

# **TECHNICAL SPECIFICATIONS FOR CONCRETE, STUCCO, & PAINTING RENOVATIONS FOR TOWER EXTERIOR**

Prepared For:

**Plaza South Condominium  
4280 Galt Ocean Drive  
Fort Lauderdale, Florida 33308**

Prepared By:

**Bromley • Cook Engineering, Inc.**  
William D. Cook, P.E., SECB  
Fla. P.E. #: 43904  
Fla. S.I. #: 2008  
5440 N.W. 33<sup>rd</sup> Avenue  
Suite 100  
Ft. Lauderdale, Florida 33309  
June 2022

**SECTION 00 0102  
PROJECT INFORMATION**

**PART 1 GENERAL**

**1.01 PROJECT IDENTIFICATION**

- A. Project Name: Plaza South Condominium (954) 566-0777, located at 4280 Galt Ocean Drive, Ft. Lauderdale, FL 33308.
- B. The Owner, hereinafter referred to as Association: Plaza South Condominium Association, Inc. (Site Contact: Mr. Brad Miller- Manager ([generalmanager@plazasouth.net](mailto:generalmanager@plazasouth.net))).

**1.02 PROJECT DESCRIPTION**

- A. Summary Project Description: Concrete & Stucco Renovations, Garage Renovations, Window Perimeter Renovations, Balcony Edge Renovations, Waterproofing, & Tower Painting.
- B. Contract Scope: Construction, demolition, renovation, Occupancy during restoration operations, sealants, and painting the Tower.

**1.03 PROCUREMENT TIMETABLE**

- A. The Association reserves the right to change the schedule or terminate the entire procurement process at any time.

**1.04 PROCUREMENT DOCUMENTS**

- A. Availability of Documents: Complete sets of procurement documents may be obtained:
  - 1. At the following address: Bromley Cook Engineering 5440 NW 33 Avenue Suite 100 Ft. Lauderdale, FL 33309.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

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**SECTION 00 2113  
INSTRUCTIONS TO BIDDERS**

**CONCRETE RESTORATION OF EXTERIOR WALLS, STUCCO REPLACEMENT, CAULKING PERIMETERS OF WINDOWS, WALL REMOVALS, PARTIAL NEW RAILINGS, & PAINTING PROJECT**

SCOPE OF WORK: Work shall include the preparation, concrete spall repairs, stucco renovations, window sealants, and painting of the condominium tower as listed in the specifications known as the Project. Areas for renovations are identified on attached sketches and location descriptions. Upon completion of the excavation and preparation of the designated area, placement of the approved material shall be completed and finished by the Contractor. All work performed under this scope of work shall be in accordance with the SPECIFICATIONS and CONTRACT DOCUMENTS.

CONTRACT BIDDING: The bid shall be submitted in accordance with Section 2, which shall include unit prices for each item of repair and shall follow the criteria as outlined in the CONTRACT DOCUMENTS.

BIDDER'S QUALIFICATIONS: To demonstrate qualifications to perform the work, each BIDDER must be prepared to submit, within fifteen (15) days of the OWNER'S request evidence such as licenses, insurance coverage, previous experience, present commitments, and up-to-date recommendations from other work and other such data which may be requested by the OWNER.

**1.02 RELATED DOCUMENTS**

- A. Document 00 3100 - Available Project Information.
- B. Document 00 4100 - Bid Form.

**INVITATION**

**2.01 INTENT**

- A. BID INTENT: The intent of this Bid request is to obtain an offer to perform work to complete a concrete, stucco, waterproofing, and painting project located at the Condominium for a Unit Price and Lump Sum contract, in accordance with the Contract Documents.
- B. CONTRACT BIDDING: The bid shall be submitted in accordance with Section 2, which shall include unit prices for many items of repair and shall follow the criteria as outlined in the CONTRACT DOCUMENTS.

**2.02 CONTRACT TIME**

- A. Identify Contract Time in the Bid Form. The completion date in the Agreement shall be the Contract Time added to the commencement date.

**BID DOCUMENTS AND CONTRACT DOCUMENTS**

**3.01 DEFINITIONS**

- A. Bid Documents: Contract Documents supplemented with Invitation To Bid, Instructions to Bidders, Information Available to Bidders, Bid Form Supplements To Bid Forms and Appendices identified.
- B. BID DOCUMENTS: The bidding CONTRACTOR must obtain BID documents directly from the Engineer. Documents can only be obtained by the General Contractor. Bid documents are the entire specification package.
- C. INTERPRETATIONS AND ADDENDA: Questions about the meaning or intent of the CONTRACT DOCUMENTS are to be directed to the ENGINEER. Interpretations or clarifications considered necessary by the ENGINEER in response to such questions will be issued by addenda. Only questions answered by formal written addenda will be binding.

**3.02 EXAMINATION**

- A. Upon receipt of Bid Documents verify that documents are complete. Notify Engineer should the documents be incomplete.
- B. Immediately notify Engineer upon finding discrepancies or omissions in the Bid Documents.
- C. EXAMINATION OF CONTRACT DOCUMENTS AND SITE: It is the responsibility of each BIDDER before submitting a BID, to (a) examine the CONTRACT DOCUMENTS thoroughly, (b) visit the site to become familiar

with all local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider federal, state and local laws and regulations that may affect cost, progress, performance or furnishing of the work, and (d) study carefully to correlate BIDDER'S observations with the CONTRACT.

- D. Notify the ENGINEER of all conflicts, errors or discrepancies in the CONTRACT DOCUMENTS which might result in additional costs to the Owner.

### **3.03 INQUIRIES/ADDENDA**

- A. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.
- B. Verbal answers are not binding on any party.
- C. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients and bidders.
- D. Oral and other interpretations or clarifications will be without legal effect. Addenda may also be issued to modify the BIDDING DOCUMENTS as deemed advisable by OWNER or ENGINEER.

## **SITE ASSESSMENT**

### **4.01 SITE EXAMINATION**

- A. Examine the project site before submitting a bid.

## **QUALIFICATIONS**

### **5.01 EVIDENCE OF QUALIFICATIONS**

- A. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of financial position, license to perform work in the State and related information.

## **BID SUBMISSION**

### **6.01 SUBMISSION PROCEDURE**

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.

## **OFFER ACCEPTANCE/REJECTION**

### **7.01 ACCEPTANCE OF OFFER**

- A. Association reserves the right to accept or reject any or all offers.
- B. CONTRACT TIME: The number of days within which, or the dates by which, the WORK is to be substantially completed and ready for final payment (the contract time) are set forth in the AGREEMENT. If the contract times are not outlined or included, the time for substantial completion is to be set forth by BIDDER in the BID and will be included in the agreement. The times will be taken into consideration by the OWNER during the evaluation of the BIDS, and it will be necessary for the successful BIDDER to satisfy the OWNER of the BIDDER'S ability to achieve substantial completion and final completion within the times designated in the BID.
- C. APPLICABLE CODES: Recommendations and requirements of the following entities shall govern all work, workmanship, and materials as they apply, as follows:
  - UL –Underwriters Laboratories
  - ASTM – American Society of Testing Materials
  - ACI – American Concrete Institute
  - FBC – Florida Building Code, Latest Edition (2017- 6<sup>th</sup> Edition)
  - ICBO – International Conference of Building Officials
  - ICC- International Code Counsel
  - ICRI – International Concrete Repair Institute
  - ASCE- American Society of Civil Engineers
  - AWI- American Welding Institute
  - PCP-Portland Cement Plaster
- D. SUBSTITUTE OR "OR-EQUAL" ITEMS: The CONTRACT, if awarded, will be on the basis of materials and equipment described in the drawings and specified in the specifications without consideration of possible

substitute or "or-equal" items. Whenever it is indicated in the specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the CONTRACTOR if acceptable to the ENGINEER, application for each acceptance will not be considered by the ENGINEER until after the effective date of the AGREEMENT. The procedure for submission of any such application by the CONTRACTOR and the consideration by the ENGINEER is set forth in the general conditions.

- E. SUBCONTRACTORS, SUPPLIERS AND OTHERS: If the specifications require (or if the OWNER request after the BIDS are received) the identity of certain SUBCONTRACTORS, SUPPLIERS, and other persons and organizations (including those who are to furnish the principle items of materials and equipment) to be submitted to the OWNER in advance of the specified date prior to the said AGREEMENT, submit to the OWNER a list of all such SUBCONTRACTORS, SUPPLIERS and other persons and organizations proposed for those portions of the WORK for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other qualifications for each SUBCONTRACTOR, SUPPLIER, person or organization if requested by the OWNER. SUBCONTRACTORS shall be required to meet the contractor's liability insurance requirements as established by the GENERAL AND SUPPLEMENTARY CONDITIONS.
- F. If the OWNER or ENGINEER after due investigation has reasonable objections to any proposed SUBCONTRACTOR and SUPPLIER, either may, before the Notice of Award is given, request the apparent SUCCESSFUL BIDDER declines to make any such substitution, the OWNER may award the contract to the next lowest BIDDER that proposed to use acceptable SUBCONTRACTORS, SUPPLIERS and other persons and organizations.
- G. No CONTRACTOR shall be required to employ any SUBCONTRACTOR, SUPPLIER, other person or organization against whom the CONTRACTOR has reasonable objection. A CONTRACTOR may withdraw the bid in writing to the Owner or Engineer prior to the time set for the opening of bids.
- H. SUBMISSION OF BIDS: BIDS shall be submitted at the time, date, and place indicated in the ADVERTISEMENT or INVITATION TO BID. Provide 2 BID packages with references, comparable projects, Contractor advertisement, etc., to the Association, or if directed by the Association, to the Engineer.
- I. AWARD OF CONTRACT: The OWNER reserves the right to reject any and all BIDS, portions of the bid, to waive any and all informalities not involving price, time or change in the work and to negotiate contract terms with the PROPOSED BIDDER, and the right to disregard all non-conforming, non-responsive, unbalanced or conditional bids. The OWNER also reserves the right to reject the BID if not responsive or the BIDDER is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the OWNER. Additionally, the OWNER reserves the right to break up the individual components of each SUBMITTED BID. In evaluating the BIDS, the OWNER will consider the qualification of the BIDDERS, whether or not the BIDS comply with the prescribed requirements, and such alternatives, unit prices, and other data.
- J. The CONTRACTOR must fill in the Bid Form "ELECTRONICALLY". Send Contractor's request for electronic bid sheets to [office@bromleycook.com](mailto:office@bromleycook.com).
- K. There are items in the specification package where the word "equal" or "equal and approved" is listed. It is at the discretion of the Engineer to approve the equality of a material or item.
- L. The CONTRACTOR shall consider the AIA 101 and AIA 201 contract packages at this time. The Association will deliver these AIA packages for review to their legal counsel.

**END OF INSTRUCTIONS TO BIDDERS**

SECTION 00 4100  
BID SHEET

Plaza South Condominium  
Estimated Quantities from Survey- Projects  
4280 Galt Ocean Drive  
Ft. Lauderdale, FL 33308

June 26, 2022

Concrete, Stucco, & Painting Restoration of Condominium Towers and Garages- Walls, Balconies, Waterproofing & Community Association Elements

**\*\*The Plaza South Condominium Association reserves the right to deduct any item or line item listed on the enclosed bid form at the dollar amount listed in the sub-total column.**

**\*\*\*All Contractors shall inspect the job-site and become familiar with existing conditions prior to submitting a bid.**

**NOTE-Layout of the project is the responsibility of the Contractor of Record**

- Items in this bid to conform to the specification package for this project
- Repairs to conform to standards of ICRI (International Concrete Repair Institute) guidelines
- The Association can exclude elements of the bids without penalty.
- \*\*\*Contractor to provide X-rays, GPR (ground penetrating radar), pachometer, or other necessary equipment to locate existing post tensioning cables to avoid damages to PT cables during cutting or doweling of new rebar, mechanical, electrical, plumbing, or gas lines.
- Notice to Residents to be coordinated between the Association and the Contractor.
- Signage for traffic directional flow shall be provided by the Contractor
- Residents shall occupy the building during renovations.
- 10% Retainage required through-out project
- Contractor required to provide As-Built drawings denoting repair areas being submitted for payment at each pay app submittal.

**ENGINEER'S NOTE! Concrete Quantities may change significantly once the renovations have begun.**

<u>ITEM</u>	<u>Estimated Qty</u>	-	<u>Unit Pricing</u>	-	<u>SUBTOTAL</u>
<u>ITEM 1 – VIDEO &amp; PRECONDITION SURVEY</u>					
1. The Contractor shall provide video & photographic documentation of existing conditions and items directly adjacent and surrounding the condominium tower. Identify and verify working condition of exist. shutters, windows, railings, landscaping, swimming pool, pool deck, doors, parking, paver walkways, and traffic surfaces.	Precondition Survey		Lump Sum ITEM #1		



ITEM #2A. – <u>MOBILIZATION</u> - CONTRACTOR TO PROVIDE SCAFFOLD STAGES, SWING STAGES, OR LADDERS- (Must provide access to Engineer for inspection & marking purposes). INCLUDES DUMPSTERS & HAULING & DISPOSING OF ALL DEBRIS, Etc.	Mobilization		Lump Sum ITEM #2		
2B. <u>GENERAL CONDITIONS</u>	General Conditions		Lump Sum		
ITEM 3 – <u>SHORING</u> - (If Necessary) Provide all necessary Shoring for balconies, walkways, eyebrows, and etc. thru-out project.	Shoring		Lump Sum ITEM #3		
ITEM #4. <u>TOWER REPAIR CONDOMINIUM WALLS, BALCONIES, ROOFS &amp; EXPOSED AREAS</u>					
4A. Overhead Ceiling Spall Repairs (Stucco Application inclusive of all Structural Repairs)	400	SF			\$ -
4B. Partial Depth Floor Repairs (includes removal of affected floor finishes- typ.)	2250	SF			\$ -
4C. Full Depth Floor Repairs	500	SF			\$ -
4D. Slab Edge Repairs back to 8"	420	LF			\$ -
4E. Concrete Column Repairs	850	CF			\$ -
4F. Concrete Beam Repairs	10	CF			\$ -
4G. Rust spot repairs (Chairs or bolts rusting in concrete)	1500	PER			\$ -
4H. <u>SHUTTERS</u> - Remove and discard exist. Shutters, includes top & bottom track & all fasteners. Cut out bolts & patch holes, Inject Tremco Dymonic 100 into holes.	50	LF			\$ -
4I. <u>SHUTTERS</u> - Remove and Reinstall Same Shutters. NOTE: Shutters can only be replaced if permitted after Sept. 1994	5000	LF			\$ -
4J. Crack Repair -Floor and Ceiling- Route & Seal with Caulk	200	LF			\$ -
4K. Crack Repair - Epoxy – Gravity Feed	200	LF			\$ -
4L. Crack Repair – OH- Epoxy Injection- (Lilly injection machine) Low to medium viscosity 2-part epoxy.	150	LF			\$ -
4M. Rout Cracks, Apply Sto RFP over all routed cracks, work horizontally or vertically in 4-inch wide strips. Use 4.5 oz mesh with RFP products. Embed Sto Mesh into the wet Sto RFP Match existing texture finish coat.	650	LF			\$ -
4N. #5 Galvanized Reinforcing bar replacement (or any size rebar)	900	LF			\$ -
4O. Dowel & Epoxy Reinforcing bar- min. 5" embed- typ.	200	PER			\$ -
4P. Surface Prep for Affected Balcony Waterproofing– remove existing membrane – CSP 3-5	40,000	SF			\$ -
4Q. Tile removal- separate from structural repairs	40,000	SF			\$ -

4R. Balcony Slabs- Detail All cracks, Sika 2c Sealant- cant beads, per Manufacturer requirements- balconies. Waterproof Coating- Urethane- Sika 710/715 w/ Unimen 15/30 or 20/40 broadcast. Apply 2 coats acrylic Color per Owner, caulk around each railing post.	40,000	SF		\$ -
4S. Window Sills- Chip and Repair- Minimum 4" Height, Back 4" Depth	500	LF		\$ -
4T. <u>EXTERIOR LOBBY LEVEL STAIRS (by fountains) West elevation</u> - Chip, Remove and Repour stair treads, includes railing removal and reinstallation.	125	CF		\$ -
4U. <u>EXTERIOR LOBBY LEVEL STAIRS (by fountains) West elevation</u> - Prep and apply Waterproof Coating-Urethane- Sika 710/715 w/ Unimen 15/30 or 20/40 broadcast on newly poured stairs. Spray protectoseal to underneath side of stairs for protection from fountain spray. Replace marble finishes to match existing stair and slab coverings.	1,000	SF		\$ -
4V. Electrical Allowance - Repairs			Lump Sum	\$ 20,000.00
			<b>TOTAL- FEES FOR ABOVE (Section #4)</b>	<b>\$ 20,000.00</b>
<b>ITEM #5. <u>PARKING DECK RENOVATIONS</u>- Parking Areas in garages under building at lower garage and basement levels.</b>				
5A. Portion off Areas of upper and lower garage with dust walls to allow Owner partial access- yet allow Contractor work portions. Contractor to submit schedule of work areas.	Work Portions of Deck		Lump Sum	
5B. Protect security cameras and piping in areas of restoration.			Lump Sum	
5C. Chip and remove South wall precast louvre panels- Replace with new precast panels	25	PER		\$ -
5D. Chip and remove South wall precast louvre column or posts- Replace with new precast posts.	10	PER		\$ -
5E. Concrete Columns & Shear walls- Chip and repair	30	CF		\$ -
5F. Concrete Full Depth Floor Spalls- Chip, Form, & Repair. (4" thick)	40	SF		\$ -
5G. Partial Depth Concrete Spall repairs	250	SF		\$ -
5H. Concrete Beam Spalls- Chip and repair (Includes Soffit & Pan Beams)	250	CF		\$ -
5I. Conc. OH spalls- chip & repairs 3-4" thickness.	130	SF		\$ -

5J. Rust spot repairs & old hangers' removal- Chip min. 1" depth & repair (remove old injection ports).	200	Per		\$ -
5K. Chip and remove CBS units for beam repairs on the East elevation wall, install new CBS units after repairs are complete.	100	PSF		\$ -
5L. Cut out and replace rusted Durawall in block walls	120	PLF		\$ -
5M. Grade 60 Reinforcing #5 bar replacement	200	LF		\$ -
5N. Dowel & 2-Part Epoxy Reinforcing bar-min. 5" embed typ. Wire brush holes, blow out typ.	30	PER		\$ -
5O. <u>STUCCO</u> - Delaminated Stucco Repairs at various locations - (separate from structural repairs)	500	SF		\$ -
			Total- FEES FOR ABOVE (Section #5)	\$ -
ITEM #6. <u>STUCCO OF WALLS</u> 6A. Remove Delaminated Stucco Repairs at marked locations on balcony surfaces- (separate from structural repairs); replace with new 3-part application- finish to match exist.	8000	SF		\$ -
ITEM #7. <u>PAINTING</u> - 7A. Touch up paint- Paint any areas of restoration or stucco replacement.	Painting Requirements		Lump Sum	\$
7B. <u>OPTION</u> - Hose Test- Water testing via hose test (AAMA 501.2) is required for random windows after caulking & Painting. Hose pressure for water to be min. 30 PSI.	Random Windows	Per 5 min test		OPTION- DO NOT FILL
			TOTAL- FEES FOR ABOVE (Sections #6 & #7)	\$ -
ITEM #8. <u>PERMITS</u> - Includes acquisition and fees, Bldg. Dept. may require Asbestos & Lead testing (Contractor to purchase, Association to reimburse Contractor for cost of permit(s)).			Permit Fees	
ITEM #9. 9A. <u>PEDESTRIAN COVERINGS AND TUNNEL</u> - Build temporary traffic tunnel for duration of project to allow pedestrian safe passage (if necessary or directed by Association).	200	LF	Lump Sum	\$

9B. <u>VEHICULAR COVERINGS AND TUNNEL</u> - Build temporary traffic tunnel for duration of project to allow vehicles safe passage (if necessary or directed by Association).	200	LF	Lump Sum		\$
9C. <u>OPTION- TRAFFIC TUNNEL REMOVAL &amp; REBUILD DUE TO HURRICANE</u> - Breakdown temporary traffic tunnel due to each hurricane event warning-rebuild after warnings are lifted. Price per occurrence	Lump Sum				OPTION- DO NOT FILL
<b>CUMULATIVE TOTALS</b>			<b>TOTAL \$ FOR SECTIONS #1 THRU #9</b>		<b>#VALUE!</b>
10. Dust walls- Install wood dust/weather walls as required to protect interior of unit at door or windows after removal, 3' inward of door or windows. Dust walls shall be 2" x 4" wood studs @ 2' o/c, w/ 5/8" plywood fastened in place, apply plastic over plywood. Secure to ceiling & floor. Remove dust walls after re-installation of door or windows.		PER			\$ -
11. <u>SAMPLE WARRANTIES</u> -Submit sample warranties of all items to be covered by warranty with length of coverage.	Concrete, stucco, caulking, painting, waterproofing, floor coatings, new roofing				
12. <u>Hourly Charges</u> Applied to Time (For Time & Material work, does not include the material costs).	Hourly				
NOTE! <u>CHANGE ORDERS</u> - The Association reserves the right for all Change Orders to be substantiated with competitive bids. The Contractor may apply 10% for General Conditions and 10% profit for change orders upon substantiated & signed C.O.					
NOTE! In the event of a HURRICANE warning, the Association requires that all swing stage equipment, cables, roof top tie backs, etc. be removed from the building and stored off site during ANY hurricane event. CLARIFY PRICE IF BREAKDOWN IS ON A WEEKEND!	Hurricane Event- Demobilization & Remobilization- Considered 1 Event		Cost Per Event		Contractor to identify any associated costs for breakdown and remobilization

CONTRACTOR NAME \_\_\_\_\_

GENERAL CONTRACTOR'S CGC # \_\_\_\_\_

Final (estimated) completion of this project will be \_\_\_\_\_ **working** days (not including weekend or holidays) from the notice to proceed. (Typical month is 22 or 23 working days).

The date that the bid is due is **September 9th, 2022**. Send 1 copy of sealed bid package with Contractors brochure and references to Association's Office before 3pm.

**END OF SECTION**

**SECTION 01 1000**

**SUMMARY**

**PART 1 GENERAL**

**1.01 PROJECT**

- A. Project Name: Plaza South Condominium.
- B. Association's Name: Plaza South Condominium Association Inc.
- C. The Project consists of the concrete & stucco restoration, partial balcony removals, & touch up painting on restoration areas.

**1.02 CONTRACT DESCRIPTION**

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

**1.03 OWNER OCCUPANCY**

- A. Association intends to occupy the Project throughout the entire project.
- B. Cooperate with Association to minimize conflict and to facilitate Association's operations.
- C. Schedule the Work to accommodate Association occupancy.

**1.04 CONTRACTOR USE OF SITE AND PREMISES**

- A. Provide access to and from site as required by law and by Association:
  - 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
  - 2. Do not obstruct roadways, sidewalks, garage access or other public ways without permit.

**END OF SECTION**

**SECTION 01 2200**

**UNIT PRICES**

**PART 1 GENERAL**

**1.01 RELATED REQUIREMENTS**

- A. Document 00 2113 - Instructions to Bidders: Instructions for preparation of pricing for Unit Prices.

**1.02 COSTS INCLUDED**

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

**1.03 UNIT QUANTITIES SPECIFIED**

- A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

**1.04 MEASUREMENT OF QUANTITIES**

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
- B. Take all measurements and compute quantities. Measurements and quantities will be verified by Engineer.
- C. Assist by providing necessary equipment, workers, and survey personnel as required.
- D. Measurement by Area: Measured by square dimension using mean length and width or radius.
- E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.

**1.05 PAYMENT**

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Engineer, multiplied by the unit price.

**1.06 DEFECT ASSESSMENT**

- A. Replace Work, or portions of the Work, not conforming to specified requirements.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 3000  
ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Preconstruction meeting.
- B. Progress meetings.
- C. Construction progress schedule.
- D. Submittals for review, information, and project closeout.
- E. Submittal procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
- B. Section 01 7800 - Closeout Submittals: Project record documents.

**1.03 PROJECT COORDINATION**

- A. Project Coordinator: Manager or Designated Board Representative.
- B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for project access, traffic, and parking facilities.
- C. During construction, coordinate use of site and facilities through the Project Coordinator.
- D. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
- E. Make the following types of submittals to Engineer through the Project Coordinator:
  - 1. Requests for interpretation.
  - 2. Shop drawings, product data, and samples.
  - 3. Test and inspection reports.
  - 4. Applications for payment and change order requests.
  - 5. Progress schedules.
  - 6. Coordination drawings.
  - 7. Closeout submittals.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PRECONSTRUCTION MEETING**

- A. Attendance Required:
  - 1. Association.
  - 2. Engineer.
  - 3. Contractor.
- B. Agenda:
  - 1. Execution of Association- Contractor Agreement.
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
  - 5. Designation of personnel representing the parties to Contract, Association and Engineer.
  - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - 7. Scheduling.

**3.02 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Association, Engineer, as appropriate to agenda topics for each meeting.



- C. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.
  - 3. Field observations, problems, and decisions.
  - 4. Identification of problems that impede, or will impede, planned progress.
  - 5. Review of submittals schedule and status of submittals.
  - 6. Maintenance of progress schedule.
  - 7. Corrective measures to regain projected schedules.
  - 8. Planned progress during succeeding work period.
  - 9. Maintenance of quality and work standards.
  - 10. Effect of proposed changes on progress schedule and coordination.
  - 11. Other business relating to Work.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Engineer, Association, participants, and those affected by decisions made.

### **3.03 CONSTRUCTION PROGRESS SCHEDULE**

#### **3.04 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
  - 1. Product data.
  - 2. Shop drawings.
  - 3. Samples for selection.
  - 4. Samples for verification.
- B. Submit to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

#### **3.05 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit them for information:
  - 1. Design data.
  - 2. Certificates.
  - 3. Test reports.
  - 4. Inspection reports.
  - 5. Manufacturer's instructions.
  - 6. Manufacturer's field reports.
  - 7. Other types indicated.
- B. Submit for Engineer's knowledge as contract administrator or for Association. No action will be taken.

#### **3.06 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Warranties.
  - 3. Bonds.
  - 4. Other types as indicated.
- B. Submit for Association's benefit during and after project completion.

#### **3.07 NUMBER OF COPIES OF SUBMITTALS**

- A. Documents for Information: Submit two copies.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Engineer.
  - 1. After review, produce duplicates.

2. Retained samples will not be returned to Contractor unless specifically so stated.

**3.08 SUBMITTAL PROCEDURES**

- A. Transmit each submittal with approved form.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- G. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- H. Provide space for Contractor and Engineer review stamps.
- I. When revised for resubmission, identify all changes made since previous submission.
- J. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

**END OF SECTION**

**SECTION 01 3216  
CONSTRUCTION PROGRESS SCHEDULE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Preliminary schedule.
- B. Construction progress schedule, bar chart type.

**1.02 RELATED SECTIONS**

- A. Section 01 1000 - Summary: Work sequence.

**1.03 SUBMITTALS**

- A. Within 10 days after date of Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Submit updated schedule with each Application for Payment.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PRELIMINARY SCHEDULE**

- A. Prepare preliminary schedule in the form of a horizontal bar chart.

**3.02 CONTENT**

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.
- C. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of the first day of each month.
- D. Provide legend for symbols and abbreviations used.

**3.03 BAR CHARTS**

- A. Include a separate bar for each major portion of Work or operation.
- B. Identify the first work day of each week.

**3.04 UPDATING SCHEDULE**

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of Work.
- D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Substantial Completion.

**3.05 DISTRIBUTION OF SCHEDULE**

- A. Distribute copies of updated schedules to Contractor's project site file, to Subcontractors, suppliers, Engineer, Association, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

**END OF SECTION**

**SECTION 01 3553  
SECURITY PROCEDURES**

**PART 1 GENERAL**

**1.01 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: use of premises and occupancy.

**1.02 SECURITY PROGRAM**

- A. Protect Work, existing premises and Association's operations from theft, vandalism, and unauthorized entry while working on premises.
- B. Initiate program at project mobilization. Contractor is responsible for Contractor's gang box tools, materials, staging, wood, and items used strictly for the renovation of the building under the Contractor's means and methods.

**1.03 PERSONNEL IDENTIFICATION**

- A. Contractor to maintain employee wearing Company logo shirts to identify each person authorized by Contractor to be working on premises.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 4000  
QUALITY REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Mock-ups.
- B. Control of installation.
- C. Tolerances.

**1.02 RELATED REQUIREMENTS**

- A. Document 00 7200 - General Conditions: Inspections and approvals required by public authorities.

**PART 3 EXECUTION**

**2.01 CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

**2.02 MOCK-UPS**

- A. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining Work.
- D. Where mock-up has been accepted by Engineer and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

**2.03 TOLERANCES**

- A. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- B. Adjust products to appropriate dimensions; position before securing products in place.

**2.04 TESTING AND INSPECTION**

- A. Contractor Responsibilities:
  - 1. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
- B. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

**2.05 DEFECT ASSESSMENT**

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct an appropriate remedy or adjust payment.

**END OF SECTION**

**SECTION 01 4533  
CODE-REQUIRED SPECIAL INSPECTIONS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Code-required special inspections.
- B. Testing services incidental to special inspections.
- C. Submittals.
- D. Manufacturers' field services.
- E. Fabricators' field services.

**1.02 RELATED REQUIREMENTS**

- A. Document 00 3100 - Available Project Information: Soil investigation data.
- B. Document 00 7200 - General Conditions: Inspections and approvals required by public authorities.

**1.03 DEFINITIONS**

- A. Authority Having Jurisdiction (AHJ): Agency or individual officially empowered to enforce the structural, stucco, painting, waterproofing, and life safety code requirements of the permitting jurisdiction in which the Project is located.
- B. Special Inspection:
  - 1. Special inspections are inspections and testing of materials, installation, application, or placement of components and connections mandated by the AHJ that also require special expertise to ensure compliance with the approved contract documents and the referenced standards.
  - 2. Special inspections are separate from and independent of tests and inspections conducted by Association or Contractor for the purposes of quality assurance and contract administration.

**1.04 REFERENCE STANDARDS**

- A. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; 2011.
- B. AWS D1.4/D1.4M - Structural Welding Code - Reinforcing Steel; 2011.
- C. Florida Building Code- Latest

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**PART 3 EXECUTION**

**2.01 SCHEDULE OF SPECIAL INSPECTIONS, GENERAL**

- A. Frequency of Special Inspections: Special Inspections are indicated as periodic.
  - 1. Periodic Special Inspection: Special Inspection Agency shall be present in the area where work is being performed and observe the work part-time or intermittently and at the completion of the work.

**2.02 SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION**

- A. Reinforcing Steel, Including Prestressing of Tendons and Placement: Verify compliance with approved contract documents and ACI 318, 3.5 and 7.1 through 7.7; periodic.
- B. Reinforcing Steel Welding: Verify compliance with AWS D1.4 and ACI 318, 3.5.2; periodic.
- C. Design Mix: Verify plastic concrete complies with the design mix in approved contract documents and with ACI 318, Chapter 4 and 5.2; periodic.
- D. Specified Curing Temperature and Techniques: Verify compliance with approved contract documents and ACI 318, 5.11 through 5.13; periodic.
- E. Concrete Strength in Situ: Verify concrete strength complies with approved contract documents and ACI 318, 6.2, for the following.
- F. Formwork Shape, Location and Dimensions: Verify compliance with approved contract documents and ACI 318, 6.1.1; periodic.

- G. Stucco application after substrate preparation.
- H. Paint application after substrate preparation.
- I. Perimeter Balcony Railings aka Safety Barriers.

**2.03 SPECIAL INSPECTIONS FOR MASONRY CONSTRUCTION**

- A. Masonry Structures Subject to Special Inspection:
  - 1. Engineered masonry in structures classified as "low hazard..." and "substantial hazard to human life in the event of failure".

**2.04 MANUFACTURERS' AND FABRICATORS' FIELD SERVICES**

- A. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

**END OF SECTION**

**SECTION 01 5000  
TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary sanitary facilities.
- B. Temporary Controls: Barriers, enclosures, and fencing.
- C. Security requirements.
- D. Vehicular access and parking.
- E. Waste removal facilities and services.
- F. Project identification sign.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 5100 - Temporary Utilities.
- B. Section 01 5213 - Field Offices and Sheds.
- C. Section 01 5500 - Vehicular Access and Parking.
- D. Section 01 3553 - Security Procedures.
- E. Section 01 5813 - Temporary Project Signage.

**1.03 TEMPORARY UTILITIES - SEE SECTION 01 5100**

- A. Association will provide the following:
  - 1. Electrical power, consisting of limited amounts as required to complete the renovations as stated in the specifications.
  - 2. Water supply, consisting of limited amounts to provide the necessary work and cleanup as stated in the specifications and contract.
- B. Use trigger-operated nozzles for water hoses, to avoid waste of water.

**1.04 TEMPORARY SANITARY FACILITIES**

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.
- C. At end of construction, return facilities to same or better condition as originally found.

**1.05 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities, pedestrians, and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Protect vehicular traffic, stored materials, site, and structures from damage.

**1.06 FENCING**

- A. Construction: Contractor's option.

**1.07 SECURITY - SEE SECTION 01 3553**

- A. Provide security and facilities to protect Work, existing facilities, and Association's operations where possible.
- B. Coordinate with Association's security program.

**1.08 VEHICULAR ACCESS AND PARKING - SEE SECTION 01 5500**

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Association.



- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.
- F. Provide one parking space for Engineer's use.

**1.09 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers and remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

**1.10 PROJECT IDENTIFICATION**

- A. No Contractor advertisement signs are allowed without Association's permission except those required by law.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 5100  
TEMPORARY UTILITIES**

**PART 1 GENERAL**

**1.01 TEMPORARY ELECTRICITY**

- A. Cost: By Association.
- B. Provide power service required from utility source.
- C. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required.  
Provide flexible power cords as required.
- D. Permanent convenience receptacles may be utilized during construction.

**1.02 TEMPORARY WATER SERVICE**

- A. Cost of Water Used: By Association.
- B. Provide and maintain suitable quality water service for construction operations at time of project mobilization.
- C. Contractor to connect to existing water source for construction operations at time of project mobilization.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 5500  
VEHICULAR ACCESS AND PARKING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Parking.
- B. Existing pavements and parking areas.
- C. Construction parking controls.

**PART 2 PRODUCTS**

**2.01 SIGNS, SIGNALS, AND DEVICES**

- A. Post Mounted and Wall Mounted Traffic Control and Informational Signs: Specified in Section 01 5813.

**PART 3 EXECUTION**

**3.01 PARKING**

- A. Use of designated areas of existing parking facilities by construction personnel is permitted.
- B. Arrange for temporary parking areas to accommodate use of construction personnel.
- C. When site space is not adequate, Contractor and Association to work out additional off-site parking.

**3.02 CONSTRUCTION PARKING CONTROL**

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.
- B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to non-designated areas.

**3.03 TRAFFIC SIGNS AND SIGNALS**

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected Resident traffic.
- B. Relocate as Work progresses, to maintain effective traffic control.

**END OF SECTION**

**SECTION 01 5813  
TEMPORARY PROJECT SIGNAGE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project informational signs.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Responsibility to provide signs. Association to provide permission, location, and number of allowed signs.

**1.03 QUALITY ASSURANCE**

- A. Design sign and structure to withstand 70 miles/hr. wind velocity. Remove in the event of hurricane.

**PART 2 PRODUCTS**

**2.01 PROJECT INFORMATIONAL SIGNS**

- A. Painted informational signs of same colors and lettering as Project Identification sign, or standard products; size lettering to provide legibility at 100-foot (30 m) distance.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

- A. Install sign surface plumb and level. Anchor securely.

**3.02 MAINTENANCE**

- A. Maintain signs and supports clean, repair deterioration and damage.

**3.03 REMOVAL**

- A. Remove signs, framing, supports, and foundations at completion of Project and restore the area.

**END OF SECTION**

**SECTION 01 6000  
PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Product option requirements.
- B. Substitution limitations and procedures.

**1.02 SUBMITTALS**

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

**PART 2 PRODUCTS**

**2.01 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by the Contract Documents.

**2.02 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

**PART 3 EXECUTION**

**3.01 SUBSTITUTION PROCEDURES**

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Engineer will consider requests for substitutions only within 30 days after date of Agreement.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the substitution as for the specified product.
  - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Association.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- E. Substitution Submittal Procedure:
  - 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
  - 3. The Engineer will notify Contractor in writing of decision to accept or reject request.

**3.02 TRANSPORTATION AND HANDLING**

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

### **3.03 STORAGE AND PROTECTION**

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Prevent contact with material that may cause corrosion, discoloration, or staining.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION**

**SECTION 01 7000  
EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Pre-installation meetings.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Closeout procedures, except payment procedures.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.

**1.03 QUALIFICATIONS**

- A. For shop drawing work, employ a professional engineer registered in the State in which the Project is located and acceptable to Engineer.

**1.04 PROJECT CONDITIONS**

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
  - 1. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Association.

**1.05 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- C. Coordinate completion and clean-up of work of separate sections.

**PART 2 PRODUCTS**

**2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.

- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

### **3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

### **3.03 PREINSTALLATION MEETINGS**

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Engineer four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of examination, preparation and installation procedures.
  - 2. Review coordination with related work.

### **3.04 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Engineer of any discrepancies discovered.
- C. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- D. Periodically verify layouts by same means.

### **3.05 GENERAL INSTALLATION REQUIREMENTS**

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

### **3.06 CUTTING AND PATCHING**

- A. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Fit products together to integrate with other work.
  - 3. Provide openings for penetration of mechanical, electrical, and other services.
  - 4. Match work that has been cut to adjacent work.
  - 5. Repair areas adjacent to cuts to required condition.
  - 6. Repair new work damaged by subsequent work.
  - 7. Remove samples of installed work for testing when requested.
  - 8. Remove and replace defective and non-conforming work.
- B. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- C. Cut rigid materials using masonry saw or core drill. Pneumatic tools allowed with prior approval.



- D. Restore work with new products in accordance with requirements of Contract Documents.
- E. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.
  - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.07 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- C. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

### **3.08 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

### **3.09 ADJUSTING**

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

### **3.10 FINAL CLEANING**

- A. Use cleaning materials that are nonhazardous.
- B. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
- C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- D. Clean debris from roofs, gutters, downspouts, and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

### **3.11 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
- B. Notify Engineer when work is considered ready for Substantial Completion.
- C. Set up a punch list inspection with the Engineer to verify all items are fully completed.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Association-occupied areas.
- E. Notify Engineer when work is considered finally complete.

- F. Contractor and Contractor's Subs shall close out all liens with a full release.
- G. Contractor to provide all warranty documentation and permit close out in exchange for outstanding retainage fee.
- H. Warranty period begins at exchange.

**END OF SECTION**

**SECTION 01 7800  
CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Warranties and bonds.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 7200 - General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Individual Product Sections: Warranties required for specific products or Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to Engineer with claim for final Application for Payment.
- B. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Association's permission, submit documents within 10 days after acceptance.
  - 2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**PART 3 EXECUTION**

**2.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Change Orders and other modifications to the Contract.
- B. Ensure entries are complete and accurate, enabling future reference by Association.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Changes made by Addenda and modifications.
- F. Record Drawings: Legibly mark each item to record actual construction including:
  - 1. Field changes of dimension and detail.
  - 2. Details not on original Contract drawings.

**2.02 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Association's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

**END OF SECTION**

**SECTION 02 4100  
DEMOLITION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Selective demolition of built site elements.
- B. Selective demolition of building elements for alteration purposes.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- C. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.

**1.03 REFERENCE STANDARDS**

- A. U.S. Occupational Safety and Health Standards; current edition.

**1.04 QUALITY ASSURANCE**

- A. Balcony Demolition/Renovation Firm Qualifications: Company specializing in the type of work required.
  - 1. Minimum of 5 years of experience.

**PART 3 EXECUTION**

**2.01 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  - 1. Obtain required permits.
  - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  - 3. Provide, erect, and maintain temporary barriers and security devices.
  - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  - 5. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
- B. Protect existing structures and other elements that are not to be removed.
  - 1. Provide bracing and shoring.
  - 2. Prevent movement or settlement of adjacent structures.
  - 3. Stop work immediately if adjacent structures appear to be in danger.

**2.02 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as shown.
  - 2. Report discrepancies to Engineer before disturbing existing installation.
- B. Remove existing work as indicated and as required to accomplish new work.
- C. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Size of chipping hammers to be maximum 16 lbs. unless larger is approved.
  - 4. Repair adjacent construction and finishes damaged during removal work.
  - 5. Patch as specified for patching new work.

**2.03 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.

- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

**SECTION 03 1000  
CONCRETE FORMING AND ACCESSORIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
- B. Form stripping.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 2000 - Concrete Reinforcing.
- B. Section 03 3000 - Cast-in-Place Concrete.

**1.03 REFERENCE STANDARDS**

- A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; 2010.
- B. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute; 2010.
- C. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute; 2011.
- D. ACI 347 - Guide to Formwork for Concrete; American Concrete Institute; 2004.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**PART 2 PRODUCTS**

**2.01 FORMWORK - GENERAL**

- A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.
- B. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.
- C. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.
- D. Comply with relevant portions of ACI 347, ACI 301, and ACI 318.

**PART 3 EXECUTION**

**3.01 ERECTION - FORMWORK**

- A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.

**3.02 FORMWORK TOLERANCES**

- A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

**3.03 FORM REMOVAL**

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.

**END OF SECTION**

**SECTION 03 2000  
CONCRETE REINFORCING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Reinforcing steel for cast-in-place concrete.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 3000 - Cast-in-Place Concrete.

**1.03 PRICE AND PAYMENT PROCEDURES**

- A. See Section 01 2200 - Unit Prices, for additional unit price requirements.

**1.04 REFERENCE STANDARDS**

- A. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2012.
- B. CRSI (DA4) - Manual of Standard Practice; Concrete Reinforcing Steel Institute; 2009.

**PART 2 PRODUCTS**

**2.01 REINFORCEMENT**

- A. Reinforcing Steel: ASTM A615/A615M Grade 60 (420).

**2.02 FABRICATION**

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.

**PART 3 EXECUTION**

**3.01 PLACEMENT**

- A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Maintain concrete cover around reinforcing as follows:
  - 1. Supported Slabs and Joists: 1" inch.
- C. Conform to applicable code for concrete cover over reinforcement.

**END OF SECTION**

**SECTION 03 3000  
CAST-IN-PLACE CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Miscellaneous concrete elements, including balcony slabs, columns, and beams.

**1.02 REFERENCE STANDARDS**

- A. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2010.
- B. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 2010.
- C. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 2010.
- D. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute International; 2011.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Samples for Pigment Color Selection: Submit manufacturer's complete sample chip set, including pigment number and required dosage rate for each color.

**1.04 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

**PART 2 PRODUCTS**

**2.01 REINFORCEMENT**

- A. Reinforcement Accessories:
  - 1. Provide stainless steel, galvanized, plastic, or plastic-coated steel components for placement within 1-1/2 inches of weathering surfaces.

**2.02 CONCRETE MATERIALS**

**END OF SECTION**



**SECTION 03 3030  
REPAIR CONCRETE**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Preparation of concrete and application of repair materials.
- B. Rehabilitation of concrete surfaces.
- C. Repair of concrete internal reinforcement.

**1.02 REFERENCE STANDARDS**

- A. Concrete Repair Manual- Vols. 1 & 2 Published jointly by ICRI & ACI-Third Ed.
- B. ASTM A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement; 2007.
- C. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2009b.
- D. ASTM C33 - Standard Specification for Concrete Aggregates; 2008.
- E. ASTM C150 - Standard Specification for Portland Cement; 2007.
- F. ASTM C404 - Standard Specification for Aggregates for Masonry Grout; 2007.
- G. AWS D1.4/D1.4M - Structural Welding Code - Reinforcing Steel; American Welding Society; 2005.

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**1.04 QUALITY ASSURANCE**

- A. Perform welding work in accordance with AWS D1.4.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than 5 years of documented experience.
- C. Design reinforcement splices under direct supervision of a Professional Structural Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

**1.05 MOCK-UP**

- A. Provide [stucco] mock-up, [2'] feet long by [2'] feet wide, illustrating patching method, color and texture of repair surface and [finish].
- B. Provide [paint] mock-up, [3'] feet long by [3'] feet wide, illustrating color and surface finish (flat, egg shell, or other).
- C. Provide [balcony finish] mock-up, [2'] feet long by [2'] feet wide, on separate board, illustrating finish, color and texture of repair surface and [finish].

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with manufacturers' instructions for storage, shelf life limitations, and handling.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Cementitious Mortars:
  - 1. BASF Construction Chemicals-Building Systems: [www.chemrex.com](http://www.chemrex.com).
  - 2. [Sto]; Product [See attached].

**2.02 PATCHING MATERIALS**

- A. Bonding Agent: Polyvinyl acetate emulsion, dispersed in water while mixing, non-coagulant in mix, water resistant when cured.
- B. Portland Cement: ASTM C150, Type I, grey.
- C. Sand: ASTM C 33 or ASTM C 404; uniformly graded, clean.
- D. Water: Clean and potable.

**2.03 REINFORCEMENT MATERIALS**

- A. Reinforcing Steel: ASTM A 615/A 615M Grade 60 (420) billet-steel deformed bars, unfinished.
- B. Post tension cables, cable ends, pull and dead ends, #4 backer bars, grease caps.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that surfaces are ready to receive work.
- B. Beginning of installation means acceptance of substrate.

**3.02 PREPARATION**

- A. Clean concrete surfaces of dirt, laitance, corrosion, or other contamination; wire brush or using water; rinse surface and allow to dry.

**3.03 REPAIR WORK**

- A. Repair spalling. Fill voids flush with surface. Apply surface finish.

**3.04 INJECTION - EPOXY RESIN ADHESIVE**

- A. Inject adhesive into prepared ports under pressure using equipment appropriate for particular application.
- B. Begin injection at lower entry port and continue until adhesive appears in adjacent entry port. Continue from port to port until entire crack is filled.

**3.05 FIELD QUALITY CONTROL**

- A. An independent testing agency, as specified in Section 01 4000, will perform field inspection and testing.

**Part 2. Products**

**2.01 Attachment- Contractor to provide submittal package indicating Product Choice- BASF, SIKA, STO, or MAPEI- Provide submittal of Products selected- required by Contractor**

**A. OVERHEAD REPAIRS-** A construction grout shall be used on all patches that are chipped into the concrete in the overhead ceilings. The materials that shall be used is Master Emaco N425 (formerly Gel Patch). The installation method shall be hand pack application or form and pump. (See attached sketch at rear of package). The alternative materials that can be used are Master Emaco N420 or Emaco® S88 CI.

**B. SLAB REPAIR-** A concrete bag mix repair product shall be used on all patches which are chipped into the horizontal (floor) concrete, both full depth and partial depth. The material that shall be used is Master Emaco S466 CI for repairs greater than 1.0" in depth. The alternative materials that can be used for bag mix repairs shall be Master Emaco 1061 repair material.

Edge repairs shall be completed using the above listed items.

**C. COLUMN OR SOFFIT BEAM REPAIR-** Repairing large concrete columns or beams shall also be accomplished by using Master Emaco S466 CI or the approved alternative Master Emaco® S440 CI.

**D. REBAR COATING-** Anti-Corrosion protection for reinforcing rods, both existing, shall be Emaco® P124 Bonding & Anti-Corrosion Agent.

**E. REBAR DOWELLING AND EPOXY-** The epoxy adhesive for dowelling new rebar into concrete shall be Concresive® Inject 1500. Diameter of holes to be 1/8" greater than bar size. Remove all dust particles in drilled holes prior to epoxy by using a wire brush. Blow out holes after wire brush.

**F. CRACK FILLER-** The material to use to fill hair line cracks shall be Master Builders 327, or equal and approved other. All cracks are to be finished smooth and level with the existing slab.

**G. EPOXY INJECTION-** The material to use for epoxy injection shall be Master Builders MasterInject 1300. Provide ports @ 8" o/c. For bonding the cracks and the injection ports use the StoPoxy Quick-Set Gel, StoPoxy Binder, or BASF Concresive Paste SPL or an equal and approved other.

**H. PENETRATING SEALER-** If the Engineer of the authorized representative deems it; the penetrating sealer shall BASF Master Protect H440.

**I. CAULKING/SEALANT-** If the Engineer of the authorized representative deems it, the caulking shall be BASF Master Seal NP100 depending on type and location of application.

**J. WINDOW PERIMETER-** If the windows are removed and the 4 masonry/concrete surfaces are exposed, apply BASF MaxFlash Flashing Membrane to the window perimeters.

**K. POST ANCHORING-** The product to anchor the railing post to the concrete substrate shall be MasterFlow 110 AN.

**L. POST ANCHORING-** Prior to railing post to be anchored to concrete slab, the bottom 3" of each post must be coated with epoxy. The product to apply for the coating of the railing post shall be Master Inject 1500.

**M. WATERPROOFING-** The material to use for the waterproofing of the pool deck shall be Carlisle R-500 Hot Applied Membrane. The concrete surfaces shall be prepared in accordance to ICRI standards of CSP-3. A sample section shall be completed for test and approval.

**N. CONCRETE TOPPING SLAB- FOR PITCHING-** A concrete bag mix topping product shall be used to pitch water or anchor new drains. The material that shall be used is Master Emaco® T1061.

**O. READY-MIX CONCRETE-** A design mix concrete may be used on all full depth repairs and or replacement.

The structural concrete to be used for a pump mix is as follows: All concrete shall develop a minimum compressive strength of 5000 psi in 28 days, or as determined by test cylinders made in accordance with ASTM C-31 and tested in accordance with ASTM C-39. The cement used shall be a Portland cement and shall conform to the requirements of ASTM C-150 Type 1. The Contractor shall furnish vendors certified test reports for the cement shipped to the project. The report shall be delivered to the Engineer before permission to use the cement is granted. All such test reports shall be subject to verification by testing sample materials received for use on the project. Fine aggregate for concrete shall meet the requirements of ASTM C-22. Course aggregate for concrete shall meet the requirements of ASTM C-33 and shall be well graded from coarse to fine. The mix shall be in accordance to ACI 318 Part 3 Chapter 4 Durability Requirements Table 4.2.2 Requirements for Special Exposure Conditions.

All Type 1 Concrete that is to be poured for structural repairs (other than patch mix) is to be supplied from a Ready-Mix Plant that is in close proximity to the job site. Mix concrete in accordance with ACI 304. Use only previously proven concrete design mix.

The required characteristics needed for a "reduced shrinkage" concrete is:

- 1) 0.40 water-cement ratio by weight
- 2) 3/8" or larger aggregate (Aggregates: ASTM C 33-93)
- 3) High range water-reducing admixture (superplastiser) to maintain 6" slump to 8.5" max.
- 4) Corrosion Inhibitor (calcium nitrite) (Rheocrete or DCI) admixture at a dosage of 2 gallons per cubic yard.
- 5) Air Entrainment Admixtures: ASTM C 260-94

The ready-mix concrete shall be supplied by an approved supplier. The Contractor shall provide cylinder and compression test for the concrete mix. Use only previously proven concrete design mixes. All exposed concrete surfaces shall be true, smooth, free from open or rough spaces, depressions, or projections. The concrete in horizontal plane surfaces shall be brought flush with a finished top surface at the proper elevation and shall be struck-off with a bull-float and/or finished with a proper trowel. Mortar finishing shall not be permitted, nor shall dry cement (dusting) or sand-cement mortar be spread over the concrete during the finishing of horizontal surfaces. The finished surface shall be without defects and be properly consolidated for integrity. If the finished surface is defective, the Engineer will determine if it

should be removed or if remedial repairs can be accomplished. A test (cylinder tests) by a certified testing laboratory shall be provided at each 5<sup>th</sup> truck or 1 per day of concrete pumping.

**P. URETHANE DECK COATING-** The urethane membrane system to use shall be BASF Master Seal Traffic 1500.

**Q. WALL COATINGS- INITIAL APPLICATIONS-** If the walls are chalky after pressure cleaning, apply BASF Master Protect P 100 primer to the walls. At all new stucco and/or concrete repair areas, use a block filler Master Protect FL 749.

**R. WALL COATINGS- BASE & FINAL COATINGS-** After pressure cleaning and all necessary preparations per the Manufacturer, apply BASF Master Protect HB 200 high build coating to the walls. Apply finish coat using Master Protect C 350. The Owner shall receive a 10-year labor and material warranty for this product application.

**S. STUCCO MESH-** Apply a stucco mesh over cracks at intersections of floor slab/CBS wall or CBS wall/column. Remove stucco and clean area. Install BASF WS Detail/Backwrap mesh in scratch coat. If wider than 9" width is required, utilize Acromesh 4.

### **Part 3. Execution**

#### **3.01 Attachment**

**A. SPALL LOCATION-** If the Engineer or his authorized representative deems that there is spalling, then the Contractor shall expose the reinforcing bar to a point of virgin or undamaged steel. The Contractor shall visually examine the slab surfaces for cracks or spalls. If suspect areas are detected, the Engineer shall be notified and a hammer test shall be made to locate additional hollow, delaminated, and spalled areas and to determine the extent of deteriorated concrete.

**B. EXCAVATION-** Excavate the concrete to a minimum of 3/4" below the reinforcing bar to enable an examination of the loss of cross section.

**C. ADDITIONAL REINFORCEMENT-** Alongside each bar that shows more than 25% loss of cross section, a similar bar shall be welded or added (dowel and epoxy) to bring the slab to the original design criteria. If the new rebar is to be added and anchored then it is to be anchored into the adjacent concrete. The new bar shall be anchored at least 6" and set in epoxy anchoring compound.

**D. SHORING-** Areas of chipped concrete which expose the rebar and disengages the columns or cantilevered slabs from bearing shall be shored. The Contractor shall be responsible for providing the design and installation of the shoring. (A minimum safety factor of 2 shall be used in the design of the shoring.) All scaffolding and shoring shall be designed and installed in its intended use with all connections and safety features in place.

**E. CLEANING & COATING EXPOSED REBAR-** All reinforcing bars should be coated the same day shortly after the rebars are exposed and cleaned with sand blasting. The cleaning shall bring the steel reinforcing bars to a clean finish. If necessary, the rebars should be hammered to remove any large areas of scale. Any exposed steel shall be coated with the specified materials. Where welding has occurred, the welds shall be deslagged, sand blasted clean, and coated. During the coating process of the rebar the coating must be in contact or to remain attached with the surrounding concrete surfaces.

**F. FINISH-** All concrete or patch material shall be placed level with the existing slab at the connection to the existing good concrete areas.

**G. ALTERNATIVE TESTS-** There are other types of testing methods that may be employed for verification of the concrete and slab surfaces. Upon recommendation of the Engineer and prior approval by the Owner of the Engineer's recommendation, and the Contractor's additional costs, such alternative test shall be performed.

**H. CONCRETE REMOVAL-** The Contractor shall chip and remove all loose, cracked, and spalled concrete back to sound concrete. Square off the patch areas to keep patch uniform in appearance. The Engineer or his authorized Inspector will then determine the number and type of reinforcing bars to add to compensate for corroded rebars if necessary. The Contractor shall proceed with the undercutting of all corroded and oxidized rebars at some point during this phase.

**I. HAMMERS-** Since pneumatic or electric hammers are being used to chip the concrete, these hammers must be approved by the Engineer. Hammers in excess of 16 lbs. will not be used without specific cause and approval prior to any use.

**J. ANTI-CORROSIVE COATING-** After the added rebars are compensated for and replaced, and all the sandblasting has occurred, then the exposed rebars will be coated shortly (no greater than 4 hrs.) after the sandblasting process. This will include the newly added rebars as well as the exposed rebars. The Contractor shall apply coating for corrosion protection over rebar.

**K. SCRUB COAT-** The next operation is to apply a scrub-in of the patch material of the concrete to be used. Apply scrub coat with stiff brush. The placement of the repair mortar for the full depth repairs does not require a scrub coat application. However, the wood forms for full depth edge repairs must be pre-wet for 4 hours to a saturated surface dry condition. Fill forms with water to accomplish the SSD condition prior to installation.

**L. CONCRETE PLACEMENT-** Place concrete in accordance with ACI 301, ACI 318, and ACI 304.

**M. CONCRETE FINISHING-** Concrete finished surfaces that are to be left exposed, such as the eyebrows, shall be smooth rubbed finish.

**N. COVERING & PROTECTION-** Protect all newly poured concrete from premature drying. At appropriate time after pour, apply burleen or other approved material with potable water for period necessary for hydration of cement. Maintain moisture curing minimum 3 days.

**O. CLEANING REBARS-** Sandblasting or wire-wheel cleaning shall be utilized to clean all exposed rebar. The sandblasted rebar shall be cleaned to a clean finish on all sides. (See diagram at rear) If necessary, strike rebars with hammer to remove heavy oxidation then scrape excess oxidation prior to cleaning.

**P. DEFECTIVE WORK-** Any defective work disclosed by the Engineer after the forms have been removed shall be immediately removed and replaced or repaired if possible. If any dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycombs, which in the opinion of the Engineer cannot be repaired satisfactorily, the entire section shall be removed and replaced at the expense of the Contractor.

**Q. CURING-** All repair mortar shall be properly cured and protected by the Contractor. The work shall be protected from the elements, flowing water, and from defacement by nature during the building operations. The repair concrete shall be cured as soon as it has sufficiently hardened by covering with an approved material such as burleen covers. Plastic visqueen covers shall not be considered curing. Water-absorptive coverings shall be thoroughly saturated when placed and be kept saturated for a period of at least 3 days. All curing mats shall be weighed down to keep the concrete surface covered and to prevent the surface from being exposed to currents of air.

**END OF SECTION**

**SECTION 03 3900  
CONCRETE CURING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Initial and final curing of horizontal and vertical concrete surfaces.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 3000 - Cast-in-Place Concrete.

**1.03 QUALITY ASSURANCE**

- A. Perform Work in accordance with ACI 301 and ACI 302.1R.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Membrane Curing Compound: ASTM C309 Type 1 - Clear or translucent, Class A.
- B. Moisture-Retaining Sheet: ASTM C171.
  - 1. Curing burleen, regular.
- C. Polyethylene Film: ASTM D2103, 4 mil thick, clear.
- D. Water: Potable, not detrimental to concrete.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that substrate surfaces are ready to be cured.

**3.02 EXECUTION - HORIZONTAL SURFACES**

- A. Cure floor surfaces in accordance with ACI 308R.
- B. Spraying: Spray water over floor slab areas and maintain wet for 7 days.
- C. Moisture-Retaining Sheet: Lap strips not less than 3 inches and seal with waterproof tape or adhesive; secure at edges; maintain in place for not less than 4 days.
- D. Membrane Curing Compound: Apply curing compound in accordance with manufacturer's instructions in one coat.

**3.03 EXECUTION - VERTICAL SURFACES**

- A. Cure surfaces in accordance with ACI 308R.
- B. Spraying: Spray water over surfaces and maintain wet for 3 days.
- C. Membrane Curing Compound: Apply compound in accordance with manufacturer's instructions in one coat.

**3.04 PROTECTION**

- A. Do not permit traffic over unprotected floor surface.

**END OF SECTION**

**SECTION 05 7300  
DECORATIVE METAL RAILINGS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Railing and guardrail assemblies.

**1.02 REFERENCE STANDARDS**

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; current edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings, Safety Performance Specifications and Methods of Test; 2010.
- C. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2008.
- D. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2007.
- E. ASTM E935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2000 (Reapproved 2006).
- F. AWS D1.2/D1.1M - Structural Welding Code - Aluminum; 2010.
- G. Design, fabricate and install guardrails to withstand requirements of Florida Building Code 2015, Section 1617.4.6.3.
- H. ASCE – 7 Latest Edition
- I. American Architectural Manufacturers Association (AAMA) 610

**1.03 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate railing system elevations and sections, details of profile, dimensions, sizes, connection attachments, anchorage, size and type of fasteners, and accessories. Indicate anchor and joint locations, brazed connections, transitions, and terminations.
- C. Test Reports: Submit test reports from an independent testing agency showing compliance with specified design and performance requirements.
- D. Maintenance Data: Manufacturer's instructions for care and cleaning.

**1.04 DELIVERY, STORAGE AND HANDLING:**

- A. Transport, deliver and store railings and guardrails with bubble wrap or foam between units to prevent marring and chipping. Storage shall be in covered areas protected from the elements. Area to be designated by the Association.

**1.05 JOB CONDITIONS:**

- A. Protection: Protect aluminum surfaces from contact with lime, mortar, cement, acids, harsh cleaning products, and other harmful surfaces. Protect from careless handling, storage, or climbing over for access to balcony from swing stage.

**1.06 QUALITY ASSURANCE:**

- A. Procure coating of railings from a single source.
- B. Allowable tolerances:
  - 1. Shop assembled mechanical joints shall have a snug fit.
  - 2. Sizes of each element of an assembly shall be correct with 1/8", total size of a freestanding assembly.
  - 3. Reassemble railings and guardrails plumb and aligned within 1/4" in 12' and parallel with adjacent surfaces to within 1/8".

- C. Applicable standards:
  - 1. Aluminum Association (AA), standards as referenced herein.
  - 2. American Architectural Manufacturers Association (AAMA) standards as referenced herein.
  - 3. American Society for Testing and Materials (ASTM), standards as referenced herein.
- D. Field measurements: Take field measurements prior to preparation of shop drawings (if required) and fabrication to ensure fitting of work.

## **1.07 WARRANTY**

- A. Provide Owner with manufacturer's warranty for materials, fastening, welds, and installation (10-year standard).
- B. Endorse and forward to Owner the manufacturer's appropriate finish (Coating) warranty. (10-year extended finish warranty).
- C. Provide to Owner the manufacturer's instructions and requirements for cleaning and maintenance to maintain 10-year finish warranty in force.

## **PART 2 PRODUCTS**

### **2.01 RAILING SYSTEMS**

- A. Railings - General: Factory- or shop-fabricated in design indicated, to suit specific project conditions, and for proper connection to building structure, and in largest practical sizes for delivery to site.
  - 1. Design Criteria: Design and fabricate railings and anchorages to resist the following loads without failure, damage, or permanent set; loads do not need to be applied simultaneously.
    - a. Lateral Force: 75 lb. minimum, at any point, when tested in accordance with ASTM E935.
    - b. Distributed Load: 50 pounds per foot minimum, applied in any direction at the top of the handrail, when tested in accordance with ASTM E935.
    - c. Concentrated Loads on Intermediate Rails: 50 pounds per square ft (0.22 per sq m), minimum.
    - d. Concentrated Load: 200 pounds (888 N) minimum, applied in any direction at any point along the handrail system, when tested in accordance with ASTM E935.
  - 2. Assembly: Join lengths, seal open ends, and conceal exposed mounting bolts and nuts using slip-on non-weld mechanical fittings, flanges, escutcheons, and wall brackets.
  - 3. Joints: Tightly fitted and secured, machined smooth with hairline seams.
  - 4. Field Connections: Provide sleeves to accommodate site assembly and installation.
  - 5. Welded and Brazed Joints: Make exposed joints butt tight, flush, and hairline; use methods that avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.
    - a. Ease exposed edges to small uniform radius.
    - b. Welded Joints

### **2.02 ACCESSORIES**

- A. Non-Weld Mechanical Fittings- #10 Stainless Steel Self-Tapping Screws or SS Slip-on, castings with flush setscrews for tightening.
- B. Welding Fittings: Factory- or shop-welded from matching pipe or tube; joints and seams ground smooth.
- C. Anchors and Fasteners: Provide anchors and other materials as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.
  - 1. For anchorage into concrete, provide 2-part epoxy coated aluminum posts into concrete pockets, no aluminum in contact with concrete.
  - 2. For anchorage to masonry, provide brackets to be embedded in masonry with bolting anchors.
  - 3. For anchorage to stud walls, provide backing plates for bolting anchors.

### **2.03 FINISHES: Kynar Paint Coating**

- A. Coatings shall meet or exceed AAMA Specs 2605-98, "superior performing organic coatings," and ASCA 96.
- B. Finish for exposed aluminum components:
  - 1. Acceptable product: PPG Industries; or equal and approved other.



2. Minimum three coat, shop-applied, baked on 70% fluoropolymer coating system based on Elf Atochem, Kynar 500 or Ausimont U.S.A., Inc., Hylar 5000 resin (polyvinylidene fluoride, PVDF), formulated by a licensed manufacturer and applied by manufacturer's approved applicator to meet AAMA 2605.02.

3. Coating system shall provide minimum 1.6-1.8 mil dry film thickness consisting of 0.25 (plus/minus 0.05) mil primer, minimum 1.0 mil color coat. Clear coat shall be applied and shall be 0.06 (plus/minus 0.2) mil clear top coat.

4. Color: Standard Color- Per Owner

**C. General**

1. Coatings shall be U.V. resistance and scratch & mar resistance formula consisting of super durable Kynar 500 fluoropolymer resin coating with inhibitive primer, chromate pretreatment and chromate primer. Apply Kynar XL clear-coat with flocked and color stable full pigmentation.

2. Finish designation prefixed by "AA" conform to the system established by the Aluminum Association for designating aluminum finishes.

3. Coating to be applied by paint manufacturer's warranty-applied applicator.

**D. Chemical pre-treatment:**

1. Alkaline cleaner applied at 160 degrees F. for duration of 3 to 5 minutes.

2. D.I. water rinse and assembly dried before painting.

3. Conversion phosphate coating applied at 140 degrees F. for 3 to 5 minutes.

4. Applicator to pretreat the aluminum with solutions to remove organic and inorganic surface residue and oxides in accordance with ASTM D1730, Type B, Method 5 (Amorphous Chromium Phosphate Treatment) or Method 7 (Amorphous Chromate Treatment).

**2.04 GUARDRAIL FABRICATION- RAILINGS TO BE CODE COMPLIANT:**

**A.** Aluminum guardrails assumed to be fabricated in accordance with approved shop drawings and original project specifications.

**B.** Aluminum pickets for railings shall be 1" x 1" x .125 min. or solid.

**C.** Posts shall be 2" x 2" with minimum thickness of .125 with inserted aluminum sleeve a minimum of 12" length for welded railings.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that substrate and site conditions are acceptable and ready to receive work.

B. Verify field dimensions of locations and areas to receive work.

C. Notify Engineer immediately of conditions that would prevent satisfactory installation.

D. Do not proceed with work until detrimental conditions have been corrected.

E. Furnish components to be installed in other work to installer of that other work, including but not limited to blocking, sleeves, inserts, anchor bolts, embedded plates and supports for attachment of anchors.

**3.02 PREPARATION**

A. Protect existing work.

B. Review installation drawings before beginning installation. Coordinate diagrams, templates, instructions and directions for installation of anchorages and fasteners.

C. Clean surfaces to receive units. Remove materials and substances detrimental to the installation.

**3.03 INSTALLATION**

A. Comply with manufacturer's drawings and written instructions.

- B. Install components plumb and level, accurately fitted, free from distortion or defects and with tight joints, except where necessary for expansion.
- C. Anchor securely to structure.
- D. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.
- E. Isolate dissimilar materials with epoxy coatings to prevent electrolytic corrosion.
- F. Apply urethane bead of caulk at post intersection to concrete slab.

#### **3.04 TOLERANCES**

- A. Maximum Variation from Plumb: 1/4 inch (6 mm) per floor level, non-cumulative.
- B. Maximum Offset from True Alignment: 1/8 inch.
- C. Maximum Out-of-Position: 1/2" inch.

#### **3.05 CLEANING**

- A. Remove protective film from exposed metal surfaces.
- B. Metal: Clean exposed metal finishes with potable water and mild detergent, in accordance with manufacturer recommendations; do not use abrasive materials or chemicals, detergents or other substances that may damage the material or finish.

#### **3.06 PROTECTION**

- A. Protect installed components and finishes from damage after installation.
- B. Repair damage to exposed finishes to be indistinguishable from undamaged areas.
  - 1. If damage to finishes and components cannot be repaired to be indistinguishable from undamaged finishes and components, replace damaged items.

**END OF SECTION**

**SECTION 07 1400  
FLUID-APPLIED WATERPROOFING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Fluid applied membrane waterproofing.

**1.02 REFERENCE STANDARDS**

- A. ASTM C836/C836M - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course; 2012.
- B. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers- Tension; 2006a (Reapproved 2013).
- C. ASTM D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact; 2013.
- D. ASTM D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers; 2009.

**1.03 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in installation of fluid-applied waterproofing with minimum 5 years' experience. BASF, Sika, Pecora, or Neogard
- B. Mock-Up: Construct a mock-up consisting of 100 sq ft (10 sq m) of horizontal waterproofed panel, including internal and external corners similar to those that will be present in the finished work.
  - 1. Locate where directed.

**1.04 FIELD CONDITIONS**

- A. Maintain ambient temperatures above 40 degrees F (5 degrees C) for 24 hours before and during application and until cured.

**1.05 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Contractor shall correct defective Work within a 5-year period after Date of Substantial Completion; remove and replace materials concealing waterproofing at no cost to Association.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Polyurethane Waterproofing Manufacturers:

**2.02 MEMBRANE AND FLASHING MATERIALS**

- A. Polyurethane Waterproofing: Cold-applied one or two component polyurethane, complying with ASTM C836. Use only Unimen sand- 20-40 or as per Manufacturer's recommendation.
  - 1. Cured Thickness: 60 mils (1.5 mm), minimum.
  - 2. Tensile Strength: 400 psi (2.758 MPa), measured in accordance with ASTM D412.
  - 3. Ultimate Elongation: 500 percent, measured in accordance with ASTM D412.
  - 4. Hardness: 60, measured in accordance with ASTM D2240, using Type A durometer.
  - 5. Adhesion: greater than 150 psi (1.03 MPa), measured in accordance with ASTM D4541.
  - 6. Brittleness Temperature: -50 F (-44 C), measured in accordance with ASTM D746.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
- C. Verify that items that penetrate surfaces to receive waterproofing are securely installed.

**3.02 PREPARATION**

- A. Protect adjacent surfaces not designated to receive waterproofing.

- B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions. Vacuum substrate clean.
- C. Do not apply waterproofing to surfaces unacceptable to manufacturer.
- D. Seal cracks and joints with sealant using methods recommended by sealant manufacturer.
- E. Install cant strips at inside corners.

### **3.03 INSTALLATION**

- A. Apply waterproofing in accordance with manufacturer's instructions to specified minimum thickness.
- B. Apply primer or surface conditioner at a rate recommended by manufacturer. Protect conditioner from rain or frost until dry.
- C. Seal membrane and flashings to adjoining surfaces. Install termination bar at all edges. Install counterflashing over all exposed edges.

### **3.04 PROTECTION**

- A. Do not permit traffic over unprotected, uncovered, unfinished, or uncured membrane.

**END OF SECTION**

**SECTION 07 1613**

**POLYMER MODIFIED CEMENT WATERPROOFING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Polymer modified cement waterproofing.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 3000 - Cast-in-Place Concrete: Concrete to be waterproofed.

**1.03 REFERENCE STANDARDS**

- A. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2013.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
  - 4. Details of joints and intersections.

**1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified in this section with minimum three years of documented experience and approved by manufacturer.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to project site in manufacturer's original packaging, marked with manufacturer's product identification.
- B. Store products in manufacturer's unopened packaging until ready for installation.
- C. Keep stored products dry; store under cover and elevated above grade.

**1.07 FIELD CONDITIONS**

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

**1.08 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Polymer-Modified Cement Waterproofing:
  - 1. Sto.
  - 2. Kemper.

**2.02 MATERIALS**

- A. Polymer-Modified Cement Waterproofing for Under Cementitious Mortar: Manufactured slurry coating of Portland or hydraulic cement, aggregates, polymer admixtures, and water; no solvents; for application directly to cementitious substrate, with re-coat time of less than 24 hours.
  - 1. Explicitly recommended by manufacturer as waterproofing, not simply as dampproofing.
  - 2. Water Vapor Transmission: MINIMUM permeance of finished coating of 3 perm, when tested in accordance with ASTM E96/E96M.

3. Finished Coating Thickness: As recommended by manufacturer for the specific application but not less than 1/2" inch.
- B. Crack Repair Material, Epoxy and Reinforcing: Type and application as recommended by waterproofing manufacturer.
- C. Water: Clean, clear, non-alkaline potable water, free of salts and other harmful elements.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine surfaces where waterproofing is to be applied for conditions detrimental to satisfactory performance.
- B. Do not begin installation until substrates have been properly prepared.
- C. If substrate preparation is the responsibility of another installer, notify Engineer of unsatisfactory preparation before proceeding.

#### **3.02 INSTALLATION**

- A. Install waterproofing in accordance with manufacturer's instructions and recommendations unless more stringent requirements are indicated.
- B. Perform installation only during ambient and substrate conditions recommended by manufacturer; provide temporary enclosures and/or temporary heating as necessary to do so.
- C. Fill voids and holes prior to application of first coat.
- D. Apply the number of coats and at the rates recommended by manufacturer for the specific application but not less than specified minimum thickness; apply at least two coats unless one coat is specifically indicated.
- E. Extend waterproofing to all surfaces in areas indicated to form continuous waterproofed surfaces.
- F. Cure waterproofing by recommended methods for recommended period prior to making waterproofed area available for use or occupancy; protect from too rapid drying, severe weather exposure, and water accumulation.
  1. Hot, Dry Weather: Night time installation- follow Manufacturer's instructions.
  2. Do not use covers that could stain waterproofing surfaces.
  3. Do not use chemical curing agents unless explicitly approved by waterproofing manufacturer.
  4. Do not expose waterproofing to sunlight for minimum of 72 hours after placement.
- G. Do not backfill, fill water or liquid holding structures, or apply finish coatings until time period recommended by manufacturer has passed.

#### **3.03 FIELD QUALITY CONTROL - WATER HOLDING STRUCTURES**

- A. Flood test waterproofing application by filling to capacity and allowing to stand for not less than 24 hours.
- B. If any leaks appear, notify Engineer and drain.
  1. Repair leaks at no additional cost to Association.
  2. Repeat flood test until all leakage is eliminated.

#### **END OF SECTION**

**SECTION 09 2400  
PORTLAND CEMENT PLASTERING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Portland cement plaster for installation over metal lath, masonry, concrete, and solid surfaces.

**1.02 REFERENCE STANDARDS**

- A. ASTM C91/C91M - Standard Specification for Masonry Cement; 2012.
- B. ASTM C150/C150M - Standard Specification for Portland Cement; 2012.
- C. ASTM C926 - Standard Specification for Application of Portland Cement-Based Plaster; 2012a.
- D. ICC (IBC) - International Building Code; 2012.
- E. PCA EB049 - Portland Cement Plaster/Stucco Manual; Portland Cement Association; 2003.

**1.03 MOCK-UP**

- A. Construct mock-up of exterior wall, 3 feet long by 3 feet wide, illustrating surface finish.
- B. Locate where directed.
- C. Mock-up may remain as part of the Work.

**1.04 FIELD CONDITIONS**

- A. Maintain minimum ambient temperature of 50 degrees F (10 degrees C) during installation of plaster and until cured.

**PART 2 PRODUCTS**

**2.01 PORTLAND CEMENT PLASTER ASSEMBLIES**

- A. Exterior Stucco: Portland cement plaster system, made of finish, brown, and scratch coat (and reinforcing mesh at areas of masonry/column intersections).

**2.02 PLASTER MATERIALS**

- A. Portland Cement, Aggregates, and Other Materials: In accordance with ASTM C926.
- B. Portland Cement: ASTM C150, Type I.
- C. Water: Clean, fresh, potable and free of mineral or organic matter that could adversely affect plaster.

**2.03 PLASTER MIXES**

- A. Mix only as much plaster as can be used prior to initial set.
- B. Mix materials dry, to uniform color and consistency, before adding water.
- C. Protect mixtures from freezing, frost, contamination, and excessive evaporation.
- D. Do not retemper mixes after initial set has occurred.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify the suitability of existing conditions before starting work.
- B. Masonry: Verify joints are cut flush and surface is ready to receive work of this section. Verify no bituminous or water-repellent coatings exist on masonry surface.

**3.02 PREPARATION**

- A. Dampen masonry surfaces to reduce excessive suction.
- B. Clean concrete surfaces of foreign matter. Wash surfaces with clean water and/or grind off deleterious materials.

### 3.03 PLASTERING

- A. Apply plaster in accordance with ASTM C926. Match surrounding existing finishes and blend new to existing without excessive "mounding" or "cresting".

All stucco which has been removed shall be replaced with new stucco to a minimum thickness of 5/8". New finish shall match existing. Stucco shall have an integral bonding agent within the mix. Acryl 60 (BASF MasterEmaco A660) shall be used. Areas of stucco removal shall be cleaned and properly prepared for new stucco. Base shall be dampened prior to installation. Apply 3-coat finish. First coat shall be scratch coat, 2nd coat to be brown coat, final coat to be finish. Mix stucco with 1-part Portland cement per volume with clean, sharp washed aggregate. A bag good alternative for stucco mix shall be BASF Stucco Base Premix.

Define repair area based on sounding and remove stucco to sound substrate. Area to be marked by Engineer or Inspector.

If wall-leveling is required, follow guide specification for wall-leveling using Repair Mortar.

Extend repairs laterally to adjacent well-bonded existing stucco material.

Scarify or chip concrete substrates to provide a surface profile sufficient for bonding of new stucco application. ICRI surface profile minimum SP-2 to SP-3.

Clean prepared surface to remove all dust, dirt, laitance, oils and other potentially bond inhibiting materials.

Check ability of surface to receive directly bonded stucco by checking for absorption of water into the concrete. If water does not readily absorb into concrete, provide additional surface preparation or mechanical anchorage for stucco.

Install stucco in accordance with product instructions.

- B. Three-Coat Application over Solid Bases:
1. Apply first coat to a nominal thickness of 1/4 inch (6 mm).
  2. Apply second coat to a nominal thickness of 1/4 inch (6 mm).
  3. Apply finish coat to a nominal thickness of 1/8 inch (3 mm).
- C. Moist cure base coats.
- D. After curing, dampen previous coat prior to applying finish coat.
- E. Avoid excessive working of surface. Delay troweling as long as possible to avoid drawing excess fines to surface. Apply new stucco to match adjacent profile and texture.
- F. Periodic moist cure finish coat for minimum period of 48 hours.

**END OF SECTION**



**SECTION 09 3000**

**TILING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Tile for floor applications.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 1400 - Fluid-Applied Waterproofing.
- B. Section 09 2400 - Portland Cement Plastering: Lath and Portland cement scratch coat and membrane, where required by the TCNA (HB) Method specified.

**1.03 REFERENCE STANDARDS**

- A. ANSI A108/A118/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile - Version; 2013.1.
- B. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework; 2013.1.
- C. ANSI A118.10 - American National Standard Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation; 2013.1.
- D. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation; 2013.1.

**1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Samples: Mount tile and apply grout on two plywood panels, minimum 18 x 18 inches (450 x 450 mm) in size illustrating pattern, color variations, and grout joint size variations.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

**1.05 QUALITY ASSURANCE**

- A. Maintain one copy of and ANSI A108/A118/A136.1 and TCNA (HB) on site.

**1.06 MOCK-UP**

- A. See Section 01 4000 - Quality Requirements, for general requirements for mock-up.

**1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

**PART 2 PRODUCTS**

**2.01 TILE**

- A. Manufacturers:
  - 1. To Be Submitted for Approval
  - 2. Substitutions: See Section 01 6000 - Product Requirements.

**2.02 SETTING MATERIALS**

- A. Provide setting materials made by the same manufacturer as grout.
- B. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4.
  - 1. Products:
    - a. Laticrete – Hydro band system with Spectrilock grout, 3601 mortar, 254 Thin set.

**2.03 GROUTS**

- A. Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
  - 1. Applications: Use this type of grout where indicated and where no other type of grout is indicated. All grout to be minimal efflorescence producing product.
  - 2. Use sanded grout for joints 1/8-inch-wide and larger; use unsanded grout for joints less than 1/8 inch wide.

#### **2.04 THIN-SET ACCESSORY MATERIALS**

- A. Waterproofing Membrane at Floors: Specifically designed for bonding to cementitious substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10. All thin-set material to be minimal or no efflorescence producing product.
  - 1. Type: Fluid-applied.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of setting materials to sub-floor surfaces.
- B. Verify that required slope to pitch water off walkways is in place prior to start of operations.

#### **3.02 PREPARATION**

- A. Protect surrounding work from damage.
- B. Vacuum clean surfaces and damp clean.
- C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

#### **3.03 INSTALLATION - GENERAL**

- A. Install tile and thresholds and grout in accordance with applicable requirements of ANSI A108.1A thru A108.13, manufacturer's instructions, and TCNA (HB) recommendations.
- B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
- E. Form internal angles square and external angles bullnosed.
- F. Keep expansion joints free of adhesive or grout. Apply sealant to joints.
- G. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
- H. Grout tile joints. Use standard grout unless otherwise indicated.
- I. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

#### **3.04 CLEANING**

- A. Clean tile and grout surfaces.

#### **3.05 PROTECTION**

- A. Do not permit pedestrian traffic over finished floor surface for sufficient days to provide cure with no damage after installation.

**END OF SECTION**

**SECTION 09 9000  
PAINTING AND COATING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints, stains, and other coatings.
- C. Scope: Finish all exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
- D. Do Not Paint or Finish the Following Items:
  - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Floors, unless specifically so indicated.
  - 6. Glass.
  - 7. Concealed pipes, ducts, and conduits.

**1.02 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum ten years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years' experience.

**1.03 MOCK-UP**

- A. See Section 01 4000 - Quality Requirements, for general requirements for mock-up.
- B. Provide panel, 4 feet long by 4 feet wide, illustrating blending coating color, texture, and finish.
- C. Locate where directed.
- D. Mock-up may remain as part of the work.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

**1.05 FIELD CONDITIONS**

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

**1.06 PRESSURE CLEANING**

- A. All designated exterior walls, ceilings and surfaces must be pressure cleaned. Pressure cleaning shall be completed to remove all loose paint and chalkiness. All surfaces to be painted shall be pressure cleaned with no less than 3500 psi machines. There may be areas that require the use of turbo tip nozzles due to significant amounts of peeling paint. The Operator shall keep the tip distance close and effective to surfaces without adversely affecting the stucco finishes. After all pressure cleaning is completed, all loose paint shall be scraped or wire brushed until a sound surface is attained. These steps are required to remove any foreign matter that would

adversely affect the bonding of new paint. If necessary, additional tests may be required to verify adequate bond capability. Begin prime coat painting, if required, within 2 days after pressure cleaning, no longer and no exceptions. Provide additional pressure cleaning of all surfaces if interval is greater than listed above.

#### **1.07 APPLICATION PROCEDURES**

A. All designated The Contractor shall apply paint materials and coatings by brush or roller applicators according to the Manufacturer's written instructions. There shall be no spray application without written permission in a no-dollar Change Order format.

#### **1.08 PRIMER COATING**

A. The Manufacturer's Rep. will determine if a primer coat is required. Primer coat paint shall be of quality consistency and be properly applied as per the manufacturer's specifications. Primer to be applied by roller, or brush, and shall not to exceed Manufacturer's specified requirements or recommendations for coverage. All stucco primer coats shall be pigmented water-based sealer. All metal doors and frames that are to be primed, shall be completed after all preparations regarding pressure cleaning or hand tools.

#### **1.09 WINDOW CLEANING**

A. The Contractor shall provide for a full window cleaning prior to the removal of the swing stage or scaffolding from each and all particular drops. The window cleaning shall include all windows and SG doors in open balconies and exterior elevations of the building. Cleaning: Remove temporary coverings and protection of work areas. Clean glass in accordance with Manufacturer's instructions prior to Owner's acceptance. Do not use metal scrapers to remove paint splatter from glass, specifically impact rated laminated glass.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
- B. Paints:
  - 1. BASF- Coatings
  - 2. Sherwin-Williams Company
  - 3. Benjamin Moore Painting Company
  - 4. Sto Paints
- C. Substitutions: See Section 01 6000 - Product Requirements.

#### **2.02 PAINTS AND COATINGS - GENERAL**

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
  - 1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Supply each coating material in quantity required to complete entire project's work from a single production run.
  - 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Do not begin application of coatings until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

#### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to coating application.

- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

### **3.03 APPLICATION**

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Apply each coat to uniform appearance.
- D. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
- E. **RAILING PAINTING-** The Contractor shall provide for a full prep for the exposed metal frames for the existing balcony railings on all floors of the condominium tower. Prep to SP-2 and provide a xylene wipe. Apply semi-gloss or gloss finish paint over full primer coat. One sample railing, or a portion of a railing, with color and finish approved by Owner, must be completed and approved prior to rail paint project. This will serve as a mock-up and demonstration sample.

Apply full pigmented primer coat V110, with light pigmentation, and allow to dry. Contractor to provide cost option for 2-part finish coat V510 (Aliphatic Urethane) and the alternative for the 1-part finish coat Rust Scat® Waterborne Acrylic Enamel (#80-Gloss or #90-Semi-Gloss). These products can be applied with (natural bristle) brush and roller or HVLP machine. The HVLP machine application will require the masking of all glass and surrounding areas.

- A. **SYSTEMS-** Any exterior mounted systems, such as electrical, Cable TV cables, lightning suppression system cables, or water systems shall be painted to match the building color unless advised by Owner otherwise. The Contractor shall clearly describe the intentions for the painting of the systems to allow Association to verify if detrimental effects from painting.
- B. **STUCCO CRACK REPAIR-** All hairline cracks (less than 1/16") are to be detailed with Benjamin Moore Moorlastic Elastomeric Patching Caulk or equal and approved other. Larger cracks, greater than 1/8" shall be "v" gouged out, cleaned, primed with sealer and covered with patch. Cracks greater than 5/64" shall be routed and caulked with Tremco Dymonic 100 urethane caulk. Rough wall surfaces in areas of old shutters shall be smoothed with Benjamin Moore elastomeric patching compound.
- C. **MATERIAL APPLICATION-** Contractor shall supply qualified, experienced painters (employees) and apply paint coatings per manufacturer's coverage at the approved square footage of coverage. All stucco walls shall be painted with 1 coat of pigmented primer and 1 coat of above listed, highest quality paint to match coverage requirements by Manufacturer. The Contractor, upon commencement of work, will continuously and expeditiously proceed with the work specifications until completion of project.

When coating over existing walls, ceilings, or any surfaces to be painted, all Manufacturer's recommend that the surfaces be thoroughly clean, dry, and free from any surface contaminates or cleaning residue that may harmfully affect the adhesion, cohesion, or bonding of the paint coatings. It is required that the applicator installs a 10' x 10' test section before undertaking the paint project. During such test, applicator will determine adequacy of bond and observe if there is any residue to cause loss of adhesion.
- D. Contractor shall perform a Rilem (RILEM Test Method 11.4) test on vertical wall surfaces to verify porosity of paint application.
- E. Voids, honeycombs, or excessively rough surfaces shall be repaired with approved non-shrink grout, stucco application, or elastomeric patching material.
- F. Surfaces at cold joints shall be on the same plane or shall be ground level, caulked, or the combination.

- G. SPREAD RATE- Contractor shall apply paint coatings per manufacturer's required milage thickness and coverage. Mil gauge tests will be performed at will and must conform to Manufacturer's required spread rate and thickness.
- H. CEMENTITIOUS SURFACES- Contractor shall remove efflorescence, chalk, dust, dirt, grease, oils, and any chemical laitance that will impede the bond of the new paint. Roughen all surfaces as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
- I. Determine alkalinity and moisture content of surfaces by performing appropriate tests. Do not paint surfaces where moisture content exceeds that permitted by Manufacturer.
- J. FERROUS METAL SURFACES- Contractor shall remove rust, chalk, dust, dirt, grease, oils, and any chemical laitance that will impede the bond of the new paint. Roughen, wire brush, and/or sand (paper) all surfaces as required to remove rust or any laitance to a SP-2 prep finish with all necessary hand tools.

## **SURFACE PREPARATION STANDARDS**

Your coatings supplier will always designate the degree of surface preparation required for the materials you are using. The basic standards for preparing metal substrates are a joint effort between the Society for Protective Coatings (SSPC) and the National Association of Corrosion Engineers International (NACE).

### **SSPC-SP1 Solvent Cleaning**

Removal of all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants from steel surfaces with solvent, vapor, cleaning compound, alkali, emulsifying agent, or steam.

### **SSPC-SP2 Hand Tool Cleaning**

Removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter by hand chipping, scraping, sanding, and wire brushing.

### **SSPC-SP3 Power Tool Cleaning**

Removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter by power wire brushing, power sanding, power grinding, power tool chipping, and power tool descaling.

### **SSPC-SP5 / NACE 1 White Metal Blast Cleaning**

When viewed without magnification, the surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter.

### **SSPC-SP6 / NACE 3 Commercial Blast Cleaning**

When viewed without magnification, the surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 66-2/3% of unit area, which shall be a square 3 in. x 3 in. (9 sq. in.). Light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating in less than 33-1/3% of the unit area is acceptable.

### **SSPC-SP7 / NACE 4 Brush-Off Blast Cleaning**

When viewed without magnification, the surface shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose coating. Tightly adherent mill scale, rust, and coating may remain on the surface. Mill scale, rust, and coating are considered tightly adherent if they cannot be removed by lifting with a dull putty knife.

### **Preparation of the Surfaces:**

- A. Painting Contractor shall be wholly responsible for the quality of their work and is not to commence any part of it until all surfaces are in proper condition.

- B. All surfaces are to be cleaned of mildew, chalk, peeling paint and other residues. If, for any reason, the surface cannot be cleaned, this condition must be promptly reported to the Owner in writing, or the Painting Contractor will assume responsibility for the condition.
- C. If the Painting Contractor considers any surface unsuitable for proper finishing, they are to notify the Owners of this fact in writing. The Painting Contractor is not to apply any material until corrective measures have been taken, or the Owners have instructed them in writing to proceed under the current conditions.
- D. Occasionally, the Painting Contractors cleaning technique develops or reveals an unforeseen condition that requires additional labor and materials. The Painting Contractor must either re-negotiate their contract or assume the responsibility for properly correcting the condition.
- E. The prime coat shall be applied soon after surface preparation has been completed, so as to prevent contamination of the substrate.

**Mold and Mildew Removal:**

- A. If any mold or mildew is apparent, the Painting Contractor must provide a sanitized surface free of mold and mildew spores prior to applying any coating to any surface. Should there be a question of chlorinating any surface; the inspector's decision will be final.
- B. **NOTE: USE RUBBER GLOVES, PROTECTIVE GOGGLES AND PROTECTIVE CLOTHING.** Using a garden type of pressure pot and spray wand, saturate the surface with a diluted solution of chlorine or bleach consisting of one volume of bleach or chlorine to three times volumes of water. As some solutions of chlorine and bleach are already diluted, tests should be done to verify that the above, recommended solution will be strong enough to remove any mold and mildew present. If not, the solution should be increased or decreased as to properly remove all mold and mildew.
- C. The solution must then be washed off with clean water. A water pressure cleaner can be used. If washing off wood surfaces or roofs, care must be taken not to damage the surface or create leaks, especially on roofs and windows.

**Exterior Substrate Preparation:**

*Approximately 90% of all paint failures can be directly attributed to improper surface preparation. Strictly following all surface preparation instructions on all surfaces is essential to achieve maximum benefits of the coatings to be used.*

**A. Exterior Previously Painted Masonry and Stucco Surfaces:**

**1. Preparation:**

- a. Any mold and mildew must be removed as described in the section titled MOLD AND MILDEW REMOVAL.
- b. Any areas exhibiting efflorescence deposits shall be treated with a 25% solution of muriatic acid to water, scrubbed and then thoroughly rinsed with clear water to neutralize any acidity. A pH test should then be conducted to verify if any further action should be taken.

**2. Cleaning:**

- a. Pressure clean all stucco and masonry surfaces with pressure washing equipment of at least 3000 P.S.I. or greater being sufficient enough to remove as much existing deteriorating coating as possible. It is recommended to use a rotating nozzle on the pressure cleaner to facilitate removal of the existing deteriorating coating and to help identify any areas that are not presently deteriorating. All masonry surfaces must be free of dirt, grease, oil and chalk. All surfaces are to dry thoroughly. Surfaces are to be tested with phenothelien (chemically), to make sure stucco has cured before any coating is applied.
- b. Areas exhibiting rust leaching from reinforcing steel are to be chipped to the reinforcing rods and primed.
- c. Rust stains must be thoroughly removed. After rinsing the surface with water, apply a solution of 2% oxalic acid or appropriate oxalic acid compound in water. It is important to observe the precautions listed on the container of these compounds for safe handling and storage. Wash with sponge and scrub brush until stain is removed, then rinse with clear water. Apply two coats of pigmented primer if necessary.

- 3. Surface Sealer:**
  - a. After proper surface preparation, prime the entire exterior masonry surface with one coat of the recommended masonry conditioner according to the manufacturers label instructions.
  - b. Certain colors may require a pigmented sealer.
  - c. The Painting Contractor is responsible for testing sealer coverage. The Painting Contractor shall use a pigmented sealer.

**END OF SECTION**





**BENJAMIN MOORE & COMPANY  
SUNNY SOUTH POMPANO**

**EXTERIOR REPAINTING SPECIFICATIONS**

**FOR**

**PLAZA SOUTH ASSOCIATION  
4280 GALT OCEAN DRIVE  
FORT LAUDERDALE, FLORIDA 33308**

**PRESENTED TO:**

**PLAZA SOUTH ASSOCIATION  
C/O JOHN EBEL (MAINTENANCE MANAGER) & BOARD OF DIRECTORS  
4280 GALT OCEAN DRIVE  
FORT LAUDERDALE, FL 33308  
954.565.0777 EXT 6 PHONE  
[MAINTENANCE@PLAZASOUTH.NET](mailto:MAINTENANCE@PLAZASOUTH.NET) EMAIL**

**THIS SPECIFICATION PREPARED BY:**

**CLAUDIO BRAVO – BENJAMIN MOORE & CO  
TERRITORY REPRESENTATIVE  
7237 NW 1<sup>ST</sup> MANOR  
PLANTATION, FL 33317  
954.275.8163 CELLULAR  
[Claudio.Bravo@Benjaminmoore.com](mailto:Claudio.Bravo@Benjaminmoore.com) E-MAIL**

An inspection has been made by a Benjamin Moore Representative and/or an authorized dealer representative on the **PLAZA SOUTH ASSOCIATION** at the above listed address (es). This specification has been written for the purpose of offering a **Ten (10) year** non-prorated (material and labor) warranty on the repainting of the exterior of these building(s).

A Benjamin Moore Representative or an authorized dealer representative will inspect the work in progress to help ensure proper preparation and application of all products to meet the requirements of Benjamin Moore's & Co. warranty program

**SCOPE OF WORK:                      One Building (1) – Thirty-One Floors (31)**

1. Bleach wash all mildew areas.
2. Completely pressure clean all exterior masonry surfaces.
3. Seal all exposed exterior stucco surfaces.
4. Patch all cracks as specified within.
5. Repair any spalling concrete accordingly.
6. Remove and Replace all window frame caulking.
7. Remove and Replace all door frames caulking.
8. Remove and Replace all sliding glass doors and frames.
9. Lightly sand and solvent wipe all balcony railings prior to primer coat.
10. Fill any gaps on railings pockets.
11. Caulk around all masonry rain scuppers.
12. Paint all exterior masonry sheer walls.
13. Paint all exterior masonry sheer columns.
14. Paint all exterior masonry window sills and ceilings.
15. Paint all exterior masonry catwalk walls, ceilings, and eyebrows.
16. Paint all exterior masonry balcony walls, ceilings, and eyebrows.
17. Paint all exterior masonry roof parapet walls, roof structures, and tops.
18. Paint all exterior masonry pool area planter walls, tops, and sheer walls.
19. Paint all exterior masonry garage entrance ramp walls.
20. Paint all exterior masonry rain scuppers.
21. Paint all garage masonry walls, ceilings, and columns.
22. Paint all exterior balcony railings.
23. Paint all exterior pool area wooden trellis and trim.
24. Paint all exterior pool area canvas metal support frames.
25. Paint all exterior pool area black light poles.
26. Paint all garage metal fire pipes.
27. Paint all garage entrance gates.
28. Paint all utility doors and frames. (Note: Includes garage areas.)
29. Paint all catwalk floors.
30. Paint all carport metal columns.
31. Pressure clean all keystone surfaces (Pool areas.)

**a)                      OPTIONS**

1. **Please provide a bid to repaint all garage cast iron pipes and frames accordingly.**

**b)                      EXCLUSIONS**

1. All light fixtures.
2. All hurricane shutters.
3. All balcony tile floors.
4. All interior stairwells.
5. All roof galvanized stairs.
6. All window frames.
7. All pool canvas surfaces.
8. All pool pavers.

9. All garage floors.
10. All catwalk railings, pool railings, and main entrance railings.
11. Any area not specifically specified.
12. All previously unpainted surfaces other than specified.

**SPECIAL INSTRUCTIONS:**

1. Use Power Tool Cleaning to Bare Metal SSPC-SP 11 to remove millscale, rust, and other contaminants and leave a roughened surface. All surfaces shall be free of loose rust, millscale, and contaminants such as oil, grease, dirt, and salts. Before any surface preparation is attempted, oil and grease must be removed by employing SSPC-SP 1 Solvent Cleaning.
2. Please note that rusted doors must be prepared according to SSPC-SP 11 and have a rust intermediate primer coating prior to applying finish coat.
3. General Manager is Brad Miller (LCAM) – 954.565.0777 ext. 8 / email [generalmanager@plazasouth.net](mailto:generalmanager@plazasouth.net)

**TERMS AND CONDITIONS**

**A. EXTRAS & CHANGES**

1. It is anticipated that the aforementioned work shall be inclusive and that there will not be extras or changes. The need for extra work and changes in the specifications will be the sole responsibility and determination of the Owner and will be submitted as a written work order to the Painting Contractor. No extra work will be done or changes made in the work as specified without a written work order from the Owner.

**B. LICENSE AND PERMITS**

1. The Painting Contractor shall include with your proposal a copy of any valid Occupational and Professional Licenses necessary to operate in the State of Florida, the County and the City where the project is located. Further the Painting Contractor is responsible for obtaining all necessary permits as required by the State of Florida, the County and the City where the project is located.

**C. INSURANCE**

1. The Painting Contractor will be required to furnish suitable insurance certificates covering liability and property damage, Worker's Compensation coverage and they shall be kept in force during the course of the work. The Painting Contractor shall hold the Owner(s) harmless from all liens or damages arising from or caused by the work. Please include documentation of all such coverage or show the ability to obtain such coverage.

**D. SAFETY RELATED PRECAUTIONS**

1. It is the Painting Contractor's responsibility to read and follow all label and technical data directions and information and all safety requirements from the Manufacturer of the products being used.
2. The Painting Contractor will be responsible for roping off and erecting signs in areas where any painting is occurring.
3. The Painting Contractor shall be responsible for all aspects of safety administration on the job and must be in compliance with all OSHA safety regulations.

**PAINTING**

**PART ONE IN GENERAL**

**1.01 Quality Assurance:**

- A. Painting Contractor shall furnish all labor, materials, tools, and equipment necessary for the cleaning, preparation, sealing and painting of all specified surfaces.
- B. All work is to be done in a workmanlike manner by skilled workers and carried out in such a way as to minimize any inconvenience to the occupants and tenants. The Painting Contractor shall maintain a full workforce from the start to completion of work and shall leave a qualified foreman on the job at all times.
- C. The painting contractor, once having started the job, will continuously and expeditiously proceed with its vigorous prosecution until completion.
- D. All materials shall be applied free from runs, sags, wrinkles, streaks, shiners and brush marks.
- E. All materials shall be applied uniformly.
- F. The painting contractor shall be responsible for and use utmost care in the protection of the occupant's and surrounding property including all homes, parked vehicles and any other property in the area from paint and/or any other damage.
- G. The painting contractor shall be solely responsible for the rectification of any such damage, the clean-up involved from work outlined in this specification, and their employees during the performance of their labor. Payment to the Painting Contractor will be withheld until settlement is reported.

**1.02 Liaison:**

- A. Owner's Representative and the Painting Contractor shall transmit all information pertaining to the job and shall not permit unauthorized interference from residents of the Owner's property or from the Painting Contractor's employees.

**1.03 Inspection:**

- A. In order to avoid any dispute over existing damage, it is suggested that before the commencement of any work that the Painting Contractor walk the project and make a list of all existing damage. Photographs and/or videos are preferred. Each party should keep a dated copy. In the event of a claim, the Owner and the Painting Contractor can use this list to resolve any disputed damage.
- B. Painting Contractor shall schedule all required tests, approvals and inspections at appropriate times so as not to delay the progress of the work. The Painting Contractor shall bear all expenses associated with tests, inspections and approvals required which, unless otherwise agreed to, shall be conducted by an independent testing laboratory or entity approved by the Contractor and Owner.
- C. Inspections conducted by the Benjamin Moore & Company Representative will not dismiss the painting Contractor of responsibility for the prescribed preparation and application of the specified products.
- D. Periodic inspections, or "walk-through", will be predetermined and coordinated with the Benjamin Moore Representative, Owner's Representative, and the Painting Contractor.
- E. The Painting Contractor is required to correct in a timely fashion any work reasonably rejected by the Benjamin Moore Representative or Owner for failing to comply with the Specification Documents whether observed prior to the commencement of the warranty period or during the warranty period. Benjamin Moore & Company accepts no responsibility for any increase in cost due to the any unforeseen or undiscovered condition that may arise.

**1.04 Release of Lien and Warranty Certificate**

- A. The successful completion of the project, while meeting all the necessary requirements to satisfy the issuance of a warranty, must be approved by an Authorized Benjamin Moore Retailer Representative of the store selling all the materials for said project, a Representative of the Benjamin Moore & Co. and the Owner.
- B. All monies owed to all suppliers selling any materials for said project must be paid in full and the Painting Contractor must furnish a Final Release of Lien from all suppliers that have filed Notice to Owners against any and all properties covered in these Specifications.
- C. After above criteria has been met the Warranty will be issued and final payment will be made to the Contractor.

**c) 1.05 Benjamin Moore & Company Limited Warranty**

- A. Painting Contractor shall be required to warranty the workmanship for period of time to correspond to the length of the material warranty as supplied by the Manufacturer. Please include a sample of "YOUR" warranty.
- B. The ten-year exterior only limited warranty will apply only on the condition that the procedures stated and required in the Benjamin Moore & Company Limited Warranty are followed. *A sample copy of the Benjamin Moore & Company's*

*Limited Warranty Program is attached.* The warranty extends only to the exterior masonry surfaces, not including floors and roofs.

- C. In order to control and properly document the required material usage, all materials must be purchased from a single Benjamin Moore Paints Authorized Retailer. This Retailer must be determined and agreed upon prior to the commencement of the work.
- D. The warranty states that any peeling, blistering, cracking or deterioration of the *new* paint film caused by a failure or defect in the structure or previous coatings is not covered.

## **PART TWO: PRODUCTS**

### **2.01 Materials:**

- A. Bids are to be based solely on coatings manufactured by Benjamin Moore & Company, except as otherwise noted.
- B. Colors are to be those as approved by the Owner. Contractor should maintain a duplicate color schedule.
- C. All paint and coatings must be delivered to the job site in the manufacturer's original sealed containers.
- D. Owner reserves the right to take a representative sample of any materials the Painting Contractor brings on the job and have it tested by an approved laboratory to verify the materials conform to the specification set forth herein.
- E. Due to different conditions of surfaces being painted, the Painting Contractor must assume responsibility for coverage of paint. One-coat coverage cannot be guaranteed due to different absorption rates of the surfaces painted, certain colors, and color changes. Test patches should be completed prior to beginning of work to ensure satisfactory coverage of all material. Color changes, if any, should be made or discussed prior to Owner(s) accepting proposal from the Painting Contractor.
- F. Color differences due to different batches are inherent in the paint industry. The Painting Contractor should try to order as much of any custom mixed color at one time ready made from the factory or the paint store in order to avoid "batch color differences". As this might not be feasible in all circumstances, if smaller batches do need to be taken for whatever reason, the Painting Contractor should retain an amount needed from a particular batch to touch up those areas painted in that batch of paint to help avoid "touch up" problems.
- G. Painting Contractor should "box" (intermixing of individual buckets) paint materials to insure uniform color in any particular area.

## **PART THREE: EXECUTION**

### **3.01 Access:**

- A. Owner agrees to and shall be responsible for the trimming and/or removal of all foliage clinging to or otherwise obstructing the building and permit adequate access to the areas to be painted.
- B. The Painting Contractor must be allowed easy access to all locked areas that have been included to be painted.

### **3.02 Staging Area:**

- A. Painting Contractor is to submit their requirements for a staging area (shop and storage areas) and parking areas for their employees, and the Owner will make every effort to provide a suitable area. At the end of each working day, all equipment, ladders, paint, supplies, vehicles, etc. must be returned to the staging area and the working area must be left clean. Protection of this area is the sole responsibility of the Painting Contractor and shall be left in a clean, safe and acceptable manner.

### **3.03 Removal:**

- A. Upon completion of an area, it shall be left in a clean and orderly condition and all paint splatters, contaminated rags and trash shall be removed.

- B. Painting Contractor shall be responsible for the proper disposal of any hazardous wastes generated during the course of work.
- C. Upon completion of the job, the Painting Contractor must remove all surplus materials, scaffolds etc., from the premises that relate to their trade. The Painting Contractor shall clean all window glass free of excess paint and splatters and remove paint that has been misplaced on any other surfaces.

### **3.04 Preparation of the Surfaces:**

- A. Painting Contractor shall be wholly responsible for the quality of their work and is not to commence any part of it until all surfaces are in proper condition.
- B. All surfaces are to be cleaned of mildew, chalk, peeling paint and other residues. If, for any reason, the surface cannot be cleaned, this condition must be promptly reported to the Owner in writing, or the Painting Contractor will assume responsibility for the condition.
- C. If the Painting Contractor considers any surface unsuitable for proper finishing, they are to notify the Owners of this fact in writing. The Painting Contractor is not to apply any material until corrective measures have been taken, or the Owners have instructed them in writing to proceed under the current conditions.
- D. Occasionally, the Painting Contractors cleaning technique develops or reveals an unforeseen condition that requires additional labor and materials. The Painting Contractor must either re-negotiate their contract or assume the responsibility for properly correcting the condition.
- E. The prime coat shall be applied soon after surface preparation has been completed, so as to prevent contamination of the substrate.

### **3.05 Mold and Mildew Removal:**

- A. If any mold or mildew is apparent, the Painting Contractor must provide a sanitized surface free of mold and mildew spores prior to applying any coating to any surface. Should there be a question of chlorinating any surface; the inspector's decision will be final.
- B. **NOTE: USE RUBBER GLOVES, PROTECTIVE GOGGLES AND PROTECTIVE CLOTHING.** Using a garden type of pressure pot and spray wand, saturate the surface with a diluted solution of chlorine or bleach consisting of one volume of bleach or chlorine to three times volumes of water. As some solutions of chlorine and bleach are already diluted, tests should be done to verify that the above, recommended solution will be strong enough to remove any mold and mildew present. If not, the solution should be increased or decreased as to properly remove all mold and mildew.
- C. The solution must then be washed off with clean water. A water pressure cleaner can be used. If washing off wood surfaces or roofs, care must be taken not to damage the surface or create leaks, especially on roofs and windows.
- D. Repeat as necessary where needed. Sometimes the staining caused by mold and mildew contamination cannot be removed, even after multiple applications of the removal solution. These surfaces, if needed, can be covered with a stain killing type of primer sealer such as our Benjamin Moore Fresh Start Acrylic Primer 023 series to prevent bleed through. This primer must be applied after the primers that are specified below for each type of surface.
- E. The possibility of plant damage must be considered. If the mold and mildew removing solution run-off cannot be controlled or directed from vegetation, then it must be diluted with enough fresh water to render it harmless or another method of mold and mildew removal must be utilized.

### **3.06 GRAFFITI AND ROOFING MATERIAL STAINING**

- A. The Painting Contractor shall be required to prepare surfaces where graffiti or asphalt material is present providing for complete blockage of visible traces of the said material through the specified coatings. The Painting Contractor shall remedy any physical damage to the substrate in the form of gouges or excessive build of the graffiti element to match adjacent surfaces. Should remedy fall outside the scope of this specification, the Painting Contractor will notify the Owner in writing or be responsible for these areas.
- B. The following methods for graffiti removal/blocking are suggested dependent on the extent of damage.
  - 1. Clean away all traces of mildew if present to eliminate deep contamination of the substrate.
  - 2. Scrub surfaces with a suitable solvent or detergent to remove graffiti element.
  - 3. Pressure clean, hot water pressure clean or abrasive blast stubborn stains on masonry to eliminate traces. Sand wood surfaces that have been gouged or carved to provide a smooth transition from the damaged areas to adjacent surfaces.
  - 4. Use a blocking primer such as **Benjamin Moore's Fresh Start 100% Acrylic All-Purpose Stain Blocking Primer**

**023** to prevent migration of color through to the specified finish coats.

### **3.07 SURFACE CLEANING AND DEGLOSSING**

- A. The Painting Contractor is required to clean and de-gloss surfaces prior to the application of the specified coatings.
  - 1. If necessary, sanitize surfaces using the method above for mold and mildew.
  - 2. The preferred method of de-glossing is to power sand surfaces. The resulting surface profile depth shall not exceed  $\frac{3}{4}$  the specified primer dry film thickness.
  - 3. Remove sanding dust and clean surface with a detergent to remove contamination from equipment and body oils. Rinse thoroughly and allow to dry completely.
- B. When mechanically abrading the surface is not possible, substitute with the following preparation:
  - 1. Wearing gloves, saturate a coarse, lint free cloth or nylon scouring pad with undiluted **Krud Kutter Gloss Off Prepaint Surface Preparation or another similar product that the servicing dealer recommends.**
  - 2. Apply to the surface with a circular motion.
  - 3. Fold and saturate the cloth frequently.
  - 4. Avoid application to surfaces that are not to be repainted.
  - 5. When the clean, de-glossed surface is dry to the touch, new finish can be applied.
  - 6. Maximum bonding is achieved when the new finish is applied within one hour of application.

### **3.08 DELAMINATING COATINGS**

Surfaces to be painted shall be made free of loose and delaminating coatings by the Paint Contractor. Delamination that occurs as a result of insufficient preparation will be the sole responsibility of the Painting Contractor.

- A. Masonry Surfaces
  - 1. Power Tool Clean using sufficient power at angles that will remove loose coatings without damage to the surface.
  - 2. Test all edges of remaining coatings by Hand Tool Cleaning using a thin bladed sharp steel scraper.
- B. Smooth surfaces
- C. Doors, windows, and handrails shall be Hand or Power Tool Cleaned to remove loose coatings without damage to the surface.
- D. Prime surface with the specified materials
- E. Taper edges of remaining coatings to a smooth transition between levels using the specified patching materials.
- F. Prime patching material with the specified material.
- G. Surfaces that cannot be properly prepared without damage to the surface shall be brought to the attention of the Owner or their agent immediately upon discovery. These surfaces will be noted and withheld from the warrantee areas.

*Approximately 90% of all paint failures can be directly attributed to improper surface preparation. Strictly following all surface preparation instructions on all surfaces is essential to achieve maximum benefits of the coatings to be used.*

#### **A. Exterior Previously Painted Masonry and Stucco Surfaces:**

##### **1. Preparation:**

- a. Any mold and mildew must be removed as described in the section titled MOLD AND MILDEW REMOVAL.
- b. Any areas exhibiting efflorescence deposits shall be treated with a 25% solution of muriatic acid to water, scrubbed and then thoroughly rinsed with clear water to neutralize any acidity. A pH test should then be conducted to verify if any further action should be taken.

##### **2. Cleaning:**

- a. Pressure clean all stucco and masonry surfaces with pressure washing equipment of at least 3000 P.S.I. or greater being sufficient enough to remove as much existing deteriorating coating as possible. It is recommended to use a rotating nozzle on the pressure cleaner to facilitate removal of the existing deteriorating coating and to help identify any areas that are not presently deteriorating. All masonry surfaces must be free of dirt, grease, oil and chalk. All surfaces are to

dry thoroughly. Surfaces are to be tested with phenothelien (chemically), to make sure stucco has cured before any coating is applied.

- b. Areas exhibiting rust leaching from reinforcing steel are to be chipped to the reinforcing rods and primed with Benjamin Moore's Corotech V110 Acrylic Metal Primer.
- c. Rust stains must be thoroughly removed. After rinsing the surface with water, apply a solution of 2% oxalic acid or appropriate oxalic acid compound in water. It is important to observe the precautions listed on the container of these compounds for safe handling and storage. Wash with sponge and scrub brush until stain is removed, then rinse with clear water. Should rusting be evident; prime with Benjamin Moore's Corotech V110 Acrylic Metal Primer. Apply two coats if necessary.

**3. Surface Sealer:**

- a. After proper surface preparation, prime the entire exterior masonry surface with one coat of the Benjamin Moore recommended masonry conditioner according to the manufacturers label instructions.
- b. Certain colors may require a pigmented sealer.
- c. The Painting Contractor is responsible for testing sealer coverage. The Painting Contractor may choose to use a pigmented sealer.

**4. Joint Sealant:**

- a. All loose or deteriorated perimeter sealant around exterior sides of doors and windows are to be removed.
- b. Apply surface sealer to stucco surfaces along the entire joint to receive sealant.
- c. Apply a solvent wipe to metal surface, along the entire joint to receive the sealant. Do not contaminate stucco substrate with solvent.
- d. Apply sealant to full perimeter of door frames and windows to form a complete seal between metal and stucco. Tool the application of sealant in a matter to ensure proper adhesion.

**5. Stucco Repair:**

- a. All loose, broken or spalling stucco must be removed and adjacent areas of suspect areas "sounded" for deteriorated stucco.
- b. Visible restoration must be discussed prior to bid due date and a determination should be made whether to bid separately or engage the services of a structural engineer.
- c. Prior to repairing stucco, the affected area will be prepared with a bonding agent. Stucco work shall conform to ASTM standards and have surface texture to match the surrounding area as closely as possible. As this type of repair, along with new concrete, almost never matches the surrounding area exactly; any results in different surface texture or shadow is not considered a paint or application defect.
- d. The Painting Contractor shall include in the bid 50 square feet of stucco replacement. Anything over repairs for areas greater than 50 square feet shall be considered an extra cost, above the base bid price.
- e. All cracks in masonry larger than hairline (over 1/16") are to be ground out mechanically to form a new "V" or "U" shape, measuring ¼", blown or brushed out to remove all dust, and dried of all moisture. The resultant opening shall have Benjamin Moore Masonry Sealer #066 followed by a paintable Acrylic Urethane Sealant. Provide owner and paint manufacturer with a Technical Data Sheet of sealant prior to commencement of work.
- f. Once cured, the filled crack shall be over coated with Benjamin Moore's Moorlastic Knife Grade Elastomeric Patching Compound or equivalent, crowned in the center approximately 1/16" and feathered at least 3" on either side of the crack to match the surrounding surface as closely as possible.
- g. All hairline cracks (less than 1/16") will be filled using Benjamin Moore's Moorlastic Brush Grade Elastomeric Patching Compound or equivalent over a properly primed surface, crowning the application approximately 1/16" over the center of the crack and feathering the edges approximately 2" on either side to match the adjacent surface.
- h. After proper surface repair, spot prime patching material with one coat of the Benjamin Moore recommended masonry conditioner according to the manufacturer's label instructions.

**NOTE:** Previously repaired cracks, which have reopened, shall have all existing patch material removed and the crack treated as described above.

**6. Finish Coat:**



- a. After all crack repairs have fully cured, apply, as needed, the number of coats of the recommended Benjamin Moore exterior finish specified, unless stated otherwise, at a rate of application as stated on the label directions and to achieve uniformity of sheen and opacity of color.

**B. Exterior Previously Painted Metal Substrates:**

1. Surfaces to be painted shall be cleaned with an appropriate solvent or detergent solution to remove all traces of dirt, dust, grime, and oil residues prior to application of the coatings in accordance SSPC-SP1-63 "Solvent Cleaning.
2. Surfaces that exhibit moderate to heavy chalk must be cleaned by power wash. Any mold and mildew must be removed as described in the section titled MOLD AND MILDEW REMOVAL.
3. Loose, peeling, blistering, flaking paint and rust shall be removed by power tool cleaning with wire brush, needle gun, scraping, or sanding in accordance with SSPC-SP3 "Power Tool Cleaning". Where rust, corrosion and deteriorated coating exist, the surfaces should be abrasive blast cleaned in accordance with SSPC-SP6-63 "Commercial Blast Cleaning". The surfaces should be blown off with compressed air to remove traces of blast products and primed within 24 hours with the specified primer.
4. Glossy surfaces should be dulled by sanding or other abrasive methods to ensure an adhesion of succeeding coats.
5. After proper preparation, apply one coat of Benjamin Moore M82-00 Rust Converter to the exposed rusted surfaces according to the manufacturer label instructions.
6. To the properly prepared surface, prime or spot prime as necessary with the recommended Benjamin Moore Industrial Coatings rust inhibitive products according to the manufacturer label instructions. Small areas may be spot primed with Benjamin Moore's Corotech V110 Acrylic Metal Primer.

**C. Preparing Exterior Wood Surfaces:**

1. Most adhesion failures on wood are caused by water or water vapor entrapped in the substrate. Pre-priming of wood surfaces before erection is required and will reduce paint adhesion failures. Caution: Smooth planed clapboards or siding must be sanded thoroughly to break the "mill glaze" to allow proper penetration and adhesion.
2. Wood siding, trims sash, framing, and similar surfaces that exhibit blistering, peeling, or scaling must be cleaned to a sound substrate by appropriate means. Exposed wood should be spot-primed with a Fresh Start exterior primer before applying an overall coat of primer. Medium to heavy chalk deposits must be removed. To most effectively perform the operation, the use of high-pressure power wash is strongly recommended. If mildew is present, N318 Multi- Purpose Cleaner should be added to the water according to label instructions.
3. Chronic peeling and scaling may be overcome by venting clapboard siding with wedges, screened disks, or installation of an exhaust fan in the laundry room and bathrooms. Peeling around window and door frames can frequently be eliminated by caulking. Damp basements can also contribute to the absorption of water in wood substrate, which is frequently the result of poor drainage around the foundation.
4. Unweathered areas such as eaves, ceilings, and overhangs should be washed with a detergent solution and/or rinsed with a stream of water from a garden hose to remove salts that can interfere with adhesion

**D. Preparing Concrete or Wood Floors or Decks:**

1. Remove all peeling and scaling paint to a sound substrate by hand scraping, use of mechanical grinders or sanders, or use of high-pressure spray equipment.
2. Surface should be thoroughly washed with strong detergent solution to remove all grease, oil, and soap residue using Benjamin Moore's Corotech V600 Oil and Grease Emulsifier. Rinse thoroughly and make sure substrate is dry before painting.
3. If mildew is present, it must be removed as described in the section titled mold and mildew removal.
4. CAUTION: All floor finishes may become slippery when wet. Where non-skid characteristics are desired add Corotech V630 Anti Slip Aggregate.

**3.10 COATINGS SCHEDULE**

**A). EXTERIOR STUCCO**

Areas to be painted: All exterior masonry sheer walls, all exterior masonry garage sheer walls, all exterior masonry catwalk walls, ceilings, and eyebrows, all exterior masonry balcony walls, ceilings, and eyebrows, all exterior masonry window sills, ceilings, and sheer columns, all exterior masonry pool area planter walls and tops, all exterior masonry rain scuppers, all exterior decorative keystone planters, and all exterior masonry garage ramp walls.

Primer – Benjamin Moore's ELASTITE HIGH BUILD PRIMER 48-11 series according to manufacturer's label directions  
Finish Coat – Benjamin Moore's AURA EXTERIOR WATERBORNE LOW LUSTER 634 series according to manufacturer's label directions.

**b) EXTERIOR STUCCO (ROOF PARAPET WALLS)**

Areas to be painted: All exterior masonry roof parapet walls, tops, and roof structures.

Primer – Benjamin Moore's ELASTITE HIGH BUILD PRIMER 48-11 series according to manufacturer's label directions  
First Coat – Apply ONE coat of Coronado ELASTITE 20 MILL WATERPROFER 162 series (**WFT 19-20 mills/DFT 10-11.5 mills per coat**) according to manufacturer's label directions  
Finish Coat – Benjamin Moore's AURA EXTERIOR WATERBORNE LOW LUSTER 634 series according to manufacturer's label directions.

**c) WOOD TRIM AND TRELLIS**

Areas to be painted: All exterior wood trim and trellis.

Primer – Benjamin Moore's SURE SEAL ALL PURPOSE PRIMER 027 series according to manufacturer's label directions  
Finish Coat – Benjamin Moore's AURA EXTERIOR WATERBORNE LOW LUSTER 634 series according to manufacturer's label directions.

**d) UTILITY & MECAHNICAL DOORS AND FRAMES**

Areas to be painted: All utility and mechanical doors and frames

Primer – Benjamin Moore's COROTECH UNIVERSAL METAL PRIMER V131 series according to manufacturer's label directions (**DFT 2 Mils**)  
Finish Coat – Benjamin Moore's SUPER SPEC HP DTM ALKYD SEMI-GLOSS P24 series according to manufacturer's label directions

**e) BALCONY RAILINGS**

Areas to be painted: All balcony railings.

Primer – Benjamin Moore's COROTECH WATERBORNE BONDING PRIMER V175 series according to manufacturer's label directions (**DFT 2 Mils**)  
Finish Coat – Benjamin Moore's RUSTCAT SILICONE ALKYD 39 SERIES (DEEP BRONZETONE) series according to manufacturer's label directions

**f) METAL GARAGE GATES AND MAIN ENTRANCE CARPORT COLUMNS**

Areas to be painted: All metal garage gates and main entrance carport columns.

Primer – Benjamin Moore's COROTECH UNIVERSAL METAL PRIMER V131 series according to manufacturer's label directions (**DFT 2 Mils**)  
Finish Coat – Benjamin Moore's SUPER SPEC HP DTM ALKYD SEMI-GLOSS P24 series according to manufacturer's label directions

**g) CATWALK FLOORS**

Areas to be painted: All catwalk floors.

Primer – None Required.  
Finish Coat – Benjamin Moore's INLS-X TUFFCRETE SILICONE ACRYLIC CST-5XX series according to manufacturer's label directions

**h) INTERIOR STUCCO – GARAGE AREAS**

Areas to be painted: All enclosed garage area walls, columns, and ceilings.

Primer – Benjamin Moore's Latex Masonry Conditioner 066 series according to manufacturer's label directions  
Finish Coat – Benjamin Moore's ULLTRA SPEC EXT FLAT Finish N447 series according to manufacturer's label directions

**i) GARAGE FIRE METAL PIPES**

Areas to be painted: All garage fire metal pipes.

Primer – Benjamin Moore's Corotech EPOXY MASTIC COATING V160 series according to manufacturer's label directions  
Finish Coat – Benjamin Moore's SUPER SPEC HP DTM ALKYD URETHANE GLOSS P22 series according to manufacturer's label directions

**j) POOL AREA LIGHT POLES – HVLP APPLICATION**

Areas to be painted: All pool area light poles.

Primer – Benjamin Moore's/ Corotech Waterborne Bonding Primer V175 series according to manufacturer's label directions. **Note: This primer needs to be applied via HVLP, brush, or roll.**  
Finish Coat – Benjamin Moore's/Corotech Aliphatic Acrylic Urethane Coating Gloss V500-01 series according to manufacturer's label directions. **Note: This is a two-component product that must be mixed with the proper converter (V500-90 B Part) prior to application.**

**GARAGE CAST IRON PIPES AND FIRE PIPES, JOINTS, AND HANGERS - OPTIONAL**

Areas to be painted: All garage cast iron and fire pipes, joints, and hangers (optional)

Primer – Benjamin Moore's Corotech Universal Metal Primer LOW VOC V131 series according to manufacturer's label directions

- Rust Coat – Benjamin Moore's/Corotech EPOXY MASTIC COATING V160 series according to manufacturer's label directions. (DFT 8.0 MILLS) **Note: This is a two-component product that must be mixed with the proper converter (V160-90 B Part) prior to application.**
- Finish Coat – Benjamin Moore's SUPER SPEC HP ALKYD URETHANE GLOSS Enamel P22 series according to manufacturer's label directions

#### **CAULK & PATCHING MATERIALS**

- 1) Caulk - DOW 795 Silicone Building Sealant
- 2) Sealant - Benjamin Moore's Moorlastic Lifetime Urethane Acrylic Sealant 465 series
- 3) Patching - Benjamin Moore's Moorlastic Elastomeric Patching Compounds

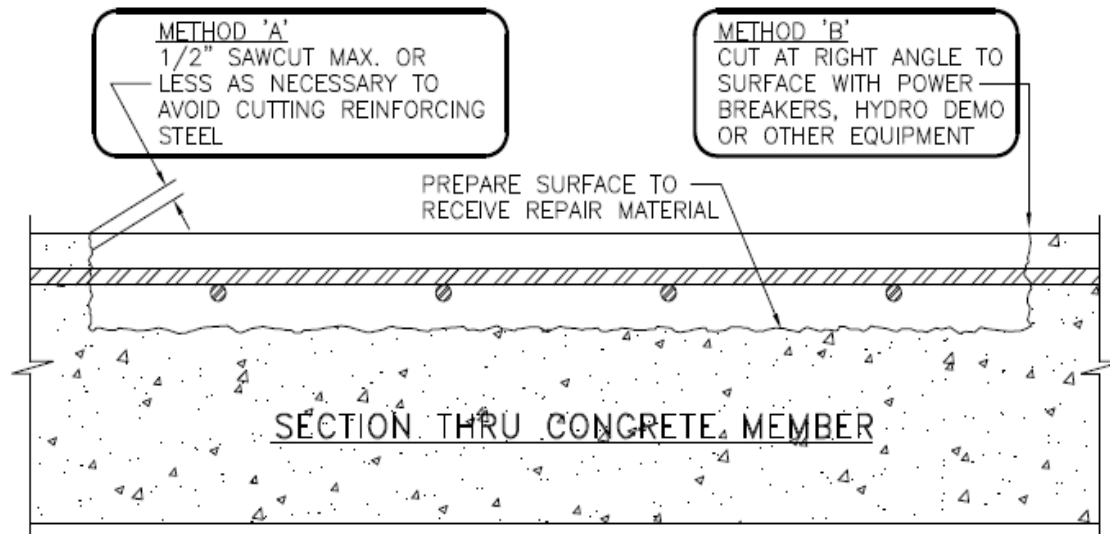
#### **CLEANING AGENTS**

- 1) Benjamin Moore & Company Oil & Grease Emulsifier M83 series
- 2) Benjamin Moore & Company CLEAN Multipurpose Cleaner 318 series (for Roof Shakes if staining)
- 3) Benjamin Moore & Company RESTORE for Gray and Weathered Wood 316 series (if cleaning Roof Shakes only)

By definition of the Benjamin Moore & Company warranty, the Painting Contractor is limited to using the above paint, patching and sealants. Any substitutions of specified products must have prior approval for use by the Benjamin Moore & Company Authorized Representative. Substitution of any product without pre-authorization may cause stoppage of the project and void the warranty.

MSDS and Tech Data sheets are available upon request

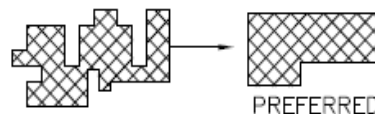
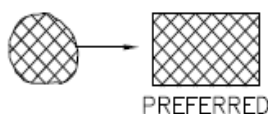
## EDGE AND SURFACE CONDITIONING



APPLICABLE TO HYDRODEMOLITION, HYDROLIC, PNEUMATIC AND ELECTRIC BREAKERS.  
APPLICABLE TO HORIZONTAL, VERTICAL AND OVERHEAD LOCATIONS.

**CAUTION:** BEFORE STARTING REMOVAL, REVIEW EFFECT OF REMOVAL ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY. PARTICULAR CARE SHALL BE EXERCISED AT SLAB BEAM CONNECTIONS TO COLUMNS.

1. REMOVE DELAMINATED CONCRETE, UNDERCUT REINFORCING STEEL (REFER TO REINFORCING STEEL UNDERCUTTING GUIDELINES). REMOVE ADDITIONAL CONCRETE AS REQUIRED TO PROVIDE MINIMUM REQUIRED THICKNESS OF REPAIR MATERIAL.
2. AT EDGE LOCATIONS, PROVIDE EITHER METHOD 'A' OR METHOD 'B' RIGHT ANGLE CUTS. AVOID FEATHER EDGES. FOR SHOTCRETE REPAIRS, REFER TO ACI 508 EDGE PREPARATION GUIDELINES. PATCH CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE. FOR EXAMPLE:



3. AFTER REMOVALS AND EDGE CONDITIONING ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, CONCRETE SLURRY, LOOSELY BONDED AGGREGATES) BY ABRASIVE BLASTING OR HIGH PRESSURE WATERBLASTING WITH OR WITHOUT ABRASIVE. CHECK THE SURFACES AFTER CLEANING TO INSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
4. IF HYDRODEMOLITION IS USED, CEMENT AND PARTICULATE SLURRY MUST BE REMOVED FROM THE PREPARED SURFACES BEFORE SLURRY HARDENS.

THIS GUIDELINE IS INTENDED TO PROVIDE GUIDANCE TO THE OWNER, DESIGN PROFESSIONAL AND REPAIR CONTRACTOR AND IS NOT INTENDED TO REPLACE THE NEED FOR REVIEW BY QUALIFIED ENGINEERS.

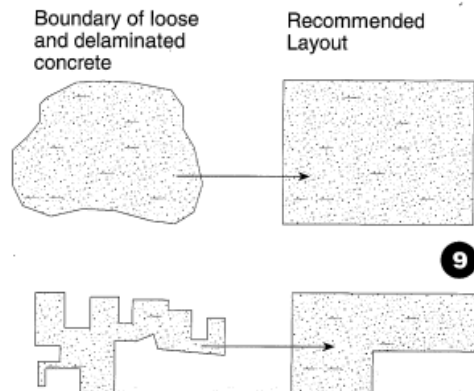
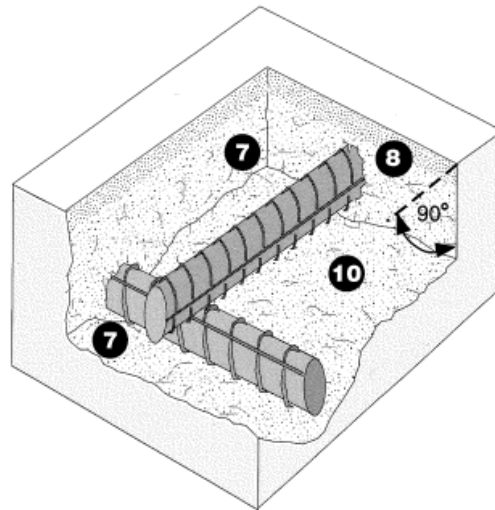
OTHER RELATED GUIDELINES:  
EXPOSING & UNDERCUTTING REINFORCING STEEL; REPAIR AND CLEANING OF REINFORCING STEEL; REMOVAL GEOMETRY

## Edge and Surface Conditioning of Concrete

These details are applicable to horizontal, vertical, and overhead locations. They are also applicable to removal by hydro-demolition, hydromilling, and electric, pneumatic or hydraulic impact breakers.

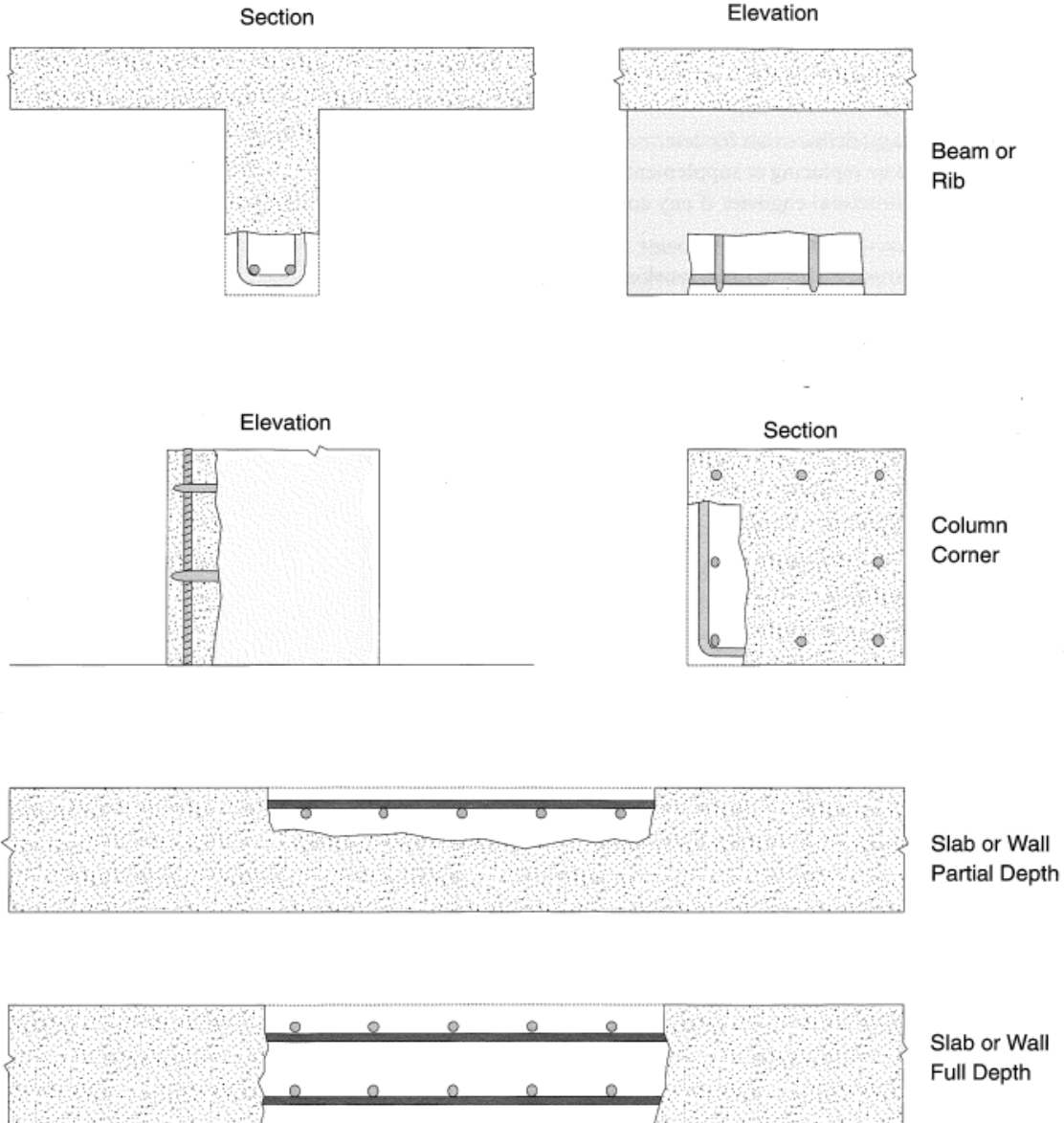
*Do not use these details for shotcrete applications—for shotcrete repairs refer to ACI 506 Edge Preparation Guidelines.*

- 7 Remove delaminated concrete, undercut reinforcing steel (refer to "Exposing and Undercutting of Reinforcing Steel" on page 3), remove additional concrete as required to provide minimum required thickness of repair material.
- 8 At edge locations, provide right angle cuts to the concrete surface with either of the following methods:
  - Sawcut 1/2" (13 mm) or less as required to avoid cutting reinforcing steel.
  - Use power equipment such as hydrodemolition or impact breakers. **Avoid feather edges.**
- 9 Repair configurations should be kept as simple as possible, preferably with squared corners.
- 10 After removals and edge conditioning are complete, remove bond inhibiting materials (dirt, concrete slurry, loosely bonded aggregates) by abrasive blasting or high pressure waterblasting with or without abrasive. Check the concrete surfaces after cleaning to insure that surface is free from additional loose aggregate, or that additional delaminations are not present.
- 11 If hydrodemolition is used, cement and particulate slurry must be removed from the prepared surfaces before slurry hardens.



## Removal Geometry

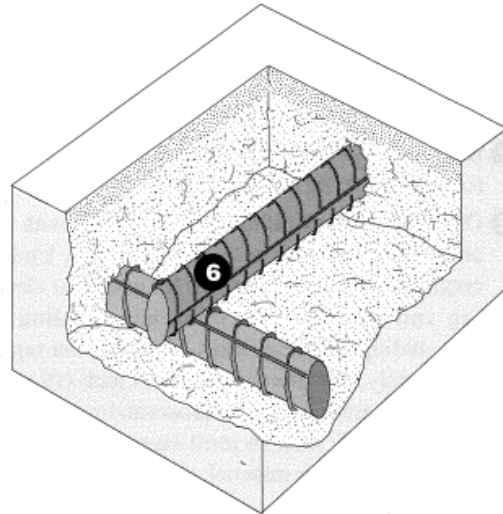
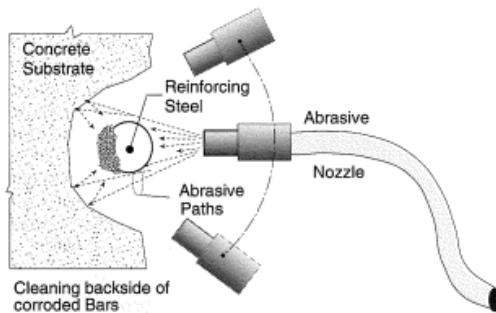
**Caution!** Before starting removals, review effect of removals on structural integrity. Provide shoring of member as necessary. Particular care shall be exercised at slab/beam connections to columns.



## Cleaning and Repair of Reinforcing Steel

### Cleaning of Reinforcing Steel

- ⑥ All heavy corrosion and scale should be removed from the bar as necessary to promote maximum bond of replacement material. Oil free abrasive blast is the preferred method. A tightly bonded light rust build-up on the surface is usually not detrimental to bond, unless a protective coating is being applied to the bar surface, in which case the coating manufacturer's recommendations for surface preparation should be followed.

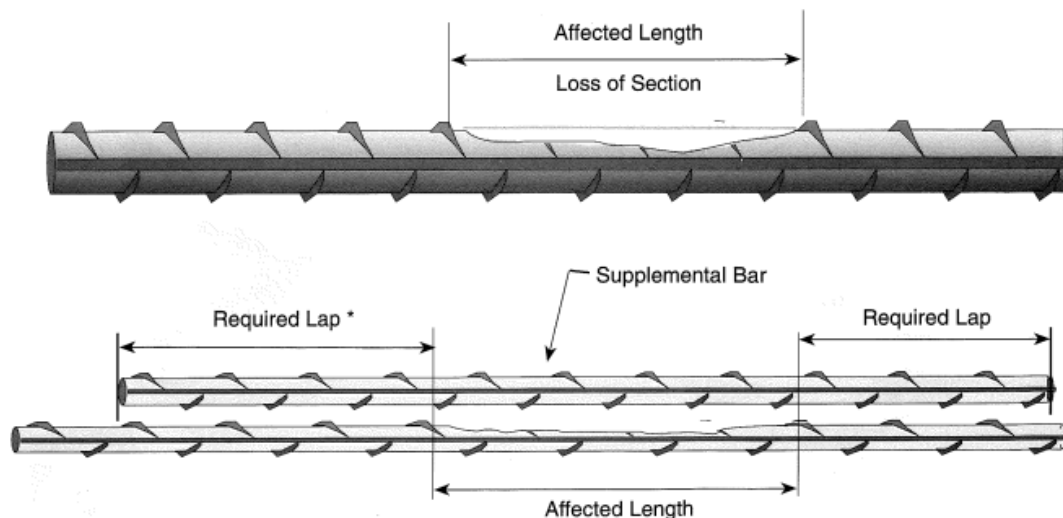


### Repair of Reinforcing Steel Due to Loss of Section

If reinforcing steel has lost significant cross section, a structural engineer should be consulted. If repairs are required to the reinforcing steel, one of the following repair methods should be used:

- Complete bar replacement, or
- Addition of supplemental bar over affected section.

New bars may be mechanically spliced to old bars or placed parallel to and approximately  $\frac{3}{4}$  in. (19 mm) from existing bars. Lap lengths shall be determined in accordance with ACI 318; also refer to CRSI and AASHTO manual.





## Specifying concrete surface profiles (CSP)

Several of the methods summarized are capable of producing a range of profiles on concrete surfaces. Communication of project requirements may be improved by using CSP profiles to define surface roughness.

ICRI has identified nine distinct profile configurations which may be produced by the methods summarized herein. As a set, these profiles replicate degrees of roughness considered to be suitable for the application of one or more of the sealer, coating, or polymer overlay systems, up to a thickness of 1/4 inch (*see Appendix B*). Each profile carries a CSP number ranging from a base line of CSP 1 (nearly flat) through CSP 9 (very rough). The profile capabilities for each preparation method are identified by CSP number in the "Profile" section of the

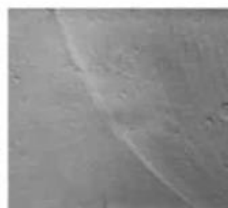
method summaries. Molded replicas of these profiles are included with this guideline to provide clear visual standards for purposes of specification, execution and verification. These benchmark profiles may be referenced in specifications, material data sheets, application guidelines, and contract documents to effectively communicate surface preparation requirements. When these profiles are used in conjunction with specifications for thicker coating and overlay systems, it is probable that more than one profile will produce acceptable results. When applicable, the range of suitable profiles should be specified.

The concrete surfaces shown below were produced using a variety of preparation methods. Although each numbered CSP plaque bears the characteristic pattern and texture of the specific preparation method used, each plaque is representative of the profile height obtainable with all methods identified with the same CSP number.

**Caution!** The texture and appearance of the profile obtained will vary depending on the concrete strength, the size and type of aggregate, and the finish of the concrete surface. On sound substrates, the range of variation can be sufficiently controlled to resemble the referenced CSP standard. As the depth of removal increases, the profile of the prepared substrate will be increasingly dominated by the type and size of the coarse aggregate.



CSP 1  
(acid-etched)



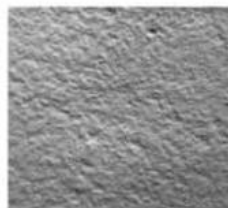
CSP 2  
(grinding)



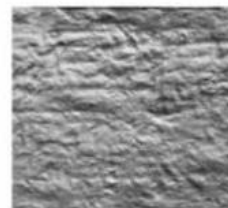
CSP 3  
(light shotblast)



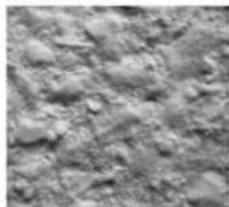
CSP 4  
(light scarification)



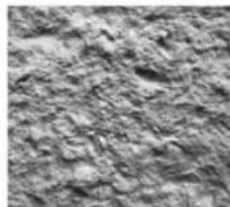
CSP 5  
(medium shotblast)



CSP 6  
(medium scarification)



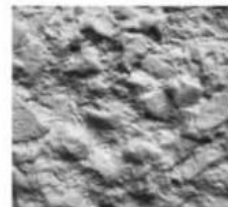
CSP 7  
(heavy abrasive blast)



CSP 8  
(scabbled)



CSP 9  
(heavy scarification—  
rotomilled)



CSP 10  
(handheld concrete  
breaker followed by  
abrasive blasting)

## Method selector

Surface preparation method	Concrete Surface Profile									
	CSP 1	CSP 2	CSP 3	CSP 4	CSP 5	CSP 6	CSP 7	CSP 8	CSP 9	CSP 10
Detergent scrubbing										
Low-pressure water cleaning										
Grinding										
Acid etching										
Needle scaling										
Abrasive blasting										
Shotblasting										
High- and ultra-high-pressure water jetting										
Scarifying										
Surface retarder (1)										
Rotomilling										
Scabbling										
Handheld concrete breaker										

(1) Only suitable for freshly placed cementitious materials