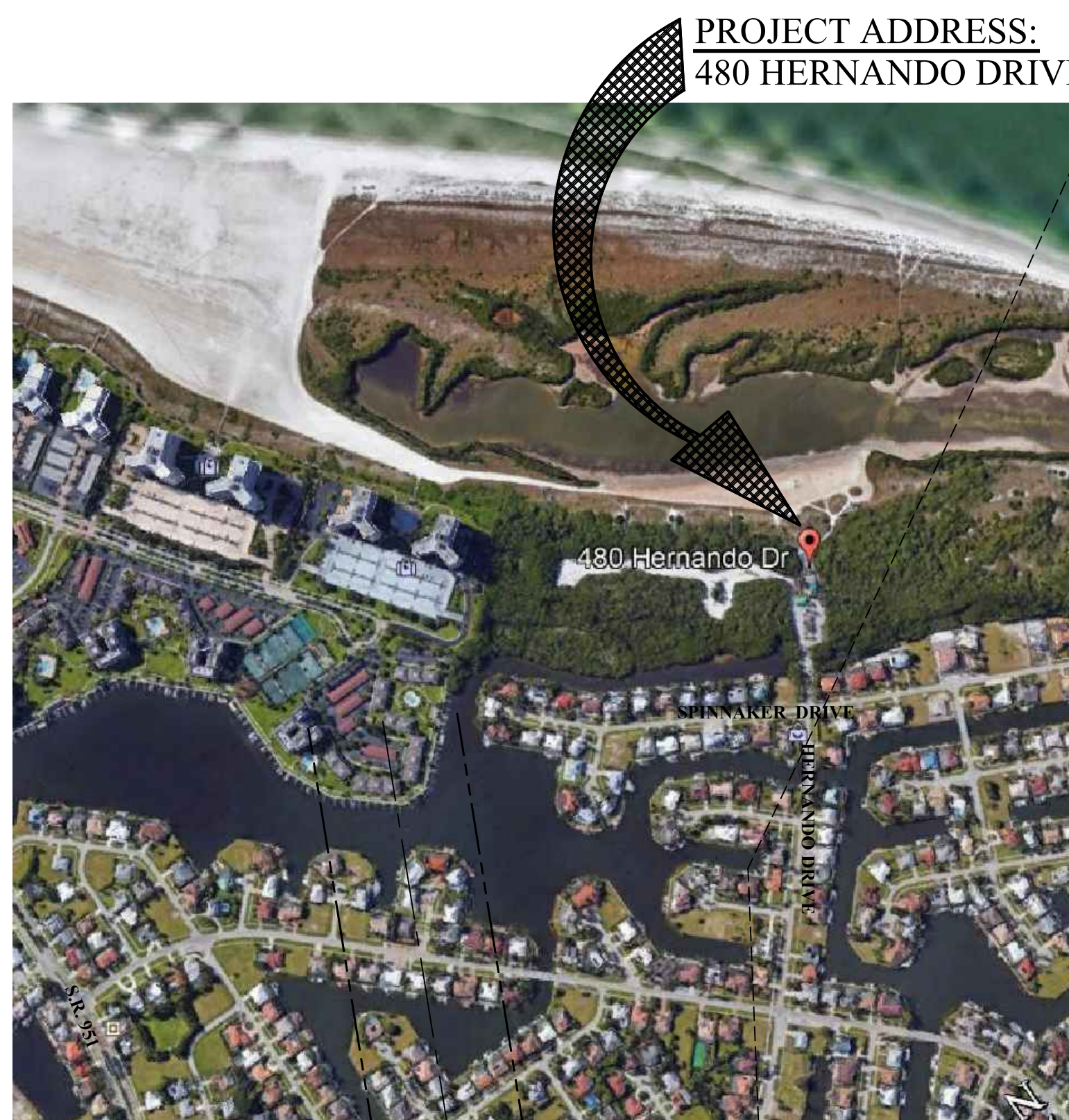


TIGERTAIL BEACH CONCESSION REPAIR AND ENHANCEMENTS

EXISTING PARK RESTROOM, STAIR, RAMP AND RAILING IMPROVEMENTS
480 HERNANDO DRIVE, MARCO ISLAND, FL 34145



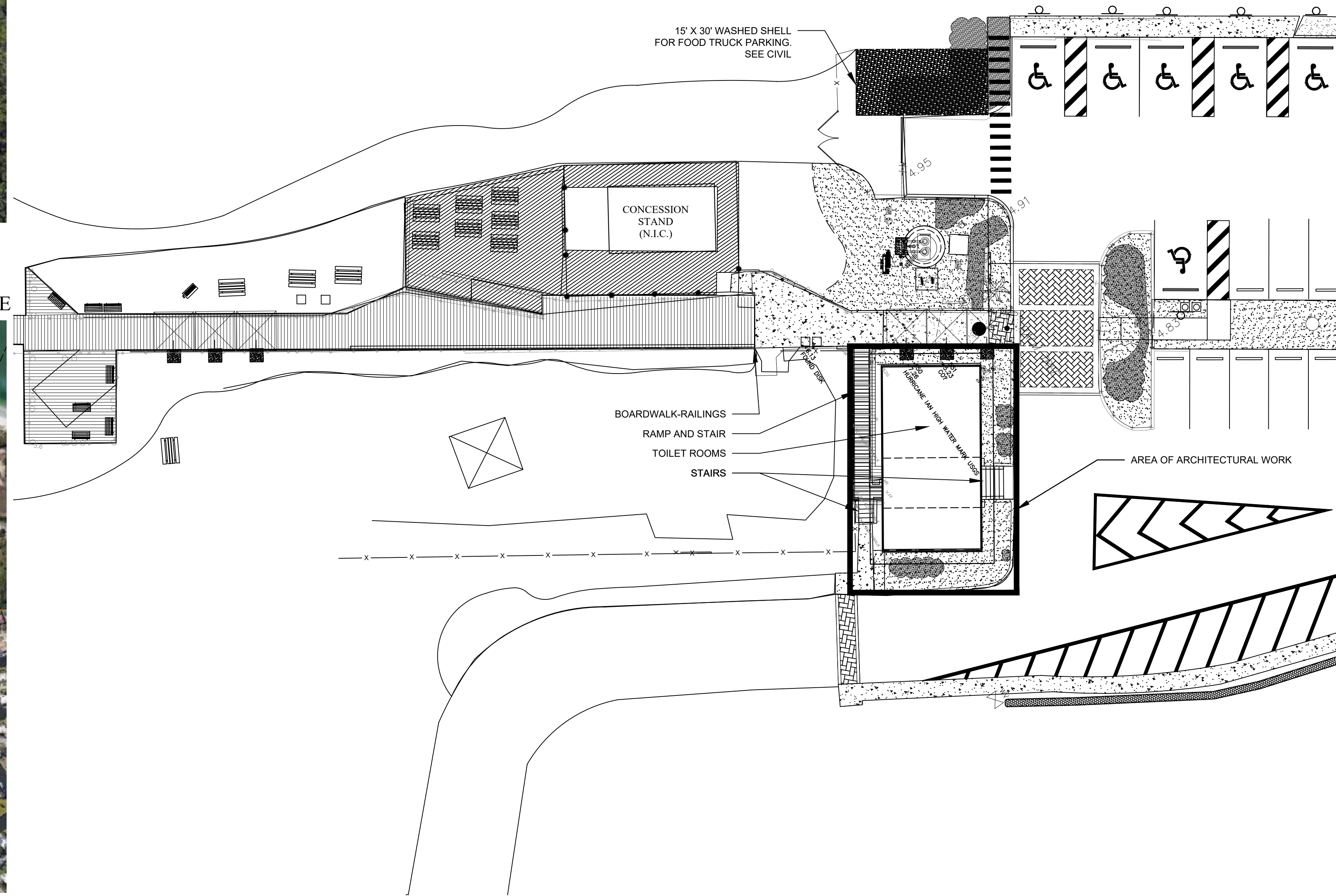
BIRD'S EYE VIEW:



SITE LOCATION MAP
N.T.S.



PROJECT CONSULTANTS					
OWNER: BOARD OF COLLIER COUNTY COMMISSIONERS 3299 TAMAMI TRAIL EAST NAPLES, FL 34112	ARCHITECT: PARKER / MUDGETT / SMITH ARCHITECTS, INC 2136 MCGREGOR BOULEVARD FORT MYERS, FL 33901 PH: (239) 332-1171	MECHANICAL, ELECTRICAL, PLUMBING: FLORIDA ENGINEERING, LLC 4456 TAMAMI TRAIL, Suite B14 PORT CHARLOTTE, FL 33980	STRUCTURAL ENGINEERS SELECT STRUCTURAL 12573 NEW BRITANNY BLVD FORT MYERS, FL 33907 PH: (239) 210-5090	CIVIL ENGINEERS JOHNSON ENGINEERING 2350 STANFORD COURT NAPLES, FL 34134 PH: (239) 434-0333	



ARCHITECTURAL SITE PLAN
NO SCALE



- NOTES TO THE PLANS EXAMINER**
- THIS PROJECT CLASSIFIES AS A LEVEL 2 ALTERATION - ACCORDING TO THE 2020 FLORIDA BUILDING CODE, EXISTING BUILDING 7TH EDITION, CH. 6, SECT. 603.
THIS PROJECT IS A PARTIAL RECONFIGURATION OF INTERIOR AND EXTERIOR SPACE (TOILET ROOM, RAMP, STAIRS, BOARDWALK)
 - THE ADDRESS OF THIS PROJECT IS 480 HERNANDO DRIVE, NAPLES, FL 34145.
 - FIRE EXTINGUISHERS SHALL BE PROVIDED PER NFPA 10 - REFER TO FLOOR PLANS.
 - PER 2020 FBC 803.11 ALL PROPOSED INTERIOR FINISHES SHALL BE MINIMUM CLASS "C".
 - THERE SHALL BE NO HIGH PILED COMBUSTIBLE STOCK.
 - THIS PROJECT IS ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES.
 - THIS PROJECT INCLUDES MISCELLANEOUS ELECTRICAL WORK - REFER TO THE ELECTRICAL PLAN.
 - THIS PROJECT INCLUDES PLUMBING WORK - REFER TO THE PLUMBING PLAN.
 - THIS PROJECT INCLUDES LIMITED MECHANICAL WORK - REFER TO THE MECHANICAL PLAN.
 - THIS PROJECT DOES NOT AFFECT THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING, OR THE ABILITY OF THE EXISTING STRUCTURE TO MEET WIND LOADING REQUIREMENTS.

- THESE PLANS WERE PREPARED TO COMPLY WITH THE FOLLOWING:**
- THE 2020 FLORIDA BUILDING CODE - BUILDING, 7th EDITION
 - THE 2020 FLORIDA BUILDING CODE - EXISTING BUILDING, 7th EDITION
 - THE 2020 FLORIDA BUILDING CODE - ACCESSIBILITY, 7th EDITION
 - THE 2020 FLORIDA BUILDING CODE - MECHANICAL, 7th EDITION
 - THE 2020 FLORIDA BUILDING CODE - PLUMBING, 7th EDITION
 - THE 2017 NFPA-70, NATIONAL ELECTRICAL CODE
 - 2017, 6TH EDITION OF THE FLORIDA FIRE PREVENTION CODE

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GENERAL NOTES:

RELATED DOCUMENTS

GENERAL PROVISIONS OF COLLIER COUNTY'S CONSTRUCTION AGREEMENT, INCLUDING EXHIBIT H, GENERAL TERMS AND CONDITIONS, APPLIES TO ALL WORK.

INDUSTRY STANDARDS:

INDUSTRY STANDARDS SHALL HAVE THE SAME FORCE AND EFFECT ON PERFORMANCE OF WORK AS IF COPIES WERE BOUND DIRECTLY INTO THE CONTRACT DOCUMENTS AND PUBLISHED THERE WITHIN. COMPLY WITH STANDARDS IN EFFECT AS OF DATE OF CONTACT DOCUMENTS, UNLESS OTHERWISE NOTED OR REQUIRED BY GOVERNING AUTHORITIES.

CODES:

ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES IN EFFECT AS LISTED IN THE BUILDING CODE DATA, SHEET G1.

SUPERVISION AND CONTROL:

THE CONTRACTOR IS RESPONSIBLE FOR FIELD SUPERVISION, CONSTRUCTION ADMINISTRATION, REVIEW AND APPROVAL OF ALL SHOP DRAWINGS, VERIFICATION ON SITE OF ALL DIMENSIONS, AND TO BE IN STRICT COMPLIANCE WITH THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING WITHIN 10 DAYS OF RECEIPT OF CONSTRUCTION DOCUMENTS OF ANY ERROR OR OMISSION OF THE ARCHITECT. THE CONTRACTOR AGREES TO ASSUME LIABILITY FOR CORRECTIVE MEASURES SHOULD THE ARCHITECT NOT BE INFORMED AS NOTED. THE CONTRACTOR SHALL NOT DEVIATE FROM CONSTRUCTION DOCUMENTS, OR MAKE SUBSTITUTES WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT. THE CONTRACTOR SHALL ASSIGN A QUALIFIED CONSTRUCTION SUPERINTENDENT TO THE PROJECT. THE CONTRACTOR AND HIS SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL THE WORK INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- SURVEYING
- RECORDING OF ALL CONSTRUCTION ACTIVITIES
- INSPECTIONS
- TESTING
- INSTALLATION OF ALL PORTIONS OF THE WORK
- CUTTING AND PATCHING
- CLEANING AND PROTECTION

GENERAL INSTALLATION PROVISIONS:

WELL IN ADVANCE OF EACH MAJOR UNIT OF WORK WHICH REQUIRES COORDINATION AND INTERFACING WITH OTHER WORK, MEET AT PROJECT SITE WITH INSTALLER AND/OR REPRESENTATIVES OF MANUFACTURERS AND FABRICATORS WHO ARE INVOLVED IN OR AFFECTED BY THE WORK WHICH HAS PRECEDED OR WILL FOLLOW, AND RECORD DISCUSSIONS. COMPLY WITH MANUFACTURER'S APPLICABLE INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION. INSPECT EACH ITEM OF MATERIALS OR EQUIPMENT IMMEDIATELY PRIOR TO INSTALLATION, AND REJECT DAMAGE OR DEFECTIVE ITEMS. PROVIDE ATTACHMENT AND CONNECTION DEVICES AND METHODS FOR SECURING WORK PROPERLY AS IT IS INSTALLED, TRUE TO LINE AND LEVEL, AND WITHIN RECOGNIZED INDUSTRY TOLERANCE. ALLOW FOR EXPANSIONS AND BUILDING MOVEMENTS.

REFER ALL PRODUCT SELECTION AND SUBSTITUTIONS TO THE ARCHITECT FOR FINAL APPROVAL PRIOR TO ACTUAL PURCHASE OF MATERIALS. RECHECK MEASUREMENTS AND DIMENSIONS OF THE WORK AS AN INTEGRAL STEP OF STARTING EACH INSTALLATION AND MAKING EACH PURCHASE OF EQUIPMENT.

INSTALL WORK DURING CONDITIONS OF TEMPERATURE, HUMIDITY, EXPOSURE, FORECASTED WEATHER, AND STATUS OF PROJECT COMPLETION WHICH WILL ENSURE BEST POSSIBLE RESULTS FOR EACH UNIT OF WORK, IN COORDINATION WITH THE ENTIRE WORK.

ISOLATE EACH UNIT OF WORK FROM NON-COMPATIBLE WORK, AS REQUIRED TO PREVENT DETERIORATION.

COORDINATE ENCLOSURE (CLOSING IN) OF WORK WITH REQUIRED INSPECTIONS AND TESTS, SO AS TO MINIMIZE THE NECESSITY OF UNCOVERING WORK FOR THAT PURPOSE.

WHERE MOUNTING HEIGHTS AND LOCATIONS ARE NOT INDICATED, MOUNT INDIVIDUAL UNITS OF WORK AT INDUSTRY-RECOGNIZED STANDARD MOUNTING HEIGHTS (LOCATIONS) FOR APPLICATION INDICATED. REFER QUESTIONABLE CHOICES TO ARCHITECT/ENGINEER.

CONTRACTOR USE OF PREMISES
LIMIT USE OF THE PREMISES TO CONSTRUCTION ACTIVITIES IN AREAS INDICATED. ALLOW FOR OWNER OCCUPANCY OF THE EXISTING BUILDING AT ALL TIMES.

CONFINE OPERATIONS AT THE SITE TO THE AREAS PERMITTED UNDER THE CONTRACT. PORTIONS OF THE SITE BEYOND AREAS ON WHICH WORK IS INDICATED ARE NOT TO BE DISTURBED. CONFORM TO SITE RULES AND RELATIONS AFFECTING THE WORK WHILE ENGAGED IN PROJECT CONSTRUCTION.

DO NOT UNREASONABLY ENCUMBER THE SITE WITH MATERIALS OR EQUIPMENT. CONFINE STOCKPILING OF MATERIALS AND LOCATION OF STORAGE SHEDS TO THE AREAS INDICATED. IF ADDITIONAL STORAGE IS NECESSARY OBTAIN AND PAY FOR SUCH STORAGE OFF SITE.

TEMPORARY FACILITIES:

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SERVICES REQUIRED TO

PERFORM THE WORK:

- TEMPORARY TOILETS.
- REQUIRED MISCELLANEOUS CONSTRUCTION FACILITIES.
- GENERAL FIRE PROTECTION.
- BARRICADES.
- FENCING.
- LOCKUP AND SECURITY.
- SIDEWALK PROTECTION.
- WATCHMAN SERVICE (WHEN REQUIRED BY OWNER OR CONTRACTOR).
- ENVIRONMENTAL PROTECTION.

WARRANTY AND GUARANTY:

ONE YEAR WRITTEN GUARANTEE IS REQUIRED ON ALL WORK UNDER THIS CONTRACT. SPECIFIC PRODUCT WARRANTIES WHERE THEY APPLY SHALL ALL ACCRUE TO THE OWNER. PROVIDE WRITTEN STATEMENTS AND/OR COPIES OF ALL WARRANTIES/GUARANTIES TO THE OWNER.

FINAL CLEANING:

AT PROJECT CLOSEOUT TIME, CLEAN OR RECLEAN ENTIRE WORK TO NORMAL LEVEL FOR "FIRST CLASS" MAINTENANCE/CLEANING OR BUILDING PROJECTS OF SIMILAR NATURE.

REMOVE NON-PERMANENT PROTECTIONS AND LABELS, POLISH GLASS, CLEAN EXPOSED SURFACES, TOUCH-UP MINOR DAMAGE, REPLACE FILTERS, REMOVE DEBRIS, REPLACE BURNED OUT LIGHTS, SWEEP AND WASH PAVED AREAS AND POLICE YARDS AND GROUND.

024119 SELECTIVE STRUCTURE DEMOLITION

PART 1 – GENERAL

- 1.1 SUMMARY
- A. This section shall include:
 - Demolition and removal of selected portions of building or structure to allow for new construction.
- 1.2 DEFINITIONS
- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and be salvaged or removed and re-installed.
- B. Existing to remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed or salvaged, or removed and re-installed.
- 1.3 MATERIALS OWNERSHIP
- A. Unless otherwise indicated, demolition waste becomes property of CONTRACTOR.
- 1.4 PRE-INSTALLATION MEETINGS
- A. Pre-demolition conference: Conduct conference at Project site.
 - Inspect and discuss condition of construction to be selectively demolished. Review structure load limitations of existing structure.
 - Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.

- 3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
- 4. Review areas where existing construction is to remain and requires protection.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and for noise control. Indicate proposed locations and construction of barriers.
- B. Pre-demolition Photographs: Submit before Work begins.
- 1.6 CLOSEOUT SUBMITTALS

- A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- 1.1 FIELD CONDITIONS
- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- 1. Before selective demolition, Owner will remove certain items. Coordinate with Owner.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work. If material suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - Maintain fire-protection facilities in service during selective demolition operations.

PART 2 – PRODUCTS

- 2.1 PERFORMANCE REQUIREMENTS
- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANS/ASSE A10.6 and NFPA 241.

PART 3 – EXECUTION

- 3.1 EXAMINATION
- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- D. Perform a survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
- 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
 - Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations.
 - Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- 1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

- 1. Provide protection to ensure safe passage of people around selective demolition area.
- 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
- 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
- 4. Cover and protect equipment that have not been removed.

- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

- 1. Strengthen or add new supports when required during progress of selective demolition.
- 3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.

- 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
- 5. Maintain adequate ventilation when using cutting torches.
- 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
- 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
- 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- 9. Dispose of demolished items and materials promptly.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

- 1. Do not allow demolished materials to accumulate on-site.
- 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.7 SELECTIVE DEMOLITION SCHEDULE

- A. Existing Construction to Be Removed:
 - As described in the Drawings.
- B. Existing Items to Be Salvaged:
 - As described in the Drawings.

033000 CAST-IN-PLACE-CONCRETE

PART 1 – GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications Sections and Agreement between Owner and CONTRACTOR apply to this Section.

1.2 SECTION REQUIREMENTS

- A. Submittals: Product Data concrete mix designs and submittals required by ACI 301.
- B. Ready-Mixed Concrete Producer Qualifications: ASTM C 94/C 94M.
- C. Comply with ACI 301, "Specification for Structural Concrete"; ACI 117, "Specifications for Tolerances for Concrete Construction and Materials"; and CRSI's "Manual of Standard Practice."

PART 2 – PRODUCTS

- 2.1 MATERIALS
- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- C. Portland Cement: ASTM C 150, Type I or II.
- D. Fly Ash: ASTM C 618, Type C or F.
- E. Aggregates: ASTM C 33, uniformly graded use sand only in grout mix.
- F. Air-Entraining Admixture: ASTM C 260.
- G. Vapor Retarder: Clear 10-mil- (0.25-mm-) thick polyethylene sheet.
- H. Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber, or ASTM D 1752, cork or self-expanding cork.
- I. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- J. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

2.2 MIXES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
 - Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
 - Maximum Water-Cementitious Materials Ratio: 0.45.
 - Slump Limit: 4 inches (100 mm), plus or minus 1 inch (25 mm).
 - Air Content: Maintain within range permitted by ACI 301. Do not allow air content of floor slabs to receive troweled finishes to exceed 3 percent.

- C. Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M.
 - When air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 – EXECUTION

- 3.1 CONCRETING
- A. Construct formwork according to ACI 301 and maintain tolerances and surface irregularities within ACI 347R limits of Class A, 1/8 inch (3.2 mm) for concrete exposed to view and Class C, 1/2 inch (13 mm) for other concrete surfaces.
- B. Place vapor retarder on prepared subgrade, with joints lapped 6 inches (150 mm) and sealed.
- C. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- D. Install construction, isolation, and contraction joints where indicated. Install full-depth joint-filler strips at isolation joints.
- E. Place concrete in a continuous operation and consolidate using mechanical vibrating equipment.
- F. Protect concrete from physical damage, premature drying, and reduced strength due to hot or cold weather during mixing, placing, and curing.
- G. Formed Surface Finish: Smooth-formed finish for concrete exposed to view, coated, or covered by waterproofing or other direct-applied material; rough-formed finish elsewhere.

- H. Slab Finishes: Comply with ACI 302.1R for screeding, straightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces. Provide the following finishes:
 - Troweled finish for floor surfaces and floors to receive floor coverings, or other thin film-finish coatings.
 - Begin curing concrete slabs after finishing. Apply membrane-forming curing and sealing compound to concrete.
 - Protect concrete from damage. Repair surface defects in formed concrete and slabs.

061000 ROUGH CARPENTRY

PART 1 – GENERAL

- 1.1 SUMMARY
- A. This Section includes the following:
 - Framing with dimension lumber.
 - Wood blocking and nailers.
 - Wood furring.

1.2 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product.
 - Include data for wood-preserved treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
 - Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.
 - Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
 - Wood-preserved-treated wood.
 - Power-driven fasteners.
 - Powder-actuated fasteners.
 - Expansion anchors.
 - Metal framing anchors.

PART 2 – PRODUCTS

- 2.1 WOOD PRODUCTS, GENERAL
- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - Factory mark each piece of lumber with grade stamp of grading agency.
 - Provide dressed lumber, S4S, unless otherwise indicated.
- 2.2 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWPA C2, except that lumber that is not in contact with the ground and is continuously protected from liquid water shall be treated according to AWPA C31 with inorganic boron (SBX).
 - Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.

- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
 - Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - Wood sills, sleepers, blocking, furring, and similar concealed members in contact with masonry or concrete.
 - Wood floor plates that are installed over concrete.
 - All other framing as indicated in the Drawings.

2.3 DIMENSION LUMBER FRAMING

- A. Maximum Moisture Content: 19 percent.
- B. For all framing, provide the following species: Southern pine; SPIB.

2.4 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - Blocking.
 - Nailers.
 - Cants.
 - Furring.

- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber with 19 percent maximum moisture content of any species.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and the following species and grades:
 - Mixed southern pine, No. 2 grade; SPIB.

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified and as specified on Structural Drawings.
 - Provide all fasteners of Type 316 stainless steel.
- B. Power-Driven Fasteners: NES NER-272.
- C. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- 2.6 METAL FRAMING ANCHORS

- A. Basis-of-Design Products: Subject to compliance with requirements, provide products indicated on Structural Drawings or comparable products by one of the following:
 - Simpson Strong-Tie Company, Inc.
 - Alpine Engineered Products, Inc.
 - Cleveland Steel Specialty Co.
 - Harlen Metal Products, Inc.
 - KC Metals Products, Inc.
 - Southeastern Metals Manufacturing Co., Inc.
 - USP Structural Connectors.

- B. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer that meet or exceed those of basis-of-design products. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

C. Stainless Steel Sheet: ASTM A666, Type 316.

1. Use at all locations.

PART 3 EXECUTION

3.1 INSTALLATION

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.

C. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.

D. Do not splice structural members between supports, unless otherwise indicated. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

F. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated in the structural drawings.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

061600 SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wall sheathing.

B. Related Requirements:

1. Division 06 Section "Rough Carpentry" for framing sheathing will be attached to.

2. Division 07 Section "Weather Barriers" for water-resistive barrier applied over all sheathing.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PANEL PRODUCTS

A. Emissions: Products shall meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

B. Plywood: Either DOC PS 1 or DOC PS 2 unless otherwise indicated.

C. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.

D. Factory mark panels to indicate compliance with applicable standard.

2.2 WALL SHEATHING

A. Plywood Wall Sheathing: Exposure 1 sheathing.

1. Span Rating: Not less than 16/0.

Nominal Thickness: Not less than 15/32 inch (20 mm).

2.5 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article and on the Structural Drawings for material and manufacture.

1. For wall sheathing, provide fasteners of Type 304 stainless steel.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: NES NER-272.

D. Wood Screws: ASME B18.6.1.

2.6 MISCELLANEOUS MATERIALS

A. Adhesives for Field Gluing Panels to Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

1. Adhesives shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with the following: NES NER-272 for power-driven fasteners.

1. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2).

3. Alternate Attachments," in ICC's "International Residential Code for One- and Two-Family Dwellings."

4. As detailed and specified on the Structural Drawings.

D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.

E. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 WOOD STRUCTURAL PANEL INSTALLATION

A. General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated and as detailed and specified on the Drawings.

B. Fastening Methods: Fasten panels as indicated below:

1. Wall Sheathing:

a. Nail to wood framing. Apply a continuous bead of glue to framing members at field and edges of wall sheathing panels.

b. Space panels 1/8 inch (3 mm) apart at edges and ends.

c. As detailed and specified on the Structural Drawings.

062013 EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Exterior standing and running trim.

2. Exterior siding.

3. Exterior stairs, decks, and railings.

B. Related Requirements:

1. Division 06 Section "Rough Carpentry" for wood blocking, nailers and furring.

1.2 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

B. Samples: For each type of siding indicated.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process Using Inorganic Boron (SBX):

1. Lumber: AWPA C31. Kiln dry after treatment to a maximum moisture content of 19 percent.

2. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

3. Application: Where indicated.

2.3 STANDING AND RUNNING TRIM

A. Lumber siding and trim for painted finish:

1. Species and Grade: Western Red Cedar, NLFA, WCLIB or WWPA, Grade A.

B. LAP Siding Species and Grade: Western Red Cedar, NLFA, WCLIB or WWPA, Grade A.

1. Pattern: Bevel siding to match existing.

2. Texture: Match existing.

2.4 INSTALLATION - GENERAL

A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent material. Use concealed shims where necessary for alignment.

1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

2.5 STANDING AND RUNNING TRIM INSTALLATION

A. Install with primed side exposed to weather.

B. Install trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long.

1. Use scarf joints for end-to-end joints.

2. Stagger end joints in adjacent and related members.

C. Fit exterior joints to exclude water. Cope at returns and miter at corners.

2.6 BOARD SIDING INSTALLATION

A. Install siding to comply with manufacturer's written instructions.

B. Siding: Install panels with edges over framing or blocking. Leave 3/16-inch (5-mm) gap at perimeter, openings, and horizontal panel joints unless otherwise recommended by panel manufacturer.

1. Seal butt joints at inside and outside corners and at trim locations.

2. Conceal fasteners to greatest practical extent by placing in grooves of siding pattern or by concealing with applied trim or battens as detailed.

2.7 DECK, STAIR, PICKETS AND RAILING INSTALLATION

A. Lumber for use:

1. Species and Grade: Ip6, NLFA, WCLIB or WWPA, Grade A.

2. Species and Grade: Cumaru,

A. As detailed in the drawings.

071811 PEDESTRIAN TRAFFIC DECK WATERPROOF SYSTEM WITH FINISH SYSTEM

PART 1 - GENERAL

1.1 SCOPE

A. Provide all labor, materials and equipment necessary to apply the Con-Dek waterproof system over horizontal plywood and concrete decks.

1.2 DESCRIPTION

A. Pli-Dek is a proprietary blend of high-performance acrylic formulations. Con-Dek is a waterproofing system providing a durable walking surface in a variety of textures, finishes, and colors.

1.3 REFERENCES

A. ASTM C 297: Test Method for Bond Strength of Flat Sandwich Constructions in a Flat Wise Plane

B. ASTM 0570: Test-Method for Water Absorption of Plastics

C. ASTM 01242: Test Method for Resistance of Plastic Materials to Abrasion

D. ASTM E 96: Test Method for Water Vapor Transmission of Materials

E. ASTM E 108: Test Method for Fire Tests of Roof Coverings

F. ASTM G 23: Test Method for Weatherability

G. ASTM D2707L: Test Method for Tensile Strength- Longitude

H. ASTM D270T: Test Method for Tensile Strength- Transverse

I. ASTM A756: Test Method for Freeze-Thaw Cycle for deleterious effects

J. ASTM C67: Test Method for Freeze-Thaw Cycle for weight loss

K. ASTM C150-72: Test Method for Compressive Strength

L. ASTM 02299: Test Method for Chemical Resistance

M. ASTM C1028-96: Test Method for Static Coefficient of Friction

N. ASTM E108: Test Method for Spread of Flame

O. ASTM E108: Test Method for Intermittent Flame

P. ASTM E119: Test Method for One-Hour System

Q. ASTM Pending: Test Method for Impact

R. ASTM Pending: Test Method for Concentrated Load

S. ASTM Pending: Test Method for Percolation

1.4 SUBMITTALS

A. Samples:

1. For each type of finish and color standard with manufacturer.

B. Product Data:

1. Manufacturer's technical information including instructions for handling storing and applying each coating material.

1.5 QUALITY ASSURANCE

A. Qualification:

1. Manufacturer shall be Pli-Dek Systems, Inc.

2. The applicator shall be listed with Pli-Dek Systems, Inc. as a trained installer.

B. Substrates:

1. The applicator/CONTRACTOR shall verify that the proposed substrate is acceptable prior to application of the Pli-Dek System.

C. Provide the following Certifications:

1. Florida Product Approval

D. Performance Requirements:

1. Water Vapor Transmission (ASTM E 96)

2. Bond Strength (ASTM C 297)

3. Abrasion Test (ASTM D 968)

4. Weatherability Test (ASTM G 23)

5. Class A Burn Tests (ASTM E 108)

6. Freeze-Thaw Cycling (ASTM A75)

7. Compressive Strength (ASTM C150-72)

8. Water Absorption (ASTM D570)

9. Chemical Resistance (ASTM D2299)

10. Static Coefficient of Friction (ASTM C 1028-96)

11. One-Hour System (ASTM E119)

12. Wind-Up Lift (Factory Mutual I.52)

1.6 DELIVERY, STORAGE, AND HANDLING

A. All materials shall be delivered to the job site in the original, unopened packages with labels intact. Upon arrival, materials shall be inspected for physical damage. Questionable materials shall not be used.

B. Minimum storage temperature shall be 4°C (40°F). Maximum storage temperature shall be 43°C (110°F). All materials shall be stored in a dry location, out of direct sunlight and protected from weather and other damage.

1.7 JOB CONDITIONS

A. Existing Conditions:

1. All required framing, sheeting and wood deck inspections must be made prior to the installations of the Con-Dek materials.

B. Environmental Conditions:

1. The ambient air and surface temperature must be a minimum of 10°C (50°F) and a maximum of 43°C (110°F) and shall remain so during the curing process.

C. Protection:

1. Adjacent areas and materials shall be protected from damage, drops and spills.

2. All materials must be protected by permanent or temporary means from weather and other damage, before, during, and immediately after application. Care must be taken to prevent condensation and/or heat buildup when using a tarp or plastic as protection.

3. The materials shall be protected from weather and other trades which may damage the integrity of the product.

D. Sequencing and Scheduling:

1. Application shall be coordinated with other construction trades.

2. Sufficient labor and equipment shall be employed to ensure a continuous operation.

1.8 WARRANTY

A. Special Warranty: Manufacturers' and installer's warranty covering the work of this section including all components of waterproofing system for the following warranty period:

1. Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Pli-Dek Systems, Inc., which is located at: 41610 Dale Street, Suite 104, Murrieta, CA 92562; Toll Free Tel: 800-364-0287 Tel: 951-834-9550; Fax: 951-834-9551; Email: request info (info@plidek.com); Web: www.plidek.com

B. Request for substitutions will be considered. Manufacturer requesting substitution shall be responsible for establishing equivalency.

2.2 WATERPROOFING MEMBRANE

A. Waterproofing membrane shall be Con-Dek System comprised of the following components:

1. GU80-1 Top Coat Mix: Proprietary blend of various sands and cement, when combined with GU80-1 Liquid Admixture, is a polymer modified cement coating.

2. GU80-1 Liquid Admixture: Water based acrylic emulsion.

3. GS88-1 Pigmented Sealer: Blend of high-solid acrylic polymers that provides an elastomeric water repellent coating.

4. 3/4 oz. Fiberglass Mat: Medium-fine fiber chopped strand mat composed of multi-directional chopped glass filament bundles

5. PD Resin: Elastomeric acrylic material designed to absorb into the fiberglass mat and adhere to the concrete substrate or Pli-Dek GU-80 Base Coat.

6. GS13: Durable and versatile water based sealer and concrete coating (optional).

7. PD Clear: Solent based, clear, single component VOC compliant sealer and glaze (optional).

2.3 MATERIALS

A. Surface Primer: PD Vapor Prime (optional).

B. Sealants: ASTM C-920 Polyurethane Joint Sealant.

C. Flashing: 26-gauge stainless steel.

D. PD Flash Coat and Flash Coat Seam Tape or self-adhering drywall mesh tape.

2.4 EQUIPMENT

A. Mixing shall be done with a clean Wind-lock B-M1 mixing blade or equivalent powered by a 13-mm (1/2") variable speed drill capable of producing 1000 RPM.

B. Tools:

1. Refer to the Pli-Dek Application Instructions, PD-120, for a complete list of recommended tools.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Before any waterproofing work is started, the Pli-Dek certified applicator shall thoroughly examine all surfaces for any deficiencies. Where deficiencies exist, the Architect, Owner, or CONTRACTOR shall be notified in writing and corrections made.

B. Condition of Concrete Surfaces:

1. The concrete surfaces shall be of sound structural grade, minimum of 2500 psi compressive strength, and shall be a minimum of a CSP-2 rating.

2. Concrete shall be cured a minimum of 28 days and shall be sloped for proper drainage (a minimum of 1/8" to 1/4" per linear foot for positive drainage).

3. Control joints and/or expansion joints shall have been properly installed at strategic points throughout the field of the deck to control cracking caused by deflection and shrinkage.

4. Required crickets or drains shall be installed at the time the deck is poured.

5. Flashing shall be a minimum 26 gauge stainless steel.

6. Proper flashing must be installed at all doors, walls, fascia edges, posts, penetrations, columns, etc.

7. Flashing must be installed to accommodate all exterior wall coating applications from coming in contact with the deck surface. Exterior siding must be held off the deck a minimum of 50 mm (2").

8. All flashing splices must be overlapped a minimum of 100 mm (4") and caulked between any two pieces of flashing with ASTM C-920 polyurethane joint sealant, a Vulkem 931 Urethane sealant or equivalent. All flashing overlaps shall be installed as to not "buck" water.

9. It is optional for all vertical flashing to be coated with 1/4" oz. Fiberglass and PD Resin or PD Flash Coat and Flash Coat Seam Tape or self-adhering drywall mesh-tape, GU80 Top Coat, and GS88 pigmented sealer at the time of applying each product.

10. Flashing at walls must be installed behind the building paper (or equivalent) on all areas that intersect the deck surface.

11. (Optional) All door pans, threshold flashing, and deck to wall flashings shall be coated with 3/4 oz. Fiberglass and PD Resin or PD Flash Coat and Flash Coat Seam Tape or self-adhering drywall mesh tape.

3.2 SURFACE PREPARATION

A. The concrete surface will be thoroughly clean, dry and free from any surface contaminants or cleaning residue that may harmfully affect the adhesion of the membrane.

B. All undermined, damaged, etc. concrete must be repaired or replaced before applying the waterproof deck coatings over the concrete surfaces.

C. Concrete shall have moisture content of less than 5%.

1. Moisture and Vapor Transmission rating shall be determined by the applicator completing the following verification Tests: TARMEX moisture content verification per ASTM F2170 and/or Plastic Sheet Test per ASTM D4263.

2. The Owner should complete the following ASTM Testing: TARMEX moisture content verification per ASTM F2170 and/or Plastic Sheet Test per ASTM D4263. If moisture content exceeds 5%, perform Calcium Chloride per ASTM 1869.

3.3 APPLICATION

A. Primer Coat: All concrete surfaces shall be ground free of any contaminants, primed with either GU80-1 Liquid Admixture Primer Coat or Vapor Prime.

B. Fiberglass and PD Resin Coats: Lay out the 3/4 oz. fiberglass mat, overlapping metal flashing to the horizontal edge and overlap mat seams by a minimum of 1/4".

1. Thoroughly mix the PD Resin and then pour PD Resin over the fiberglass mat, and apply with a pool trowel at a rate of approximately 40-50 square feet per gallon. Allow 6-8 hours to dry.

2. Deck area must be free of all contaminants, such as dust, dirt, etc. Remove any loose areas, where fiberglass did not bond to the concrete and re-apply PD Resin and fiberglass as needed before application of second coat.

3. Apply a second coat of PD Resin using a 3/4" nap roller at a rate of 85-100 square ft. per gallon as described above, and allow 2-6 hours to dry.

C. Screed Coat (Optional): Apply a second screed coat of GU80-1 Top Coat over the previously applied fiberglass and PD Resin. Allow it to dry completely, for approximately 2-6 hours, depending on weather conditions.

D. Finish Coat Preparation: Prior to any finish coat installation the following must be completed: Grind any rough areas, being careful not to damage Fiberglass and PD Resin. Rough areas will affect the aesthetic appearance of the finished product.

E. Finish Coat Application:

1. Knockdown:

a. Using a hopper gun, spray the Knockdown Coating over the entire deck at a rate of 150 square feet per mix. When the material begins to dry, knockdown the material with a trowel.

b. Allow the Knockdown to dry a minimum of 2-6 hours, depending on weather. Remove any sharp edges by scraping the surface with a scraper or trowel.

c. Apply the GS88-1 Pigmented Sealer over the dry Knockdown application at a rate of 100 square feet per gallon using a 19mm (3/4") point roller nap, suitable for Latex type coatings. Two coats may be necessary. Allow GS88-1 Pigmented Sealer to dry a minimum of 6 hours.

2. Polymer Sand Finish:

a. Trowel the GU80-1 Base Coat over the entire deck surface at a rate of 100 to 125 square feet per mix.

b. Broadcast aggregates of washed, dry, rounded, crystal silica sand, approximately 16 mesh at a rate 1

4. Custom Finish:
- The GU80-1 Custom Top Coat should be trowelled down over the substrate with the desired color added to the mix at a rate of 150 square feet per mix.
 - Darker colors are recommended to help hide the PD stain. Once the GU80 Custom Top Coat has cured, for a minimum of 2-6 hours, the stencils can be applied.
 - After applying the stencil, trowel GU80 Custom Top Coat into the template using the thickness of the template as a guide, at a rate of 150 square feet per mix. Texture can be added to the wet mix if desired.
 - After the GU80-1 Custom Top Coat Mix has cured, allow for a minimum of 2-6 hours. The stencils should be removed.
 - Once the surface is swept up, the PD Stain can be used to create the desired modeling. Samples should be made prior to the finish coat application and approved.
 - Allow PD Stain to cure, under normal conditions, PD Stain requires 10 to 20 minutes. Under adverse weather conditions, cure time could increase to 60 hours. Once PD Stain has cured, the surface should be sealed with the desired Pli-Dek Clear Sealer.
 - For exterior applications, apply a coat of GS13 or PD clear sealer at a rate of 200 square feet per gallon (2 coats may be necessary). For interior applications, apply Resinyte Urethane 100 at a rate of approximately 225-270 sqft. per gallon with a squeegee and back rolled with a 1/4" non-sheeding nap roller. Use of non-skid agent is recommended.

3.4 FIELD QUALITY CONTROL

- The applicator shall be responsible for the proper application of the Con-Dek materials.
- Manufacturer's technical personnel shall inspect system installation and shall prepare an inspection report.

- Notify Architect 48 hours in advance of date and time of inspection.

3.5 CLEAN UP

- All excess Pli-Dek materials shall be removed from the job site by the CONTRACTOR in accordance with contract provisions.
- All surrounding areas, where the Pli-Dek materials have been applied, shall be left free of debris and foreign substances resulting from the CONTRACTOR's work.

076200 SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

- Section Includes:
 - Formed sheet metal fabrications.
- Related Requirements:
 - Division 06 Section "Rough Carpentry" for wood framing, nailers and blocking.
 - Division 07 Section "Joint Sealants" for field-applied sealants not otherwise specified in this section.
- PERFORMANCE REQUIREMENTS
 - General: Install sheet metal flashing and trim to withstand structural movement, thermally induced movement and exposure to weather without failing.

1.3 SUBMITTALS

- Product Data: For each type of product indicated.
 - Shop Drawings: Show installation layouts of sheet metal flashing and trim, including plans, elevations and keyed details. Distinguish between shop- and field-assembled work.
 - Include details for forming, joining, supporting, and securing sheet metal flashing and trim, including pattern of seams, termination points, fixed points, edge conditions, special conditions, and connections to adjoining work.
 - Samples: For each exposed product and for each finish specified.
 - Maintenance data.
 - Warranty: Sample of special warranty.
- 1.4 QUALITY ASSURANCE

- Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

1.1 WARRANTY

- Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SHEET METALS

- General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- Aluminum Sheet: ASTM B209 (ASTM B209M), alloy as standard with manufacturer for finish required, with temper as required to suite forming operations and performance required, with smooth surface.
- Exposed Coil Coated Finishes: Prepare, pre-treat as required for field finish.

2.2 UNDERLAYMENT MATERIALS

- Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.

2.3 MISCELLANEOUS MATERIALS

- General: Provide materials and types of fasteners, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
 - Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - Fasteners for Aluminum Sheet: Series 300 stainless steel.
- Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, non-staining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
- Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight

2.4 FABRICATION, GENERAL

- General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
 - Obtain field measurements for accurate fit before shop fabrication.
 - Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
 - Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant.
 - Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with butyl sealant concealed within joints.

2.5 SHEET METAL FABRICATIONS

- Roof-Edge Flashing: Fabricate in minimum 96-inch- (2400-mm-) long, but not exceeding 10-foot- (3-m-) long, sections. Furnish with 6-inch- (150-mm-) wide, joint undercover plates. Fabricate from the following joint style and materials:
 - Joint Style: Lap, with 4-inch (100 mm) lapped joint.
 - Aluminum: 0.050 inch (1.27 mm) thick.
- Miscellaneous Flashing: Fabricate from the following materials:
 - Aluminum: 0.050 inch (1.27 mm) thick.

PART 3 - EXECUTION

3.1 UNDERLAYMENT INSTALLATION

- Felt Underlayment: Install felt underlayment with adhesive for temporary anchorage. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches (50 mm).

3.2 INSTALLATION, GENERAL

- General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement so that completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of welds, and sealant.
 - Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 - Install sealant tape where indicated.
 - Torch cutting of sheet metal flashing and trim is not permitted.
- Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
 - Coat back side of uncoated aluminum sheet metal flashing and trim with bituminous coating where flashing and trim will contact wood, ferrous metal, or cementitious construction.

079200 JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- This section shall include all work necessary for providing and installing joint sealants.
 - Environmental Limitations: Do not proceed with installation of joint sealants when ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 deg F (4.4 deg C).

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

- Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.
- Sealant for Exterior and Interior Use at Perimeters of Door and Window Frames:
 - Latex sealant, single-component, nonsag, mildew-resistant, paintable, acrylic-emulsion sealant complying with ASTM C 834.
- JOINT-SEALANT BACKING
 - 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.
 - Cylindrical Sealant Backings: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 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.

PART 3 - EXECUTION

3.3 INSTALLATION

- Comply with ASTM C 1193.

084113 ALUMINUM FRAMED ENTRANCES

PART 1 - GENERAL

1.1 SUMMARY

- This Section includes the following:
 - Exterior entrance doors with aluminum frames.
- Related Requirements:
 - Division 07 Section "Joint Sealants" for joint sealants installed as part of aluminum entrance and storefront systems.
- SYSTEM DESCRIPTION
 - General: Provide aluminum entrance systems capable of withstanding loads and thermal and structural movement requirements indicated without failure, based on testing manufacturer's standard units in assemblies similar to those indicated for this Project. Failure includes the following:
 - Air infiltration and water penetration exceeding specified limits.
 - Framing members transferring stresses, including those caused by thermal and structural movement, to glazing units.
 - Wind Loads: Provide entrance and storefront systems, including anchorage, capable of withstanding wind-load design pressures calculated according to requirements of Florida Building Code, Chapter 16, or the American Society of Civil Engineers' ASCE 7, "Minimum Design Loads for Buildings and Other Structures," 6.4.2, "Analytical Procedure," whichever are more stringent.
- Deflection of framing members in a direction normal to wall plane is limited to 1/175 of clear span or 3/4 inch (19 mm), whichever is smaller, unless otherwise indicated.

- Static-Pressure Test Performance: Provide entrance and storefront systems that do not evidence material failures, structural distress, failure of operating components to function normally, or permanent deformation of main framing members exceeding 0.2 percent of clear span when tested according to ASTM E 330.

- Test Pressure: 150 percent of inward and outward wind-load design pressures.
 - Duration: As required by design wind velocity; fastest 1 mile (1.609 km) of wind for relevant exposure category.
- Dead Loads: Provide entrance system members that do not deflect an amount which will reduce glazing bite below 75 percent of design dimension when carrying full dead load.
- Live Loads: Provide entrance and storefront systems, including anchorage, that accommodate the supporting structures' deflection from uniformly distributed and concentrated live loads indicated without failure of materials or permanent deformation.
- Air Infiltration: Provide entrance and storefront systems with permanent resistance to air leakage through fixed glazing and frame areas of not more than 0.06 cfm/sq. ft. (0.3 L/s/sq. m) of fixed wall area when tested according to ASTM E 283 at a static-air-pressure difference of 1.57 lbf/sq. ft. (75.2 Pa).
- Water Penetration: Provide entrance and storefront systems that do not evidence water leakage through fixed glazing and frame areas when tested according to ASTM E 331 at minimum differential pressure of 20 percent of inward-acting wind-load design pressure as defined by ASCE 7, "Minimum Design Loads for Buildings and Other Structures," but not less than 6.24 lbf/sq. ft. (299 Pa). Water leakage is defined as follows:

- Uncontrolled water infiltrating systems or appearing on systems' normally exposed interior surfaces from sources other than condensation. Water controlled by flashing and gutters that is drained back to the exterior and cannot damage adjacent materials or finishes is not water leakage.
- Thermal Movements: Provide entrance and storefront systems, including anchorage, that accommodate thermal movements of systems and supporting elements resulting from the following maximum change (range) in ambient and surface temperatures without buckling, damaging stresses on glazing, failure of joint sealants, damaging loads on fasteners, failure of doors or other operating units to function properly, and other detrimental effects.

- Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- Structural-Support Movement: Provide entrance and storefront systems that accommodate structural movements including, but not limited to, sway and deflection.
 - Dimensional Tolerances: Provide entrance and storefront systems that accommodate dimensional tolerances of building frame and other adjacent construction.
- 3 SUBMITTALS
 - Product Data: For each product specified. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes.
 - Shop Drawings: For entrance systems. Show details of fabrication and installation, including plans, elevations, sections, details of components, provisions for expansion and contraction, and attachments to other work.

- For entrance systems, include hardware schedule and indicate operating hardware types, quantities, and locations.
- Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type of aluminum-framed entrances and storefronts.
 - Florida State of Florida Notice of Acceptance (NOA) for aluminum-framed entrances and storefronts.
 - Samples for Initial Selection: For units with factory-applied color finishes.
 - Samples for Verification: Of each type of exposed finish required in manufacturer's standard sizes.
 - Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.
- PROJECT CONDITIONS

- Field Measurements: Verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating systems without field measurements. Coordinate construction to ensure actual dimensions correspond to established dimensions.

1.5 WARRANTY

- General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the CONTRACTOR under requirements of the Contract Documents.
- Special Warranty: Submit a written warranty executed by the manufacturer agreeing to repair or replace components of entrance and storefront systems that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, the following:
 - Structural failures including, but not limited to, excessive deflection.
 - Failure of system to meet performance requirements.
 - Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - Failure of operating components to function normally.
 - Water leakage through fixed glazing and frame areas.
- Warranty Period: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- Basis-of-Design Product: The design for aluminum entrances is as scheduled in the Drawings and is based on "Kawneer Company, Inc.". Subject to compliance with requirements, provide the named products or comparable products by one of the following:

- Butler Manufacturing Company; Vistawall Architectural Products.
- EFCO Corporation.

2.2 MATERIALS

- Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated, complying with the requirements of standards indicated below.
 - Sheet and Plate: ASTM B 209 (ASTM B 209M).
 - Extruded Bars, Rods, Shapes, and Tubes: ASTM B 221 (ASTM B 221M).
 - Extruded Structural Pipe and Tubes: ASTM B 429.
 - Bars, Rods, and Wire: ASTM B 211 (ASTM B 211M).
- FRP Faces: Pebble textured fiberglass reinforced polyester, 0.090" (2.3 mm).
- Steel Reinforcement: Complying with ASTM A 36 (ASTM A 36M) for structural shapes, plates, and bars; ASTM A 611 for cold-rolled sheet and strip; or ASTM A 570 (ASTM A 570M) for hot-rolled sheet and strip.
- Spacers, Setting Blocks, Gaskets, and Bond Breakers: Manufacturer's standard permanent, non-migrating types in hardness recommended by manufacturer, compatible with sealants, and suitable for system performance requirements.
- Secondary Sealant: For use as weather-seal, compatible with structural silicone sealant and other system components with which it comes in contact, and that accommodates a 50 percent increase or decrease in joint width at the time of application when measured according to ASTM C 719.
 - Color: Black.
- Framing system gaskets, sealants, and joint fillers as recommended by manufacturer for joint type.
- Sealants and joint fillers for joints at perimeter of entrance and storefront systems as specified in Division 07 Section "Joint Sealants."
- Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements, except containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

2.3 COMPONENTS

- Flush Doors: Provide manufacturer's standard flush doors with minimum 0.125-inch- (3.2-mm-) thick, extruded tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deep penetration and fillet welded or that incorporate concealed tie-rods.
- Brackets and Reinforcements: Provide manufacturer's standard brackets and reinforcements that are compatible with adjacent materials. Provide non-staining, nonferrous shims for aligning system components.

- Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

- Reinforce members as required to retain fastener threads.

- Do not expose fasteners, except for hardware application, use countersunk Phillips flat-head machine screws finished to match framing members or hardware being fastened, unless otherwise indicated.

- Concealed Flashing: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding flashing, compatible with adjacent materials, and of type recommended by manufacturer.

- Weather Stripping: Manufacturer's standard replaceable weather stripping as follows:

- Compression Weather Stripping: Molded neoprene complying with ASTM D 2000 requirements or molded PVC complying with ASTM D 2287 requirements.

2.4 HARDWARE

- General: Provide heavy-duty hardware units indicated in the following schedules and in the drawings in standard number, and type recommended by manufacturer for entrances indicated. Finish exposed parts to match door finish, unless otherwise indicated.

- Hardware set for flush doors:

- Full mortise continuous gear hinge at each leaf: KAWNEER 050821.
- Locksets: Mortise locksets Schlage L9453L with interchangeable key cylinders, Rhodes levers in satin nickel finish. Provide keying functions as indicated on the door hardware schedule.
- Pull Handles where indicated on the door hardware schedule: Rockwood Barrier-Free Series
- Bottom Door Sweep: Kawneer 200-796.
- Thresholds: Extruded aluminum thresholds of size indicated in mill finish, complete with anchors and clips. Kawneer 069-139.
- Closers: LCN 4040XP
- Kick Down Door Stop where indicated on the door hardware schedule: Ives FS446260.

2.5 FABRICATION

- General: Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.
- Forming: Form shapes with sharp profiles, straight and free of defects or deformations, before finishing.
- Prepare components to receive concealed fasteners and anchor and connection devices.
- Fabricate components to drain water passing joints and condensation and moisture occurring or migrating within the system to the exterior.
- Metal Protection: Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- Entrances: Fabricate door framing in profiles indicated. Reinforce as required to support imposed loads. Factory assemble door and frame units and factory install hardware to greatest extent possible. Reinforce door and frame units as required for installing hardware indicated. Cut, drill, and tap for factory-installed hardware before finishing components.

- Exterior Doors: Provide compression weather stripping at fixed stops. At other locations, provide sliding weather stripping retained in adjustable strip mortised into door edge.

2.6 ALUMINUM FINISHES

- General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
- Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.
- High-Performance Organic Finish: AA-C12042R1x (Chemical Finish: Cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pre-treat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

- Fluoropolymer Two-Coat System: Manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and Fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2605.
 - Color and Gloss: As selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- Examine areas, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of entrance and storefront systems. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- General: Comply with manufacturer's written instructions for protecting, handling, and installing entrance and storefront systems. Do not install damaged components. Fit frame joints to produce hairline joints free of burrs and distortion. Rigidly secure non-movement joints. Seal joints watertight.
- Metal Protection: Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- Install components to drain water passing joints and condensation and moisture occurring or migrating within the system to the exterior.
- Set continuous sill members and flashing in a full sealant bed to provide weathertight construction, unless otherwise indicated. Comply with requirements of Division 07 Section "Joint Sealants."
- Install framing components plumb and true in alignment with established lines and grades without warp or rack of framing members.
- Install entrances plumb and true in alignment with established lines and grades without warp or rack. Lubricate operating hardware and other moving parts according to hardware manufacturers' written instructions.

- Install surface-mounted hardware according to manufacturer's written instructions using concealed fasteners to greatest extent possible.
- Install secondary-sealant weather-seal according to sealant manufacturer's written instructions to provide weatherproof joints. Install joint fillers behind sealant as recommended by sealant manufacturer.
- Install perimeter sealant to comply with requirements of Division 07 Section "Joint Sealants," unless otherwise indicated.
- Erection Tolerances: Install entrance and storefront systems to comply with the following maximum tolerances:

- Variation from Plane: Limit variation from plane or location shown to 1/8 inch in 12 feet (3 mm in 3.7 m); 1/4 inch (6 mm) over total length.
 - Alignment: Where surfaces abut in line, limit offset from true alignment to 1/16 inch (1.5 mm). Where surfaces meet at corners, limit offset from true alignment to 1/32 inch (0.8 mm).
 - Diagonal Measurements: Limit difference between diagonal measurements to 1/8 inch (3 mm).
- 3.3 ADJUSTING AND CLEANING
- Adjust doors and hardware to provide tight fit at contact points and weather stripping, smooth operation, and weathertight closure.
 - Remove excess sealant and glazing compounds, and dirt from surfaces.

092900 GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- This section shall include all work necessary for providing and installing gypsum board panels and finishing gypsum board panels.
- Fire-Resistance-Rated Assemblies: Provide materials and construction identical to those tested in assemblies per ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

- PART 2 – PRODUCTS
- 2.1 PANEL PRODUCTS
- A. Provide in maximum lengths available to minimize end-to-end butt joints.
- B. Gypsum Wallboard: ASTM C 36, 5/8 inch thick, with manufacturer's standard edges. Regular type and type as required for specific fire-resistance-rated assemblies.
- 2.2 ACCESSORIES
- A. Trim Accessories: ASTM C 1047, formed from plastic.
1. Provide cornerbead at all outside corners.
2. Provide LC-bead (J-bead) at exposed panel edges.
3. Provide control joints as required by design but in no case less than that required by ASTM C 840.
- B. Joint-Treatment Materials: ASTM C 475.
1. Joint Tape: Paper, unless otherwise recommended by panel manufacturer.
2. Joint Compounds: Drying-type, ready-mixed, all-purpose compounds.
- C. Sound-Attenuation Blankets: ASTM C 665, Type I (unfaced).
- D. Miscellaneous Materials: Auxiliary materials for gypsum board construction that comply with referenced standards.

- PART 3 – EXECUTION
- 3.1 INSTALLATION
- A. Install and finish gypsum panels to comply with ASTM C 840 and GA-216.
1. Isolate gypsum board assemblies from abutting structural and masonry work. Provide edge trim where required. Do not allow gypsum panel to be in contact with concrete floors.
2. Single-Layer Fastening Methods: Fasten gypsum panels to supports with screws.
- B. Finishing Gypsum Board Assemblies:
1. Unless otherwise indicated, provide Level 5 finish: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges.
- a. Final skim coat to have smooth finish.

93000 TILING

- PART 1 – GENERAL
- 1.1 SUMMARY
- A. Section Includes:
1. Ceramic tile.
2. Waterproof membrane.
3. Tile cementitious backing panels.
- B. Related Requirements:
1. Division 07 Section "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.

Delete first subparagraph if scratch coat is specified in this Section.

Delete first subparagraph below if cementitious backer units are specified in this Section. See Evaluations.

Delete first option in first subparagraph below if cementitious backer units are specified in this Section. See Evaluations.

- 1.2 DEFINITIONS
- General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- A. ANSI A108 Series: ANSI A108.01, ANSI A108.02, ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.4, ANSI A108.5, ANSI A108.6, ANSI A108.8, ANSI A108.9, ANSI A108.10, ANSI A108.11, ANSI A108.12, ANSI A108.13, ANSI A108.14, ANSI A108.15, ANSI A108.16, and ANSI A108.17, which are contained in "American National Standard Specifications for Installation of Ceramic Tile."
- B. Retain definition(s) remaining after this Section has been edited. Coordinate with tile sizes used in "Tile Products" Article.
- C. Module Size: Actual tile size plus joint width indicated.
- D. Face Size: Actual tile size, excluding spacer lugs.

- 1.3 SUBMITTALS
- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of tile and grout indicated. Include Samples of accessories involving color selection.
- C. Samples for Verification:
1. Full-size units of each type and composition of tile and for each color and finish required. For ceramic mosaic tile in color blend patterns, provide full sheets of each color blend.
- D. Qualification Data: For qualified Installer.
- E. Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.
- F. Product Certificates: For each type of product, signed by product manufacturer.
- G. Material Test Reports: For each tile-setting and -grouting product.

- 1.4 QUALITY ASSURANCE
- A. Source Limitations for Tile: Obtain tile of each type and color or finish tile of each type from one source or producer.
1. Obtain tile of each type and color or finish from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from one manufacturer and each aggregate from one source or producer.
- C. Source Limitations for Other Products: Obtain each of the following products specified in this Section from a single manufacturer for each product:
1. Waterproof membrane.
2. Joint sealants.
3. Cementitious backer units.
- D. Pre-installation Conference: Conduct conference at Project site.
- E. Review requirements in ANSI A108.01 for substrates and for preparation by other trades

- 1.5 DELIVERY, STORAGE, AND HANDLING
- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store liquid materials in unopened containers.
- D. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

- 1.6 PROJECT CONDITIONS
- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

- PART 2 – PRODUCTS
- 2.1 PRODUCTS, GENERAL
- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCA installation methods specified in tile installation schedules, and other requirements specified.

- 2.2 TILE PRODUCTS
- A. Tile Type CT-1 and CT2: Glazed wall tile
1. Basis-of-Design Product: Subject to compliance with requirements, provide Daltile "Simi-Gloss", price group 1 or 2 or comparable product by one of the following:
- a. American Olean; Division of Dal-Tile International Inc.
- b. Crossville, Inc.
2. Module Size: 4-1/4 by 4-1/4 inches (108 by 108 mm).
3. Thickness: 5/16 inch (8 mm).
4. Face: Plain with cushion edges.
5. Tile Color and Pattern: As selected by Architect from manufacturer's full range. Two (2) Colors. See drawings for patterns.
6. Grout Color: As selected by Architect from manufacturer's full range.
7. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:
- a. External Corners for Thin-Set Mortar Installations: Surface bullnose, same size as adjoining flat tile.
- b. Internal Corners: Field-buffed square corners.

- 2.3 TILE BACKING PANELS
- A. Cementitious Backer Units: ANSI A118.9 or ASTM C 1325, in maximum lengths available to minimize end-to-end butt joints.
1. Products: Subject to compliance with requirements, provide one of the following:
- a. C-Cure; C-Cure Board 990.
- b. Custom Building Products; Wonderboard.
- c. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
- d. USG Corporation; DURÖCK Cement Board.
2. Thickness: 1/2 inch (12.7 mm).
3. Location: Provide cementitious backer units at all ceramic wall tile locations.

- 2.4 WATERPROOF MEMBRANE
- A. General: Manufacturer's standard product, selected from the following, that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.
- B. Fluid-Applied Membrane: Liquid-latex rubber or elastomeric polymer.
1. Basis-of-Design Product: Subject to compliance with requirements provide Laticrete International, Inc. "Hydro Ban" or comparable product by one of the following:
2. Bonsal American; an Oldcastle company.
3. Bostik, Inc.
4. MAPEI Corporation; Mapelastic HPG.
2. Location: Provide fluid-applied membrane at all ceramic wall tile locations.

- 2.5 SETTING MATERIALS
- A. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- a. Bonsal American; an Oldcastle company.
- b. Bostik, Inc.
- c. Laticrete International, Inc.
- d. MAPEI Corporation.
2. Provide prepackaged, dry-mortar mix containing dry, redispersible, vinyl acetate or acrylic additive to which only water must be added at Project site.
3. For wall applications, provide mortar that complies with requirements for nonsagging mortar in addition to the other requirements in ANSI A118.4.

- 2.6 GROUT MATERIALS
- A. Polymer-Modified Tile Grout: ANSI A118.7
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- a. Bonsal American; an Oldcastle company.
- b. Bostik, Inc.
- c. Laticrete International, Inc.
- d. MAPEI Corporation
2. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.

- 2.7 MISCELLANEOUS MATERIALS
- A. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.
- 2.8 MIXING MORTARS AND GROUT
- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

- PART 3 – EXECUTION
- 3.1 EXAMINATION
- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
1. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
2. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
3. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

- 3.2 PREPARATION
- A. Blending: For tile exhibiting color variations, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. If not, factory blended, either return to manufacturer or blend tiles at Project site before installing.

- 3.3 TILE INSTALLATION
- A. Comply with TOA's "Handbook for Ceramic Tile Installation" for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
2. Where adjoining tiles on floor, base, walls, or trim are specified or indicated to be same size, align joints.
3. Where tiles are specified or indicated to be whole integer multiples of adjoining tiles on floor, base, walls, or trim, align joints unless otherwise indicated.
- E. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
1. Glazed Wall Tile: 1/16 inch (1.6 mm).
- 3.4 TILE BACKING PANEL INSTALLATION
- A. Install cementitious backer units and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. Use latex-Portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.

- 3.5 WATERPROOFING INSTALLATION
- A. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
- B. Do not install tile or setting materials over waterproofing until waterproofing has cured.

- 3.6 CLEANING AND PROTECTING
- A. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
1. Remove latex-Portland cement grout residue from tile as soon as possible.
2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
3. Remove temporary protective coating by method recommended by coating manufacturer and that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent drain clogging.
- B. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls.
- C. Before final inspection, remove protective coverings and rinse neutral protective cleaner from tile surfaces.

- 3.7 INTERIOR TILE INSTALLATION SCHEDULE
- A. Wall Installations, Wood Studs:
1. Tile Installation: Thin-set mortar on waterproof membrane over cementitious backer units.
- a. Tile Type: CT-1.
- b. Thin-Set Mortar: Latex-Portland cement mortar.
- c. Grout: Polymer-modified unsanded grout.

099122 PAINTING

- PART 1 – GENERAL
- 1.1 SECTION REQUIREMENTS
- A. Summary: This section shall include painting of all exposed surfaces, unless otherwise indicated.
1. Do not paint prefinished items, items with an integral finish, operating parts, and labels, unless otherwise indicated.
- B. Obtain primers for each coating system from same manufacturer as finish coats.

- PART 2 – PRODUCTS
- 2.1 PAINT
- B. Manufacturer's:
1. ICI Dulux Paints
2. Johnson Paints, Inc.
3. Benjamin Moore & Co.
4. PPG Industries, Inc.
5. Povia Paints.
6. Scott Paint Corporation.
7. Sherwin Williams.

- C. Material Compatibility: Provide materials that are compatible with one another and with substrates.
- C. All Paint Shall Comply with the Following:
1. Mildew Resistant
2. Low VOX (<250g/L and within all federal, state and local limits)
3. Flame spread rating Class A
4. Very low or no odor (no ammonia, non-pungent as determined by evaluators)
5. Dry-time <3 hours
6. All items top of line (not premium)

- PART 3 – EXECUTION
- 3.1 PREPARATION
- A. Remove hardware, lighting fixtures and similar items that are not to be painted. Mask items that cannot be removed. Reinstall items in each area after painting is complete.
- B. Clean and prepare all surfaces in an area before beginning painting in that area. Schedule painting so cleaning operations will not damage newly painted surfaces.

- 3.2 APPLICATION
- A. Apply coatings by brush, roller, spray or other applicators according to coating manufacturer's written instructions.
- B. Pigmented (Opaque) Finishes: Completely cover surfaces to provide a smooth, opaque surface of uniform appearance. Provide a finish free of cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropeiness, or other surface imperfections.
- C. Transparent (Clear) Finishes: Use multiple coats to produce a glass-smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.

- 3.3 INTERIOR PAINT APPLICATION SCHEDULE
- A. Gypsum Board:
1. Semigloss, Alkyd Enamel: Two coats over primer. Total mil thickness of 6.0.
- B. Wood (wood trim):
2. Semigloss, Alkyd Enamel: Two coats over primer. Total mil thickness of 5.0.

- 3.4 EXTERIOR PAINT APPLICATION SCHEDULE
- A. Wood Standing and Running Trim:
1. Primer: B42W41-Exterior Latex Wood Primer. Off white.
2. First Coat: A89W01 151 – SuperPaint ⊕ Exterior Latex Satin.
3. Second Coat: A89W01 151 – SuperPaint ⊕ Exterior Latex Satin.
- B. Wood Siding:
1. Primer: B42W41-Exterior Latex Wood Primer. Off white.
2. First Coat: A89W01 151 – SuperPaint ⊕ Exterior Latex Satin.
3. Second Coat: A89W01 151 – SuperPaint ⊕ Exterior Latex Satin.

102113 - TOILET COMPARTMENTS

- PART 1 – GENERAL
- 1.1 RELATED DOCUMENTS
- A. This Section includes toilet compartments and screens as follows:
1. Type: Solid-plastic, polymer resin.
2. Compartment Style: Floor and ceiling anchored.
3. Screen Style: Wall hung.
- B. Related Sections include the following:
1. Division 10 "Toilet, Bath and Laundry Accessories" for toilet paper holders, grab bars, and similar accessories.
- 1.2 SUMMARY
- A. Product Data: For each type and style of toilet compartments and screens specified. Include details of construction relative to materials, fabrication, and installation. Include details of anchors, hardware, and fastenings.
- B. Shop Drawings: For fabrication and installation of toilet compartments and screens. Include plans, elevations, sections, details and attachments to other work.
1. Show locations of reinforcement and cutouts for compartment-mounted toilet accessories.
- C. Samples for Selection: Manufacturer's color charts consisting of sections of actual units showing the full range of colors, textures, and patterns available for each type of compartment or screen indicated.
- 1.3 PROJECT CONDITIONS
- A. Field Measurements: Verify dimensions in areas of installation by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- PART 2 – PRODUCTS
- 2.1 MANUFACTURERS
- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Capitol Partitions, Inc.
2. Compression Polymers Group; Comtec Industries.
3. Scranton Products, Inc. (Hiny-Hiders)
4. Santana Products, Inc.

- 2.2 MATERIALS
- A. General: Provide materials that have been selected for surface flatness and smoothness. Exposed surfaces that exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are unacceptable.
- B. Solid-Plastic, Polymer Resin: High-density polyethylene (HDPE) with homogenous color throughout. Provide material not less than 1 inch (25 mm) thick for partitions, screens and vanity tops and 1 3/8" for benches with seamless construction and eased edges in color and pattern as follows:
1. Color and Pattern: One color and pattern in each room as selected by Architect from manufacturer's full range of colors and patterns.
- C. Pilaster Shoes and Sleeves (Copes): ASTM A 666, Type 302 or 304 stainless steel, not less than 0.0312 inch (0.8 mm) thick and 3 inches (75 mm) high, finished to match hardware.
- D. Full-Height (Continuous) Brackets: Manufacturer's standard design for attaching panels and screens to walls and pilasters of the following material:
1. Material: Stainless steel.
- E. Hardware and Accessories: Manufacturer's standard design, heavy-duty operating hardware and accessories of the following material:
1. Material: Stainless steel.
- F. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum strip in manufacturer's standard finish.
- G. Anchors and Fasteners: Manufacturer's standard exposed fasteners of stainless steel finished to match hardware, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use hot-dip galvanized steel.

2.1 FABRICATION

- A. General: Provide standard doors, panels, screens, and pilasters fabricated for toilet compartment systems. Provide units with cutouts and drilled holes to receive compartment-mounted hardware, accessories, and grab bars, as indicated.
- B. Solid-Plastic, Polymer-Resin Compartments and Screens: Provide aluminum heat-sink strips at exposed bottom edges of HDPE units to prevent burning.
- C. Floor and ceiling anchored Toilet Compartments: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, fasteners, and anchors at pilasters to suit floor conditions. Make provisions for setting and top of each pilaster to ceiling. Provide shoes at pilasters to conceal supports and leveling mechanism.
- D. Wall-Hung Screens: Provide units in sizes indicated of same construction and finish as compartment panels.
- E. Doors: Unless otherwise indicated, provide 24-inch (610 mm) wide in-swinging doors for standard toilet compartments and 36-inch (914 mm) wide out-swinging doors with a minimum 32-inch (813 mm) wide clear opening for compartments indicated to be handicapped accessible.
- Hinges: Manufacturer's standard full height stainless steel piano hinges.
 - Overlapping Astragal: Provide full height 4" stainless steel overlapping astragals at both in and out swinging doors for sight line obstruction.
 - Latch and Keeper: Manufacturer's standard surface-mounted latch unit with combination rubber-faced door strike and keeper designed for emergency access.
 - Provide units that comply with accessibility requirements of authorities having jurisdiction at compartments indicated to be handicapped accessible.
 - Door Bumper: Manufacturer's standard rubber-tipped bumpers at out-swinging and in-swinging doors or entrance screen doors.
 - Door Pull: Manufacturer's standard unit that complies with accessibility requirements at authorities having jurisdiction at out-swinging doors. Provide units on both sides of doors at compartments indicated to be handicapped accessible.
 - At Compartments indicated to be accessible to people with disabilities provide ADA compliant sign.
 - Door Height: As detailed in the drawings.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, plumb, and level. Provide clearances of not more than 1/2 inch (13 mm) between pilasters and panels and not more than 1 inch (25 mm) between panels and walls. Secure units in position with manufacturer's recommended anchoring devices.
- Secure panels to walls and panels with full height (continuous) brackets. Locate brackets so holes for wall anchors occur with masonry or tile joints. Align brackets and pilasters with brackets at walls.
- B. Floor and Ceiling Anchored Compartments: Secure pilasters to floor and ceiling and level, plumb, and tighten. Hang doors and adjust so tops of doors are parallel.
- C. Screens: Attach with anchoring devices according to manufacturer's written instructions and to suit supporting structure. Set units level and plumb and to resist lateral impact.

3.2 ADJUSTING AND CLEANING

- A. Hardware Adjustment: Adjust and lubricate hardware according to manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors and swing doors in entrance screens to return to fully closed position.
- B. Provide final protection and maintain conditions that ensure toilet and shower compartments, screens, vanity tips and benches are without damage or deterioration at the time of Substantial Completion.

102800 - TOILET ACCESSORIES

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes the following:
- Toilet accessories.
 - Grab bars.
 - Childcare accessories.
 - Under-lavatory guards.

1.2 SUBMITTALS

- A. Product Data: Include construction details, material descriptions and thicknesses, dimensions, profiles, fastening and mounting methods, specified options and finishes for each type of accessory specified.
- B. Setting Drawings: For cutouts required in other work; include templates, substrate preparation instructions, and directions for preparing cutouts and installing anchoring devices.
- C. Maintenance Data: For accessories to include in maintenance manuals specified in Division 01. Provide lists of replacement parts and service recommendations.

1.3 QUALITY ASSURANCE

- A. Source Limitations: Provide products of same manufacturer for each type of accessory unit and for units exposed to view in same areas, unless otherwise approved by Architect.
- B. Product Options: Accessory requirements, including those for materials, finishes, dimensions, capacities, and performance, are established by specific products indicated in the Toilet and Bath Accessory Schedule located in the Drawings.
- Products of other manufacturers listed in Part 2 with equal characteristics, as judged solely by Architect, may be provided.
 - Do not modify aesthetic effects, as judged solely by Architect, except with Architect's approval. Where modifications are proposed, submit comprehensive explanatory data to Architect for review.
- 1.4 COORDINATION
- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by disabled persons, proper installation, adjustment, operation, cleaning, and servicing of accessories.

1.5 WARRANTY

- A. General Warranty: Special warranty 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. Manufacturer's Mirror Warranty: Written warranty, executed by mirror manufacturer agreeing to replace mirrors that develop visible silver spoilage defects within minimum warranty period indicated.
- Minimum Warranty Period: 15 years from date of Final Completion.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide the manufacturers scheduled in the Drawings or one of the following:
- Toilet, bath and laundry accessories:
 - A & J Washroom Accessories, Inc.
 - Bobrick
 - Bradley Corporation.
 - Georgia-Pacific

2. Under-lavatory guards:

- Truebro
 - Brocar Products, Inc.
- ### 3. Baby Changing Station:
- Bradley Corporation.
- ### 4. Mirror
- Bobrick

2.2 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, with No. 4 finish (satin), in 0.0312-inch (0.8-mm) minimum nominal thickness, unless otherwise indicated.
- B. Brass: ASTM B 19, leaded and unleaded flat products; ASTM B 16 (ASTM B 16M), rods, shapes, forgings, and flat products with finished edges; ASTM B 30, castings.
- C. Sheet Steel: ASTM A 366/A 366M, cold rolled, commercial quality, 0.0359-inch (0.9-mm) minimum nominal thickness; surface preparation and metal pretreatment as required for applied finish.
- D. Galvanized Steel Sheet: ASTM A 653/A 653M, G60 (Z180).
- E. Chromium Plating: ASTM B 456, Service Condition Number SC 2 (moderate service), nickel plus chromium electrodeposited on base metal.
- F. Galvanized Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- G. Fasteners: Screws, bolts, and other devices of same material as accessory unit, tamper and theft resistant when exposed, and of galvanized steel when concealed.

2.3 FABRICATION

- A. General: One, maximum 1-1/2-inch- (38-mm-) diameter, unobtrusive stamped manufacturer logo, as approved by Architect, is permitted on exposed face of accessories. On interior surface not exposed to view or back surface of each accessory, provide printed, waterproof label or stamped nameplate indicating manufacturer's name and product model number.
- B. Surface-Mounted Toilet Accessories: Unless otherwise indicated, fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with continuous stainless-steel hinge. Provide concealed anchorage where possible.
- C. Keys: Provide universal keys for internal access to accessories for servicing and re-supplying. Provide minimum of six keys to Owner's representative.

PART 2 – EXECUTION

3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

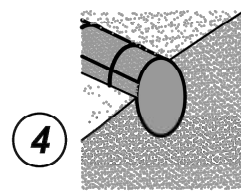
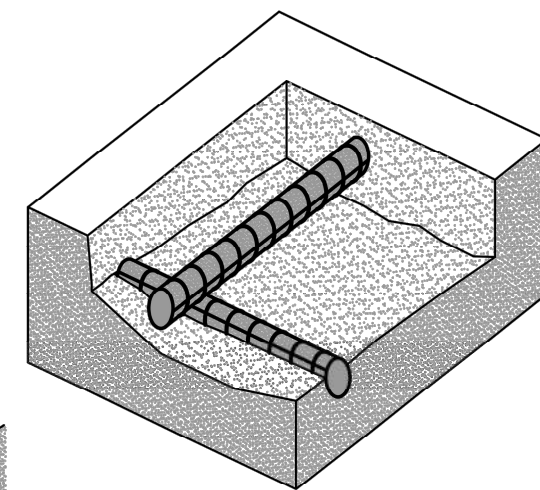
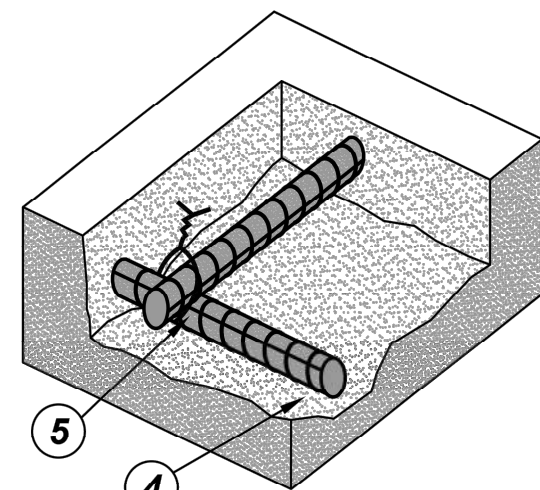
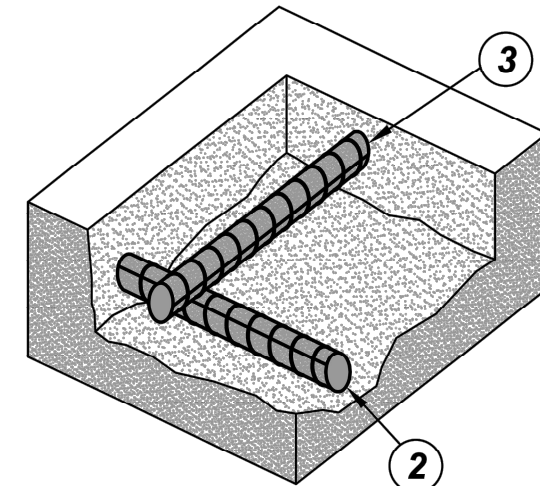
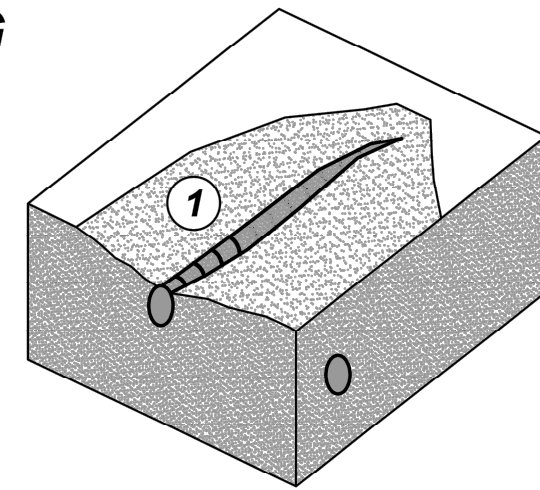
3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation and verify that mechanisms function properly. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

EXPOSING AND UNDERCUTTING OF REINFORCING STEEL

THESE DETAILS ARE APPLICABLE TO HORIZONTAL, VERTICAL AND OVERHEAD LOCATIONS. THEY ARE ALSO APPLICABLE TO REMOVAL BY HYDRODEMOLITION, HYDRO-MILLING, AND ELECTRIC, PNEUMATIC OR HYDRAULIC IMPACT BREAKERS.

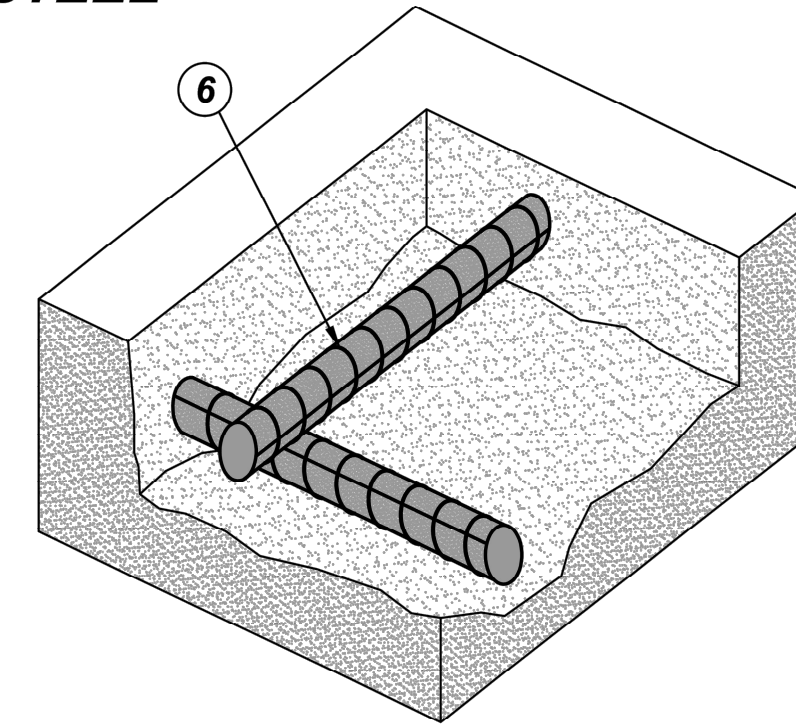
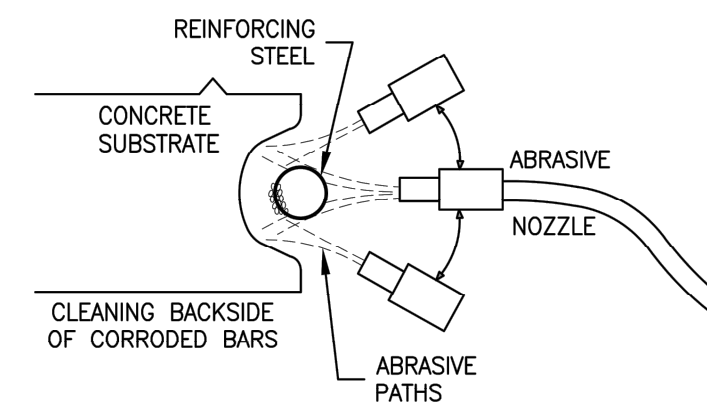
- REMOVE LOOSE OR DELAMINATED CONCRETE ABOVE CORRODED REINFORCING STEEL.
- ONCE INITIAL REMOVALS ARE MADE, PROCEED WITH THE UNDERCUTTING OF ALL EXPOSED CORRODED BARS. UNDERCUTTING WILL PROVIDE CLEARANCE FOR UNDER BAR CLEANING AND FULL BAR CIRCUMFERENCE BONDING TO SURROUNDING CONCRETE, AND WILL SECURE THE REPAIR STRUCTURALLY. PROVIDE MINIMUM 3/4" INCH (19MM) CLEARANCE BETWEEN EXPOSED REBARS AND SURROUNDING CONCRETE OR 1/2" INCH (6MM) LARGER THE LARGEST AGGREGATE IN REPAIR MATERIAL, WHICHEVER IS GREATER.
- CONCRETE REMOVALS SHALL EXTEND ALONG BARS TO LOCATIONS ALONG THE BAR FREE OF BOND INHIBITING CORROSION, AND WHERE THE BAR IS WELL BONDED TO SURROUNDING CONCRETE.
- IF NON-CORRODED REINFORCING STEEL IS EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE BAR'S BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR AND CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR SHALL BE REQUIRED.
- ANY REINFORCEMENT WHICH IS LOOSE SHALL BE SECURED IN PLACE BY TYING TO OTHER SECURED BARS OR BY OTHER APPROVED METHODS.



CLEANING AND REPAIR OF REINFORCING STEEL

CLEANING OF REINFORCING STEEL

- ALL HEAVY CORROSION AND SCALE SHOULD BE REMOVED FROM THE BAR AS NECESSARY TO PROMOTE MAXIMUM BOND OF REPLACEMENT MATERIAL. OIL FREE ABRASIVE BLAST IS THE PREFERRED METHOD. A TIGHTLY BONDED LIGHT RUST BUILD-UP ON THE SURFACE IS USUALLY NOT DETRIMENTAL TO BOND, UNLESS A PROTECTIVE COATING IS BEING APPLIED TO THE BAR SURFACE, IN WHICH CASE THE COATING MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION SHOULD BE FOLLOWED.

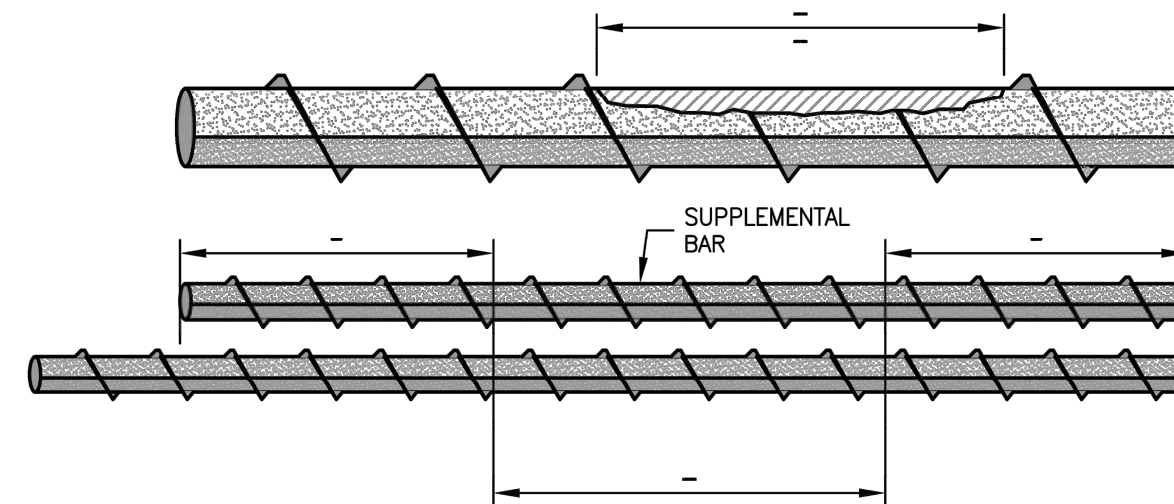


REPAIR OF REINFORCING STEEL DUE TO LOSS OF SECTION

IF REINFORCING STEEL HAS LOST SIGNIFICANT CROSS SECTION, REPAIRS ARE REQUIRED TO THE REINFORCING STEEL, ONE OF THE FOLLOWING REPAIR METHODS SHOULD BE USED:

- COMPLETE BAR REPLACEMENT, OR
- ADDITION OF SUPPLEMENTAL BAR OVER AFFECTED SECTION.

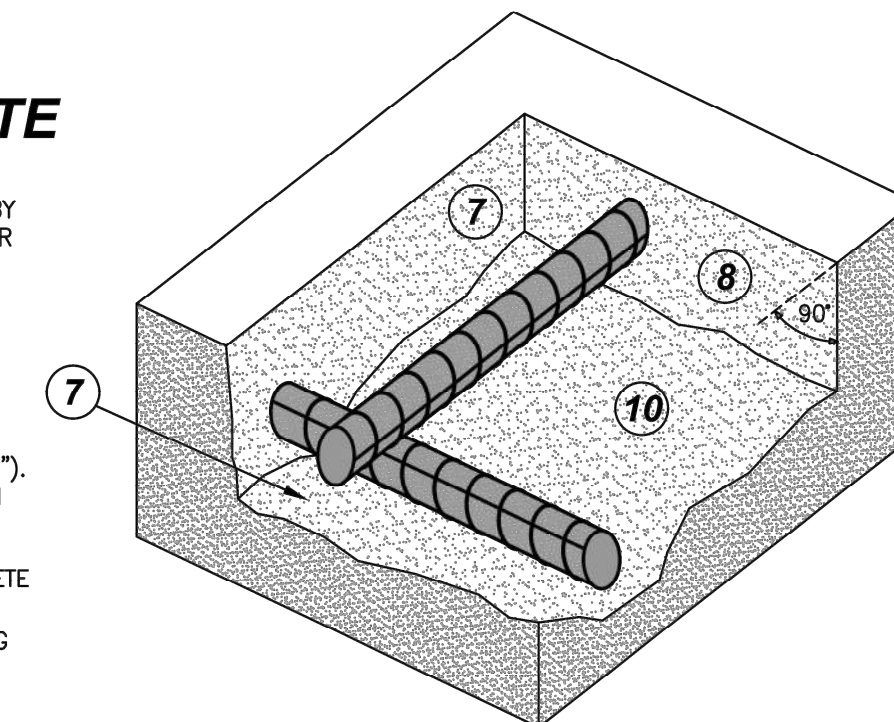
NEW BARS MAY BE MECHANICALLY SPLICED TO OLD BARS OR PLACED PARALLEL TO AND APPROXIMATELY 3/4" INCH (19MM) FROM EXISTING BARS. LAP LENGTHS SHALL BE DETERMINED IN ACCORDANCE WITH ACI 318; ALSO REFER TO CRSI AND AASHTO MANUAL.



EDGE AND SURFACE CONDITIONING OF CONCRETE

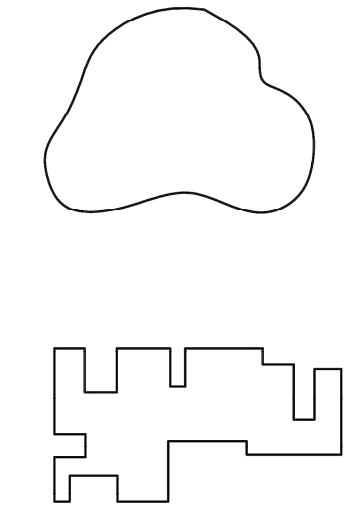
THESE DETAILS ARE APPLICABLE TO HORIZONTAL, VERTICAL AND OVERHEAD LOCATIONS. THEY ARE ALSO APPLICABLE TO REMOVAL BY HYDRO-DEMOLITION, HYDRO-MILLING, AND ELECTRIC, PNEUMATIC OR HYDRAULIC IMPACT BREAKERS.

- REMOVE DELAMINATED CONCRETE, UNDERCUT REINFORCING STEEL (REFER TO "EXPOSING AND UNDERCUTTING OF REINFORCING STEEL"). REMOVE ADDITIONAL CONCRETE AS REQUIRED TO PROVIDE MINIMUM REQUIRED THICKNESS OF REPAIR MATERIAL.
- AT EDGE LOCATIONS, PROVIDE RIGHT ANGLE CUTS TO THE CONCRETE SURFACE WITH EITHER OF THE FOLLOWING METHODS:
 - SAWCUT 1/2" (13MM) OR LESS AS REQUIRED TO AVOID CUTTING REINFORCING STEEL.
 - USE POWER EQUIPMENT SUCH AS A HYDRO-DEMOLITION OR IMPACT BREAKERS. **AVOID FEATHER EDGES.**
- REPAIR CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE, PREFERABLY WITH SQUARED CORNERS.
- AFTER REMOVALS AND EDGE CONDITIONING ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, CONCRETE SLURRY, LOOSELY BONDED AGGREGATES) BY ABRASIVE BLASTING OR HIGH PRESSURE WATERBLASTING WITH OR WITHOUT ABRASIVE. CHECK THE CONCRETE SURFACES AFTER CLEANING TO INSURE THAT THE SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE, OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
- IF HYDRO-DEMOLITION IS USED, CEMENT AND PARTICULATE SLURRY MUST BE REMOVED FROM THE PREPARED SURFACES BEFORE SLURRY HARDENS.



BOUNDARY OF LOOSE AND DELAMINATED CONCRETE

RECOMMENDED LAYOUT



DEMOLITION GENERAL NOTES

- THE DEMOLITION DRAWINGS ARE INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL KNOWLEDGE OF THE EXISTING CONDITIONS WITHIN THE PROJECT AREA. CONTRACTOR IS RESPONSIBLE FOR VISITING SITE AND VERIFYING ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL FIELD LOCATION OF ALL EXISTING SERVICES/UTILITIES ABOVE GROUND AND BELOW GROUND PRIOR TO COMMENCEMENT OF WORK. ANY REQUIRED SERVICE/UTILITY SHUT DOWN SHALL BE COORDINATED BY THE CONTRACTOR.
- CONTRACTOR SHALL VERIFY LOCATION OF AND PROTECT ALL STRUCTURAL COMPONENTS INCLUDING WALLS, COLUMNS, AND PURLINS.
- PRIOR TO COMMENCING DEMOLITION, CONTRACTOR SHALL VERIFY WITH OWNER ANY ITEMS TO BE SALVAGED.
- ANY DISCREPANCIES OR CONDITIONS NOT SHOWN ON THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO FURTHER DEMOLITION ACTIVITIES.
- ALL WORK SHALL BE PERFORMED IN A SWIFT SAFE MANNER. PROMPTLY REMOVE DEMOLISHED MATERIALS FROM OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.
- DO NOT BURN DEMOLISHED MATERIALS.
- COMPLY WITH EPA REGULATIONS AS WELL AS HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
- PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO PORTIONS OF THE BUILDING THAT ARE INTENDED TO REMAIN.
- COORDINATE THE FOLLOWING WITH THE BUILDING OWNER:
 - ACCESS TO THE BUILDING
 - TEMPORARY UTILITIES AND FACILITIES
 - NIGHT AND WEEKEND HOURS
 - WORK THAT REQUIRES TEMPORARY INTERRUPTIONS TO BUILDING SYSTEMS
 - WORK THAT GENERATES EXCESSIVE NOISE
 - AREA WITHIN BUILDING FOR STORAGE OF ITEMS THAT WILL BE REUSED.
- BUILDING SHALL BE LEFT IN A CLEAN, BROOM-SWEEP CONDITION. REMOVE ALL DEBRIS UNLESS SPECIFICALLY NOTED BY OWNER.

DEMOLITION PLAN LEGEND

#	DEMOLITION KEY NOTE
1	EXISTING DOOR & FRAME TO REMAIN & TO BE PROTECTED
2	EXISTING WALL / CONSTRUCTION TO REMAIN & TO BE PROTECTED.
3	EXISTING DOOR AND FRAME TO BE REMOVED
4	EXISTING WALL TO BE REMOVED
5	REMOVE EXISTING CERAMIC TILE FLOORING & GYP BOARD CEILING - SEE KEYNOTE 1 & 5
6	REMOVE EXISTING RAMP - SEE KEYNOTE 7

LIMITS OF CONSTRUCTION

LIMITS OF CONSTRUCTION SHALL BE:
SELECTIVE DEMOLITION AS NOTED OF THE INTERIOR OF THE BUILDING TO THE EXISTING INTERIOR FACE OF THE EXTERIOR WOOD STUD WALLS.

GENERAL PROTECTION NOTE

- PROTECT EXISTING STRUCTURE.
- PROTECT EXISTING ELECTRIC PANELS, PHONE SWITCH, & DATA RACK.

SALVAGE KEY NOTES

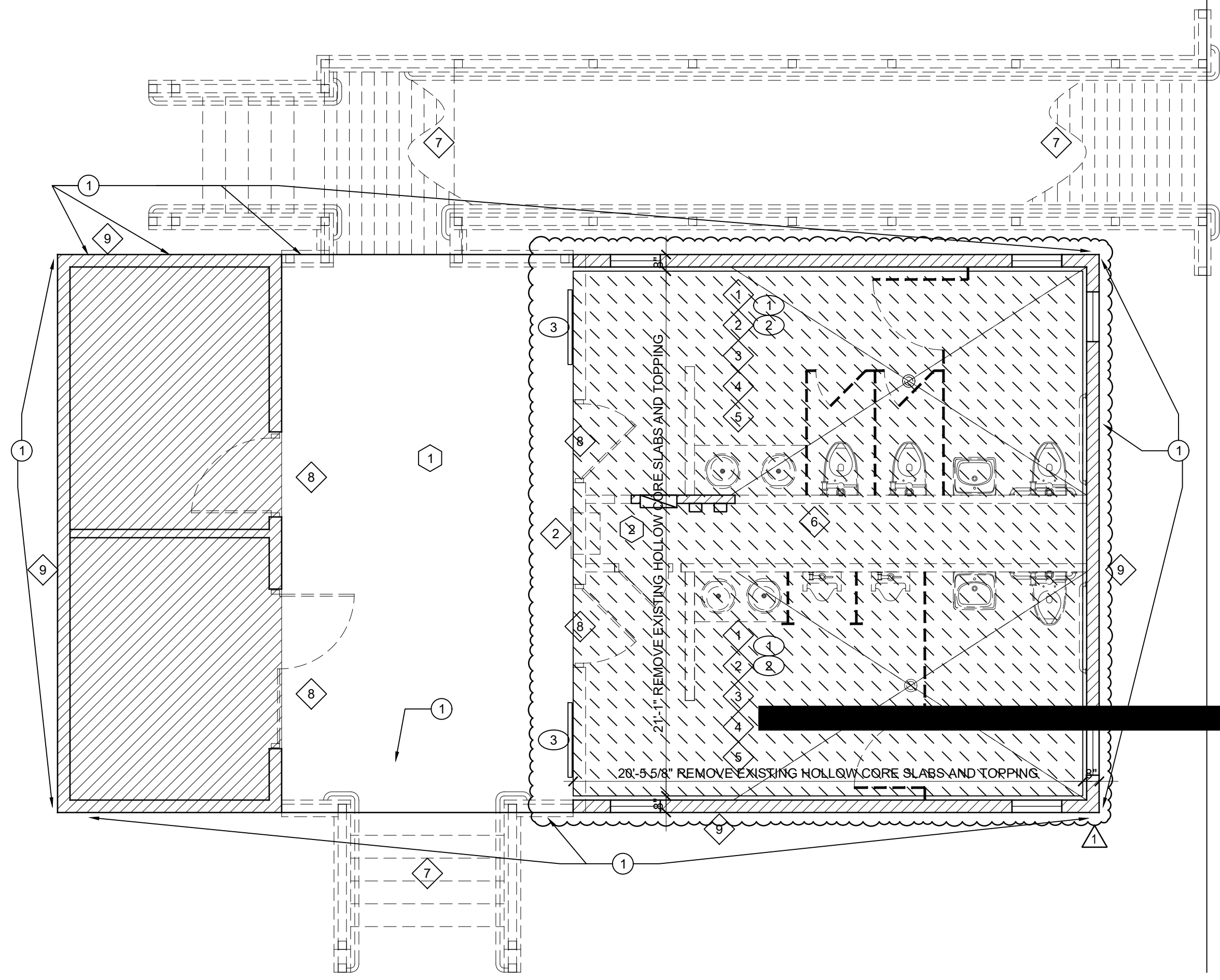
- SALVAGE LIGHT FIXTURES THAT ARE REQUIRED FOR TEMPORARY CONSTRUCTION LIGHTING. SEE ELECTRICAL DRAWINGS.
- SALVAGE VENTILATION EQUIPMENT, DUCTWORK, AND DEVICES THAT ARE REQUIRED FOR TEMPORARY CONSTRUCTION VENTILATION. SEE ELECTRICAL DRAWINGS.
- SALVAGE BULLETIN BOARDS AND SIGNS AND TURN OVER TO OWNER.

DEMOLITION PLAN KEY NOTES

- REMOVE EXISTING CERAMIC TILE FLOORING AND PREPARE SLAB FOR TRAFFIC DECK FLOORING. REMOVE EXISTING CONCRETE TOPPING AND HOLLOW CORE SLABS AS DIMENSIONED ON DEMO PLAN.
- REMOVE EXISTING PLUMBING FIXTURES, RELATED DRAINS, & SUPPLY LINES. CUT PIPING & CAP OR PLUG BELOW SLAB. EXISTING PLUMBING VENT THROUGH THE ROOF SHALL REMAIN AND SHALL BE SUPPORTED & PROTECTED.
- REMOVE THE EXISTING CERAMIC TILE AND BACKER BOARD FROM THE INTERIOR FACE OF THE EXISTING WALLS.
- REMOVE THE EXISTING LIGHT FIXTURES.
- REMOVE THE EXISTING HARD CEILING.
- REMOVE EXISTING PLUMBING CHASE WALLS EXCEPT AT THE ELECTRIC PANEL & TIMERS. TRIM THE BOTTOM 12" OF STUDS AS REQUIRED FOR DEMO
- REMOVE THE EXISTING RAMP, STAIR RAILINGS, PICKETS, 4 X 4 POSTS, DECKING, TREADS AND RISERS, AND STAIR STRINGERS. NOTE: EXISTING RAMP PILING, CROSS BEAMS, AND JOISTS SHALL REMAIN AND BE PROTECTED.
- REMOVE DOORS AND FRAMES.
- REMOVE SKIRT BOARD, FLASHING AND 2 COURSES OF SIDING AROUND THE ENTIRE PERIMETER OF THE BUILDING.

CONCRETE REPAIR PLAN KEY NOTES

- REPAIR EXISTING CONCRETE PER THE ABOVE CONCRETE REPAIR NOTES 1-11. PROVIDE SHORING AS REQUIRED BY PATCHING REQUIREMENTS.

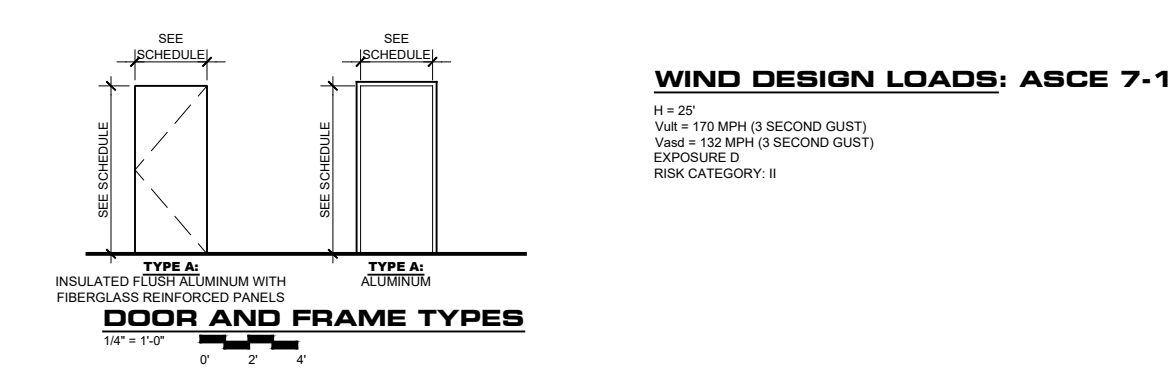


NORTH
FLOOR PLAN - DEMOLITION
1/4" = 1'-0"
0' 2' 4'

DOOR AND FRAME SCHEDULE													
DOOR NO.	TYPE	WIDTH	HEIGHT	THICK	MATERIAL	DETAILS			MATERIAL	THRESHOLD	IMPACT TESTING DATA	HARDWARE	REMARKS
						SILL	JAMB	HEAD					
D101	A	3'-0"	7'-0"	1 3/4"	AL	1/A1	2/A1	3/A1	A	AL	1	1	
D102	A	3'-0"	7'-0"	1 3/4"	AL	1/A1	2/A1	3/A1	A	AL	1	1	
D103	A	2'-0"	7'-0"	1 3/4"	AL	1/A1 SIM	2/A1 SIM	3/A1 SIM	A	AL	-	2	
D104	A	2'-6-1/4"	6'-10-1/4"	1 3/4"	AL	1/A1 SIM	2/A1 SIM	3/A1 SIM	A	AL	1	3	CUSTOM DOOR IN EXISTING OPENING (V.I.F.)
D105	A	2'-10-1/4"	10'-11-1/4"	1 3/4"	AL	1/A1 SIM	2/A1 SIM	3/A1 SIM	A	AL	1	4	CUSTOM DOOR IN EXISTING OPENING (V.I.F.)

IMPACT TESTING DATA

1. IMPACT RATED FLUSH ALUMINUM DOOR & FRAME, KAWNEER COMPANY, INC., FLUSHLINE IMPACT OUTSWING DOORS IN IR501 FRAMES, SMALL MISSILE IMPACT AND LARGE MISSILE IMPACT RESISTANT. FLORIDA APPROVAL: FL20102.1



FINISH SCHEDULE					
SPACE NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
MEN	TD-1	TD	CT-1 & 2	GB	
WOMEN	TD-1	TD	CT-1 & 2	GB	
ATRIUM	TD-1 & TD-2	TD	-	EXISTING	COORD. COLOR W/ OWNER

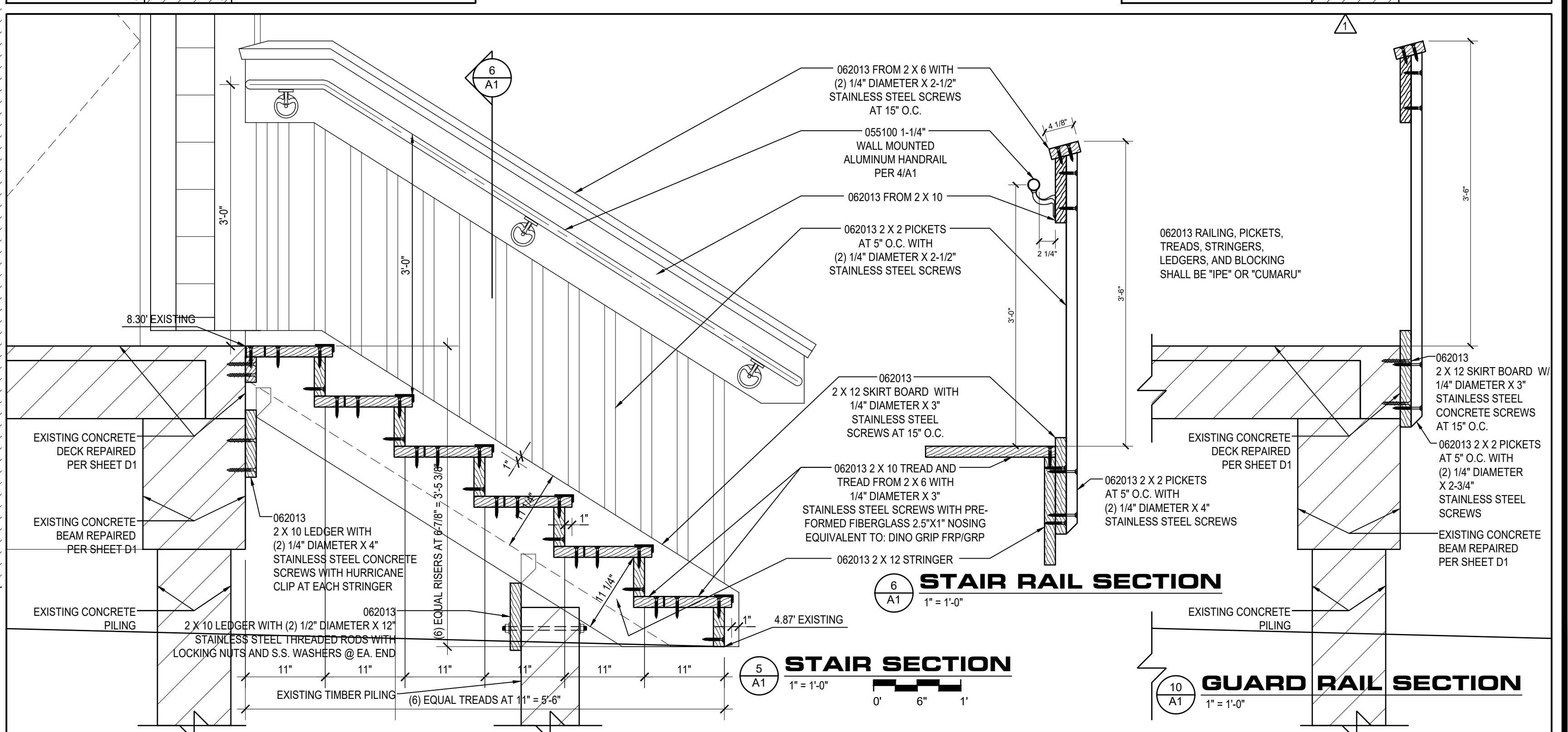
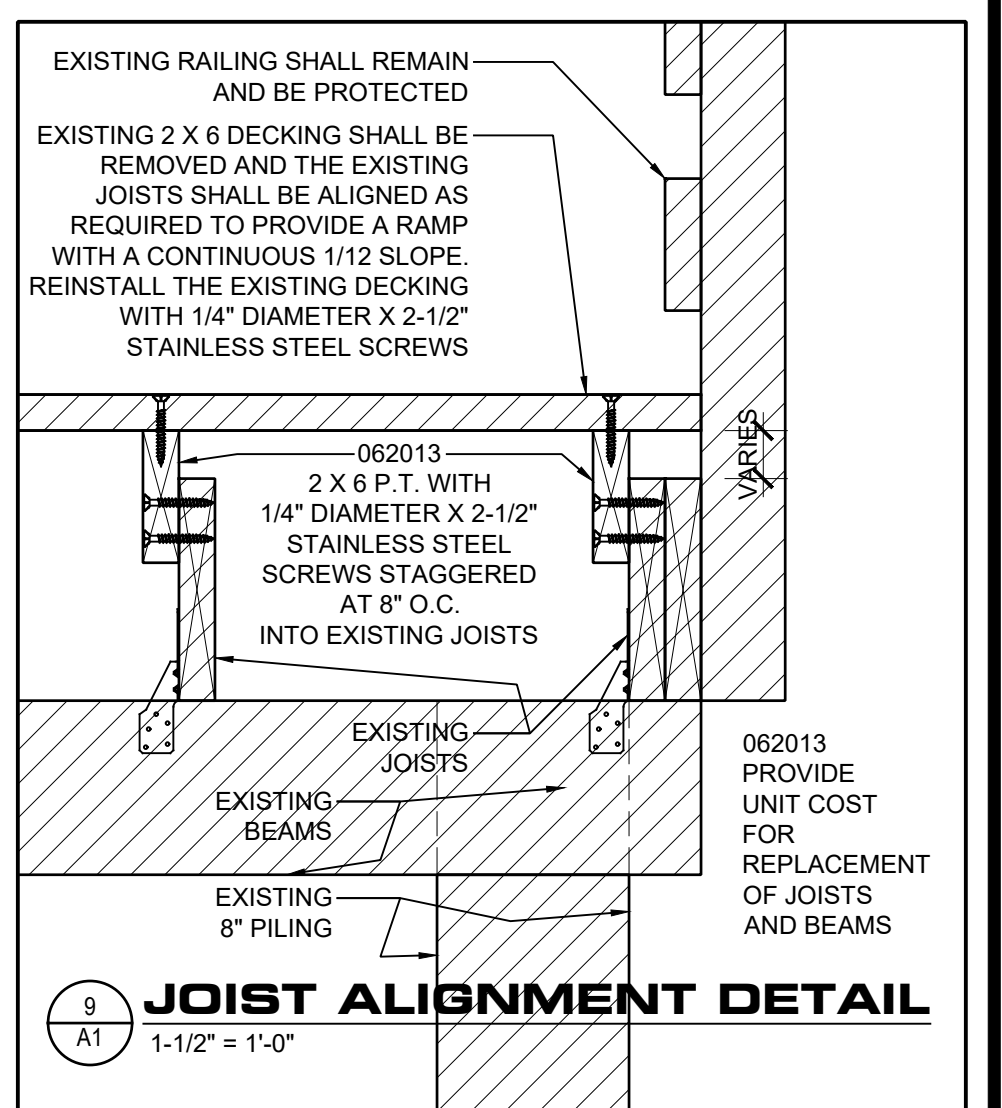
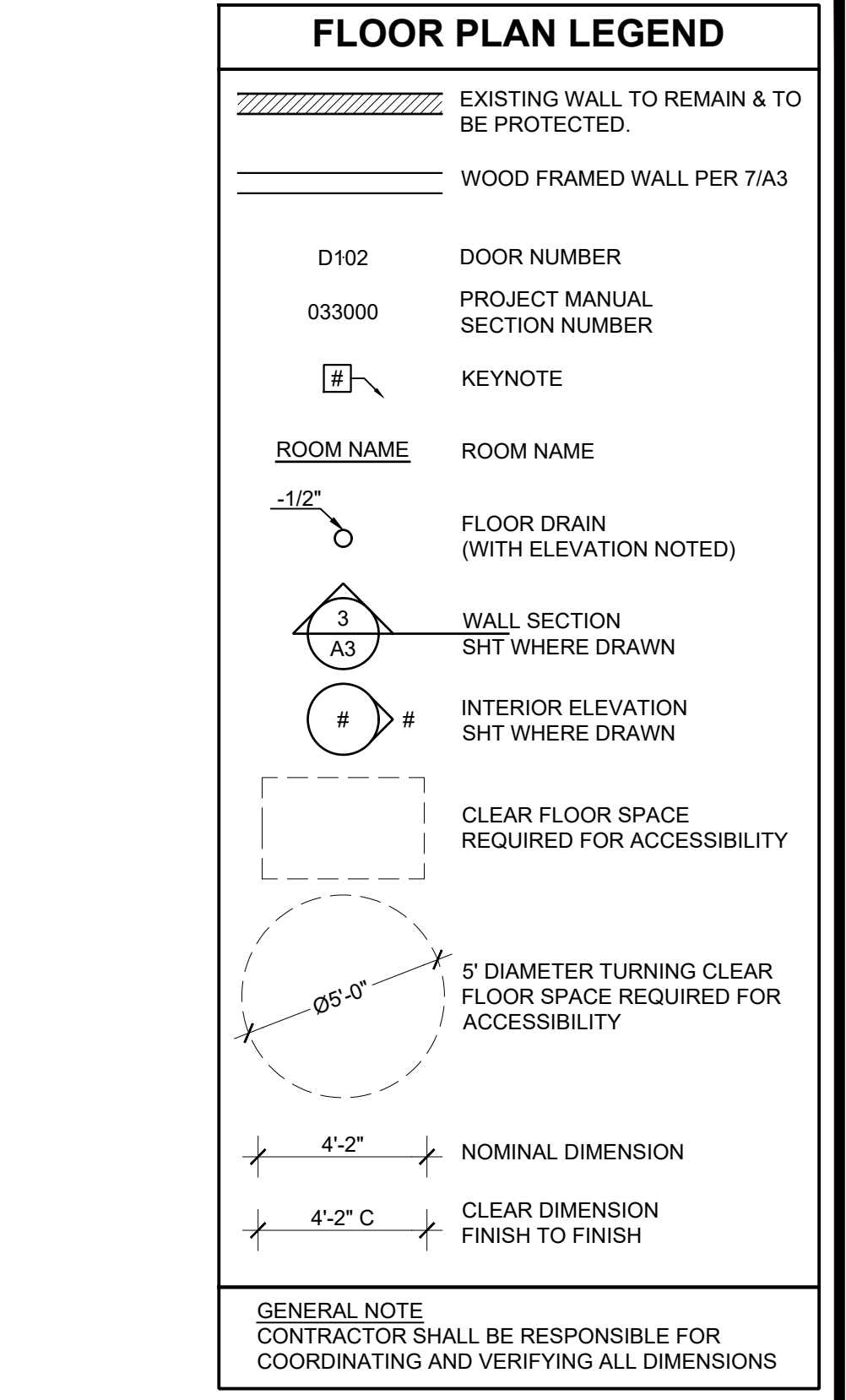
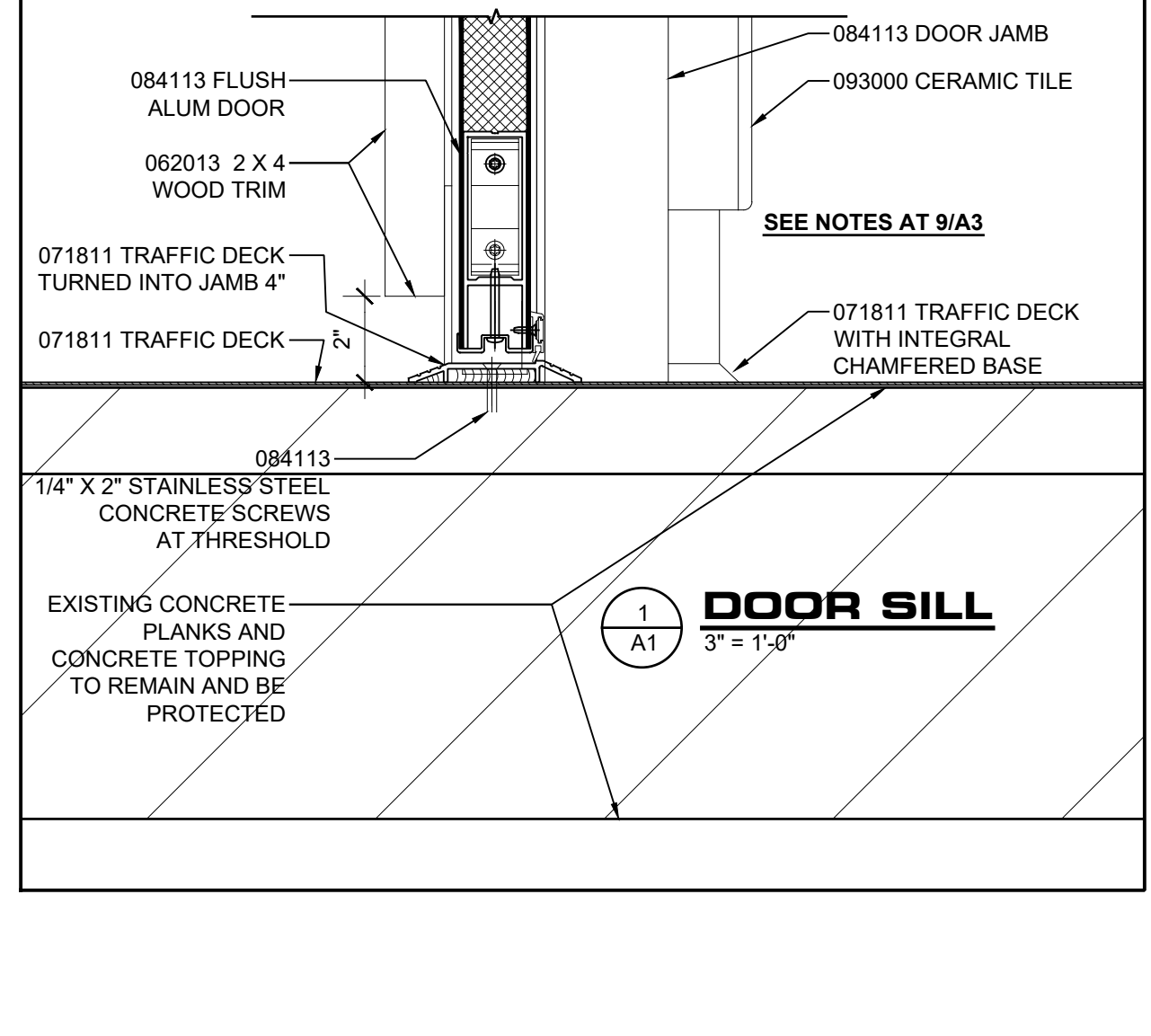
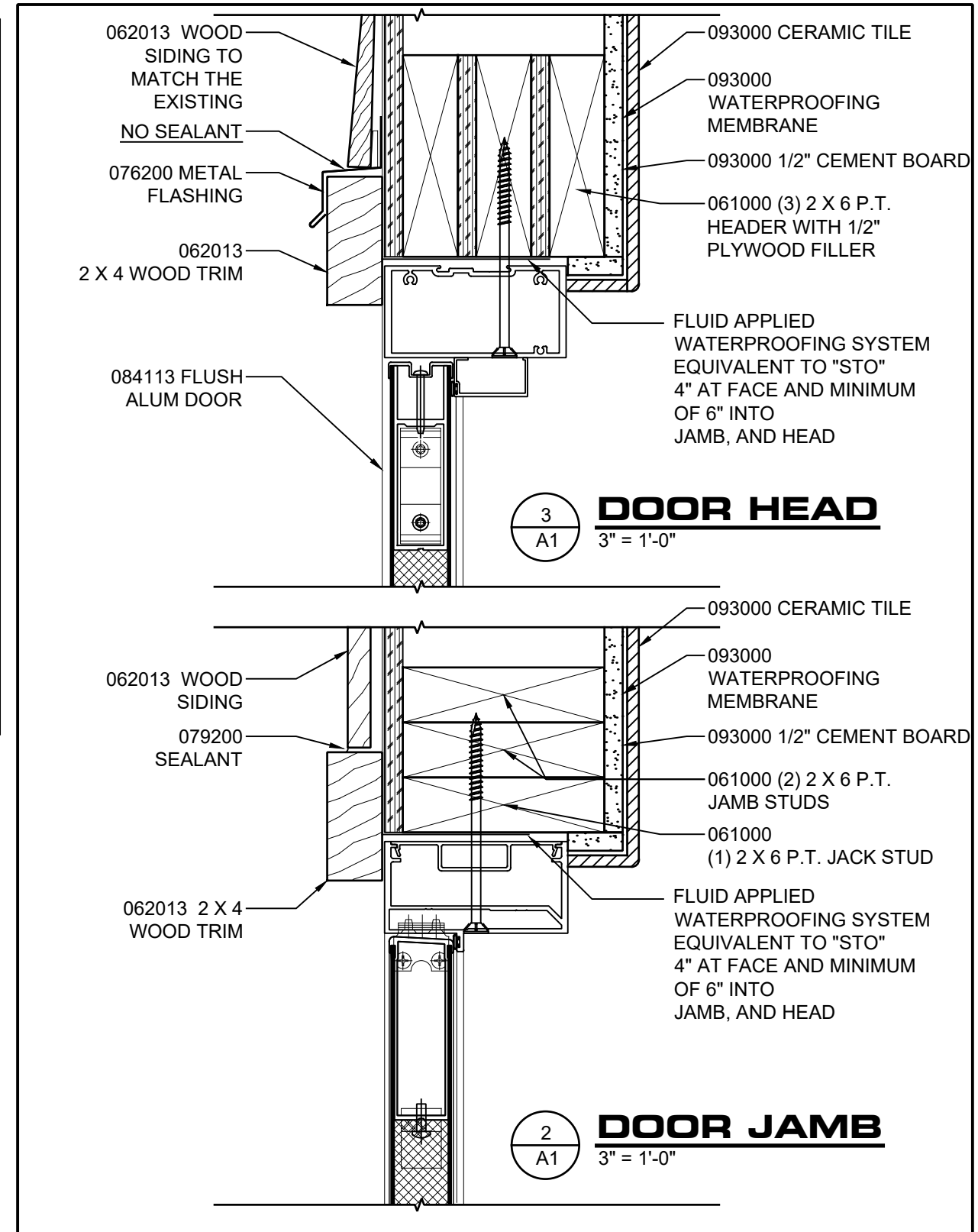
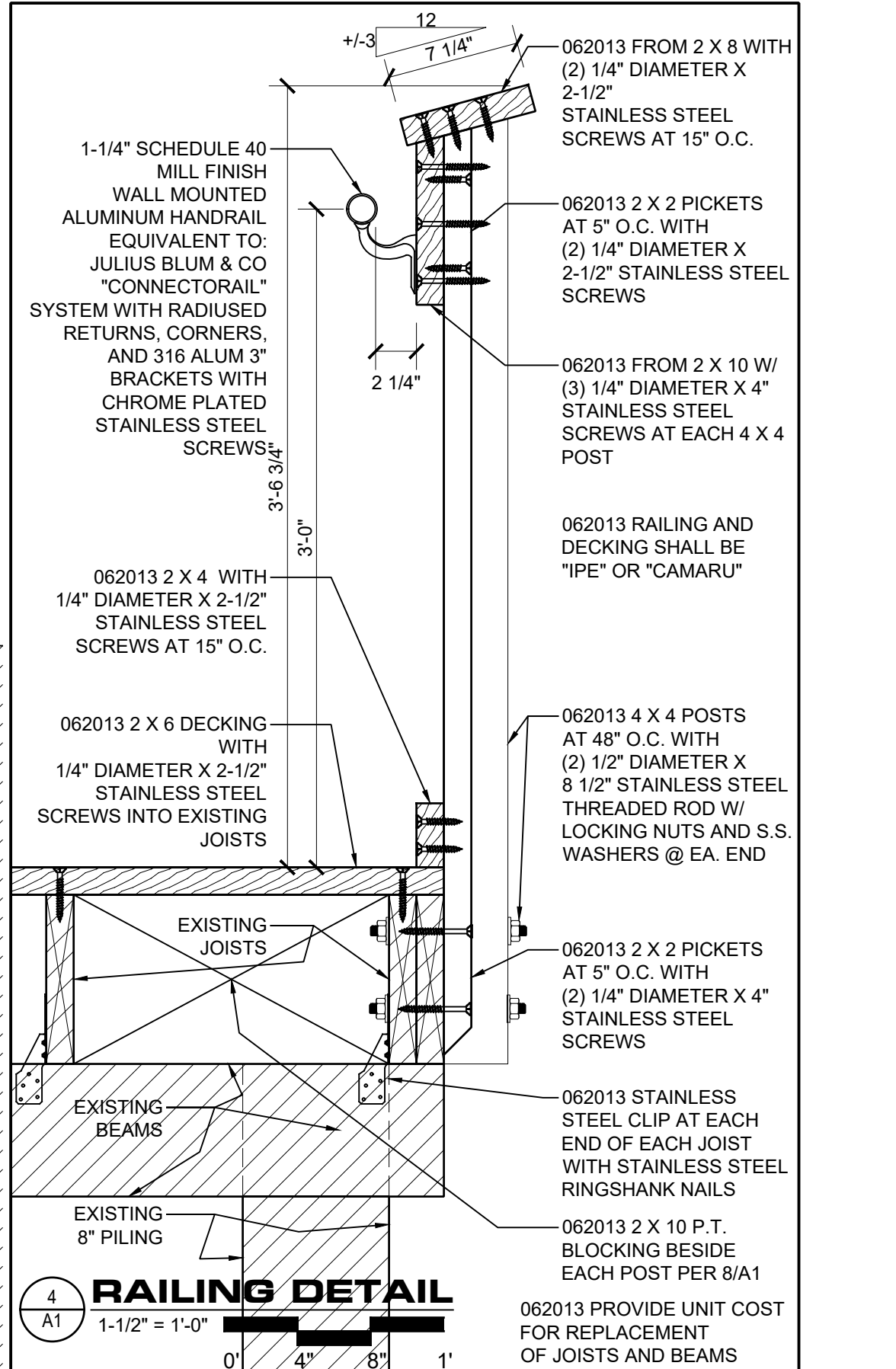
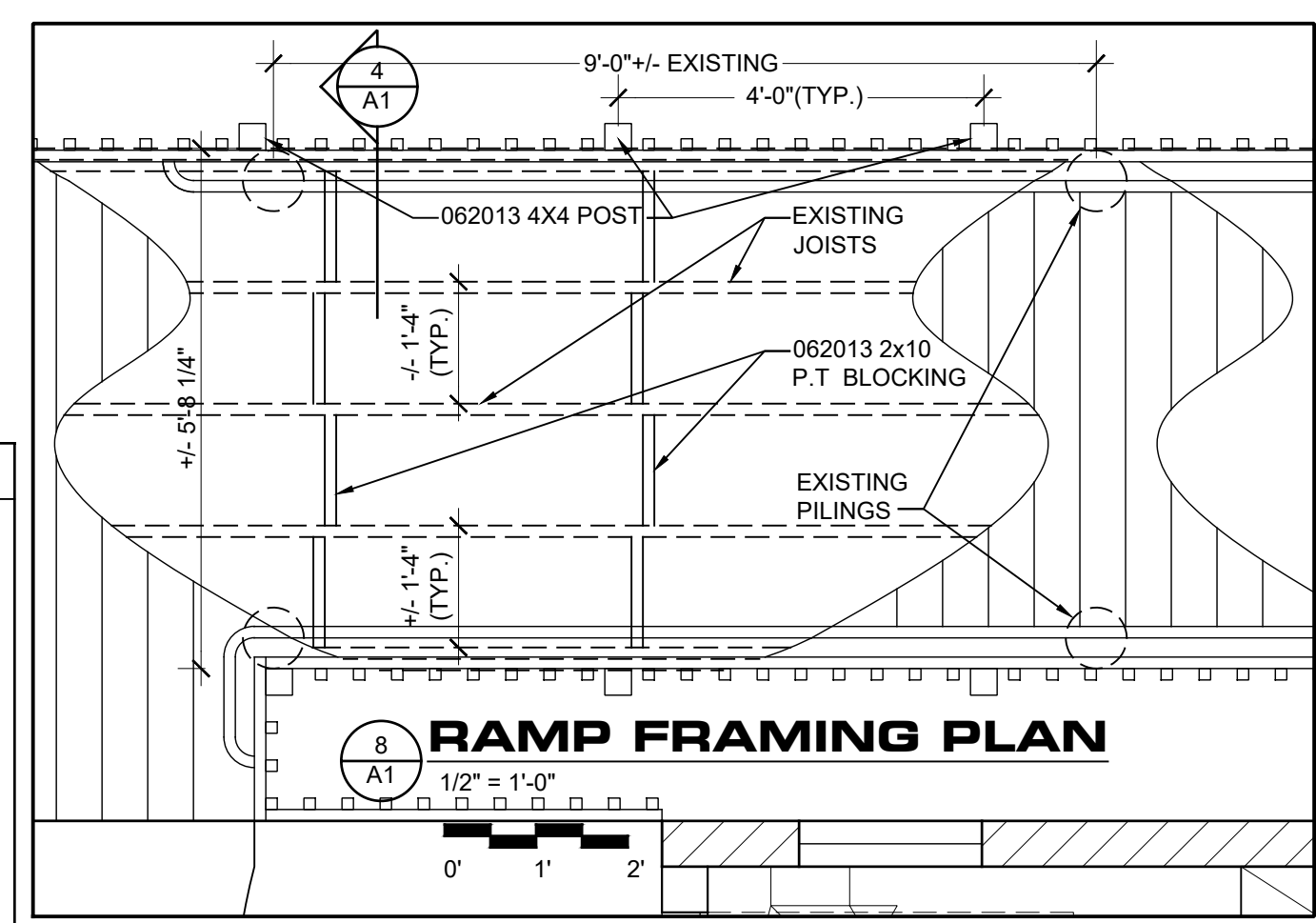
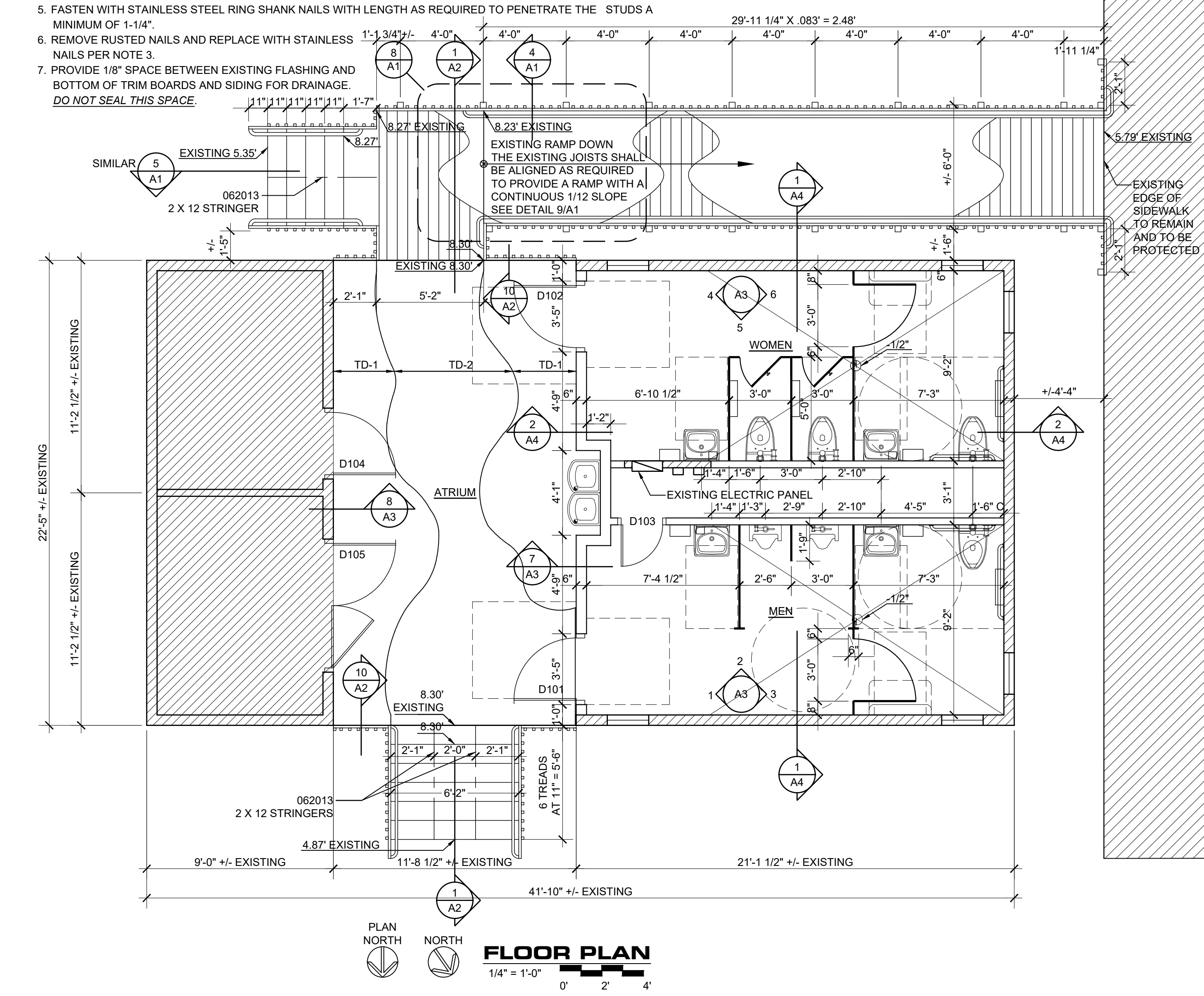
FLOOR: TD-1 = TRAFFIC DECK FLOORING COLOR - 1; TD-2 = TRAFFIC DECK FLOORING COLOR - 2
 BASE: TD = TRAFFIC DECK FLOORING (ADJACENT FLOOR COLOR)
 WALLS: CT = CERAMIC TILE ON CEMENT BOARD
 CEILING: GB = GYP BOARD

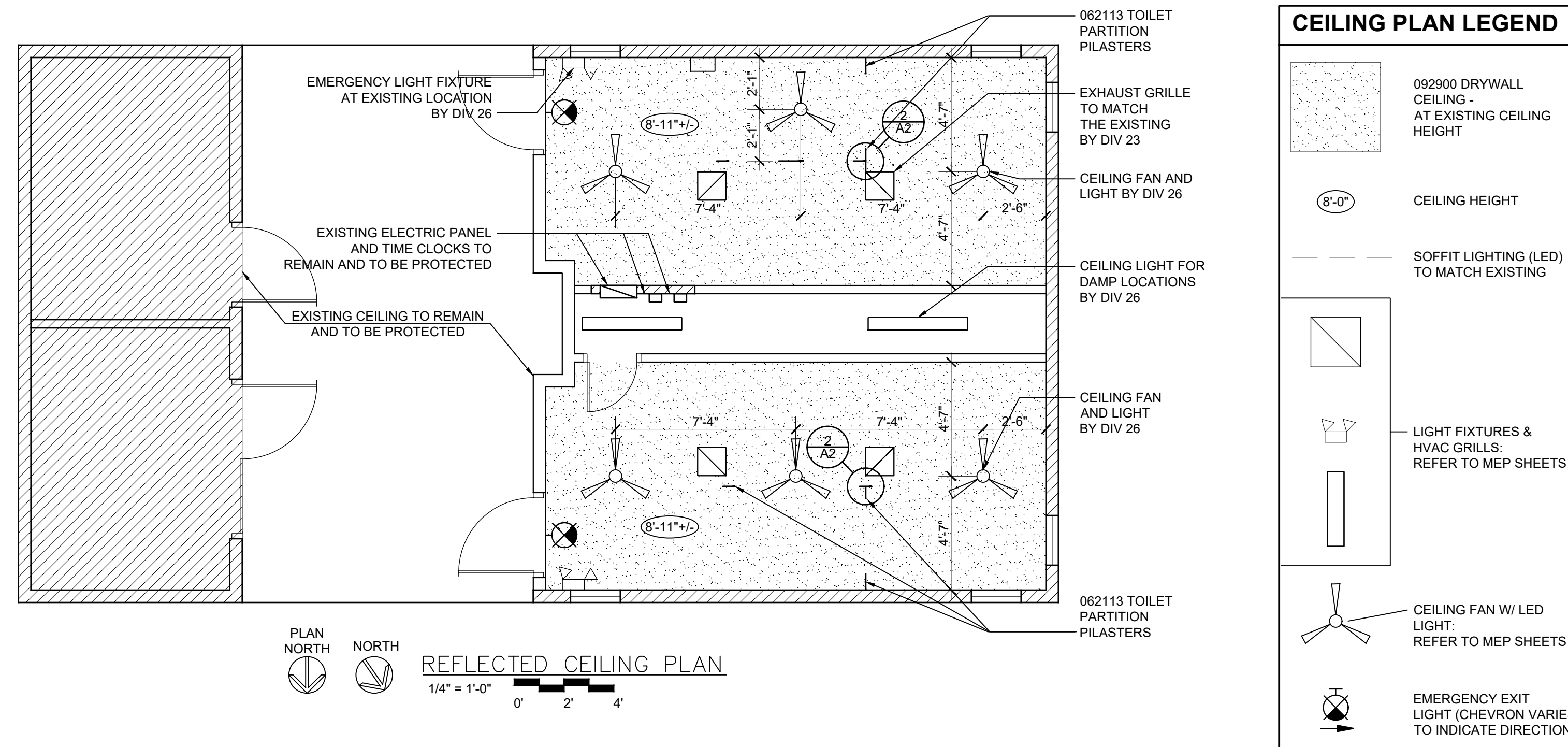
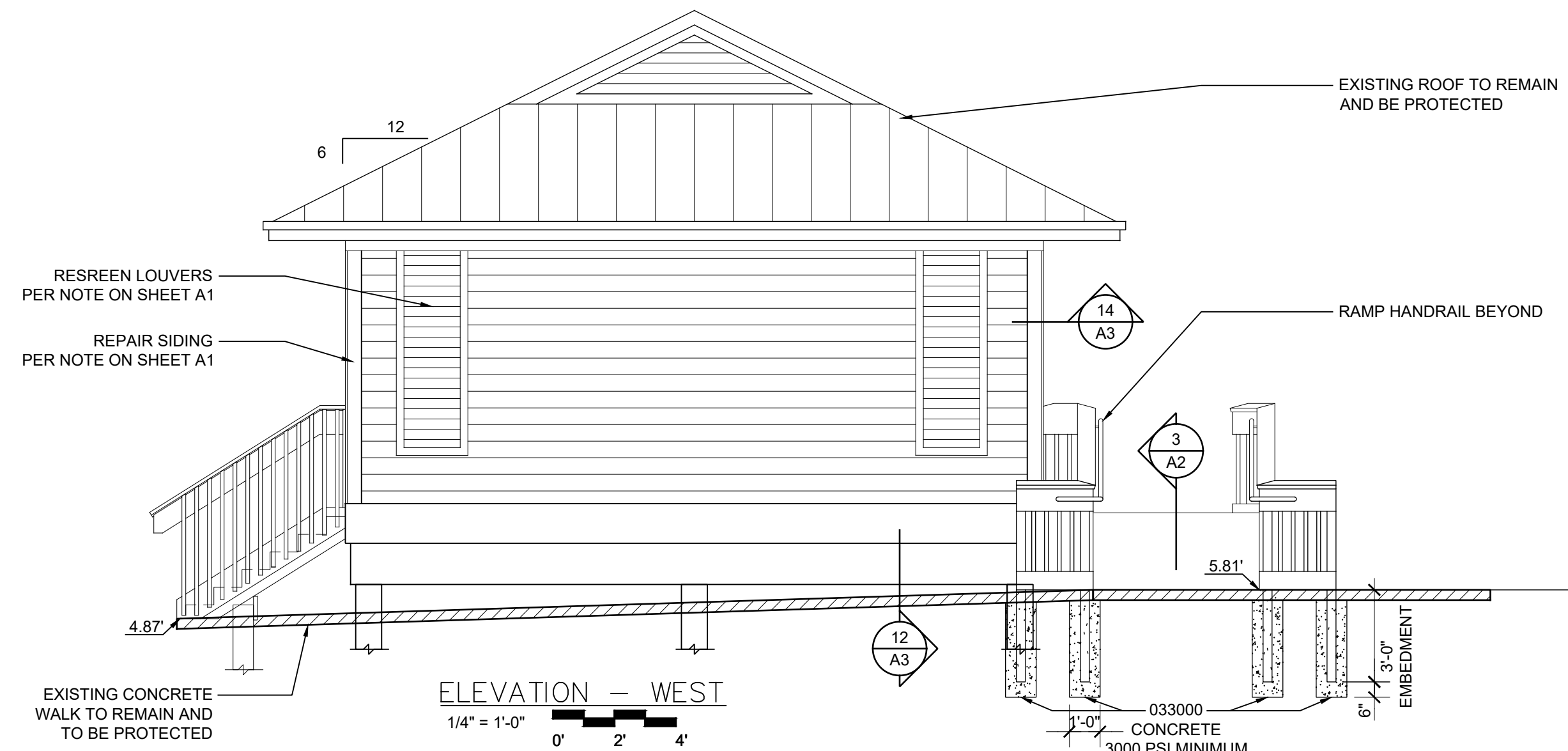
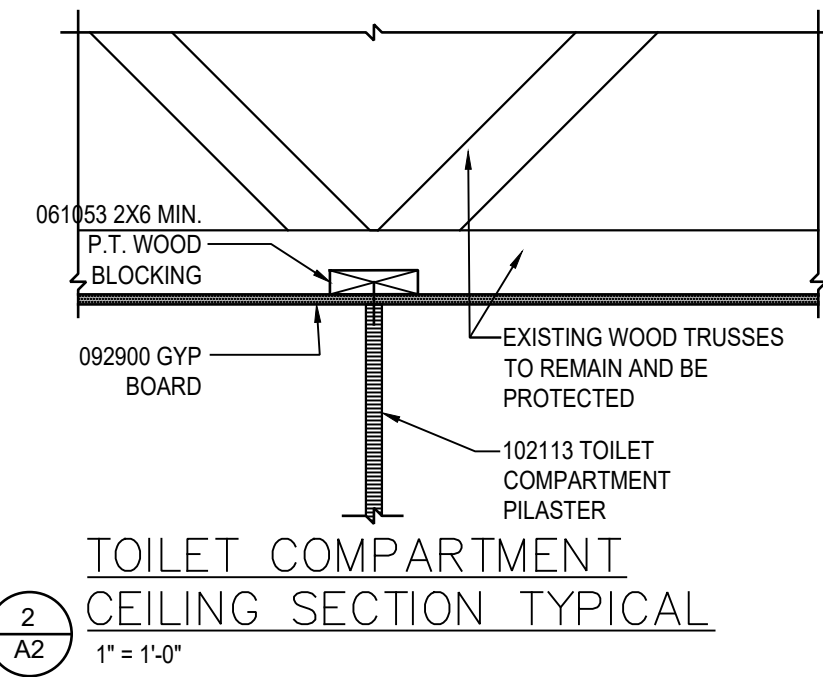
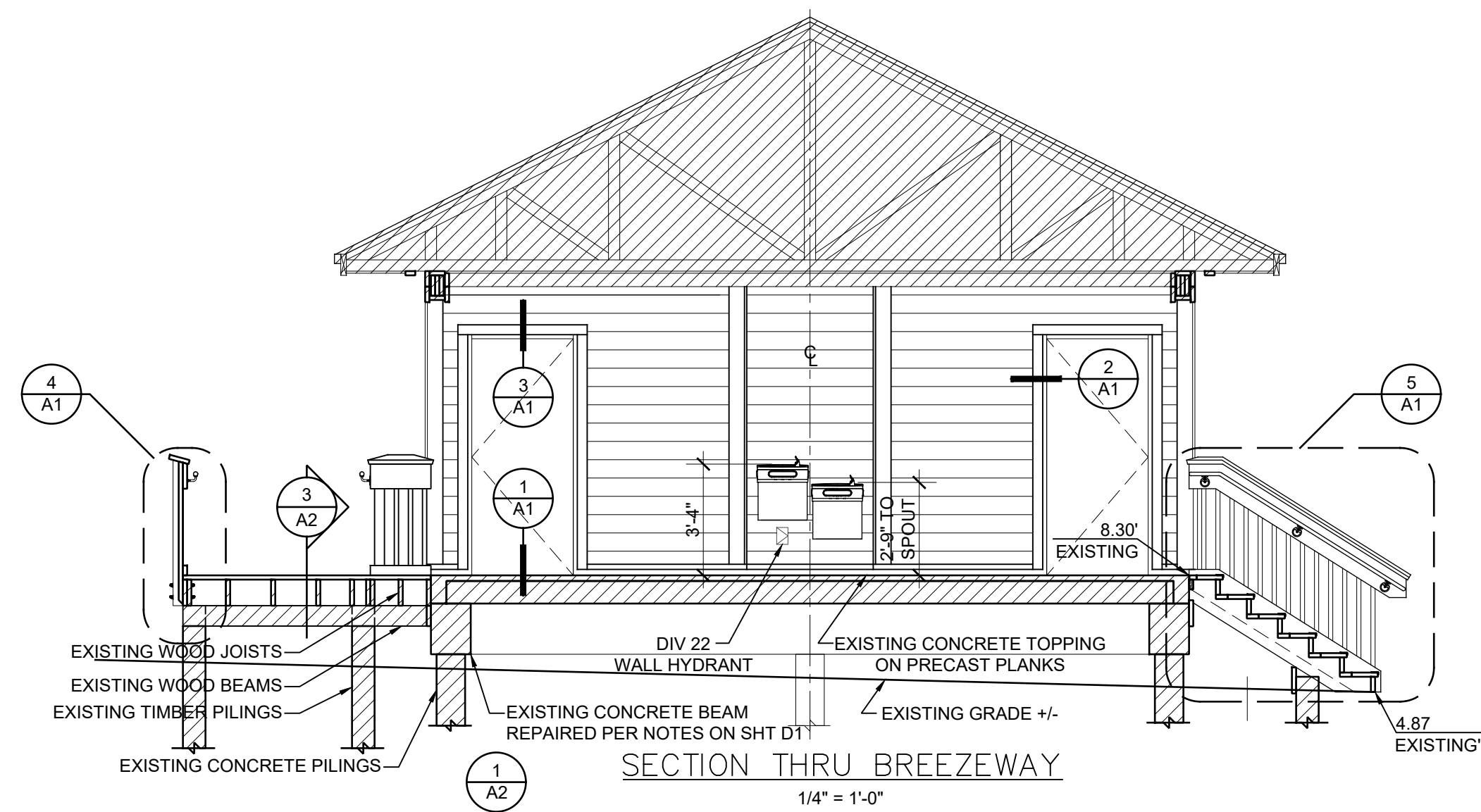
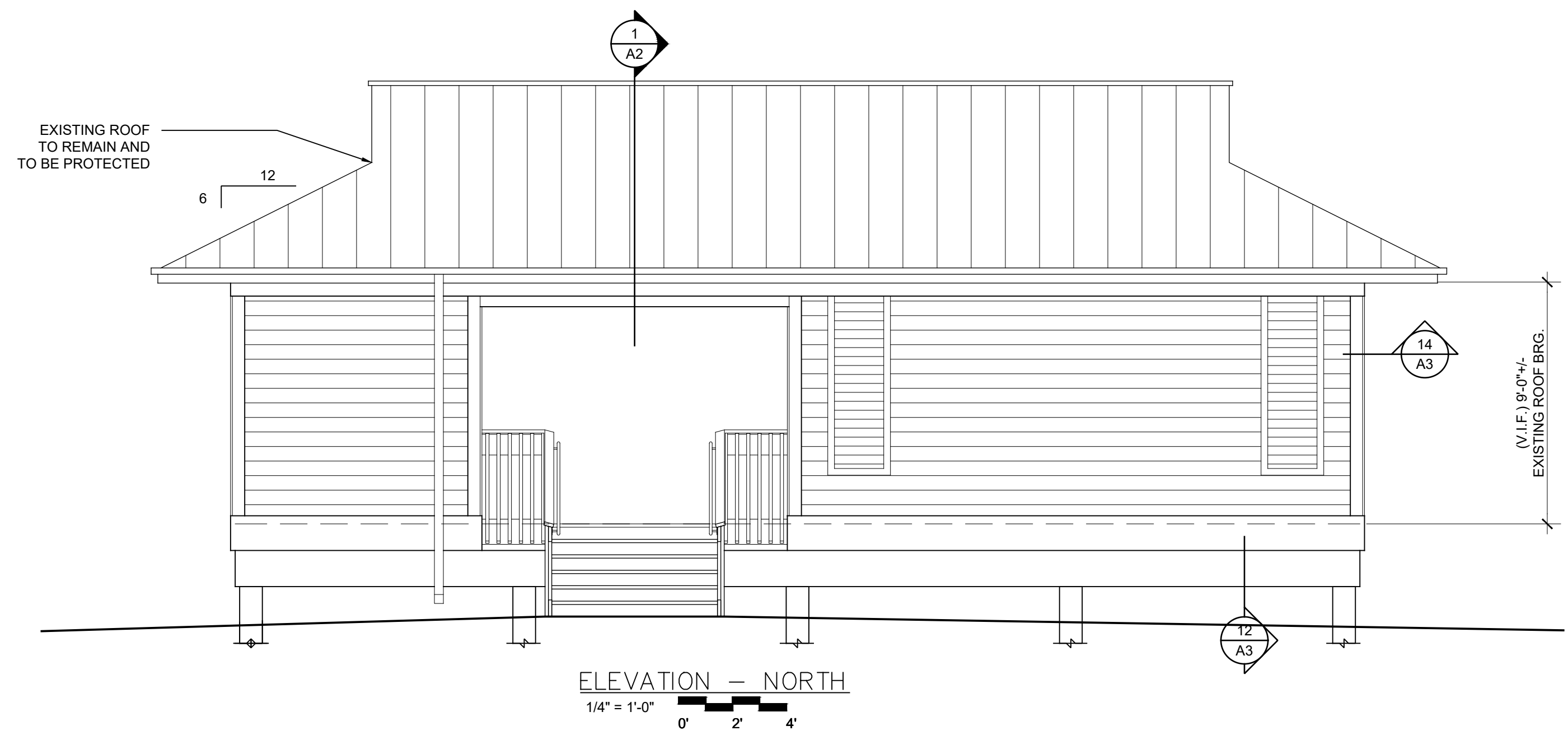
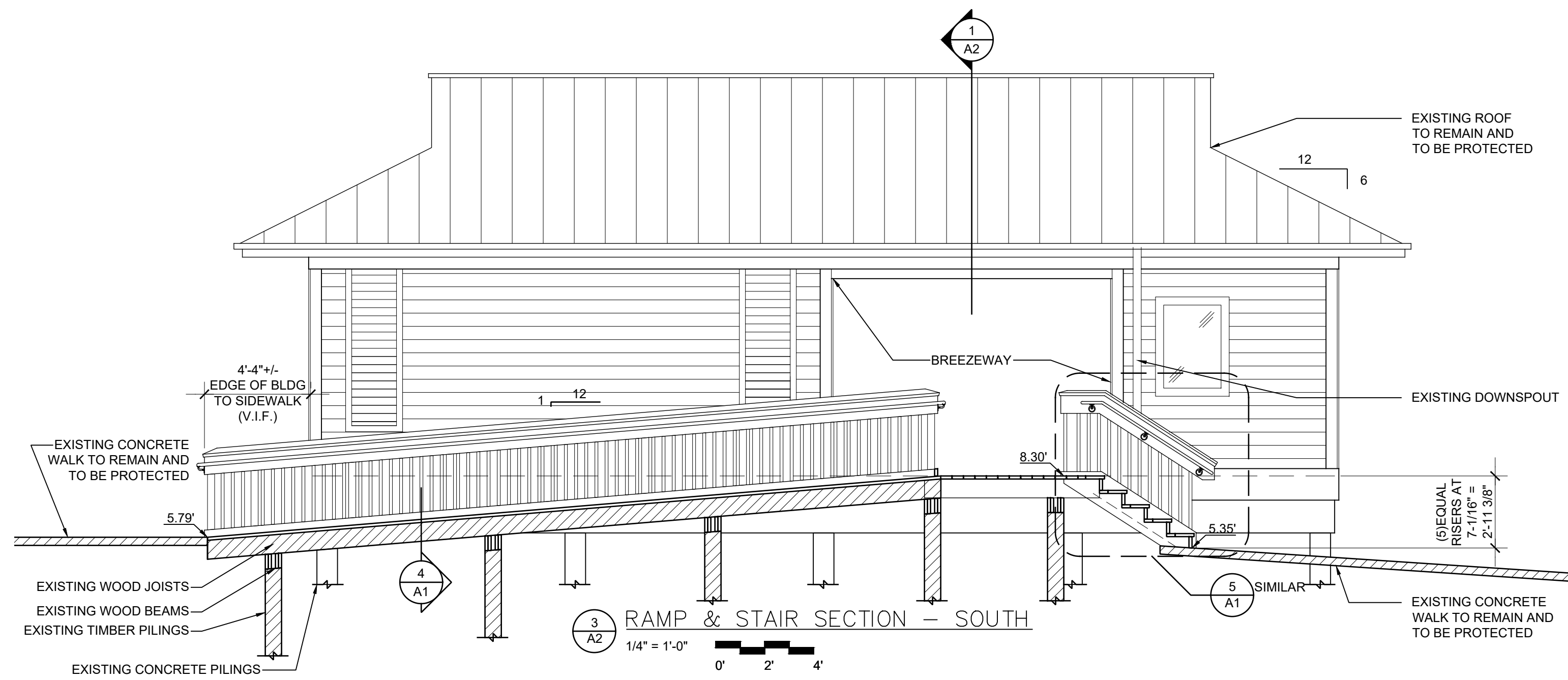
EXISTING WOOD TRIM AND SIDING REPAIR

- REMOVE SKIRT BOARD, FLASHING AND 2 COURSES OF SIDING AT ENTIRE BLDG. PERIMETER.
- REMOVE CORNER TRIM BOARDS.
- REMOVE DAMAGED / ROTTED TRIM BOARDS AND SIDING IN THEIR ENTIRETY.
- REPLACE WITH TRIM AND SIDING TO MATCH THE EXISTING.
- FINISH TRIM AND SIDING TO MATCH THE EXISTING PRIOR TO INSTALLATION. ALL FIELD CUTS SHALL BE FINISHED.
- FASTEN WITH STAINLESS STEEL RING SHANK NAILS WITH LENGTH AS REQUIRED TO PENETRATE THE STUDS A MINIMUM OF 1-1/4".
- REMOVE RUSTED NAILS AND REPLACE WITH STAINLESS NAILS PER NOTE 3.
- PROVIDE 1/8" SPACE BETWEEN EXISTING FLASHING AND BOTTOM OF TRIM BOARDS AND SIDING FOR DRAINAGE. DO NOT SEAL THIS SPACE.

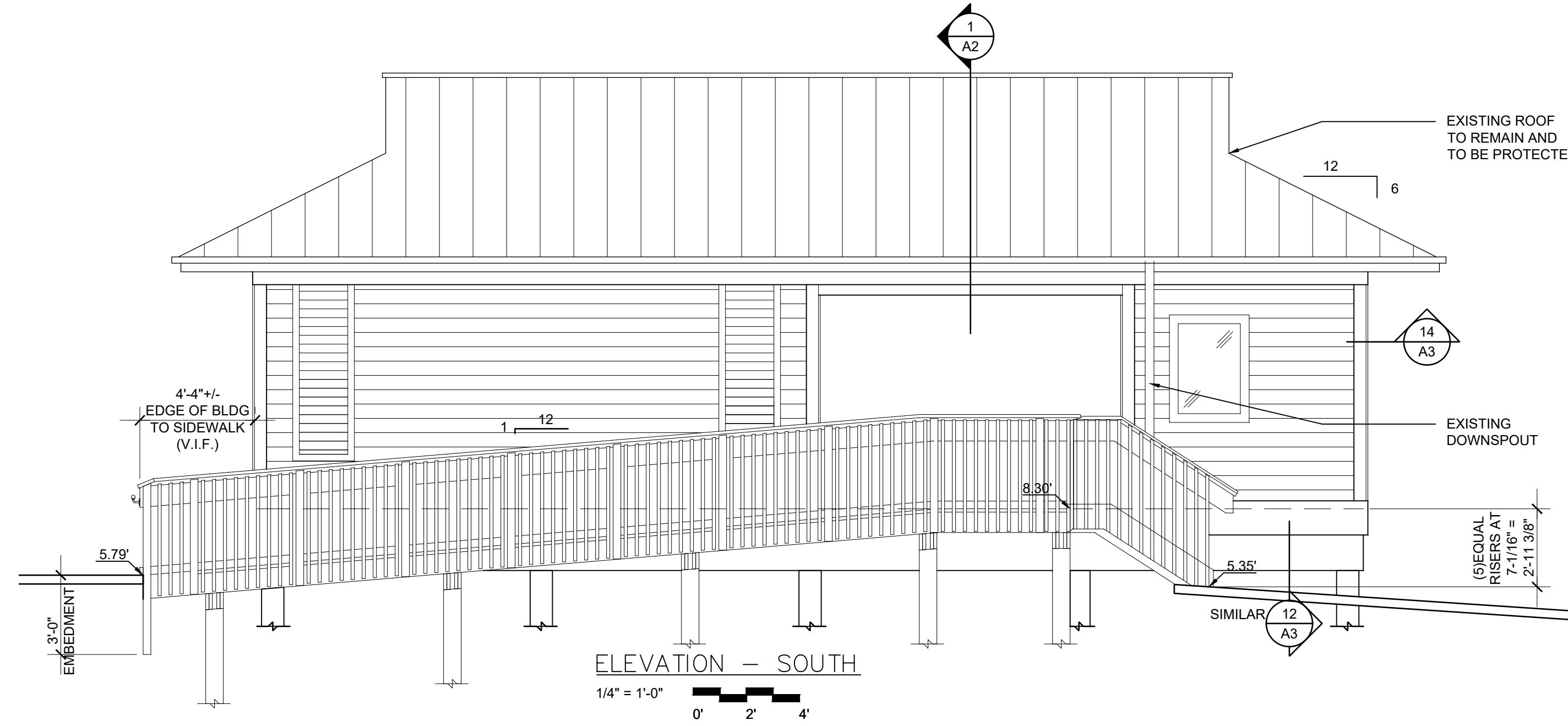
EXISTING LOUVER NOTE:

- PROVIDE INSECT SCREENS AT EXISTING LOUVERS:
- BRONZE FIBERGLASS 2% SCREENS IN ALUMINUM FRAMES WITH STAINLESS STEEL #8 X 1" SCREWS AT 12" O.C.





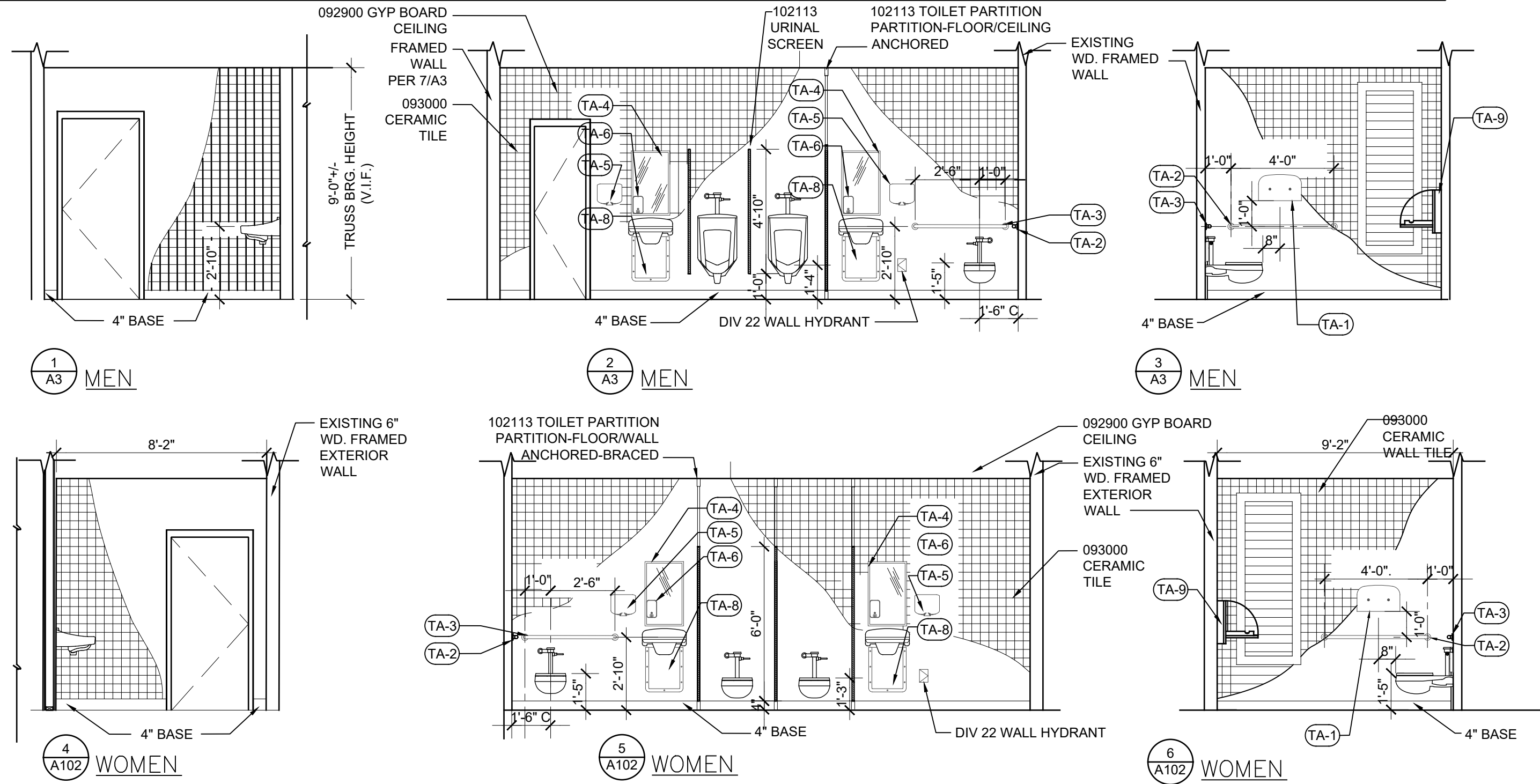
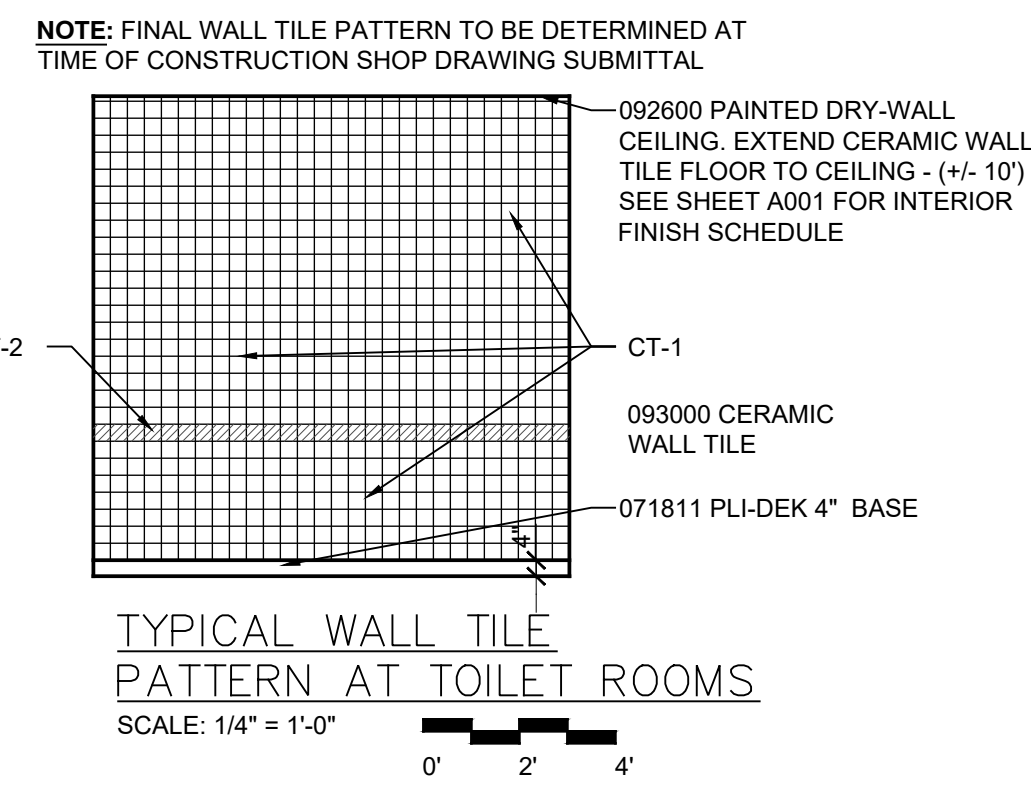
CEILING PLAN LEGEND	
	092900 DRYWALL CEILING - AT EXISTING CEILING HEIGHT
	8'-0" CEILING HEIGHT
	SOFFIT LIGHTING (LED) TO MATCH EXISTING
	LIGHT FIXTURES & HVAC GRILLS: REFER TO MEP SHEETS
	CEILING FAN W/ LED LIGHT: REFER TO MEP SHEETS
	EMERGENCY EXIT LIGHT (CHEVRON VARIES TO INDICATE DIRECTION)



TA-#		102800 TOILET ACCESSORY SCHEDULE			VERIFY WITH OWNER
MARK	ITEM	MANUFACTURER	MODEL #	MOUNTING HEIGHT - SEE ELEVATIONS	REMARKS
1	TOILET TISSUE DISPENSER	GEORGIA PACIFIC	R4000TDK		(*2)
2	GRAB BAR 48"	BOBRICK	B-6806 X 48	34" AFF TO CL OF BAR (SEE ELEVATIONS)	(*2) (*1)
3	GRAB BAR 42"	BOBRICK	B-6806 X 42	34" AFF TO CL OF BAR (SEE ELEVATIONS)	(*2) (*1)
4	MIRROR	BOBRICK	B-1656	40" AFF TO BOT. OF REFLECTIVE SURFACE	(*2)
5	ELECTRIC HAND DRYER	EXCEL THINAIR	TA-SB-110-120V	45" AFF TO BOTTOM DISCHARGE	(*2)
6	SOAP DISPENSER	GOJO	FMX-20	40" AFF TO BOTTOM OF DISPENSER	(*2)
7	SANITARY NAPKIN DISPOSAL	GANGER	2NXW1		(*2)
8	LAVATORY PIPING ENCLOSURE	TRUEBRO	TBD		(*2, 3 & 4)
9	BABY CHANGING STATION	ULINE	H-1669	46-1/2" AFF TO TOP OF STATION - ADA	(*2)
10	ROBE HOOK				(*2)

NOTES (*#):(*1) PROVIDE BLOCKING IN WALLS AS REQUIRED FOR TOILET ACCESSORIES
 (*2) PROVIDED BY CONTRACTOR
 (*3) COORDINATE LAV SHIELD MODEL NUMBER WITH SUPPLIED LAVATORY
 (*4) LAV. SHIELD PROTECTIVE LAV. ENCLOSURE - SCRIBE AND CUT AS REQUIRED

GENERAL NOTES FOR SECTIONS 102113 & 102800:
 ALL BLOCKING SHALL BE WOOD BY SPECIFICATION
 SECTION 061053



NOTE: HATCHED AREA TO REMAIN AND BE PROTECTED (TYP.)

