

D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when addendums will require revision to the Contract Documents.

E. Substitution/Submital Procedure:

1. Submit 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 Owner or Architect will notify General Contractor in writing of decision to accept or reject request.

#### TRANSPORTATION AND HANDLING

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

#### STORAGE AND PROTECTION

A. Store and protect products in accordance with manufacturers' instructions.

B. Store with seals and labels intact and legible.

C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

D. For exterior storage of fabricated products, place on supports above ground.

E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

#### EXECUTION REQUIREMENTS - SECTION 01700

This section includes the following items:

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. Starting of systems and equipment.

G. Demonstration and instruction of Owner personnel.

H. Closeout procedures, except payment procedures.

#### SUBMITTALS

A. Survey work: Submit name, address, and telephone number of Engineer before starting survey work.

1. On request, submit documentation verifying accuracy of survey work.

B. Submit a copy of site drawing and certificate signed by the Engineer, that the elevations and locations of the work are in conformance with Contract Documents.

3. Submit surveys and survey logs for the project record.

B. Cutting and Patching: Submit written request in advance of cutting or alteration which affects:

1. Structural integrity of any element of Project.
2. Integrity of weather exposed or moisture resistant element.
3. Efficiency, maintenance, or safety of any operational element.
4. Visual qualities of sight exposed elements.
5. Work of Owner or separate Contractor.

#### QUALIFICATIONS

A. For field engineering employ a professional engineer of the discipline required for specific service on Project, licensed in the State in which the Project is located.

#### PROJECT CONDITIONS

A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment if required.

B. Protect site from ponding or running water. Provide water barriers as required to protect site from soil erosion.

C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air born dust from dispersing into atmosphere.

E. Erosion and Sediment Control: Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation; comply with State and local regulations.

1. Minimize amount of bare soil exposed at one time.
2. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.
3. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
4. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

F. Pest Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.

G. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

H. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

#### 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. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

C. Coordinate space requirements, supports, and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

D. In finished areas, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

E. Coordinate completion and clean up of work of separate sections.

F. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

#### EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Beginning new 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. Verify that utility services are available, of the correct characteristics, and in the correct locations.

E. 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.

#### PREPARATION

A. Prepare surfaces and remove surface finishes to provide for proper installation of new work and finishes.

B. Clean substrate surfaces prior to applying next material or substance.

C. Seal cracks or openings of substrate prior to applying next material or substance.

D. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

#### PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene a pre-installation 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 Architect four days in advance of meeting date.

D. Prepare agenda and preside at meeting:

1. Review conditions of installation, preparation and installation procedures.
2. Review coordination with related work.

E. Record minutes and distribute copies within two days after meeting to participants and those affected by decisions made.

#### LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.

B. Promptly notify Architect of any discrepancies discovered.

C. Contractor shall locate and protect survey control and reference points.

D. Control datum for work is that indicated on Drawings.

E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.

F. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.

H. Utilize recognized engineering survey practices.

I. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:

1. Site improvements including pavements; stakes for grading, fill and topsoil placement, utility locations, slopes, and invert elevations.
2. Grid or axis for structures.
3. Building foundation, column locations, and ground floor elevations.

J. Periodically verify layouts by same means.

K. Maintain a complete and accurate log of control and survey work as it progresses.

#### GENERAL INSTALLATION REQUIREMENTS

A. Install Products as specified in individual sections.

B. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new Work abuts or aligns with existing, perform a smooth and even transition.

C. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

#### CUTTING AND PATCHING

A. Execute cutting and patching including excavation and fill to complete the work, to uncover work to install improperly sequenced work, to remove and replace defective or nonconforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit Products together to integrate with other work.

B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

E. Restore work with new Products in accordance with requirements of Contract Documents.

F. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07840, to full thickness of the penetrated element.

H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

#### PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and rubbish from site periodically and dispose offsite.

#### PROTECTION OF INSTALLED WORK

A. Protect installed work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jams, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces, for traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

#### STARTING SYSTEMS

A. Coordinate schedule for start up of various equipment and systems.

B. Notify Owner seven days prior to start up of each item.

C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.

D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

E. Verify that wiring and support components for equipment are complete and tested.

F. Execute start up under supervision of applicable Contractor personnel in accordance with manufacturers' instructions.

G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start up, and to supervise placing equipment or system in operation.

H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

#### DEMONSTRATION AND INSTRUCTION

A. Demonstrate start up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at equipment location to Owner's personnel.

B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.

D. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners personnel in detail to explain all aspects of operation and maintenance.

E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

#### ADJUSTING

A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

B. Test, adjust, and balance HVAC systems.

#### FINAL CLEANING

A. Execute final cleaning prior to final project assessment.

1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.

B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

D. Clean filters of operating equipment.

E. Clean debris from gutters, downspouts, and drainage systems.

F. Clean site; sweep paved areas, rake clean landscaped surfaces.

G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

#### CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities:

1. Provide copies to Architect and Owner.

B. Perform preliminary inspection to determine items to be listed for completion or correction in Contractor's Notice of Substantial Completion.

C. Notify Owner and Architect when work is considered ready for Substantial Completion and comply with requirements for access to Owner-occupied areas.

D. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Owner and Architect's review.

E. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.

F. Perform preliminary final inspection.

G. Notify Owner and Architect when work is considered finally complete.

H. Complete items of work determined by Owner and Architect's final inspection.

#### MAINTENANCE SERVICE

A. Furnish service and maintenance of components indicated in specification sections during the warranty period.

B. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.

D. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

#### CLOSEOUT SUBMITTALS - SECTION 01780

This section includes the final closeout submittal procedures:

A. Project Record Documents.

B. Operation and Maintenance Data.

C. Warranties and bonds.

#### SUBMITTALS

A. Project Record Documents: Submit documents to Architect with final Application for Payment.

B. Operation and Maintenance Data:

1. Submit preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and provide comments.
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
3. Submit two sets of final documents in final form within 10 days after final inspection.

C. Warranties and Bonds:

1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
2. Make other submittals within ten 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 ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

#### PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.
2. Addendums.
3. Change Orders and other modifications to the Contract.
4. Reviewed shop drawings, product data, and samples.
5. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
3. Field changes of dimension and detail.

4. Details not on original Contract drawings.

#### OPERATION AND MAINTENANCE DATA

A. For Each Product or System: List names, addresses, and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

#### OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:

1. Product data, with catalog number, size, composition, and color and texture designations.
2. Information for reordering manufactured products.
3. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, and recommended schedule for cleaning and maintenance.
4. Moisture protection and weather exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
5. Additional information as specified in individual product specification sections.

E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

#### OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:

1. Description of unit or system, and component parts.
2. Identify function, normal operating characteristics, and limiting conditions.
3. Include performance curves, with engineering data and tests.
4. Complete nomenclature and model number of replaceable parts.

B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.

C. Include color coded wiring diagrams as installed.

D. Operating Procedures: Include start up, break in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.

E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

F. Provide servicing and lubrication schedule, and list of lubricants required.

G. Include manufacturer's printed operation and maintenance instructions.

H. Include sequence of operation by controls manufacturer's instructions.

I. Provide original manufacturers parts list, illustrations, assembly drawings, and diagrams required for maintenance.

J. Provide control diagrams by controls manufacturer as installed.

K. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

L. Include test and balancing reports.

M. Additional Requirements: As specified in individual product specification sections.

#### OPERATION AND MAINTENANCE MANUALS

A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

B. Prepare data in the form of an instructional manual.

C. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.

D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

E. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.

F. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:

1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
2. Part 2: Operation and maintenance instructions arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
  - a. Significant design criteria.
  - b. List of equipment.
  - c. Parts list for each component.
3. Part 3: Project documents and certificates, including the following:
  - a. Shop drawings and product data.
  - b. Air and water balance reports.
  - c. Certificates.
  - d. Photocopies of warranties and bonds.

G. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

H. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Contractor, and Contractor name of responsible parties; schedule of products and systems, indexed to content of the volume.

#### WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner'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. Execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

E. Include originals of each in operation, and maintenance manuals, indexed separately on Table of Contents.

#### TERMITE CONTROL - SECTION 02281

Provide soil treatment for termite control below grade and at interior and exterior foundation perimeter.

#### SUBMITTALS

1. Product Data: Indicate each toxicant to be used, composition by percentage, dilution schedule, intended application rate.

2. Test Reports: Indicate regulatory agency approval reports when required.

3. Manufacturer's Installation Instructions: Indicate caution requirements.

4. Manufacturer's Certificate: Certify that toxicants meet or exceed specified requirements.

#### PROJECT RECORD DOCUMENTS

1. Accurately record moisture content of soil before application, date and rate of application and areas of application.

#### MAINTENANCE DATA

Maintenance Data: Indicate re-treatment schedule.

#### REGULATORY REQUIREMENTS

1. Conform to applicable code for requirements for application, application licensing and authority to use toxicant chemicals in accordance with EPA.

2. Provide certificate of compliance from authority having jurisdiction indicating approval of toxicants.

#### WARRANTY

1. Provide five year warranty.

a. Include coverage for damage and repairs to building and building contents caused by termites. Repair damage and retreat as required at no charge to Owner during the warranty period.

#### MATERIALS

1. Toxicant Chemical: EPA approved and acceptable to the U.S. Department of Agriculture, Division of Forest Research for use in controlling termite infestation of buildings, without being injurious to plant life. Synthetically color dyed to permit visual identification of treated soil.

2. Diluent: Recommended by toxicant manufacturer.

#### MIX

1. Mix toxicant to manufacturer's instructions. Chemical shall be approved in a water solution.

#### EXAMINATION

1. Verify site conditions.

2. Verify that soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.

3. Verify final grading is complete.

#### APPLICATION

1. Spray-apply toxicant in accordance with manufacturer's instructions.

2. Apply toxicant at locations indicated in Schedule at end of Section.

3. Apply extra treatment to structure penetration surfaces such as pipe or ducts, and soil penetrations such as grounding rods or posts.

4. Re-treat disturbed treated soil with same toxicant as original treatment.

5. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

#### PROTECTION OF FINISHED WORK

1. Protect finished Work.

2. Do not permit soil grading over treated work.

#### SCHEDULES

1. Locations:

a. Under Slabs on Grade.

b. Both Sides of Foundation Surface.

#### GYPSUM CEMENTITIOUS UNDERLAYMENT SECTION 03650

Provide all labor, materials and equipment for:

1. Gyp-Crete Gypsum Cement

2. Gyp-Crete Floor Primer

3. Gyp-Crete Overspray

#### QUALITY ASSURANCE

A. Installers Qualifications: Installation of Gyp-Crete shall be by an applicator authorized by the Gyp-Crete Corporation using Gyp-Crete approved mixing and pumping equipment.

#### DELIVERY, STORAGE AND HANDLING

A. General Requirements: Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

#### ENVIRONMENTAL CONDITIONS

A. Environmental Requirements: Before, during and after installation of Gyp-Crete, building interior shall be enclosed and maintained at a temperature above 50 degrees F.

#### MATERIALS

A. Gypsum Cement:

1. Floor underlayment Gyp-Crete 2000 with Maxxon Overspray Primer/Sealer as manufactured by the Gyp-Crete Corporation, Hamel, MN.
2. Acceptable substitutes, subject to compliance with the requirements of this Sections shall include:
  - a. Floor Crete Industries, Inc.
  - b. Hacker Industries, Inc. Firm: Fill 3310 with Hacker TopCoat SP.
  - c. United States Gypsum, Levelock 2500.
  - d. Accurete Floor Underlayment System by Allied Custom Gypsum.
3. Sand Aggregate: Sand shall be 1/8" inch or less, washed masonry or plaster sand, meeting requirements of Gyp-Crete Corporation Sand Specifications 101.
4. Mix Water: Potable, free from impurities.
5. Subfloor Primer: Gyp-Crete Floor Primer.
6. Primer where required by floor goods manufacturer: Gyp-Crete Overspray or Gyp-Crete Floor Primer or as specified by manufacturer.

#### PREPARATION

A. Condition and Cleaning of Subfloor: Subfloor shall be structurally sound. General Contractor shall clean subfloor to remove mud, oil, grease, and other undesirable items or debris before the arrival to the Gyp-Crete underlayment crew.

B. Leak Prevention: Fill cracks and voids with a quick setting drywall patching material where leakage of Gyp-Crete could occur.

C. Priming Subfloor: Prime the subfloor using the Gyp-Crete Floor Primer. Priming instructions may vary according to the type of substrate. Refer to manufacturers specifications.

#### APPLICATION OF CEMENTITIOUS FLOORING

A. Scheduling: Application of Gyp-Crete shall not begin until the building is enclosed, including roof, windows, doors, and other fenestration. Install after drywall installation.

B. Application: Place Gyp-Crete at 3/4" minimum over wood frame. Spread and screed Gyp-Crete to a smooth surface. Except at authorized joints, place Gyp-Crete as continuously as possible until application is complete so that no Gyp-Crete product slurry is placed against Gyp-Crete product that has obtained its initial set.

C. Drying: General Contractor shall provide continuous ventilation and adequate heat to rapidly remove moisture from the area until the Gyp-Crete is dry. General Contractor shall provide mechanical ventilation if necessary. Under the above conditions, for 3/4 inch thick Gyp-Crete, 5-7 days is usually adequate drying time. To test for dryness, tape a 24 inch by 24 inch section of plastic to the surface of the underlayment. After 48-72 hours, if no condensation occurs, the underlayment shall be considered dry. Perform dryness test 5-7 days after pour.

#### PREPARATION FOR INSTALLATION OF GLUE DOWN FLOOR GOODS

A. Priming: Prime all areas that receive glue down floor goods according to the specifications of the floor goods manufacturer. Any floor area where the surface has been damaged or dusted shall be cleaned and primed regardless of floor covering to be used.

B. Floor Goods Procedures: See the Gyp-Crete Corporations Procedures for Attaching Finished Floor Goods to Gyp-Crete Underlayments brochure for guidelines for installing finished floor goods.

#### FIELD QUALITY CONTROL

A. Slump Test: Gyp-Crete mix shall be tested for slump as its being pumped using a 2 inch diameter cylinder resulting in a patty size of 8 inches plus or minus 1 inch diameter.

B. Field Samples: At least one set of 3 molded cube samples shall be taken from each days pour during the Gyp-Crete application. Cubes shall be tested as recommended by the Gyp-Crete Corporation in accordance with ASTM C472. Test results shall be available to architect and/or contractor upon request from applicator.

#### PROTECTION

A. Protection From Heavy Loads: During construction, place temporary wood planks over Gyp-Crete wherever it will be subject to heavy wheeled or concentrated loads.

#### CLEAN UP

A. Clean up all debris, trash, tools, and equipment from the Project resulting from work of this Section.

#### MORTAR - SECTION 04100

Provide Mortar for concrete block masonry construction.

#### SUBMITTALS

A. Submit the following in accordance with Section 01340:

1. Manufacturer's Literature: Materials description of cement, color pigments and lime.
2. Test Reports: Test reports on cement and mortar indicating compliance with specified standards.

B. Mortar Design Mix: For exterior wall mortar (each type if more than 1 [one] type used) obtain a laboratory design mix conforming to the specification requirements utilizing the materials proposed for the work. Substantiate the mix design with laboratory mix and the selected masonry units tested in accordance with ASTM C321-83 (1988), bond strength of chemical-resistant mortars.

C. Manufacturer's Certificate: Certify that products meet or exceed ASTM requirements.

#### DELIVERY, STORAGE AND HANDLING

A. Accept delivery of material only in an undamaged condition; handle and store above ground and under weather-tight cover. Packaged material shall be in original containers with seals unbroken and labels intact until time of use. Damaged and otherwise unsuitable material when so determined shall be immediately removed from the project site.

#### MATERIALS

A. Portland Cement: ASTM C150-89, Type I, gray and white non-staining; masonry cement is NOT allowed.

B. Hydrated Lime: ASTM C207-79 (1988), Type S, containing no air entrainment.

C. Aggregate for Mortar:

1. ASTM C144-89, natural sand. For joints 1/4" thick, or less, 100 percent shall pass No. 8 sieve and 95 percent shall pass the No. 16 sieve.
2. Water: Clean, free from deleterious amounts of acids, alkalis and organic materials.
3. Mortar color to be selected by architect for veneer applications.

#### PROPORTIONING AND STRENGTHS

A. Mortar Proportions by Volume: ASTM C270-89.

1. Type M, Natural: 1 part Portland cement, 1/4 part lime and 3-3/4 parts sand.
2. Type S, Natural: 1 part Portland cement, 1/2 part lime and 4-1/2 parts sand.

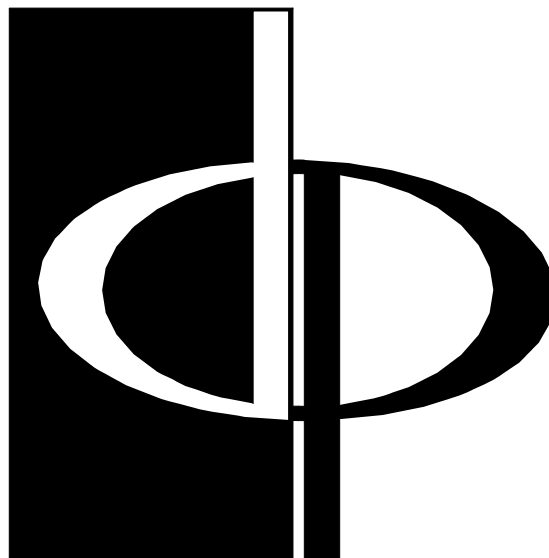
B. Admixtures shall not be used in mortar, unless approved by the Architect.

C. Minimum compressive strengths at 28 days, ASTM C780-90:

1. Type "M": 2500 psi; for walls in contact with earth and all walls below grade.
2. Type "S": 2000 psi for load-bearing walls above grade and non-loadbearing walls exposed to weather.

#### MIXING

A. Mix cementitious materials and aggregate in a mechanical batch mixer for at least 3 minutes with the maximum amount of water to produce a workable consistency. Re-temper mortar to replace water lost by evaporation, but not after mortar has begun to set. Use mortar within 2 hours after mixing.



## THE PRESTON PARTNERSHIP, LLC

A MULTI-DISCIPLINARY DESIGN FIRM

SOUTH TERRACES  
115 PERIMETER CENTER PLACE, SUITE 950  
ATLANTA, GEORGIA 30346  
TELEPHONE: 770 396 7248  
FAX: 770 396 2945

WWW.THEPRESTONPARTNERSHIP.COM

CONSULTANT

SEAL



PROJECT

## RESERVE AT THE BALLPARK, PHASE II, AKA REVEL AT THE BALLPARK

2885 CRESCENT PKWY  
SMYRNA, GA 30080

FOR