Concrete

SECTION 03300 - CAST-IN-PLACE CONCRETE

1.1 SUMMARY
- A. Cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:
  1. Footings.
  2. Foundation walls.
  3. Slabs-on-grade.

1.2 SUBMITTALS
- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
  1. Reinforcing:
     a. Detail reinforcing in accordance with ACI 315. Indicate reinforcement sizes, spacings, locations and quantities of reinforcing, bending and cutting schedules, splicing, and supporting and spacing devices.
     b. Indicate embedded items.
  2. Slab Layouts: Dimension locations of control, expansion, and construction joints. Relate to building grid lines.
- C. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
  1. Indicate amounts of mixing water to be withheld for later addition at Project site.
- D. Certifications: Submit mill certificates for cement, aggregates, and reinforcing.

1.3 MATERIALS
- A. Steel Reinforcement:
  1. Reinforcing Bars: Deformed.
     a. Use salvaged bars whenever available.
     b. Minimum recycled content: 60%
  2. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
- B. Concrete Materials:
  1. Portland Cement: ASTM C 150, Type I, gray, supplemented with 50% [**fly ash**] [**ground granulated blast-furnace slag**].
  2. Aggregate: Normal weight.
  3. Water: ASTM C 94/C 94M.
  4. Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
     a. Air-Entrainment: ASTM C 260.
     b. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
     c. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
     d. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
     e. Accelerator ASTM C 494, Type C or E, non-corrosive, non-chloride.
- C. Fiber Reinforcement: Synthetic, polypropylene.
  1. Fibrillated polypropylene micro-fibers engineered and designed for use in concrete, complying with ASTM C 1116/C 1116M, Type III
- D. Waterstops: Flexible rubber.
- E. Plastic Vapor Retarder: ASTM E 1745, Class A. Include manufacturer's recommended adhesive or pressure-sensitive joint tape.
- F. Curing Materials: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- G. Related Materials:
  1. Expansion- and isolation-joint-filler strips ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.
  2. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
  3. Non-Shrink Grouts: ASTM C 1107, Grade B; non-shrink non-catalyzed natural aggregate grout; minimum compressive strength of 7000 PSI at 28 days; 25 to 30 second flow when tested in accordance with ASTM C 939 at 45 to 90 degrees F; cement gray in color
  4. Form Release Coating: Water based type; VOC <150g/l; Nox-Crete "Utility Release. Cresset Chemical Company Crete 20_VOC," or approved; non staining.
- H. Repair Materials:
  1. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch(3.2 mm) and that can be feathered at edges to match adjacent floor elevations.
     a. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
     b. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
     c. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch(3.2 to 6 mm) or coarse sand as recommended by underlayment manufacturer.
     d. Compressive Strength: Not less than 4100 psi(29 MPa) at 28 days when tested according to ASTM C 109/C 109M.
  2. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch(3.2 mm) and that can be feathered at edges to match adjacent floor elevations.
     a. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
     b. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
     c. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch(3.2 to 6 mm) or coarse sand as recommended by topping manufacturer.
     d. Compressive Strength: Not less than 5000 psi(34.5 MPa) at 28 days when tested according to ASTM C 109/C 109M.

1.4 INSTALLATION
- A. Floor and Slab Finishes:
  1. Float: Surfaces to receive trowel finish.
  2. Trowel: Surfaces exposed to view, and surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
  3. Trowel and Fine Broom: Surfaces to be covered with ceramic or quarry tile installed by either thickset or thin-set method.
  4. Broom: Exterior concrete platforms, steps, and ramps.

1.5 FIELD QUALITY CONTROL
- A. Testing: By [**Owner**] [**Contractor**]-engaged agency.
- B. Inspections: By Owner-engaged special inspector.

END OF SECTION 03300

SECTION 03350 - CONCRETE FINISHING

1.1 SUMMARY
- A. Section Includes:
  1. Concrete Sealer
  2. Colored Concrete Sealer.

1.2 SUBMITTALS
- A. Qualification Data: For qualified Applicator.
- B. Maintenance Data: For SealSource to include in maintenance manuals.
- C. Warranty: Special warranties specified in this Section

1.3 WARRANTY
- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace color sealant that fail(s) in materials or workmanship within specified warranty period.
  1. Warranty Period: Five years from date of Substantial Completion.

1.4 MANUFACTURERS
- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. SealSource, LC.
  2. Ameripolish

1.5 CONCRETE SEALER
- A. VOC Content: Liquid floor treatments shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- B. SealSource Harden X Salt Guard
- C. Ameripolish Proguard Stain Shield

1.6 COLORED CONCRETE SEALER
- A. VOC Content: Liquid floor treatments shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- B. SealSource KromaPolish.
- C. Ameripolish Solvent Based Dye

1.7 PREPARATION
- A. Inspect existing slab for excessive cracking, spalling, or rock pockets. Clean deficient areas and patch with an all-purpose, non-shrink, cementitios grout.
- B. Aggressively grind concrete to expose large aggregate.

END OF SECTION 03350

CONCRETE

SECTION 033000 - CAST-IN-PLACE CONCRETE

1.1 SUMMARY
- A. CAST-IN-PLACE CONCRETE, INCLUDING FORMWORK, REINFORCEMENT, CONCRETE MATERIALS, MIXTURE DESIGN, PLACEMENT PROCEDURES, AND FINISHES, FOR THE FOLLOWING:
  1. FOOTINGS.
  2. FOUNDATION WALLS.
  3. SLABS-ON-GRADE.

1.2 SUBMITTALS
- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
- B. SHOP DRAWINGS:
  1. REINFORCING: PLACING DRAWINGS THAT DETAIL FABRICATION, BENDING, AND PLACEMENT. INCLUDE BAR SIZES, LENGTHS, MATERIAL, GRADE, BAR SCHEDULES, STIRRUP SPACING, BENT BAR DIAGRAMS, BAR ARRANGEMENT, SPLICES AND LAPS, MECHANICAL CONNECTIONS, TIE SPACING, HOOP SPACING, AND SUPPORTS FOR CONCRETE REINFORCEMENT.
  2. SLAB LAYOUTS: DIMENSION LOCATIONS OF CONTROL, EXPANSION, AND CONSTRUCTION JOINTS. RELATE TO BUILDING GRID LINES.
- C. DESIGN MIXTURES: FOR EACH CONCRETE MIXTURE. SUBMIT ALTERNATE DESIGN MIXTURES WHEN CHARACTERISTICS OF MATERIALS, PROJECT CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT ADJUSTMENTS.
  1. INDICATE AMOUNTS OF MIXING WATER TO BE WITHHELD FOR LATER ADDITION AT PROJECT SITE.
- D. CERTIFICATIONS: SUBMIT MILL CERTIFICATES FOR CEMENT, AGGREGATES, AND REINFORCING.

1.3 MATERIALS
- A. STEEL REINFORCEMENT:
  1. REINFORCING BARS: DEFORMED.
     a. MINIMUM RECYCLED CONTENT: 60%
  2. PLAIN-STEEL WELDED WIRE REINFORCEMENT: ASTM A 185, PLAIN, FABRICATED FROM AS-DRAWN STEEL WIRE INTO FLAT SHEETS.
- B. CONCRETE MATERIALS:
  1. PORTLAND CEMENT: ASTM C 150, TYPE I, GRAY, SUPPLEMENT WITH THE FOLLOWING:
     a. FLY ASH: ASTM C 618, CLASS F OR C.
     b. GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C989, GRADE 100 OR 120.
  2. AGGREGATE: NORMAL WEIGHT.
  3. WATER: ASTM C 94/C 94M.
  4. ADMIXTURES: PROVIDE ADMIXTURES CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES AND THAT WILL NOT CONTRIBUTE WATER-SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
     a. AIR-ENTRAINMENT: ASTM C 260.
     b. WATER-REDUCING ADMIXTURE: ASTM C 494/C 494M, TYPE A.
     c. HIGH-RANGE, WATER-REDUCING ADMIXTURE: ASTM C494/C 494M, TYPE F.
- C. WATERSTOPS: FLEXIBLE RUBBER.
- D. PLASTIC VAPOR RETARDER: ASTM E 1745, CLASS A. INCLUDE MANUFACTURER'S RECOMMENDED ADHESIVE OR PRESSURE-SENSITIVE JOINT TAPE.
- E. CURING MATERIALS: WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE.
- F. RELATED MATERIALS:
  1. EXPANSION- AND ISOLATION-JOINT-FILLER STRIPS ASTM D 1751, ASPHALT-SATURATED CELLULOSIC FIBER OR ASTM D 1752, CORK OR SELF-EXPANDING CORK.
  2. BONDING AGENT: ASTM C 1059/C 1059M, TYPE II, NON-REDISPERSIBLE, ACRYLIC EMULSION OR STYRENE BUTADIENE.
  3. NON-SHRINK GROUTS: ASTM C 1107, GRADE B; NON-SHRINK NON-CATALYZED NATURAL AGGREGATE GROUT; MINIMUM COMPRESSIVE STRENGTH OF 7000 PSI AT 28 DAYS; 25 TO 30 SECOND FLOW WHEN TESTED IN ACCORDANCE WITH ASTM C 939 AT 45 TO 90 DEGREES F; CEMENT GRAY IN COLOR
  4. FORM RELEASE COATING: WATER BASED TYPE; VOC <150G/I; NOX-CRETE "UTILITY RELEASE. CRESSET CHEMICAL COMPANY CRETE 20_VOC," OR APPROVED; NON STAINING.
- G. REPAIR MATERIALS:
  1. REPAIR UNDERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN THICKNESSES FROM 1/8 INCH (3.2 MM) AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.
     a. CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
     b. PRIMER: PRODUCT OF UNDERLAYMENT MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
     c. AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH (3.2 TO 6 MM) OR COARSE SAND AS RECOMMENDED BY UNDERLAYMENT MANUFACTURER.
     d. COMPRESSIVE STRENGTH: NOT LESS THAN 4100 PSI (29 MPA) AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109/C 109M.
  2. REPAIR OVERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT HAT CAN BE APPLIED IN THICKNESSES FROM 1/8 INCH (3.2 MM) AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.
     a. CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
     b. PRIMER: PRODUCT OF TOPPING MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
     c. AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH (3.2 TO 6 MM) OR COARSE SAND AS RECOMMENDED BY TOPPING MANUFACTURER.
     d. COMPRESSIVE STRENGTH: NOT LESS THAN 5000 PSI (34.5 MPA) AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109/C 109M.

1.4 INSTALLATION
- A. FLOOR AND SLAB FINISHES:
  1. FLOAT: SURFACES TO RECEIVE TROWEL FINISH.
  2. TROWEL: SURFACES EXPOSED TO VIEW, AND SURFACES TO BE COVERED WITH RESILIENT FLOORING, CARPET, CERAMIC OR QUARRY TILE SET OVER A CLEAVAGE MEMBRANE, PAINT, OR ANOTHER THIN-FILM-FINISH COATING SYSTEM.
  3. TROWEL AND FINE BROOM: SURFACES TO BE COVERED WITH CERAMIC OR QUARRY TILE INSTALLED BY EITHER THICKSET OR THIN-SET METHOD.
  4. BROOM: EXTERIOR CONCRETE PLATFORMS, STEPS, AND RAMPS.

1.5 FIELD QUALITY CONTROL
- A. TESTING: BY **[OWNER] [CONTRACTOR]**-ENGAGED AGENCY.
- B. INSPECTIONS: BY OWNER-ENGAGED SPECIAL INSPECTOR.

END OF SECTION 033000

CONCRETE (CONTINUED)

SECTION 033500 - CONCRETE FINISHING

1.1 SUBMITTALS
- A. QUALIFICATION DATA: FOR QUALIFIED APPLICATOR.
- B. MATERIAL CERTIFICATES.

1.2 FLOOR AND SLAB TREATMENTS
- A. VOC CONTENT: FLOOR TREATMENTS SHALL HAVE A VOC CONTENT OF 200 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- B. UNPIGMENTED MINERAL DRY-SHAKE FLOOR HARDENER: FACTORY-PACKAGED DRY COMBINATION OF PORTLAND CEMENT, GRADED QUARTZ AGGREGATE, AND PLASTICIZING ADMIXTURE.
- C. PIGMENTED MINERAL DRY-SHAKE FLOOR HARDENER: FACTORY-PACKAGED, DRY COMBINATION OF PORTLAND CEMENT, GRADED QUARTZ AGGREGATE, COLOR PIGMENTS, AND PLASTICIZING ADMIXTURE. USE COLOR PIGMENTS THAT ARE FINELY GROUND, NONFADING MINERAL OXIDES INTERGROUND WITH CEMENT.

1.3 LIQUID FLOOR TREATMENTS
- A. VOC CONTENT: LIQUID FLOOR TREATMENTS SHALL HAVE A VOC CONTENT OF 200 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- B. PENETRATING LIQUID FLOOR TREATMENT: CLEAR, CHEMICALLY REACTIVE, WATERBORNE SOLUTION OF INORGANIC SILICATE OR SILICONATE MATERIALS AND PROPRIETARY COMPONENTS; ODORLESS; THAT PENETRATES, HARDENS, AND DENSIFIES CONCRETE SURFACES.
- C. PENETRATING LIQUID FLOOR TREATMENTS FOR POLISHED CONCRETE FINISH: CLEAR, WATERBORNE SOLUTION OF INORGANIC SILICATE OR SILICONATE MATERIALS AND PROPRIETARY COMPONENTS; ODORLESS; THAT PENETRATES, HARDENS, AND IS SUITABLE FOR POLISHED CONCRETE SURFACES.

1.4 INSTALLATION
- A. DRY-SHAKE FLOOR HARDENER FINISH: AFTER INITIAL FLOATING, APPLY DRY-SHAKE FLOOR HARDENER TO SURFACES
- B. PENETRATING LIQUID FLOOR TREATMENT: PREPARE, APPLY, AND FINISH PENETRATING LIQUID FLOOR TREATMENT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- C. SEALING COAT: UNIFORMLY APPLY A CONTINUOUS SEALING COAT OF CURING AND SEALING COMPOUND TO HARDENED CONCRETE BY POWER SPRAY OR ROLLER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- D. PROTECT LIQUID FLOOR TREATMENT FROM DAMAGE AND WEAR DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTIVE METHODS AND MATERIALS, INCLUDING TEMPORARY COVERING, RECOMMENDED IN WRITING BY LIQUID FLOOR TREATMENTS INSTALLER.

END OF SECTION 033500

SECTION 035416 - HYDRAULIC-CEMENT-BASED UNDERLAYMENT

1.1 SUMMARY
- A. HYDRAULIC-CEMENT-BASED UNDERLAYMENT FOR USE BELOW INTERIOR FLOOR COVERINGS.

1.2 MATERIALS
- A. UNDERLAYMENT: HYDRAULIC-CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN MINIMUM UNIFORM THICKNESS OF 1/4 INCH (6MM) AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.
  1. CEMENT BINDER: PORTLAND CEMENT, OR OTHER HYDRAULIC OR BLENDED HYDRAULIC CEMENT.
- B. PRIMER: PRODUCT OF UNDERLAYMENT MANUFACTURER RECOMMENDED IN WRITING FOR SUBSTRATE, CONDITIONS, AND APPLICATION INDICATED.
  1. PRIMER SHALL HAVE A VOC CONTENT OF 200 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D.

END OF SECTION 035416

METALS

SECTION 055000 - METAL FABRICATIONS

1.1 SUMMARY
- A. STEEL FRAMING AND SUPPORTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT.
- B. STEEL FRAMING AND SUPPORTS FOR APPLICATIONS WHERE FRAMING AND SUPPORTS ARE NOT SPECIFIED IN OTHER SECTIONS.
- C. SHELF ANGLES.
- D. METAL BOLLARDS.

1.2 SUBMITTALS
- A. PRODUCT DATA: FOR THE FOLLOWING:
  1. PAINT PRODUCTS.
  2. GROUT.
  3. ALL PREFABRICATED PRODUCTS.
- B. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION DETAILS FOR METAL FABRICATIONS.
  1. INCLUDE PLANS, ELEVATIONS, SECTIONS, AND DETAILS OF METAL FABRICATIONS AND THEIR CONNECTIONS. SHOW ANCHORAGE AND ACCESSORY ITEMS.
  2. PROVIDE TEMPLATES FOR ANCHORS AND BOLTS SPECIFIED FOR INSTALLATION UNDER OTHER SECTIONS.
- C. WELDING CERTIFICATES.

1.3 PRODUCTS
- A. MATERIALS: STEEL PLATES, SHAPES, AND BARS, STEEL PIPE, SLOTTED CHANNEL FRAMING.
  1. LOW-EMITTING PRIMER: METAL PRIMER SHALL HAVE A VOC CONTENT OF 200 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- B. MISCELLANEOUS FRAMING AND SUPPORTS:
  1. STEEL FRAMING AND SUPPORTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT, APPLICATIONS WHERE FRAMING AND SUPPORTS ARE NOT SPECIFIED IN OTHER SECTIONS.
  2. GALVANIZE WHERE INDICATED.
  3. PRIME WITH ZINC-RICH PRIMER WHERE INDICATED.
     a. ZINC-RICH PRIMER SHALL HAVE A VOC CONTENT OF 340 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- C. LOOSE STEEL LINTELS, GALVANIZED AT EXTERIOR WALLS.
- D. SHELF ANGLES, GALVANIZED.
- E. STEEL WELD PLATES AND ANGLES NOT SPECIFIED IN OTHER SECTIONS, FOR CASTING INTO CONCRETE.
- F. METAL BOLLARDS: SCHEDULE 40 STEEL PIPE.

END OF SECTION 055000

WOOD AND PLASTICS

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

1.1 MATERIALS
- A. WOOD PRODUCTS, GENERAL:
  1. MAXIMUM MOISTURE CONTENT OF LUMBER: **[15 PERCENT] [19 PERCENT]**.
- B. WOOD-PRESERVATIVE-TREATED MATERIALS:
  1. PRESERVATIVE TREATMENT: AWPA U1; USE CATEGORY UC2.
     a. PRESERVATIVE CHEMICALS: CONTAINING NO ARSENIC OR CHROMIUM. DO NOT USE INORGANIC BORON (SBX) FOR SILL PLATES.
  2. APPLICATION: ITEMS INDICATED AND THE FOLLOWING:
     a. ITEMS IN CONTACT WITH ROOFING OR WATERPROOFING.
     b. ITEMS IN CONTACT WITH CONCRETE OR MASONRY.
     c. FRAMING LESS THAN 18 INCHES (460 MM) ABOVE GROUND IN CRAWLSPACES.
     d. FLOOR PLATES INSTALLED OVER CONCRETE SLABS-ON-GRADE.
- C. FIRE-RETARDANT-TREATED MATERIALS:
  1. EXTERIOR TYPE FOR EXTERIOR LOCATIONS AND WHERE INDICATED.
  2. INTERIOR TYPE A UNLESS OTHERWISE INDICATED.
  3. APPLICATION: ITEMS INDICATED AND THE FOLLOWING:
     a. FRAMING FOR RAISED PLATFORMS.
     b. CONCEALED BLOCKING.
     c. ROOF FRAMING AND BLOCKING.
     d. ITEMS IN CONTACT WITH ROOFING.
     e. PLYWOOD BACKING PANELS.
- D. FRAMING:
  1. NON-LOAD-BEARING INTERIOR PARTITIONS: CONSTRUCTION OR NO. 2 GRADE.
- E. MISCELLANEOUS LUMBER:
  1. DIMENSION LUMBER: CONSTRUCTION OR NO. 2 GRADE.
  2. UTILITY SHELVING: 19 PERCENT MAXIMUM MOISTURE CONTENT.
  3. CONCEALED BOARDS: 19 PERCENT MAXIMUM MOISTURE CONTENT.
- F. PLYWOOD BACKING PANELS: EXPOSURE 1, C-D PLUGGED **[, FIRE-RETARDANT TREATED]**.
- G. FASTENERS: HOT-DIP GALVANIZED STEEL WHERE EXPOSED TO WEATHER, IN GROUND CONTACT, IN CONTACT WITH TREATED WOOD, OR IN AREA OF HIGH RELATIVE HUMIDITY.
- H. METAL FRAMING ANCHORS:
  1. METAL: GALVANIZED STEEL; HOT-DIP HEAVY GALVANIZED STEEL FOR WOOD-PRESERVATIVE-TREATED LUMBER AND WHERE INDICATED.
- I. ADHESIVES: ADHESIVES SHALL HAVE A VOC CONTENT OF 70 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).

1.2 INSTALLATION
- A. FURRING TO RECEIVE PLYWOOD OR HARDBOARD PANELING: 1-BY-3-INCH NOMINAL-SIZE (19-BY-63-MM ACTUAL-SIZE) FURRING AT **[24 INCHES (610 MM)] [600 MM]** O.C.
- B. FURRING TO RECEIVE GYPSUM BOARD: 1-BY-2-INCH NOMINAL-SIZE (19-BY-38-MM ACTUAL-SIZE) FURRING AT **[16 INCHES (406 MM)] [400 MM]** O.C.

END OF SECTION 061053

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Revision Schedule

Rev	Date	By	Description

PROJECT NAME: NORTHGATE PLAZA

PROJECT ADDRESS: 91 AUBURN STREET, PORTLAND ME 04103

STORE #:	2830
PROJECT #:	22764-021
CONCEPT:	
PALETTE:	
ISSUE DATE:	12/19/2013
DESIGN MANAGER:	Eta Kliger
LEED® AP:	
PRODUCTION DESIGNER:	AH
CHECKED BY:	Allison Stadnyck

SHEET TITLE: DESIGN SPECIFICATIONS

SCALE: 1/4" = 1'-0"

SHEET NUMBER: G-0011