

VCBO® ADDENDUM 002

project	Intermountain Healthcare PKH CT Remodel	project no	22545
date	2024-01-16	no. pages	
owner	Intermountain Healthcare		
contractor			
bid date	2024-01-19	bid time	4:00 pm

This Addendum shall be considered part of the Contract Documents and Project Manual for the above mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents and Project Manual, the Addendum shall govern and take precedence.

general

2.1 See included ICRA Work Permit with project specific information completed.

drawings

item	sheet#	description
2.1	A112	FIRST FLOOR - FINISH PLAN 1. ADD FLOORING F4 TO THE FINISH KEY. 2. ADD BASE B3 TO THE FINISH KEY. 3. ADD FLOORING AND BASE FINISHES IN TECH WORK AREA 1366 AS CLOUDED.
2.2	A113	FIRST FLOOR - EQUIPMENT PLAN 1. ADD CT PROCEDURE - ICRA BARRIER PLAN AS CLOUDED

specifications

item	section#	description
2.1		See attached specification narrative and associated attached specification sections.

End of Addendum 002

INTERMOUNTAIN PARK CITY HOSPITAL CT REMODEL
ADDENDUM 002

16 January 2024 - VCBO Project No. 22545

TABLES OF CONTENTS

- A. **Delete** the following Tables of Contents from the Project Manual and substitute revised sections, issued herewith
1. Overall Table of Contents
 2. Division 07 Table of Contents
 3. Division 08 Table of Contents
 4. Division 09 Table of Contents
 5. Division 11 Table of Contents.

SECTION 07 2100 THERMAL INSULATION

- A. **Add** this section, issued herewith, to the Project Manual.

SECTION 07 9200 JOINT SEALANTS

- A. **Add** this section, issued herewith, to the Project Manual.

SECTION 08 7100 DOOR HARDWARE

- A. **Add** this section, issued herewith, to the Project Manual.

SECTION 09 6513 RESILIENT BASE AND ACCESSORIES

- A. **Add** this section, issued herewith, to the Project Manual.

SECTION 09 6513 RESILIENT FLOOR COVERINGS

- A. **Delete** this section from Project Manual.

SECTION 09 6516.23 SHEET VINYL FLOORING

- A. **Add** this section, issued herewith, to the Project Manual. (This section has the same content as original section 09 6513).

SECTION 09 6813 TILE CARPETING

A. **Add** this section, issued herewith, to the Project Manual.

SECTION 10 2800 TOILET AND BATH ACCESSORIES

A. **Add** paragraph 3.3 K, as follows:

- “K. Shower/Dressing Area Seat
1. Basis of Design: Bobrick 819687
 2. Folding solid phenolic seat with drain holes. Type 304 satin finish stainless steel frame, mounting brackets, baseplate, spring, and guide bracket. Capacity: 500 lbs.”

SECTION 11 7013 MEDICAL EQUIPMENT

A. **Add** this section, issued herewith, to the Project Manual.

SECTION 11 7014 EQUIPMENT SCHEDULE

A. **Add** this schedule, issued herewith, to the Project Manual.

END OF ADDENDUM 002 LANGUAGE

TABLE OF CONTENTS

CONSTRUCTION DOCUMENTS

DIVISION AND SECTION

TITLE

DIVISION 00

PROCUREMENT AND CONTRACT REQUIREMENTS

Section 00 4000
 Section 00 4373
 Section 00 5200
 Section 00 6000
 Section 00 6276.13
 Section 00 7000
 Section 00 7301
 Section 00 7302
 Section 00 7304
 Section 00 7305
 Section 00 7306

 Section 00 7307

Bid Form
 Schedule of Values
 Owner / Contract Agreement
 Bonds and Certificates
 Exemption Certificate
 General Conditions
 Access and Confidentiality Agreement
 Third Party Remote Access Form
 Pre-Construction Work Permit – Above Ceiling
 Pre-Construction Work Permit – Hot Work
 Pre-Construction Work Permit – Infection Control Risk
 Assessment
 Pre-Construction Work Permit – Interim Life Safety
 Measures Work Permit

DIVISION 01

GENERAL REQUIREMENTS

Section 01 1000
 Section 01 1001
 Section 01 1900
 Section 01 2600
 Section 01 2900
 Section 01 3100
 Section 01 3313
 Section 01 5050
 Section 01 6000
 Section 01 7300
 Section 01 7301
 Section 01 7329
 Section 01 7700
 Section 01 7701
 Section 01 7820

Summary of Work
 Pre-Construction Responsibility Matrix
 Definitions and Standards
 Contract Modification Procedures
 Payment Procedures
 Project Management and Coordination
 Submittals
 Temporary Facilities and Controls
 Product Requirements
 Execution Requirements
 Owner's Construction Safety Requirements
 Cutting and Patching
 Closeout Procedures
 Record Drawing Requirements
 Operation and Maintenance Data

TABLE OF CONTENTS

CONSTRUCTION DOCUMENTS

DIVISION 02

Section 02 4102

DIVISION 03

Section 03 3053

DIVISION 04

Not Used

DIVISION 05

Section 05 5000

DIVISION 06

Section 06 1000

Section 06 4023

DIVISION 07

Section 07 2116

Section 07 9200

DIVISION 08

Section 08 1113

Section 08 1416

Section 08 7100

DIVISION 09

Section 09 2216

Section 09 2900

Section 09 3013

Section 09 5113

EXISTING CONDITIONS

Selective Demolition

CONCRETE

Cast-In-Place Concrete (Limited Applications)

MASONRY

METALS

Metal Fabrications

WOOD, PLASTICS, AND COMPOSITES

Rough Carpentry

Interior Architectural Woodwork

THERMAL AND MOISTURE PROTECTION

Blanket Insulation

Joint Sealants

OPENINGS

Hollow Metal Doors and Frames

Flush Wood Doors

Door Hardware

FINISHES

Non-Structural Metal Framing

Gypsum Board

Ceramic Tiling

Acoustical Panel Ceilings

TABLE OF CONTENTS

CONSTRUCTION DOCUMENTS

Section 09 6513
Section 09 6516.23
Section 09 6813
Section 09 9123

DIVISION 10

Section 10 2613
Section 10 2623.13
Section 10 2800

DIVISION 11

Section 11 7013
Section 11 7014

DIVISION 12

Not Used

DIVISION 13

Section 13 4913

DIVISION 13

Not Used

DIVISION 21

Section 21 1000

Resilient Base and Accessories
Sheet Vinyl Flooring
Tile Carpeting
Painting

SPECIALTIES

Corner Guards
Impact Resistant Wall Protection
Toilet and Bath Accessories

EQUIPMENT

Medical Equipment
Equipment Schedule

FURNISHINGS

SPECIAL CONSTRUCTION

X-Ray Shielding Assemblies

CONVEYING EQUIPMENT

FIRE SUPPRESSION

Water-Based Fire-Suppression Systems

TABLE OF CONTENTS

CONSTRUCTION DOCUMENTS

DIVISION 22

Section 22 0500
Section 22 0513

Section 22 0517
Section 22 0518
Section 22 0523
Section 22 0529

Section 22 0548

Section 22 0553
Section 22 0719
Section 22 1116
Section 22 1119
Section 22 1316
Section 22 1319
Section 22 6113

Section 22 6213
Section 22 6314

DIVISION 23

Section 23 0100
Section 23 0150
Section 23 0500
Section 23 0513
Section 23 0517
Section 23 0518
Section 23 0519
Section 23 0523
Section 23 0529
Section 23 0548
Section 23 0550
Section 23 0553
Section 23 0593
Section 23 0713
Section 23 0719
Section 23 0900
Section 23 2113
Section 23 2116
Section 23 3001

PLUMBING

Common Work Results for Plumbing
Common Motor Requirements for Plumbing
Equipment
Sleeves and Seals for Plumbing Piping
Escutcheons for Plumbing Piping
General Duty Valves for Plumbing Piping
Hangers and Supports for Plumbing Piping and
Equipment
Vibration and Seismic Control for Plumbing Piping and
Equipment
Identification for Plumbing Piping and Equipment
Plumbing Piping Insulation
Domestic Water Piping
Domestic Water Piping Specialties
Sanitary Waste and Vent Piping
Sanitary Waste Piping Specialties
Compressed – Air Piping for Laboratory and Healthcare
Facilities
Vacuum Piping for Laboratory and Healthcare Facilities
Medical Gas Piping

HEATING, VENTILATION, AND AIR CONDITIONING

Mechanical Requirements
Temporary Use of Equipment and Systems
Common Work Results for HVAC
Common Motor Requirements for HVAC Equipment
Sleeves and Sleeve Seals for HVAC Piping
Escutcheons for HVAC Piping
Meters and Gages for HVAC
General-Duty Values for HVAC Piping
Hangers and Supports HVAC Piping and Equipment
Vibration and Seismic Controls for HVAC
Operations and Maintenance of HVAC Systems
Identification for HVAC Piping and Equipment
Testing, Adjusting, and Balancing for HVAC
Duct Insulation
HVAC Piping Insulation
Instrumentation and Control for HVAC
Hydronic Piping
Hydronic Piping Specialties
Common Duct Requirements

TABLE OF CONTENTS

CONSTRUCTION DOCUMENTS

Section 23 3113
Section 23 3300
Section 23 3600
Section 23 3713

DIVISION 26

Section 26 0519
Section 26 0526
Section 26 0529
Section 26 0533
Section 26 0548
Section 26 0553
Section 26 0923
Section 26 2726
Section 26 5119

DIVISION 27

Not Used

DIVISION 28

Section 28 3111

DIVISIONS 31 THRU 48

Not Used

END OF TABLE OF CONTENTS

Metal Ducts
Air Duct Accessories
Air Terminals Units
Diffusers, Registers, and Grilles

ELECTRICAL

Low-Voltage Electrical Power Conductors and Cables
Grounding and Bonding for Electrical Systems
Hangers and Supports for Electrical Systems
Raceways and Boxes for Electrical Systems
Vibration and Seismic Controls for Electrical Systems
Identification for Electrical Systems
Lighting Control Devices
Wiring Devices
LED Interior Lighting

COMMUNICATIONS

ELECTRONIC SAFETY AND SECURITY

Digital, Addressable Fire-Alarm System

SECTION 07 2116
BLANKET INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Concealed building insulation.
 - 2. Sound attenuation blankets.

1.3 SUBMITTALS

- A. Product Data: Provide product data for each type of insulation product specified.
- B. Product Test Reports: Provide product test reports from and based on tests performed by a qualified independent testing agency evidencing compliance of insulation products with specified requirements including those for thermal resistance, fire-test-response characteristics, water-vapor transmission, water absorption, and other properties, based on comprehensive testing of current products.

1.4 QUALITY ASSURANCE

- A. Single-Source Responsibility for Insulation Products: Obtain each type of building insulation from a single source with resources to provide products complying with requirements indicated without delaying the Work.
- B. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated on Drawings or specified elsewhere in this Section as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Surface-Burning Characteristics: ASTM E 84.
 - 2. Fire-Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.
- C. Mock-Ups: Before installing building insulation, build a mockup in an area or room as directed by the Architect, for each insulation condition to be a standard for insulation installation.
 - 1. Mock-up to include batt insulation, conditions where insulation is covered with gypsum board and where insulation is to be left exposed such as above ceilings.
 - 2. The approved mock-up may remain a part of the permanent construction.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. **Protection:** Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements of Contract Documents, manufacturers offering insulation products that may be incorporated in the work include, but are not limited to, the following:
 - 1. Glass-Fiber Insulation:
 - a. CertainTeed Corporation.
 - b. Knauf Fiber Glass GmbH.
 - c. Owens-Corning Fiberglas Corporation.
 - d. Johns Manville Corporation.

2.2 INSULATING MATERIALS

- A. General: Provide insulating materials that comply with requirements and with referenced standards.
- B. Unfaced Mineral-Fiber Blanket Insulation: (blankets without membrane facing). Thermal insulation combining mineral fibers of type described below with thermosetting resins to comply with ASTM C 665, Type I.
 - 1. Mineral-Fiber Type: Fibers manufactured from glass.
 - 2. Surface-Burning Characteristics: Maximum flame-spread and smoke-developed indices of 25 and 50, respectively.
 - 3. At 3 5/8 inch steel stud walls provide R-13 blankets, at 6 inch steel stud walls provide R-19 blankets and provide R-38 blankets at soffits, overhangs and roof exterior.
- C. Sound Attenuation Blankets:
 - 1. ASTM C 665, Type I; semi rigid mineral fiber blanket without membrane, Class 25 flame spread.
 - 2. Thickness: Provide a thickness equal to the full thickness of the wall cavity; thickness above ceilings: 6 inches minimum.

2.3 AUXILIARY INSULATING MATERIALS

- A. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates indicated without damaging insulation and substrates.

2.4 INSULATION FASTENERS

- A. Adhesively Attached, Spindle-Type Anchors: Plate welded to projecting spindle; capable of holding insulation, of thickness indicated, securely in position indicated with self-locking washer in place; and complying with the following requirements:
 - 1. Plate: Perforated galvanized carbon-steel sheet, 0.030 inch thick by 2 inches square.
 - 2. Spindle: Copper-coated low carbon steel, fully annealed, 0.105 inches in diameter, length to suit depth of insulation indicated.

- B. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- thick galvanized steel sheet, with beveled edge for increased stiffness, sized as required to hold insulation securely in place, but not less than 1-1/2 inches (38 mm) square or in diameter.
 - 1. Where spindles will be exposed to human contact after installation, protect ends with capped self-locking washers incorporating a spring steel insert to ensure permanent retention of cap.
- C. Anchor Adhesive: Product with demonstrated capability to bond insulation anchors securely to substrates indicated without damaging insulation, fasteners, and substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements of Sections in which substrates and related work are specified and to determine if other conditions affecting performance of insulation are satisfactory. Do not proceed with installation until unsatisfactory conditions have been corrected. The Architect shall examine the installation of the insulation prior to insulation being covered by other work. If insulation is covered prior to Architects examination, Contractor shall remove other work, at contractor's expense to allow for Architect's examination.

3.2 PREPARATION

- A. Clean substrates of substances harmful to insulations or vapor retarders, including removing projections capable of puncturing vapor retarders or that interfere with insulation attachment.

3.3 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, unsoiled, and has not been exposed at any time to ice and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Apply single layer of insulation to produce thickness indicated, unless multiple layers are otherwise shown or required to make up total thickness.

3.4 INSTALLATION OF GENERAL BUILDING INSULATION (ABOVE GRADE)

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.

- B. Install mineral-fiber blankets in cavities formed by framing members according to the following requirements:
 - 1. Use blanket widths and lengths that fill cavities formed by framing members. Where more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
 - 2. Place blankets in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Insulation is to extend from floor to deck, typical.

- D. Stuff glass-fiber loose-fill insulation into miscellaneous voids and cavity spaces. Compact to approximately 40 percent of normal maximum volume equaling a density of approximately 2.5 lb/cu. ft.

3.5 PROTECTION

- A. General: Protect installed insulation and vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION

SECTION 07 9200

JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes sealants for the following applications, including those specified by reference to this Section:
 - 1. Interior joints in the following vertical surfaces and horizontal nontraffic surfaces:
 - a. Control and expansion joints on exposed interior surfaces of exterior walls
 - b. Perimeter joints of exterior openings where indicated.
 - c. Control and expansion joints in ceiling and overhead surfaces.
 - d. Tile control and expansion joints.
 - e. Vertical control joints on exposed surfaces of interior unit masonry and concrete walls and partitions.
 - f. Perimeter joints between interior wall surfaces and frames of interior doors, windows, and elevator entrances.
 - g. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - h. Joints between interior partitions and concrete floors.
 - i. Joints between metal deck and walls.
 - j. Other joints as indicated.
 - 2. Interior joints in the following horizontal traffic surfaces:
 - a. Control and expansion joints in cast-in-place concrete slabs.
 - b. Control and expansion joints in tile flooring.
 - c. Other joints as indicated.
 - 3. All joints between dissimilar materials.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

1.4 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Product Certificates: Signed by manufacturers of joint sealants certifying that products furnished comply with requirements and are suitable for the use indicated.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance.
- B. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.
- C. Preconstruction Compatibility and Adhesion Testing: Submit to joint sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.
 - 1. Use manufacturer's standard test methods to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
 - a. Perform tests under environmental conditions replicating those that will exist during installation.
 - 2. Submit not fewer than nine pieces of each type of material, including joint substrates, shims, joint-sealant backings, secondary seals, and miscellaneous materials.
 - 3. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
 - 4. For materials failing tests, obtain joint sealant manufacturer's written instructions for corrective measures, including the use of specially formulated primers.
 - 5. Testing will not be required if joint sealant manufacturers submit joint preparation data that are based on previous testing of current sealant products for adhesion to, and compatibility with, joint substrates and other materials matching those submitted.
- D. Mockups: Before installing joint sealants, apply elastomeric sealants as follows to verify color selections and to demonstrate aesthetic effects and qualities of materials and execution:
 - 1. Joints in mockups of assemblies specified in other Sections that are indicated to receive elastomeric joint sealants, which are specified by reference to this Section.
 - 2. Provide not less than six and not more than twelve 12 inch long x typical width and depth samples of sealants and caulks for Owner and Architect review. Samples shall be installed at floors, walls, ceiling and other locations selected by Architect.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with installation of joint sealants under the following conditions:
 - 1. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer.
 - 2. When joint substrates are wet.
- B. Joint-Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- C. Joint-Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

1.8 WARRANTY

- A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: Three years from date of Substantial Completion.
- B. Special warranties specified in this Article exclude deterioration or failure of elastomeric joint sealants from the following:
 - 1. Movement of the structure resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression caused by structural settlement or errors attributable to design or construction.
 - 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 - 3. Mechanical damage caused by individuals, tools, or other outside agents.
 - 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
- B. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Architectural Sealants: 250 g/L.
 - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 - 3. Sealant Primers for Porous Substrates: 775 g/L.
- C. Colors of Exposed Joint Sealants: All colors shall be custom as selected by Architect.

2.2 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant in the Elastomeric Joint-Sealant Schedule at the end of Part 3, including those referencing ASTM C 920 classifications for type, grade, class, and uses.
- B. Additional Movement Capability: Where additional movement capability is specified in the Elastomeric Joint-Sealant Schedule, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C 719, to withstand the specified percentage change in the joint width existing at the time of installation and remain in compliance with other requirements of ASTM C 920 for uses indicated.
- C. Suitability for Contact with Food: Where elastomeric sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.3 SOLVENT-RELEASE JOINT SEALANTS

- A. Acrylic-Based Solvent-Release Joint-Sealant Standard: Comply with ASTM C 1311 for each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3.
- B. Butyl-Rubber-Based Solvent-Release Joint-Sealant Standard: Comply with ASTM C 1085 for each product of this description indicated in the Solvent-Release Joint-Sealant Schedule at the end of Part 3.

2.4 LATEX JOINT SEALANTS

- A. Latex Sealant Standard: Comply with ASTM C 834 for each product of this description indicated in the Latex Joint-Sealant Schedule at the end of Part 3.

2.5 ACOUSTICAL JOINT SEALANTS

- A. Acoustical Sealant for Exposed and Concealed Joints: For each product of this description indicated in the Acoustical Joint-Sealant Schedule at the end of Part 3, provide manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834 and the following:
 - 1. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

2.6 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, of type indicated below and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

- C. Type C: Closed-cell material with a surface skin.
- D. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 degrees F. Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.
- E. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.7 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants with joint substrates.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. All joints of dissimilar materials to receive joint sealant.
- B. Examine joints to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint sealant manufacturer's written instructions and the following requirements:
 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 2. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include concrete, masonry or unglazed surfaces of ceramic tile.

3. Remove laitance and form-release agents from concrete.
 4. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants to metal, glass, porcelain enamel or glazed surfaces of ceramic tile.
- B. Joint Priming: Prime joint substrates where recommended in writing by joint sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Acoustical Sealant Application Standard: Comply with recommendations of ASTM C 919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.
- D. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.
 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- E. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and back of joints.
- F. Install sealants by proven techniques to comply with the following and at the same time backings are installed:
1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses provided for each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
 4. Seal abutting joint at all dissimilar materials.
- G. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
1. Remove excess sealants from surfaces adjacent to joint.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
4. Provide flush joint configuration, per Figure 5B in ASTM C 1193, where indicated.
5. Provide recessed joint configuration, per Figure 5C in ASTM C 1193, of recess depth and at locations indicated.
 - a. Use masking tape to protect adjacent surfaces of recessed tooled joints.

3.4 CLEANING

- A. Clean off excess sealants or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from the original work.

3.6 ELASTOMERIC JOINT-SEALANT SCHEDULE

- A. Medium-Modulus Neutral-Curing Silicone Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
 1. Products:
 - a. 795; Dow Corning.
 - b. PSI-631; Polymeric Systems, Inc.
 - c. Masterseal NP 150, Sika/Master Builders Solutions
 - d. Spectrem 2; Tremco.
 2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25.
 4. Use Related to Exposure: NT (nontraffic).
 5. Uses Related to Joint Substrates: M (masonry), G (glass), A (aluminum), and, as applicable to joint substrates indicated, O (other).
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, brick and masonry, ceramic tile, and wood.
 6. Stain-Test-Response Characteristics: Nonstaining to porous substrates per ASTM C 1248.
 7. Applications: Exterior and interior joints in vertical surfaces of concrete; between metal and concrete and mortar; perimeter of metal frames in exterior walls; overhead or ceiling joints.
- B. Mildew-Resistant Silicone Sealant: Where joint sealants of this type are indicated, provide products formulated with fungicide that are intended for sealing interior ceramic tile joints and other nonporous substrates that are subject to in-service exposures of high humidity and temperature extremes, and that comply with the following:
 1. Products:
 - a. 786 Mildew Resistant; Dow Corning.
 - b. Omniplus, Sonneborn.
 - c. Sanitary 1700; GE Silicones.
 - d. Tremsil 600 White; Tremco.
 - e. Masterseal NP 150, Sika/Master Builders Solutions

2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25.
 4. Use Related to Exposure: NT (nontraffic).
 5. Uses Related to Joint Substrates: G, A, and, as applicable to joint substrates indicated, O.
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, and ceramic tile.
 6. Applications: Interior joints in vertical surfaces of ceramic tile in toilet rooms, and showers.
- C. Multicomponent Pourable Urethane Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products:
 - a. Vulkem 245; Mameco International.
 - b. Elasto-Thane 920 Pourable; Pacific Polymers, Inc.
 - c. Sikaflex - 2c SL; Sika Corporation.
 - d. Masterseal SL 2; Sika/Master Builders Solutions
 2. Type and Grade: M (multicomponent) and P (pourable).
 3. Class: 25.
 4. Uses Related to Exposure: T (traffic) and NT (nontraffic).
 5. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, brick and masonry, ceramic tile, and wood.
 6. Applications: Traffic joints.
- D. Single-Component Nonsag Urethane Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products:
 - a. Vulkem 921; Mameco International.
 - b. Dynatrol I; Pecora Corporation.
 - c. DyMonic; Tremco.
 - d. Masterseal NP1, Sika/Master Builders Solutions
 2. Type and Grade: S (single component) and NS (nonsag).
 3. Class: 25
 4. Use Related to Exposure: NT (nontraffic).
 5. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.
 - a. Use O Joint Substrates: Coated glass, color anodic aluminum, aluminum coated with a high-performance coating, galvanized steel, brick and masonry, ceramic tile, and wood.
 6. Applications: Joints in concrete.

3.7 LATEX JOINT-SEALANT SCHEDULE

- A. Latex Sealant: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products:
 - a. AC-20; Pecora Corporation.
 - b. Tremflex 834; Tremco.
 2. Applications: Interior joints in field-painted vertical and overhead surfaces at hollow metal door frames, gypsum drywall, and concrete; and all other interior locations not indicated otherwise.

3.8 ACOUSTICAL JOINT-SEALANT SCHEDULE

- A. Acoustical Sealant for Exposed and Concealed Joints: Where joint sealants of this type are indicated, provide products complying with the following:
1. Products:
 - a. AC-20 FTR Acoustical and Insulation Sealant; Pecora Corporation.
 - b. SHEETROCK Acoustical Sealant; USG Corp., United States Gypsum Co.
 2. Applications: Use in locations of sound walls and in locations indicated.

3.9 SMOKE AND ACOUSTIC SEALANT

- A. Smoke and Acoustical Sealant for Joints between metal decks and walls (non-fire rated): Where joint sealants of this type are indicated, provide products complying with the following:
1. Products (where flutes are parallel to the wall):
 - a. CP767 Speed Strips pre-formed mineral wool plugs by Hilti, if required.
 - b. CP 506 Smoke and Acoustic Sealant; Hilti.
 2. Products (where flutes are perpendicular to the wall):
 - a. CP777 Speed Strips pre-formed mineral wool plugs by Hilti. Press into flutes.
 - b. CP 572 Smoke and Acoustic Sealant; Hilti.

END OF SECTION

SECTION 08 7100

DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding doors.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Automatic operators.
- C. Related Sections:
 - 1. Section 08 1113 "Hollow Metal Doors and Frames".
 - 2. Section 08 1416 "Flush Wood Doors".
 - 3. Section 13 4913 "X-Ray Shielding Assemblies".
 - 4. Section 08 4313 "Aluminum Entrances and Storefronts".
 - 5. Section 28 1500 "Integrated Access Control Hardware Devices".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
 - 8. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards - A156 Series.
 - 2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
 - 3. ANSI/UL 294 - Access Control System Units.
 - 4. UL 305 - Panic Hardware.
 - 5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 - 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

- C. Shop Drawings: Details of electrified access control hardware indicating the following:
 - 1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.
 - 2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

- D. Proof of Certification: Provide copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified and authorized provider of the primary Integrated Wiegand Access Control Products.

- E. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- F. Informational Submittals:
 - 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- G. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Integrated Wiegand, Wireless, and IP-Enabled Access Control Products Supplier Qualifications: Integrated access control products and accessories are required to be supplied and installed through current members of the ASSA ABLOY "Authorized Channel Partner" (ACP) and "Certified Integrator" (CI) programs. Suppliers are to be factory trained, certified prior to project bid, and a direct purchaser of the specified product. Installers are to be factory trained, certified prior to project bid, and are responsible for commissioning, servicing, and warranting the installed equipment specified for the project.

- F. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 - 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 - 1. Function of building, purpose of each area and degree of security required.
 - 2. Plans for existing and future key system expansion.
 - 3. Requirements for key control storage and software.
 - 4. Installation of permanent keys, cylinder cores and software.
 - 5. Address and requirements for delivery of keys.
- I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
 - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 - 3. Review sequence of operation narratives for each unique access controlled opening.
 - 4. Review and finalize construction schedule and verify availability of materials.
 - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- J. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.
- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
 - 1. Ten years for mortise locks and latches.
 - 2. Seven years for heavy duty cylindrical (bored) locks and latches.
 - 3. Five years for exit hardware.
 - 4. Twenty five years for manual overhead door closer bodies.
 - 5. Five years for motorized electric latch retraction exit devices.
 - 6. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
 - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
 - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
 5. Manufacturers:
 - a. Bommer Industries (BO).
 - b. Hager Companies (HA).
 - c. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:
 - a. Bommer Industries (BO).
 - b. Hager Companies (HA).
 - c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
- C. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 certified pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed stainless pin, and twin self-lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:
 - a. Markar Products; ASSA ABLOY Architectural Door Accessories (MR).
 - b. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
 - c. Stanley Hardware (ST).
- D. Pivots: ANSI/BHMA A156.4, Grade 1, certified. Space intermediate pivots equally not less than 25 inches on center apart or not more than 35 inches on center for doors over 121 inches high. Pivot hinges to have oil impregnated bronze bearing in the top pivot and a radial roller and thrust bearing in the bottom pivot with the bottom pivot designed to carry the full weight of the door. Pivots to be UL listed for windstorm where applicable.
1. Manufacturers:
 - a. Rixson Door Controls (RF).

2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.
1. Manufacturers:
 - a. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE) - EL-CEPT Series.
 - b. Securitron (SU) - EL-CEPT Series.

- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.
1. Provide one each of the following tools as part of the base bid contract:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
 - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.
 2. Manufacturers:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
 2. Furnish dust proof strikes for bottom bolts.
 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
 5. Manufacturers:
 - a. Door Controls International (DC).
 - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - c. Trimco (TC).
- B. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

5. Manufacturers:
 - a. Hiawatha, Inc. (HI).
 - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - c. Trimco (TC).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
 1. Manufacturers:
 - a. Corbin Russwin Hardware (RU).
 - b. No Substitution.
- C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
 1. Threaded mortise cylinders with rings and cams to suit hardware application.
 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
 4. Tubular deadlocks and other auxiliary locks.
 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 6. Keyway: Manufacturer's Standard.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
 1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 3. New System: Key locks to a new key system as directed by the Owner.
- E. Key Quantity: Provide the following minimum number of keys:
 1. Change Keys per Cylinder: Two (2)
 2. Master Keys (per Master Key Level/Group): Five (5).
 3. Construction Keys (where required): Ten (10).
- F. Construction Keying: Provide construction master keyed cylinders.
- G. Key Registration List (Bitting List):
 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
 2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

- A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.
 - 1. Manufacturers:
 - a. Lund Equipment (LU).
 - b. MMF Industries (MM).
 - c. Telkee (TK).

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
 - 1. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180 degree viewing angle with protective covering to prevent tampering.
 - 2. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ML2000 Series.
 - b. Sargent Manufacturing (SA) - 8200 Series.
 - c. No Substitution.
- B. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.
 - 1. Furnish with solid cast levers, standard 2 3/4" backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt.
 - 2. Locks are to be non-handed and fully field reversible.
 - 3. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - CL3300 Series.
 - b. Sargent Manufacturing (SA) - 10 Line.
 - c. Schlage (SC) - ND Series.
 - d. No Substitution.

2.8 ELECTROMECHANICAL LOCKING DEVICES

- A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty, High Security Monitoring): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.
 - 1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.

2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 3. High Security Monitoring: Provide lock bodies which have built-in request to exit monitoring and are provided with accompanying door position switches. Provide a resistor configuration which is compatible with the access control system.
 4. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ML20600 NAC Series.
 - b. Sargent Manufacturing (SA) - NAC 8200 Series.
- B. Electromechanical Mortise Locksets, Grade 1 (Commercial Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.
1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
 2. Manufacturers:
 - a. No Substitution.

2.9 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 2. Strikes for Bored Locks and Latches: BHMA A156.2.
 3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
 4. Dustproof Strikes: BHMA A156.16.

2.10 ELECTRIC STRIKES

- A. Standard Electric Strikes: Electric strikes tested to ANSI/BHMA A156.31, Grade 1, for use on non-rated or fire rated openings. Strikes shall be of stainless steel construction tested to a minimum of 1500 pounds of static strength and 70 foot-pounds of dynamic strength with a minimum endurance of 1 million operating cycles. Provide strikes with 12 or 24 VDC capability, fail-secure unless otherwise specified. Where specified provide latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.
1. Manufacturers:
 - a. HES (HS) - 1006 Series.
 - b. HES (HS) - 1500/1600 Series.
- B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.11 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
 2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
 5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
 - 1. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
 - b. Sargent Manufacturing (SA) - 80 Series.
 - c. No Substitution.

2.12 ELECTROMECHANICAL EXIT DEVICES

- A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.
 - 1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
 - 2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.
 - 3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
 - 4. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - ED5000 Series.
 - b. Sargent Manufacturing (SA) - 80 Series.

2.13 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
 - 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
 - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
 - 3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
 - 4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
 - 5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
 - 6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
 - 1. Manufacturers:
 - a. Corbin Russwin Hardware (RU) - DC8000 Series.
 - b. LCN Closers (LC) – 4040XP Series.
 - c. Norton Door Controls (NO) - 7500 Series.
 - d. Sargent Manufacturing (SA) - 351 Series.
 - e. No Substitution.

2.14 ELECTROMECHANICAL DOOR OPERATORS

- A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.
 - 1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.
- B. Standard: Certified ANSI/BHMA A156.19.
- C. Performance Requirements:
 - 1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
 - 2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.
- D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.
- E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19.
- F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.
- G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.
- H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

- I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Besam Automated Entrance Systems (BE) - SW200i Series.
 2. Horton Automatics (HO) - 4100 Series.

2.15 SURFACE MOUNTED CLOSER HOLDERS

- A. Multi-Point Closer Holders with Motion Sensor: ANSI A156.15, Grade 1 certified multi-point, closer holder devices designed to keep doors in a held-open position if presence is detected within the opening. Push side or pull side mounting applications having a maximum opening of 180° (hold open to 175°) and dual voltage input (24V /120V). Voltage to be 24VDC unless otherwise specified. Units are fail safe, closing the door in the event of fire alarm system or electrical power interruption.
 1. Safe Zone Detection: Closer holders units to have an integral motion sensor device monitoring a "zone of safety" at the door opening. Safe zone detection prevents the door from closing in event of movement within the adjustable sensing field. Movement is detectable in both directions with selectable closer hold open time and sensor sensitivity. Provide optional handheld device for programming safe zone sensor settings.
 2. Manufacturers:
 - a. Norton Door Controls (NO) - 7100SZ Series.

2.16 ARCHITECTURAL TRIM

- A. Door Protective Trim
 1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
 2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
 3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
 4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inch thick.
 5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
 6. Manufacturers:
 - a. Hiawatha, Inc. (HI).
 - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - c. Trimco (TC).

2.17 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 - 1. Manufacturers:
 - a. Hiawatha, Inc. (HI).
 - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - c. Trimco (TC).

- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
 - 1. Manufacturers:
 - a. Rixson Door Controls (RF).
 - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
 - c. Sargent Manufacturing (SA).

2.18 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
 - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
 - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

- F. Manufacturers:
 - 1. National Guard Products (NG).
 - 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
 - 3. Reese Enterprises, Inc. (RE).

2.19 ELECTRONIC ACCESSORIES

- A. Switching Power Supplies: Provide power supplies with either single or dual voltage configurations at 12 or 24VDC. Power supplies shall have battery backup function with an integrated battery charging circuit and shall provide capability for power distribution, direct lock control and Fire Alarm Interface (FAI) through add on modules. Power supplies shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs.
 - 1. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.
 - 2. Manufacturers:
 - a. Securitron (SU) - AQD Series.

2.20 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.21 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify Architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Integrated Wiegand access control products are required to be installed through current members of the ASSA ABLOY "Certified Integrator" (CI) program.
- D. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
 - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
 - 2. Submit documentation of incomplete items in the following formats:
 - a. PDF electronic file.
 - b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the Owner and Architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the Architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.
 - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 - 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. MR - Markar
3. PE - Pemko
4. RS - RITE Slide
5. RF - Rixson
6. RO - Rockwood
7. RU - Corbin Russwin
8. HS - HES
9. NO - Norton
10. BM - Besam
11. OT - Other
12. SU - Securitron

Hardware Sets

Set: 1.0

Doors: 1386A

2 Pivot Set	L147	626	RF
2 Intermediate Pivot	ML19	626	RF
1 Flush Bolt	555-18	US26D	RO
1 Cylindrical Lock (storeroom)	CLX3357 NZD M28 L4 CMK	626	RU
1 Electric Strike	1500C-LMS	630	HS ↗
1 Surface Closer	7500 (MLL as req.)	689	NO
2 Stop	415	US26D	RO
1 Gasketing	S44BL		PE
1 Astragal	357 x Lead-lined	C	PE
1 Electric Power Transfer	EPT-SC		SU ↗
1 Door Contact	Provided by access control		OT ↗
1 Motion Sensor	XMS		SU ↗
1 Power Supply	Provided by access control		SU ↗
1 Card Reader	Provided by access control		OT

Notes:

Entry by valid credential momentarily unlocking the lever; mechanical key override.
Free egress at all times.

Coordination required for card access and automatic operator use.

Set: 2.0

Doors: 1385

1 Continuous Hinge	FM300	630	MR
1 Storeroom Lock	CLX3357 NZD M28 L4	626	RU
1 Electric Strike	7000C		HS ⚡
1 Surface Closer	7500 (MLL as req.)	689	NO
1 Stop	415	US26D	RO
1 Gasketing	S44BL		PE
1 Door Contact	Provided by access control		OT ⚡
1 Position Switch	DPS-M-BK		SU ⚡
1 Card Reader	Provided by access control		OT

Notes:

Entry by valid credential momentarily unlocking the lever; mechanical key override.
Free egress at all times.

Set: 3.0

Doors: 1389

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1 Privacy Lock w/DbI Occ Ind	ML2030 NSA V21	626	RU
1 Stop	406/409/441H (as required)	US32D	RO
3 Silencer	608-RKW		RO

Set: 4.0

Doors: 1386B

3 Hinge, Full Mortise	TA2714 (NRP)	US26D	MK
1 Cylindrical Lock (storeroom)	CLX3357 NZD L4	626	RU
1 Electric Strike	7000C		HS ⚡
1 Door Closer	7500	689	NO
1 Kick Plate	K1050 10"	US32D	RO
1 Stop	406/409/441H (as required)	US32D	RO
1 Gasketing	S44BL		PE
1 Door Contact	Provided by access control		OT ⚡
1 Motion Sensor	XMS		SU ⚡
1 Power Supply	Provided by access control		SU ⚡
1 Card Reader	Provided by access control		OT

Notes:

Entry by valid credential momentarily unlocking the lever; mechanical key override.
Free egress at all times.

END OF SECTION

DIVISION 09 – FINISHES

Section 09 2216	Non-Structural Metal Framing
Section 09 2900	Gypsum Board
Section 09 3013	Ceramic Tiling
Section 09 5113	Acoustical Panel Ceilings
Section 09 6513	Resilient Base and Accessories
Section 09 6516.23	Sheet Vinyl Flooring
Section 09 6813	Tile Carpeting
Section 09 9123	Painting

DIVISION 08 – OPENINGS

Section 08 1113

Hollow Metal Doors and Frames

Section 08 1416

Flush Wood Doors

Section 08 7100

Door Hardware

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

Section 07 2116
Section 07 9200

Blanket Insulation
Joint Sealants

SECTION 09 6513

RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Resilient wall base.
 - 2. Molding accessories, as required for a complete installation.
- B. Related Sections:
 - 1. Key-Finish on Drawings for colors.

1.03 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: Full-size units of each color and pattern of resilient floor tile required.
 - 1. Resilient Wall Base and Accessories: Manufacturer's standard-size Samples, but not less than 12 inches long, of each resilient product color and pattern required.
- D. Maintenance Data: For resilient products to include in maintenance manuals.

1.04 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide products identical to those tested for fire-exposure behavior per test method indicated by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 degrees F or more than 90 degrees F. Store tiles on flat surfaces.

1.06 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 degrees F or more than 95 degrees F, in spaces to receive floor tile during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.

- B. After post-installation period, maintain temperatures within range recommended by manufacturer, but not less than 55 degrees F or more than 95 degrees F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install resilient products after other finishing operations, including painting, have been completed.

1.07 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Resilient Wall Base and Accessories: Furnish not less than 10 linear feet (for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

PART 2 - PRODUCTS

2.01 COLORS AND PATTERNS

- A. Colors and Patterns: As selected by Architect from manufacturer's full range of colors and textures.

2.02 RESILIENT WALL BASE

- A. Available Manufacturers: Subject to compliance with requirements of Contract Documents, manufacturers with products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Tarkett (Johnsonite); "Duracove"
- B. Characteristics - ASTM F 1861
 - 1. Type (Material Requirement): TP (rubber, thermoplastic).
 - 2. Group (Manufacturing Method): I (solid, homogeneous).
 - 3. Style: Coved.
 - 4. Minimum Thickness: 0.125 inch.
 - 5. Height: 4 inches.
 - 6. Lengths: Coils in manufacturer's standard length.
 - 7. Outside Corners: Pre-molded.
 - 8. Inside Corners: None.
 - 9. Surface: Smooth.

2.03 RESILIENT MOLDING ACCESSORY

- A. Applications, including but not limited to the following. Verify ADA compliance of transition moldings prior to submitting shop drawings.
 - 1. Carpet bar for tackless installations.
 - 2. Carpet edge for glue-down applications.
 - 3. Nosing for resilient floor covering.
 - 4. Reducer strip for resilient floor covering
 - 5. Joiner for tile and carpet.

- B. Acceptable Manufacturers: Subject to compliance with requirements of Contract Documents, provide products by manufacturers listed below. If not listed, submit as a substitution according to the Contract Documents and the provisions of Division 1 Sections.
 - 1. Tarkett.
 - 2. Products: Slim Line Transitions.
- C. Material: PVC.
- D. Colors: Coordinate with adjacent finishes; final colors as selected by Architect from manufacturer's full range.

2.04 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic cement based formulation provided or approved by resilient product manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
 - 1. Verify finishes of substrates comply with tolerances and other requirements specified in other Sections and substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of resilient products.
- B. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- C. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
 - 1. Do not install resilient products until they are same temperature as space where they are to be installed.
- D. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, and dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.03 RESILIENT WALL BASE INSTALLATION

- A. Apply wall base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- B. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- C. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- D. Do not stretch wall base during installation.
- E. On masonry surfaces or other similar irregular substrates, fill voids along top edge of wall base with manufacturer's recommended adhesive filler material.
- F. Pre-molded Corners: Install pre-molded corners before installing straight pieces.

3.04 RESILIENT ACCESSORY INSTALLATION

- A. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor coverings that would otherwise be exposed.

3.05 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
- B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.

END OF SECTION

SECTION 09 6516.23

SHEET VINYL FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Vinyl sheet floor coverings, including integral coved base.
- B. Related Sections:
 - 1. Section 09 6520 "Resilient Wall Base and Accessories" for resilient wall base, stair treads, reducer strips, and other accessories installed with vinyl and rubber tile floor coverings.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
 - 1. Show locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
 - 2. Show details of special patterns.
- C. Samples: For each type of linoleum floor covering indicated.
 - 1. Include similar samples of installation accessories involving color selection.
 - 2. Heat-Welding Bead: Include manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.
- D. Heat-Welded Seam Samples: For each flooring product and welding bead color and pattern combination required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to rigid backing and prepared by Installer for this Project.
- E. Maintenance Data: For floor coverings to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project that are competent in techniques required by manufacturer for floor covering installation indicated.
- B. Fire-Test-Response Characteristics: Provide products identical to those tested for fire-exposure behavior per test method indicated by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store floor coverings and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 degrees F or more than 90 degrees F.

1.6 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 degrees F or more than 95 degrees F, in spaces to receive floor tile during the following time periods:
 - 1. 72 hours before installation.
 - 2. During installation.
 - 3. 72 hours after installation.
- B. After post-installation period, maintain temperatures within range recommended by manufacturer, but not less than 55 degrees F or more than 95 degrees F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 72 hours after floor covering installation.
- E. Install floor coverings after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Sheet Goods: Furnish not less than 10 linear feet in full roll width for every 500 linear feet or fraction thereof, in roll form and in full roll width, of each different type, color, and pattern of sheet floor covering installed.

PART 2 - PRODUCTS

2.1 SHEET VINYL FLOOR COVERING

- A. Acceptable Manufacturer: Subject to compliance with requirements of Contract Documents, provide products by the following manufacturer.
 - 1. Manufacturer: Mannington Commercial
 - 2. Products: Biospec MD
- B. Colors and Patterns: As indicated on Legend-Finish Schedule on Drawings.
- C. Sheet Floor Covering: Complying with ASTM F 1303, Type 1, Grade 1, Class B, and consisting of a urethane wear layer with aluminum oxide, cured by ultraviolet process. Patterns and colors shall extend through entire wear-layer thickness.
 - 1. Roll Size: In manufacturer's standard length by not less than 78 inches wide.
- D. Seaming Method: Heat welded.

- E. Overall Thickness: 0.080 inch.
- F. Fire-Test-Response Characteristics:
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm per ASTM E 648.

2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic cement based formulation provided or approved by floor covering manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor covering manufacturer for products and substrate conditions indicated.
- C. Heat-Welding Bead: Solid-strand product of floor covering manufacturer.
 - 1. Color: Match floor covering.
- D. Coved Base Accessories: Cove forms and cap pieces, as selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor coverings.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of floor coverings.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 3. Moisture Testing:
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb. of water/1000 sq. ft. in 24 hours.
 - b. Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
- C. Remove substrate coatings and other substances that are incompatible with floor covering adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.

- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Move floor coverings and installation materials into spaces where they will be installed at least 72 hours in advance of installation.
 - 1. Do not install floor coverings until they are same temperature as space where they are to be installed.
- F. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, and dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION, GENERAL

- A. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.
- B. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- C. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on subfloor. Use chalk or other nonpermanent marking device.
- D. Install floor coverings on covers for telephone and electrical ducts and similar items in finished floor areas. Maintain overall continuity of color and pattern with pieces of floor coverings installed on covers. Tightly adhere floor covering edges to substrates that abut covers and to cover perimeters.
- E. Adhere floor coverings to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- F. Heat-Welded Seams: Comply with ASTM F 1516. Rout joints and use welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.

3.4 SHEET FLOOR COVERING INSTALLATION

- A. Unroll sheet floor coverings and allow them to stabilize before cutting and fitting.
- B. Lay out sheet floor coverings as follows:
 - 1. Maintain uniformity of floor covering direction.
 - 2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in floor covering substrates.
 - 3. Match edges of floor coverings for color shading at seams.
 - 4. Avoid cross seams.
 - 5. Eliminate deformations that result from hanging method used during drying process (stove bar marks).
- C. Integral-Flash-Cove Base: Cove flooring to dimension indicated up vertical surfaces. Support flooring at horizontal and vertical junction with cove strip. Butt at top against cap strip.

3.5 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing floor coverings:
 - 1. Remove adhesive and other surface blemishes from floor covering surfaces.
 - 2. Sweep and vacuum floor coverings thoroughly.
 - 3. Damp-mop floor coverings to remove marks and soil.
 - a. Do not wash floor coverings until after time period recommended by manufacturer.

- B. Protect floor coverings against mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended in writing by manufacturer.
 - 1. Apply protective floor polish when recommended by flooring manufacturer or as directed by Architect to surfaces that are free of soil, visible adhesive, and surface blemishes.
 - a. Seal as recommended by manufacturer but with not less than three coats of floor polish.
 - b. Use commercially available product acceptable to manufacturer.
 - c. Coordinate selection of floor polish with Owner's maintenance service.
 - 2. Cover vinyl and rubber floor coverings with undyed, untreated building paper until inspection for Substantial Completion.
 - 3. Do not move heavy and sharp objects directly over floor covering surfaces. Place plywood or hardboard panels over floor coverings and under objects while they are being moved. Slide or roll objects over panels without moving panels.

END OF SECTION

SECTION 09 6813

TILE CARPETING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes modular, fusion-bonded carpet tile, including entry carpet.
- B. Related Sections:
 - 1. Key-Finish on Drawings for pattern and color selections.
 - 2. Section 09 6513 "Resilient Base and Accessories" for resilient accessories installed with carpet tile.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.
- B. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E 648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
- C. Product Options: Products and manufacturers named in Part 2 establish requirements for product quality in terms of appearance, construction, and performance. Other manufacturers' products comparable in quality to named products and complying with requirements may be considered.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Carpet and Rug Institute CRI 104.

1.6 PROJECT CONDITIONS

- A. Comply with Carpet and Rug Institute CRI 104. for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not install carpet tiles until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.

1.7 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer's standard form in which manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 2. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, dimensional stability, and delamination.
 3. Warranty Period: Lifetime Commercial Limited.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Carpet Tile: One full carton of carpet tile of each color and pattern, plus any partial boxes remaining after Work is completed.

PART 2 - PRODUCTS

2.1 CARPET TILE

- A. Acceptable Product: Subject to compliance with requirements, provide products indicated below and on Legend-Finish Schedule on Drawings.
1. Manufacturer: Shaw Contract Group
 2. Collection: Alternature
 3. Style: Earth Tone Tile #59338
 4. Colors: As indicated on Key-Finish on Drawings.
- B. Properties:
1. Construction: Multi-level pattern cut/loop.
 2. Fiber: Ecosolution Q100™ nylon.
 3. Dye Method: 51 percent solution dyed / 49 percent yarn dyed.
 4. Tile Size: 24 x 24 inches.
 5. Gauge: 1/12 inch.
 6. Finished Pile Thickness: 0.117 inch.
 7. Average Density: 9846 per cubic yard.
 8. Tufted Weight: 32 ounces/square yard.
 9. Backing: Ecoworx® tile.

2.2 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects.
- B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following:
 - 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet tile manufacturer.
 - 2. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with Carpet and Rug Institute CRI 104 and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 INSTALLATION

- A. General: Comply with Carpet and Rug Institute CRI 104 and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye lot integrity. Do not mix dye lots in same area.
- D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
- G. Install pattern as shown on Drawings and as required by Architect.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile in compliance with Carpet and Rug Institute CRI 104.
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION

DIVISION 11 - EQUIPMENT

Section 11 7013

Medical Equipment
Equipment Schedule

SECTION 11 7013
MEDICAL EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Medical equipment, furnished by Owner and installed by Contractor, as outlined in Schedules and on Drawings.
 - 2. Toilet accessories, furnished by Owner and installed by Contractor, as outlined in Schedules and on Drawings.
- B. Owner-Furnished Equipment: Where indicated, Owner will furnish equipment for installation by Contractor.
- C. Related Sections:
 - 1. Section 06 4023 "Interior Architectural Woodwork" for requirements for tackboards and other items noted in Medical Equipment Schedules to be provided by Contractor to accommodate medical equipment.
 - 2. Section 10 2800 "Toilet and Bath Accessories" for toilet accessories provided by Contractor.

1.3 PROJECT CONDITIONS

- A. Field Measurements: Verify actual dimensions of construction by field measurements before fabrication or installation.

1.4 COORDINATION

- A. Coordinate equipment layout and installation with other work, including layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
- B. Coordinate locations and requirements of utility service connections.

PART 2 - PRODUCTS

2.1 MEDICAL EQUIPMENT

- A. See Drawings and technical specification sections for scope of items to be provided by Contractor as well as items to be furnished by Owner and installed by Contractor.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Obtain manufacturer's written installation instructions for all Owner-furnished/Contractor-installed equipment prior to hanging gypsum board.
- B. Provide blocking in walls where required by manufacturer's installation instructions and as required to assure equipment can be permanently secured where indicated on Drawings.

3.2 INSTALLATION

- A. Install equipment level and plumb, according to manufacturer's written instructions.
 - 1. Connect equipment to utilities.
 - 2. Provide cutouts in equipment, neatly formed, where required to run service lines through equipment to make final connections.
- B. Complete equipment assembly where field assembly is required.
- C. Install equipment with access and maintenance clearances that comply with manufacturer's written installation instructions and with requirements of authorities having jurisdiction.
- D. Install closure-trim strips and similar items requiring fasteners in a bed of sealant.
- E. Install joint sealant in joints between equipment and abutting surfaces with continuous joint backing unless otherwise indicated.

3.3 CLEANING AND PROTECTING

- A. After completing installation of equipment, repair damaged finishes.
- B. Clean and adjust equipment as required to produce ready-for-use condition.
- C. Protect equipment from damage during remainder of the construction period.

END OF SECTION

INTERMOUNTAIN HEALTH PARK CITY HOSPITAL - CT PROCEDURE REMODEL

EQUIPMENT & FURNITURE SCHEDULE

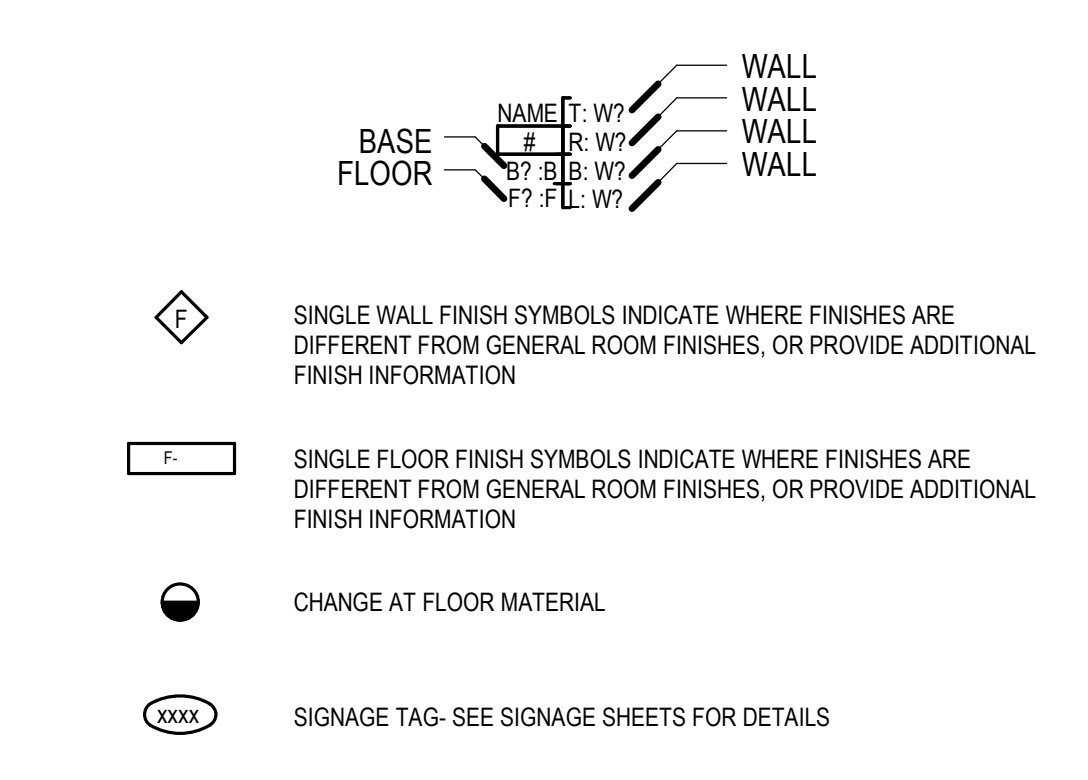


CT PROCEDURE REMODEL																									
QUANTITY - TOTAL	QUANTITY - UNITS (PER ROOM)	(ATTA 3 ID)	EQUIPMENT CODE	DESCRIPTION	MODEL NAME / NUMBER	MANUFACTURER	SIZE				FLOOR (F) / BASE CABINET (B) / WALL (W) / CEILING (C) / MOBILE (M)	MECHANICAL / PLUMBING			ELECTRICAL				COMMENTS	CONTRACTOR (C) OWNER (O) VENDOR (V)					
							WIDTH	DEPTH	HEIGHT	OTHER		DRAIN	COLD WATER	HOT WATER	VOLTS	AMPS (A) / WATTS (W)	ALARM	EMERGENCY		DATA	NEW	EXISTING	FURNISHED BY	INSTALLED BY	
1 DIAGNOSTIC FLUOROSCOPY 1385																									
1				RADIOGRAPY & FLUOROSCOPY SYSTEM	PRECISION 180	GE															X	-	O	V	
1	-			SINGLE MONITOR SUSPENSION + BRIDGE						C	-	-	-	-	-	-	-	-	-	-	X	-	O	CV	
1	-			PATIENT TABLE						F	-	-	-	480V	-	-	-	-	-	-	(FLOOR BOX & TRENCH REQUIRED)	X	-	O	V
1	-			GENERATOR CABINET						F	-	-	-	-	-	-	-	-	-	-	X	-	O	V	
1	-			DIGITAL SYSTEMS CABINET						F	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	-			UPS						F	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	-			TRANSFORMER						F	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	-			SECONDARY CONSOLE						M	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	INJ-1E5F3	IJ2		INJECTOR-CT SCAN-CEILING MOUNTED	Medrad Stellant FLEX w/ Certegra workstation	BAYER				C	-	-	-	-	-	-	-	-	-	-	(METAL STRUT SYSTEM ABOVE CEILING REQUIRED)	X	-	O	CV
1	RCK-F3C5B	RA6		LEAD APRON RACK + GLOVE HOLDER	9-650 (9-apron)	ALIMED	28"	4"	17"	W	-	-	-	-	-	-	-	-	-	-	PROVIDE WALL BACKING	X	-	O	O
1	BRD-7BF87	BO4		PATIENT SLIDER-TRANSFER BOARD	924895 Anistat Patient Shifter Kit, 22" Aqua	ALIMED	70"	20"	2"	W	-	-	-	-	-	-	-	-	-	-	PROVIDE WALL BACKING	X	-	O	O
1	DSP-0C366	1006.1		SOAP DISPENSER	7251	COLOPLAST	6"	5"	11"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	DSP-276E6	1006.2		PAPER TOWEL DISPENSER - C-FOLD	C-FOLD / MULTIFOLD	GEORGIA PACIFIC	11"	6"	16"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	DSPF282A	DI4		ANTIMICROBIAL WALL BRACKET	AVAGARD	3M	4"	4"	9"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	C	
1	GLV-60326	DI7		GLOVE BOX DISPENSER - TRIPLE	36728 SEMI-TRANSPARENT	HALYARD	12"	4"	15"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	C	
1	DSP-A26A8	DI26		EMESIS BAG DISPENSER - WALL	MEB3933D	MEDLINE	7"	7"	8"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	C	
1		WH1.1		BIO-HAZARD WASTE STEP-ON-CAN (8 GAL.)	FG641300RED	RUBBERMAID	16.3"	12"	29"	M	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	HAM-009F0	WH2.3		LINEN HAMPER	CX102	CENTURION	24"	24"	32"	19" D	M	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	DIS-8947C	WH4.3		SHARP RECEPTACLE W. BRACKET (4 GAL.) - WALL MOUNTED W. LOCKING CABINET	C-04RES-04-OC	STERICYCLE	13"	7"	22"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	WST-4E00D	WH13		WASTE RECEPTACLE - 23 GAL.	3540 SLIM JIM	RUBBERMAID	11"	16"	20"	M	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	WST-B1945	WH33.2		BIOHAZARD WASTE - SQUARE STEEL CAN (8 GAL.)	35267	BREWER			16"	10" Dm.	M	-	-	-	-	-	-	-	-	-	X	-	O	O	
1	CLK-A6C9A	CK1		CLOCK - WALL MOUNTED	B1004Z155	PRIMEX	17"		6"	W	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
		SL4		STEP STOOL	11220	BREWER	12"	15"	9"	M	-	-	-	-	-	-	-	-	-	-					
		ST6		IV POLE	11350	BREWER	25" dia		93" max	M	-	-	-	-	-	-	-	-	-	-					
1 CONTROL ROOM																									
1				OPERATOR'S CONSOLE	PRECISION 180	GE				M	-	-	-	120V	-	-	-	-	-	X	X	-	O	V	
1	-	CO2.1		COMPUTER WORKSTATION - SINGLE MONITOR (DESKTOP)	ALL-IN-ONE (22")	DELL	21"	3"	15"	22" Dm.	B	-	-	-	120V	-	-	-	-	X	X	-	O	O	
1	-	TE1		TELEPHONE-WALL MOUNTED						B	-	-	-	-	-	-	-	-	-	X	X	-	O	C	
1	WST-7A241	WH11		WASTE RECEPTACLE - 7 GAL.	FG295600BLA	RUBBERMAID	11"	15"	15"	M	-	-	-	-	-	-	-	-	-	-	X	-	O	O	
1 CT SCAN 1386																									
1				COMPUTED TOMOGRAPHY SYSTEM	REVOLUTION ASCEND	GE															X	-	O	V	
1	-			GANTRY						C	-	-	-	-	-	-	-	-	-	-	X	-	O	CV	
1	-			PATIENT TABLE						F	-	-	-	480V	-	-	-	-	-	-	(FLOOR BOX & TRENCH REQUIRED)	X	-	O	V

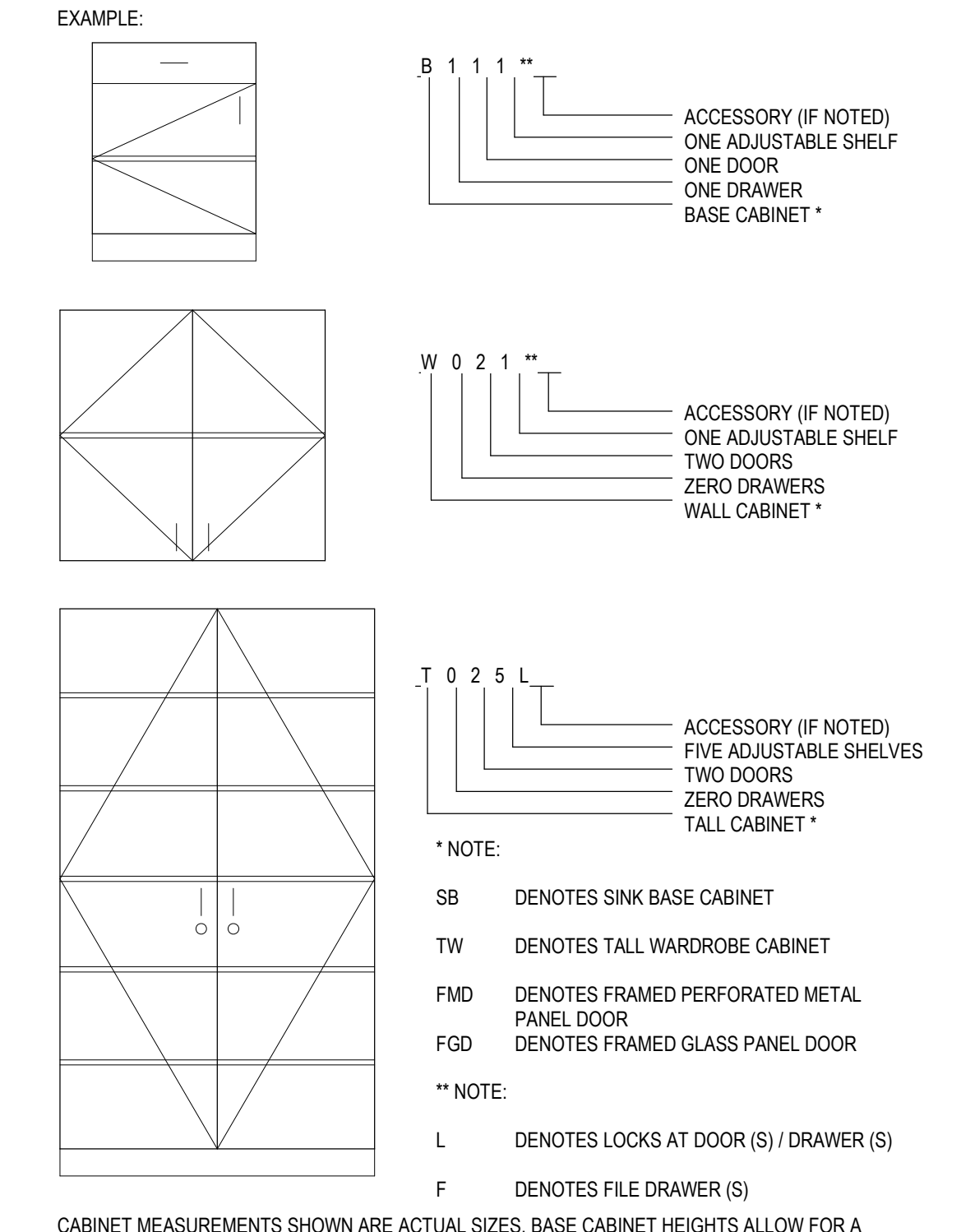


REV	DATE	DESCRIPTION
1	01/09/2024	ADD 001
2	01/16/2024	ADD 002

FINISH PLAN SYMBOLS



ARCHITECTURAL MILLWORK KEY



CABINET MEASUREMENTS SHOWN ARE ACTUAL SIZES. BASE CABINET HEIGHTS ALLOW FOR A COUNTERTOP 1 1/2" THICK. CABINET DEPTHS ARE MEASURED FROM THE BACK TO THE FACE OF THE DOOR OR DRAWER FRONT (WHERE APPLICABLE).

ALL CABINET INTERIORS, WHETHER CONCEALED BEHIND DOORS OR OPEN, ARE STANDARD MELAMINE LAMINATE AS PER SPECIFICATIONS.

MILLWORK LEGEND

- MILLWORK DIMENSION NUMBERS ARE WIDTH X HEIGHT X DEPTH.
- ALL MILLWORK DIMENSIONED FROM BASE TO TOP OF IDENTIFIED COUNTERTOP. TYP. CABINET DEPTHS ARE MEASURED FROM THE WALL TO THE FACE OF THE DOOR OR DRAWER FRONT (WHERE APPLICABLE).
- PROVIDE BASE AT ALL CABINET TOE SPACE. UNLESS NOTED OTHERWISE.
- PROVIDE GROMMET AT ALL COMPUTER AND PRINTER LOCATIONS, PER EQUIPMENT PLANS, FINAL LOCATION TO BE VERIFIED BY OWNER.
- ALL COUNTERTOPS TO HAVE A 4" BACKSPASH, UNLESS NOTED OTHERWISE, TO MATCH COUNTERTOP, ON BACK AND SIDE WALLS.
- ALL COUNTERTOPS TO HAVE A 180 DEGREE BULLNOSE EDGE. UNLESS NOTED OTHERWISE.
- PROVIDE FILLER PANELS TO SEAL SIDES AND TOPS OF ALL CABINETS PLACED AT AN ANGLE TO ADJACENT WALLS.
- ALL EXPOSED MILLWORK FACES TO FINISH, INCLUDING ON ENDS AND IN OPEN AREAS. TYP.
- ALL SINK BASES AND FILE DRAWERS TO BE PROVIDED WITH A LOCK.
- CONTRACTOR TO PROVIDE BLOCKING BEHIND ALL CABINETS, T.V. BRACKETS AND PROJECTION SCREENS AS WELL AS ALL WALL MOUNTED ACCESSORIES, INCLUDING WHITE BOARDS, TACKBOARDS, TOILET AND URINAL PARTITIONS AND TOILET ROOM ACCESSORIES, ETC.
- REFER TO ENLARGED PLANS AND ELEVATIONS (A400/S), FINISH PLANS AND SHEET A800 FOR FINISH COLORS ON ALL MILLWORK AND COUNTERS.

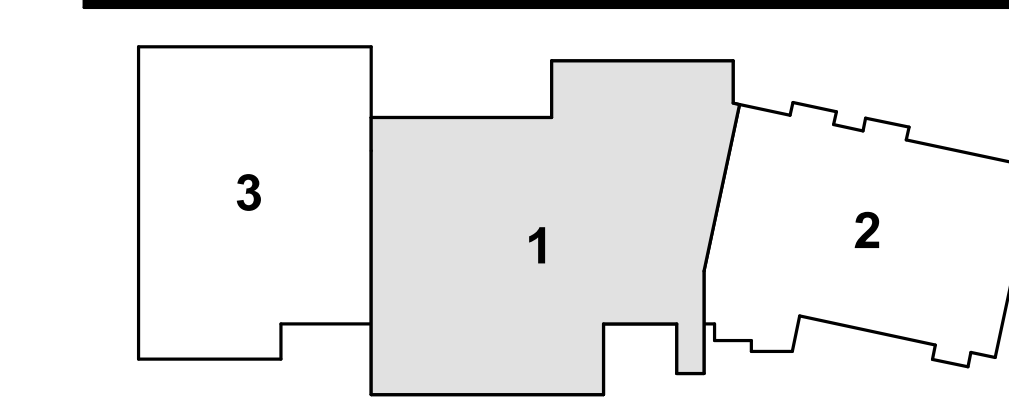
TYPICAL MILLWORK DETAILS

- TYPICAL MILLWORK ANCHORING DETAILS, PER DETAIL C6/A570
- TYPICAL PLAN VIEW BASE CABINETS, PER DETAILS A6 & B6/A570
- TYPICAL PLAN VIEW BASE END PANEL, PER DETAIL D6/A570
- PROVIDE TYPICAL TOE KICK AND BASE FRAMING PER DETAIL E6/A570
- PROVIDE TYPICAL PLASTIC LAMINATE CABINET DETAILS ON SHEET A570 AS NOTED ON THE INTERIOR ELEVATION SHEETS (A400/S)
- TYPICAL ADJUSTABLE HEIGHT SHELVES PER DETAIL D5/A570
- TYPICAL SOLID SURFACE COUNTERTOP WORK SURFACE, PER DETAIL D6/A571
- TYPICAL SOLID SURFACE CABINET WITH PASS THRU RING & FULL DOOR(S), PER DETAIL C3/A571
- TYPICAL SOLID SURFACE CABINET WITH FULL DOOR(S), PER DETAIL C4/A571
- TYPICAL SOLID SURFACE CABINET WITH FILE DRAWERS, PER DETAIL B6/A571
- SOLID SURFACE BASE CABINET WITH DRAWER(S), PER DETAIL B5/A571, B3/A571
- TYPICAL SOLID SURFACE SINK BASE CABINET WITH LOCK & DOOR(S), PER DETAIL A5/A571
- TYPICAL SOLID SURFACE BASE CABINET WITH DOOR(S) AND DRAWER, PER DETAIL A6/A571.

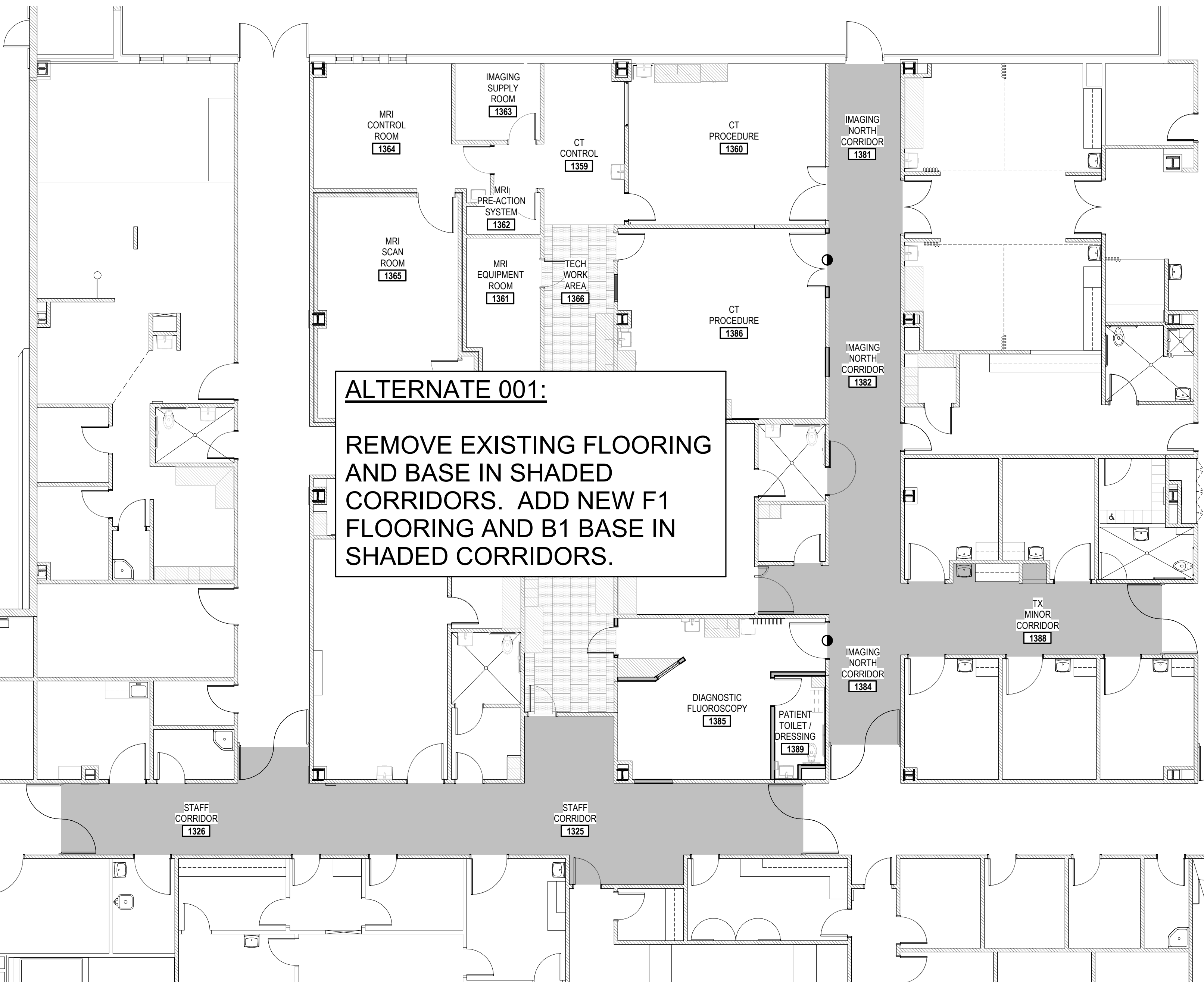
KEYED NOTES



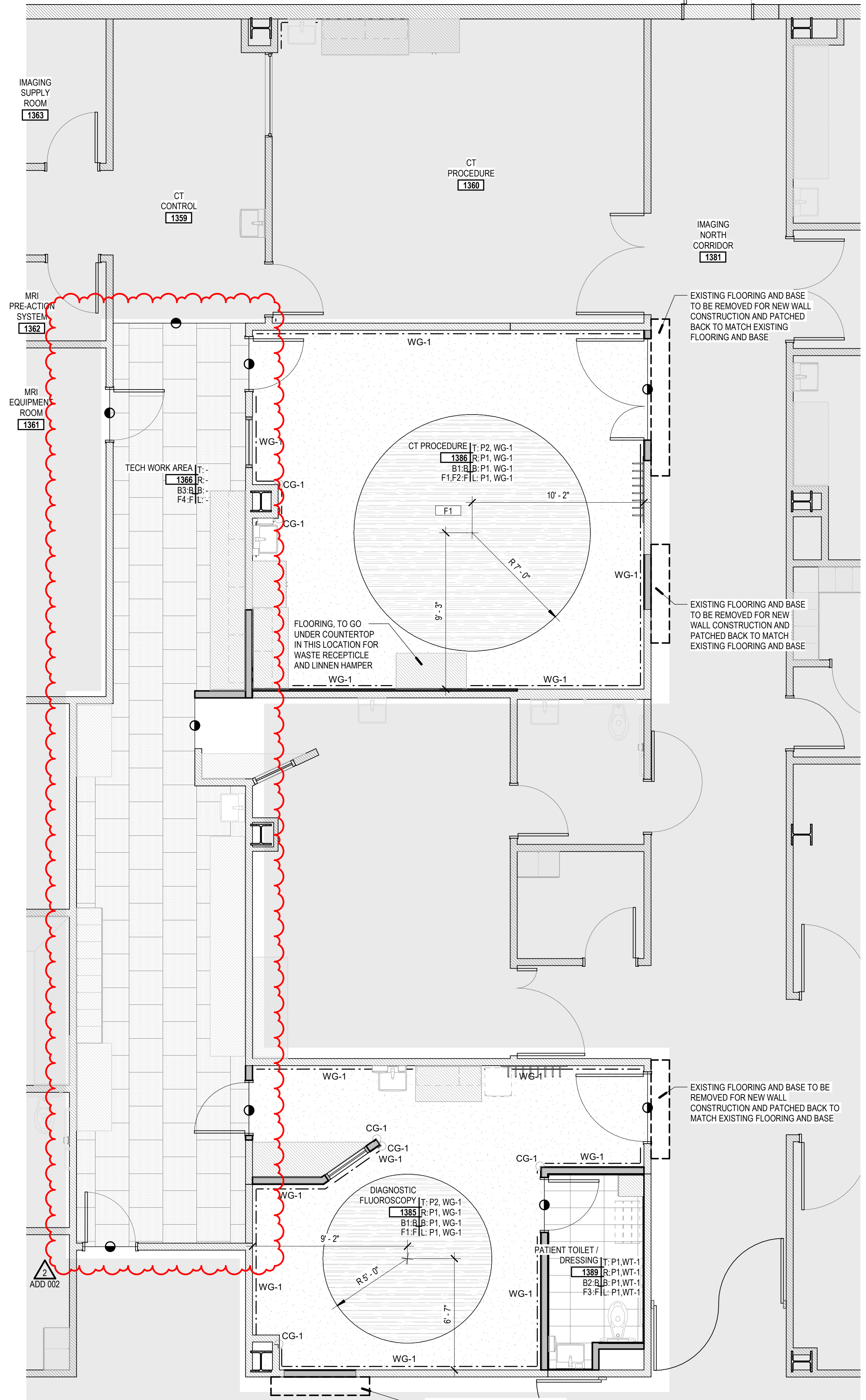
KEY PLAN



KEY - FINISH					
Key Name	Finish - Description	Finish - Manufacturer	Finish - Name	Finish - Color	Finish - Comments
FLOOR					
F1	HOMOGENOUS SHEET - FIELD	MANNINGTON COMMERCIAL	BIOPEC MD	FLAX 15361	
F2	HOMOGENOUS SHEET - ACCENT	MANNINGTON COMMERCIAL	BIOPEC MD	BEDROCK 15369	
F3	CORNER GUARD 90 DEGREE	CROSSVILLE STUDIOS	NOTORIOUS	NOTORIOUS	2" X 2" INSTALLED ASHLAR
F4	CARPET - GENERAL	SHAW CONTRACT	EARTH TONE TILE	38594 QUINCE	24" X 24" INSTALLED ASHLAR
BASE					
B1	INTEGRAL BASE	MATCH FLOORING SPECIFIED	MATCH FLOORING SPECIFIED	MATCH FLOORING SPECIFIED	4" INTEGRAL BASE W/ METAL CAP. INCLUDE COVE STICK. REFER TO TYPICAL BASE DETAILS
B2	BASE - RESTROOMS	SCHLUTER	DILEX-AHK	CLEAR ANODIZED ALUMINUM	PROVIDE END CAPS WHERE NEEDED. MITER ALL INSIDE AND OUTSIDE CORNERS.
B3	RUBBER BASE	TARKETT JOHNSONITE	DURACOVE THERMOPLASTIC RUBBER	STONE COTTAGE	2" H WITH TOE
ADD 002					
P1	PAINT - GENERAL	SHERWIN WILLIAMS		SW7043 WORLDLY GRAY	
P2	PAINT - ACCENT	SHERWIN WILLIAMS		SW6222 MEDITATIVE	
P3	PAINT - DOOR FRAME	SHERWIN WILLIAMS		MATCH EXISTING	
SURFACE					
S1	PLASTIC LAMINATE	HILSONART	STANDARD HPL	PHANTOM COCOA 8213	28 GLOSS LINE TEXTURE. GENERAL VERTICAL SURFACES U.N.O.
S2	SOLID SURFACE	WIL-MACS	LUNAR SAND		
MISCELLANEOUS					
CG-1	CORNER GUARD 90 DEGREE	INPRO	G2-160R BIOBLEND RETAINER HIGH IMPACT	0103 WHITE SAND	4" OTH. 2" WING. SURFACE MOUNTED PVC FREE
CL-1	CEILING TILE - GENERAL	USG CEILINGS	RADAR BASIC ILLUSION TWD24	WHITE	2' O" X 4' O"
WG-1	SHEET WALL PROTECTION	INPRO	PALLADIUM RIGID SHEET, G2 405	0103 WHITE SAND	3/4" THICK ALUMINUM TRIM TOP CAP
WT-1	WALL TILE - RESTROOMS	CROSSVILLE STUDIOS	NOTORIOUS	NTR01 FEMME FATAL	12" X 24" HORIZONTAL STACK UP TO 60" H. PAINT ABOVE. CAP WITH SCHLUTER JOOLY TRIM IN CLEAR ANODIZED ALUMINUM



A1 IMAGING - FINISH PLAN - ALTERNATE 001
SCALE: 1/8" = 1'-0"



A3 IMAGING - FINISH PLAN
SCALE: 1/4" = 1'-0"

EXISTING FLOORING AND BASE TO BE REMOVED FOR NEW WALL CONSTRUCTION AND PATCHED BACK TO MATCH EXISTING FLOORING AND BASE

PLAN NOTES

- IT IS BEYOND THE SCOPE OF THIS DRAWING TO SHOW ALL DETAIL AND ASPECTS OF EXISTING CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS AND DETERMINE THE EXACT AMOUNT OF DEMOLITION NECESSARY FOR IMPLEMENTING THE WORK AS SHOWN IN THE CONSTRUCTION DOCUMENTS. SPENSER, PAPER TOWELS, FOLDED
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ANY AND ALL ITEMS TO REMAIN, REPAIR OR REPLACE SUCH ITEMS SHOULD THEY BE DAMAGED BY THE CONTRACTOR.
- CONTRACTOR TO PROTECT EXISTING SITE, PARKING, BUILDING WALLS, STOREFRONT AND ROOF FROM ANY DAMAGE.
- CONTRACTOR TO MAINTAIN PROTECTED EGRESS FOR STAFF AND VISITORS.
- WHERE FLOOR DRAINS ARE INSTALLED, THE FLOOR IS NOT TO SLOPE TOWARD THE DRAIN (REMAINS FLAT) EXCEPT AT THE FOLLOWING LOCATIONS:
A. THICK SET TILE LOCATED IN CONJUNCTION WITH SHOWERS.
B. FLOORS NOT TILED AT SLAB-ON-GRADE LOCATIONS (SUCH AS MECHANICAL ROOMS)
WHERE FLOORS SLOPE, THE MAXIMUM FLOOR SLOPE IS NOT TO EXCEED 2% WHILE THE MINIMUM SLOPE IS NOT TO BE LESS THAN 1%, UNLESS NOTED OTHERWISE.
- WHERE CONCRETE PADS ARE CALLED TO BE CONSTRUCTED UNDER EQUIPMENT, THE SLAB IS TO BE 2" THICK U.O.C. AND IS TO HAVE #4 BARS AT 18" O.C. EACH WAY. COORDINATE DIMENSIONS OF PAD WITH ACTUAL EQUIPMENT INSTALLED.
- AN ELECTRICAL SIGN OFF/APPROVAL IS REQUIRED DURING FRAMING BY ARCHITECT & OWNER OF ALL POWER/DATA/CABLE LOCATIONS PRIOR TO ROUGH-IN.
- AT ALL ELECTRICAL HOME RUN CIRCUITS ADD A J-BOX IN AN ACCESSIBLE LOCATION ABOVE THE CEILING PRIOR TO BRANCHING.
- THE CONTRACTOR IS TO ENSURE THAT BETWEEN ANY FINISH FLOOR ELEVATION TO 42" A.F.F., GUARDRAILS ARE TO BE CONSTRUCTED AND INSTALLED SO THAT A 4" SPHERE WILL NOT PASS BETWEEN ANY TWO ADJACENT GUARDRAIL COMPONENTS OR BETWEEN THE EDGE OF A GUARDRAIL AND ALL ADJACENT BUILDING ELEMENT SUCH AS A WALL OR FLOOR. AN 8" DIAMETER SPHERE IS NOT TO PASS BETWEEN THE ABOVE MENTIONED COMPONENTS AND ELEMENTS FROM AN ELEVATION 34" A.F.F. AND HIGHER.
- SEE SHEET A500 FOR WALL TYPES AND TYPICAL NOTES.
- REFER TO SHEET A520 FOR TYPICAL INTERIOR WALL CONDITIONS ASSOCIATED WITH METAL STUD PARTITIONS.
- SEE DETAIL ON SHEET A520 FOR TYPICAL FIRE EXTINGUISHER CABINET INSTALLATION DETAILS.
- PROVIDE CONTROL JOINTS IN METAL FRAMED WALLS AT 30 FEET ON CENTER MAXIMUM. LOCATE AT CORNER ABOVE DOORS OR INSIDE CORNER OF PILASTERS OR OTHER INCONSPICUOUS LOCATION WHERE POSSIBLE. CONSULT WITH ARCHITECT PRIOR TO COMMENCING FRAMING. INSTALL PER DETAILS ON SHEET A520 FOR CONTROL JOINTS.
- CONSTRUCT ALL COLUMN WRAPS PER DETAILS AS21 & AS21, UNLESS NOTED OTHERWISE.
- PROVIDE BLOCKING / BACKING FOR ALL WALL MOUNTED EQUIPMENT. SEE FLOOR PLANS AND INTERIOR ELEVATIONS FOR CABINETS, GRAB BARS ETC. INSTALL BLOCKING AS DETAIL OR AS REQUIRED TO MOUNT SUCH DEVICES. INSTALL PER SHEET A520.
- SEE SHEET A601.2 & A601.3 FOR DOOR AND WINDOW TYPES AND NOTES.

ICRA BARRIER LEGEND

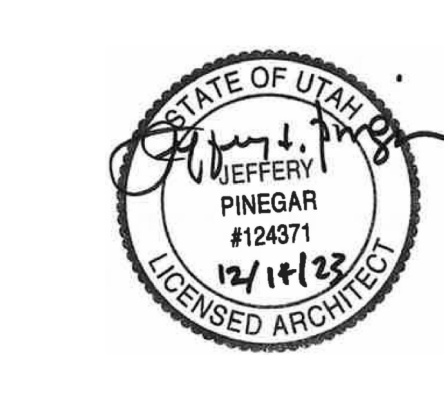
- NOT IN SCOPE OF WORK
- ICRA BARRIER - RIGID
- ICRA BARRIER - FLEXIBLE

VCBO

SALT LAKE CITY - HQ
524 SOUTH 600 EAST
SALT LAKE CITY, UT 84102
801.575.8800

ST. GEORGE
20 N. MAIN ST., #103
ST. GEORGE, UT 84770
435.522.7070

VCBO.COM
VCBO NUMBER: 22545
CLIENT NUMBER: -
DATE: 12-08-2023



REV	DATE	DESCRIPTION
2	01/16/2024	ADD 002

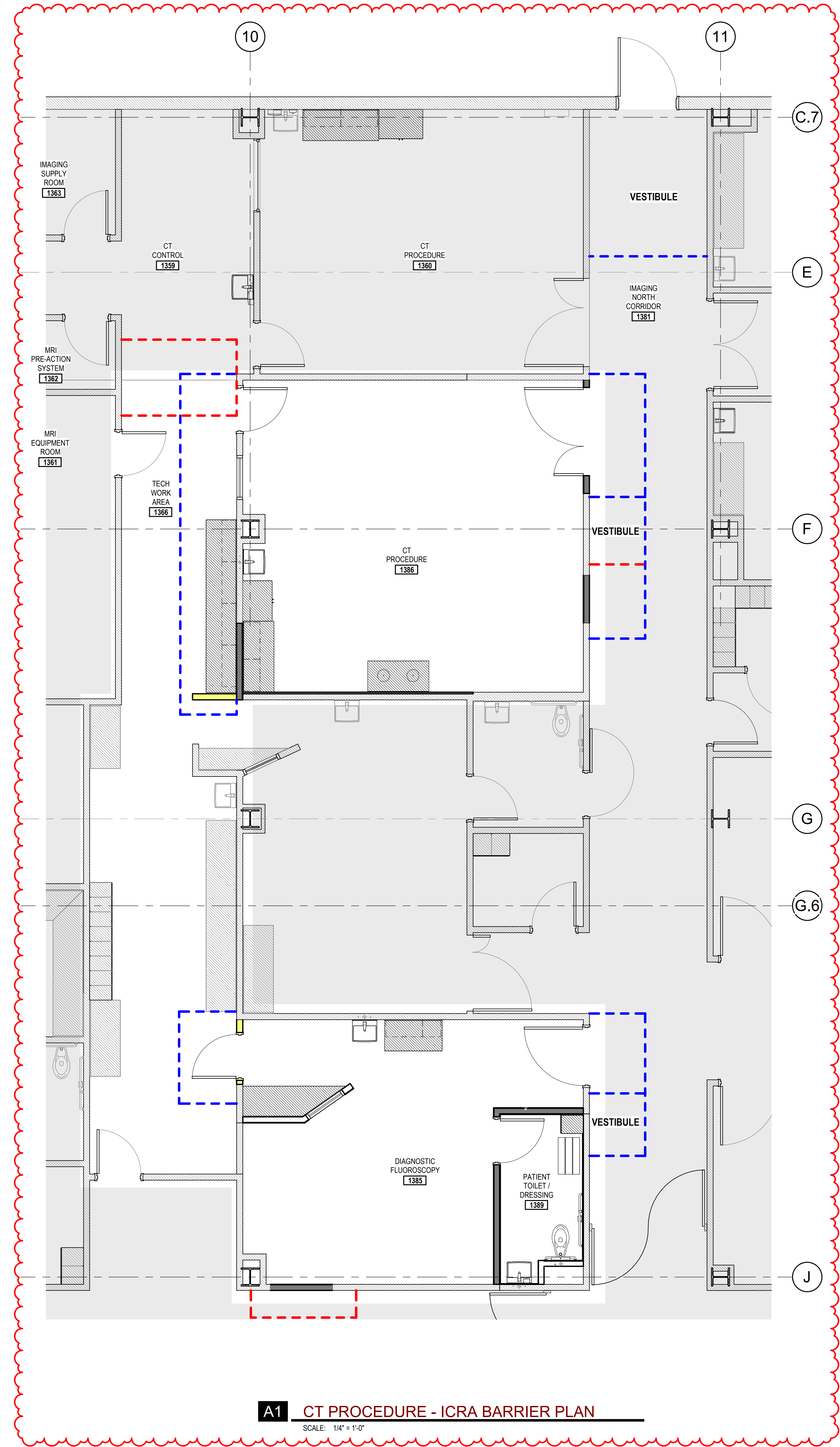
**INTERMOUNTAIN PARK CITY HOSPITAL
CT / FLUOROSCOPY REMODEL**

900 ROUND VALLEY DR, PARK CITY, UT 84080

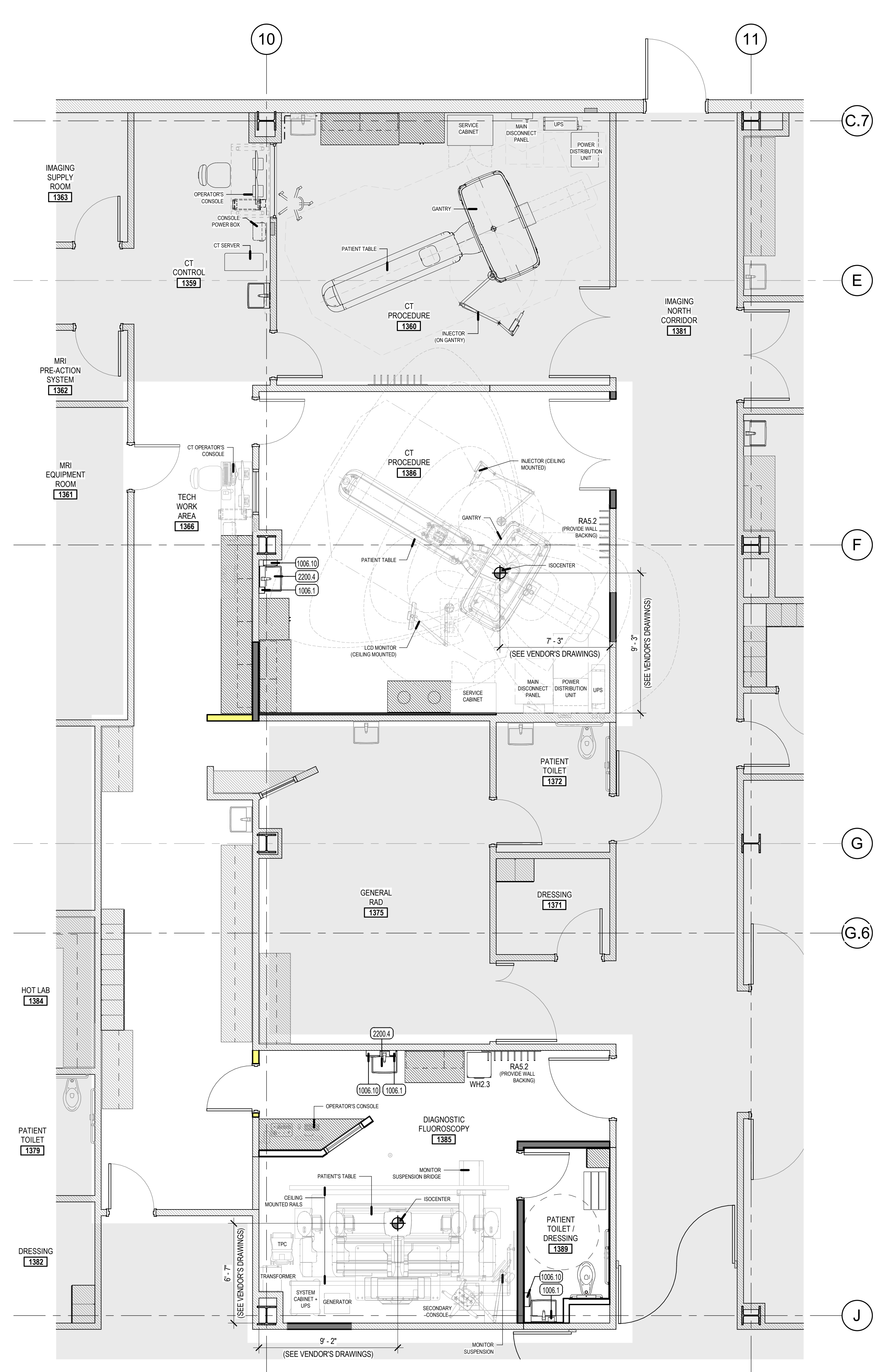
CONSTRUCTION DOCUMENTS

FIRST FLOOR - EQUIPMENT PLAN

A113



A1 CT PROCEDURE - ICRA BARRIER PLAN
SCALE: 1/4" = 1'-0"



A4 IMAGING - EQUIPMENT & FURNITURE PLAN
SCALE: 1/4" = 1'-0"

PeopleSoft Project # or Job Name:

Infection Control Risk Assessment (ICRA)

Work Permit

20190416



Facility or Location

Project Start Date:

Contractor Project Manager:

Estimated Completion Date:

Contractor Performing Work:

Need to Relocate Patients?
 Yes No

Affected Department Supervisor Signature:

Name: _____
Date: _____

Environmental Service Supervisor Signature:

Name: _____
Date: _____

Intermnt Hlthcare Project Manager Signature:

Name: _____
Date: _____

Construction Activity Class (Determine Class by using the Classification Table on pages 2 & 3):
Higher levels must include all lower levels. Example: a level III must also check I and II.
 Class I Class II Class III Class IV

Specific Areas to be Affected by This Work:

Initials: _____ Date: _____

Exceptions or Additions to This Permit:

Initials: _____ Date: _____

Signature of Permit Requested by:

Name: _____
Date: _____

Infection Prevention Approval Signature:

Name: _____
Date: _____

PeopleSoft Project # or Job Name:

Construction Activity Class Worksheet

Complete Steps 1 through 3, then see Step 4.

STEP 1. Determine Construction Activity Type:

<input type="checkbox"/> Type A:	Inspection and non-invasive activities Includes, but not limited to: <ul style="list-style-type: none">- window replacement.- ceiling tile replacement limited to 1 tile per 50 sf.- painting or wall covering, without sanding- finish electrical and minor plumbing work
<input type="checkbox"/> Type B:	Small scale, short duration activities that create minimal dust and disruption to patient population via noise, vibration, odors or ventilation systems Includes, but not limited to: <ul style="list-style-type: none">- installing telephone or computer cabling or access to chase or mechanical spaces- patch or replace vinyl and/or carpet floors- cutting walls or ceilings where dust migration can be controlled
<input type="checkbox"/> Type C:	Generates moderate or high levels of dust. Demolition or removal of ANY fixed building components or assemblies. Disruption to patients with noise, vibration, HVAC systems etc. Includes, but not limited to: <ul style="list-style-type: none">- sanding walls to remove paint or wall coverings- removal of floor coverings, ceiling tiles or casework- new wall construction, major cabling activities, or adding new floor
<input type="checkbox"/> Type D:	Major demolition or construction that creates major disruption, i.e. noise, dust, vibration, odor, or mechanical systems Includes, but not limited to: <ul style="list-style-type: none">- new construction or buildout of shelled space- heavy demolition. Removal of a complete cabling system, floor, wall or ceiling

STEP 2. Determine Infection Control Risk Group:

<input type="checkbox"/> Lowest	<input type="checkbox"/> Medium	<input type="checkbox"/> High	<input type="checkbox"/> Highest
<ul style="list-style-type: none">- Office areas- Admitting- Meeting rooms- Education centers- Copy centers- Fitness centers- Gift shops- Mail rooms- Plant engineering- EVS- Non-patient areas- Low risk areas not listed elsewhere	<ul style="list-style-type: none">- Cardiology- Resp. Therapy- Echocardiography- Radiology/MRI- Endoscopy- Physical therapy- Nuclear medicine- Wound Clinics- Outpatient Clinics- Laundry- Cafeteria/Foods- PT/OT/Speech- Materials Mgmt.	<ul style="list-style-type: none">- Acute Care Floors- Surgical Units- Emergency Dept.- Post Anesthesia CU- L&D- Pharmacy- Lab and specimens- Pediatrics- Medical Units- Outpatient Surg.- Newborn Nursery- Infusion Clinic- Dialysis	<ul style="list-style-type: none">- Burn Unit- Oncology or any immunocomp pts.- Catheter Labs- Cent Sterile Supply- Intensive Care Unit- Pos. Pressure Rm.- Angiography Rm.- Pharm compound areas- Level 3 Lab area- Micro Lab- Invasive proceed- OR & C-Section Rm

PeopleSoft Project # or Job Name:

STEP 3. Use the classifications from STEP 1 and 2 to determine the Construction Class below:

Higher classes include lower classes as well. Example, III includes I, II, & III.

Construction Activity Type*

Patient Risk	Type A	Type B	Type C	Type D
Lowest	Class I	Class I	Class I	Class III
Medium	Class II	Class II	Class III	Class IV
High	Class II	Class III	Class IV	Class IV
Highest	Class III	Class III	Class IV	Class IV

*Infection Control Approval is needed for all projects

4. Follow all the appropriate Infection Control Protocols below: (Hand hygiene stations must be available)

During Construction

Upon Completion

<input type="checkbox"/> Class I	<ul style="list-style-type: none"> - Perform work using methods to minimize raising dust or tracking dust into other areas. - Immediately replace ceiling tile upon completion of inspection. 	<ul style="list-style-type: none"> - Clean work area.
<input type="checkbox"/> Class II	<ul style="list-style-type: none"> - All measures for Class I work. - Use active dust control measures. - Use water mist to control dust while cutting. - Seal doors, ducts, vents and HVAC units. - Place dust control mats at entries to work area; keep them clean and effective. - Remove debris only in tightly covered containers. 	<ul style="list-style-type: none"> - All measures for Class I work. - Wipe all horizontal surfaces with disinfectant. - Remove debris only in tightly covered containers. - Vacuum using HEPA filtered vacuum; mop with disinfectant as appropriate. - Remove all seals from doors, ducts, vents and HVAC units.
<input type="checkbox"/> Class III	<ul style="list-style-type: none"> - All measures for Class II work. - Construct barriers to prevent dust and other contaminant migration prior to beginning work. - Maintain negative air pressure in work space using HEPA filtration units. 	<ul style="list-style-type: none"> - All measures for Class II work. - Remove construction barriers only after all needed inspections are complete and passed. - Remove construction barriers in a manner that minimizes the spread of dust and debris. - Use HEPA Filter vacuum on clothes.
<input type="checkbox"/> Class IV	<ul style="list-style-type: none"> - All measures for Class III work. - Seal all pipes, conduits and penetrations. 	<ul style="list-style-type: none"> - All measures for Class III work.

- Non-construction visitors wear shoe covers when VISITING construction area
- Construction workers wear shoe covers when Leaving the construction area
- Provide Neg Pressure Air Monitoring Log During Construction
- Construct anteroom outside area of construction
- Workers to wear clean paper overalls and shoe covers when entering/exiting site

PeopleSoft Project # or Job Name: _____

Additional Requirements For This Area:

Initials: _____ Date: _____

Other Considerations for Work Impact

1. Identify the risk levels of areas that are adjacent to the project:

Above				Below				Lateral				Lateral				Front				Other							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lowest	Medium	High	Highest	Lowest	Medium	High	Highest	Lowest	Medium	High	Highest	Lowest	Medium	High	Highest	Lowest	Medium	High	Highest	Lowest	Medium	High	Highest	Lowest	Medium	High	Highest

2. Identify likely outages and their effects: plumbing, medical gas, ventilation, electrical, etc.:

3. Describe specific containment measures to be used:

4. Describe specific risks associated with water damage:

5. Describe noise and vibrations that will impact patient care areas and how you will mitigate that:

6. Identify the project work hours - avoiding patient care impact when possible:

- 7. Do plans allow for sufficient isolation/negative airflow rooms? Yes No N/A
- 8. Do plans allow for sufficient hand washing sinks per AIA guidelines? Yes No N/A
- 9. Do plans allow for sufficient access to clean and soiled utility rooms? Yes No N/A

PeopleSoft Project # or Job Name:

10. Describe the Project Communication Plan for traffic patterns, EVS, etc.:

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11. Describe the Project Monitoring Plan for infection control, safety, etc.:

--

12. Project Closeout (See last page for on-going review form)

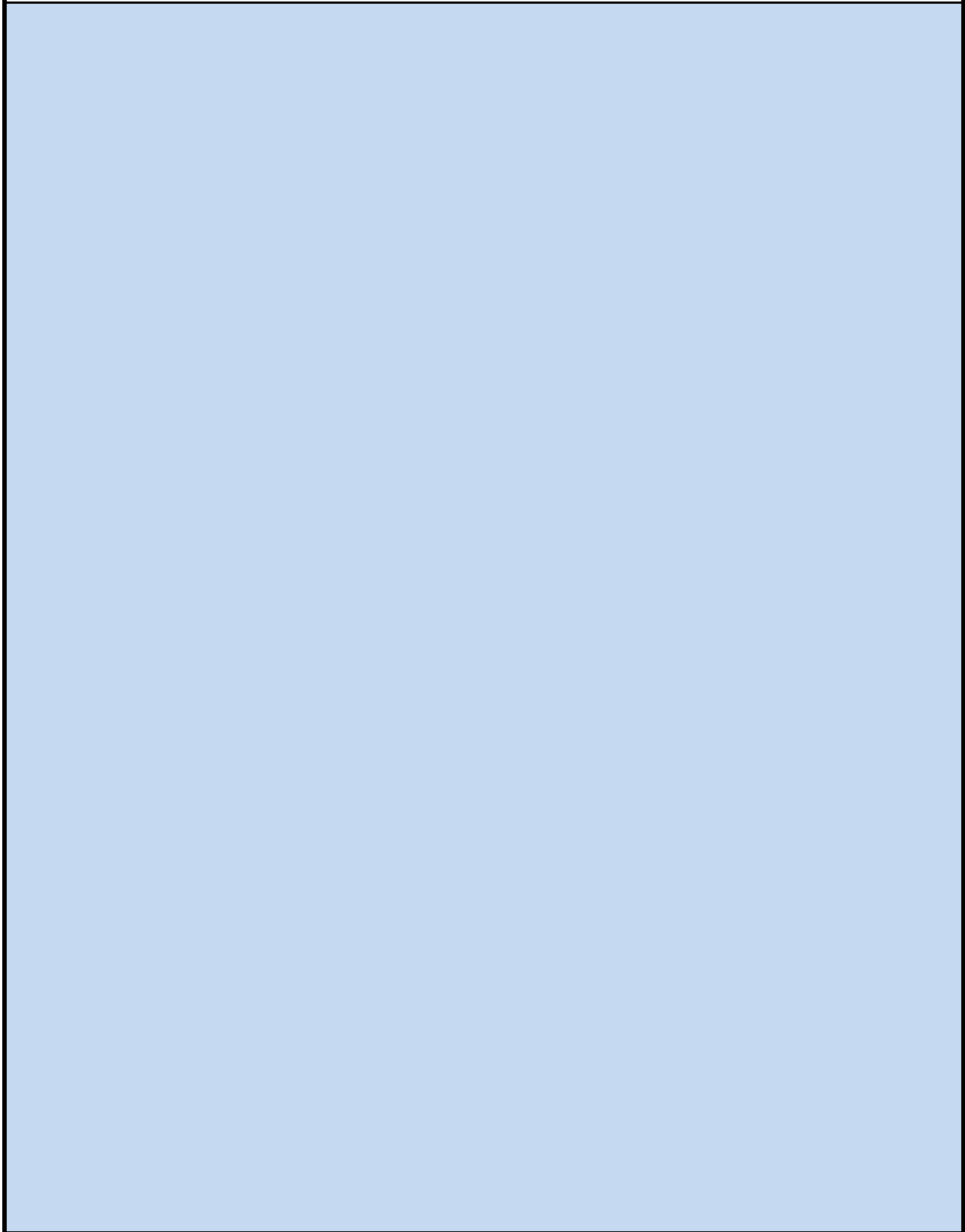
Signature for project closure, final review and approval for using the area:

(Facility Maintenance for Class I & II, Infection Prevention for Class III & IV)

	Name:	
	Date:	

PeopleSoft Project # or Job Name:

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PeopleSoft Project # or Job Name:	
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Class I & II projects reviewed by Facility Maintenance. Class III & IV by Infection Prevention.

Regular Rounding and Review by Facility Maintenance and/or Infection Prevention		
Date	Initials	Comments

See additional rounding sheet.