 in (9.5 mm).
  - C. Stiles: 4-1/2 in (114 mm).
  - D. Top rail: 4-7/16 in (113 mm).
  - E. Bottom rail: 9-3/16 in (233 mm).
- 5.17 Door Height: 8 ft 0 in (2438 mm).
  - A. Bottom panel.
  - B. Beading: 3/8 in (9.5 mm).
  - C. Stiles: 4-1/2 in (114 mm).
  - D. Top rail: 4-7/16 in (113 mm).
  - E. Bottom rail: 9-3/16 in (233 mm).

5.18 Design Styles:

- A. Adelaide: Patina finish between glass panels.
  - 1. Caming: 3/8 in (9.5 mm).
  - 2. Glazing: Sable bevel and clear bevel.
- B. Artisan: Patina finish between glass panels.
  - 1. Caming: 3/16 in (5 mm).
  - 2. Glazing: Granite, luminating reed, clear bevel.
- C. Harlow: Patina finish between glass panels.
  - 1. Caming: 3/16 in (5 mm).
  - 2. Caming: 3/8 in (9.5 mm).
  - 3. Glazing: Granite, narrow reed, clear bevel and sandblast.
- D. Lexington: Patina finish between glass panels.
  - 1. Glazing: Clear ripple, clear bevel, grey ripple, and drawn.
- E. Modena: Patina finish between glass panels.
  - 1. Caming: 3/8 in (9.5 mm).
  - 2. Glazing: Granite, luminating reed, clear bevel.
- F. Modena: Zinc finish between glass panels.
  - 1. Caming: 3/8 in (9.5 mm).
  - 2. Glazing: Granite, luminating reed, clear bevel.
- G. White Silk Laminated Glass: 3/8 in (9.5 mm) thick.
  - 1. Bead Profile: Quirk.
- H. Wood bar bevel.
- I. Wood bar flat glass.
- J. Retro Series:
  - 1. Clear: Tempered safety glass. Privacy level 1.
  - 2. Crossreed: Tempered safety glass. Privacy level 9.
  - 3. Delta Frost: Tempered safety glass. Privacy level 9.
  - 4. Diffused White Laminate: Tempered safety glass. Privacy level 10.
  - 5. 10-Lite and 15-Lite Glue Chip: Patina finish between glass panels. Privacy level 9.
  - 6. 10-Lite and 15-Lite Glue Chip: Zinc finish between glass panels.
  - 7. Kasumi/Travertine: Tempered safety glass. Privacy level 8.
  - 8. Laundry: Tempered safety glass. Privacy level 8.
  - 9. Leaf - Small: Tempered safety glass. Privacy level 5.
  - 10. Leaf - Large: Tempered safety glass. Privacy level 7.
  - 11. Madison Cast: Tempered safety glass. Privacy level 8.
  - 12. Mirror: Tempered safety glass. Privacy level 10
  - 13. Narrow Reed: Tempered safety glass. Privacy level 8.
  - 14. Pantry: Tempered safety glass. Privacy level 8
  - 15. Pinhead: Tempered safety glass. Privacy level 9.
  - 16. Quattro: Tempered safety glass. Privacy level 7
  - 17. Rain: Tempered safety glass. Privacy level 9.
  - 18. Riverton Clear: Tempered safety glass. Privacy level 1.
  - 19. Riverton Obscure: Tempered safety glass. Privacy level 8.
  - 20. Rooftop: Tempered safety glass. Privacy level 8
  - 21. Sable: Tempered safety glass. Privacy level 9
  - 22. Screen Dot: Tempered safety glass. Privacy level 9
  - 23. Seedy Baroque: Tempered safety glass. Privacy level 3.
  - 24. Wheat: Tempered safety glass. Privacy level 7.

PART 6 - EXECUTION

SCHEDULE 1 - EXAMINATION AND PREPARATION

PRODUCT DATA SHEET 1 - Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance.

PRODUCT DATA SHEET 2 - Do not begin installation until substrates have been properly prepared.

PRODUCT DATA SHEET 3 - If substrate preparation is the responsibility of another installer, notify Design Team of unsatisfactory preparation before proceeding.

#### SCHEDULE 2 - INSTALLATION

PRODUCT DATA SHEET 1 - Install products in strict accordance with manufacturer's instructions and approved submittals.

- 6.1 Follow manufacturer's recommendations for attachment.
- 6.2 Adjust to open and close smoothly and freely without binding.

#### SCHEDULE 3 - PROTECTION

PRODUCT DATA SHEET 1 - Protect installed products until completion of project.

PRODUCT DATA SHEET 2 - Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

## SECTION 081113 HOLLOW FRAMES

### 1.01 Work Included

The work under this section shall include the furnishing of all items shown on the drawings and as specified, including but not limited to, the following:

1. Knocked down, site assembled prefinished steel door frames
2. Knocked down, site assembled sidelight, borrowed light, transom, and fullbound access door frames
3. Pocket trim jambs and casings (Pocket frame and hardware not included)

### 1.02 Related Sections

- A. Section 01 30 00 – Coordination, Site meetings

Section 01 60 00 - Product Requirements

Section 08 11 13 – Hollow Metal Doors and Frames

Section 08 12 16 – Aluminum frames

Section 08 14 00 - Wood Doors

Section 08 71 00 - Hardware

Section 08 80 00 - Glazing

### 1.03 References

- A. ASTM A653 – Standard for hot dipped galvanized steel material
- B. UBC 7-2-97, UBC 7-4-97 Positive Pressure Fire Test Certification
- C. UL 10B Fire test of Door Assemblies and UL10C Standard for Positive Pressure Fire Tests of Door Assemblies
- D. NFPA 80 - Fire Doors and Windows (Latest Edition)
- E. NFPA-101 - Life Safety Codes (Latest Edition)
- F. ASTM D2197 - Standard Test Method for Adhesion of Organic Coatings by Scrape Adhesion.
- G. ASTM D2247 - Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
- H. ASTM D2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- I. ASTM D3361 - Standard Practice for Unfiltered Open-Flame Carbon-Arc exposures of Paint and Related Coatings.
- J. ASTM B117 – Standard test for salt spray testing

### 1.04 Submittals

- A. Section 01 33 00: Submittal procedures.
- B. Product Data: Indicate frame material, Gauge, configuration and finishes.
- C. Shop Drawings: See section 08 06 00. Indicate frame elevations, details of frame anchorage, reinforcements required, rough opening requirements, location of hardware embosses, and finishes. Detail each floor of the building separately.
- D. Samples: Submit [\_\_\_\_\_] standard frame samples, illustrating factory finished frame colors.
- E. Manufacturer's Installation Instructions: Provide installation instructions for all products under this section.
- F. Manufacturer's Certificate of Warranty: (See Section 01 78 36) Provide manufacturer's standard warranty certificate stating material is warranted for a period of one year from date of building occupancy
- G. LEED Qualification
1. LEED Credit MR4.1, MR4.2: Post consumer and Pre consumer recycled material content
  2. LEED Credit MR5.1: Location of manufacturer/proximity to project
  3. EQc4.1: VOC – MSDS sheet for paint materials



## 1.05 Quality Assurance

### A. Quality Standards

1. *Material free from defects in material and according to project specifications for pre-engineered opening systems*
2. *Proven durability of factory finishes allowing for bending and shaping of material after finish is applied*

### B. Fire Rated Frame Construction

1. Use only installers familiar with installation of prefinished opening systems and applied casing frame installation

## 1.06 Delivery, Storage and Handling

- A. Section 01 60 00: Transport, handle, store, and protect products in a dry area off the ground.
- B. Accept frames on site in manufacturer's box packaging with identification labels intact. Inspect for damage.
- C. Do not open individual boxes until installation is to begin.

## Part 2 - PRODUCTS

### 2.01 Acceptable Manufacturers

- A. Timely Industries, A Division of SDS Industries, Inc., 10241 Norris Avenue, Pacoima, CA, 91331-2292; Phone toll free: 800-247-6242; Fax: 818-492-3530. Web site: [www.timelyframes.com](http://www.timelyframes.com).
- B. Frames: Provide all interior frames for project from same manufacturer. Provide exterior frames as shown on plans
- C. Substitutions: Refer to Section 01 60 00

### 2.02 Frames

- A. Frame Material: Hot dipped galvanized steel, for interior frames in normal atmospheric exposures.
- B. Frame Material: Hot dipped galvanized steel for all frames used in the following locations:
  1. Exterior Locations
  2. Public and Private Restrooms
  3. Coastal locations for both interior and exterior applications exposed to salt air or salt spray within 10 miles of any ocean or salt water lake
- C. Frame Throat Opening: As shown on plan details to suit finished wall thickness.
- D. Fire rated frames and Office Entry frames to be CK series with kerf formed into frame profile with factory installed, pre-mitered smoke/sound control gasket
- E. Frame Profile - Unequal Rabbet profile, standard with manufacturer
  1. "S" Series, 0.9 mm (20 Gauge) thick, interior office spaces
  2. "C" Series, 1.2 mm (18 Gauge) thick, other areas, non standard jamb depths
  3. "CK" Series, 1.2 mm (18 Gauge) thick, with kerf for door seal/gasket
  4. "E" Series 0.9 mm (20 Gauge) thick
    - a. #430 Bright Polished Stainless Steel
    - b. #304 Brushed Stainless Steel
    - c. Polished Brass, Brass Base metal (Cannot be fire rated)
    - d. Polished Brass, Steel Base metal (Can be fire rated)
  5. "P" Series, 1.2 mm (18 Gauge) thick, trim frames for pocket doors
- F. Side Light Frames: 1.2 mm (18 Gauge) Verify glass dimensions for fire rated sidelights and borrowed lights
- G. Casings
  1. Provide steel or aluminum casings formed to be applied to heat treated clips on frame face after frame is anchored to wall
  2. Standard Steel - TA-8 with 6 mm (1/4 inch) reveal, on steel, stainless steel, and/or brass frames. Fit factory assembled units with MiterGard corner alignment clips.
  3. Aluminum with reveal - TA-23 with a 6 mm (1/4 inch) reveal with manufacturer's standard TA-24 corner alignment clips
  4. Aluminum no reveal - TA-28 full 1 3/4" face profile with manufacturer's standard TA-24 corner alignment clips
  5. Aluminum no reveal - TA-28M full 2" face profile with manufacturer's standard TA-24 corner alignment clips

6. Custom Wood (Provided by Others) - Refer to Section 06 40 00 - Design Teamural Woodwork. Provide frames with nail holes and oval slots only.

#### 2.03 Frame Reinforcement and Accessories

- A. Provide reinforcements shipped loose to project site for hardware application
  - 1. TA-10 - Regular arm closers, casing mounted coordinators
  - 2. TA-12 - Parallel arm closers, Rim Exit device strikes, other stop mounted surface hardware
  - 3. TA-47 - For CK frame, Parallel arm closers, Rim Exit device strikes, other stop mounted surface hardware
  - 4. TA-25 - Double acting spring hinges, continuous hinges, other surface mounted hardware on door rabbet or cased opening frame
  - 5. Provide hinge reinforcement (TA-11) of 14 Gauge steel pierced to create depth of thread for hinge screws equal to or exceeding 7 Gauge steel.
- B. Weatherstrip/Smoke Gasket: TA-46 (QDS500) 90 minute rated gasket for kerfed frames. All pieces factory mitered to assure perfect corner alignment. Select color: Browntone, Black, Western White, Off White, Grey, Beige (custom colors not available)
- C. Silencers: TA-5 vinyl, 2 per frame, clear stick-on type. Silencers not required on Kerfed frames or frames scheduled to receive stop mounted gasket or weatherstrip
- D. Glass Stops: TA-14 removable rolled steel, shape, butted ends. Pre-punch and countersink for flat head tek screws.
- E. Adjustable strikes: Emboss frames for TA-1 strike for cylindrical lock. Provide TA-1 strike in finish compatible with hardware finish. (ANSI 2 3/4" T strike supplied with cylindrical lock cannot be used with standard frame because of unique strike location and screw piercing method)
- F. Prepare frames for ASA 4-7/8" strikes where required. Provide minimum 1/4" depth of threads in factory tapped screw holes
- G. Installation fasteners (Provided by others)
  - 1. *Interior Frames: #6 Drywall type length sufficient to penetrate studs or structure at least 1/2".*
  - 2. *Exterior Frames: Drywall type, corrosion resistant coating, same as G.1 above*

#### 2.04 Fabrication

- A. Openings for single swing, pair, borrowed light and sidelight frames to be pre-cut, notched and fabricated at the manufacturer's facility. For fire rated and exterior openings, provide kerf at stop for installation of smoke gasket or weatherstrip
- B. Provide minimum 14 Gauge hinge reinforcement plate tapped for machine screws supplied with hinges. Hinge plate to be mechanically attached to hinge emboss on frame
- C. Casing Clips: Fabricate frames with factory applied, heat treated clips to ensure no deflection in the clip upon application or removal of casing. Attachment clips may not be of same material as frame
- D. Provide notches, tabs and/or stops for positive alignment of frame parts at all corners
- E. Mullions to be notched as required to provide tight joints
- F. Provide manufacturer's standard mullion brackets for positive connection of frame and mullion parts
- G. Provide manufacturer's standard steel glass stop pre-cut to exact length. Fire rated glazed openings to have hole for installation screw within 2" of each end of stop piece
- H. Provide insert channel full width of borrowed lights installed on finish floor. Provide full width head channel for ceiling height units.
- I. Provide adequate structural support (by others) for ceiling insert channel for ceiling height frames
- J. Transom bars to be fixed type with compatible profiles to jamb and head
- K. Attach approved mylar label to each fire-rated frame indicating fire rating details
- L. Factory install TA-46 smoke gasket on all prefinished, CK series frames. Install with factory mitered corners to ensure adequate seal and pleasing appearance

## 2.05 Finishing

- A. Frame Units: Prefinished with factory applied impact resistant, polyurethane baked enamel finish or optional electrostatic applied water based paint system
- B. Frames for high humidity areas to be hot dipped galvanized. See 2.02.B for specific locations
- C. Casing Finishes
  - 1. *Steel: Prefinished with factory applied impact resistant, polyurethane baked enamel finish.*
  - 2. *Aluminum: Prefinished with factory applied impact resistant, polyurethane baked enamel finish or Clear anodized for Alumitone (SC108) paint finished frames*
- D. Colors: (Select)
  - 1. *Standard Colors: Browntone (SC101) or Western White (SC107).*
  - 2. *Premium Colors (Slight Additional Cost): Autumn Brown (SC102), Black (SC103), Alumitone (SC108), or Stone Gray (SC106).*
  - 3. *Designer Colors: Select from manufacturer's standard pre-matched custom colors*
  - 4. *Elite Colors: Stainless Steel #430 Bright (ES204), Stainless Steel #4 Brushed 304 (ES206).*
  - 5. *Custom Colors: Color custom matched for project requirements*

## Part 3 – EXECUTION

### 3.01 Examination

- A. Verify acceptability of existing conditions before starting work.
- B. Verify that opening sizes and wall thicknesses are within specified tolerances. Verify that all finished walls are in plane to ensure proper door alignment.

### 3.02 Installation

- A. Install frames in accordance with manufacturer's requirements.
- B. Anchor frames with screws located at every casing clip or every 11" as shown on manufacturer's instructions. Field verify quantity and location of fasteners prior to installing casing.
- C. Install prefinished frames near end of the project after wall painting and wall coverings are applied.
- D. Install frames using qualified installers familiar with installation of prefinished drywall frames.
- E. Coordinate installation of glass and glazing in glazed units.
- F. Coordinate installation of frames with installation of hardware specified in Section 08 71 00 and doors in Section 08 21 00.
- G. Touch-up blemishes on finished frames with factory prepared touch up paint.

END OF SECTION

SECTION 087100

DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Other doors to the extent indicated.
  
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Electromechanical door hardware.
  - 3. Cylinders specified for doors in other sections.
  
- C. Related Sections: Division 08 Section "Hollow Metal Doors and Frames".
  
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC - International Building Code.
  - 3. NFPA 70 - National Electrical Code.
  - 4. NFPA 80 - Fire Doors and Windows.
  - 5. NFPA 101 - Life Safety Code.
  - 6. NFPA 105 - Installation of Smoke Door Assemblies.
  - 7. State Building Codes, Local Amendments.
  
- E. Standards: All hardware specified herein shall comply with the following industry standards:
  - 1. ANSI/BHMA Certified Product Standards - A156 Series
  - 2. UL10C - Positive Pressure Fire Tests of Door Assemblies

1.2 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
1. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  2. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  3. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and fieldinstalled wiring. Include the following:
    - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    - b. Complete (risers, point-to-point) access control system block wiring diagrams.
    - c. Wiring instructions for each electronic component scheduled herein.
  2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

- E. Informational Submittals:
1. LEED Submittals: Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
  2. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.
- 1.3 QUALITY ASSURANCE
- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Design Teamural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Design Team, and Owner concerning both standard and electromechanical door hardware and keying.
- D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
  2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.
  2. Plans for existing and future key system expansion.

3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.5 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

## 1.6 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
  - 1. Ten years for mortise locks and latches.
  - 2. Five years for exit hardware.
  - 3. Twenty five years for manual surface door closer bodies.
  - 4. Two years for electromechanical door hardware.

## 1.7 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

## PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
- C. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.



- D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the Design Team, owner, and their designated consultants.

## 2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
  - a. Two Hinges: For doors with heights up to 60 inches
  - b. Three Hinges: For doors with heights 61 to 90 inches
  - c. Four Hinges: For doors with heights 91 to 120 inches
  - d. For doors with heights more than 120 inches provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches
2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
  - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
  - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
  - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
  - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
4. Hinge Options: Comply with the following where indicated in the Hardware Sets or on Drawings: Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
5. Acceptable Manufacturers:
  - a. Hager Companies (HA).
  - b. McKinney Products (MK).
  - c. Stanley Hardware (ST).

- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Acceptable Manufacturers:
  - a. Ives (IV).
  - b. McKinney Products (MK).
  - c. Pemko Manufacturing (PE).

## 2.3 POWER TRANSFER DEVICES

- A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Acceptable Manufacturers:
  - a. Hager Companies (HA) - ETW-QC (# wires) Option.
  - b. McKinney Products (MK) - QC (# wires) Option.

- B. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable. Acceptable Manufacturers: Von Duprin (VD) - EPT-10 Series.

## 2.4 DOOR OPERATING TRIM

- A. Door Push Plates and Pulls: ANS/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
2. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
3. Acceptable Manufacturers:
  - a. Ives (IV).
  - b. Rockwood Manufacturing (RO).
  - c. Trimco (TC).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated. Acceptable  
Manufacturers: Schlage (SC).
- C. Cylinders: Original manufacturer cylinders complying with the following:
1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
  2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
  4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
  5. Keyway: Manufacturer's Standard. Match Facility Standard.
- D. Key Quantity: Provide the following minimum number of keys:
1. Change Keys per Cylinder: Two (2)
  2. Master Keys (per Master Key Level/Group): Five (5).
  3. Construction Keys (where required): Ten (10).
- E. Construction Keying: Provide construction master keyed cylinders.
- F. Key Registration List (Bitting List):
1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
  2. Provide transcript list in writing or electronic file as directed by the Owner.
- G. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
1. Acceptable Manufacturers:
- a. Lund Equipment (LU).
  - b. MMF Industries (MM).
  - c. Telkee (TK).
- H. Key Control Software: Provide one network version of "Key Wizard" branded key management software package that includes one year of technical support and upgrades to software at no charge. Provide factory key system formatted for importing into "Key Wizard" software.

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body. Acceptable Manufacturers: Schlage (SC) - L9000 Series.

2.7 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
  - 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
  - 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
  - 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
  - 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
  - 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
  - 2. Strikes for Bored Locks and Latches: BHMA A156.2.
  - 3. Strikes for Auxiliary Deadlocks: BHMA A156.5.
  - 4. Dustproof Strikes: BHMA A156.16.

2.8 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
  - 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
  - 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
  - 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
  - 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
  - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
  - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
6. Vertical Rod Exit Devices: Provide and install interior surface and concealed vertical rod exit devices as Less Bottom Rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature. Acceptable  
 Manufacturers: Von Duprin (VD) - 35A/98 XP Series.

## 2.9 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.
  2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
  3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.
  4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.
  5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
    - a. Where closers are indicated to have mechanical dead-stop, provide heavy duty arms and brackets with an integral positive stop.
    - b. Where closers are indicated to have mechanical hold open, provide heavy duty units with an additional built-in mechanical holder assembly designed to hold open against normal wind and traffic conditions. Holder to be manually selectable to on-off position.
    - c. Where closers are indicated to have a cushion-type stop, provide heavy duty arms and brackets with spring stop mechanism to cushion door when opened to maximum degree.

d. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics. Provide drop plates or other accessories as required for proper mounting.

6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates, and through-bolt and security type fasteners as specified in the door Hardware Sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.  
Manufacturers: LCN Closers (LC) - 4040XP Series.

Acceptable

## 2.10 DESIGN TEAMURAL TRIM

### A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following: Stainless Steel: 300 grade, 050-inch thick.
4. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
5. Acceptable Manufacturers:
  - a. Ives (IV).
  - b. Rockwood Manufacturing (RO).
  - c. Trimco (TC).

## 2.11 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Acceptable Manufacturers:
  - a. Ives (IV).
  - b. Rockwood Manufacturing (RO).

c. Trimco (TC).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Acceptable Manufacturers:

- a. Glynn Johnson (GJ).
- b. Rixson Door Controls (RF).
- c. Rockwood Manufacturing (RO).
- d. Sargent Manufacturing (SA).

## 2.12 DESIGN TEAMURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and UBC 7-2, Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Acceptable Manufacturers:

- 1. National Guard Products (NG).
- 2. Pemko Manufacturing (PE).
- 3. Reese Enterprises, Inc. (RS).

## 2.13 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.14 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify Design Team of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Design Teamural Hardware for Standard Steel Doors and Frames."
  - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Design Teamural Hardware for Wood Flush Doors."
  - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.



- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

### 3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SCHEDULE

- A. The hardware sets represent the design intent and direction of the owner and Design Team. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the Design Team with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. AD - Adams Rite
4. VD - Von Duprin
5. SC - Schlage
6. RO - Rockwood
7. RF - Rixson
8. LC - LCN Closers

Hardware Schedule

Set: 1.0

Doors: 102A, 102B

1 Continuous Hinge	CFM HD1		PE
1 Continuous Hinge	CFM HD1 PT		PE
1 Mullion	KR4954	SP28	VD
1 Rim Exit Device	CD 99EO	US26D	VD
1 Rim Exit Device	QEL RX 99L 996L(Std)	US26D	VD
2 Per Core	20-740 verify keyway	626	SC
1 I/C Mortise Cylinder	20-061T	626	SC
1 I/C Rim Cylinder	20-057T	626	SC
2 Concealed Overhead Stop	1-X36 (as req'd in lieu of wall or floor stop)	630	RF
2 Door Closer	4040XP EDA	AL	LC
2 Door Stop	466	Black	RO
1 Threshold	171A or Per Sill Detail		PE
1 Rain Guard	346C (omit @ overhang)		PE
2 Sweep	18062CNB		PE
1 Electric Power Transfer	EPT10	SP28	VD
1 Power Supply	PS914 900-2RS		VD

Notes: Weatherstripping by Aluminum Door Supplier

Card reader, wiring and electrical interface by Security Contractor

Operational Narrative - Doors are normally closed and locked. Upon presentation of valid credential, door will momentarily unlatch. Free egress at all times. Upon loss of power or activation of the fire alarm, doors will remain closed and locked. Fail Secure

Set: 2.0

Doors: 103A, 104, 105, 109, 110

2 Hinge (heavy weight)	T4A3386 (NRP) 4-1/2" x 4-1/2"	US32D	MK
1 Hinge (heavy weight)	T4A3386 (NRP) QC8 4-1/2" x 4-1/2"	US32D	MK
1 Electrified Mortise Lock	L9092EU T RX 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Concealed Overhead Stop	1-X36 (as req'd in lieu of wall or floor stop)	630	RF
1 Door Closer	4040XP EDA	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Threshold	171A or Per Sill Detail		PE
1 Rain Guard	346C (omit @ overhang)		PE
1 Gasketing	2891APK		PE
1 Sweep	18062CNB		PE
1 Power Supply	PS914		VD

Notes: Card reader, wiring and electrical interface by Security Contractor

Door Operation: Door is normally closed and locked. Upon valid presentation of credential lever will unlock. Free egress at all times. Upon loss of power or fire alarm door will remain locked (Fail Secure)

Set: 3.0

Doors: 106, 107

2 Hinge (heavy weight)	T4A3386 (NRP) 4-1/2" x 4-1/2"	US32D	MK
1 Hinge (heavy weight)	T4A3386 (NRP) QC8 4-1/2" x 4-1/2"	US32D	MK
1 Electrified Mortise Lock	L9092EU T RX 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Door Closer	4040XP REG	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Mop Plate	K1050 6" high 4BE CSK	US32D	RO
1 Wall Stop	403	US26D	RO
1 Threshold	171A or Per Sill Detail		PE
1 Rain Guard	346C (omit @ overhang)		PE
1 Gasketing	2891APK		PE
1 Sweep	18062CNB		PE
1 Power Supply	PS914		VD

Notes: Card reader, wiring and electrical interface by Security Contractor

Door Operation: Door is normally closed and locked. Upon valid presentation of credential lever will unlock. Free egress at all times. Upon loss of power or fire alarm door will remain locked (Fail Secure)

Set: 4.0

Doors: 112

3 Hinge (heavy weight)	T4A3386 (NRP) 4-1/2" x 4-1/2"	US32D	MK
1 Rim Exit Device	CD 99L 996L(Std)	US26D	VD
2 Per Core	20-740 verify keyway	626	SC
1 I/C Mortise Cylinder	20-061T	626	SC
1 I/C Rim Cylinder	20-057T	626	SC
1 Concealed Overhead Stop	1-X36 (as req'd in lieu of wall or floor stop)	630	RF
1 Door Closer	4040XP HEDA	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Threshold	171A or Per Sill Detail		PE
1 Rain Guard	346C (omit @ overhang)		PE
1 Gasketing	2891APK		PE
1 Sweep	18062CNB		PE

Set: 5.0

Doors: 111, 113

3 Hinge (heavy weight)	T4A3386 (NRP) 4-1/2" x 4-1/2"	US32D	MK
1 Mortise Lock	L9080 T 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Concealed Overhead Stop	1-X36 (as req'd in lieu of wall or floor stop)	630	RF
1 Door Closer	4040XP HEDA	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Threshold	171A or Per Sill Detail		PE
1 Rain Guard	346C (omit @ overhang)		PE
1 Gasketing	2891APK		PE
1 Sweep	18062CNB		PE

Set: 6.0

Doors: 101

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9080 T 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Door Closer	4040XP HEDA	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Wall Stop	403	US26D	RO
3 Silencer	608		RO

Set: 7.0

Doors: 102C

2 Continuous Hinge	CFM HD1		PE
1 Threshold Bolt	4015-18-IB	603	AD
1 Header Bolt	4016		AD
1 Header Bolt	4085-IB	603	AD
1 Mortise Deadlock	MS1850S	628	AD
2 Per Core	20-740 verify keyway	626	SC
2 I/C Mortise Cylinder	20-061T	626	SC
4 Door Pull	BF158	US32D	RO
2 Concealed Overhead Stop	1-X36 (as req'd in lieu of wall or floor stop)	630	RF
2 Door Closer	4040XP HEDA	AL	LC

Set: 8.0

Doors: 201, 208

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9080 T 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Door Closer	4040XP H	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Wall Stop	403	US26D	RO
3 Silencer	608		RO

Set: 9.0

Doors: 202, 203

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9040 L583-363 06A	626	SC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Mop Plate	K1050 6" high 4BE CSK	US32D	RO
1 Wall Stop	403	US26D	RO
3 Silencer	608		RO

Set: 10.0

Doors: 204

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9010 06A	626	SC
1 Wall Stop	403	US26D	RO

3 Silencer	608		RO
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Set: 11.0

Doors: 206, 207

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9050 T L583-363 06A	626	SC
1 Per Core	20-740 verify keyway	626	SC
1 Wall Stop	403	US26D	RO
3 Silencer	608		RO

Set: 12.0

Doors: 209

3 Hinge	TA2714 (NRP) 4-1/2" x 4-1/2"	US26D	MK
1 Mortise Lock	L9010 06A	626	SC
1 Door Closer	4040XP HEDA	AL	LC
1 Kick Plate	K1050 10" high 4BE CSK	US32D	RO
1 Wall Stop	403	US26D	RO
3 Silencer	608		RO

Set: 13.0

Doors: 103B

Description: Overhead Rolling Door

1 Cylinder	as req'd	626	SC
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Set: 14.0

Doors: 001, 002, 003, 004, 005, 006

Description: Gates

1 Cylinder	as req'd	626	SC
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END OF SECTION

SECTION 092900

GYPSUM BOARD

PART 7 - GENERAL

7.1 RELATED DOCUMENTS

7.2 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Exterior gypsum board for ceilings and soffits.
3. Section 061600 "Sheathing" for gypsum sheathing for exterior walls.
4. Section 092116.23 "Gypsum Board Shaft Wall Assemblies" for metal shaft-wall framing, gypsum shaft liners, and other components of shaft-wall assemblies.
5. Section 092216 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.
6. Section 092613 "Gypsum Veneer Plastering" for gypsum base for veneer plaster and for other components of gypsum-veneer-plaster finishes.
7. Section 093013 "Ceramic Tiling" for cementitious backer units installed as substrates for ceramic tile.

7.3 QUALITY ASSURANCE

A. Mockups: Build mockups of at least 100 sq. ft. (9 sq. m) in surface area to demonstrate aesthetic effects and to set quality standards for materials and execution.

1. Build mockups for the following:
  - a. Each level of gypsum board finish indicated for use in exposed locations.
  - b. Each texture finish indicated.
2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.
3. Simulate finished lighting conditions for review of mockups.

7.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

7.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 8 - PRODUCTS

8.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

8.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

8.3 INTERIOR GYPSUM BOARD

- A. Gypsum Wallboard: ASTM C 1396/C 1396M.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; [**USG Sheetrock® Brand Gypsum Panels**] [**USG Sheetrock® Brand Ultralight Panels**] [**USG Sheetrock® Brand Ultralight Panels Firecode 30®**] [**USG Sheetrock® Brand Ultracode® Core Panels**] [**USG Sheetrock® Brand EcoSmart Panels Firecode® X**] [**USG Sheetrock® Brand EcoSmart Panels Firecode® 30**] or a comparable product by one of the following:
    - a. American Gypsum.
    - b. CertainTeed Corporation.
    - c. Continental Building Products, LLC.
    - d. Georgia-Pacific Building Products.
    - e. National Gypsum Company.
    - f. PABCO Gypsum.
    - g. Temple-Inland Building Products by Georgia-Pacific.
    - h. **<Insert manufacturer's name>**.



2. Thickness: [1/2 inch (12.7 mm)] [5/8 inch (15.8 mm)] [3/4 inch (19 mm)].
3. Long Edges: [Tapered] [Tapered and featured (rounded or beveled) for prefilling].

B. Gypsum Board, Type X: ASTM C 1396/C 1396M.

1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; [USG Sheetrock® Brand Ultralight Panels Firecode® X] [USG Sheetrock® Brand Ultralight Panels Mold Tough® Firecode® X] [USG Sheetrock® Brand Firecode® X Panels] [USG Sheetrock® Brand Mold Tough® Firecode® X] [USG Sheetrock® Brand Gypsum Base Imperial® Firecode® X] [USG Sheetrock® Brand AR Firecode® X] [USG Sheetrock® Brand Mold Tough® AR Firecode® X]. [USG Sheetrock® Brand Mold Tough® VHI Firecode® X] [USG Sheetrock® Brand EcoSmart Panels Firecode® X] [USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X] or a comparable product by one of the following:

- a. American Gypsum.
- b. CertainTeed Corporation.
- c. Continental Building Products, LLC.
- d. Georgia-Pacific Building Products.
- e. National Gypsum Company.
- f. PABCO Gypsum.
- g. Temple-Inland Building Products by Georgia-Pacific.
- h. <Insert manufacturer's name>.

2. Thickness: 5/8 inch (15.9 mm).
3. Long Edges: [Tapered] [Tapered and featured (rounded or beveled) for prefilling].

C. Flexible Gypsum Board: ASTM C 1396/C 1396M. Manufactured to bend to fit radii and to be more flexible than standard regular-type gypsum board of same thickness.

1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Sheetrock® Brand Flexible Gypsum Panels or a comparable product by one of the following:

- a. CertainTeed Corporation.
- b. Continental Building Products, LLC.
- c. Georgia-Pacific Building Products.
- d. National Gypsum Company.
- e. PABCO Gypsum.
- f. Temple-Inland Building Products by Georgia-Pacific.
- g. <Insert manufacturer's name>.

2. Thickness: 1/4 inch (6.4 mm).
3. Long Edges: Tapered.

D. Gypsum Ceiling Board: ASTM C 1396/C 1396M.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. CertainTeed Corporation.
  - b. Continental Building Products, LLC.
  - c. Georgia-Pacific Building Products.
  - d. National Gypsum Company.
  - e. PABCO Gypsum.
  - f. Temple-Inland Building Products by Georgia-Pacific.
  - g. **<Insert manufacturer's name>**.
2. Thickness: 1/2 inch (12.7 mm).
3. Long Edges: Tapered.

E. Gypsum Liner Panels, Type X: ASTM C 1396/C 1396M; ASTM C 442.

1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; [USG Sheetrock® Brand Gypsum Liner Panels] [USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels] [USG Sheetrock® Brand Glass-Mat Liner Panels Mold Tough®] or a comparable product by one of the following:
  - a. American Gypsum.
  - b. CertainTeed Corporation.
  - c. Continental Building Products, LLC.
  - d. Georgia-Pacific Building Products.
  - e. National Gypsum Company.
  - f. PABCO Gypsum.
  - g. Temple-Inland Building Products by Georgia-Pacific.
  - h. **<Insert manufacturer's name>**.
2. Thickness: 1 inch (25.4 mm).
3. Long Edges: Tapered and beveled.

F. Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.

1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; [USG Sheetrock® Brand UltraLight Panels Mold Tough®] [USG Sheetrock® Brand Mold Tough® Ultracode® Gypsum Panels] [USG Sheetrock® Brand Mold Tough® Firecode® C] [USG Sheetrock® Brand Ultralight Panels Mold Tough® Firecode® X] [USG Sheetrock® Brand Mold Tough® Firecode® X] [USG Sheetrock® Brand Mold Tough® AR Firecode® X] [USG Sheetrock® Brand Mold Tough® VHI Firecode® X] [USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X] or a comparable product by one of the following:
  - a. American Gypsum.
  - b. CertainTeed Corporation.

- c. Continental Building Products, LLC.
  - d. Georgia-Pacific Building Products.
  - e. National Gypsum Company.
  - f. PABCO Gypsum.
  - g. Temple-Inland Building Products by Georgia-Pacific.
  - h. **<Insert manufacturer's name>.**
2. Core: **[As indicated] [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X].**
  3. Long Edges: Tapered.
  4. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

8.4 TILE BACKING PANELS

- A. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M, with manufacturer's standard edges.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Durock™ Glass-Mat Tile Backerboard or a comparable product by one of the following:
    - a. CertainTeed Corporation.
    - b. Georgia-Pacific Building Products.
    - c. National Gypsum Company.
    - d. Temple-Inland Building Products by Georgia-Pacific.
    - e. **<Insert manufacturer's name>.**
  2. Core: **[As indicated on Drawings] [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X].**
  3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- B. Cementitious Backer Units: ANSI A118.9 and ASTM C 1288 or ASTM C 1325, with manufacturer's standard edges.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Durock™ Brand Cement Board or a comparable product by one of the following:
    - a. C-Cure.
    - b. CertainTeed Corporation.
    - c. Custom Building Products.
    - d. FinPan, Inc.
    - e. James Hardie Building Products, Inc.
    - f. National Gypsum Company.
    - g. **<Insert manufacturer's name>.**
  2. Thickness: **[1/4 inch (6.4 mm)] [1/2 inch (12.7 mm)] [5/8 inch (15.9 mm)] [As indicated].**

3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- C. Water-Resistant Gypsum Backing Board: ASTM C 1396/C 1396M, with manufacturer's standard edges.
1. **Basis-of-Design Product:** Subject to compliance with requirements, provide USG Corporation; [**USG Sheetrock® Brand UltraLight Panels Mold Tough®**] [**USG Sheetrock® Brand Mold Tough® Ultracode® Gypsum Panels**] [**USG Sheetrock® Brand Mold Tough® Firecode® C**] [**USG Sheetrock® Brand Ultralight Panels Mold Tough® Firecode® X**] [**USG Sheetrock® Brand Mold Tough® Firecode® X**] [**USG Sheetrock® Brand Mold Tough® AR Firecode® X**] [**USG Sheetrock® Brand Mold Tough® VHI Firecode® X**] [**USG Sheetrock® Brand EcoSmart Panels Mold Tough® Firecode® X**] or a comparable product by one of the following:
    - a. American Gypsum.
    - b. CertainTeed Corporation.
    - c. Continental Building Products, LLC.
    - d. Georgia-Pacific Building Products.
    - e. PABCO Gypsum.
    - f. Temple-Inland Building Products by Georgia-Pacific.
    - g. **<Insert manufacturer's name>.**
  2. **Core:** [**As indicated on Drawings**] [**1/2 inch (12.7 mm), regular type**] [**5/8 inch (15.9 mm), Type X**] [**Type C as required by fire-resistance-rated assembly indicated on Drawings**].

#### 8.5 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
1. **Material:** [**Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet**] [**Galvanized or aluminum-coated steel sheet or rolled zinc**] [**Plastic**] [**Paper-faced galvanized-steel sheet**].
  2. **Shapes:**
    - a. Cornerbead.
    - b. Bullnose bead.
    - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
    - d. L-Bead: L-shaped; exposed long flange receives joint compound.
    - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
    - f. Expansion (control) joint.
    - g. Curved-Edge Cornerbead: With notched or flexible flanges.

#### JOINT TREATMENT MATERIALS

- B. General: Comply with ASTM C 475/C 475M.
- C. Joint Tape:
1. Interior Gypsum Board: Paper.
  2. Exterior Gypsum Soffit Board: Paper.

3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
  4. Tile Backing Panels: As recommended by panel manufacturer.
- D. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
1. Prefilling: At open joints[, **rounded or beveled panel edges,**] and damaged surface areas, use setting-type taping compound.
  2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use [**setting-type taping**] [**drying-type, all-purpose**] compound.
    - a. Use setting-type compound for installing paper-faced metal trim accessories.
  3. Fill Coat: For second coat, use [**setting-type, sandable topping**] [**drying-type, all-purpose**] compound.
  4. Finish Coat: For third coat, use [**setting-type, sandable topping**] [**drying-type, all-purpose**] compound.
  5. Skim Coat: For final coat of Level 5 finish, use [**setting-type, sandable topping compound**] [**drying-type, all-purpose compound**] [**high-build interior coating product designed for application by airless sprayer and to be used instead of skim coat to produce Level 5 finish**].
- E. Joint Compound for Exterior Applications:
1. Exterior Gypsum Soffit Board: Use setting-type taping compound and setting-type, sandable topping compound.
  2. Glass-Mat Gypsum Sheathing Board: As recommended by sheathing board manufacturer.
- F. Joint Compound for Tile Backing Panels:
1. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.
  2. Cementitious Backer Units: As recommended by backer unit manufacturer.
  3. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.

## 8.6 TEXTURE FINISHES

- A. Primer: As recommended by textured finish manufacturer.
- B. Polystyrene Aggregate Ceiling Finish: Water-based, job-mixed, polystyrene aggregate finish with flame-spread and smoke-developed indexes of not more than 25 when tested according to ASTM E 84.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Sheetrock® Brand Ceiling Spray Texture, QT Poly or a comparable product by one of the following:
    - a. Georgia-Pacific Building Products.
    - b. National Gypsum Company.
    - c. **<Insert manufacturer's name>**.

2. Texture: [**Fine**] [**Medium**] [**Coarse**].
- C. Aggregate Finish: Water-based, job-mixed, aggregated, drying-type texture finish for spray application.
1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Sheetrock® Brand Wall and Ceiling Spray Texture (Aggregated) or a comparable product by one of the following:
    - a. CertainTeed Corporation.
    - b. Georgia-Pacific Building Products.
    - c. National Gypsum Company.
    - d. **<Insert manufacturer's name>**.
  2. Texture: [**Light spatter**] [**Spatter knock-down**] **<Insert texture>**.
- D. Non-Aggregate Finish: Premixed, vinyl texture finish for spray application.
1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Sheetrock® Brand Wall and Ceiling Spray Texture (Unaggregated) or a comparable product by one of the following:
    - a. CertainTeed Corporation.
    - b. National Gypsum Company.
    - c. **<Insert manufacturer's name>**.
  2. Texture: [**Orange peel**] [**Spatter**] [**Spatter knock-down**] **<Insert texture>**.
- E. Acoustical Finish: Water-based, chemical-setting or drying-type, job-mixed texture finish for spray application.
1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; USG Acoustical Plaster Finish or a comparable product by one of the following:
    - a. International Cellulose Corp.
    - b. **<Insert manufacturer's name>**.
  2. Application Thickness: [**1/2 inch (12.7 mm)**] **<Insert dimension>**.
  3. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
    - a. Flame-Spread Index: [**25**] **<Insert value>** or less.
    - b. Smoke-Developed Index: [**50**] [**450**] **<Insert value>** or less.
  4. NRC: [**0.55**] **<Insert NRC>** according to ASTM C 423.

## PART 9 - EXECUTION

### 9.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 9.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
  - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I.
- J. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood shrinkage.
- K. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with

- L. ASTM C 919 and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- M. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

9.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
  - 1. Wallboard Type: **[As indicated on Drawings] [Vertical surfaces unless otherwise indicated]**.
  - 2. Type X: **[As indicated on Drawings] [Where required for fire-resistance-rated assembly] [Vertical surfaces unless otherwise indicated] <Insert requirements>**.
  - 3. Flexible Type: **[As indicated on Drawings] [Apply in double layer at curved assemblies]**.
  - 4. Ceiling Type: **[As indicated on Drawings] [Ceiling surfaces]**.
  - 5. Foil-Backed Type: **[As indicated on Drawings] <Insert requirements>**.
  - 6. Abuse-Resistant Type: **[As indicated on Drawings] <Insert requirements>**.
  - 7. Impact-Resistant Type: **[As indicated on Drawings] <Insert requirements>**.
  - 8. Mold-Resistant Type: **[As indicated on Drawings] <Insert requirements>**.
  - 9. Type C: **[As indicated on Drawings] [Where required for specific fire-resistance-rated assembly indicated]**.
  - 10. Glass-Mat Interior Type: **[As indicated on Drawings] <Insert requirements>**.
  - 11. Acoustically Enhanced Type: **[As indicated on Drawings] <Insert requirements>**.
  - 12. Skim-Coated Type: **[As indicated on Drawings] <Insert requirements>**.
- B. Single-Layer Application:
  - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
  - 2. On partitions/walls, apply gypsum panels **[vertically (parallel to framing)] [horizontally (perpendicular to framing)]** unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
    - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
    - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
  - 3. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
  - 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.



C. Multilayer Application:

1. On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches (400 mm) minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.

On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.

2. On Z-shaped furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
3. Fastening Methods: Fasten base layers [**and face layers separately to supports with screws**] [**with screws; fasten face layers with adhesive and supplementary fasteners**].

D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.

E. Curved Surfaces:

1. Install panels horizontally (perpendicular to supports) and unbroken, to extent possible, across curved surface plus 12-inch- (300-mm-) long straight sections at ends of curves and tangent to them.
2. For double-layer construction, fasten base layer to studs with screws 16 inches (400 mm) o.c. Center gypsum board face layer over joints in base layer, and fasten to studs with screws spaced 12 inches (300 mm) o.c.

9.4 APPLYING EXTERIOR GYPSUM PANELS FOR CEILINGS AND SOFFITS

A. Apply panels perpendicular to supports, with end joints staggered and located over supports.

1. Install with 1/4-inch (6.4-mm) open space where panels abut other construction or structural penetrations.
2. Fasten with corrosion-resistant screws.

9.5 APPLYING TILE BACKING PANELS

A. Glass-Mat, Water-Resistant Backing Panels: Comply with manufacturer's written installation instructions and install at [**showers, tubs, and where indicated**] [**locations indicated to receive tile**]. Install with 1/4-inch (6.4-mm) gap where panels abut other construction or penetrations.

B. Cementitious Backer Units: ANSI A108.11, at [**showers, tubs, and where indicated**] [**locations indicated to receive tile**].

- C. Water-Resistant Backing Board: Install where indicated with 1/4-inch (6.4-mm) gap where panels abut other construction or penetrations.
- D. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

9.6 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints **[at locations indicated on Drawings] [according to ASTM C 840 and in specific locations approved by Design Team for visual effect]**.
- C. Interior Trim: Install in the following locations:
  - 1. Cornerbead: Use at outside corners **[unless otherwise indicated]**.
  - 2. Bullnose Bead: Use **[at outside corners] [where indicated] <Insert requirements>**.
  - 3. LC-Bead: Use **[at exposed panel edges] <Insert requirements>**.
  - 4. L-Bead: Use **[where indicated] <Insert requirements>**.
  - 5. U-Bead: Use **[at exposed panel edges] [where indicated] <Insert requirements>**.
  - 6. Curved-Edge Cornerbead: Use at curved openings.
- D. Exterior Trim: Install in the following locations:
  - 1. Cornerbead: Use at outside corners.
  - 2. LC-Bead: Use **[at exposed panel edges] <Insert requirements>**.
- E. Aluminum Trim: Install in locations **[indicated on Drawings] <Insert requirements>**.

9.7 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints **[, rounded or beveled edges,]** and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
  - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
  - 2. Level 2: **[Panels that are substrate for tile] [Panels that are substrate for acoustical tile] [Where indicated on Drawings] <Insert locations>**.
  - 3. Level 3: **[Where indicated on Drawings] <Insert locations>**.
  - 4. Level 4: **[At panel surfaces that will be exposed to view unless otherwise indicated] <Insert locations>**.
    - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."
- E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.

- F. Glass-Mat Faced Panels: Finish according to manufacturer's written instructions.
- G. Cementitious Backer Units: Finish according to manufacturer's written instructions.

9.8 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture[ **matching approved mockup and**] free of starved spots or other evidence of thin application or of application patterns.
- C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written instructions.

9.9 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, or mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

## **DIVISION 09 – FINISHES**

### **SECTION 09 65 13 – 13 RESILIENT WALL BASE**

BEGINNING OF SECTION 09 65 13 – 13

#### **PART 1 – GENERAL**

##### **1.1 GENERAL PROVISIONS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions of Division 01 General Requirements, Specification Sections, apply to this section.

##### **1.2 SUMMARY**

- A. Section includes:
  - i. Resilient Wall Base

##### **1.3 SUBMITTALS, RELATED DOCUMENTS**

- A. **General:** Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.
- B. **Product Data:** Submit manufacturers:
  - i. Technical data sheet
  - ii. Care & maintenance document
  - iii. WarrantyFor each material and accessory proposed for use (available at [www.flexcofloors.com](http://www.flexcofloors.com)).
- C. **LEED Submittals:**
  - i. Product Data for Credit EQ 4.1: For adhesives, including printed statement of VOC content and chemical components.
- D. **Samples for Initial Selection:** For each type of product indicated.
- E. **Samples for Verification:** For each type of product indicated, in manufacturer's standard- size samples of each resilient product color, texture and pattern required.
- F. **Product Schedule:** For resilient products. Use same designations indicated on Drawings.

##### **1.4 QUALITY ASSURANCE**

- A. **Manufacturer Qualifications:** Provide resilient wall base materials manufactured in the United States of America by a firm with a minimum of 10 years' experience with resilient rubber materials of type equivalent to those specified.
- B. Provide resilient wall base, flooring materials, adhesives, accessories and subfloor preparation products from one manufacturer to ensure color matching and compatibility.
- C. Manufacturer shall be capable of providing technical training and technical field service representation.

## 1.5 RELATED WORK

- A. Installer must be professional, licensed, insured and acceptable to manufacturer of resilient flooring materials. Project Managers or Field Supervisors must be INSTALL (International Standards & Training Alliance) certified CFI (Certified Floorcovering Installers) Certified and/or an FCICA (The Flooring Contractors Association) CIM (Certified Installation Manager) for the requirements of the project or equivalent.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within the range recommended by Flexco of 55 degrees F (13 degrees C) and 85 degrees F (29 degrees C).

## 1.7 PROJECT CONDITIONS

- A. Install resilient products after other finishing operations, including painting, have been completed.
- B. Maintain ambient temperatures within range of ( $\pm 10$  degrees F) 65 degrees (18 degrees C) and 85 degrees F (29 degrees C) in the spaces to receive the resilient products during:
  - i. 48 hours before installation.
  - ii. During installation.
  - iii. 48 hours after installation.
- C. Maintain relative humidity between 40% and 65% during installation.
- D. Avoid conditions in which dew point causes condensation on the installation surface.

## 1.8 WARRANTY

- A. Provide manufacturer's standard limited commercial warranty to cover manufacturing defects

## PART 2 - PRODUCTS

*Note To specifier: remove and amend sections as necessary.*

### 2.1 MANUFACTURER

- A. Basis-of-Design: Flexco Floors | 1401 East 6<sup>th</sup> Street | Tuscumbia, AL 35674 | P: (800) 633-3151
- B. Substitutions: No substitutions permitted

### 2.2 PRODUCTS

- A. TRADITIONAL WALL BASE
  - i. FLEXCO BASE 2000 THERMOPLASTIC RUBBER (TP) WALL BASE - specify rubber wall base with the following characteristics: **Meets the performance requirements for the following Industry Standards:**
    - a. ASTM F1861, Standard Specification for Resilient Wall Base, Type TP (rubber, thermoplastic), Group 2 (layered), Style A&B (straight, cove)

- b. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials, Class A.
  - c. ASTM E648 (NFPA 253), Standard Test Method for Critical Radiant Flux, Class 1, >0.45 W/cm<sup>2</sup>.
  - d. ASTM E662 (NFPA 258), Standard Test Method for Smoke Density, Passes, <450
  - e. ASTM F137, Standard Test Method for Flexibility of Resilient Flooring Materials protocols, Passes
  - f. ASTM F386, Standard Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces, Passes
  - g. ASTM F925, Standard Test Method for Resistance to Chemicals of Resilient Flooring, Excellent
  - h. ASTM F1515, Standard Test Method for Measuring Light Stability of Resilient Flooring protocols, Passes
- National Fire Protection Association (NFPA):
- i. NFPA 253, Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source
  - j. NFPA 255, Standard Method of Test of Surface Burning Characteristics of Building Materials
  - k. NFPA 258, Test Method for Specific Density of Smoke Generated by Solid Materials
- CAN/ULC-S102.2
- l. FSR 10, SDS 60

**B. FLEXCO RUBBER WALL BASE IS A THERMOPLASTIC RUBBER (TP)**

- i. Flexco Base 2000 Wall Base
- ii. Specify size by name and description: *(remove all but the size selecting)* Flexco Base 2000 2 ½” height, Flexco Base 2000 4” height, Flexco Base 2000 4 ½” height, Flexco Base 2000 6” height.
- iii. Specify size by name and description: *(remove all but the size selecting)* Flexco Base 2000 48” length, Flexco Base 2000 120’ length rolls.
- iv. Specify style by Alpha and name *(remove all but the style selecting)* A. Straight, B. Cove.
- v. Specify Color by Color Name and Number: *(remove all but the color selecting)* Black dahlia 01, Bark 02, Charcoal 03, Coffee Bean 04, Corn Silk 05, Cobblestone 06, Ginger 07, Autumn 08, Linen 011, Burlwood 012, Blue 013, Medium Gray 014, Taupe 016, Baby’s Breath 018, Neutrail 020, Almond 022, Pebble 023, Stone 024, Light Gray 025, Arctic White 029, Meridian Blue 030, Dune 032, Doe 033, Barley 034, Delft Pansy 035, Gray 036, Dark Beige 037, Outer Bank 038, Fjord 043, True White 046, Vizcaya Palm 047, Berry 048, Winsor 049, Polo Green 052, Milk

Chocolate 056, Blue Shadow 058, Plum Pudding 059, Sunflower 061, Earth 062, Mediterranean Green 063, Honey 064, Cappuccino 065, Black Brown 071, Chocolate 072, Burnt Sienna 073, Seashell 074, Driftwood 077, Umber 078, Red Rock 079, Sierra Red 080, Antique White 089, Nickel 090, Titanium 091, Graystone 092, Graphite 093, Buff 094, Gunmetal 095, Goldenrod 096, Basil 097, Wheat 098, Midnight Blue 099.

- vi. TP BASE 2000 rubber base is SCS FloorScore® Certified and meets California Specifications Section 01350
- vii. TP BASE 2000 rubber base and accessories do not contain chemicals that may be hazardous to human health
- viii. TP BASE 2000 rubber base meets NSF 332 Gold Criteria
- ix. TP BASE 2000 rubber base meets CHPS Criteria
- x. TP BASE 2000 rubber base is manufactured in the U.S.A.
- xi. TP BASE 2000 rubber base is manufactured in a Facility that is ISO 14001 Certified
- xii. TP BASE 2000 rubber base is free of materials known to be teratogenic, mutagenic or carcinogenic
- xiii. TP BASE 2000 rubber base is free of Halogens
- xiv. TP BASE 2000 rubber base is free of Asbestos
- xv. TP BASE 2000 rubber base is free of Phthalates
- xvi. TP BASE 2000 rubber base is free of Heavy Metals
- xvii. TP BASE 2000 rubber base is free of any Red List Chemicals

### **2.3 INSTALLATION AND MAINTENANCE MATERIALS**

- A. Substrate/Background Preparation Products:
  - i. Adhesives: Adhesives should be selected based on the site conditions and use of the space being installed.
- B. Recommended Adhesive Products:
  - i. Excelsior WB-600 Acrylic Wall Base Adhesive provided by Flexco
    - a. Unit Size: 30 oz. cartridge, 1 Gallon & 4 Gallon
    - b. Coverage: 30 – 70 linear feet per cartridge, 180 – 340 linear feet per gallon
    - c. Standard installations over porous backgrounds
    - d. 100 % solids, solvent free and low VOCs
    - e. Hard set adhesive adding to dimensionally stable materials
    - f. Excellent sheer strength
  - ii. Excelsior C-630 Contact Adhesive provided by Flexco
    - a. Unit Size: 1 Quart
    - b. Coverage: 20 – 40 Square Feet per unit / 120 – 140 Linear Feet per unit

- c. Standard installations over porous and non-porous substrates
  - d. Hard set adhesive adding to dimensionally stable materials
  - e. Excellent sheer strength
  - f. Superior bond strength
  - g. Great for environments with topical moisture
- C. **Accessories:** Items needed to complete the installation. Recommended accessory products:
- a. Flexco Factory Corners
  - b. Rubber Corner Blocks
  - c. Mini-Rubber Corners
  - d. Color-matched Caulks
- D. **Maintenance Materials:** Proper maintenance of the installation is critical to the long term performance of the flooring products being specified. Using the appropriate chemicals to maintain the product according to the environment in which it is specified is critical. Recommend maintenance products:
- i. Excelsior NC-900, All-Purpose Neutral pH Cleaner provided by Flexco
    - a. For initial maintenance
    - b. For daily and routine maintenance

## **PART 3 – EXECUTION**

### **3.1 GENERAL**

- A. **General Contractor Responsibilities:**
- i. Supply a safe, climate controlled building as detailed in Flexco Technical Data Sheets.
  - ii. Ensure substrate/background meets the requirements of ASTM F1861, Flexco Technical Data Sheets and Excelsior Technical Data Sheets.
  - iii. Provide a secure storage area that is maintained permanently or temporarily at normal operating temperature and humidity conditions between 65° F and 85° F and between 40% and 65% relative humidity, for at least 48-hours prior to and during the application of the wall base, so the contractor can acclimate the rubber base materials per manufacturer's instructions.
  - iv. Provide an installation area that is weather tight and maintained either permanently or temporarily at ambient service temperature and humidity. Normal operating temperature and humidity conditions are between 65° F and 85° F and between 40% and 65% relative humidity, for at least 48-hours prior to and during the application of the wall base per the manufacturer's instructions.
  - v. Ensure areas with direct prolonged exposure to sunlight are protected with protective UVA/UVB restrictive coatings or films.



- vi. In areas where the walls are subject to direct sunlight through doors or windows, the doors and windows should be covered using blinds, curtains, cardboard or similar for the time of the installation and 72-hours after the installation to allow the adhesive to cure. Note: These areas should be installed using wet adhesives only.
- vii. Conduct initial maintenance prior to final usage per the Flexco Care & Maintenance Documents. Do not conduct initial maintenance until adhesive has cured per the adhesive technical data.
- viii. Provide trained installers that are professional, licensed, insured and acceptable to manufacturer of resilient rubber wall base materials.
- ix. Ensure installers or installation teams meet one of the following requirements:
  - a. Have completed INSTALL (International Standards & Training Alliance)
  - b. CFI (Certified Floorcovering Installers) training programs
  - c. Certified by INSTALL or CFI.
  - d. Are being supervised by Project Managers or Field Supervisors that are INSTALL (International Standards & Training Alliance) certified, CFI (Certified Floorcovering Installers) Certified and/or an FCICA (The Flooring Contractors Association) CIM (Certified Installation Manager).
- x. Follow all requirements in the appropriate Flexco and/or Excelsior Technical Data Sheets, Care & Maintenance Documents, Warranties and other technical documents or instructions.

### 3.2 EXAMINATION

- A. **General:** Follow guidelines laid out in Division 01, Section 01 71 00 – Examination and Preparation, as well as Section 01 43 00 – Quality Assurance.
- B. **Verification of Conditions:** Inspect all substrates/backgrounds to ensure they are clean, smooth, permanently dry, structurally sound and without voids. Confirm all areas are properly sealed and acclimated per manufacturer’s requirements.
- C. **Verification of Products:** In accordance with manufacturer’s installation requirements, visually inspect material for size, style, color or visual defects prior to installing. Any material that is incorrect or visually defective shall not be installed.

### 3.3 SUBSTRATE/BACKGROUND PREPARATION

- A. **General:** Follow guidelines laid out in Division 01, Section 01 71 00 – Examination and preparation. All work required ensuring substrate/background meets manufacturers’ guidelines are the responsibility of the general contractor.
- B. **Preparation:** Ensure substrate/background meets the requirements of ASTM F1861 for resilient wall base and/or Flexco Technical Data Sheets and Excelsior Technical Data Sheets.
  - i. Substrates/backgrounds must be free of visible water or moisture, dust, sealers, paint, residual adhesives and adhesive removers, solvents, wax, oil, grease, mold, mildew and any

other extraneous coating, film, material or foreign matter.

- ii. Acclimate all products to be used during the installation and the installation environment prior to installation according to the manufacturers written instructions.
- iii. Fill cracks, holes, depressions and irregularities in the substrate/background to prevent transferring through to the surface of the resilient wall base.

### 3.4 INSTALLATION

- A. **General:** Follow all relevant guidelines detailed in Division 01, as well as wall base and adhesive manufacturer's technical data sheets.
- B. **Resilient Vinyl Wall Base:** Install material in accordance with manufacturer's recommendations.
  - i. Select the appropriate adhesive for the application and job site conditions.
  - ii. Install material according to roll sequence or with like run numbers.
  - iii. Ensure material is rolled appropriately into the adhesive using a hand roller.

### 3.5 CLEANING & MAINTENANCE

- A. **General:** Clean up installation area and vacuum dust or wipe material to remove any dirt, dust or debris.
- B. **Initial Maintenance:** Conduct initial maintenance per the manufacturer's recommended procedures stated in the Maintenance Documents. All documentation is available upon request or from the Flexco website: [www.flexcofloors.com](http://www.flexcofloors.com). Excelsior Cleaning products are the recommended products for use. All can be found linked to the product on the Flexco website or at [www.excelsiorproducts.net](http://www.excelsiorproducts.net).
- C. **Regular Maintenance:** Conduct maintenance on regular intervals as needed. Insufficient cleaning will reduce the wear life of the wall base and alter the aesthetic properties of the wall base. The amount of maintenance depends directly upon the amount of dirt and particulates the area is subjected to.

### 3.6 CLOSEOUT ACTIVITIES

- A. **General:** Follow all federal, state and local requirements and Division 01 Section 01 76 00 – Protecting Installed Construction and Section 01 78 00 – Closeout Submittal requirements for these activities, protecting installed construction.
- B. **Protection:** Protect newly installed material from damage by other trades. Be sure all construction debris is picked up and vacuumed or removed prior to leaving the area. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect wall base from scuffing and tearing using temporary floor protection as well.

END OF SECTION 09 65 13-13

## SECTION 096516 - RESILIENT SHEET FLOORING



### Guide Specification Biome™ Luxury Flooring

Armstrong Flooring Inc. is a global leader in the design and manufacture of flooring. Offering innovative and award-winning commercial flooring designs, Armstrong Flooring's comprehensive solutions enable delivery of exceptional interior spaces that surpass a clients' expectations. All around the world, Armstrong Flooring supports different market segments. Armstrong Flooring is committed to systematically reducing our environmental footprint, while providing innovative products and services that enable our customers to create sustainable indoor environments. For more information about Armstrong Flooring Commercial Floors and detailed product technical information, please visit the website at [www.armstrongflooring.com/commercial](http://www.armstrongflooring.com/commercial).

Resilient Flooring Specification

**Please understand that you are responsible for the accuracy of all project specifications, including any Armstrong Flooring guide specifications that you use.**

**ARMSTRONG FLOORING INC. SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY OF ITS GUIDE SPECIFICATIONS.**

SECTION 09 65 19.23

Resilient Tile Flooring

Created January 2022

#### PART 1 - GENERAL

##### 1.01 SUMMARY

###### A. Section Includes:

1. Flooring and accessories as shown on the drawings and schedules and as indicated by the requirements of this section.

###### B. Related Documents

1. Drawings and General Provisions of the Contract (including General and Supplementary Conditions and Division 1 sections) apply to the work of this section.

**Specifier Note:** Revise paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat™ and specifier's practice.

###### C. Related Sections:

1. Other Division 9 sections for floor finishes related to this section but not the work of this section
2. Division 3 Concrete; not the work of this section
3. Division 6 Wood and Plastics; not the work of this section
4. Division 7 Thermal and Moisture Protection; not the work of this section

## 1.02 REFERENCES

- A. Armstrong Flooring Technical Manuals  
Armstrong Flooring Guaranteed Installation Systems instructions.
- B. ASTM International:
  - 1. ASTM E 648 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source
  - 2. ASTM E 662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials
  - 3. ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
  - 4. ASTM F 1482, Standard Guide to Wood Underlayment Products Available for Use Under Resilient Flooring
  - 5. ASTM F 1700 Standard Specification for Solid Vinyl Tile
  - 6. ASTM F 1861 Standard Specification for Resilient Wall Base
  - 7. ASTM F 1869 Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
  - 8. ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes

## 1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide flooring which has been manufactured, fabricated, and installed to performance criteria certified by manufacturer without defects, damage, or failure.
- B. Administrative Requirements
  - 1. Pre-installation Meeting: Conduct an on-site pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.
  - 2. Pre-installation Testing: Conduct pre-installation testing as follows: [Specify testing (i.e., moisture tests, bond test, pH test, etc.).]

**Specifier Note:** Retain paragraph below for erected assemblies (either on-site or off-site) required for review of construction, coordination of work of several sections, testing, or observation of operation. Mock-ups, when accepted or approved, establish standards by which work will be judged. Coordinate below with Division 1 Quality Control (Mock-Up Requirements) Section

- C. Test Installations/ Mock-ups: Install at the project site a job mock-up using acceptable products and manufacturer approved installation methods, including concrete substrate testing. Obtain Owner's and Consultant's acceptance of finish color, texture and pattern, and workmanship standards.

**Specifier Note:** Contact an Armstrong Flooring Sales Representative for more information about test installations.

- 1. Mock-Up Size: [Specify mock-up size].
- 2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.

3. Incorporation: Mock-up may be incorporated into the final construction with Owner's approval.

#### D. Sequencing and Scheduling

1. Install flooring and accessories after the other finishing operations, including painting, have been completed. Close spaces to traffic during the installation of the flooring.
2. Do not install flooring over concrete slabs until they are sufficiently dry to achieve a bond with the adhesive, in accordance with the manufacturer's recommended bond, moisture tests and pH test.

**Specifier Note:** Some products may be installed using an Armstrong high-moisture adhesive.

#### 1.04 SUBMITTALS

- A. Submit shop drawings, seaming plan, coving details, and manufacturer's technical data, installation, and maintenance instructions (latest edition of Armstrong Flooring Guaranteed Installation Systems instructions for flooring and accessories.
- B. Submit the manufacturer's standard samples showing the required colors for flooring and applicable accessories.

**Specifier Note:** Order product samples and access technical documents, including installation instructions, product specification sheets, SDS and more at [armstrongflooring.com/commercial](http://armstrongflooring.com/commercial).

- C. Submit Safety Data Sheets (SDS) available for adhesives, moisture mitigation systems, primers, patching/leveling compounds, floor finishes (polishes) and cleaning agents and Material Information Sheets for flooring products.
- D. If required, submit the manufacturer's certification that the flooring has been tested by an independent laboratory and complies with the required fire tests.
- E. Closeout Submittals: Submit the following:
  1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
  2. Warranty: Warranty documents specified herein.

#### 1.05 QUALITY ASSURANCE

- A. Single-Source Responsibility: provide types of flooring and accessories supplied by one manufacturer, including moisture mitigation systems, primers, leveling and patching compounds, and adhesives.
- B. Select an installer who is experienced and competent in the installation of Armstrong resilient solid vinyl tile flooring and the use of Armstrong Flooring subfloor preparation products.
  1. Engage installers certified as Armstrong Commercial Flooring Certified Installers
  2. Confirm installer's certification by requesting their credentials

- C. Fire Performance Characteristics: Provide resilient tile flooring with the following fire performance characteristics as determined by testing material in accordance with ASTM test methods indicated below by a certified testing laboratory or other testing agency acceptable to authorities having jurisdiction:
  - 1. ASTM E 648 (NFPA 253) Critical Radiant Flux of 0.45 watts per sq. cm. or greater, Class I
  - 2. ASTM E 662 (NFPA 258) (Smoke Generation) Maximum Specific Optical Density of 450 or less
  - 3. CAN/ULC-S102.2 – Flame Spread Rating and Smoke Developed – Results as tested

**Specifier Note:** Download the latest Fire and Smoke reports at [armstrongflooring.com/commercial](http://armstrongflooring.com/commercial)

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Comply with Division 1 Product Requirements Sections.
- B. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Deliver materials in good condition to the jobsite in the manufacturer's original unopened containers that bear the name and brand of the manufacturer, project identification, and shipping and handling instructions.
- D. Store materials in a clean, dry, enclosed space off the ground, protected from harmful weather conditions and at temperature and humidity conditions recommended by the manufacturer. Protect adhesives from freezing. Store flooring, adhesives, and accessories in the spaces where they will be installed for at least 48 hours before beginning installation.

#### 1.07 PROJECT CONDITIONS

- A. Maintain a minimum temperature in the spaces to receive the flooring and accessories of 65°F (18°C) and a maximum temperature of 85°F (29°C) for at least 48 hours before, during, and for not less than 48 hours after installation. Thereafter, maintain a minimum temperature of 55°F (13°C) in areas where work is completed. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances. Refer to the Armstrong Flooring Guaranteed Installations Systems instructions for a complete guide on project conditions.

#### 1.08 LIMITED WARRANTY

- A. Resilient Flooring: Submit a written warranty executed by the manufacturer, agreeing to repair or replace resilient flooring that fails within the warranty period.
- B. Limited Warranty Period: 20 years for Biome™ Luxury Flooring.
- C. The Limited Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.
- D. For the Limited Warranty to be valid, this product is required to be installed using the appropriate Armstrong Flooring Guaranteed Installation System. Product installed not using the specific instructions from the Guaranteed Installation System will void the warranty.

#### 1.09 EXTENDED SYSTEM LIMITED WARRANTY

- A. Resilient Flooring System: Submit a written warranty executed by the manufacturer, agreeing to repair or replace system (subfloor preparation products, adhesive, and floor covering) that fails within the warranty period.

- B. Limited Warranty Period: 10 years on top of the Resilient Flooring Limited Warranty.
- C. [S-463 Level Strong™ cement based self-leveling compound] [S-466 Patch Strong™ flexible patching and smoothing compound] [S-464 Prime Strong™ acrylic primer for porous substrates] [S-465 NP Prime Strong™ acrylic primer for non-porous substrates] [S-462 Seal Strong™ two-part moisture mitigation system].
- D. The installation of an Armstrong Flooring product along with the recommended Armstrong Flooring adhesive, as well as any one of the Strong System subfloor preparation products listed above, provides 10 additional years of limited warranty coverage. The Strong System limited warranty covers the installation integrity for the length of the flooring product warranty plus 10 years. To qualify for the Strong System Warranty, any subfloor preparation product needed for an installation must be an Armstrong Flooring product.
- E. For the System Limited Warranty to be valid, this product is required to be installed using the appropriate Armstrong Flooring Guaranteed Installation System. Product installed not using the specific instructions from the Guaranteed Installation System will void the warranty.
- F. When Armstrong Flooring Strong System subfloor preparation products are used with other manufacturers' floor coverings, adhesives, or other subfloor preparation products, Armstrong Flooring warrants our products to be free from manufacturing defects from the date of purchase through the limited warranty period of 15 years.

#### 1.10 MAINTENANCE

- A. Extra Materials: Deliver extra materials to Owner. Furnish extra materials from same production run as products installed. Packaged with protective covering for storage and identified with appropriate labels.

**Specifier Note:** Revise paragraph below specifying size and percentage as required for project.

1. Quantity: Furnish quantity of flooring units equal to 5% of amount installed.
2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage, and protection of extra material.

#### PART 2 - PRODUCTS

##### 2.01 MANUFACTURER

###### A. Resilient tile flooring, wall base, adhesives and subfloor preparation products and accessories:

1. Armstrong Flooring Inc., 1770 Hempstead Road, Lancaster, PA 17605, [armstrongflooring.com/commercial](http://armstrongflooring.com/commercial).
2. Manufacturer must have a headquarters in the United States of America.

**Specifier Note:** Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal, and regulatory) and assignment of responsibility for determining "or equal" products.

##### 2.02 RESILIENT TILE FLOORING MATERIALS

**Specifier Note:** For a product specification snapshot which includes product structures, packaging information and color choices, visit [armstrongflooring.com/commercial](http://armstrongflooring.com/commercial).

- A. Provide Biome™ Luxury Flooring manufactured by Armstrong Flooring Inc.
1. Description: A layered construction consisting of a tough, clear, rigid vinyl wear layer protecting a high-fidelity print layer on a solid vinyl backing. Protected by a diamond-infused UV-cured polyurethane finish, the wear surface is embossed with different textures to enhance each of the printed visuals. Colors are insoluble in water and resistant to cleaning agents and light.
  2. Reference specification - ASTM F 1700, "Standard Specification for Solid Vinyl Tile", Class III, Type B – Embossed Surface. Meets requirements for size, squareness, thickness, thickness of wear layer, residual indentation, resistance to chemicals, resistance to light and resistance to heat.
  3. Pattern and Color: in [%COLOR%] [color selected from the range currently available from Armstrong Flooring Inc.].
  4. Size: [6 in. x 48 in. (152 mm x 1219 mm)] [9 in. x 48 in. (228 mm x 1219 mm)].
  5. Wear layer thickness: 0.020 in. (0.5 mm).
  6. Thickness: 0.100 in. (2.5 mm).

#### 2.03 PRODUCT SUBSTITUTION

- A. Substitutions: No substitutions permitted because of the specific attributes listed in Section 2.02.

**Specifier Note:** Add article below for alternates required for the project, state work covered. Coordinate with other sections, as needed.

#### 2.04 WALL BASE MATERIALS

- A. For top set wall base: [Provide 1/8 in. (3.18 mm) thick, 4 in. (10.16 cm) high Armstrong Flooring Wall Base with a matte finish, conforming to ASTM F 1861, Type TP - Rubber, Thermoplastic, Group 1 - Solid, Style B – Cove.] [Provide 1/4 in. (6.35 mm) thick, 4.5 in. (11.43 cm) high Armstrong Flooring Color-Integrated Wall Base with a matte finish, conforming to ASTM F 1861, Type TP - Rubber, Thermoplastic, Group 1 - Solid, Style A – Straight.

#### 2.05 ADHESIVES

- A. Provide Armstrong S-995 Flooring Adhesive under the flooring and Armstrong S-725 Wall Base Adhesive at the wall base as recommended by the flooring manufacturer.
- B. [Provide Armstrong S-319 Adhesive for field areas and S-725 Wall Base Adhesive at the wall base as recommended by the flooring manufacturer].
- C. [Provide Armstrong S-1000 Flooring Adhesive under the flooring and Armstrong S-725 Wall Base Adhesive at the wall base as recommended by the flooring manufacturer].

#### 2.06 ACCESSORIES

- A. For patching, smoothing, and leveling monolithic subfloors (concrete, terrazzo, quarry tile, ceramic tile, and certain metals), provide Armstrong [S-194 Cement-Based Patch, Underlayment and Embossing Leveler / S-195 Underlayment Additive] [S-463 Level Strong™ cement based self-leveling compound] [S-466 Patch Strong™ flexible patching and smoothing compound].
- B. [For priming porous substrates to aid in adhesive bond strength and reducing subfloor porosity, provide S-464 Prime Strong™ acrylic primer for porous substrates. For non-porous substrates, provide S-465 NP Prime Strong™ acrylic primer for non-porous substrates].
- C. [For creating a moisture barrier, provide S-462 Seal Strong™ two-part moisture mitigation system].



- D. For sealing joints between the top of wall base or integral cove cap and irregular wall surfaces such as masonry, provide plastic filler applied according to the manufacturer's recommendations.
- E. Provide transition/reducing strips tapered to meet abutting materials.
- F. Provide threshold of thickness and width as shown on the drawings.
- G. Provide resilient edge strips of width shown on the drawings, of equal gauge to the flooring, homogeneous vinyl, or rubber composition, tapered or bullnose edge, with color to match or contrast with the flooring, or as selected by the Design Team from standard colors available.
- H. Provide metal edge strips of width shown on the drawings and of required thickness to protect exposed edges of the flooring. Provide units of maximum available length to minimize the number of joints. Use butt-type metal edge strips for concealed anchorage or overlap-type metal edge strips for exposed anchorage. Unless otherwise shown, provide strips made of extruded aluminum with a mill finish.

### PART 3 - EXECUTION

#### 3.01 MANUFACTURER'S INSTRUCTIONS

- A. **Compliance:** Comply with manufacturer's product data, including technical bulletins, product catalog, installation instructions, and product carton instructions for installation and maintenance procedures as needed.

#### 3.02 EXAMINATION

- A. **Site Verification of Conditions:** Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions (i.e., moisture tests, bond test, pH test, etc.).
- B. Visually inspect flooring materials, adhesives, and accessories prior to installation. Flooring material with visual defects shall not be installed and shall not be considered as a legitimate claim.
- C. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.
- D. Inspect subfloors prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might prevent adhesive bond. Visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew.
- E. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
- F. Failure to call attention to defects or imperfections will be construed as acceptance and approval of the subfloor. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

#### 3.03 PREPARATION

- A. [Subfloor Preparation: Smooth concrete surfaces, removing rough areas, projections, ridges, and bumps, and filling low spots, control or construction joints, and other defects with Armstrong Flooring [S-184 Fast-Setting Cement-Based Patch and Underlayment][ S-194 Cement-Based Patch, Underlayment and Embossing Leveler / S-195 Underlayment Additive] [S-463 Level Strong™ cement

based self-leveling compound] [S-466 Patch Strong™ flexible patching and smoothing compound] [S-464 Prime Strong™ acrylic primer for porous substrates] [S-465 NP Prime Strong™ acrylic primer for non-porous substrates] as recommended by the flooring manufacturer. Refer to Armstrong Flooring Guaranteed Installation Systems instructions and ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring for additional information on subfloor preparation.].

- B. [Subfloor Preparation Moisture Mitigation: Smooth concrete surfaces, removing rough areas, projections, ridges, and bumps, and filling low spots, control or construction joints, mitigate moisture and other defects with Armstrong Flooring [S-194 Cement-Based Patch, Underlayment and Embossing Leveler / S-195 Underlayment Additive] [S-463 Level Strong™ cement based self-leveling compound] [S-466 Patch Strong™ flexible patching and smoothing compound] [S-462 Seal Strong™ two-part moisture mitigation system] [S-464 Prime Strong™ acrylic primer for porous substrates] [S-465 NP Prime Strong™ acrylic primer for non-porous substrates] as recommended by the flooring manufacturer. Refer to Armstrong Flooring Guaranteed Installation Systems instructions and ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring for additional information on subfloor preparation.].
- C. Subfloor Cleaning: The surface shall be free of dust, solvents, varnish, paint, wax, oil, grease, sealers, release agents, curing compounds, residual adhesive, adhesive removers, and other foreign materials that might affect the adhesion of resilient flooring to the concrete or cause a discoloration of the flooring from below. Remove residual adhesives as recommended by the flooring manufacturer. Remove curing and hardening compounds not compatible with the adhesives used, as indicated by a bond test or by the compound manufacturer's recommendations for flooring. Avoid organic solvents. Spray paints, permanent markers and other indelible ink markers must not be used to write on the back of the flooring material or used to mark the concrete slab as they could bleed through, telegraphing up to the surface and permanently staining the flooring material. If these contaminants are present on the substrate, they must be mechanically removed prior to the installation of the flooring material. Refer to the Armstrong Flooring Guaranteed Installation Systems instructions and ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring for additional information on subfloor preparation.
- D. When using S-995 Adhesive, perform subfloor moisture testing in accordance with ASTM F 2170, "Standard Test Method for Determining Relative Humidity in Concrete Slabs Using *in-situ* Probes" and Bond Tests as described in publication instructions "Armstrong Flooring Guaranteed Installation System," to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring. Internal relative humidity of the concrete shall not exceed 99%. On installations where both the Percent Relative Humidity and the Moisture Vapor Emission Rate tests are conducted, results for both tests shall comply with the allowable limits listed above. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained.
- E. [When using S-319 Adhesive, perform subfloor moisture testing in accordance with ASTM F 2170, "Standard Test Method for Determining Relative Humidity in Concrete Slabs Using *in-situ* Probes" and Bond Tests as described in "Armstrong Flooring Guaranteed Installation System," instructions to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring. Internal relative humidity of the concrete shall not exceed 99%. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained].
- F. [When using S-1000 Adhesive, perform subfloor moisture testing in accordance with [ASTM F 2170, "Standard Test Method for Determining Relative Humidity in Concrete Slabs Using *in-situ* Probes"] [ASTM F 1869, "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride"] and Bond Tests as described in "Armstrong Flooring Guaranteed Installation System" instructions to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring. [Internal relative humidity of the concrete shall not exceed 100%.] [MVER shall not exceed 14 lbs./1000 sq.

ft./24 hrs.] On installations where both the Percent Relative Humidity and the Moisture Vapor Emission Rate tests are conducted, results for both tests shall comply with the allowable limits listed above. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained].

- G. Concrete pH Testing: Perform pH tests on concrete floors regardless of their age or grade level. All test results shall be documented and retained.
- H. Wood subfloors: Armstrong resilient floors are recommended on suspended wood subfloors with a 1/4" underlayment (see product installation systems for exceptions) and a minimum of 18" of well-ventilated air space below. Armstrong Flooring does not recommend installing resilient flooring on wood subfloors applied directly over concrete or on sleeper-construction subfloors. Loading requirements for subfloors are normally set by various building codes on both local and national levels. Trade associations such as APA–The Engineered Wood Association provide structural guidelines for meeting various code requirements. Subfloor panels are commonly marked with span ratings showing the maximum center-to-center spacing in inches of supports over which the panels should be placed.
  - 1. Refer to the Armstrong Flooring Guaranteed Installation Systems instructions and ASTM F 1482, Standard Guide to Wood Underlayment Products Available for Use under Resilient Flooring for additional information.
- I. Wood subfloors - Surface Cleaning: Make subfloor free from dust, dirt, grease, and all foreign materials.
  - 1. Check panels for sources of discoloration such as contamination from paint, varnish, stain overspray or spills, plumbing sealers, asphalt, heater fuel, markers, or potential staining agents such as wood or bark not visible on the surface, edge sealers, logo markings, printed nail patterns and synthetic patches.
  - 2. Remove old adhesive.
  - 3. Cover adhesive, oil, or wax residue with an appropriate underlayment. If the residue is tacky, place a layer of felt or polyethylene sheeting over it to prevent a cracking sound when walking on the floor.
  - 4. Remove all paint, varnish, oil, and wax from all subfloors. Many buildings constructed before 1978 contain lead-based paint, which can pose a health hazard if not handled properly. State and federal regulations govern activities that disturb lead-based painted surfaces and may also require notice to building occupants. **Do not remove or sand lead-based paint without consulting a qualified lead professional for guidance on lead-based paint testing and safety precautions.** Armstrong Flooring does not recommend the use of solvents to remove paint, varnish, oil, wax, or old adhesive residues because the solvents can remain in the subfloor and negatively affect the new installation. Whenever sanding, be certain the work site is well ventilated and avoid breathing dust. If high dust levels are anticipated, use appropriate National Institute for Occupational Safety and Health (NIOSH) designated dust respirator. All power sanding tools must be equipped with dust collectors. Avoid contact with skin or eyes. Wear gloves, eye protection and long-sleeve, loose fitting clothes
  - 5. For additional information on the installation and preparation of wood and board-type underlayments see the current edition of ASTM F1482, "Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring."
  - 6. Vacuum or broom-clean surfaces to be covered immediately before the application of flooring.

### 3.04 INSTALLATION OF FLOORING

- A. Install flooring in strict accordance with the latest edition of Armstrong Flooring Guaranteed Installation Systems instructions. Failure to comply may result in voiding the manufacturer's warranty listed in Section 1.08.
- B. Install flooring wall to wall before the installation of floor-set cabinets, casework, furniture, equipment, movable partitions, etc. Extend flooring into toe spaces, door recesses, closets, and similar openings as shown on the drawings.
- C. If required, install flooring on pan-type floor access covers. Maintain continuity of color and pattern within pieces of flooring installed on these covers. Adhere flooring to the subfloor around covers and to covers.
- D. Scribe, cut, and fit to permanent fixtures, columns, walls, partitions, pipes, outlets, and built-in furniture and cabinets.
- E. Roll with a 100-lb. (45.36 kilogram) roller in the field areas. Refer to specific rolling instructions of the flooring manufacturer.
- F. Install flooring with adhesives, tools, and procedures in strict accordance with the manufacturer's written instructions. Observe the recommended adhesive trowel notching, open times, and working times.

### 3.05 INSTALLATION OF ACCESSORIES

- A. Apply top set wall base to walls, columns, casework, and other permanent fixtures in areas where top-set base is required. Install base in lengths if practical, with inside corners fabricated from base materials that are mitered or coped. Tightly bond base to vertical substrate with continuous contact at horizontal and vertical surfaces.
- B. Fill voids with plastic filler along the top edge of the resilient wall base or integral cove cap on masonry surfaces or other similar irregular substrates.
- C. Place resilient edge strips tightly butted to flooring, and secure with adhesive recommended by the edge strip manufacturer. Install edge strips at edges of flooring that would otherwise be exposed.
- D. Apply [butt-type] [overlap] metal edge strips where shown on the drawings, [before] [after] flooring installation. Secure units to the substrate, complying with the edge strip manufacturer's recommendations.

### 3.06 CLEANING

**Specifier Note:** Information can be obtained by visiting [armstrongflooring.com/commercial](http://armstrongflooring.com/commercial) .

- A. Perform initial and on-going maintenance according to the latest edition of the maintenance recommendations for Biome™.

### 3.07 PROTECTION

- A. Protect installed flooring as recommended by the flooring manufacturer against damage from rolling loads, other trades, or the placement of fixtures and furnishings. (See Finishing the Job in the latest edition of Armstrong Flooring Guaranteed Installation Systems instructions.

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END OF SECTION 096516

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**SECTION 099123**  
**INTERIOR PAINTING**



**SECTION; 09 91 23 INTERIOR PAINTING**

**MASTER**

**DESIGN TEAMURAL PAINTING SPECIFICATION**

June 1, 2020



1801 E. St. Andrew Place, Santa Ana, California 92705 (714) 545-7101

## SECTION 09 91 23 INTERIOR PAINTING

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

Work includes furnishing of materials and equipment, preparation of surfaces, and completion of painting and finishing of surfaces as required by Drawings and specified herein.

#### **1.02 RELATED WORK**

- A. Factory, pre-finished items as specified in various sections
- B. Shop painting specified in respective sections
- C. Design Teamural woodworking
- D. Surfaces not to be painted:
  - 1. Pre-finished wall, ceiling and floor coverings
  - 2. Items with factory-applied final finish
  - 3. Concealed ducts, pipes and conduit
  - 4. Surfaces specifically scheduled or noted on Drawings not to be painted

#### **1.03 SUBMITTALS**

- A. Product data:
  - 1. Not less than thirty (30) days before beginning work, submit a complete list of materials proposed for use, together with manufacturer's specifications.
  - 2. Paint materials and products shall be subject to Design Team's approval.
- B. Color samples:
  - 1. Prepare color and finishes on samples, 8-1/2" x 11" in size.
  - 2. Submit samples as requested until required sheen, color and texture is achieved.
  - 3. Prepare wood samples on type and quality of wood specified for use on project.
  - 4. Label and identify each sample as to location and application.

#### **1.04 COLORS**

- A. Colors are to be selected or approved by Design Team and actual color chips shall be supplied to Contractor for matching. All undercoats shall be tinted to approximately half the color of finish coat.
- B. Approval of final colors: Do not apply final coat of paint until colors have been approved by Design Team.
- C. The number of colors to be used shall be as determined by Design Team. Design Team reserves the right to vary colors throughout the project.

#### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver paint materials in sealed original-labeled containers bearing manufacturer's name, type of paint, stock number, color and instructions for reducing or mixing, where applicable.
- B. Paint materials and equipment:
  - 1. Store only acceptable project materials on site.
  - 2. Store in a suitable location.
  - 3. Restrict storage to paint materials and related materials.
  - 4. Comply with health and fire regulations.

## SECTION 09 91 23 INTERIOR PAINTING

### 1.06 PROJECT CONDITIONS

- A. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Do not apply paint or coatings when temperature is below 50° F. Do not apply exterior paint in damp or rainy weather; ensure that the surface has dried thoroughly before proceeding. Surface temperature must be at least 5°F above dew point before painting.
- B. Do not apply finish in areas where dust or contaminants are being generated.
- C. Use low odor, low VOC products to minimize impact on indoor environmental air quality.

## **PART 2 - PRODUCTS**

### 2.01 MATERIALS

- A. Products specified are as manufactured by Behr Paint Company, Santa Ana, California 92075. Other manufacturers to conform to materials listed and be approved by Design Team.
- B. Materials selected for coating systems for each type surface shall be the product of a single manufacturer.
- C. Do not thin finish coats without the manufacturer's approval.
- D. Unsuitability of specified products: Claims concerning unsuitability of any material specified or inability to satisfactorily produce the work will not be entertained, unless such claim is made in writing to Design Team before work is started.
- E. Number of coats scheduled is minimum. Apply additional coats at no additional cost if necessary to completely hide base materials, produce uniform color, and provide satisfactory finish result.
- F. Submitted paints and coatings shall comply with air quality regulations and VOC content limits of authorities having jurisdiction.

## **PART 3 - EXECUTION**

### 3.01 EXAMINATION

- A. Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence or quality of work and which cannot be put into acceptable condition through preparatory work as included in Article 3.02 "Preparation ". Notify Owner's Representative in writing of any defects or conditions which will prevent a satisfactory installation.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows;
  - a. Concrete: 12 percent
  - b. Portland Cement Plaster and Stucco: 12 percent
  - c. Masonry (Clay and CMU): 12 percent
  - d. Wood: 15 percent
  - e. Gypsum Board: 12 percent
- D. Portland Cement Plaster Substrates: Verify that plaster is fully cured.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with surface preparation and coating application only after unsatisfactory conditions have been corrected.

## SECTION 09 91 23 INTERIOR PAINTING

1. Application of coating is construed as acceptance of surfaces and conditions.

### 3.02 PREPARATION

- A. Clean surfaces to receive paint thoroughly of substances, which could impair adhesion of paints, including dust, dirt, oil and grease before application of any coatings. Prepare surfaces as follows:
  1. WOOD SUBSTRATES: Remove mill glaze and dust, sand smooth. Fill open joints, cracks, nail holes and other pits or depressions flush and smooth with wood filler after priming. Use wood putty to match finish paint coat. Touch up knots or sap streaks with a stain-blocking sealer before priming.
  2. CONCRETE, PRE-CAST CONCRETE, TILT-UP: Remove release agents, curing compounds, loose particles, efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surface to be coated exceeds that permitted in the manufacturer's written instructions. Prime with an alkali-resistant primer.
  3. PLASTER and STUCCO SUBSTRATES: Fill hairline cracks, small holes and imperfections on surfaces with patching compound. Smooth off to match adjacent surfaces. Apply an alkali-resistant primer or wash with fresh water and neutralize high alkalinity surfaces where they occur.
  4. MASONRY SUBSTRATES: Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surface to be coated exceeds that permitted in the manufacturer's written instructions. Prime with an alkali-resistant primer.
  5. SHOP-PRIMED STEEL SUBSTRATES: Solvent clean according to SSPC-SP1. Remove loose primer and rust, contaminants and foreign matter. Prime bare steel and touch up abrasions with a ferrous metal primer.
  6. STEEL, FERROUS METAL SUBSTRATES: Remove rust, mill scale, foreign substances and shop primer. Clean according to SSPC-SP3, "Power Tool Cleaning", or abrasive blasting cleaning according to SSPC-SP6 "Commercial Blast Cleaning" as required. Protect surface from corrosion until application of primer.
  7. GALVANIZED METAL: Remove oils, passivators and clean entire surface with an appropriate solvent. Pre-treat with a phosphoric acid etching solution to promote adhesion of subsequently applied coatings.
  8. PHOSPHATIZED METAL or GALVANNEALED METAL shall not be chemically etched. Clean and apply suitable metal primer.
  9. ALUMINUM SUBSTRATES: Solvent clean according to SSPC-SP1. Remove loose surface oxidation.
  10. GYPSUM BOARD SUBSTRATES: Remove dust and foreign matter. Fill pits flush and smooth with joint compound and where required, apply skim coat to provide the required finishing level based on GA-214-96, Recommended Levels of Gypsum Board Finish before application of decoration.
- B. Surfaces, which cannot be prepared or painted as specified, shall be immediately brought to attention of Design Team in writing.
  1. Starting of work without such notification will be considered acceptance by the Contractor of surfaces involved.
  2. Replace unsatisfactory work caused by improper or defective surfaces as directed by Design Team at no additional cost to Owner.

### 3.03 APPLICATION

- A. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer.
- B. Application:
  1. Apply paint with suitable brushes, rollers or spraying equipment.
  2. Apply stain in accordance with manufacturer's recommendations.



## SECTION 09 91 23 INTERIOR PAINTING

3. Rate of application shall not exceed that as recommended by paint manufacturer for surface involved.
- C. Comply with recommendations of product manufacturer for drying time between succeeding coats.
- D. Leave parts of molding and ornaments clean and true to details with no undue amount of paint in corners and depressions.
- E. Make edges of paint adjoining other material or color clean and sharp with no overlapping.
- F. Refinish whole wall where portion of finish is not acceptable.
- G. Apply materials evenly with appropriate film thickness and free of runs, sags, skips and other defects. Hard, glossy finishes shall be sanded lightly between coats, dusted and cleaned before recoating.
- H. Remove hardware, hardware accessories, plates, lighting fixtures and similar items in place prior to painting, and replace upon completion of each space.
- I. Disconnect heating and other equipment adjacent to walls using workmen skilled in appropriate trades, and move to permit wall surfaces to be painted. Following completion of painting, they shall be expertly replaced and reconnected.
- J. Paint visible surfaces behind vents, registers or grilles flat black.
  1. Wash exposed metal with solvent, then prime and paint as scheduled.
  2. Spray paint wherever practical.
- K. Do not paint over Underwriters' labels, fusible links or sprinkler heads.
- L. EXPOSED PLUMBING AND MECHANICAL ITEMS: Items without factory finish such as conduits, pipes, access panels and items of similar nature shall be finished to match adjacent wall and ceiling surfaces unless otherwise directed.

### 3.04 CLEANUP

Upon completion of work, remove equipment, excess material and debris. Remove paint splatter and leave area in a neat and orderly condition.

### 3.05 PROTECTION

- A. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing and repainting, as acceptable to Design Team.
- B. Provide "wet paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.
  1. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.06 FINISH SCHEDULE

- A. Finish surfaces in accordance with schedule. Catalog names and numbers refer to products as manufactured or distributed by the Behr Paint Company, Santa Ana, California 92705, except as otherwise specified by Design Team.
- B. Provide paint finishes of even, uniform color, free from cloudy or mottled appearance. Properly correct non-complying work to satisfaction of Owner's representative and representative of the Behr Paint Company.
- C. Some colors, especially accent colors, may require multiple finish coats for adequate coverage and opacity.
- D. The specified number of primer and finish coats is minimum acceptable. If full coverage and opacity is not obtained with specified number of coats, apply additional coats as necessary to produce required finish.
- E. Application Finish Schedule:

## SECTION 09 91 23 INTERIOR PAINTING

### INTERIOR PAINT SCHEDULE

#### 1. GYPSUM BOARD:

##### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

##### Eggshell - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

##### Satin - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

##### Semi-Gloss - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

##### High-Gloss - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

Third Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

(Note: Premium Plus 2-8050 Enamel conforms to VOC content limits of South Coast AQMD Rule 1113.)

##### Flat - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

##### Eggshell - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

##### Semi-Gloss - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

#### 2. GYPSUM BOARD - SCUFF RESISTANT AND STAIN-BLOCKING PAINT

##### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

Third Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

#### 3. GYPSUM BOARD - HIGH PERFORMANCE COATING:

##### Eggshell - Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

##### Semi-Gloss - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

## SECTION 09 91 23 INTERIOR PAINTING

### 4. GYPSUM BOARD:

#### Satin - Urethane Alkyd, Low VOC, Water-Reducible Enamel:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

#### Semi-Gloss - Urethane Alkyd, Low VOC, Water-Reducible Enamel:

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel (3900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel (3900)

### 5. GYPSUM BOARD - CEILINGS:

#### Flat - Premium, 100% Acrylic- Low VOC

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73):

Second Coat: BEHR PREMIUM PLUS ULTRA® Stain-Blocking Ceiling Paint (5558)

Third Coat: BEHR PREMIUM PLUS ULTRA® Stain-Blocking Ceiling Paint (5558)

### 6. GYPSUM BOARD - DRY FALL COATING (Spray Applied):

#### Flat - Professional, 100% Acrylic - Low VOC

First Coat: BEHR® Drywall Plus Interior Primer & Sealer (73)

Second Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)

Third Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)

### 7. CONCRETE, CONCRETE PRE-CAST, PLASTER AND MASONRY:

#### Flat - Premium, 100% Acrylic- Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

#### Eggshell - Premium, 100% Acrylic- Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

#### Satin - Premium, 100% Acrylic- Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

#### Semi-Gloss - Premium, 100% Acrylic- Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

#### High-Gloss - Premium, 100% Acrylic- Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

Third Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

(Note: Premium Plus 2-8050 Enamel conforms to VOC content limits of South Coast AQMD Rule 1113.)

#### Flat - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

#### Eggshell - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

## SECTION 09 91 23 INTERIOR PAINTING

### Semi-Gloss - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)  
Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)  
Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

8. CONCRETE, PLASTER AND MASONRY - SCUFF RESISTANT AND STAIN-BLOCKING PAINT  
Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)  
Second Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)  
Third Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

9. CONCRETE, PLASTER AND MASONRY - HIGH PERFORMANCE COATING:  
Eggshell - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)  
Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)  
Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)  
Semi-Gloss - High Performance Water-Based Epoxy, Low VOC Coating:  
First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)  
Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)  
Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

10. CONCRETE, Decks, Floors, Walkways, Porches and Patios:  
Low-Lustre - Premium, 100% Acrylic:

First Coat: BEHR PREMIUM® Concrete & Masonry Bonding Primer (880)  
Second Coat: BEHR PREMIUM® Porch & Patio Floor Paint Low-Lustre (6050)  
Third Coat: BEHR PREMIUM® Porch & Patio Floor Paint Low-Lustre (6050)

11. CONCRETE, Decks, Floors, Walkways, Porches and Patios:  
Anti-Slip Textured Low-Lustre - Premium, 100% Acrylic:

First Coat: BEHR PREMIUM® Concrete & Masonry Bonding Primer (880)  
Second Coat: BEHR PREMIUM® Porch & Patio Floor Anti-Slip Paint Textured Low-Lustre (6250)  
Third Coat: BEHR PREMIUM® Porch & Patio Floor Anti-Slip Paint Textured Low-Lustre (6250)

12. CONCRETE, Decks, Floors, Porches and Patios:  
Gloss - Premium, 100% Acrylic:

First Coat: BEHR PREMIUM® Concrete & Masonry Bonding Primer (880)  
Second Coat: BEHR PREMIUM® Porch & Patio Floor Paint Gloss (6705)  
Third Coat: BEHR PREMIUM® Porch & Patio Floor Paint Gloss (6705)

13. CONCRETE MASONRY UNITS (CMU):

### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)  
Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)  
Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

### Eggshell - Premium, 100% Acrylic - Low odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)  
Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)  
Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

### Satin - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)  
Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)  
Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

## SECTION 09 91 23 INTERIOR PAINTING

### Semi-Gloss - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

### Flat - Professional, Latex, Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

### Eggshell - Professional, Latex, Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

### Semi-Gloss - Professional, Latex, Low Odor/VOC:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

## 14. CONCRETE MASONRY UNITS (CMU) SCUFF RESISTANT AND STAIN-BLOCKING PAINT

### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)

Second Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

Third Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

## 15. CONCRETE MASONRY UNITS (CMU) - HIGH PERFORMANCE COATING:

### Eggshell - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

### Semi-Gloss - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR PRO™ Block Filler Primer (PR50)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

## 16. STEEL, FERROUS METAL

### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

### Eggshell - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

### Satin - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

### Semi-Gloss - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

## SECTION 09 91 23 INTERIOR PAINTING

### High Gloss - Premium, 100% Acrylic - Low Odor/ VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

Third Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

(Note: Premium Plus 2-8050 Enamel conforms to VOC content limits of South Coast AQMD Rule 1113.)

### Flat - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

### Eggshell - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

### Semi-Gloss - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

## 17. STEEL, FERROUS METAL - HIGH PERFORMANCE COATING:

### Eggshell - High Performance Water-Based Epoxy, Low VOC Coating

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

### Semi-Gloss - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

## 18. STEEL, FERROUS METAL:

### Satin - Urethane Alkyd, Low VOC, Water-Reducible Enamel:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

### Semi-Gloss - Urethane Alkyd, Low VOC, Water-Reducible Enamel:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)

## 19. STEEL, FERROUS METAL - Light Industrial Direct-To-Metal Coating:

### Eggshell - Light Industrial, Premium, 100% Acrylic:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Eggshell Paint (7200)

Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Eggshell Paint (7200)

### Semi-Gloss - Light Industrial, Premium, 100% Acrylic:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Semi-Gloss Paint (3200)

Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Semi-Gloss Paint (3200)

### Gloss - Light Industrial, Premium, 100% Acrylic:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Gloss Paint (8200)

Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Gloss Paint (8200)

## SECTION 09 91 23 INTERIOR PAINTING

### 20. GALVANIZED METAL:

#### Flat - Premium, 100% Acrylic - Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)

#### Eggshell - Premium, 100% Acrylic - Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA 30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)

#### Satin - Premium, 100% Acrylic - Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)

#### Semi-Gloss - Premium, 100% Acrylic - Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA 30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)

#### High Gloss - Premium, 100% Acrylic - Low VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA 30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

Third Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

(Note: Premium Plus 2-8050 Enamel conforms to VOC content limits of South Coast AQMD Rule 1113.)

#### Flat - Professional, Latex, Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

#### Eggshell - Professional, Latex, Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

#### Semi-Gloss - Professional, Latex, Low Odor/VOC:

Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

### 21. GALVANIZED, NON-FERROUS METAL - HIGH PERFORMANCE COATING:

#### Eggshell - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior/Exterior Metal Primer (435)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

#### Semi-Gloss - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR PREMIUM PLUS® Interior/Exterior Multi-Surface Primer & Sealer (436)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

## SECTION 09 91 23 INTERIOR PAINTING

22. GALVANIZED METAL:  
Satin - Urethane Alkyd, Low VOC, Water-Reducible Enamel:  
Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)  
First Coat: BEHR® Interior/Exterior Metal Primer (435)  
Second Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)  
Third Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)  
Semi-Gloss - Urethane Alkyd, Low VOC, Water-Reducible Enamel:  
Pretreatment: Klean Strip Phosphoric Prep & Etch (GKPA30220)  
First Coat: BEHR PREMIUM PLUS® Interior/Exterior Multi-Surface Primer & Sealer (436)  
Second Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)  
Third Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)
23. GALVANIZED METAL - Light Industrial Direct-To-Metal Coating:  
Eggshell - Light Industrial, Premium, 100% Acrylic:  
Pretreatment: Klean Strip Phosphoric Prep & Etch  
First Coat: BEHR® Interior/Exterior Metal Primer (435)  
Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Eggshell Paint (7200)  
Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Eggshell Paint (7200)  
Semi-Gloss - Light Industrial, Premium, 100% Acrylic:  
Pretreatment: Klean Strip Phosphoric Prep & Etch  
First Coat: BEHR® Interior/Exterior Metal Primer (435)  
Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Semi-Gloss Paint (3200)  
Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Semi-Gloss Paint (3200)  
Gloss -Light Industrial, Premium, 100% Acrylic:  
Pretreatment: Klean Strip Phosphoric Prep & Etch  
First Coat: BEHR® Interior/Exterior Metal Primer (435)  
Second Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Gloss Paint (8200)  
Third Coat: BEHR PREMIUM® Interior/Exterior Direct-To-Metal Gloss Paint (8200)
24. FERROUS and NON-FERROUS METALS - Dry Fall Coating (Spray applied):  
Dry Fall Flat - Professional, Acrylic:  
First Coat: BEHR® Interior/Exterior Metal Primer (435)  
Second Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)  
Third Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)
24. WOOD - Opaque, Paint Finish:  
Flat - Premium, 100% Acrylic -Low Odor/VOC:  
First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)  
Second Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)  
Third Coat: BEHR PREMIUM PLUS® Interior Flat Paint (1050)  
Eggshell - Premium, 100% Acrylic - Low Odor/VOC:  
First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)  
Second Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)  
Third Coat: BEHR PREMIUM PLUS® Interior Eggshell Enamel Paint (2050)  
Satin - Premium, 100% Acrylic - Low Odor/VOC:  
First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)  
Second Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)  
Third Coat: BEHR PREMIUM PLUS® Interior Satin Enamel Paint (7050)  
Semi-Gloss - Premium, 100% Acrylic - Low Odor/VOC:  
First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)  
Second Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)  
Third Coat: BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel Paint (3050)



## SECTION 09 91 23 INTERIOR PAINTING

### High Gloss - Premium, 100% Acrylic - Low VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

Third Coat: BEHR PREMIUM PLUS® Interior/Exterior Hi-Gloss Enamel Paint (8050)

(Note: Premium Plus 2-8050 Enamel conforms to VOC content limits of South Coast AQMD Rule 1113.)

### Flat - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

Third Coat: BEHR PRO™ i300 Interior Dead Flat Paint (PR310)

### Eggshell - Professional, Latex, Low Odor/VOC:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

Third Coat: BEHR PRO™ i300 Interior Eggshell Paint (PR330)

### Semi-Gloss - Professional, Latex, Low Odor/VOC

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

Third Coat: BEHR PRO™ i300 Interior Semi-Gloss Paint (PR370)

## 25. WOOD - SCUFF RESISTANT AND STAIN-BLOCKING PAINT

### Flat - Premium, 100% Acrylic - Low Odor/VOC:

First Coat: BEHR® Interior Stain-Blocking Primer & Sealer (75)

Second Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

Third Coat: BEHR ULTRA Scuff Defense® Interior Extra Durable Flat Paint (1720)

## 26. WOOD - HIGH PERFORMANCE COATING:

### Eggshell - High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Eggshell (HP140)

### Semi-Gloss- High Performance Water-Based Epoxy, Low VOC Coating:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

Third Coat: BEHR PRO™ Pre-Catalyzed Waterborne Epoxy Semi-Gloss (HP150)

## 27. WOOD - Paint Finish, Urethane Alkyd, Low VOC, Water-Reducible Enamel:

### Satin - Urethane Alkyd:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Satin Enamel (7900)

### Semi-Gloss - Urethane Alkyd:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)

Third Coat: BEHR® Interior/Exterior Urethane Alkyd Semi-Gloss Enamel Paint (3900)

## 28. WOOD - Dry Fall Coating (Spray applied):

### Flat - Professional, Acrylic:

First Coat: BEHR® Interior Stain Blocking Primer & Sealer (75)

Second Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)

Third Coat: BEHR PRO™ Dryfall Paint™ White (890) Black (891)

## 28. WOOD, Decks, Floors, Porches and Patios:

### Low-Lustre - Premium, 100% Acrylic:

First Coat: BEHR PREMIUM PLUS® Interior/Exterior Multi-Surface Primer & Sealer (436)

Second Coat: BEHR PREMIUM® Porch & Patio Floor Paint Low-Lustre (6050)

## SECTION 09 91 23 INTERIOR PAINTING

Third Coat: BEHR PREMIUM® Porch & Patio Floor Paint Low-Lustre (6050)

29. WOOD, Decks, Floors, Porches and Patios:

Gloss - Premium, 100% Acrylic:

First Coat: BEHR PREMIUM PLUS® Interior/Exterior Multi-Surface Primer & Sealer (436)

Second Coat: BEHR PREMIUM® Porch & Patio Floor Paint Gloss (6705)

Third Coat: BEHR PREMIUM® Porch & Patio Floor Paint Gloss (6705)

30. WOOD - Stained, Water-Based Polyurethane over Oil-Based Semi-Transparent Stain  
Matte, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Advanced Formula Oil-Based Wood Stain (B3500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Satin, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Advanced Formula Oil-Based Wood Stain (B3500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Semi-Gloss, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Advanced Formula Oil-Based Wood Stain (B3500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

Gloss, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Advanced Formula Oil-Based Wood Stain (B3500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

31. WOOD - Stained, Water-Based Polyurethane over Water-Based Semi-Transparent Stain  
Matte, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Fast Drying Water-Based Wood Stain (B4500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Satin, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Fast Drying Water-Based Wood Stain (B4500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Semi-Gloss, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Fast Drying Water-Based Wood Stain (B4500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

## SECTION 09 91 23 INTERIOR PAINTING

### Gloss, Clear, Water-Based Polyurethane over Interior Stain

Sealer: Behr® Water-Based Pre-Stain Conditioner (B2080) \*Only for use on softwoods.

Stain Coat: Behr® Fast Drying Water-Based Wood Stain (B4500)

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

### 32. WOOD - Natural, Clear Water-Based Polyurethane

#### Matte, Clear, Water-Based Polyurethane

Sealer Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8106) Matte

#### Satin, Clear, Water-Based Polyurethane

Sealer Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8100) Satin

#### Semi-Gloss, Clear, Water-Based Polyurethane

Sealer Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8102) Semi-Gloss

#### Gloss, Clear, Water-Based Polyurethane

Sealer Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

Second Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

Third Coat: Behr® Fast Dry Water-Based Polyurethane (B8104) Gloss

**END OF SECTION 09 91 23**

SECTION 101423

PANEL SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Panel signs.
  2. Room-identification signs.

1.2 DEFINITIONS

- A. Accessible: In accordance with the accessibility standard.
- B. Illuminated: Illuminated by lighting source integrally constructed as part of the sign unit.

1.3 COORDINATION

- A. Furnish templates for placement of sign-anchorage devices embedded in permanent construction by other installers.
- B. Furnish templates for placement of electrical service embedded in permanent construction by other installers.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. LEED Submittals: Provide special submittals conforming to Section 018113 - Sustainable Design Requirements for the following:
1. LEED Credit MR Cost Data: Provide special materials cost data breakdown data.
  2. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
  3. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional. Include statement indicating location of manufacturer and point of extraction, harvest, or recovery for each raw material used in regionally extracted and manufactured materials. Indicate distance to Project and fraction by weight of each regionally manufactured material that is regionally extracted.
  4. Product Data for Credit IEQ 4.1: For adhesives, documentation including printed statement of VOC content.

- C. Shop Drawings: For panel signs.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign at least half size.
  - 4. Show locations of electrical service connections.
  - 5. Include diagrams for power, signal, and control wiring.
  
- D. Samples for Verification: For each type of sign assembly showing all components and with the required finish(es), in manufacturer's standard size unless otherwise indicated and as follows:
  - 1. Panel Signs: Full-size Sample.
  - 2. Room-Identification Signs: Full-size Sample.
  - 3. Variable Component Materials: Full-size Sample of each base material, character (letter, number, and graphic element) in each exposed color and finish not included in Samples above.
  - 4. Exposed Accessories: Full-size Sample of each accessory type.
  
- E. Sign Schedule: Use same designations specified or indicated on Drawings or in a sign schedule.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Sample Warranty: For special warranty.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

#### 1.8 FIELD CONDITIONS

- A. Field Measurements: Verify locations of anchorage devices embedded in permanent construction by other installers by field measurements before fabrication, and indicate measurements on Shop Drawings.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of finishes beyond normal weathering.
    - b. Deterioration of embedded graphic image.
    - c. Separation or delamination of sheet materials and components.
  - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Thermal Movements: For exterior signs, allow for thermal movements from ambient and surface temperature changes. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.
- B. Accessibility Standard: Comply with applicable provisions in the U.S. Design Teamural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and 2013 CBC for signs.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 SIGNS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
  - 1. InPro Corporation.
  - 2. Ace Sign Systems, Inc.
  - 3. Advance Corporation; Braille-Tac Division.
  - 4. Allen Industries, Inc.
  - 5. Allen Markings International.
  - 6. APCO Graphics, Inc.
  - 7. ASE, Inc.
  - 8. Best Sign Systems Inc.
  - 9. Bunting Graphics, Inc.
  - 10. Clarke Systems.
  - 11. Diskey Sign Company.
  - 12. Fossil Industries, Inc.
  - 13. Mohawk Sign Systems.
  - 14. Nelson-Harkins Industries.
  - 15. Poblocki Sign Company, LLC.
  - 16. Seton Identification Products.
  - 17. Supersine Company (The); Division of Stamp-Rite, Inc.
  - 18. Vista System.

19. Vomar Products, Inc.

- B. Panel Sign, Post Mounted, Exterior: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
1. Solid-Sheet Sign: Steel sheet with finish specified in "Surface Finish and Applied Graphics" Subparagraph below and as follows: Thickness: 0.125 inch.
  2. Sign-Panel Perimeter: Finish edges smooth.
    - a. Edge Condition: Square cut.
    - b. Corner Condition in Elevation: Rounded to radius.
  3. Mounting: As indicated with through fasteners.
  4. Surface Finish and Applied Graphics: Integral Metal Finish: Reflectorized, porcelain finish with beaded text.
  5. Text and Typeface: Accessible raised characters and Braille typeface matching Design Team's sample and variable content as scheduled.
  6. Flatness Tolerance: Sign panel shall remain flat or uniformly curved under installed conditions as indicated and within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner.
- C. Room-Identification Sign, Interior: Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
1. Laminated-Sheet Sign: Acrylic face sheet with raised graphics laminated to acrylic backing sheet to produce composite sheet.
    - a. Composite-Sheet Thickness: As indicated.
    - b. Color(s): Match Design Team's sample.
  2. Sign-Panel Perimeter: Finish edges smooth.
    - a. Edge Condition: As indicated.
    - b. Corner Condition in Elevation: As indicated.
  3. Mounting: Surface mounted to wall with concealed anchors.
  4. Text and Typeface: Accessible raised characters and Braille and variable content as scheduled. Finish raised characters to contrast with background color, and finish Braille to match background color.

2.3 PANEL-SIGN MATERIALS

- A. Steel Materials:
1. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, G90 coating, either commercial or forming steel.
  2. Steel Members Fabricated from Plate or Bar Stock: ASTM A 529/A 529M or ASTM A 572/A 572M, 42,000-psi minimum yield strength.
  3. For steel exposed to view on completion, provide materials having flat, smooth surfaces without blemishes. Do not use materials whose surfaces exhibit pitting, seam marks, roller marks, rolled trade names, or roughness.

- B. Acrylic Sheet: ASTM D 4802, category as standard with manufacturer for each sign, Type UVF (UV filtering).
- C. Paints and Coatings for Sheet Materials: Inks, dyes, and paints that are recommended by manufacturer for optimum adherence to surface and are UV and water resistant for colors and exposure indicated.

## 2.4 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signage, noncorrosive and compatible with each material joined, and complying with the following:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
  - 2. For exterior exposure, furnish stainless-steel devices unless otherwise indicated.
  - 3. Exposed Metal-Fastener Components, General:
    - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
    - b. Fastener Heads: For nonstructural connections, use flathead screws and bolts with tamper-resistant Allen-head slots unless otherwise indicated.
  - 4. Sign Mounting Fasteners:
    - a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material or screwed into back of sign assembly, unless otherwise indicated.
    - b. Projecting Studs: Threaded studs with sleeve spacer, welded or brazed to back of sign material or screwed into back of sign assembly, unless otherwise indicated.
    - c. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, installed in predrilled holes.
  - 5. Inserts: Furnish inserts to be set by other trades into concrete or masonry work.
- B. Adhesive: As recommended by sign manufacturer.
- C. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

## 2.5 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
  - 1. Preassemble signs and assemblies in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.
  - 2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
  - 3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.



4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
5. Internally brace signs for stability and for securing fasteners.
6. Provide rebates, lugs, and brackets necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.

B. Surface-Engraved Graphics: Machine engrave characters and other graphic devices into panel surface indicated to produce precisely formed copy, incised to uniform depth.

C. Subsurface-Applied Graphics: Apply graphics to back face of clear face-sheet material to produce precisely formed image. Image shall be free of rough edges.

## 2.6 GENERAL FINISH REQUIREMENTS

A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Directional Finishes: Run grain with long dimension of each piece and perpendicular to long dimension of finished trim or border surface unless otherwise indicated.

D. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of signage work.

B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.

C. Verify that anchor inserts are correctly sized and located to accommodate signs.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.

1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.

3. Install signs so they do not protrude or obstruct according to the accessibility standard.

- 4.

3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
  4. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- B. Room-Identification Signs and Other Accessible Signage: Install in locations on walls as indicated and according to accessibility standard.
- C. Mounting Methods:
1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.
  2. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate, and install washers and nuts on stud ends projecting through opposite side of surface, and tighten.
  3. Through Fasteners: Drill holes in substrate using predrilled holes in sign as template. Countersink holes in sign if required. Place sign in position and flush to surface. Install through fasteners and tighten.
  4. Brackets: Remove loose debris from substrate surface and install backbar or bracket supports in position so that signage is correctly located and aligned.
  5. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.
- D. Signs Mounted on Glass: Provide opaque sheet matching sign material and finish onto opposite side of glass to conceal back of sign.

### 3.3 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.

- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION



SECTION 12494 (12 24 13)  
WINDOW ROLLER SHADES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Roller shades, manual operation and accessories.
- B. Shade fabric.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Wood blocking and grounds for mounting roller shades and accessories.
- B. Section 09260 - Gypsum Board Assemblies: Coordination with gypsum board assemblies for installation of shade pockets, closures and related accessories.
- C. Section 09510 - Acoustical Ceilings: Coordination with acoustical ceiling systems for installation of shade pockets, closures and related accessories.

1.3 REFERENCES

- A. ASTM International (ASTM):
  - 1. [ASTM G21](#) - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- B. Cradle to Cradle Products Innovation Institute (C2C):
  - 1. [C2C \(DIR\)](#) - C2C Certified Products Registry.
- C. National Fire Protection Association (NFPA):
  - 1. [NFPA 70](#) - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
  - 2. [NFPA 701](#) - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
- D. Underwriters Laboratories (UL):
  - 1. [UL \(GGG\)](#) - GREENGUARD Gold Certified Products; Current Edition.
- E. Window Covering Manufacturers Association (WCMA):
  - 1. [WCMA A100.1](#) - Safety of Window Covering Products; 2018.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
  - 1. Coordinate the work with other trades to provide rough-in of electrical wiring as required for installation of hardwired motorized shades.
- B. Preinstallation Meeting: One week prior to commencing work related to this section. Require attendance of all affected installers.
- C. Sequencing:
  - 1. Do not fabricate shades until field dimensions for each opening have been taken with finished conditions in place. "Hold to" dimensions are not acceptable.

2. Do not install shades until final surface finishes and painting are complete.

## 1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's catalog pages and data sheets for products specified including materials, finishes, dimensions, profiles, mountings, and accessories.
  1. Preparation instructions and recommendations.
  2. Styles, material descriptions, dimensions of individual components, profiles, features, finishes , accessories, and operating instructions.
  3. Storage and handling requirements and recommendations.
  4. Mounting details and installation methods.
  5. Manufacturer's Instructions: Include storage, handling, protection, examination, preparation, and installation.
  6. Project Record Documents: Record actual locations of control system components and show interconnecting wiring.
  7. Operation and Maintenance Data: Component list with part numbers, and operation and maintenance instructions.
  8. Prepare shop drawings on AutoCad or MicroStation format using base sheets provided electronically by the Design Team.
- A. Window Treatment Schedule: For all roller shades. Use same room designations as indicated on the Drawings and include opening sizes and key to typical mounting details.
  9. Shadecloth Sample: Mark face of material to indicate interior faces.
    - a. Test reports indicating compliance with specified fabric properties.
    - b. Verification Samples: 6 inches (150 mm) square, representing actual materials, color and pattern.
- B. Maintenance Data: Bill of materials for all components with part numbers. Methods for maintaining roller shades, precautions regarding cleaning materials and methods, instructions for operating hardware and controls.
- C. Warranty: Provide manufacturer's warranty documents as specified in this Section.
- D. Warranty: Manufacturer's warranty documents as specified in this Section.

## 1.6 QUALITY ASSURANCE

- A. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.
- B. Manufacturer Qualifications: Obtain roller shades system through one source from a single manufacturer with a minimum of ten years experience and minimum of five projects of similar scope and size in manufacturing products comparable to those specified in this section.
- C. Installer for Roller Shade System - Qualifications: Installer trained and certified by the manufacturer with a minimum of ten years experience in installing products comparable to those specified in this section.
- D. Product Listing Organization Qualifications: Organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.
- E. Fire-Test-Response Characteristics: Passes NFPA 701 small and large-scale vertical burn. Materials tested shall be identical to products proposed for use.
- F. ShadeCloth Anti-Microbial Characteristics: 'No Growth' per ASTM G 21 results for fungi ATCC9642, ATCC9644, ATCC9645.

- G. Third Party Evaluation: Provide documentation stating the shade cloth has undergone third party evaluation for all chemical inputs, down to a scale of 100 parts per million, that have been evaluated for human and environmental safety. Identify any and all inputs, which are known to be carcinogenic, mutagenic, teratogenic, reproductively toxic, or endocrine disrupting. Also identify items that are toxic to aquatic systems, contain heavy metals, or organohalogens. The material shall contain no inputs that are known problems to human or environmental health per the above major criteria, except for an input that is required to meet local fire codes.
- H. Recycling Characteristics: Provide documentation that the shade cloth can, and is part of a closed loop of perpetual use and not be required to be down cycled, incinerated or otherwise thrown away. Scrap material can be sent back to the mill for reprocessing and recycling into the same quality yarn and woven into new material, without down cycling. Certify that this process is currently underway and will be utilized for this project.
- I. Perpetual Use Certification: Certify that at the end of the useful life of the shade cloth, that the material can be sent back to the manufacturer for recapture as part of a closed loop of perpetual use and that the material can and will be reconstituted into new yarn, for weaving into new shade cloth. Provide information on each shade band indicating that the shade band can be sent back to the manufacturer for this purpose.
- J. Provide a mock-up of one roller shade assembly for evaluation of mounting, appearance and accessories.
  1. Locate mock-up in window designated by Design Team.
  2. Mockup Size: Full size.
  3. Mockup Size(WxH): 3 x 3 feet (0.94 x 0.94 m) minimum.
  4. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
  5. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
  6. Do not proceed with remaining work until, mock-up is accepted by Design Team.
  7. Retain mock-up during construction as a standard for comparison with completed work.
  8. Do not alter or remove mock-up until work is completed or removal is authorized.
  9. Full-sized mock-up may become part of the final installation.
  10. Full-sized mock-up will become the property of the Owner to be used for spare parts.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver in factory-labeled packages, marked with manufacturer and product name, fire-test-response characteristics, and location of installation using same room designations indicated on Drawings and in Window Treatment Schedule.
- B. Store and handle products per manufacturer's recommendations.

#### 1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Install roller shades after finish work including painting is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

## 1.9 WARRANTY

- A. Roller Shade Hardware and Chain Warranty: Manufacturer's standard non-depreciating warranty for interior shading.
  - 1. Shade Hardware: 10 years unless otherwise indicated.
    - a. Mecho/5 and Mecho 5x with ThermoVeil, EuroVeil, EuroTwill, Soho, Equinox, Midnite, Chelsea, or Classic Blackout shade fabric: 25 years.
  - 2. Standard Shadecloth: Manufacturer's standard twenty-five year warranty.
  - 3. Ecoveil Shadecloth: Manufacturer's standard ten year warranty.
  - 4. Roller Shade Installation: One year from date of Substantial Completion, not including scaffolding, lifts or other means to reach inaccessible areas, which are deemed owners responsibility.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Mecho, which is located at: 42-03 35th St.; Long Island City, NY 11101; ASD Tel: 718-729-2020; Fax: 718-729-2941; Email: [marketing@mechoshade.com](mailto:marketing@mechoshade.com); Web: [www.mechoshade.com](http://www.mechoshade.com).
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 ROLLER SHADES, MANUAL OPERATION AND ACCESSORIES

- A. Shade System; General:
  - 1. Components capable of being removed or adjusted without removing mounted shade brackets, or cassette support channel.
  - 2. Smoothly operation raising or lowering shades.
  - 3. Cradle-to-Cradle certified and listed in [C2C \(DIR\)](#).
- B. Basis of Design: Mecho/5x System as manufactured by MechoShade Systems LLC.
  - 1. Description: Manually operated fabric window shades.
    - a. Shade Type: Single Roller.
    - b. Shade Type: Double Roller.
    - c. Universal drive capability to offset drive chain for reverse or regular roll shades.
    - d. Drop Position: Regular roll.
    - e. Drop Position: Reverse roll.
    - f. Mounting: Ceiling mounted.
    - g. Mounting: Recessed in ceiling pocket.
    - h. Mounting: Wall Mounted.
    - i. Mounting: Window Jamb Mounting.
    - j. Mounting: \_\_\_\_\_.
    - k. Size (WxH): \_\_\_\_\_.
    - l. Size: As indicated on drawings.
    - m. Fabric: As indicated under Shade Fabric article.

2. Brackets and Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
  - a. Material: Steel, 1/8 inch (3 mm) thick.
  - b. Double Roller Brackets: Configured for light-filtering and room-darkening shades in one opening.
    - 1) Light-Filtering Fabric: Room-side of opening.
    - 2) Light-Filtering Fabric: Glass-side of opening.
    - 3) Room-Darkening Fabric: Room-side of opening.
    - 4) Room-Darkening Fabric: Glass-side of opening.
  - c. Single shade operation width: Up to 180 inches (4572) dependent on fabric.
  - d. Multiple Shade Band Operation: Provide hardware as necessary to operate more five shade bands, up to 360 inches (9144 mm) wide; depending on fabric weight, using a single clutch operator.
  - e. Radiused Center Support Brackets: Provide brackets and connectors for radiused window applications.
    - 1) Maximum Offset: Eight degrees on each side for a 16 degree total offset.
3. Roller Tubes:
  - a. Material: Extruded aluminum.
  - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
  - c. Fabric Attachment: Utilize extruded channel in tube to accept vinyl spline welded to fabric edge. Shade band to be removable and replaceable without removing roller tube from brackets or inserting spline from the side of the roller tube.
  - d. Roller tubes to be capable of being removed and reinstalled without affecting roller shade limit adjustments.
4. Hembars: Designed to maintain bottom of shade straight and flat.
  - a. Style: Full wrap fabric covered bottom bar, flat profile with heat sealed closed ends.
  - b. Style: Exposed aluminum bottom bar with matching finials,
    - 1) Profile: Rectangular.
    - 2) Profile: \_\_\_\_\_.
    - 3) Color: Manufacturer's standard color coordinated with shade fabric selected.
    - 4) Color: To be selected by Design Team from manufacturer's standard color selection.
    - 5) Color: \_\_\_\_\_.
    - 6) Color: As indicated on the Drawings.
  - c. Style: \_\_\_\_\_.
  - d. Room-Darkening Shades: Provide a slot in bottom bar with wool-pile light seal.
5. Clutch Operator: Manufacturer's standard material and design integrated with bracket/brake assembly.
  - a. Permanently lubricated brake assembly mounted on an oil-impregnated hub with wrapped spring clutch.
  - b. Brake must withstand minimum pull force of 50 pounds (22.7 kg) in the stopped position.
  - c. Mount clutch/brake assembly on the support brackets, fully independent of the roller tube components.
6. Drive Chain: Continuous loop stainless steel beaded ball chain, 95 pound (43 kg) minimum breaking strength. Provide upper and lower limit stops.
  - a. Chain Retainer: Chain tensioning device complying with [WCMA A100.1](#).



7. Mecho5x, Managed Lift Force, Hardware: Lifts single band or multiband shade assemblies:
  - a. Lifting Force: 3.5 to 8.5 pounds (1.6 to 3.9 kg) for shade assemblies with a shade band hanging weight, not including mounting hardware, of 35 pounds (16 kg).
  - b. Backward compatible to Mecho-5 components including fascia, regular and reverse roll, pockets, and wall-mounting accessories.
  - c. Includes offset drive capability, left/right, front, or back to allow for utilization of blackout or ShadeLoc Zipper channels.
  - d. Allows for ease of operation when obstructions do not allow for direct drive chain access.
  - e. Offset chain drive shall not cause an increase of friction or pull force when operated up to a 26 degree angle from vertical.
8. Accessories:
  - a. Fascia: Removable extruded aluminum fascia, size as required to conceal shade mounting, attachable to brackets without exposed fasteners.
    - 1) Finish: Baked enamel.
      - a) Color: Black.
      - b) Color: White.
      - c) Color: Bronze.
      - d) Color: Gray.
      - e) Color: \_\_\_\_\_.
    - 2) Finish: Clear anodized.
    - 3) Finish: Fabric wrapped to match shade.
    - 4) Finish: \_\_\_\_\_.
    - 5) Can be installed across two or more shade bands in one piece.
      - 1) Single Fascia: Accommodate regular roll shades.
      - 2) Single Fascia: Accommodate reverse roll shades.
      - 3) Two-Piece Double Fascia: Front and rear double fascia.
      - 4) Profile: Square.
      - 5) Profile: Radiused.
      - 6) Profile: \_\_\_\_\_.
      - 7) Configuration: Captured, fascia stops at captured bracket end.
      - 8) Configuration: Continuous, fascia extends past continuous bracket.
      - 9) Configuration: Captured and continuous, as indicated on drawings.
  - b. Ceiling Pockets: Premanufactured metal shade pocket for recess mounting in acoustical tile or drywall ceilings; size and configuration as indicated on drawings.
    - 1) Removable closure panel.
    - 2) Ceiling tile support.
    - 3) \_\_\_\_\_.
  - c. Room-Darkening Channels: Extruded aluminum side and center channels with brush pile edge seals, SnapLoc mounting base, and concealed fasteners. Channels to accept one-piece exposed blackout hembar to assure side light control and sill light control.

C. Basis of Design: Mecho/5 System as manufactured by MechoShade Systems LLC.

1. Description: Manually operated fabric window shades.
  - a. Shade Type: Single Roller.
  - b. Shade Type: Double Roller.
  - c. Universal drive capability to offset drive chain for reverse or regular roll shades.
  - d. Drop Position: Regular roll.
  - e. Drop Position: Reverse roll.
  - f. Mounting: Ceiling mounted.
  - g. Mounting: Recessed in ceiling pocket.

- h. Mounting: Wall Mounted.
  - i. Mounting: Window Jamb Mounting.
  - j. Mounting: \_\_\_\_\_.
  - k. Size (WxH): \_\_\_\_\_.
  - l. Size: As indicated on drawings.
  - m. Fabric: As indicated under Shade Fabric article.
2. Brackets and Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
- a. Material: Steel, 1/8 inch (3 mm) thick.
  - b. Double Roller Brackets: Configured for light-filtering and room-darkening shades in one opening.
    - 1) Light-Filtering Fabric: Room-side of opening.
    - 2) Light-Filtering Fabric: Glass-side of opening.
    - 3) Room-Darkening Fabric: Room-side of opening.
    - 4) Room-Darkening Fabric: Glass-side of opening.
  - c. Multiple Shade Band Operation: Provide hardware as necessary to operate more than one shade band using a single clutch operator.
  - d. Radiused Center Support Brackets: Provide brackets and connectors for radiused window applications.
    - 1) Maximum Offset: Eight degrees on each side for a 16 degree total offset.
3. Roller Tubes:
- a. Material: Extruded aluminum.
  - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
  - c. Fabric Attachment: Utilize extruded channel in tube to accept vinyl spline welded to fabric edge. Shade band to be removable and replaceable without removing roller tube from brackets or inserting spline from the side of the roller tube.
  - d. Roller tubes to be capable of being removed and reinstalled without affecting roller shade limit adjustments.
4. Hembars: Designed to maintain bottom of shade straight and flat.
- a. Style: Full wrap fabric covered bottom bar, flat profile with heat sealed closed ends.
  - b. Style: Exposed aluminum bottom bar with matching finials,
    - 1) Profile: Rectangular.
    - 2) Profile: \_\_\_\_\_.
    - 3) Color: Manufacturer's standard color coordinated with shade fabric selected.
    - 4) Color: To be selected by Design Team from manufacturer's standard color selection.
    - 5) Color: \_\_\_\_\_.
    - 6) Color: As indicated on the Drawings.
  - c. Style: \_\_\_\_\_.
  - d. Room-Darkening Shades: Provide a slot in bottom bar with wool-pile light seal.
5. Clutch Operator: Manufacturer's standard material and design integrated with bracket/brake assembly.
- a. Permanently lubricated brake assembly mounted on an oil-impregnated hub with wrapped spring clutch.
  - b. Brake must withstand minimum pull force of 50 pounds (22.7 kg) in the stopped position.
  - c. Mount clutch/brake assembly on the support brackets, fully independent of the roller tube components.
6. Drive Chain: Continuous loop stainless steel beaded ball chain, 95 pound (43 kg) minimum breaking strength. Provide upper and lower limit stops.
- a. Chain Retainer: Chain tensioning device complying with [WCMA A100.1](#).

7. Managed Lift: Required lifting force of 3 pounds (1.4 kg) to a maximum of 8.5 pounds (3.9 kg) for single band or multi-band shades up to 5 bands and a maximum of 30 pounds (13.6 kg) hanging weight.
8. Accessories:
  - a. Fascia: Removable extruded aluminum fascia, size as required to conceal shade mounting, attachable to brackets without exposed fasteners.
    - 1) Finish: Baked enamel.
      - a) Color: Black.
      - b) Color: White.
      - c) Color: Bronze.
      - d) Color: Gray.
      - e) Color: \_\_\_\_\_.
    - 2) Finish: Clear anodized.
    - 3) Finish: Fabric wrapped to match shade.
    - 4) Finish: \_\_\_\_\_.
    - 5) Can be installed across two or more shade bands in one piece.
    - 6) Single Fascia: Accommodate regular roll shades.
    - 7) Single Fascia: Accommodate reverse roll shades.
    - 8) Two-Piece Double Fascia: Front and rear double fascia.
    - 9) Profile: Square.
    - 10) Profile: Radiused.
    - 11) Profile: \_\_\_\_\_.
    - 12) Configuration: Captured, fascia stops at captured bracket end.
    - 13) Configuration: Continuous, fascia extends past continuous bracket.
    - 14) Configuration: Captured and continuous, as indicated on drawings.
  - b. Ceiling Pockets: Premanufactured metal shade pocket for recess mounting in acoustical tile or drywall ceilings; size and configuration as indicated on drawings.
    - 1) Removable closure panel.
    - 2) Ceiling tile support.
    - 3) \_\_\_\_\_.
  - c. Room-Darkening Channels: Extruded aluminum side and center channels with brush pile edge seals, SnapLoc mounting base, and concealed fasteners. Channels to accept one-piece exposed blackout hembar to assure side light control and sill light control.
- D. Basis of Design: UrbanShade, manual operation. As manufactured by MechoShade Systems LLC. Fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and accessories.
  1. Shade Type: Single roller.
  2. Shade Type: Double roller.
  3. Drop Position: Regular. Fabric falls off roller tube, close to glass
  4. Drop Position: Reverse. Fabric falls off the room-side of the roller tube.
  5. Mounting: Ceiling mounted.
  6. Mounting: Recess mounted in ceiling pocket.
  7. Mounting: Wall mounted.
  8. Mounting: Window jamb mounted.
  9. Size: (WxH): \_\_\_\_\_.
  10. Size: As indicated on drawings.
  11. Fabric: As indicated under Shade Fabric article.
  12. Brackets and Mounting Hardware: Stamped steel. As recommended by manufacturer for mounting indicated accommodating shade fabric roll-up size and weight.

- a. Double Roller Brackets: Configured for light-filtering and room-darkening shades in one opening.
  - 1) Light-Filtering Fabric: Room-side of opening.
  - 2) Light-Filtering Fabric: Glass-side of opening.
  - 3) Room-Darkening Fabric: Room-side of opening.
  - 4) Room-Darkening Fabric: Glass-side of opening.
- 13. Roller Tubes: Extruded aluminum. Capable of being removed and reinstalled without affecting roller shade limit adjustments.
  - a. Size: As recommended by manufacturer; for installation conditions, span, and weight of shades.
  - b. Fabric Attachment: Extruded channel in tube accepts vinyl spline welded to fabric edge.
    - 1) Shade Band: Removable and replaceable without removing roller tube from brackets or inserting spline from the side of the roller tube.
- 14. Hembars: Maintains bottom of shade straight and flat.
  - a. Style: Full wrap fabric covered bottom bar, flat profile with heat sealed closed ends.
  - b. Style: Exposed aluminum bottom bar with matching finials.
    - 1) Profile: Rectangular.
    - 2) Profile: \_\_\_\_\_.
    - 3) Color: Manufacturer's standard coordinated with shade fabric selected.
    - 4) Color: To be selected from manufacturer's standard color selection.
    - 5) Color: \_\_\_\_\_.
  - c. Room-Darkening Shades: Slotted bottom bar with wool-pile light seal.
- 15. Manual Operation:
  - a. Clutch Operator: Manufacturer's standard material and design integrated with bracket/brake assembly.
    - 1) Brake Assembly: Mounted on a low-friction plastic hub with wrapped spring clutch.
      - a) Brake must withstand minimum pull force of 25 lbs (12 kg) in stopped position.
    - 2) Clutch/Brake Mounting: On support brackets, independent of roller tube components.
  - b. Drive Chain: Continuous loop beaded ball chain. Upper and lower limit stops.
    - 1) Breaking Force: 45 lbf (200 N) minimum.
    - 2) Chain Retainer per WCMA A100.1: Tensioning device
  - c. Lift Assist Mechanism: Contained in idler end of roller tube. When hanging weights exceed roller tube weight limits. Manufacturer's standard.
- 16. Accessories:
  - a. Fascia: Removable extruded aluminum. Size as required to conceal shade mounting. Attachable to brackets without exposed fasteners.
    - 1) Finish: Baked enamel.
      - a) Color: Black.
      - b) Color: White.
      - c) Color: Bronze.
      - d) Color: Gray.
      - e) Color: \_\_\_\_\_.
    - 2) Finish: Clear anodized.
    - 3) Finish: Fabric wrapped to match shade.
    - 4) Finish: \_\_\_\_\_.
    - 5) Can be installed across two or more shade bands in one piece.
    - 6) Profile: Square.
    - 7) Profile: Radiused.
    - 8) Profile: \_\_\_\_\_.
    - 9) Configuration: Captured, fascia stops at captured bracket end.

- 10) Configuration: Continuous, fascia extends past continuous bracket.
- 11) Configuration: Captured and continuous, as indicated on drawings.
- b. Ceiling Pockets: ManualPremanufactured metal shade pocket with removable closure panel, for recess mounting in acoustical tile or drywall ceilings; size and configuration as indicated on drawings.
- c. Room-Darkening Channels, Standard: Extruded aluminum side and center channels with brush pile edge seals, SnapLoc mounting base, and concealed fasteners. Channels to accept one-piece exposed blackout hembar to assure side light control and sill light control.

### 2.3 ROLLER SHADE FABRICATION

- A. Field measure finished openings prior to ordering or fabrication.
- B. Dimensional Tolerances: Fabricate shades to fit openings within specified tolerances.
  - 1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch (13 mm) [\_\_\_\_\_] space between bottom bar and window stool [finished floor] [window stool] [\_\_\_\_\_].
  - 2. Horizontal Dimensions: Inside Mounting.
    - a. Fill openings from jamb to jamb.
    - b. Symmetrical Light Gaps on Both Sides of Shade: 3/4 inch (19.05 mm) total.
    - c. Symmetrical Light Gaps on Both Sides of Shade (inch/mm): \_\_\_\_\_ total.
  - 3. Horizontal Dimensions: Outside mounting.
    - a. Cover window frames, trim, and casings completely.
    - b. Extend shades beyond jambs on each side: 2 inches (50 mm).
    - c. Extend shades beyond jambs on each side (inch/mm): [\_\_\_\_\_]
- C. Openings Requiring Continuous Multiple Shade Units with Separate Rollers: Locate roller joints at window mullion centers; butt rollers end-to-end.

### 2.4 SHADE FABRIC

- A. Basis of Design: Shade fabric as manufactured by MechoShade Systems LLC.
  - 1. Solar Shadecloths:
    - a. Fabric: Soho: 1100 series. 1 percent open. 2 x 2 basket-weave pattern of fine yarn PVC and polyester blend, same colors as in 1600 (3 percent open) and 1900 series, (5 percent open).
    - b. Fabric: Soho: 1600 series. 3 percent open. 2 x 2 basket-weave pattern of fine yarn PVC and polyester blend, same colors as in 1100 (1 percent open) and 1900 series, (5 percent open).
    - c. Fabric: Soho: 1900 series. 5 percent open. 2 x 2 basket-weave pattern of fine yarn, PVC and polyester blend, same colors as in 1100 (1 percent open) and 1600 series, (3 percent open).
    - d. Fabric: ThermoVeil: 0900 series. 0 to 1 percent visually translucent extra-dense linear weave pattern.
    - e. Fabric: ThermoVeil: 1000 series. 2 to 3 percent open, dense linear-weave pattern.
    - f. Fabric: ThermoVeil Basket Weave: 1300 series. 5 percent open, 2 by 2 dense basket-weave pattern, colors match 1500 (3 percent open), also 126 inches (3200 mm) wide.
    - g. Fabric: ThermoVeil Basket Weave: 1500 series. 3 percent open 2 by 2 dense basket-weave pattern, colors match 1300 (5 percent open), also 126 inches (3200 mm) wide.
    - h. Fabric: ThermoVeil Basket Weave: 2100 series. 10 percent open 2 by 2 open basket-weave pattern, colors match 1300 (5 percent open) and 1500 (3 percent open).

- i. Fabric: ThermoVeil Reversible Satin Twill Weave: 3000 series. 1 to 2 percent open, with an alternating predominant color in the warp and weft (fill). Reverse side can be used facing interior if specified.
  - j. Fabric: ThermoVeil Reversible Satin Twill Weave: 3200 series. 1 to 2 percent open, with an alternating predominant color in the warp and weft (fill). Reverse side can be used facing interior if specified.
  - k. Fabric: ThermoVeil Reversible Satin/Diamond Earthtone Twill Weave: 3300 series. 1 to 2 percent open, with an alternating predominant color in the warp and weft (fill). Reverse side can be used facing interior if specified.
  - l. Fabric: EcoVeil Screens: 0950 series. TPO Cradle to Cradle Certified, fabric, non-PVC, 1 X 1 basket-weave pattern at 1 percent open. Colors match 1350 (5 percent open) and 1550 (3 percent open).
  - m. Fabric: EcoVeil Screens: 1350 series. TPO Cradle to Cradle Certified, fabric, non-PVC, 1 X 1, basket-weave pattern at 5 percent open. Colors match 0950 (1 percent open) and 1550 (3 percent open).
  - n. Fabric: EcoVeil Screens: 1550 series. TPO fabric, Cradle to Cradle Certified, non-PVC, 1 X 1, basket-weave pattern at 3 percent open. Colors match 0950 (1 percent open) and 1350 (5 percent open).
  - o. Fabric: EcoVeil Sheer: 6750 series. Cradle to Cradle Certified, woven 100 percent polyester, PVC-free, reversible face, (3 percent open). The first shade cloth to pass NFPA 701 flame tests without added chemical flame retardants.
  - p. Fabric: EcoVeil Sheer: 6850 series. Cradle to Cradle Certified, woven 100 percent polyester, PVC-free, reversible face, (1 percent open). The first shade cloth to pass NFPA 701 flame tests without added chemical flame retardants.
  - q. Fabric: Acoustiveil Dimout: 0890 series. 0-1 percent open.
  - r. Fabric: EuroVeil Basket Weave Pattern: 5300. Thin, fine, screen cloth in broad range of colors. 5 percent open.
  - s. Fabric: EuroTwill Reversible Weave: 6000. Finely woven. 3 percent open. Reverse side can be used facing interior if specified.
  - t. Fabric: EuroTwill Reversible Weave: 6200. Distinctive, tightly woven twill design, comprised of fine polyester with PVC coating. 1 percent open. Reverse side can be used facing interior if specified.
  - u. Fabric: EuroTwill Reversible Weave: 6450. A broke twill-weave design comprised of fine polyester with PVC coating. 3 percent open. Reverse side can be used facing interior if specified.
  - v. Color: Selected from manufacturer's standard colors.
  - w. Color: Custom color.
2. Blackout Shade cloths:
- a. Fabric: Equinox Blackout: 0200 series. Opaque.
  - b. Fabric: Blackout: Midnite Blackout: 0100 series. Opaque. Acrylic backing, PVC-free, white color reverse side (for exterior). Available 98 inch (24789 mm).
  - c. Fabric: Mirrofilm: 0600 series. Transparent.
  - d. Fabric: Classic Blackout: 0800 series. Opaque.
  - e. Fabric: Chelsea: 0250 series. Opaque.
  - f. Fabric: Classic Blackout: 0700 series. Opaque. Vinyl coated fabric blackout material same color reverse side (for exterior).
  - g. Color: Selected from manufacturer's standard colors.
  - h. Color: Custom color.
3. Fabric Properties: Non-flammable, color-fast, impervious to heat and moisture, and able to retain its shape under normal operation.
- a. Shade Type: Light filtering shades.
  - b. Shade Type: Room darkening shades.
  - c. Shade Type: \_\_\_\_\_.
  - d. Material Composition: PVC coated polyester yarns.

- e. Material Composition: 100 percent polyester.
  - f. Material Composition: 100 percent TPO coated polyolefin yarn.
  - g. Material Composition: Polyester with acrylic backing.
  - h. Material Composition: Fiberglass with acrylic backing.
  - i. Material Composition: Vinyl coated fabric.
  - j. Material Composition: \_\_\_\_\_.
4. Material Certificates and Product Disclosures:
- a. Low-Emitting Material Certification: Greenguard Gold certified and listed in [UL \(GGG\)](#).
  - b. Cradle to Cradle Material Health Certificate:
    - 1) Achievement Level: Silver.
    - 2) Achievement Level: Bronze.
  - c. Health Product Declaration (HPD): Published declaration with full disclosure of known hazards.
  - d. Declare label.
5. Performance Requirements:
- a. Flammability per NFPA 701: Pass. Large or small scale test.
  - b. Fungal Resistance: No growth when tested per [ASTM G21](#).
  - c. Solar Transmittance: \_\_\_\_\_, nominal.
  - d. Visible Light Transmittance: \_\_\_\_\_, nominal.
  - e. Solar Absorption: \_\_\_\_\_, nominal.
  - f. Solar Reflectance: \_\_\_\_\_, nominal.
6. Openness Factor: \_\_\_\_\_ percent, nominal.
7. Weight: \_\_\_\_\_ oz per sq yd (\_\_\_\_\_ grams per sq m).
8. Roll Width: 63 inches (1600 mm) maximum.
9. Roll Width: 72 inches (1829 mm) maximum.
10. Roll Width: 78 inches (1981 mm) maximum.
11. Roll Width: 84 inches (2134 mm) maximum.
12. Roll Width: 96 inches (2438 mm) maximum.
13. Roll Width: 98 inches (2489 mm) maximum.
14. Roll Width: 126 inches (3200 mm) maximum.
15. Roll Width (in/mm): \_\_\_\_\_.
16. Color: As selected by Design Team from manufacturer's full range of colors.
17. Color: \_\_\_\_\_.
18. Fabrication:
- a. Fabric Orientation: Railroaded, fabric is turned 90 degrees off the roll.
  - b. Battens: Manufacturer's standard material, full width of shade, and enclosed in welded shade fabric pocket; locate as indicated on drawings.
  - c. Seams for Railroaded Fabric: Manufacturer's standard sewn seam; locate as indicated on drawings.
  - d. Welded Zipper Edge: Full height on both sides of fabric ensuring smooth operation within ShadeLoc channels.

## 2.5 ROLLER SHADE FABRICATION

- A. Field measure finished openings prior to ordering or fabrication.
- B. Dimensional Tolerances: Fabricate shades to fit openings within specified tolerances.
  - 1. Vertical Dimensions: Fill openings from head to sill with 1/2 inch (13 mm) [\_\_\_\_\_] space between bottom bar and window stool [finished floor] [window stool] [\_\_\_\_\_].
  - 2. Horizontal Dimensions: Inside Mounting.
    - a. Fill openings from jamb to jamb.
    - b. Symmetrical Light Gaps on Both Sides of Shade: 3/4 inch (19.05 mm) total.
    - c. Symmetrical Light Gaps on Both Sides of Shade (inch/mm): \_\_\_\_\_ total.

3. Horizontal Dimensions: Outside mounting.
  - a. Cover window frames, trim, and casings completely.
  - b. Extend shades beyond jambs on each side: 2 inches (50 mm).
  - c. Extend shades beyond jambs on each side (inch/mm): \_\_\_\_\_
- C. Openings Requiring Continuous Multiple Shade Units with Separate Rollers: Locate roller joints at window mullion centers; butt rollers end-to-end.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Design Team of unsatisfactory preparation before proceeding.
- C. Start of installation shall be considered acceptance of substrates.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under the project conditions.
- C. Coordinate with window installation and placement of concealed blocking to support shades.

### 3.3 INSTALLATION

- A. Install shades level, plumb, square, and true per manufacturer's instructions and approved shop drawings. Locate so shade band is at least 2 inches (51 mm) from interior face of glass. Allow proper clearances for window operation hardware. Use mounting devices as indicated.
- B. Replace shades exceeding specified tolerances at no extra cost to Owner.
- C. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric.
- D. Clean roller shade surfaces after installation, per manufacturer's written instructions.
- E. Demonstrate operation and maintenance of window shade system to Owner's personnel.
- F. Manufacturer's authorized personnel are to train Owner's personnel on operation and maintenance of system.
  1. Use operation and maintenance manual as a reference, supplemented with additional training materials as required.

### 3.4 PROTECTION AND CLEANING

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
  1. Clean soiled shades and exposed components as recommended by manufacturer.
  2. Replace shades that cannot be cleaned to "like new" condition.

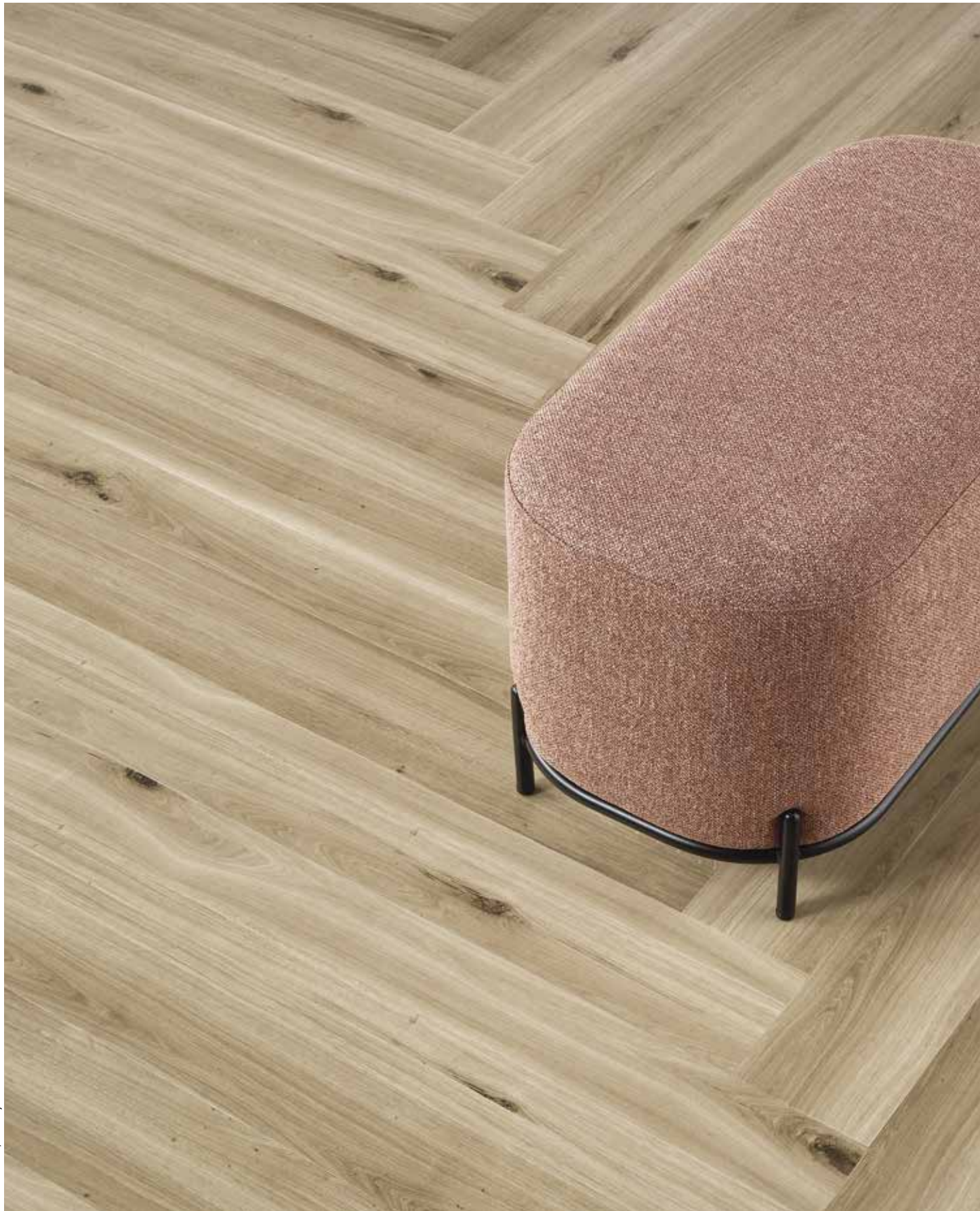
END OF SECTION 12494



I.T. & ECONOMIC DEVELOPMENT OFFICE IMPROVEMENTS:

11 S. D ST, PERRIS CA

**Cut Sheets**



ST252 Montane, Kilimanjaro



Biome™  
Luxury Flooring



# In Harmony

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Biome emphasizes the luxury of wood patterns, unique graining and earthy-brown tones represented across the Earth's diverse ecosystems. The collection was intentionally designed to capture and translate an organic aesthetic and tactile warmth, strengthening the human connection with nature in the built environment.





ST260 Savannah, Zephyr



ST261 Savannah, Mirage



ST262 Savannah, Delta



ST263 Savannah, Monsoon



ST264 Savannah, Maelstrom



ST265 Savannah, Ferralite



ST290 Earthen, Amur



ST291 Earthen, Lynx



ST292 Earthen, Snow Fox



ST293 Earthen, Taimen



ST294 Earthen, Caribou



ST295 Earthen, Caspian



ST251 Montane, Natterhorn



ST250 Montane, Mont Blanc



ST253 Montane, Uluru



ST252 Montane, Kilimanjaro



ST255 Montane, Everest



ST254 Montane, Rainier



ST270 Selva, Sylvan



ST271 Selva, Liana



ST272 Selva, Morpho



ST273 Selva, Arabica



ST274 Selva, Mangrove



ST275 Selva, Understory



ST131 Tellus, Solstice



ST132 Tellus, Midsummer



ST133 Tellus, Polar Night

Create a sense of harmony and comfort with perfectly imperfect **Savannah**, elastic **Earthen**, rhythmic **Montane**, meditative **Selva**, or rustic **Tellus**. Each design is available in 6 in. x 48 in. planks.



# Building Better

---

We share your commitment to transparency and building a better environment together.

- Low VOC emissions and FloorScore® certified
- Free of ortho-phthalates and heavy metals
- Recyclable through the On&On® Recycling Program
- Health Product Declaration (HPD) and third-party certified Environmental Product Declaration (EPD) available
- Made in the USA with global and domestic content



ST280 Boreal, Stockholm



ST281 Boreal, Oslo



ST282 Boreal, Malmo



ST283 Boreal, Copenhagen



ST284 Boreal, Gothenburg



ST285 Boreal, Bergen



ST155 Altitude, Loch Ness



ST154 Altitude, Isle of Skye



ST151 Altitude, Red Rock

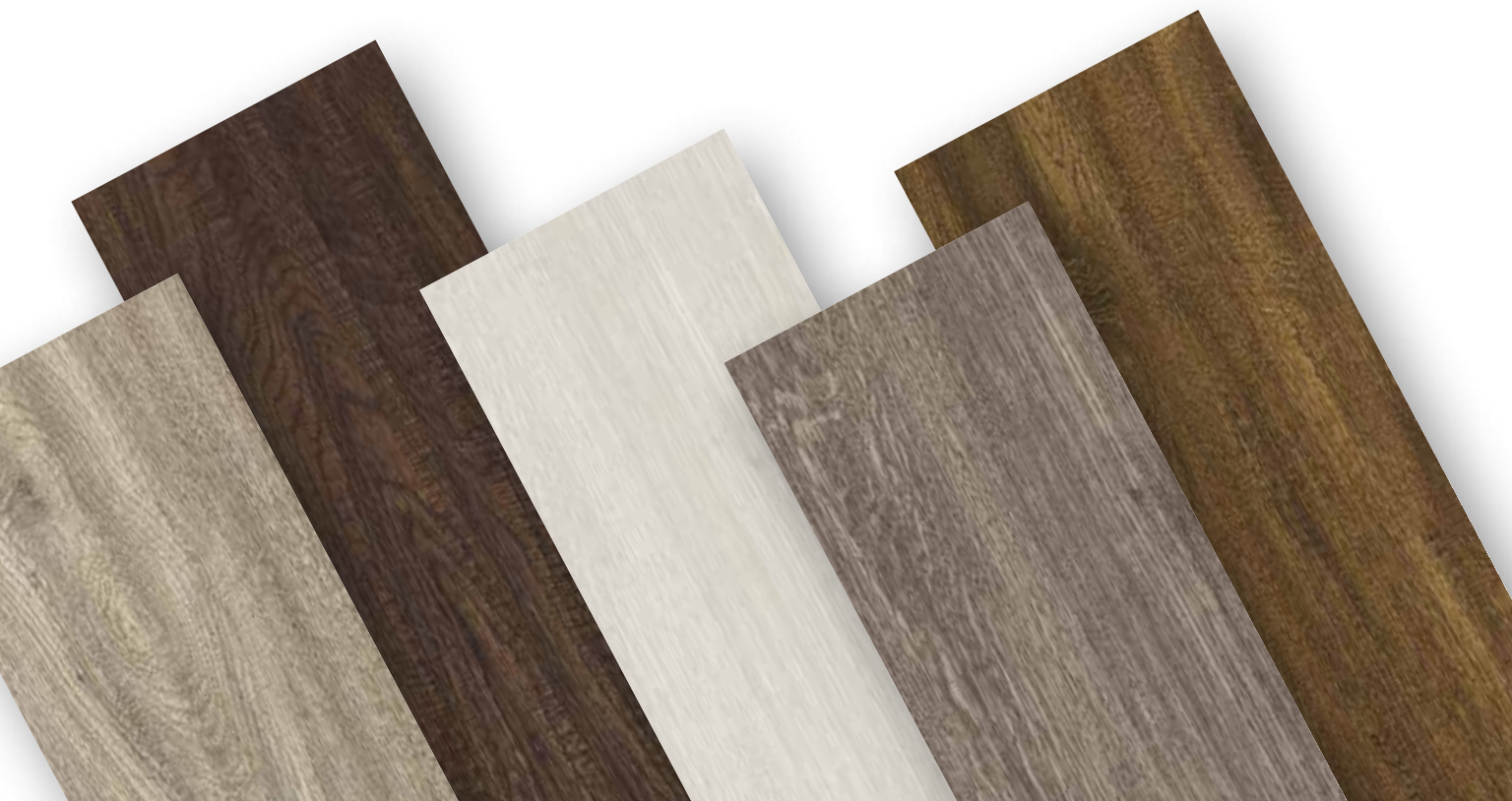


ST150 Altitude, Argyll



ST152 Altitude, Moorland

Available in 9 in. x 48 in. planks, **Boreal** features a contemporary clean design. **Altitude** adds depth and movement reminiscent of a nomadic journey.







# Breakthrough Innovation

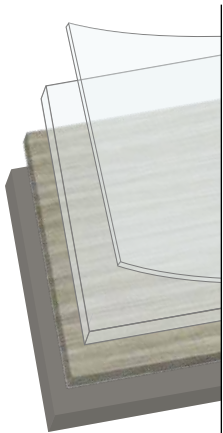
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Diamond 10<sup>®</sup> Technology is a patented innovation that uses cultured diamonds to provide the ultimate in scratch, stain, and scuff resistance.

With Diamond 10 Technology, you'll never compromise the look you want for the durability you need. Made to stand up to the wear and tear of commercial settings, this low-maintenance solution keeps floors looking newer, longer.



ST252 Montane, Kilimanjaro



**1. Diamond 10® Technology**

Patented innovation that uses cultured diamonds to provide category-leading scratch, stain, and scuff resistance from edge-to-edge

**2. Rigid Wear Layer**

The combination of Diamond 10® Technology and the unique rigid wear layer results in enhanced durability and abrasion resistance

**3. Realistic Printed Visual**

**4. Foundation Layer**

**5. Eased Edge**

Designed to blend seamlessly into the next plank for ease of maintenance and cleanability

**20 Year Commercial Limited Warranty**

Supported by a 20 Year Commercial Limited Warranty. Add 10 years of overall warranty coverage by using Strong System™ subfloor preparation products. Visit [ArmstrongFlooring.com](http://ArmstrongFlooring.com) for more information.



## Product Information

**Construction** - Solid Vinyl Tile (Luxury Vinyl Tile / LVT)

**International Specifications** - ASTM F1700, Class III,  
Type B, embossed surface

**Overall Thickness** - 2.5 mm / 0.100 in.

**Wear Layer Thickness** - 20 mil / 0.020 in.

**Size** - Earthen / Montane / Savannah / Selva / Tellus – 6 in. x 48 in.  
Altitude / Boreal – 9 in. x 48 in.

**Factory Finish** - Diamond 10® Technology

**Installation** - Adhesives: S-1000, S-995, S-319 Roll Strong™

**Maintenance Options** - No Polish – No Buff, Polish Optional

Color and visual variation is inherent in all resilient products. Prior to installation, we recommend reviewing multiple tiles.

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# ArmstrongFlooring™

Walk On. Walk Strong.™

 Diamond 10  
Technology™



**Visit [ArmstrongFlooring.com](https://www.armstrongflooring.com)**  
for complete Product, Technical,  
Adhesives, Installation and  
Maintenance recommendations.



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Luxury Vinyl Tile

## Altitude Loch Ness: ST155



## PRODUCT DETAILS

ITEM NUMBER	ST155
COLLECTION	<u>Biome</u>
COLOR	Loch Ness
SIZE	9 in. x 48 in. x 0.1 in. <i>228.6 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Altitude
SHAPE	Plank

## Overview

### In Harmony

Biome emphasizes the luxury of wood patterns, unique graining and earthy brown tones represented across the Earth's diverse ecosystems. The collection was intentionally designed to capture and translate an organic aesthetic and tactile warmth, strengthening the human connection with nature in the built environment.

Create a sense of harmony and comfort with naturally imperfect *Savannah*, contemporary clean *Boreal*, rustic *Tellus*, elastic *Earthen*, nomadic *Altitude*, meditative *Selva*, or rhythmic *Montane*.

Proudly Made in the USA





Armstrong Flooring is primarily a domestic manufacturer, with five plants across the USA producing flooring from global and domestic content.

[LEARN MORE](#)

Browse Biome Samples



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## Specifications

 Biome Recommended Applications | PDF

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## Installation & Maintenance

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## Warranty & SDS

 Commercial Resilient Limited Warranty | PDF

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## Design & CAD Files


 Biome Sketchup Palette | SKP

 Biome Revit package | ZIP

 ST155 SketchUp Image Tile | SKM


 ST155 Self-Tiling Image | JPG

## Sustainability

 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF

 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST155
ITEM NAME	Altitude Loch Ness
COLLECTION	Biome
WOOD SPECIES	Oak

### Visual Specifications

COLOR	Loch Ness
DESIGN	Altitude
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

35-39%

## Physical Specifications

**For Size:** 9 in. x 48 in. x 0.1 in. *228.6 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

12

COVERAGE PER CARTON

36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

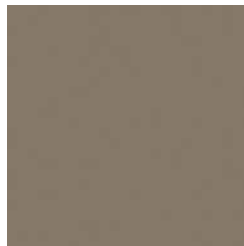
Full spread

## Coordinated Accessories

### Coordinating Wall Base Colors



Essential Sand



Flax

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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Luxury Vinyl Tile

## Earthen Amur: ST290



## PRODUCT DETAILS

ITEM NUMBER	ST290
COLLECTION	<u>Biome</u>
COLOR	Amur
SIZE	6 in. x 48 in. x 0.1 in. <i>152.4 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Earthen
SHAPE	Plank

## Overview

### In Harmony

Biome emphasizes the luxury of wood patterns, unique graining and earthy brown tones represented across the Earth's diverse ecosystems. The collection was intentionally designed to capture and translate an organic aesthetic and tactile warmth, strengthening the human connection with nature in the built environment.

Create a sense of harmony and comfort with naturally imperfect *Savannah*, contemporary clean *Boreal*, rustic *Tellus*, elastic *Earthen*, nomadic *Altitude*, meditative *Selva*, or rhythmic *Montane*.

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 Commercial Luxury Flooring Installation Guide | PDF

## Warranty & SDS

 Commercial Resilient Limited Warranty | PDF

 Resilient Sheet & Tile Safety Data Sheet | PDF

## Design & CAD Files


 Biome Sketchup Palette | SKP

 Biome Revit package | ZIP

 ST290 SketchUp Image Tile | SKM

 ST290 Self-Tiling Image | JPG

## Sustainability

 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF

 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST290
ITEM NAME	Earthen Amur
COLLECTION	Biome
WOOD SPECIES	Ash

### Visual Specifications

COLOR	Amur
DESIGN	Earthen
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

50-54%

## Physical Specifications

**For Size:** 6 in. x 48 in. x 0.1 in. *152.4 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

18

COVERAGE PER CARTON

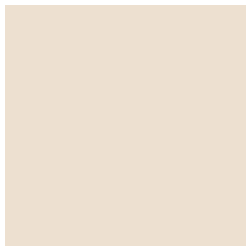
36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

Full spread

## Coordinated Accessories

### Coordinating Wall Base Colors



Parchment

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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Luxury Vinyl Tile

## Earthen Lynx: ST291





## PRODUCT DETAILS

ITEM NUMBER	ST291
COLLECTION	<u>Biome</u>
COLOR	Lynx
SIZE	6 in. x 48 in. x 0.1 in. <i>152.4 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Earthen
SHAPE	Plank

## Overview

### In Harmony

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 Commercial Luxury Flooring Installation Guide | PDF

## Warranty & SDS

 Commercial Resilient Limited Warranty | PDF

 Resilient Sheet & Tile Safety Data Sheet | PDF

## Design & CAD Files


 Biome Sketchup Palette | SKP

 Biome Revit package | ZIP


 ST291 SketchUp Image Tile | SKM


 ST291 Self-Tiling Image | JPG

## Sustainability


 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF

 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST291
ITEM NAME	Earthen Lynx
COLLECTION	Biome
WOOD SPECIES	Ash

### Visual Specifications

COLOR	Lynx
DESIGN	Earthen
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

30-34%

## Physical Specifications

**For Size:** 6 in. x 48 in. x 0.1 in. *152.4 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

18

COVERAGE PER CARTON

36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

Full spread


## Coordinated Accessories

### Coordinating Wall Base Colors



Essential Sand

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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Luxury Vinyl Tile

## Earthen Snow Fox: ST292



## PRODUCT DETAILS

ITEM NUMBER	ST292
COLLECTION	<u>Biome</u>
COLOR	Snow Fox
SIZE	6 in. x 48 in. x 0.1 in. <i>152.4 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Earthen
SHAPE	Plank

## Overview

### In Harmony

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 Commercial Luxury Flooring Installation Guide | PDF

## Warranty & SDS

 Commercial Resilient Limited Warranty | PDF

 Resilient Sheet & Tile Safety Data Sheet | PDF

## Design & CAD Files


 Biome Sketchup Palette | SKP

 Biome Revit package | ZIP


 ST292 SketchUp Image Tile | SKM

 ST292 Self-Tiling Image | JPG

## Sustainability

 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF

 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST292
ITEM NAME	Earthen Snow Fox
COLLECTION	Biome
WOOD SPECIES	Ash

### Visual Specifications

COLOR	Snow Fox
DESIGN	Earthen
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

45-49%

## Physical Specifications

**For Size:** 6 in. x 48 in. x 0.1 in. *152.4 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

18

COVERAGE PER CARTON

36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

Full spread

## Coordinated Accessories

### Coordinating Wall Base Colors



Gray Mist

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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Luxury Vinyl Tile

## Earthen Taimen: ST293



## PRODUCT DETAILS

ITEM NUMBER	ST293
COLLECTION	<u>Biome</u>
COLOR	Taimen
SIZE	6 in. x 48 in. x 0.1 in. <i>152.4 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Earthen
SHAPE	Plank

## Overview

### In Harmony

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 Biome Revit package | ZIP

 ST293 SketchUp Image Tile | SKM

 ST293 Self-Tiling Image | JPG

## Sustainability

 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF

 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST293
ITEM NAME	Earthen Taimen
COLLECTION	Biome
WOOD SPECIES	Ash

### Visual Specifications

COLOR	Taimen
DESIGN	Earthen
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

20-24%

## Physical Specifications

**For Size:** 6 in. x 48 in. x 0.1 in. *152.4 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

18

COVERAGE PER CARTON

36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

Full spread

## Coordinated Accessories

### Coordinating Wall Base Colors



Greige

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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## Commercial Luxury Vinyl Tile



### Design Without Limits

Open the door to new possibilities in commercial flooring with Luxury Vinyl Tile. Available in an array of modular shapes, sizes, and designs, our LVT collections unlock unlimited creative design combinations and offer maximum coordination across our full portfolio of products. From looks inspired by the natural beauty of wood and the character of stone, to distinct woven textile visuals, achieve your design intent at the precise performance level required.

### Reasons to Specify Luxury Vinyl Tile

- Category leading scratch, stain, and scuff resistance for floors that look newer, longer
- Modular flexibility, including large format shapes and sizes
- Easy to create unique designs and patterns with a broad palette of coordinated colors
- Bring realism to every design with high fidelity printing techniques and proprietary embossing methods
- Durable, long-lasting performance – withstands heavy foot and rolling load traffic
- Easy maintenance – less cleaning time and disruption
- Manufactured to Armstrong Flooring's Diamond Standard of Quality

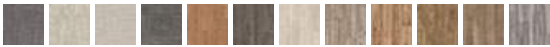
# Browse All Luxury Vinyl Tile

## Explore Luxury Vinyl Tile Collections



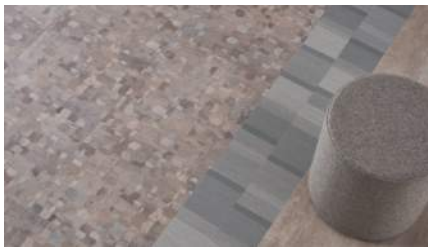
### Unify

Unify emphasizes the luxury of wood patterns, unique graining and earthy brown tones represented across the Earth's diverse ecosystem.



### Biome

Biome emphasizes the luxury of wood patterns, unique graining and earthy brown tones represented across the Earth's diverse ecosystem. It is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.



### Coalesce

Coalesce merges unexpected combinations of pattern into a cohesive, balanced story. Designs were inspired by artisan textiles and mosaics. It is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.



### Duo

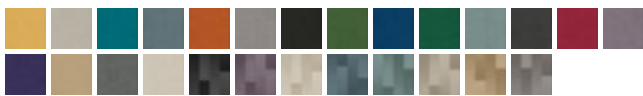
Elevate the everyday with the perfect pairing of easy neutrals and a rainbow of color. Duo is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.





## Exchange

Invigorate and inspire with soft pastels and rich, saturated tones that complement a visual texture designed to add depth and interest. Exchange is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.



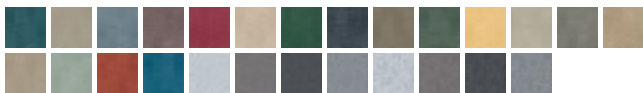
## Terra

Terra was inspired by the strength, character, and raw beauty of natural stone. It is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.



## Theorem

Spark curiosity and collaboration in the next generation of doers, thinkers, influencers and connectors with a carefully curated palette of color and pattern. Theorem is a 2.5 mm LVT with Diamond 10 Technology and is domestically produced.



## Natural Creations with Diamond 10 Technology

Offers traditional wood, stone, and textile-inspired visuals in a 3.2 mm LVT structure that is made domestically.



+ 27 MORE



## Parallel USA 20

Domestically produced LVT with the right combination of performance, design and price for commercial spaces. Protected with Urethane Plus coating for enhanced resistance to scratches and stains.



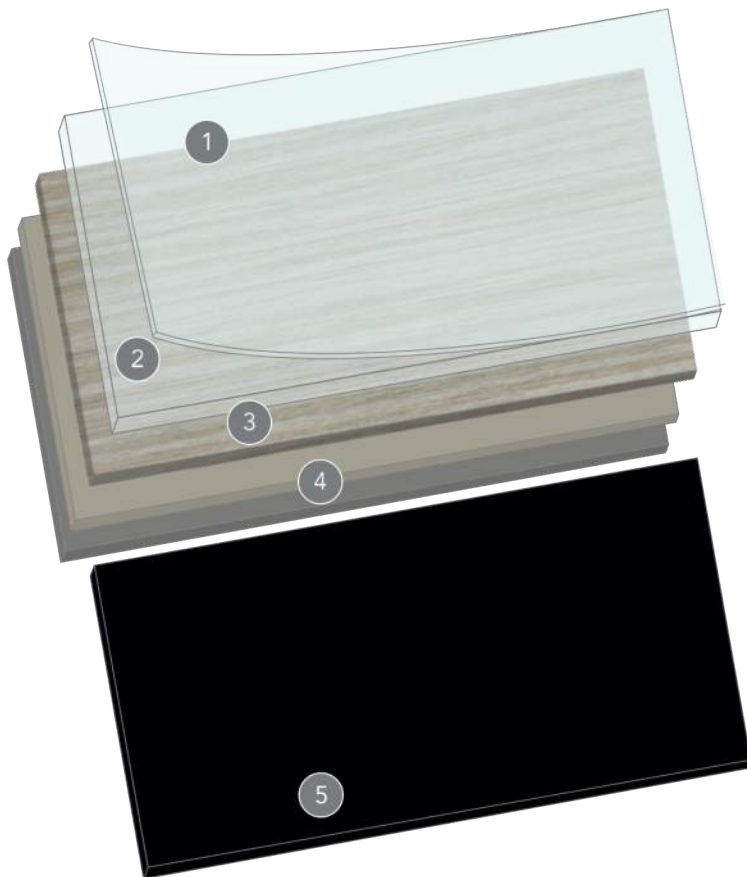
## Parallel USA 12

Simple and straightforward domestic LVT to meet the needs of light commercial spaces like main street businesses and residential areas in mixed use properties. Enhanced protection with Urethane Plus coating.



## Performance

### Luxury Vinyl Tile Product Structure



- 1 **COMMERCIAL UV-CURED COATING**
  - Scratch, scuff, and stain performance: Appearance retention
  - Resistant to alcohol-based hand sanitizers
- 2 **PERFORMANCE WEAR LAYER**
  - Textured surface for realistic visuals: High durability Abrasion resistance
- 3 **DESIGNER PRINTED VISUAL**
- 4 **BASE LAYERS**
  - Impact resistance
- 5 **QUIET COMFORT™ LUXURY FLOORING UNDERLAYMENT**
  - Noise reduction



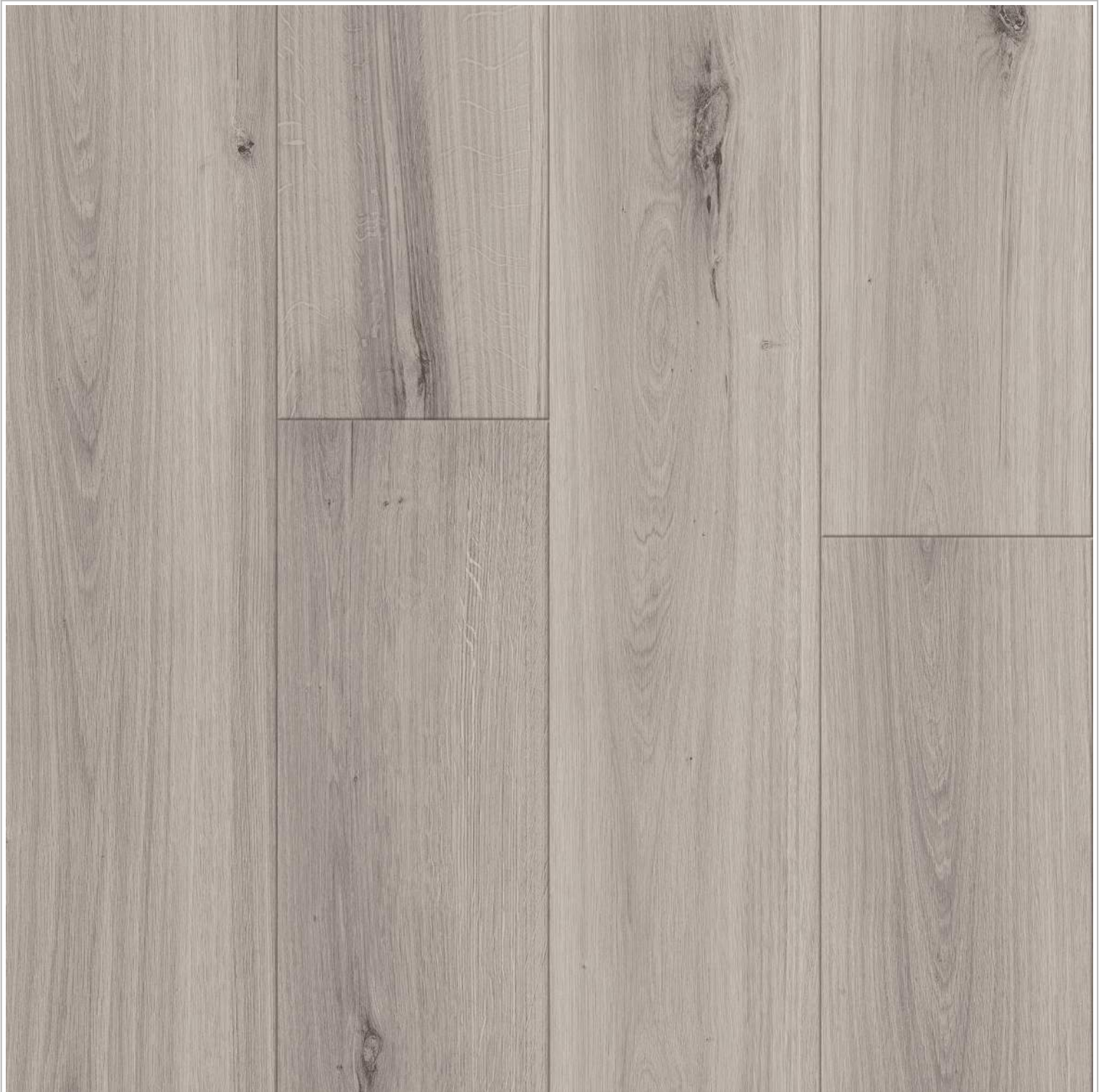
- Built-in moisture barrier  
(Sold Separately)

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Luxury Vinyl Tile

## Montane Mont Blanc: ST250



## PRODUCT DETAILS

ITEM NUMBER	ST250
COLLECTION	<u>Biome</u>
COLOR	Mont Blanc
SIZE	6 in. x 48 in. x 0.1 in. <i>152.4 mm x 1219.20 mm x 2.5 mm</i>
DESIGN	Montane
SHAPE	Plank

## Overview

### In Harmony

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 Commercial Luxury Flooring Installation Guide | PDF

## Warranty & SDS

 Commercial Resilient Limited Warranty | PDF

 Resilient Sheet & Tile Safety Data Sheet | PDF

## Design & CAD Files


 Biome Sketchup Palette | SKP

 Biome Revit package | ZIP


 ST250 SketchUp Image Tile | SKM


 ST250 Self-Tiling Image | JPG

## Sustainability

 Health Product Declaration - 2.5 mm Luxury Flooring | PDF

 Biome Light Reflectivity | PDF

 Environmental Product Declaration – 2.5 mm Luxury Vinyl Tile | PDF


 FloorScore Certification - Luxury Flooring | PDF

## Technical / Test Reports

 ASTM E 648 Fire Test Report | PDF

 ASTM E 662 Fire Test Report | PDF

 CAN/ULC S102.2 Fire Test Report | PDF

 Biome Resistance to Staining Reagents | PDF

## Specifications

### General Specifications

ITEM NUMBER	ST250
ITEM NAME	Montane Mont Blanc
COLLECTION	Biome
WOOD SPECIES	Oak

### Visual Specifications

COLOR	Mont Blanc
DESIGN	Montane
SHAPE	Plank
GLOSS	Low Gloss

## Performance Specifications

LIGHT REFLECTANCE

35-39%

## Physical Specifications

**For Size:** 6 in. x 48 in. x 0.1 in. *152.4 mm x 1219.20 mm x 2.5 mm* Plank

PIECES PER CARTON

18

COVERAGE PER CARTON

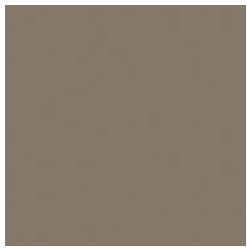
36 square feet  
*3.34451 square meters*

INSTALLATION METHOD

Full spread

## Coordinated Accessories

### Coordinating Wall Base Colors




Flax



Molasses

# Installation

 Commercial Luxury Flooring Installation Guide | PDF

## Adhesives & Seam Treatments



S-995 Flooring Adhesive

**S-995**



S-1000 Flooring Adhesive

**S1000**

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## Vinyl Composition Tile



### A Classic Economical Value

The durable construction of Excelon VCT ensures lasting beauty in high-traffic areas, while flowing linear patterns, organic looks, and densely patterned earth tones effectively mask scuffs and soil in busy commercial spaces. Developed through our Continuum Solutions, Excelon VCT harmonizes with other products across the entire Armstrong Flooring portfolio to help you execute your design vision.

### Reasons to Specify VCT

- Modular flexibility including large format shapes and sizes
- Long life value with our true through-pattern VCT
- Withstands heavy foot and rolling load traffic\*
- Budget-friendly value with a history of great performance
- Low-carbon footprint – main ingredient is 85% North American limestone locally quarried, further reducing the product’s carbon footprint.

\*Refer to the Armstrong Flooring Guaranteed Installation Systems manual (F-5061) at [ArmstrongFlooring.com/installationmanual](https://www.armstrongflooring.com/installationmanual) and at [floorexpert.com](https://www.floorexpert.com) for proper installation, care, and maintenance information.

Proudly Made in the USA



Armstrong Flooring is primarily a domestic manufacturer, with five plants across the USA producing flooring from global and domestic content.

[LEARN MORE](#)



GET INSPIRED WITH 19 NEW COLORS OF IMPERIAL TEXTURE VCT

[LEARN MORE](#)

# Browse All Vinyl Composition Tile

## Explore Vinyl Composition Tile Collections



### Standard Excelon Imperial Texture

A classic economical value, durable construction combined with neutral hues and bold colors ensure lasting beauty in high-traffic commercial spaces.



+ 62 MORE



### Premium Excelon Crown Texture

Non-directional tone on tone VCT providing a monolithic visual with a palette of colors ranging from sophisticated classics to fresh pop and accent colors.



### Premium Excelon Stonetex

With the appeal of natural stone and a granite-like appearance, durable Stonetex provides design freedom for high-traffic commercial settings.



### Premium Excelon Feature Tile & Strip

Create accents, borders, wayfinding and custom insets in true solid colors to bring added zest to your next commercial space design with Feature Tile & Strip.

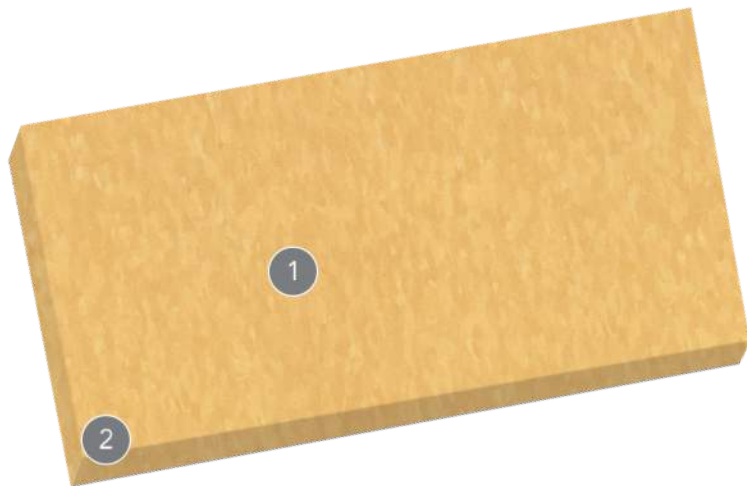


Performance

## Through-Color/Pattern Wear Layer®

Armstrong Flooring commercial VCT sets the standard for long life and design versatility thanks to our Through-Color/Pattern Wear Layer. With a wide array of colors and visuals, Armstrong Flooring commercial VCT retains its color, pattern and appearance longer and has the durability and gouge resistance to withstand heavy foot and rolling load impact. Through-Color/Pattern Wear is available in all Armstrong Flooring commercial VCT.

## VCT Product Structure



### Premium Excelon, Standard Excelon

Wear Layer: Entire product

Dimensionally Stable: Size and squareness

Recycled Content: Pre-consumer third-party certified

- 1 **EXCLUSIVE FINISH**
  - Protective layer during installation
  - Makes initial maintenance quick and easy
  
- 2 **THROUGH-COLOR/PATTERN WEAR LAYER**
  - Pattern/color wear performance:
    - High durability
    - Gouge resistance
    - Rolling load impact resistance\*
    - Appearance retention

\*Refer to the Armstrong Flooring Guaranteed Installation Systems manual (F-5061) for proper installation, care, and maintenance information.

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## Commercial Resilient Limited Warranty

### Products

AHF Products (“AHF”) warrants its regular (first quality) Armstrong Flooring™ commercial resilient floor products (“Product” or “Products”) to be free from manufacturing defects from the date of purchase through the limited warranty period (see applicable Products and years below).

### Installation, Care & Maintenance

Proper care, maintenance, and installation play a key role in the performance of Armstrong Flooring floors. Installation and maintenance guidelines can be found on our website [www.FloorExpert.com](http://www.FloorExpert.com).

### Workmanship

AHF does not warrant the installers’ workmanship. Workmanship errors should be addressed to the contractor who installed the Product. Your Armstrong Flooring Products should be professionally installed by contractors who have demonstrated expertise in installing commercial floors.

### Terms

**Within One Year:** If a defect covered by this limited warranty is reported to AHF in writing within one year of purchase, AHF will supply new Armstrong Flooring material of the same or similar grade sufficient to repair or replace the defective product. AHF will also pay reasonable labor costs.

**Within Two Years:** If a defect covered by this limited warranty is reported to AHF in writing after one year but within two years of purchase, AHF will supply new Armstrong Flooring material of the same or similar grade sufficient to repair or replace the defective product. AHF will also pay fifty percent of the reasonable labor costs. **After Two Years:** If a defect covered by this limited warranty is reported to AHF in writing after two years but within the limited warranty period (see applicable Products and years), AHF will supply new Armstrong Flooring material of the same or similar grade sufficient to repair or replace the defective product. AHF will not pay labor costs.

AHF will not pay labor costs to repair or replace material with defects that were apparent before or at the time of installation.

Uninstalled samples are required to determine if a Product is within manufacturing specifications. Please ensure that uninstalled samples are retained.

### Exclusions

The following are not covered by this limited warranty: improper installation; differences in color between Products and samples or photographs; indentation from failure to use floor protectors; indentation from high heels or spiked shoes; indentation from improper loading of rolling loads, chairs, or other furniture; loss of gloss and scratching due to improper care; discoloration; failure of the product to adhere to the subfloor due to, but not limited to, moisture, alkaline, or hydrostatic pressure from the subfloor; and/or inappropriate end-user activities. Refer to the Armstrong Flooring Guaranteed Installation Systems manual at [www.ArmstrongFlooring.com/installationmanual](http://www.ArmstrongFlooring.com/installationmanual) and at [www.FloorExpert.com](http://www.FloorExpert.com) for proper installation, care, and maintenance information for your floor.

THERE ARE NO WARRANTIES BEYOND THIS EXPRESSED LIMITED WARRANTY. ALL OTHER WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED. ARMSTRONG FLOORING EXCLUDES ANY LIABILITY FOR LOST PROFITS OR ANY OTHER INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES CONTAINED HEREIN ARE THE ONLY REMEDIES AVAILABLE FOR BREACH OF THIS LIMITED WARRANTY.

NOTE: Some jurisdictions do not allow exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights and you may also have other rights which vary depending on the state, territory, or jurisdiction to state. Unless otherwise precluded by law, this Limited Warranty shall be construed in accordance with the laws of the Commonwealth of Pennsylvania without regard to any of its conflicts of laws provisions.

No installer, retailer, distributor or employee has the authority to alter the obligations, limitations, disclaimers or exclusions under any of our warranties.

### Warranty Owner

\*\*This limited warranty extends only to the original end-user and is non- transferrable and applies to Products purchased after July 26, 2022. Please keep your receipt. The receipt is required in order to verify the date and proof of purchase to resolve any problems that may occur.

### Contact Us

Contact AHF Customer Service at 1-866-243-2726 with questions or to request additional information.

YEARS	PRODUCTS	
5 Years	VCT	Premium Excelon® Crown Texture™ Premium Excelon® Stonetex® Premium Excelon® Feature™ Tile, Strips & Insets Standard Excelon® Imperial® Texture
	SRF/ESD (TILE)	Safety Zone™ Excelon® SDT™
	COMPANION PRODUCTS	Coved & Sculptured Wall Base Integrated Stair Treads & Landing Tiles
7 Years	LVT	Parallel® USA 12
10 Years	HOMOGENEOUS SHEET	Natralis™ Medintone™ with Diamond 10® Technology
15 Years	LVT	Parallel® USA 20
20 Years	LVT	Biome™ with Diamond 10® Technology Coalesce™ with Diamond 10® Technology Terra™ with Diamond 10® Technology Theorem™ with Diamond 10® Technology Exchange™ with Diamond 10® Technology Duo™ with Diamond 10® Technology Natural Creations® with Diamond 10® Technology



# MATERIAL INFORMATION SHEET

## I. PRODUCT IDENTIFICATION

Name: Armstrong Resilient Sheet Flooring Products and  
Armstrong Resilient Tile Flooring Products  
Description: Vinyl Flooring

## II. DEPARTMENT OF TRANSPORTATION INFORMATION

Shipping name: Not Classified. Hazard Class: N/A. ID #: N/A  
EMERGENCY ONLY CONTACT: CHEM-TEL -1-800-255-3924 or  
+01-813-248-0585 (call collect)

## III. HMIS (0=minimal hazard; 4 = severe hazard)

Health = 0      Flammability = 1      Reactivity = 0

## IV. PRODUCT CONTENT

This product does not contain chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372. All components are on TSCA inventory. This product does NOT contain asbestos.

## V. HAZARDOUS INGREDIENTS

**(Chemical Identity; Common Name)**  
None

**C.A.S. No.**  
N/A

**%**  
N/A

**OSHA PEL**  
N/A

**ACGIH TLV**  
N/A

## DESCRIPTION AND INGREDIENT INFORMATION

These vinyl flooring products are produced for residential and commercial (architectural) marketplace use. They come in a wide variety of aesthetic designs, styles, colors, surface finishes, and sizes.

## MISCELLANEOUS INFORMATION

Each of these products is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200(c). They are formed to a specific shape or design during manufacture, have end use functions dependent upon their shape or design, and do not release any hazardous chemical under normal conditions of use.

## VI. PHYSICAL DATA

APPEARANCE: Material dependent. BOILING POINT (degrees F): N/A. VAPOR PRESSURE (mm Hg @ 20 degrees C): N/A. VAPOR DENSITY (Air = 1): N/A. PERCENT VOLATILE BY WEIGHT (30 min. @ 275 degrees F): N/A. EVAPORATION RATE (Butyl Acetate = 1): N/A. SOLUBILITY IN WATER: N/A. SPECIFIC GRAVITY (H<sub>2</sub>O = 1): N/A. pH: N/A.

## VII. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A. FLAMMABLE RANGE: LEL = N/A; UEL = N/A. EXTINGUISHING MEDIA: Water. SPECIAL FIRE FIGHTING PROCEDURES: Protect fire fighters from toxic products of combustion by wearing self-contained breathing apparatus. UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

## VIII. HEALTH HAZARD DATA

PRIMARY ROUTE(S) OF ENTRY: N/A. TARGET ORGANS: N/A. EFFECTS OF OVEREXPOSURE: N/A SKIN AND EYES: N/A. INHALATION: N/A. CARCINOGENICITY: NTP: No; IARC Monographs: No; OSHA Regulated: No. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/K. FIRST AID PROCEDURES: N/A SKIN AND EYES: N/A. INHALATION: N/A. INGESTION: N/A.

## IX. REACTIVITY DATA

STABILITY: N/A. INCOMPATIBILITY: N/A. HAZARDOUS DECOMPOSITION PRODUCTS: N/A. HAZARDOUS POLYMERIZATION: N/A.

## X. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: N/A. WASTE DISPOSAL METHOD: Dispose of in accordance with Federal, State, and Local Waste Disposal Regulations.

# ArmstrongFlooring™

Resilient Sheet Flooring Products and  
Resilient Tile Flooring Products

Prepared 3/20

Armstrong Flooring, Inc.  
P. O. Box 3025  
Lancaster, PA 17604  
[www.floorexpert.com](http://www.floorexpert.com)  
Technical Services:  
1-800-233-3823

## XI. SPECIAL HANDLING AND USE INFORMATION

VENTILATION: N/A. RESPIRATORY PROTECTION: N/A.  
SKIN AND EYE PROTECTION: N/A.

## XII. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: N/A. OTHER PRECAUTIONS: N/A.

## XIII. WARNING

### FOR PREVIOUSLY INSTALLED FLOOR COVERING

DO NOT SAND, DRY SCRAPE, BEADBLAST, OR MECHANICALLY PULVERIZE EXISTING RESILIENT FLOORING, BACKING OR LINING FELT. THESE PRODUCTS MAY CONTAIN EITHER ASBESTOS FIBERS OR CRYSTALLINE SILICA. POSSIBLE CANCER AND RESPIRATORY TRACT HAZARD BY INHALATION. AVOID CREATING DUST. SMOKING BY INDIVIDUALS WHO HAVE BEEN EXPOSED TO ASBESTOS FIBERS GREATLY INCREASES THE RISK OF SERIOUS BODILY HARM. RFCI'S (Resilient Floor Covering Institute) RECOMMENDED WORK PRACTICES FOR REMOVAL OF RESILIENT FLOOR COVERINGS ARE A DEFINED SET OF INSTRUCTIONS ADDRESSED TO THE TASK OF REMOVING ALL RESILIENT FLOOR COVERING STRUCTURES.

## XIV. NOTICE

Various government agencies have regulations governing the removal of in-place asbestos-containing materials. If you contemplate the removal of a resilient floor covering structure that contains (or is assumed to contain) asbestos, you should determine whether such regulations apply.

The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

N/A – not applicable or not available

N/K – none known or not known



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** BEHR ULTRA™ Scuff Defense™ Interior Semi-Gloss - Deep Base

**Other means of identification**

**Product number** 3753

**Recommended use** Architectural Coating

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Supplier** Behr Process Corp.  
1801 E. St. Andrew Place  
Santa Ana, CA 92705

**Telephone** 714-545-7101

**Emergency telephone** +1 760 476 3962  
+1 866 519 4752

**Access code** 335213

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The mixture does not meet the criteria for classification.

**Precautionary statement**

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	CAS number	%
Kaolin	1332-58-7	1 - 5

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The manufacturer has claimed the exact percentage as trade secret under the OSHA Hazard Communication Standard.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**

Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed**

Treat symptomatically.

**General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. Fire-fighting measures**

**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**

During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**

Move containers from fire area if you can do so without risk.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

No unusual fire or explosion hazards noted.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

**Environmental precautions**

**7. Handling and storage**

**Precautions for safe handling**

Avoid prolonged exposure. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.



**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	2 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Kaolin (CAS 1332-58-7)	TWA	5 mg/m <sup>3</sup>	Respirable.
		10 mg/m <sup>3</sup>	Total

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Skin protection</b>	
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Opaque.
<b>Odor</b>	Slight.
<b>Odor threshold</b>	Not available.
<b>pH</b>	7 - 10
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	> 99 °F (> 37.2 °C)
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.08
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Soluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.

<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	50 - 140 KU at 25°C
<b>Other information</b>	
<b>Density</b>	9.01 lbs/gal
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>VOC</b>	18 g/l (including water) (Material) 47 g/l (excluding water) (Coating)

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Prolonged skin contact may cause temporary irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Direct contact with eyes may cause temporary irritation.
---	--

### Information on toxicological effects

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.

<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
-------------------------------	--

<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.
------------------------	---

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### NTP Report on Carcinogens

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
------------------------------	--

<b>Specific target organ toxicity - single exposure</b>	Not classified.
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<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
---	-----------------

<b>Aspiration hazard</b>	Not an aspiration hazard.
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<b>Chronic effects</b>	Prolonged inhalation may be harmful.
------------------------	--------------------------------------

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous.
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

## 15. Regulatory information

<b>US federal regulations</b>	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are listed on or exempt from the U.S. EPA TSCA Inventory List.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Ammonium hydroxide (CAS 1336-21-6) Listed.
<b>SARA 304 Emergency release notification</b>	Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not listed.
<b>Toxic Substances Control Act (TSCA)</b>	
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>SARA 302 Extremely hazardous substance</b>	Not listed.
<b>SARA 311/312 Hazardous chemical</b>	No
<b>SARA 313 (TRI reporting)</b>	Not regulated.
<b>Other federal regulations</b>	
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.





# BEHR ULTRA® SCUFF DEFENSE™ Interior Semi-Gloss Enamel

- Stain-Blocking Paint & Primer<sup>◇</sup>
- Advanced Scuff & Mar Resistance
- Exceptional Burnish Resistance, Easy-Clean Finish
- Outstanding Durability for Busy High-Traffic Areas

- Antimicrobial-Mildew Resistant Paint Finish
- Lifetime Warranty\*
- Low VOC, 100% Acrylic

- No. 3750 Ultra Pure White<sup>®\*\*\*</sup>
- No. 3753 Deep Base
- No. 3754 Medium Base

<sup>◇</sup>A PRIMER COAT MAY BE NEEDED ON SOME SURFACES. SEE BACK LABEL FOR DETAILS.



1 Hr Dry Time  
2 Hr Recoat Time



250-400 Sq. Ft.  
Coverage



Soap & Water  
Clean-Up



Protect  
from Freezing

FOR TINT BASES – DO NOT USE WITHOUT THE ADDITION OF TINTING COLORANTS

BEHR ULTRA® Scuff Defense™ offers a 100% acrylic stain-blocking paint & primer formula incorporating the breakthrough innovative Scuff Defense Technology, while delivering a STAYS LOOKING NEW LONGER® Finish for excellent durability.

## WHERE TO USE

Properly prepared coated and uncoated Interior surfaces. Ideal for Family Rooms, Living Rooms, Dining Rooms, Bedrooms, Hallways and Ceilings.

## PREPARATION & PRIME

All surfaces should be properly prepared and cleaned. Remove loose paint, wash off dirt and grease with detergent, rinse and allow to dry. Remove mildew stains with a mildew stain remover. Scuff sand glossy surfaces and repair imperfections. Remove all dust with a damp cloth, allow to dry. Allow new stucco, plaster and masonry to cure for 30 days before painting. Use BEHR ULTRA® Paint as a primer for properly prepared uncoated or painted interior surfaces, including woods that contain tannins (two primer coats required for redwood and cedar) and heavily stained areas. Lock in stains with BEHR ULTRA Paint as a spot primer. For heavy stains, test for stain bleed-through by applying BEHR ULTRA Paint to a small section. If the stain bleeds through, spot prime another coat to the stained area and test again before topcoating. If bleeding continues, a longer dry time is needed before topcoating. For drastic color changes or when applying deep colors denoted with a dagger (†) on the color chip, apply a tinted primer coat of BEHR ULTRA Paint if needed.

## APPLICATION

Apply when air and surface temperatures are between 50-90°F (10-32°C). Stir paint occasionally. Intermix containers of same product to ensure color and sheen uniformity. Use a high quality 3/8-1/2" nap roller cover, nylon/polyester brush or an airless sprayer (.015 - .019" spray tip, 60 mesh filter). Do not thin if using a roller or brush; however, if using a sprayer and thinning is required, thin with water at a rate of no more than 1/2 pint per gallon. Certain colors may require additional coats for complete hide. Darker colors may require additional dry time between coats. Cooler temperatures or higher humidity may prolong drying time. After 4 weeks, cured paint film may be cleaned with a mild, non-abrasive liquid detergent. Dry paint film is mildew resistant. Do not use on floors.

## DISPOSAL

For disposal of empty containers, unused paint and soiled rags, contact your household refuse collection service.

Visit [Behr.com](http://Behr.com) for painting tips, expert project advice and the perfect color coordination with the ColorSmart by BEHR® Tool.

**WARNING!** If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. Contact the National Lead Information Center at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

**\*LIFETIME LIMITED WARRANTY** Behr Process Corporation warrants to the original residential consumer purchaser the performance of this product as described on this label for so long as you reside in your home. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT PROPERLY APPLIED TO A PROPERLY PREPARED SURFACE OR CARED FOR IN ACCORDANCE WITH THE LABEL DIRECTIONS. This warranty is not transferable. If this product is found not to perform as specified upon inspection by our representative during the warranty period, Behr Process Corporation will, at its option and upon presentation of proof-of-purchase (the original receipt), either furnish an equivalent amount of new product or refund the original purchase price of this product to you. **This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

To consult with a Behr Paint Company Representative, call 1-800-854-0133 Ext. 2 (U.S.A. only).

**⚠ WARNING** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**WARNING! CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION.** Avoid contact with skin and eyes and avoid breathing vapors, spray mist and sanding dust. Sanding, grinding or abrading may release sanding dust, which may be harmful if inhaled and has been shown to cause lung damage or cancer with long term exposure. Do not breathe the dusts, vapor, or spray mist. To avoid breathing in dust, vapors, and spray mist, open windows and doors or use other means to ensure fresh air entry during application, drying, sanding, and/or abrading. If properly used, a respirator (NIOSH approved with particulate pre-filter) may offer additional protection and should be used if adequate ventilation cannot be provided; obtain professional advice before using. If you experience eye watering, headaches, or dizziness during application or drying, increase fresh air or leave the area. Avoid contact with eyes and skin. Wash thoroughly after handling. Close container after each use.

**FIRST AID:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 20 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately.

**CAUTION: KEEP OUT OF REACH OF CHILDREN - DO NOT TAKE INTERNALLY.**



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V.O.C. (C.O.V.) <50 g/L • REV: 09/20

\*\*Contains Ethylene Glycol



## BEHR PREMIUM PLUS® Interior Semi-Gloss Enamel

No. 3050 ULTRA PURE WHITE®  
No. 3052 White  
No. 3012 Swiss Coffee  
No. 3300 Deep Base  
No. 3400 Medium Base

- Paint & Primer<sup>◇</sup>
- Excellent Hide
- Resists Dirt & Grime
- Durable, Long-Lasting Finish
- Mildew Resistant Finish
- Low Odor
- 100% Acrylic
- Lifetime Warranty\*
- Zero VOC

- This product, like most Zero VOC paints, emits very low amounts of VOCs.
- Most emissions occur during painting and for 48 hours after. Some continue for two weeks or longer.
- While VOC emissions are very low, sensitive groups such as babies and asthma/allergy sufferers should minimize exposure.

<sup>◇</sup> A primer coat may be needed on some surfaces. See back label for details.



1 Hr Dry Time  
2 Hr Recoat Time



250-400 Sq. Ft.  
Coverage per Gallon



Soap & Water  
Clean-Up



Protect  
from Freezing

FOR TINT BASES – DO NOT USE WITHOUT THE ADDITION OF TINTING COLORANTS

### WHERE TO USE

For high traffic/high moisture areas. Ideal for Kids' Rooms, Hallways, Kitchens, Bathrooms, Doors, Windows, Trim, Cabinets, Shutters and Interior Furniture.

### PREPARATION

All surfaces should be properly prepared and cleaned. Remove loose paint, wash off dirt and grease with detergent, rinse and allow to dry. Remove mildew stains with a mildew stain removing product. Scuff sand glossy surfaces and repair imperfections. Remove all dust with a damp cloth, allow to dry. Allow new stucco, plaster and masonry to cure for 30 days before painting.

### PRIME

Use BEHR PREMIUM PLUS® Paint as a primer over properly prepared coated or uncoated surfaces. For stain-blocking, or over oil-based or glossy surfaces, use a product such as BEHR® KITCHEN, BATH & TRIM STAIN-BLOCKING PRIMER & SEALER No. 75. For optimal color development, better hide, and to reduce the number of topcoats with deep colors denoted with a dagger (†) on the color chip, apply a custom tinted primer coat of BEHR PREMIUM PLUS Paint. Prime all metal surfaces before painting.

### APPLICATION

Apply when air and surface temperatures are between 50–90°F (10–32°C). Stir paint occasionally. Intermix containers of same product to ensure color and sheen uniformity. Use a high quality 3/8–1/2" nap roller cover, nylon/polyester brush or airless sprayer (.015–.019" spray

tip, 60 mesh filter). Do not thin if using a roller or brush; however, if using a sprayer and thinning is required, thin with water at a rate of no more than 1/2 pint per gallon. Certain colors may require more than one coat for complete hide. Darker colors may require additional dry time between coats. Cooler temperatures or higher humidity may prolong drying time. After 4 weeks, cured paint film may be cleaned with a mild, non-abrasive liquid detergent. Dry paint film is mildew resistant.

### DISPOSAL

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# BEHR PREMIUM® Cabinet, Door & Trim Enamel Interior/Exterior Semi-Gloss

No. 7120 White  
No. 7123 Deep Base

- Door Won't Stick After 2 Hours of Dry Time\*
- Excellent Flow & Leveling
- Dries to a Hard, Durable Finish
- Easy Clean Surface
- Resists Dirt, Grime & Household Chemicals
- All-Weather Protection
- Sandable
- Soap & Water Clean-Up
- Mildew-Resistant Paint Finish



**2 Coats Required**  
for Optimal Durability



**Spread Rate:**  
Up to 400 sq ft  
Coverage



**Dry Time:**  
1 Hr. Dry to Touch  
2 Hr. Recoat



**Clean-Up:**  
Soap & Water

**WHITE: READY TO USE OR ADD TINTING COLORANTS.**

**DEEP BASE: DO NOT USE WITHOUT THE ADDITION OF TINTING COLORANTS.**

**PROTECT FROM FREEZING.**

## WHERE TO USE

Interior or exterior wood, drywall, masonry, vinyl, aluminum, and other properly prepared and primed surfaces. Ideal for cabinets, doors, trim, molding, windows & shutters.

## SURFACE PREPARATION† (Proper Surface Preparation Is Required.)

- All surfaces must be clean, sound, dry and free of any dirt, oil and grease stains.
- Remove mildew stains with a mildew stain removing product.
- **Interior Wood Trim, Door & Cabinets:** Remove all loose and peeling paint; scuff sand glossy surfaces; caulk and repair imperfections. Sand all wood surfaces in the direction of the wood grain to the desired smoothness. Remove all dust from sanded surfaces with a damp, lint-free cloth.
- **Exterior Wood:** Use a product such as BEHR PREMIUM® No. 63 All-In-One Wood Cleaner. Thoroughly rinse the treated surfaces with clean water and allow to dry before any paint application.
- **Interior/Exterior Concrete & Masonry:** Allow new stucco, plaster and masonry to cure for 30 days. Use a concrete & masonry degreaser & cleaner to clean and prepare the surface. Powerwash to remove chalk on exterior surfaces.
- **Interior/Exterior Metal:** Etch galvanized metal.
- For primed surfaces, sand primer coat prior to topcoating for best results.

## PRIME

- Priming is recommended over all properly prepared coated or uncoated surfaces.
- For all interior surfaces, use a product such as BEHR® Kitchen, Bath & Trim Interior Stain-Blocking Primer & Sealer No. 75.
- For all exterior surfaces, use a product such as BEHR Acrylic-Alkyd Enamel Undercoater No. 437 or BEHR Multi-Surface Interior/Exterior Stain-Blocking Primer & Sealer No. 436.
- Follow all label instructions.

## APPLICATION

- DO NOT THIN.
- Stir before and during application.
- When working with more than one can of the same product, intermix to ensure color uniformity.
- Certain colors may require 2 or more coats to achieve complete hide.
- Apply when air temperature is between 50–90° F.
- Brush: Apply a thin coat using a high quality synthetic brush. For best results, apply paint with a high quality 100% Nylon brush.
- Roller: Use a high quality 1/4" nap roller cover.

- Airless Sprayer: .013"–.015" spray tip, 60 mesh filter.
- **OPTIONAL:** In between coats, sand lightly with 320-400 grit sand paper.
- **NOTE:** If touch-up is necessary, same application method is recommended.

## DRY TIME

- \*Darker colors may require additional dry time. Longer dry time required in cooler temperatures and higher humidity.
- Cabinets, doors and windows can be closed as early as 2 hours after final topcoat.
- After 2 weeks, cured paint film may be cleaned with a mild, non-abrasive liquid detergent. Dry paint film is mildew resistant.
- Do not use on floors.

## DISPOSAL

- Properly dispose of all soiled rags.
- For disposal of empty containers and unused product, contact your household refuse collection service.
- To reduce waste, consult with your retailer or an online paint calculator to determine the correct amount of paint to purchase.

## LIMITED WARRANTY

- Visit [www.behr.com/warranty](http://www.behr.com/warranty) or call 1-800-854-0133 Ext. 2 for more information.

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Sanding, grinding or abrading may release sanding dust, which may be harmful if inhaled and has been shown to cause lung damage or cancer with long term exposure. Do not breathe dusts, vapor, or spray mist. To avoid breathing in dust, vapors, and spray mist, open windows and doors or use other means to ensure fresh air entry during application, drying, sanding, and/or abrading. If properly used, a respirator (NIOSH approved with particulate pre-filter) may offer additional protection and should be used if adequate ventilation cannot be provided; obtain professional advice before using. If you experience eye watering, headaches, or dizziness during application or drying, increase fresh air or leave the area. Avoid contact with eyes and skin. Wash thoroughly after handling. Close container after each use. **FIRST AID:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 20 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately.

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# BEHR PRIMER COATINGS® Interior Kitchen, Bath & Trim Stain-blocking Primer & Sealer

No. 75 White

- Blocks Medium to Heavy Stains
- Sticks to Glossy Surfaces
- Recommended for Use Under Higher Sheen Paints
- High-Hide White
- Quick Recoat Time
- Low Odor
- Mildew Resistant Finish
- 100% Styrene Acrylic
- Tintable up to 4 oz. of Colorant per Gallon
- Zero VOC

- This product, like most Zero VOC paints, emits very low amounts of VOCs.
- Most emissions occur during painting and for 48 hours after. Some continue for two weeks or longer.
- While VOC emissions are very low, sensitive groups such as babies and asthma/allergy sufferers should minimize exposure.



**30 Min** Dries to Touch  
**1 Hr** Ready to Topcoat



**250-400** Sq. Ft.  
Coverage per Gallon



**Soap & Water**  
Clean-Up



**Protect**  
from Freezing

## WHERE TO USE

Over properly prepared uncoated and previously painted interior surfaces. Ideal for Drywall, Galvanized Metal, Vinyl, Aluminum, Wood, Concrete, and on glossy surfaces or oil-based paint. Works under all sheens; recommended under SATIN, SEMI-GLOSS and HI-GLOSS paint.

## PREPARATION

All surfaces should be properly prepared and cleaned. Remove loose paint, wash off chalk, dirt, and grease with detergent, rinse and allow to dry. Remove mildew stains with a mildew stain removing product. Scuff sand glossy surfaces and repair imperfections. Remove all dust with a damp cloth, allow to dry. Allow new stucco, plaster and masonry to cure for 30 days before priming.

## APPLICATION

Apply when air and surface temperatures are between 50-90° F (10-32° C). Use a high quality 3/8-1/2" nap roller cover, nylon polyester brush or an airless sprayer (.015-.019" spray tip, 60 mesh filter). Stir occasionally. Do not thin if using a roller or brush; however, if using a sprayer and thinning is required, thin with water at a rate of no more than 1/2 pint per gallon. Spot prime patched areas first, follow with a complete primer coat. Heavy stains may require two coats. On stained surfaces, topcoat in 4 hours; for heavy stains, topcoat in 16 hours. Bright or deep colors require a tinted primer. Have primer tinted close to topcoat color with no more than 4 ounces of colorant per gallon.

## DISPOSAL

For disposal of empty containers, unused paint and soiled rags, contact your household refuse collection service.

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To consult with a Behr Certified Coatings Professional, call 1-800-854-0133 Ext. 2 (U.S.A. only).

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**WARNING! IRRITANT! HARMFUL IF SWALLOWED. MAY CAUSE EYE, NOSE AND THROAT IRRITATION. AVOID CONTACT WITH SKIN AND EYES AND AVOID BREATHING OF VAPORS AND SPRAY MIST. WEAR EYE PROTECTION AND PROTECTIVE CLOTHING. USE ONLY WITH ADEQUATE VENTILATION.** To avoid breathing vapors and spray mist, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches or dizziness, increase fresh air. If properly used, a respirator (NIOSH approved for organic vapor with P series particulate pre-filter) may offer additional protection; obtain professional advice before using. A dust mask does not provide protection against vapors. Avoid contact with eyes and skin. Wash thoroughly after handling. Close container after each use. **FIRST AID:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately.

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## **URBAN MANUAL DOUBLE MANUAL SHADE**

**MANUAL MECHOSYSTEMS DOUBLE SHADE. (VERIFY FINAL SIZES)(TYPICAL) SOHO COLLECTION 1600 SERIES (3% OPEN); COLOR:TBD BY CITY TV:12%, AND MIDNIGHT B/O 0211 CHALK. INCLUDES FASCIA (CITY TO SELCT COLOR), END CAPS (CITY SELECT COLOR), ETC.**

# MANUAL SHADE SOLUTIONS



Mecho has been the leader in the commercial shading industry for more than 50 years. Our passion is innovation and the pursuit of helping architects and designers achieve better performance for building occupants while improving design aesthetics.

Our innovative technology allows our manual shading systems to lift larger, heavier shades and provides a consistent, nearly effortless user experience.

If you want the best, work with the best.



## The Ideal Manual Shading Solution for Every Industry

Mecho offers exceptional manual shade systems that meet both the aesthetic and functional needs of any environment.

### Hospitality

- Clean, contemporary look integrates into any décor
- Wide assortment of available shade cloths
- Durable and easy to clean

### Corporate

- Meets the aesthetic and functional needs of office environments.
- Flexible applications. Easily lift large and small shades
- Increases employee morale through the control of brightness and glare
- Significant reduction in solar heat gain

### Multi-Family

- Control daylight while retaining view
- Energy savings from reduced lighting and cooling costs
- Performance-proven, durable solutions for shading requirements
- Uniform aesthetic in windows or along curtain-wall

### Healthcare

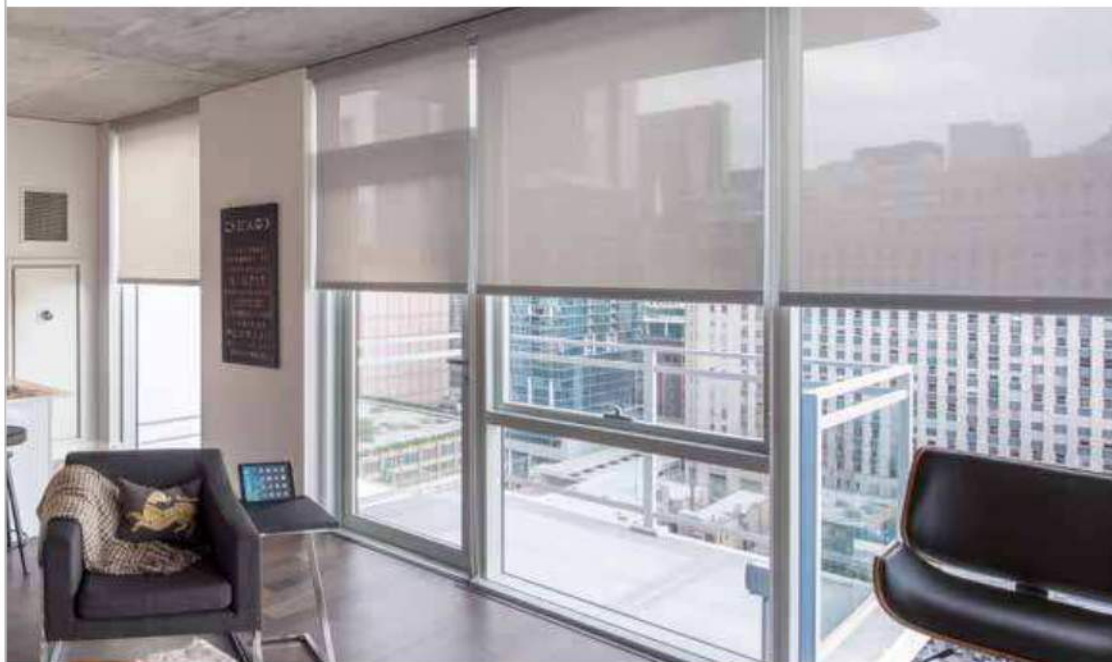
- The reduced pull force makes it ideal for senior living or patients with compromised capabilities

> [mechoshade.com/solutions/#industry](https://mechoshade.com/solutions/#industry)

## Energy Efficient, View-Preserving Shades

Get exterior views and performance driven daylight management, all while reducing solar gain and filtering out harmful UV rays with manual shades from Mecho.

Studies have shown that controlled daylight improves building occupant's overall health, job satisfaction, performance, and well-being. A Mecho manual shade system provides maximum daylight for occupant comfort and productivity while controlling the unwanted effects of solar heat gain and glare. Mecho offers proprietary shade cloth that range from opaque to transparent in a wide variety of colors.



## Performance + Reliability + Versatility

Our patented shade systems work in standard commercial window applications and perform exceptionally well with large or multi-banded shades. Larger shades and multi-banded shade systems preserve design intent by reducing the number of pull chains and light gaps creating a superior design aesthetic.

Mecho offers the most comprehensive daylighting and room-darkening solutions available in a chain-driven system.



### Cradle to Cradle Certified Shade System

When installed with EcoVeil, EcoVeil Sheer, or AcoustiVeil shade cloth, Mecho's manual shade systems are a Cradle to Cradle Bronze certified solution. This can also contribute points toward a building's LEED or WELL certification.



### Enhance Building Sustainability

Architects and designers consistently turn to Mecho to achieve performance, quality, and comfort while helping building designs meet the U.S. Green Building Council's LEED and WELL Rating Systems.

> [mechoshade.com/sustainability](http://mechoshade.com/sustainability)



### Custom Printed Shades

Mecho's customized, printed shade cloth that allows you to add photography, logos, artwork or messaging to most of our shade cloths.



Custom printed shades are a powerful alternative to the standard signage of point-of-purchase and store windows.

An outstanding marketing opportunity—all with the additional features and benefits of a Mecho solar shade!

> [mechoshade.com/customprintedshades](http://mechoshade.com/customprintedshades)

## Why Mecho Manual Shades?

Mecho is the premier solution for state-of-the-art manual shading systems. Our commitment to environmentally responsible, human-centric design, and energy-saving products is recognized as the preferred solution provider to the architecture and design community.



### Strong

In most cases, our innovative, patented technology allows our manual shading systems to lift larger, heavier shades than our competition and provide a consistent, nearly effortless user experience.

### Durable

Field-tested and performance-proven reliability from hundreds of thousands of installations make our manual shades ideal for commercial applications. Engineered components throughout increase the overall lift capacity and efficiency of our shades

### Flexible

Our Manual shade systems are engineered to provide flexible design configurations needed to allow natural daylight into a building and preserve outside views while blocking unwanted solar heat gain and glare.

Available in a single or double shade or multi-banded configurations. Our manual shade systems incorporate any of Mecho's hundreds of proprietary solar shade cloths to provide an aesthetically pleasing, complete solar control solution. Mecho is the only manufacturer to actively promote and spec manual multi-band shades

## Shade Cloth

Choose from hundreds of expertly-engineered shade cloth options for an aesthetically pleasing daylight control solution



### Soho Elavate

Powered by PROTX2®, this shade cloth provides an additional layer of performance with patent-pending, medical-grade, metal-free technology.

### Chelsea Blackout

This PVC-free fabric combines a fine fabric with solid, graphite or white-colored backing to create a shade cloth that is opaque and attractive from interior and exterior viewpoints.

### EcoVeil Sheer

Inherently flame-retardant shade cloth that is ideal for educational, residential, healthcare, and other health-focused spaces

### SoHo

Basket weave shade cloth woven with fine polyester yarns, available in 14 distinct, designer-selected colors and three densities

Order Free Swatches

> [mechoshade.com/swatches](http://mechoshade.com/swatches)

## Multi-Band Applications

For multi-banded applications, Mecho's adjustable shade coupler is included to speed the installation process and ensure precise, even and consistent shade heights and eliminate hembar misalignment.

## Mecho/7

Mecho/7's breakthrough, patented technology allows it to lift larger, heavier commercial grade shades while still providing the same consistent user experience and breath of features as the Mecho/5x.



### Lift Larger Shades

Mecho/7 can now lift shades covering up to 30' of glass. This improves design aesthetic and user experience by eliminating multiple chain pulls and reducing light gaps.

### Upgraded Durability

Mecho/7 has been designed with a shock-absorbing urethane bumper to prevent shade down-time caused by chain breakage.

### Manual to Motorized Shades

Mecho/7 offers the flexibility to change based on project needs or budgets. Allowing for a simple and cost-effective upgrade scenario.

## Mecho/5x

Our innovative, patented technology provides a consistent, nearly effortless user experience. Mecho/5x is the first innovation on the clutch that started the commercial shade industry.



### Different Shades,

### Similar User Experience

Mecho/5x allows for multi-banded shades, including 5 bands, up to 240" wide (depending on fabric weight) and single shades up to 180" wide.

### ADA Compliant

No matter the size of the shade, the pull force is within ADA standards, something that our competitors cannot say about their shades.

### Greater Pull Angle on Chain

Increased angle on shade pull chain to avoid window obstructions + furnishings

## UrbanShade

UrbanShade is a cost-effective commercial solution especially geared for single-banded shades. It is easily installed with its compact design and providing unmatched flexibility to manage daylight.



### Compact, Versatile Design

Engineered to provide flexible design configurations, UrbanShade has a small form factor that reduces impact on punched windows and pocket-constrained curtain walls

### Field Upgradeable

UrbanShade can be converted from a manual to a motorized system, in the field, by merely replacing the control head.

### Available with an Embedded Battery Motor

No wiring for installers, minimal maintenance for users. UrbanShade with embedded battery motor is easy to install and flexible to control!

**CEILING MOUNT OCCUPANCY SENSOR  
CMR PDT 10**

Catalog Number:

Date:

Project:

**OVERVIEW**

The CMR 10 Series incorporates Passive Infrared (PIR) technology into an attractive and economical line powered sensor to provide maximum viewing from the ceiling. When mounted at 9 ft (2.74 m), this sensor views up to 28 ft (8.53 m) in all directions. Its circular coverage pattern is designed for walking motions; making it ideal for T-shaped intersections in corridors, or other areas where wall mounting a sensor is not practical. Low ceiling heights are also best covered with the CMR 10. For example, when mounted at only 7 ft (2.13 m), the height of pick aisles in many distribution centers, the CMR 10 provides a 32 ft (9.75 m) diameter pattern of coverage. For detection of minor motion is also required, the CMR PDT 10 Series Dual Technology sensor is recommended. With optional flash programming via the Sensor Switch VLP mobile device application, the user can easily change time delay, on mode and photocontrol settings.

**FEATURES**

- Push- button programmable, adjustable time delays, and multiple operating modes
- 100 hr lamp burn-in timer
- No field calibration or sensitivity adjustments required

**Warranty**

Five-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/support/customer-support/terms-and-conditions](http://www.acuitybrands.com/support/customer-support/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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**CMR 10  
CMR PDT 10**  
*Extended Range 360° Sensor*



**ORDERING INFORMATION**

CMR 10		Example: CMR 10 ADC LT	
<b>Series</b>	<b>Detection Technology</b>	<b>Coverage Type</b>	<b>Relay</b>
CMR Ceiling Mount Sensor	[blank] PIR PDT <sup>1</sup> Dual Technology (PIR/ Microphonics)	10 Large Motion 360°	[blank] Single Relay 2P <sup>1</sup> Dual Relays
<b>Control Type</b>	<b>Voltage</b>	<b>Visible Light Programming</b>	<b>Temp / Humidity</b>
[blank] None D <sup>1 2</sup> Occupancy Controlled Dimming DZ <sup>1 3</sup> Dual Zone Photocell P Photocell ADC <sup>1 2</sup> Photocell w/ Dimming	[blank] 120/277 VAC 347 347 VAC	[blank] none VLP <sup>2 4</sup> Visible Light Programming	[blank] Standard LT Low Temp/ High Humidity

1. Not available with 480 option.
2. Not available with 2P option.
3. Not available with single relay option.
4. Requires PDT.

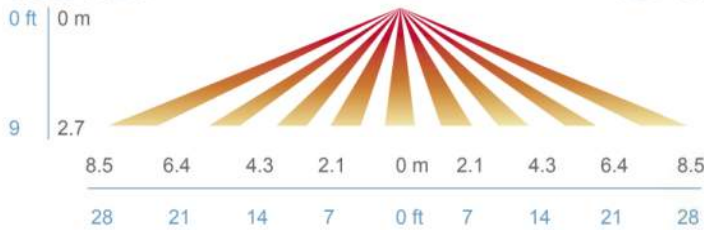


# COVERAGE PATTERN

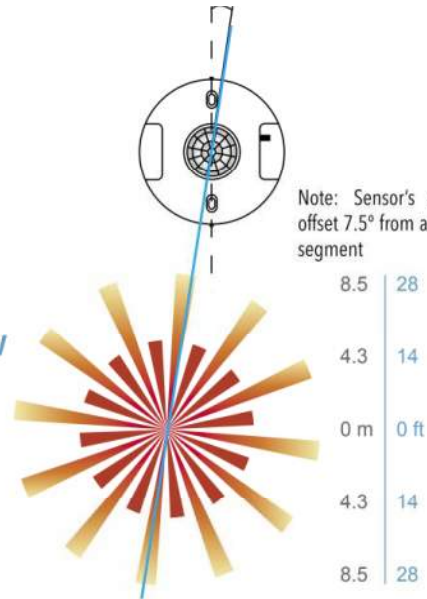
## EXTENDED RANGE 360° LENS

- Best choice for large motion detection (e.g. walking)
- Viewing angle of 67° in a 360° conical shaped pattern
- Provides 28 ft (8.53 m) radial coverage when mounted to standard 9 ft (2.74 m) ceiling
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage

### SIDE VIEW



### TOP VIEW



## TYPICAL WIRING SINGLE RELAY

### STANDARD WIRING

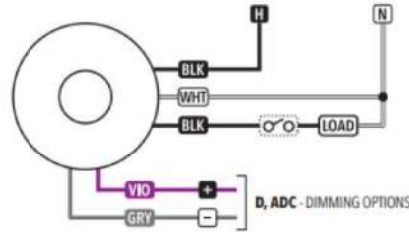
- BLACK\*** - Line Input
  - BLACK\*** - Load Output
  - WHITE** - Neutral
- \*BLACK wires can be reversed

### 347 VAC OPTION (347)

Black wires are replaced w/ Red wires

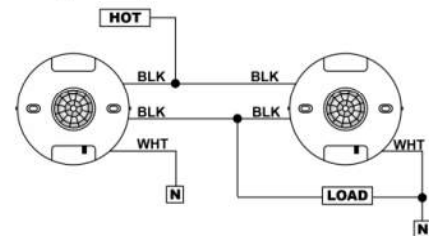
### DIMMING OPTIONS (D, ADC)

- VIOLET** - Connect to Violet control wire from 0-10 VDC dimmable ballast
- GRAY** - Connect to Gray common wire from ballast



### SENSORS IN PARALLEL

Sensors may be wired in parallel; however, the maximum load ratings stay the same. Do not wire sensors with P or ADC option in parallel.



### INITIAL POWER UP

The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

**Note:** If the sensor loses power, the internal relay will latch to on.

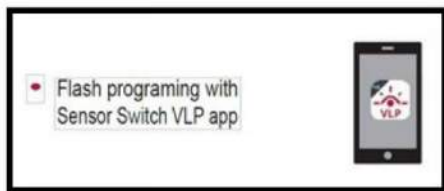
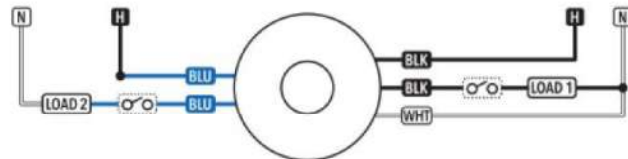
## TYPICAL WIRING DUAL RELAY

### STANDARD WIRING

- BLACK\*** - Line Input 1
  - BLACK\*** - Load Output 1
  - BLUE\*\*** - Line Input 2
  - BLUE\*\*** - Load Output 2
  - WHITE** - Neutral
- \*BLACK wires can be reversed  
\*\*BLUE wires can be reversed

### 347 VAC OPTION (347)

Black wires are replaced w/ Red wires



## SPECIFICATIONS

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### Electrical

**Input Ratings** 120/277V, 80 mA, 50/60Hz  
347V, 80 mA, 50/60Hz  
480V, 80 mA, 50/60Hz

**Output Ratings** 120V, 800W/6.67A - Tungsten, Ballast  
120V, 5A - General Purpose  
277V, 1200VA/4.3A - Ballast  
347V, 4.3A - General Purpose  
480V, 5A - General Purpose  
125V, 1/4HP - Motor

**Relay Type** Latching

**Low Voltage Output Ratings** 0-10VDC, Sinks <20mA

**Class Rating** 0-10V Dimming can be wired Class 1 or 2; Do not include if only Class 1

**Standards/ Ratings** Energy Management Equipment, UL916 (E167435)

---

### Mechanical

**Dimensions** 4.55"W x 1.55"D (116mm x 40mm)

**Mounting** Single-Gang or Octagonal Box, Surface Mount

**Color** White

**Finish** Matte

**Connection Type** Line Voltage Leads

---

### Environmental

**Warrantied Operating Temperature:** Standard: 14°F to 140°F (-10°C to 60°C)  
LT Option: -4°F to 140°F (-20°C to 60°C)

**Relative Humidity** Up to 90%, Non-Condensing

**Environment** Indoor

**Standards/ Ratings** RoHS

---

Catalog Number:

Date:

Project:

**OVERVIEW**

The CMR(B) PC Series of On/Off Photocell sensors provide the industry's most intelligent control of lighting for daylight harvesting applications. Ideal for public spaces with windows like vestibules, corridors, or bathrooms; the sensors work by monitoring daylight conditions in a room, then controlling the lighting so as to insure that adequate lighting levels are maintained. The CMR(B) PC has on/off lighting control; turning off the lights when sufficient daylight is present and turning them on when additional lighting is necessary. The CMR(B) PC Series sensors are line powered and can switch loads directly without the need for a power pack. The CMR version sensors are ceiling mounted, while the CMRB versions are specifically designed to mount on the end of a linear fluorescent fixture. To add dimming control to the on/off control provided by the CMR(B) PC, see the data sheet on the CMR(B) PC ADC sensor.

**FEATURES**

- Self-Contained Relay, no Power Pack needed
- Capable of finding optimum set-point
- Digitally Programmable via simple push-button commands
- No minimum Load Requirements
- 100 Hour Lamp Burn-in Timer Mode

**Warranty**

Five-year limited warranty. Complete warranty terms located at:  
[www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice



*CMR PC  
CMRB PC  
On/Off Photocell Sensor*



**ORDERING INFORMATION**

CMR PC/CMRB PC		Example: CMRB PC DZ LT	
Series	Dual Zone	Voltage	Temp/Humidity
CMR PC On/Off Photocell Sensor Ceiling Mount, Line Voltage	[blank] Single Zone DZ <sup>1</sup> Dual Zone	[blank] 120/277 VAC 208 208/240 VAC 347 347 VAC 480 480 VAC	[blank] 14° to 160°F LT -40° to 160°F
CMRB PC On/Off Photocell Sensor Fixture Mount, Line Voltage			

Notes  
1. Not available with 208 or 480 option



## OVERVIEW

### LIGHT LEVEL SET-POINT

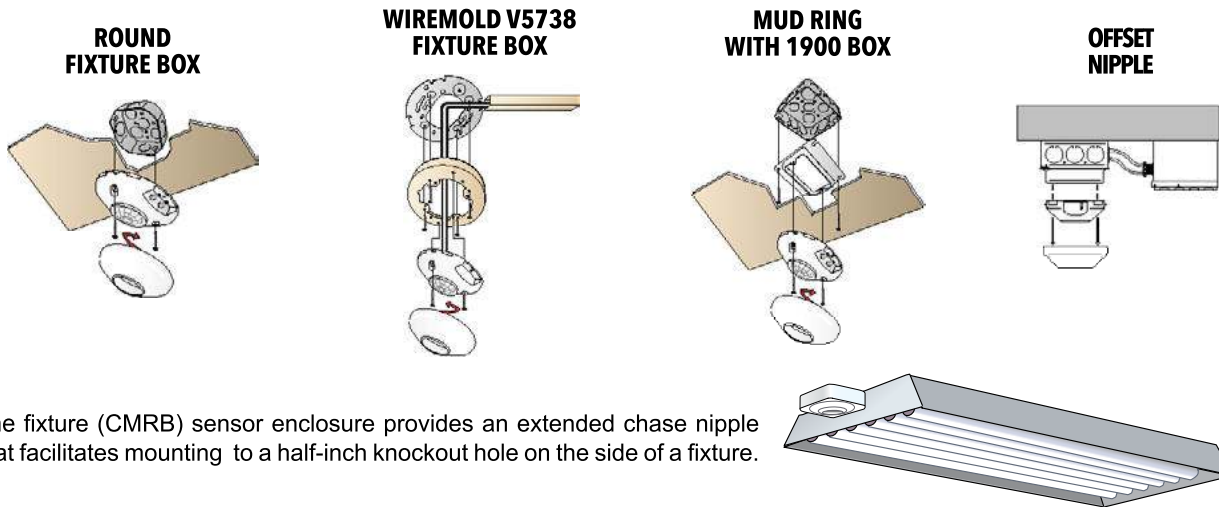
The sensor functions by comparing the amount of daylight available with a defined acceptable lighting level. This threshold, called the set-point, is utilized in all daylight harvesting lighting control decisions. The sensor can find its optimum set-point via the **Automatic Set-Point Programming** mode. In this mode, the sensor sets the minimum light level to be the amount contributed by the artificial lights being controlled. It is assumed that the space is properly lit by design, however, if this is not the case the set-point may be easily adjusted to the occupant's preferences. All modes and settings are entered digitally via a push button sequence. Once programmed, the exact value of the set-point (in foot candles) can be read out from the sensor via a series of LED flashes.

### DIGITAL SET-POINT CONTROL

Each sensor contains a microcontroller that enables the user to engage the Automatic Set-Point Programming mode or to manually set / adjust the set-point. The manual process involves calculating and inputting the exact foot-candle value of the desired set-point into the sensor. It is important to note that the set-point is the light level required at the face of the sensor and that this value will be much different than the level required at a work surface. Typically, light levels at the ceiling are 3 to 5 times less than the work surface. For example, if 50 fc is desired at the work surface, the sensor should be set at 10 fc. For best results, measure the levels at both locations using a foot-candle meter before programming the set-point.

## INSTALLATION

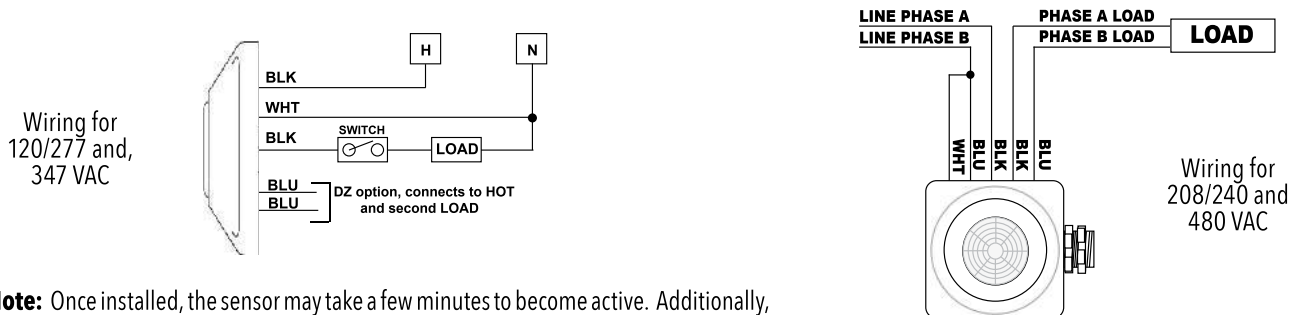
The ceiling (CMR) sensor enclosure accommodates mounting to a variety of junction boxes ranging in size from a single gang mud ring at a 3.28" spacing, up to a round fixture box spacing of 3.5".



The fixture (CMRB) sensor enclosure provides an extended chase nipple that facilitates mounting to a half-inch knockout hole on the side of a fixture.

## WIRING (DO NOT WIRE HOT)

The sensor uses Sensor Switch's patented reversible wiring; black to hot and black to load (DZ, 208, and 480 option adds a pair of blue wires for the second zone or phase). For 120, 277, and 347 VAC the white wire connects to neutral. For 208 and 480 VAC version the white wire connects to either the phase 1 or phase 2 line input. Black wires are replaced with red wires for 347 VAC.



**Note:** Once installed, the sensor may take a few minutes to become active. Additionally, there is a 45 second delay before switching from off to on (this delay is 55 seconds when connected to 50 Hz).

## SPECIFICATIONS

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### Electrical

**Input Ratings** 120/277V, 80 mA, 50/60Hz  
347V, 80 mA, 50/60Hz  
480V, 80 mA, 50/60Hz

**Output Ratings** 120V, 800W/6.67A - Tungsten, Ballast  
120V, 5A - General Purpose  
277V, 1200VA/4.3A - Ballast  
347V, 4.3A - General Purpose  
480V, 5A - General Purpose  
125V, 1/4HP - Motor

**Relay Type** Latching

**Low Voltage Output Ratings** 0-10VDC, Sinks <20mA

**Class Rating** 0-10V Dimming can be wired Class 1 or 2; Do not include if only Class 1

**Standards/ Ratings** Energy Management Equipment, UL916 (E167435)

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### Mechanical

**Dimensions** 4.55"W x 1.55"D (116mm x 40mm)

**Mounting** Single-Gang or Octagonal Box, Surface Mount

**Color** White

**Finish** Matte

**Connection Type** Line Voltage Leads

---

### Environmental

**Relative Humidity** Up to 90%, Non-Condensing

**Environment** Indoor

**Standards/ Ratings** RoHS



# ecobee EMS Si



## Uncover big savings with EMS Si: the most cost-effective energy management solution

Heating and cooling account for up to 63% of light-commercial energy usage, and the US EPA suggests that 30% of energy used in these facilities is wasted. With ecobee, you can monitor and control your commercial building's HVAC system and automate ancillary devices—all at a fraction of the price of a Building Automation System.

### Anytime, anywhere



Manage an unlimited number of thermostats, individually or as groups, across various locations with multiple users, all from a single web portal or smartphone app.

### Quick ROI



With an average payback of less than one year, and no recurring fees - ecobee improves your bottom line year after year.

### Controlled access



Administrators have complete control of thermostat settings and can establish different permissions for building managers and other employees. Administrators can limit employee access or lock thermostats to minimize energy waste.

### Easy monitoring



ecobee's remote diagnostics and reporting tools provide insight to help you remotely identify and assess problems, reducing administration time and HVAC service costs.

### Smart, really smart



Let us do the work for you. Our intelligent algorithms use thousands of data points to optimize for comfort when a building is occupied, and save energy when it's not.

### Maximize efficiency



Apply standardized operating procedures across all locations so you're always running the right schedule in the right place at the right time.

Some of our customers:



“We chose ecobee for our Weekend’s Only Furniture stores. Right away, we saved 25-30% month over month.”  
— *Patrick Winkler, Weekends Only Furniture*

## Customer highlight

### Taco Bell Restaurants

#### Problem

With 40% of energy consumption directly related to heating and cooling equipment, Taco Bell wanted a solution that would reduce their energy footprint and operational costs, and help protect perishable food items.

#### Outcome

- 8-12% month-over-month savings
- \$1000's in food spoilage prevented with alerts from temperature sensors in freezers and refrigerators
- Significant reduction in operational costs
- Reduction in service calls with remote diagnostics and troubleshooting

“Many of the competitive products we examined just weren’t as intuitive. ecobee had it all—it was the perfect solution for our needs.”

— Dwayne Kostihá VP Operational Services, Austaco Ltd/  
DBA Taco Bell



### Easy installation

- Installation and set-up in less than one hour
- Automatically detects the local wi-fi network
- No gateway required

### Unparalleled value

- Free software upgrades
- No recurring fees
- 3-year warranty

### Peace of mind

- Automatic alerts and service reminders
- HVAC Reports for remote diagnostics and troubleshooting

## Product specifications

### Compatibility

- Conventional (2H/2C)
- Heat pump (3H/2C) incl. 1-stage auxiliary heat
- Gas, oil, electric
- Dual fuel

### Automation

Two dry contact inputs and/or 10K resistive temp sensors that can be programmed to:

- Act as the thermostat control sensor
- Monitor freezers and coolers
- Adjust the heat and or cool set temperatures
- Switch the system to occupied or unoccupied mode
- Shut down the compressor
- Turn fan on
- Disable heat

### Wire terminals

- |       |          |         |
|-------|----------|---------|
| • R2- | • W2 AUX | • Rc    |
| • R2+ | • Y2     | • G     |
| • R1- | • C      | • W O/B |
| • R1+ | • Rh     | • Y     |

### Temperature range

Set point: 45° to 92°F (7° to 33°C)  
 Display: 40° to 100°F (5° to 37°C)  
 Sensitivity: +/- 1°F (+/- 0.5°C)  
 Operating: 32° to 130°F (0° to 55°C)

### Humidity range

Display: 20% to 90% RH  
 Sensitivity: +/- 5% RH  
 Operating: 5% to 95% RH (non-condensing)

### Powering method

24VAC (3.5VA maximum)

### Connectivity & security

ecobee uses the latest encryption technologies to ensure that data is protected both in transmission and network access. The ecobee EMS Si is designed to support:

- 802.11 b/g/n wireless routers
- WEP 64, WEP 128, WPA and WPA2 encryption methods
- 168 bit SSL encryption
- DHCP (dynamic) or Static IP addressing



## FEATURES & SPECIFICATIONS

**INTENDED USE** — Suitable for applications requiring both exit sign and unit equipment. Attractive, 8" tall, streamlined design is great for above-the-door applications and other tight fits. Optional high-output version with remote lamps are ideal for emergency egress lighting. **Certain airborne contaminants can diminish integrity of acrylic and/or polycarbonate.** [Click here for Acrylic- Polycarbonate Compatibility table for suitable uses.](#)

**CONSTRUCTION** — Engineering-grade thermoplastic housing is impact-resistant, scratch-resistant and corrosion-proof. UL94V-0 flame rating. UV-stable resin resists discoloration from natural and man-made light sources.

Rugged unibody housing snaps together with no additional fasteners. Faceplate and back cover are interchangeable on housing. Positive snap-fit tabs hold faceplate securely, yet are easily removable for lamp compartment access. Universal, directional chevron inserts are easily removed and reinserted.

Uniform graphics illumination without shadows or hot spots. Letters are 6" high with 3/4" stroke, with 100 ft. viewing distance rating based upon UL924 standard.

LEDs mounted on primary circuit boards for sign illumination. Low-energy LED lamp in sign operates in normal (AC input) and emergency (DC input) modes.

Low-profile, integrated test switch/pilot light. Easily viewed bright red status indicator.

Unique track-and-swivel arrangement permits full range of direction of lamp head adjustment. Universal J-box mounting pattern. Tool-less access for maintenance. Conduit entry position on top of unit.

**U.S. Patent No. 6,848,798; 6,499,866; 6,142,648; 5,797,673; D379,373; 5,526,251; D484,272; D473,672; 5,611,163; 5,646,502.**

**OPTICS** — Twin LED lamp heads operate in emergency (DC input) mode with 12 series-parallel white LEDs in each head. Provides redundant light sources to ensure emergency lighting performance. The typical life of the exit LED lamp is 10 years.

**ELECTRICAL** — Dual-voltage input capability (120/277V). Edge connector on printed circuit board ensures long-term durability.

Current-limiting charger maximizes battery life and minimizes energy consumption. Provides low operating costs.

Short-circuit protection — current-limiting charger circuitry protects printed circuit board from shorts.

Thermal compensation adjusts charger output to provide optimum charge voltage relative to ambient temperature.

Regulated charge voltage maintains constant-charge voltage over a wide range of line voltages. Prevents over/undercharging that shortens battery life and reduces capacity.

Filtered charger input minimizes charge voltage ripple and extends battery life.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Single multi-color LED indicator to display two-state charging, test activation and three-state diagnostic test. Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection. Self-diagnostic testing for 30 seconds every 30 days, 30 minutes at 180-day interval, and 90 minutes annually. Diagnostic evaluation of LED light source, AC-to-DC transfer, charging and battery condition.

**CS**  
CONTRACTOR SELECT

Looking for Contractor Select readily available configurations? Click here to visit Contractor Select™ spec sheet or go to [www.contractorselect.com](http://www.contractorselect.com)

Catalog Number
Notes
Type



Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90-minute capacity to emergency lamps. Two-state constant-current charge maximizes battery life and automatically recharges after battery discharge. Low-voltage disconnect prevents excessively deep discharge that can permanently damage the battery. Optional high-output battery to power both local and optional LED remote lamp heads simultaneously.

**INSTALLATION** — Top, end or back mounting. Housing snaps to canopy with positive-locking tabs. Cam locking pin secures housing to canopy.

Easily removed mounting knockouts. Conduit entry knockout for 1/2" flexible conduit. J-box pattern on back panel.

**LISTINGS** — UL damp location listed standard 50°-104°F (10°-40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards.

**WARRANTY** — 5-year limited warranty. (Battery is prorated). Complete warranty terms located at [www.AcuityBrands.com/CustomerResources/Terms\\_and\\_Conditions.aspx](http://www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx).

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

### ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LHQM LED G

LHQM Family	LED Lamp type	Housing color	Letter color	Options
LHQM Stencil face, single face plate with extra face plate	LED Two 1.5W/9.6V white LED	(blank) White B Black	R Red G Green	HO High-output Ni-cad battery HO RO High-output option, less lamp heads SD Self-diagnostics
				NOM Meets Mexican standards <sup>1</sup> NOM SALIDA Salida signage (non-UL) <sup>2</sup>

Accessories: Order as separate catalog number.				
ELA Q L0309 SD	Single, LED indoor remote head, white, self-diagnostics <sup>3,4,5</sup>	ELA WG3	Wireguard, 30" W x 13-1/2" H x 6" D <sup>6</sup>	
ELA T Q L0309 SD	Twin, LED indoor remote head, white, self-diagnostics <sup>3,4,5</sup>	ELA WG2M	Wireguard, 21-1/4" W x 15" H x 12" D <sup>6</sup>	
ELA QWP L0309 SD	Single, LED weather-proof remote head, gray, self-diagnostics <sup>3,4,5</sup>	ELA LQMUS12	12" white stem kit <sup>7</sup>	
ELA T QWP L0309 SD	Twin, LED weather-proof remote head, gray, self-diagnostics <sup>3,4,5</sup>	ERE W SGL SQ M12	Single, LED indoor remote head, square, ivory white, 1.5W, 3.6V-12V voltage sensing <sup>8,9</sup>	
ELA Q L0309	Single, LED indoor remote head, white <sup>4,5</sup>	ERE W T SQ M12	Twin, LED indoor remote head, square, ivory white, 1.5W, 3.6V-12V voltage sensing <sup>8,9</sup>	
ELA T Q L0309	Twin, LED indoor remote head, white <sup>4,5</sup>	ERE GY SGL WP SQ M12	Single, LED weather-proof remote head, square, gray, 1W, 3.6V-12V voltage sensing <sup>8,9</sup>	
ELA QWP L0309	Single, LED weather-proof remote head, gray <sup>4,5</sup>	ERE GY T WP SQ M12	Twin, LED weather-proof remote head, square, gray, 2W, 3.6V-12V voltage sensing <sup>8,9</sup>	
ELA T QWP L0309	Twin, LED weather-proof remote head, gray <sup>4,5</sup>			

#### Notes

- Available in black or white. Consult factory for options.
- Only available in white. NOM standard.
- Only compatible with self-diagnostic option. (ex: HO SD)
- Also available in black. Add "B" after ELA to order black finish. Example: ELA B Q L0309.
- Only compatible with HO option. See spec sheet [ELA-Q-LED](#).
- See spec sheet [ELA-WG](#).
- See spec sheet [ELA-Stemkits](#).
- See spec sheet [ERE](#).
- Not available with SD. Only compatible with HO option.

# LHQM LED QUANTUM® Exit/Unit Combo

## SPECIFICATIONS

Electrical				
Primary Circuit				
	Typical LED life <sup>1</sup>	Supply voltage	Max amps	Max watts
Red and green LED	10 years	120	.05	4.3
		277	.03	4.3

## BATTERY

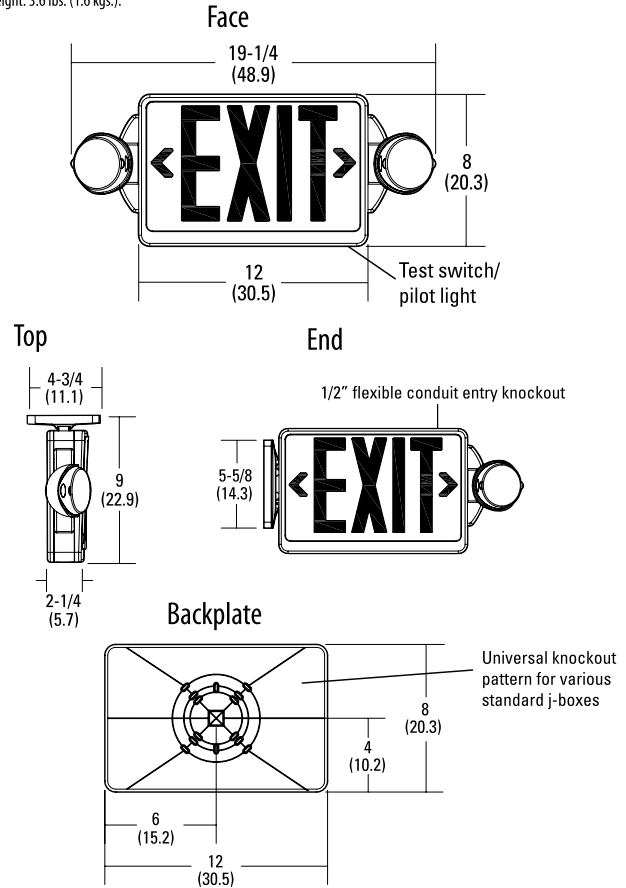
Ni-Cad				
Voltage	Typical Shelf life <sup>2</sup>	Typical life <sup>2</sup>	Maintenance <sup>3</sup>	Temperature range <sup>4</sup>
9.6	3 years	7-9 years	none	50-104°F (10-40°C)

- Based on continuous operation.
- At 77°F (25°C).
- All life safety equipment, including emergency lighting path of egress, must be maintained, serviced and tested in accordance with all National Fire Protection Association and local codes. Failure to perform the required maintenance, service or testing could jeopardize the safety of occupants and will void all warranties.
- Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity.
- Battery life is negatively impacted by many variables including temperature, charging rates, number of cycles and deep discharges due to long periods of time without AC power.

Remote Output Capacity			
Standard unit	Combo	Combo/high-output battery(HO)	Combo/high-output (HO) and no heads (RO)
NA	NA	3W	6W

## MOUNTING

All dimensions are inches (centimeters).  
Shipping weight: 3.6 lbs. (1.6 kgs.).

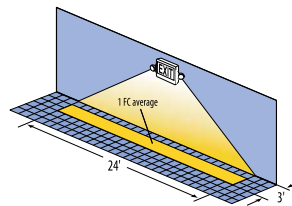


## LAMP PHOTOMETRICS

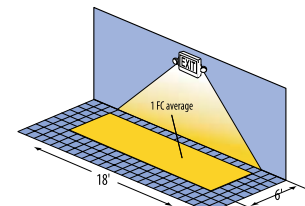
### QUANTUM LED SERIES – SINGLE COVERAGE

3W Total White LEDs

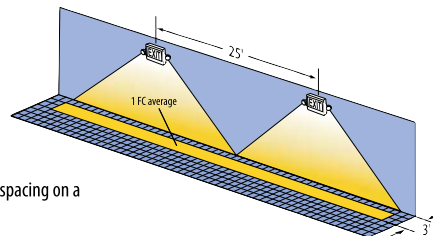
Using a single unit at a typical 7.5' mounting height delivers an average illuminance of 1.0 FC over a distance of 24' on a 3' path of egress and 18' on a 6' path of egress.



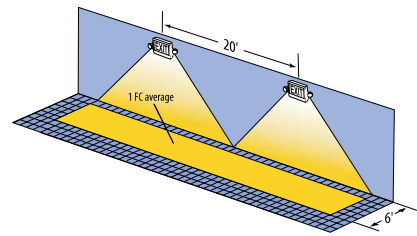
Example of single LHQM LED exit illuminating a 3' path of egress



Example of single LHQM LED exit illuminating a 6' path of egress



Example of multiple LHQM LED exits illuminating a 3' path of egress



Example of multiple LHQM LED exits illuminating a 6' path of egress

### QUANTUM LED SERIES – MULTIPLE COVERAGE

3W Total White LEDs

Using multiple units at a typical 7.5' mounting height delivers 25' center-to-center spacing on a 3' path of egress and 20' center-to-center spacing on a 6' path of egress.

## EXTENDED RUN-TIME FOR HIGH-OUTPUT EXITS

Product	Run time
LHQM LED HO (no remotes)	3.8 hours
LHQM LED HO RO (no remotes)	7.5 hours



## FEATURES & SPECIFICATIONS

**INTENDED USE** — The 2GTL LED recessed troffer offers a wide range of lumen packages, color temperatures, and lens options to meet the lighting needs for a wide range of applications such as schools, offices, and hospitals. The light engine delivers long life and excellent color to ensure a sound quality, low-maintenance lighting installation. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.** [Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.](#)

**CONSTRUCTION** — Housing formed from 22 gauge cold-rolled steel. Smooth hemmed sides and smooth inward formed end flanges for safe handling. Includes integral T-bar clips. Lighter-weight fixture allows for safe, easy installation.

**OPTICS** — Highly transmissive pattern #12 lens diffuses the light source without compromising output. Pattern # 19 and satin white lens options also available.

**ELECTRICAL** — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. 80% LED lumen maintenance at 72,000 hours (L80/72,000).

elDoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional nLight® embedded controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices and the GTL luminaires using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission.

Lumen Management: Unique lumen management system (option N80) provides onboard intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

The step-level dimming option (SLD) allows the system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Ballast disconnect is provided where required to comply with U.S. and Canadian codes.

**INSTALLATION** — LED boards include plug-in connectors for easy of upgradeability. Suitable for direct insulation contact. Suitable for damp location.

**LISTINGS** — CSA certified to meet U.S. and Canadian standards. IC rated. DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

**WARRANTY** — 5-year limited warranty. Complete warranty terms located at [www.acuitybrands.com/CustomResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Catalog Number
Notes
Type

GTL Series

# 2GTL

2' x 2'  
LED Recessed Troffer

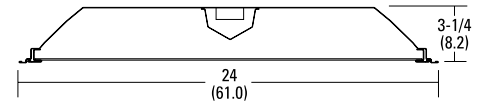


### Specifications

Length: 24 (61.0)

Width: 24 (61.0)

Depth: 3-1/4 (8.2)



All dimensions are inches (centimeters) unless otherwise indicated.

### A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a **shaded background\***
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a **shaded background\***

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus).

\*See ordering tree for details

# 2GTL LED Troffer



A+ Capable options indicated by this color background.

## ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

**Example:** 2GTL 2 33L GZ10 LP835

2GTL						
Series	Trim type	Length	Lumens <sup>1</sup>	Door	Lens	Voltage
2GTL 2' wide recessed LED luminaire	(blank) Grid F Overlapping flange	2 2'	20L 2000 lumens 33L 3300 lumens 40L 4000 lumens 48L 4800 lumens	(blank) Flush steel, white FN Flush aluminum, natural FM Flush aluminum, matte black FW Flush aluminum, white RN Regressed aluminum, natural RM Regressed aluminum, matte black RW Regressed aluminum, white	(blank) #12 pattern acrylic, 0.110" thick A12125 #12 pattern acrylic, frosted, .0125" thick A19 #19 pattern acrylic, 0.156" thick SWL Satin white	(blank) MVOLT (120-277V) 120 120V 277 277V 347 347V <sup>2</sup>

Driver	Color temperature	Controls <sup>4</sup>	Options
EZ1 eldoLED dims to 1%	LP830 3000 K	(blank) No controls	EL7L 700 lumen emergency battery (non-CEC compliant) <sup>3,5,6</sup>
GZ10 Dims to 10% (0-10V dimming)	LP835 3500 K	N80 nLight with 80% (L80) lumen management	EL14L 1400 lumen emergency battery (non-CEC compliant) <sup>3,5,6</sup>
GZ1 Dims to 1% (0-10V dimming)	LP840 4000 K	N80EMG nLight with 80% (L80) lumen management for use with generator supply emergency power	E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, CEC compliant <sup>3</sup>
SLD Step-level dimming <sup>3</sup>	LP850 5000 K	N100 nLight without lumen management	BGTD Bodine Generator Transfer Device <sup>7,8</sup>
EXA1 eldoLED dims to 1%, XPoint wireless enabled		N100EMG nLight without lumen management for use with generator supply emergency power	CP Chicago plenum
			PWS1836 6' pre-wire, 3/8" diameter, 18-gauge, 1-circuit
			PWS1846 6' pre-wire, 3/8" diameter, 18-gauge, 2-circuit
			ABC Door frame gasketing <sup>9</sup>
			GLR Fast-blowing fuse <sup>10</sup>
			GMF Slow-blowing fuse <sup>10</sup>
			LATC Earthquake clip
			NPLT Narrow pallet
			PAF Paint after fab

Accessories: Order as separate catalog number.	
DGA22	Drywall grid adapter for 2x2 recessed fixture.
2X2SMK	Surface Mount Troffer Kit.

### Notes

- 1 Approximate lumen output. Lumen output will vary depending upon lens option chosen.
- 2 Not available with SLD, EL7L, EL14L, E10WLCP, or BGTD
- 3 When using pre-wire option, use PWS1846.
- 4 Not available with SLD, GZ1, GZ10 or EXA1
- 5 Not available with EZ1, EXA1 and SLD when combined with 40L or 48L lumen packages.
- 6 Not available with GZ1 or GZ10 when combined with 48L lumen package.
- 7 Not available with SLD.
- 8 Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options. Example: BGTD BSE10.
- 9 Only available with aluminum door.
- 10 Must specify voltage, 120 or 277.
- 11 For CEC (T20) compliant option, substitute EL14L option with E10WLCP "EM self-diagnostic battery pack 10W constant power, CEC compliant".

Stock/Non-configurable models are offered for shorter lead times:

## ORDERING INFORMATION

Catalog Number	UPC	Description	Lumens	Color Temperature	Voltage	Wattage	Pallet qty.	Standard carton qty.
2GTL2 3300LM LP835	889804702637	2x2 LED lay-in troffer	3277	3500K	120-277	27.61	56	1
2GTL2 3300LM LP840	889804702460	2x2 LED lay-in troffer	3408	4000K	120-277	27.61	56	1
2GTL2 3300LM 347 LP835	889804703634	2x2 LED lay-in troffer, 347v	3277	3500K	347	30.76	56	1
2GTL2 3300LM 347 LP840	889804703900	2x2 LED lay-in troffer, 347v	3408	4000K	347	30.76	56	1
2GTL2 3300LM EL14L LP835 <sup>11</sup>	889804704440	2x2 LED lay-in troffer, emergency battery	3277	3500K	120-277	27.61	12	1
2GTL2 3300LM EL14L LP840 <sup>11</sup>	889804706246	2x2 LED lay-in troffer, emergency battery	3408	4000K	120-277	27.61	12	1
2GTL2 3700LM LP835	889804704143	2x2 LED lay-in troffer	3702	3500K	120-277	30.96	56	1
2GTL2 3700LM LP840	889804704242	2x2 LED lay-in troffer	3850	4000K	120-277	30.96	56	1
2GTL2 3700LM 347 LP835	889804704303	2x2 LED lay-in troffer, 347v	3702	3500K	347	34.99	56	1
2GTL2 3700LM 347 LP840	889804704365	2x2 LED lay-in troffer, 347v	3850	4000K	347	34.99	56	1
2GTL2 3700LM EL14L LP835 <sup>11</sup>	889804706307	2x2 LED lay-in troffer, emergency battery	3702	3500K	120-277	30.96	12	1
2GTL2 3700LM EL14L LP840 <sup>11</sup>	889804706352	2x2 LED lay-in troffer, emergency battery	3850	4000K	120-277	30.96	12	1

Fixture Type 'B'



2GTL 2X2



# 2GTL LED Troffer

Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L LP830	2203.04	18.39	120
20L LP835	2248	18.39	122
20L LP840	2337.92	18.39	127
20L LP850	2382.88	18.39	130
33L LP830	3292.8	28.6	115
33L LP835	3360	28.6	117
33L LP840	3494.4	28.6	122
33L LP850	3561.6	28.6	125
40L LP830	3756.34	33.61	112
40L LP835	3833	33.61	114
40L LP840	3986.32	33.61	119
40L LP850	4062.98	33.61	121
48L LP830	4759.86	41.95	113
48L LP835	4857	41.95	116
48L LP840	5051.28	41.95	120
48L LP850	5148.42	41.95	123

## How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

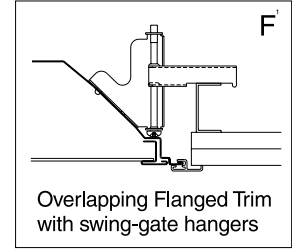
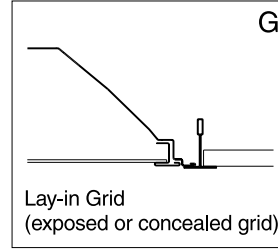
$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for E10WLCP option.

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

## MOUNTING DATA

Continuous row mounting of flanged units requires CRE and CRM trim options (see Options).



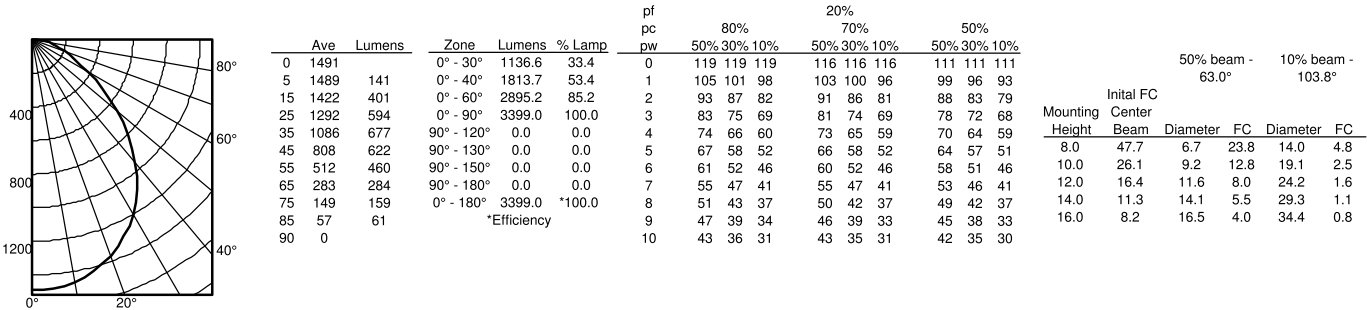
### NOTE:

- Recommended rough-in dimensions for F-trim fixtures 24"x24" (Tolerance is +1/4"-0"). Swing-gate range 1-3/16" to 3-15/16". Swing-gate span 23-3/8" to 26-11/16". Fixture swing-gate points require additional 1-1/16" over nominal fixture height.

Note: Performance based on standard #12 pattern acrylic lens.

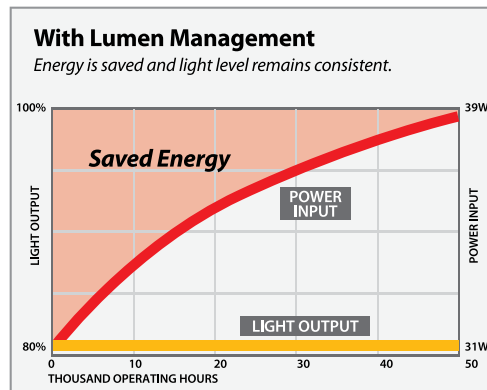
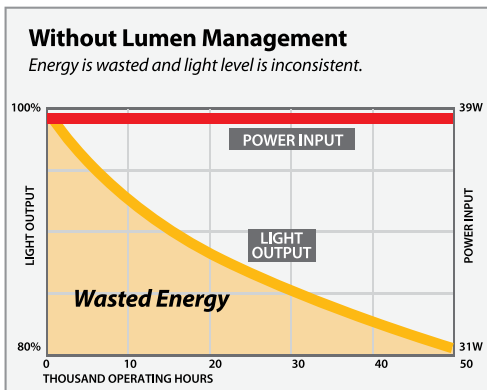
## PHOTOMETRICS

2GTL 2 33L LP835, 3399 delivered lumens, test no. ISF 36873P6, tested in accordance to IESNA LM-79.



## Constant Lumen Management

Enabled by the embedded nLight control, the GTL actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



## OVERVIEW

The WSX Family of wall switch occupancy sensors provides simple and cost effective solutions for commercial and residential lighting control applications. All WSX Family sensors have a stylish low profile appearance, soft-click buttons, and provide small motion detection up to 20 ft (6.10 m), making them perfect for private offices, private rest rooms, closets, copy rooms, or any other small enclosed space. Additionally, all WSX Family sensors have a patent-pending wiring method that enables them to function either with or without a neutral connection. WSX units come pre-configured for wiring without a neutral, however if connection to neutral is required by code, contractors can convert the unit in seconds.

With optional flash programming via the Sensor Switch VLP mobile device application, users can easily change time delay, on mode and photocontrol settings.

## FEATURES

- Programmable with Sensor Switch VLP app or traditional push button, refer to ordering information for availability
- Compatible w/LEDs, electronic & magnetic ballasts, CFLs, & incandescents
- 100% passive detection, no potential for interference with other building systems
- Small motion detection to 20 ft
- Push-button programmable without removing cover plate - adjustable time delays & operating modes
- Dual technology (PDT) utilizes PIR/Microphonics™ detection (patented)
- Self-grounding mounting strap
- Device accommodates powering over ground or neutral connection (patent pending)
- Ultra low current leakage (<0.5 mA) when connected via ground
- Fully meets NEC 2017 Section 404.2C neutral requirements - no current leakage to ground when connected to neutral
- Line power and load wires are interchangeable - impossible to wire backwards (patented)
- Integrated Photocell (disabled by default) prevents light from turning on if sufficient daylight is present – not available in Nightlight versions
- Vandal resistant lens

## Warranty

Five-year limited warranty. Complete warranty terms located at:  
[www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application.  
Specifications subject to change without notice.

**AcuityControls™**

*Sensor Switch™*

*WSX Family*



**WSX  
WSX PDT  
Single Relay**

**WSX 2P  
WSX PDT 2P  
Dual Relay**

**WSX NL  
WSX PDT NL  
Night Light**



ORDERING INFORMATION

WSX SINGLE RELAY						Example: WSX PDT WH	
Series	Operating Mode <sup>1</sup>	Voltage	Visible Light Programming <sup>5</sup>	Color <sup>4</sup>	Temp / Humidity		
WSX Passive infrared (PIR)	[blank] Auto-on (default) or vacancy	[blank] 120-277 VAC	[blank] None	WH White	[blank]	Standard	
WSX PDT Dual Technology (PIR/Microphonics™)	SA Vacancy (default) or auto-on	347 <sup>3</sup> 347VAC	VLP Visible Light Programming	IV Ivory	LT	Low Temp/ High Humidity	
	VA Vacancy only			GY Gray			
	NL <sup>2</sup> Nightlight			AL Almond			
				BK Black			
				RD Red			

WSX DUAL RELAY						Example: WSX 2P NL WH	
Series	Operating Mode <sup>1</sup>	Voltage	Color <sup>4</sup>	Temp / Humidity			
WSX 2P Passive infrared (PIR)	[blank] Pole 1 auto-on	[blank] 120-277 VAC	WH White AL Lt. Almond	[blank]	Standard		
WSX PDT 2P Dual Technology (PIR/Microphonics™)	Pole 2 vacancy	347 <sup>3</sup> 347VAC	IV Ivory BK Black	LT	Low Temp/ High Humidity		
	2SA Both poles vacancy (default)		GY Gray RD Red				
	2VA Both poles vacancy (only)						
	NL <sup>2</sup> Nightlight						

**Notes:**

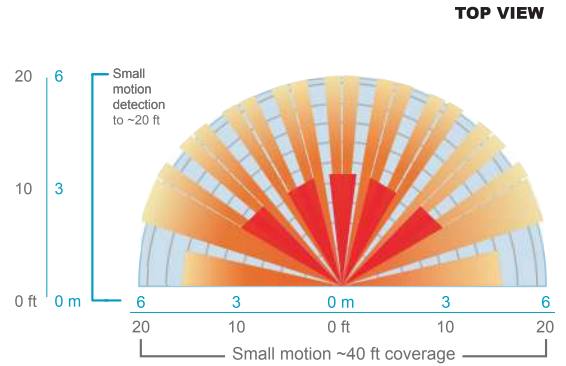
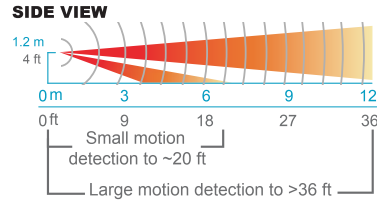
1. Operating Modes reprogrammable via push-button except for VA version
2. Default set to Manual On, not available with VLP
3. Wall plates included in white or ivory only for 347 VAC units
4. Matching wall plate provided for 120/277 VAC units
5. Available only on WSX PDT Series.

**SPECIFICATIONS**

Size: 2.74"H x 1.68"W x 1.63"D (not including ground strap)  
 Weight: 5 oz  
 Mounting: Single gang switch box  
 Mounting Height: 30-48 in  
 Maximum Load/Pole: (Relay) 800W @ 120VAC, 1200W @ 277VAC, 1500W @ 347VAC  
 Minimum Load: None  
 Motor Load: 1/4 HP  
 Frequency: 50/60 Hz (timers are 1.2x for 50Hz)  
 Temperature Rating: 0°C-60°C

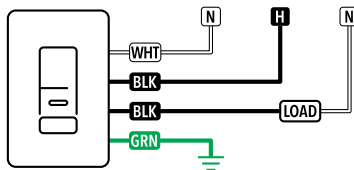
## COVERAGE PATTERNS

- Small motion (e.g., hand movements) detection up to 20 ft (6.10 m), ~625 ft<sup>2</sup>
- Large motion (e.g., walking) detection greater than 36 ft (10.97 m), ~2025 ft<sup>2</sup>
- Wall-to-Wall coverage
- Passive Dual Technology (Microphonics) provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.
- Tested to NEMA WD 7-2011



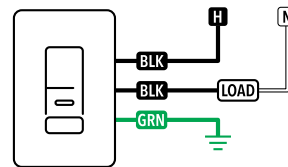
### CONVERTIBLE NEUTRAL

SINGLE RELAY, 120/277 VAC

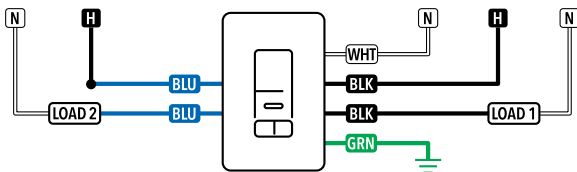


### GROUND ONLY

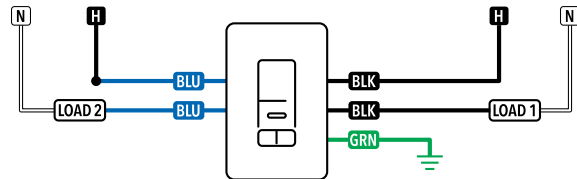
SINGLE RELAY, 120/277 VAC



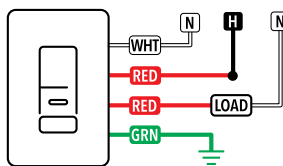
DUAL RELAY, 120/277 VAC



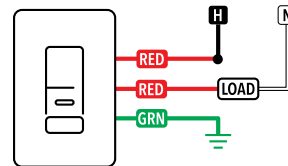
DUAL RELAY, 120/277 VAC



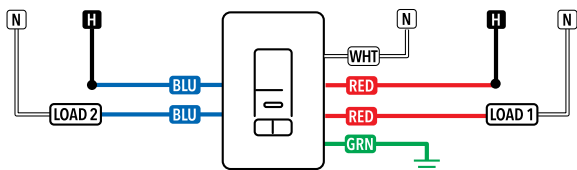
SINGLE RELAY, 347 VAC



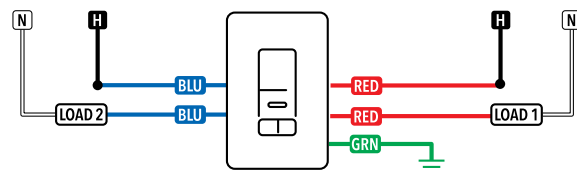
SINGLE RELAY, 347 VAC



DUAL RELAY, 347 VAC



DUAL RELAY, 347 VAC



#### Notes:

- Unit will draw power from either line connection.
- When switching 277 VAC or 347 VAC on both relays, the line inputs must be of the same phase.
- For dual relay, both relays must be fed from the same circuit.

WSX Family (IS-WSX-003)



























































