

# Olbrich Botanical Gardens Expansion Phase 1

BPW Project #8162  
3330 Atwood Avenue  
Madison, WI 53704



PLACEHOLDER FOR CITY ENGINEERING STAMP AND SIGNATURE

 <i>Daniel Poling</i> ARCHITECT OF RECORD	 <i>Matthew W. Schreiner</i> CIVIL ENGINEER	 <i>Abby Pertzborn</i> STRUCTURAL ENGINEER
 GREENHOUSE STRUCTURAL ENGINEER	 <i>Larry J. Nemer</i> MECHANICAL AND PLUMBING ENGINEER	 <i>Randall Jacobs</i> ELECTRICAL ENGINEER
 <i>Michael Narkla</i> FIRE PROTECTION ENGINEER	 <i>David Ken Sam</i> LANDSCAPE ARCHITECT	

NOTE: ALL SEALS AND SIGNATURES ABOVE RELATE TO AND 01 JUNE 2018 BID ISSUE AND 04 JUNE 2018 PERMIT SUBMISSION TO WISCONSIN DSPS



MATERIAL / PRODUCT ID LIST with Spec Data			
ID	Short Name	Section	Spec Data
ACCL-1	ACOUSTICAL CEILING SYSTEM	09 5113	MFR: Armstrong; PRODUCT: Optima, Panel Based; EDGE: Tegular; MODEL: E289B; PANEL SIZE: 24" x 24" x 1"; COLOR: White; GRID: 9/16"; White;
ACCL-2	ACOUSTICAL CEILING SYSTEM	09 5113	MFR: Armstrong; PRODUCT: Optima, Panel Based; EDGE: Tegular; MODEL: E289B; PANEL SIZE: 24" x 60" x 1"; COLOR: White; GRID: 9/16"; White;
AXFL-1	ACCESS FLOORING	09 6900	MFR: Talc; PRODUCT: ConCore 1000; PANEL SIZE: 24" x 24"; THICKNESS: 1.58"; UNDERSTRUCTURE: Postlock;
AXFL-2	ACCESS FLOORING	09 6900	MFR: Talc; PRODUCT: StoneWORKS; Classic Concrete; PANEL SIZE: 24" x 24"; THICKNESS: 1.58"; FINISH: Process Concrete Protector WB; UNDERSTRUCTURE: Bolted Strnger;
CCT-1	CONCRETE COUNTERTOP	12 3613	PRODUCT: Concrete Countertop; COLOR: TBD; FINISH: Smooth, Troweled; EDGE: Eased; SEALER: Clear, Matte; THICKNESS: See Drawings; SPALLS: See Drawings; JOINT TYPE: Grooved, 1/16"; CUTOFFS: Sink with Drainboard and Faucets
CF5F	COLD-FORMED STEEL FRAMING - SEE STRUCTURAL	05 4000	PRODUCT: Cold-formed Steel Studs and Furring;
CMU	CONCRETE MASONRY UNIT - SEE STRUCTURAL	04 2200	PRODUCT: Concrete Masonry Units;
CMU-2	CONCRETE MASONRY UNIT - VENEER	04 2200	PRODUCT: Concrete Masonry Units; FINISH: Burned; COLOR: MR Std Dark Gray/Black;
CONC-1	SEALED CONCRETE FINISH - SEE STRUCTURAL	03 3000	PRODUCT: Penetrating Liquid Densifier and Sealer;
CONC-2	POLISHED CONCRETE FINISH	03 3543	POLISH: Level 1, Matte Finish, 100 grit; FINISH: Penetrating Liquid Densifier and Sealer; FINISH ADDITIVE: Korex Star-Grip or HTC Superfloor;
CPT-1	CARPET TILE FLOORING - FLANK	09 6813	MFR: Mohawk; STYLE: Lichen, Macro Bloom; COLOR: Island Moss;
CPT-2	CARPET TILE FLOORING - FLANK	09 6813	MFR: Mohawk; STYLE: Lichen Micro Bloom; COLOR: Island Moss;
ELEV	HYDRAULIC MRL ELEVATOR	14 2410	MFR: Otis (or Triplex/Krupp); STYLE: Machine-Roomless Hydraulic; MODEL: Hydra-Drive (Endura MRL); CAR TYPE: Passenger; CAPACITY: 3,000; SPEED: (fpm, min) 100; ORIENTATION: Right Hand; CAB ENTRANCES: Speed, Satin Stainless Steel; OPERATING PANEL: Satin Stainless Steel; CAR PANELS: Carbon Laminate, PLAM-4; HANDRAIL: Flat Bar 7/8" Satin Stainless Steel; BUMPER RAIL: Solid Bar, Satin Stainless Steel; CEILING: LED Perimeter-L4, Painted White; FLOORING: Custom Steel Finish Panel; HALL ENTRANCE: Charcoal EV-4; FIXTURES: Classic, Satin Stainless Steel; BUTTONS: Flush, Illuminated Halo;
FAS	FALL ARREST SYSTEM	11 2400	PRODUCT: TBD;
FEC	FIRE EXTINGUISHER CABINET	10 4413	MFR: J.A. Industries (or Lamsco); MODEL: Embassy (or Occult); STYLE: Recessed Trimless; DOOR: Solid; COLOR: TBD;
GBD	GYPSONUM BOARD	09 2900	PRODUCT: Paper-faced Gypsum Board;
GDR-1	DECORATIVE METAL GUARDRAIL	05 7300	PRODUCT: Custom Steel Guardrail; FINISH: PT-48, UNO;
GL-1	CLEAR ANNEALED GLASS	08 8000	PRODUCT: Annealed Glass; COLOR: Clear; MODEL: 1/4" Typical; T indicates Tempered
GLB-1A	GLASS MARKERBOARD - WHITE	10 1100	MFR: Clavin Glassboards, LLC.; STYLE: Watermark; COLOR: White, Magnesia Finish;
HDR-1	DECORATIVE METAL HANDRAIL	05 7300	PRODUCT: Stainless Steel Tubing; FINISH: Satin, No.4 Polish; CROSS SECTION: 1 1/2"; MFR: Cardinal Glass; PRODUCT: Double-Pane; COLOR: Clear; UNIT THICKNESS: 1"; FILL: Acet; H/WINDOW: Solar Control; GLASS: 3/16" Veneer; (U-VALUE, MAX): 0.25; V.I. MEANS: SHGC (MAX): 0.27; T indicates Tempered
INSU-1	ACOUSTICAL INSULATION	09 2900	PRODUCT: Expanded Mineral Wool Blanket Insulation;
INSU-2	BELOW GRADE INSULATION	07 2100	PRODUCT: Expanded Polystyrene Foam (EPS); TYPE: XLS, 2 1/2"; R-VALUE: 4.2/inch;
INSU-3	CONTINUOUS WALL INSULATION	07 2100	PRODUCT: Polystyrene Foam; TYPE: XLS, 2 1/2"; R-VALUE: 4.2/inch; FACER: Glass-Fiber-Mat; FLOORING SYSTEM: TFS
INSU-4	SPRAY FOAM INSULATION	07 2119	PRODUCT: Water-down, Closed-cell Spray Polyurethane Foam; R0D: Isocyanate, Polyol; DENSITY: 2.2 pounds, Closed-cell; LOWERING AGENT: Water; R-VALUE: 4.8/inch; VAPOR BARRIER: 2.4 inch;
INSU-6	VENTILATED NAILBASE INSULATION	07 2100	PRODUCT: Ventilated Nailbase Insulation; R0D: GAF, ThermaC-1; SHEATHING: 1/2" Plywood; AIRSPACE: 1"; INSULATION: Polystyrene; PANEL THICKNESS: 8 1/2"; R-VALUE: 4.2/inch;
LDR-1	WALL-MOUNTED LADDER	05 5000	PRODUCT: Walk-mounted Access Ladder; WIDTH: 18"; RUNGS: 1" Square; MATERIAL: Steel; FINISH: Factory Primed, Field Painted;
LDR-2	WALL-MOUNTED LADDER, EXTERIOR	05 5000	PRODUCT: Walk-mounted Access Ladder; WIDTH: 18"; RUNGS: 1" Square; MATERIAL: Galvanized Steel; FINISH: Factory Primed, Field Painted;
LVR-1	LOUVER	08 9119	MFR: Greenheck; MODEL: B20-202; TYPE: Drainable; FREE AREA (44): 38%; COLOR: ;
LVR-2	ACOUSTICAL LOUVER	08 9119	MFR: Greenheck; MODEL: AFS-120; TYPE: Acoustical, Slightlyroof; DEPTH: 12 inches; FREE AREA (44): 27%; COLOR: ;
MA-1	MILLWORK ACCESSORY - PULL	06 4116	MFR: S307 817 Hardware; STYLE: Onyx; PRODUCT NUMBER: P20AMB-128;
MA-4	MILLWORK ACCESSORY - COAT ROD	06 4116	MFR: Hines and Vogt; STYLE: Clear-Fro Regular-Duty Adjustable Coat Rod w/ Fixed Flange; PRODUCT NUMBER: RP0022-4872;
MA-5	MILLWORK ACCESSORY - PAPER TOWEL DISPENSER	06 4116	MFR: Bobrick; STYLE: InLineSeries; PRODUCT NUMBER: B-526;
MA-6	MILLWORK ACCESSORY - BOOT TRAY	06 4116	MFR: Lillie; STYLE: Boot Tray; PRODUCT NUMBER: H-2662;
MA-7	MILLWORK ACCESSORY - WASTE BIN	06 4116	MFR: Hines and Vogt; STYLE: Soft Close, Top-Mount Waste and Recycling Bins; PRODUCT NUMBER: TSC15-139T; 15" DIA.
MC-1	METAL COMPOSITE PANEL	07 4213 23	MFR: 3A Composites USA, Inc.; PRODUCT: Alucobond Plus, FR Core; THICKNESS: 4 mm; SYSTEM: RainScreen II, Insulation Outboard; COLOR: TBD (Dusty Charcoal or Fossil Black);
MP-1	METAL PANEL - STANDING SEAM - COPPER	07 4113 19	PRODUCT: Standing Seam Metal Wall Panels; MATERIAL: Metal; FINISH: Mill, Non-Patented; WEIGHT: 20.2; PANEL WIDTH: 6 inches; SEAM HEIGHT: 1.2 inches; UNDERLAMENT: WRB with Slip Sheet;
MP-2	METAL PANEL - BLACKENED STEEL	05 5000	PRODUCT: Steel Plate Interior Wall Panels; STYLE: Onyx; PRODUCT NUMBER: P20AMB-128;
MS-1	METAL PAN STAIR - INTERIOR	05 5113	MFR: Hines and Vogt; STYLE: Clear-Fro Regular-Duty Adjustable Coat Rod w/ Fixed Flange; PRODUCT NUMBER: RP0022-4872;
MS-2	METAL PAN STAIR - EXTERIOR	05 5113	PRODUCT: Metal Stair; DRIP EDGE: Stainless Steel; MFR: Tectura Design by Wausau Tile, Inc.; FINISH: TBC Trued with Sealing Bed; SAFETY: Carbonadium Slips;
NSMF	NON-STRUCTURAL METAL FRAMING	09 2216	PRODUCT: Non-Structural Metal Studs and Furring;
OPF-1	OPERABLE PARTITION	10 2239	MFR: Interiors Inc; MODEL: Acoust-Steel 932; NIC: 1165 (Perforated Panels); STC: 54; PANEL FINISH: Fabric; MFR: CARNEGIE; STYLE: XOREL, SLEET EMBROIDER; COLOR: 6209-K02;
PLAM-1	PLASTIC LAMINATE	06 4116	MFR: VILSONART; STYLE: STANDARD LAMINATE; COLOR: CRISP LINEN, 4942-38;
PLAM-2	PLASTIC LAMINATE	06 4116	MFR: VILSONART; STYLE: TRACELESS; COLOR: CHARCOAL VELVET, 15504-31;
PLAM-3	PLASTIC LAMINATE	06 4116	MFR: VILSONART; STYLE: TRACELESS; COLOR: SNOW WHITE VELVET, 15501-31;

MATERIAL / PRODUCT ID LIST with Spec Data			
ID	Short Name	Section	Spec Data
PLAM-4	PLASTIC LAMINATE - ELEV-1	06 4116	MFR: VILSONART; STYLE: STANDARD LAMINATE; COLOR: Dove Grey, D92-60, Matte;
PT-1	INTERIOR PAINT - FLAT	09 9123	PRODUCT: Interior Paint; SHEEN: Flat;
PT-2	INTERIOR PAINT - EGGSHELL	09 9123	PRODUCT: Interior Paint; SHEEN: Eggshell;
PT-3	HIGH-PERFORMANCE INTERIOR PAINT - SEMI-GLOSS	09 9123	PRODUCT: Interior Paint; SHEEN: Semi-Gloss;
PT-4	HIGH-PERFORMANCE EXTERIOR PAINT - SEMI-GLOSS	09 9113	PRODUCT: Exterior Paint; SHEEN: Semi-Gloss;
PT-5	EXTERIOR POWDERCOAT	09 9123	PRODUCT: Exterior Powdercoat; SHEEN: Semi-Gloss;
PT_A	PAINT COLOR - WHITE	09 9123	MFR: BENJAMIN MOORE; STYLE: OC-115; COLOR: CAPTROL WHITE;
PT_B	PAINT COLOR - CHARCOAL	09 9123	MFR: BENJAMIN MOORE; STYLE: 2140-10; COLOR: WOODGUIT IRON;
PT_C	PAINT COLOR - ACCENT COLOR	09 9123	MFR: Sherwin Williams; STYLE: SW 7617; COLOR: Whitehouse;
PVR-1	PEDESTAL PAVEMENT SYSTEM - CONCRETE	07 7600	PRODUCT: Concrete Pavers on Pedestals; MFR: Stone or Blom; MODULE: 4" x 4" x 2"; THICKNESS: 2"; COLOR: TBD;
PVR-2	PEDESTAL PAVEMENT SYSTEM - WOOD	07 7600	PRODUCT: Wood Slat Pavers on Pedestals; MFR: Blom Innovative Products; MODEL: WT-FSC-100%COMARU-24; PANEL SIZE: 24" x 24"; SPECIES: Cumaru, FSC; FINISH: Unwaxed;
PWD-1	CONCEALED PLYWOOD BACKING	06 1000	PRODUCT: Concealed Plywood Backing Panels; GRADE: DOC PS 1, Exposure 1, C-D Plugged, FRT; THICKNESS: 3/4";
RA-1	ROOF ANCHOR FOR RA FRACKING	07 5233	MFR: Anchor Products; PRODUCT: LA-Anchor 2000 EPDM;
REVAL-1	8" EPDM REVEAL TRIM	09 2116	MFR: For Reglet Corporation; MODEL: TDM-625-125; FINISH: Aluminum, Black;
RFP-1	EPDM ROOFING SYSTEM	07 5233	MFR: Firestone or Carlisle; MEMBRANE: EPDM, 90mil, Black; INSTALLATION: Fully adhered; COVER BOARD: High-Density Polystyrene; MFR: Owens Corning; MODEL: DDM-625-125; FINISH: Aluminum, Black;
RFP-2	METAL ROOFING SYSTEM	07 4113 18	MFR: Standing Seam Metal Roofing; SEAM TYPE: Double-lock; MATERIAL: Galvalume Steel; FINISH: Mill, Non-patented; UNDERLAMENT: Synthetic Roofing Felt, CAP Deck Armor; ICE/WATER: Self-Adhering, High-Temp. Sheet; SLIP SHEET: Roan Panel;
RFP-3	EPDM FLASHING	07 5233	MFR: Firestone or Carlisle; MEMBRANE: Cured EPDM, 60-mil, Black, Self-adhered; INSTALLATION: Fully adhered; PRODUCT: Single-Leaf Insulated Roof Flash; SIZE: 30" x 30"; MATERIAL: Aluminum; FINISH: Mill Finish;
RHC	ROOF HATCH	07 2000	PRODUCT: Single-Leaf Insulated Roof Hatch; SIZE: 30" x 30"; MATERIAL: Aluminum; FINISH: Mill Finish;
RISC-1	RESILIENT SOUND ISOLATION CLIP	09 2216	MFR: International, Inc. MODEL: RISC-1;
SHELF-1	SHELVING SYSTEM STANDARD 84"	06 4116	MFR: Esley; MODEL: PLWCH84; SIZE: 84"; COLOR: Arctic White;
SHELF-2	SHELVING SYSTEM SHELF AND BRACKET	06 4116	MFR: Esley; MODEL: NS818A; SIZE: 30" x 18"; COLOR: Arctic White;
SHELF-3	SHELVING SYSTEM SHELF AND BRACKET	06 4116	MFR: Esley; MODEL: NS818A; SIZE: 30" x 18"; COLOR: Arctic White;
SHELF-4	SHELVING SYSTEM STANDARD 30"	06 4116	MFR: Esley; MODEL: PLWCH30; SIZE: 30"; COLOR: Arctic White;
SHGT-1	GYPSONUM SHEATHING	06 1600	PRODUCT: Exterior Gypsum Sheathing; TYPE: Type X, Glass-Mat Facer; THICKNESS: 5/8";
SHGT-2	PLYWOOD SHEATHING	06 1600	PRODUCT: Exterior Plywood Sheathing; MATERIAL: Full-Bed Veneer; SPAN RATING: 32/16; AD: 122
SFM-1	SHEET METAL FLASHING - COPPER	07 6200	PRODUCT: Copper Sheet; FINISH: Mill, Non-Patented; GUTTERS: Mill Exuding Profile; DOWNSPUTTERS: Formed Round, 1" D; UNDERLAMENT: Self-Adhering, High-Temp. Sheet;
SFM-2	SHEET METAL FLASHING - GRAY/BLACK	07 6200	PRODUCT: Coated Aluminum Sheet; THICKNESS: 0.049" UNO; COLOR: TBD, Match WDW-1 and MCP-1;
SFS-1	SOLID SURFACE	12 3661	MFR: CaesarsStone; STYLE: 4120;
SFS-2	SOLID SURFACE	12 3661	MFR: CaesarsStone; STYLE: 041; COLOR: OCEAN FOAM;
STN-1	STONE VENEER	04 4313 13	MFR: Buchtel Stone Corp. STYLE: Full Bed Veneer; COLOR: Fond du Lac Rustic; TEXTURE: Random; WEEP SYSTEM: Masonry Technology, Inc.;
STN-2	CUT STONE TRIM	04 4313 13	MFR: Buchtel Stone Corp. PRODUCT: Cut Limestone Shapes; COLOR: Indiana Buff (or Texas Creme);
TA-04	TOILET TISSUE DISPENSER JUMB-ROLL (OPCI)	10 2800	MFR: TBC by Oyster; STYLE: B-207; A111 GREENHOUSE - HEADHOUSE FLOOR + ROOF PLAN A102 GREENHOUSE - HEADHOUSE SECTION AND ELEVATION A121 REFLECTED CEILING PLAN - LEVEL 1 - EXITS + NEW A122 REFLECTED CEILING PLAN - LEVEL 1 - EXITS + NEW A131 REFLECTED CEILING PLAN - LEVEL 1 - EXISTING A132 EXISTING BUILDING REFERENCE DRAWINGS A151 TOILET ROOM PLANS AND ELEVATIONS A152 TOILET ROOM PLANS AND ELEVATIONS A161 ENLARGED PLANS AND SECTIONS A201 EXTERIOR ELEVATIONS A202 EXTERIOR ELEVATIONS A251 BUILDING SECTIONS A301 WALL SECTIONS A351 EXTERIOR DETAILS A352 EXTERIOR DETAILS A353 EXTERIOR DETAILS A354 EXTERIOR DETAILS A355 EXTERIOR DETAILS A356 EXTERIOR DETAILS A357 EXTERIOR DETAILS A358 EXTERIOR DETAILS - COPPER ROOFING A401 VERTICAL CIRCULATION A402 VERTICAL CIRCULATION DETAILS A403 VERTICAL CIRCULATION DETAILS A501 INTERIOR ELEVATIONS A502 INTERIOR ELEVATIONS A503 INTERIOR ELEVATIONS A551 INTERIOR DETAILS A552 INTERIOR DETAILS A601 DOOR SCHEDULES, TYPES AND DETAILS A651 WINDOW TYPES A701 FINISH PLANS A801 MILLWORK PLANS A802 LEVEL 1 MILLWORK A803 LEVEL 1 MILLWORK A804 LEVEL 2 MILLWORK A851 MILLWORK DETAILS A852 MILLWORK DETAILS A901 FURNITURE PLANS - ISSUED FOR REFERENCE ONLY
TA-06	PAPER TOWEL (FOLDED) DISPENSER	10 2800	MFR: Bobrick; STYLE: B-207; FINISH: Satin Stainless Steel;
TA-06	PAPER TOWEL (ROLL) DISPENSER (OPCI)	10 2800	MFR: TBC by Oyster; STYLE: B-207; FINISH: Satin Stainless Steel;
TA-11	LIQUID-SOAP DISPENSER (OPCI)	10 2800	MFR: TBC by Oyster; STYLE: ; FINISH: ;
TA-12	GRAB BAR	10 2800	MFR: Bobrick; MODEL: B-898; FINISH: Satin Stainless Steel; DIAMETER: 1 1/2"; LENGTH: See Drawings;
TA-14	SANITARY NAPKIN DISPOSAL UNIT	10 2800	MFR: Bobrick; MODEL: B-276; FINISH: Satin Stainless Steel;
TA-17	MIRROR UNIT (FRAMED)	10 2800	MFR: DESIGN WITH REACH; STYLE: LUGANO MIRROR, SMALL; COLOR: BLACK;
TA-19	HOOK	10 2800	MFR: Bobrick; MODEL: B-216; FINISH: Satin Nickel;
TA-24	DIAPER-CHANGING STATION	10 2800	MFR: Hines and Vogt; MODEL: KB 110-SSPE; FINISH: Satin Stainless Steel;
TBF	THERMAL BREAK FRAMING	07 2100	MFR: Advanced Architectural Products; PRODUCT: SMART-C; MODEL: GREENART; A501 INTERIOR ELEVATIONS A502 INTERIOR DETAILS A551 INTERIOR DETAILS A552 INTERIOR DETAILS A601 DOOR SCHEDULES, TYPES AND DETAILS A651 WINDOW TYPES A701 FINISH PLANS A801 MILLWORK PLANS A802 LEVEL 1 MILLWORK A803 LEVEL 1 MILLWORK A804 LEVEL 2 MILLWORK A851 MILLWORK DETAILS A852 MILLWORK DETAILS A901 FURNITURE PLANS - ISSUED FOR REFERENCE ONLY
TBM	THERMAL BREAK MATERIAL - SEE STRUCTURAL	GEN NOTES	MFR: Fabreka or Armaflex; PRODUCT: Structural Thermal Break Material;
TL-1	CERAMIC TILE	09 3013	MFR: FRIELAY TILE; STYLE: ARABLE; COLOR: CUSTOM: SPRUCE, HUNTER, LAMON, CARBON;
TL-2	CERAMIC TILE (OPCI)	09 3013	MFR: OPCI; STYLE: 474"; COLOR: NA;
TL-3	CERAMIC TILE WALL BASE (OPCI)	09 3013	MFR: OPCI; STYLE: 4" x 6" COVE BASE; COLOR: NA;
TLB0	TILE BACKER BOARD	09 2900	PRODUCT: Cement Board;
TLFL-1	TILE FLOORING	09 3013	MFR: MOSA; STYLE: SELECTION ONE, 12X24; COLOR: 1104 M V;
TLFL-2	TILE FLOORING	09 3013	MFR: American Clean; STYLE: Quarry Natural; COLOR: Shadow Gray N46; SIZE: 6x6;
TREAD-1	ARCHITECTURAL PRECAST CONCRETE TREAD BONDED TO BENT STEEL RISERS	05 5010	
TREAD-2	WAUSAU PRECAST STAIR TREAD C-60 SELF-SUPPORTING FLAT TREAD	05 5010	MN Thickness 3 1/2";
TSS-1	STAINLESS STEEL TRELLIS SYSTEM	05 9443	MFR: Jacobs, Inc.; PRODUCT: Green-Guide System; MATERIAL: Type 316 Stainless Steel; ROPE: TOP: Swaged Rodded Steel; ROPE BOTTOM: Swaged Green-Guide Eye; FINISHING: Turnbuckle; MOUNTING: Green-Guide Spacer;
TWF	THRU-WALL FLASHING AND DRIP EDGE	07 2715	PRODUCT: 3015TWF; TYPE: Sheet-Applied; DRAIN EDGE: Stainless Steel; MFR: Stego or Flayco; SEAM HEIGHT: 1.2 inches; UNDERLAMENT: WRB with Slip Sheet; MFR: Interiors Inc; MODEL: Acoust-Steel 932; NIC: 1165 (Perforated Panels); STC: 54; PANEL FINISH: Fabric; MFR: CARNEGIE; STYLE: XOREL, SLEET EMBROIDER; COLOR: 6209-K02;
VB	UNDERSLAB VAPOR BARRIER	03 3000	PRODUCT: Membrane Vapor Barrier; MFR: Tectura Design by Wausau Tile, Inc.; FINISH: TBC Trued with Sealing Bed; SAFETY: Carbonadium Slips;
WAVB	WATER-AR-VAPOR BARRIER MEMBRANE	07 2715	MFR: 3M; PRODUCT: TFS-3015; TYPE: Sheet-Applied; VAPOR PERMEABILITY: 1.15 perms; AIR (max): 0.004 CFM/sf at 1.57 lb./sf.; MFR: INTERIORS; STYLE: TRADITIONAL WALL BASE; COLOR: GR 80 BURNT UMBER; THICKNESS: 1/4"; FINISH: Clear; MFR: Acryc Technologies PLC; PRODUCT: Reclaimed Wood for Interior Trim; SPECIES: Ash; FINISH: Clear; MFR: Wood Veneer; SPECIES: Ash; FINISH: Clear;
WB-1	RUBBER WALL BASE	09 6513	MFR: INTERIORS; STYLE: TRADITIONAL WALL BASE; COLOR: GR 80 BURNT UMBER; THICKNESS: 1/4"; FINISH: Clear;
WB-2	STEEL WALL BASE	05 5000	PRODUCT: Steel Plate Interior Wall Base; THICKNESS: 1/4"; FINISH: Clear; MFR: Acryc Technologies PLC; PRODUCT: Reclaimed Wood for Interior Trim; SPECIES: Ash; FINISH: Clear;
WD-1	ACETYLATED WOOD	06 2013	MFR: Acryc Technologies PLC; PRODUCT: Reclaimed Wood for Interior Trim; SPECIES: Ash; FINISH: Clear;
WD-2	INTERIOR FINISH WOOD	06 2023	PRODUCT: Reclaimed Wood for Interior Trim; SPECIES: Ash; FINISH: Clear;
WD-3	INTERIOR FINISH WOOD VENEER	06 2023	PRODUCT: Wood Veneer; SPECIES: Ash; FINISH: Clear;

MATERIAL / PRODUCT ID LIST with Spec Data			
ID	Short Name	Section	Spec Data
WDC-1	WOOD CEILING SYSTEM	09 5426	MFR: Armstrong; PRODUCT: Woodworks Grille; PANEL TYPE: 7268B0; SLAT SIZE: 5/8" x 2 1/4"; SLATS PER PANEL: 8; PANEL SIZE: 12" W x 2 1/4" H; PANEL LENGTH: Custom, See Drawings; FINISH: Grille Maple; GRID: Heavy-Duty Prehul XL; GRID COLOR: Black; INFILL PRODUCT: BioAcoustic; INFILL TYPE: S623; INFILL COLOR: Black (Matte);
WDW-1	ALUMINUM WINDOW	08 5200	MFR: H-Window; TYPE: Direct Set; KSI: ConForm 3P or 2P; SPECIES: Reclaimed Ash furnished by Owner; COLOR: Clear veneer; AL FINISH: Painted; COLOR: TBD, match MCP-1 and SBF-2; DOORS: Nordic Outwring Heavy Commercial Doors; THICKNESS: 2 1/4";
WF-1	WINDOW FILM, PRIVACY	08 8733	MFR: 3M; PRODUCT: Finesse Glass Finish; PATTERN: Milky White (Matte), SHOMAML; MFR: GCP/Graes; PRODUCT: Procor; PRODUCT: Single Layer #15 Asphalt Felt; TYPE: ASTM D226, Type I; SLIP SHEET: Roan Panel;
WP-1	WATERPROOFING MEMBRANE	07 1416	MFR: Hunter Douglas; TYPE: Motorized, Single; GREENSCREEN Evolve HD5505, Shade; MFR: Hunter Douglas; TYPE: Motorized, Single; GREENSCREEN Evolve HD5505, Shade;
WRB	WATER-RESISTIVE BARRIER	07 2500	PRODUCT: Single Layer #15 Asphalt Felt; TYPE: ASTM D226, Type I; SLIP SHEET: Roan Panel;
WT-1A	ROLLER WINDOW SHADE, MOTORIZED	12 2413	MFR: Hunter Douglas; TYPE: Motorized, Single; GREENSCREEN Evolve HD5505, Shade;
WT-2A	ROLLER WINDOW SHADE, MANUAL	12 2413	MFR: Hunter Douglas; TYPE: Manual, Single; GREENSCREEN Evolve HD5505, Shade;

SHT NO		SHEET NAME	
GENERAL	HEATING		
G000	H1	GREENHOUSE HEATING SYSTEM NOTES & SCHEDULES	
G001	H2	GREENHOUSE HEATING SYSTEM LAYOUT	
G002	H3	GREENHOUSE HEATING SYSTEM PEX MANIFOLD BOX	
G003	H4	GREENHOUSE HEATING SYSTEM PEX DETAILS	
G004	H5	GREENHOUSE UPPER & LOWER FIN TUBE LAYOUT	
G005	H6	TROPICAL GHIE A PIPING ELEVATION	
G006	H7	ORCHID INT GHIE A PIPING ELEVATION	
G007	H8	PRODUCTION GHIE A PIPING ELEVATION	
G008	H9	MIXING VALVE DETAILS	
G009	H10	ZONE CONTROL VALVE DETAILS	
G010	H11	BENTCHOP HEATING LAYOUT	
G011	H12	BENTCHOP HEATING DETAILS	
MECHANICAL			
M001	M001	MECHANICAL TITLE SHEET	
M002	M011	GREENHOUSE MECHANICAL PIPING DEMO PLAN	
M003	M012	COMMONS AREA MECHANICAL DEMOLITION PLAN	
M004	M101	LEARNING CENTER MECHANICAL DUCTWORK PLAN	
M005	M102	LEARNING CENTER MECHANICAL PIPING PLAN	
M006	M103	LEARNING CENTER RADIANT HEAT AND COOL	
M007	M112	ENLARGED PLANS AND SECTIONS	
M008	M113	ENLARGED PLANS AND SECTIONS	
M009	M131	COMMONS AREA MECHANICAL PIPING PLAN	
M010	M201	MECHANICAL DETAILS	
M011	M202	MECHANICAL DETAILS	
M012	M301	MECHANICAL SCHEDULES	
M013	M302	MECHANICAL SCHEDULES	
M014	M303	MECHANICAL CONTROLS SCHEMATICS	
M015	M401		



DRAFTING SYMBOLS

Multi-elevation reference, Elevation reference, Section reference, Detail reference, Wall type, Partition type, Door type, Window type, Revision, Keynote, Grid line, Level marker, North symbol, Drawing number, Drawing title, View name, Scale, Sheet number.

ABBREVIATIONS

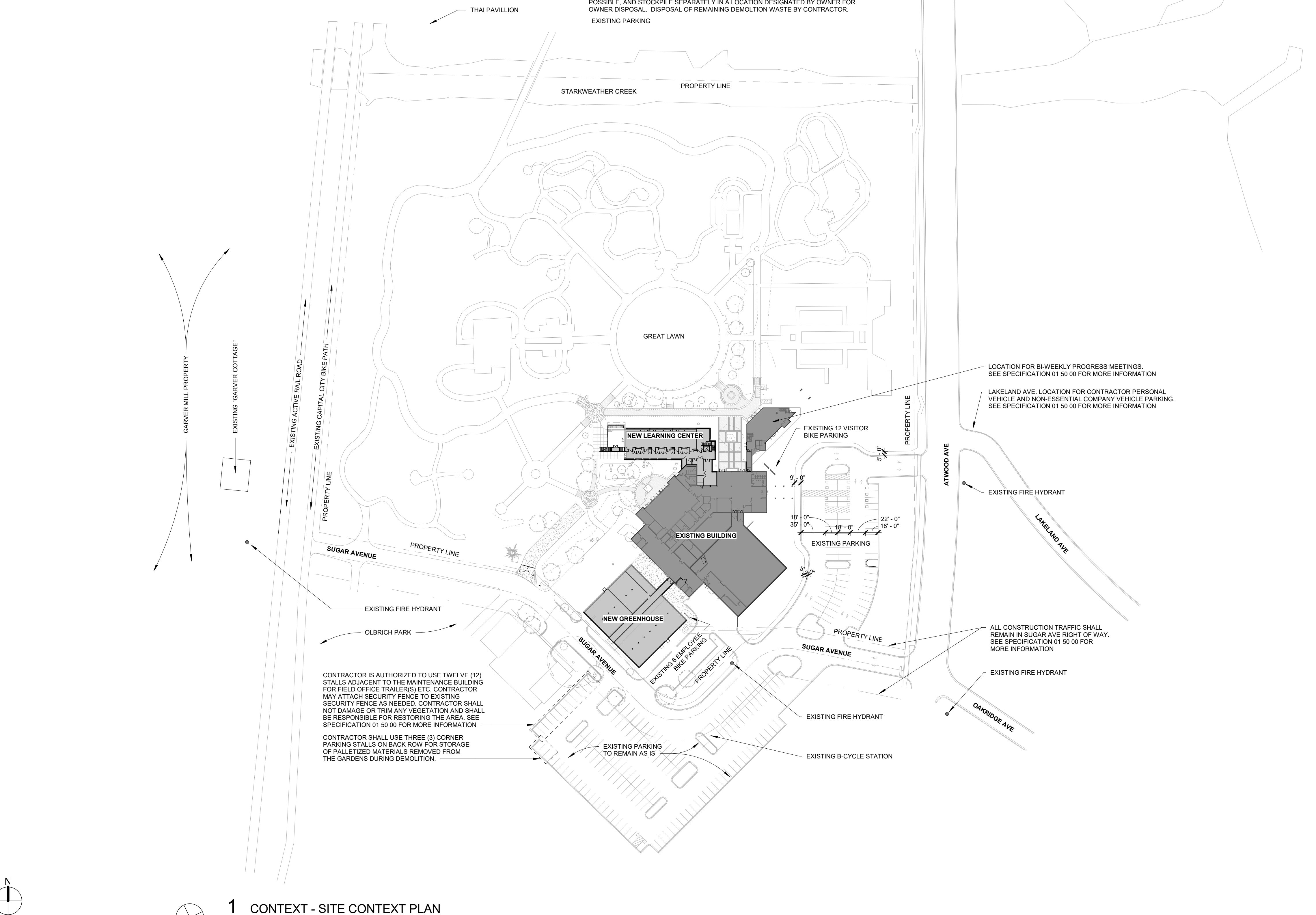
Table of abbreviations for architectural symbols, including A (Architect), C (Column), F (Fire), K (Kitchen), P (Perpendicular), S (Solid Surface), and many others.

SITE DEMO AND NEW WORK NOTES

- 1. ALL WORK OUTSIDE OF PROPERTY LINE WILL BE BY CITY OF MADISON UNLESS NOTED OTHERWISE.
2. NOTIFY OWNER AND/OR OIG AND ARCHITECT OF ANY INCONSISTENCIES BETWEEN DRAWINGS AND ACTUAL CONDITIONS DISCOVERED DURING DEMO OR NEW WORK.
... 17. ANY GC/SUBCONTRACTOR SITE OPERATIONAL AND LOGISTICS INFORMATION SHOWN ON ANY SITE PLAN DRAWINGS IS TO BE VERIFIED FOR CONTENT AND SCOPE WITH CITY ENGINEERING AND OLBRICH STAFF PRIOR TO CONSTRUCTION OPERATIONS COMMENCING.

WALL AND PARTITION KEY

Legend for wall and partition types: NEW WALLS AND PARTITIONS, EXISTING WALLS AND PARTITIONS, WALLS AND PARTITIONS TO BE REMOVED, 1 HOUR RATED FIRE WALL, 2 HOUR RATED FIRE WALL.



Project information block including MSR logo, address (710 South 2nd Street), contact info, MEP Engineer (MEP Associates, LLC), Fire Protection Engineer (Summit Fire Consulting), Greenhouse Design (Rough Brothers, Inc.), and a large title 'Olbrich Botanical Gardens Expansion Phase 1'.

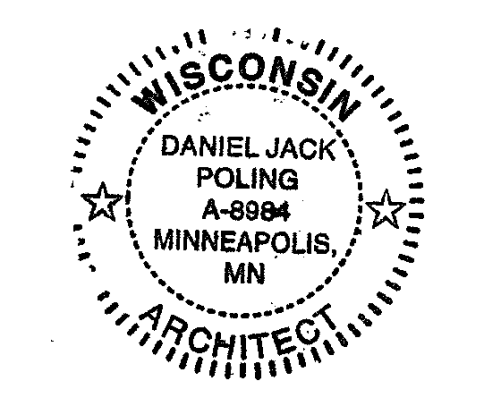
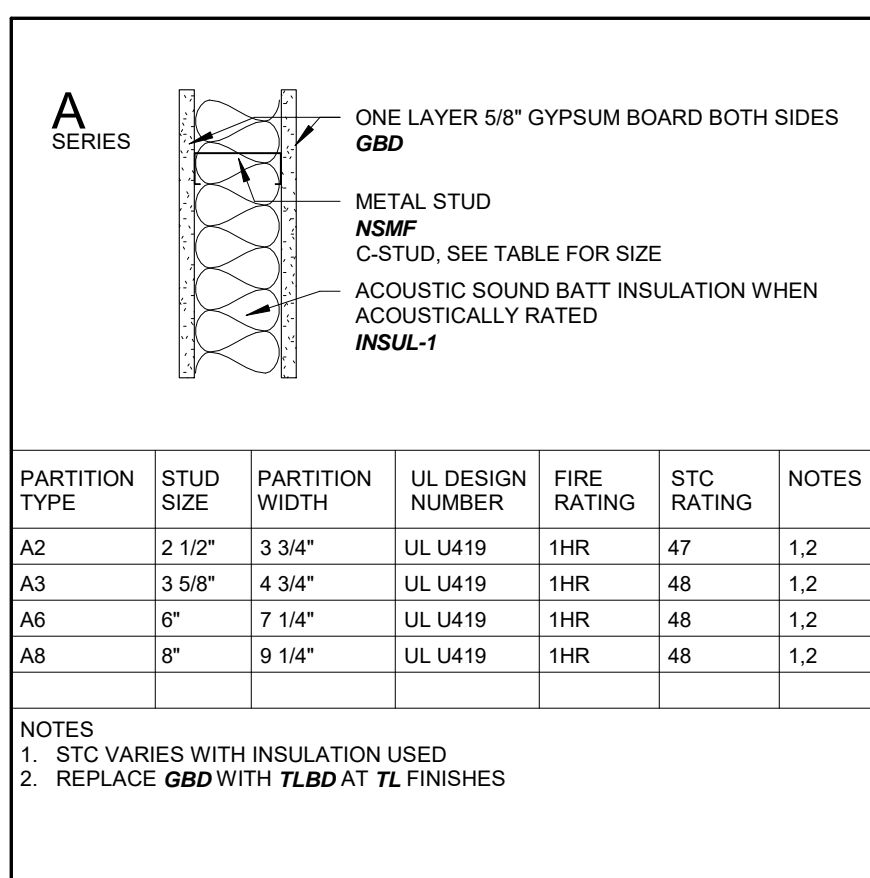


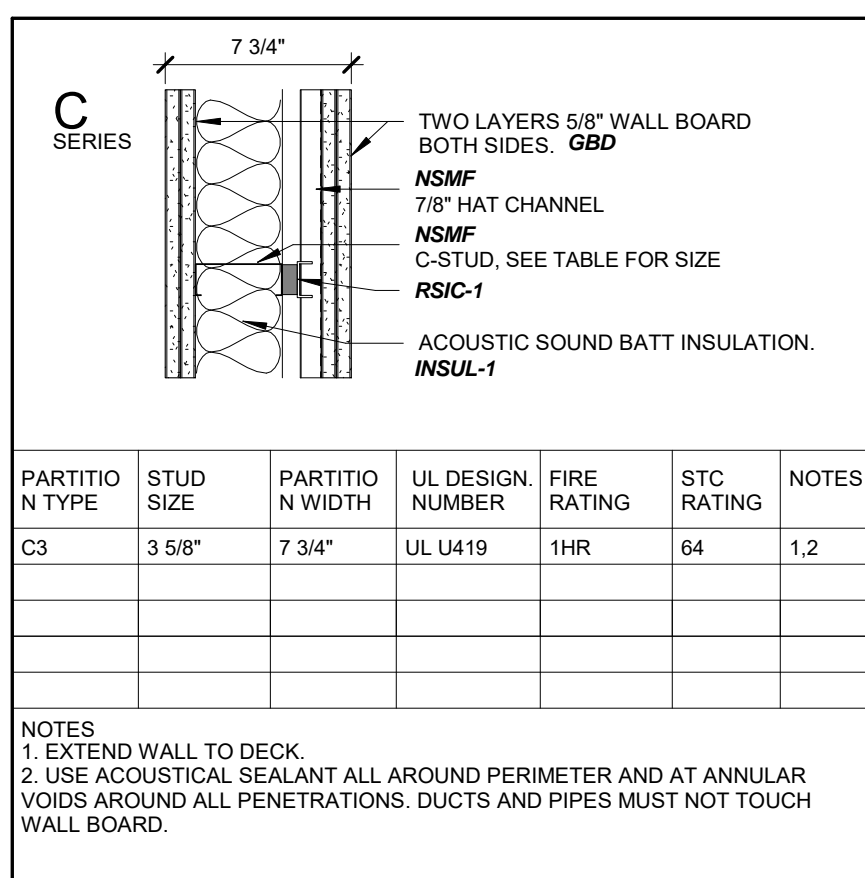
Table with project details: PROJECT NO. 2017016, PROJECT PHASE BID DOCUMENTS, DRAWN BY MSR, CHECKED BY MSR, and a list of issues with dates and descriptions.





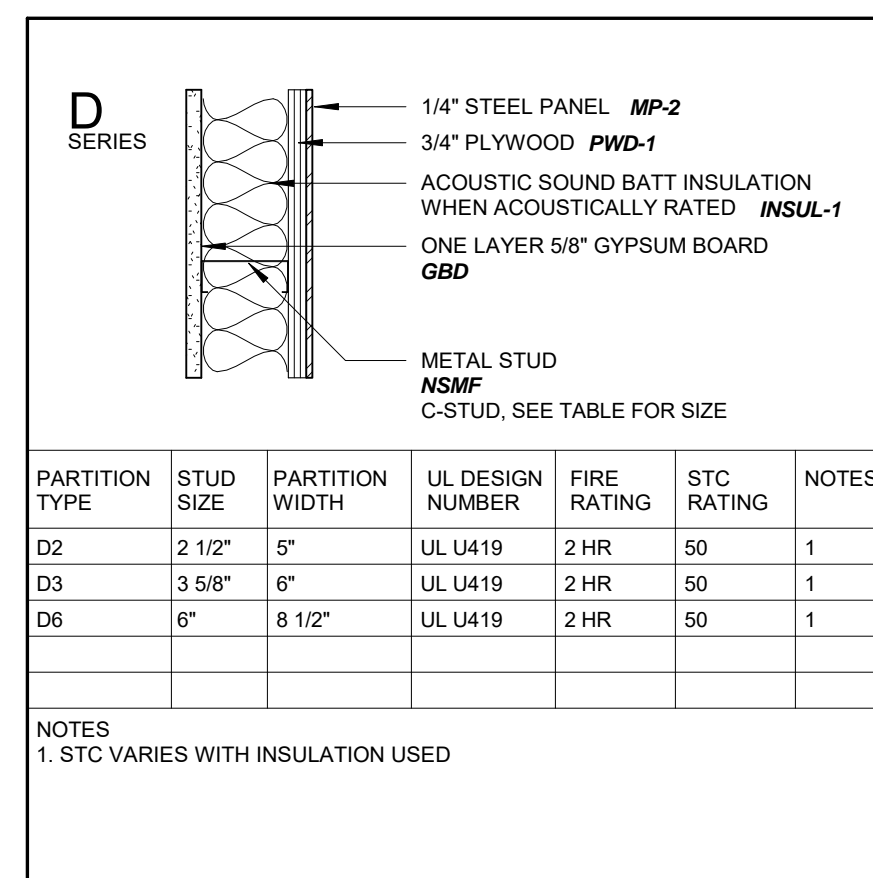
PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
A2	2 1/2"	3 3/4"	UL U419	1HR	47	1,2
A3	3 5/8"	4 3/4"	UL U419	1HR	48	1,2
A6	6"	7 1/4"	UL U419	1HR	48	1,2
A8	8"	9 1/4"	UL U419	1HR	48	1,2

NOTES  
 1. STC VARIES WITH INSULATION USED  
 2. REPLACE GBD WITH TLBD AT TL FINISHES



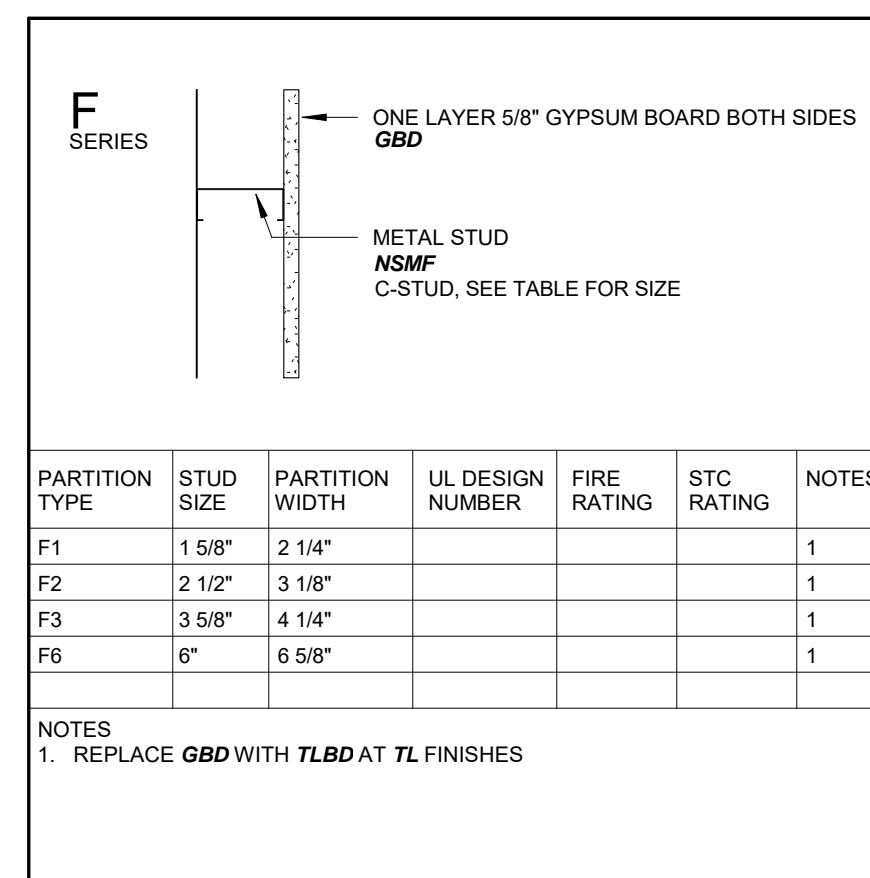
PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
C3	3 5/8"	7 3/4"	UL U419	1HR	64	1,2

NOTES  
 1. EXTEND WALL TO DECK  
 2. USE ACoustICAL SEALANT ALL AROUND PERIMETER AND AT ANNULAR VOIDS AROUND ALL PENETRATIONS. DUCTS AND PIPES MUST NOT TOUCH WALL BOARD



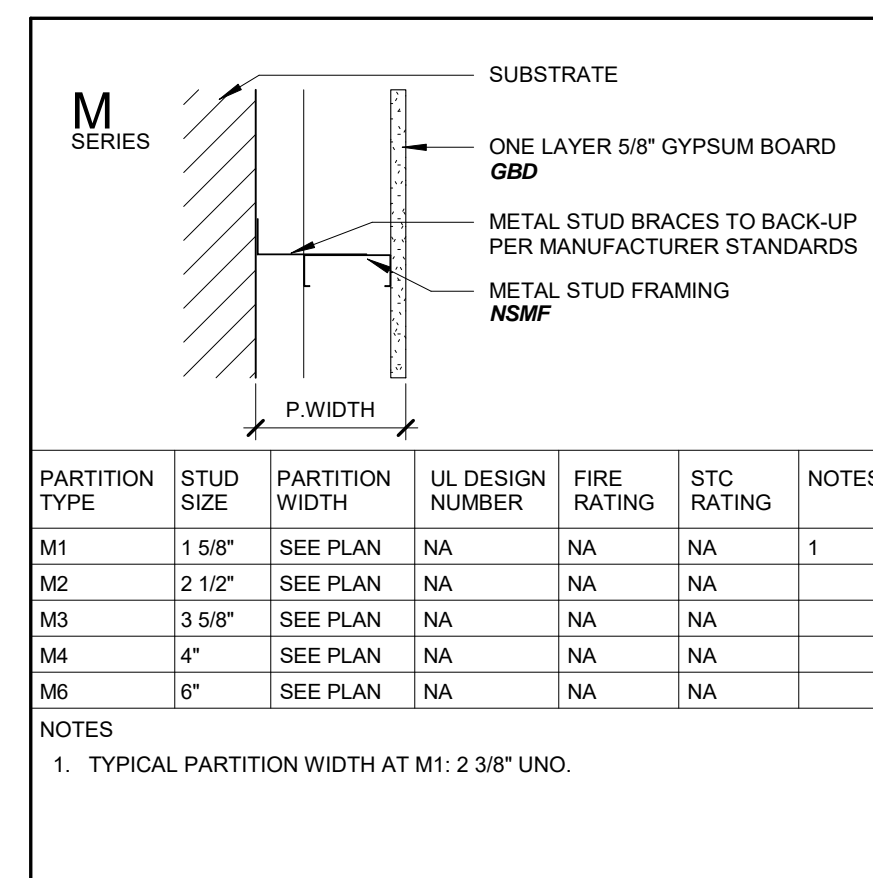
PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
D2	2 1/2"	5"	UL U419	2HR	50	1
D3	3 5/8"	6"	UL U419	2HR	50	1
D6	6"	8 1/2"	UL U419	2HR	50	1

NOTES  
 1. STC VARIES WITH INSULATION USED



PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
F1	1 5/8"	2 1/4"				1
F2	2 1/2"	3 1/8"				1
F3	3 5/8"	4 1/4"				1
F6	6"	6 5/8"				1

NOTES  
 1. REPLACE GBD WITH TLBD AT TL FINISHES



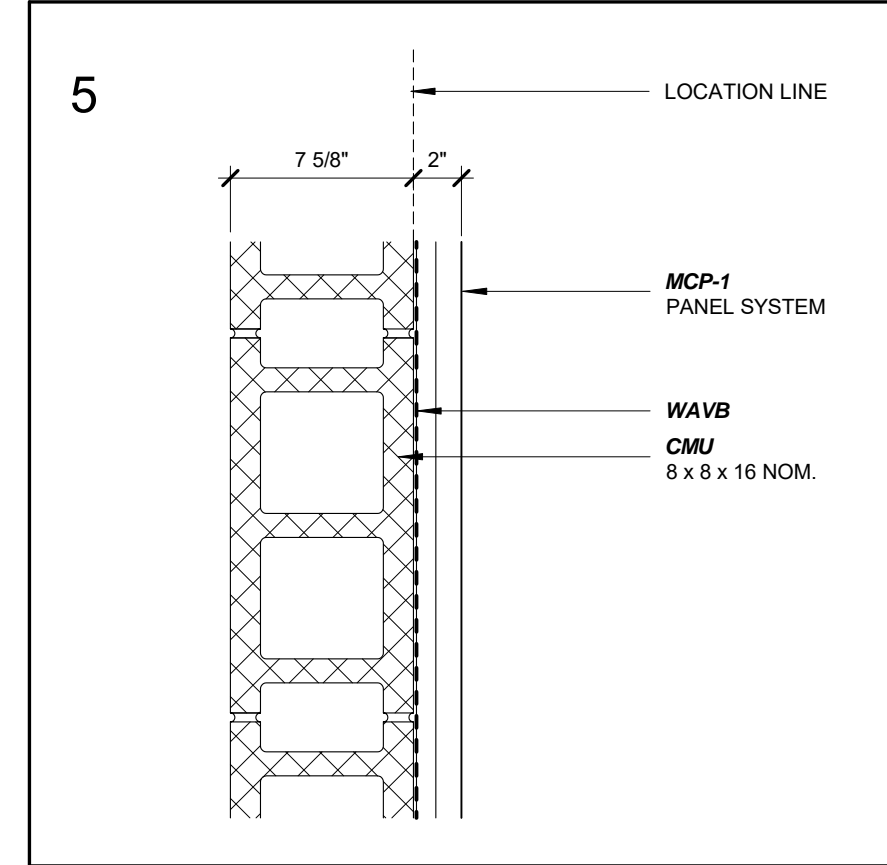
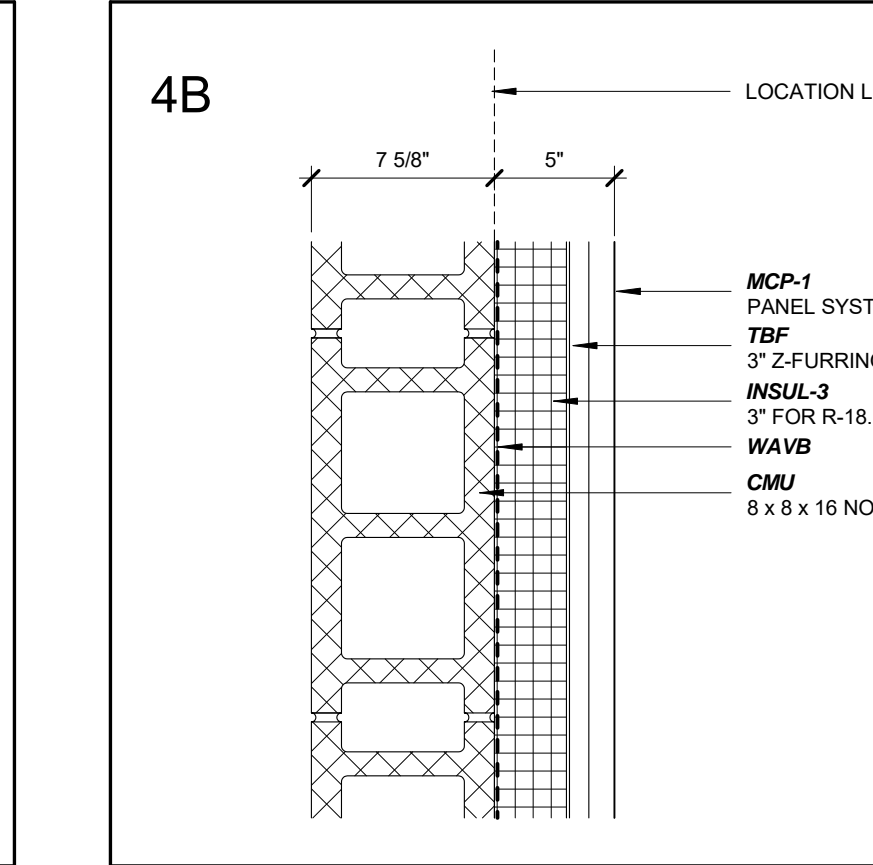
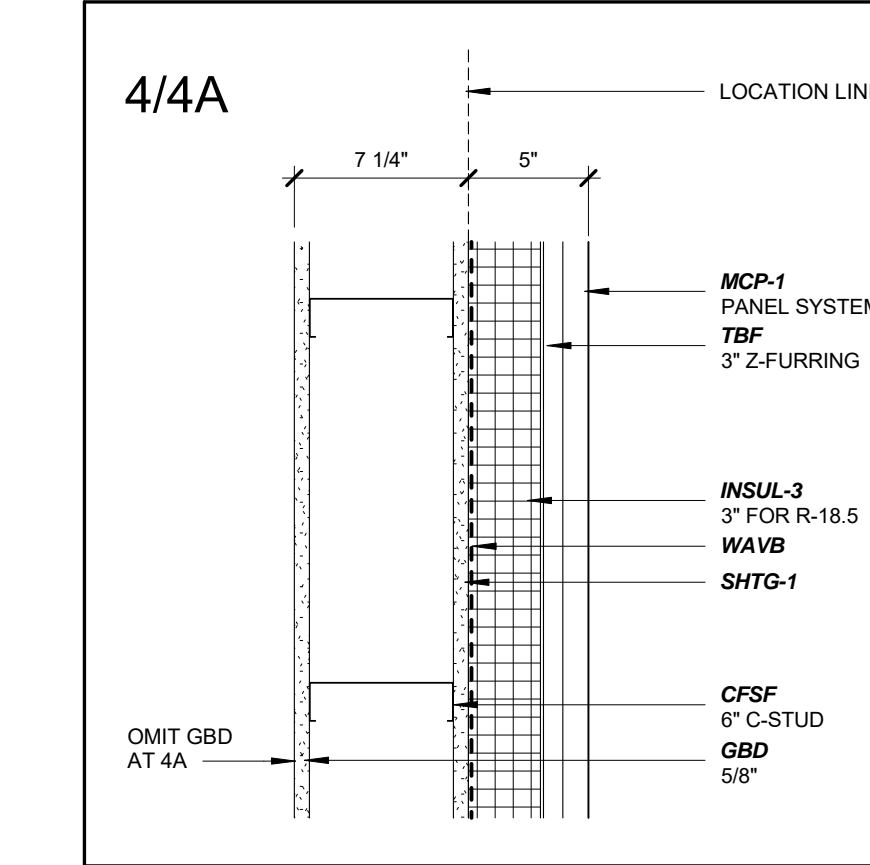
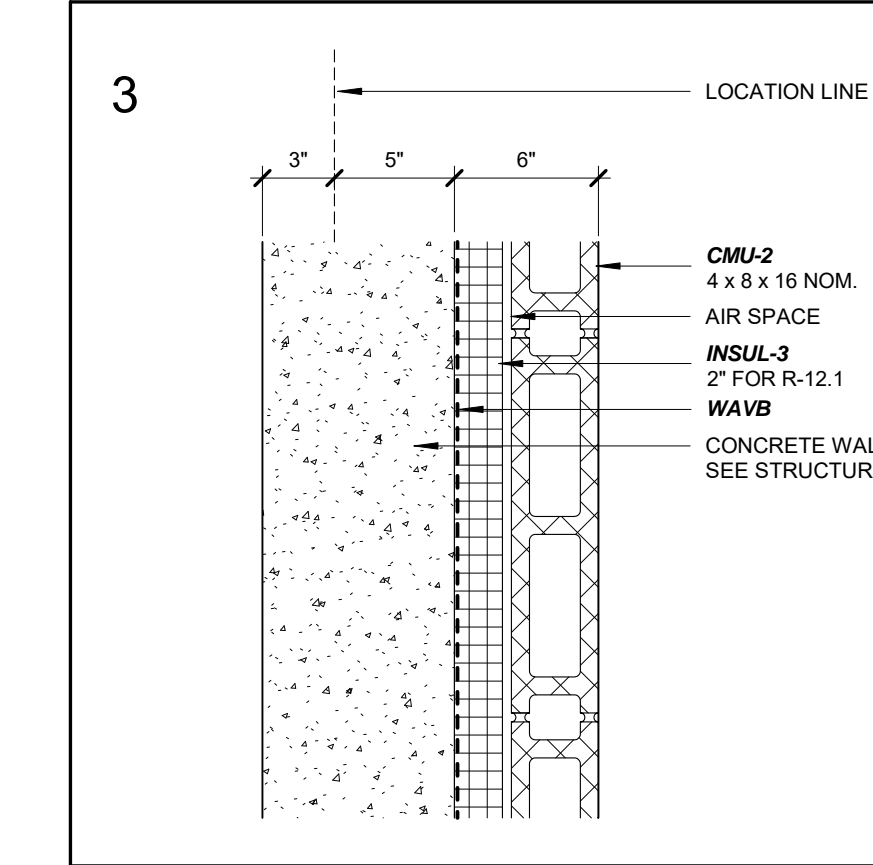
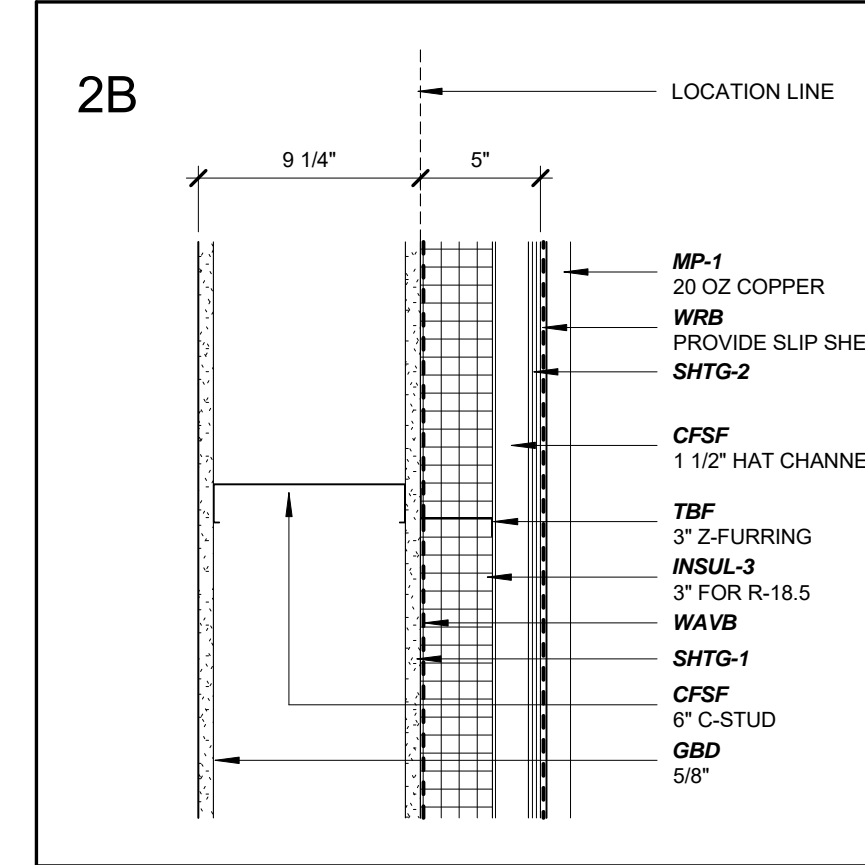
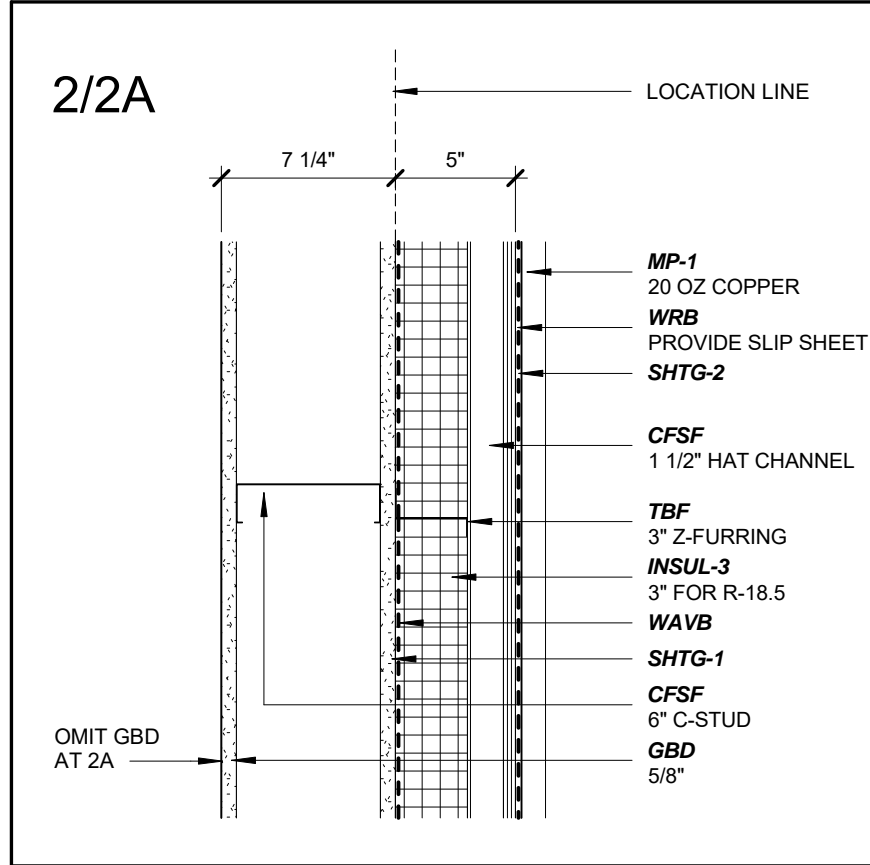
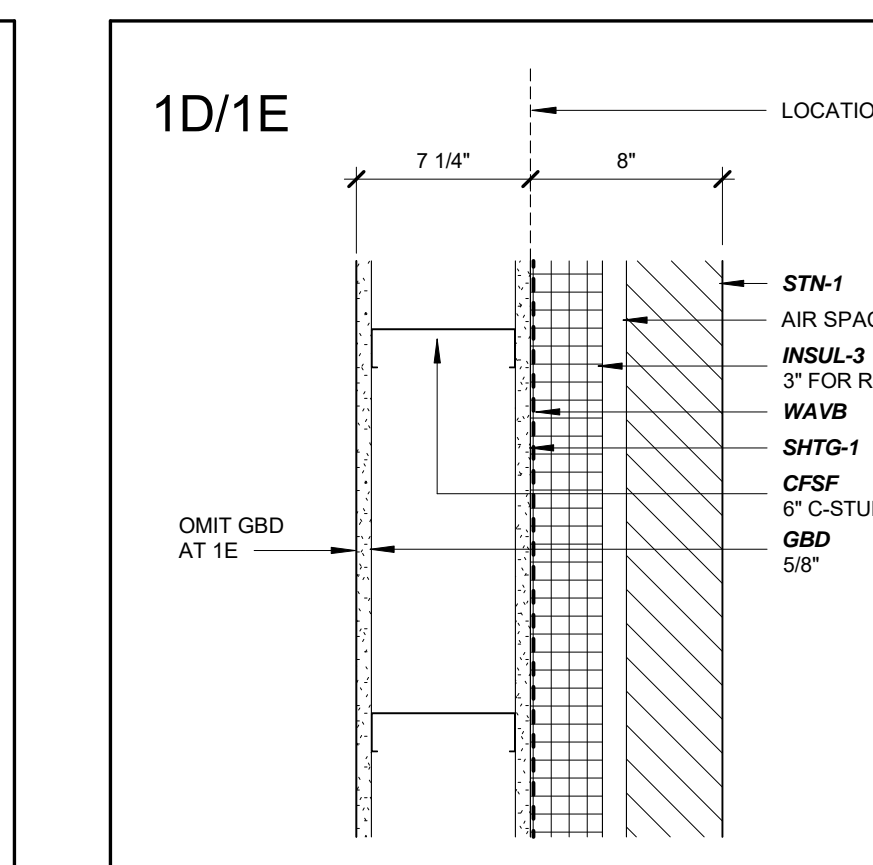
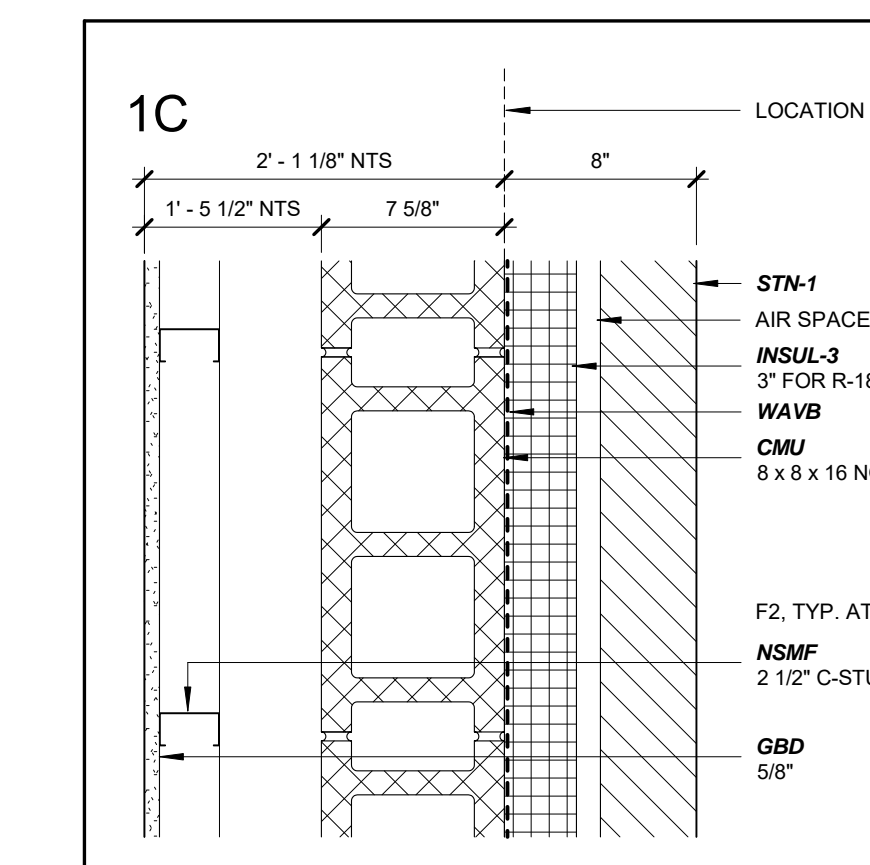
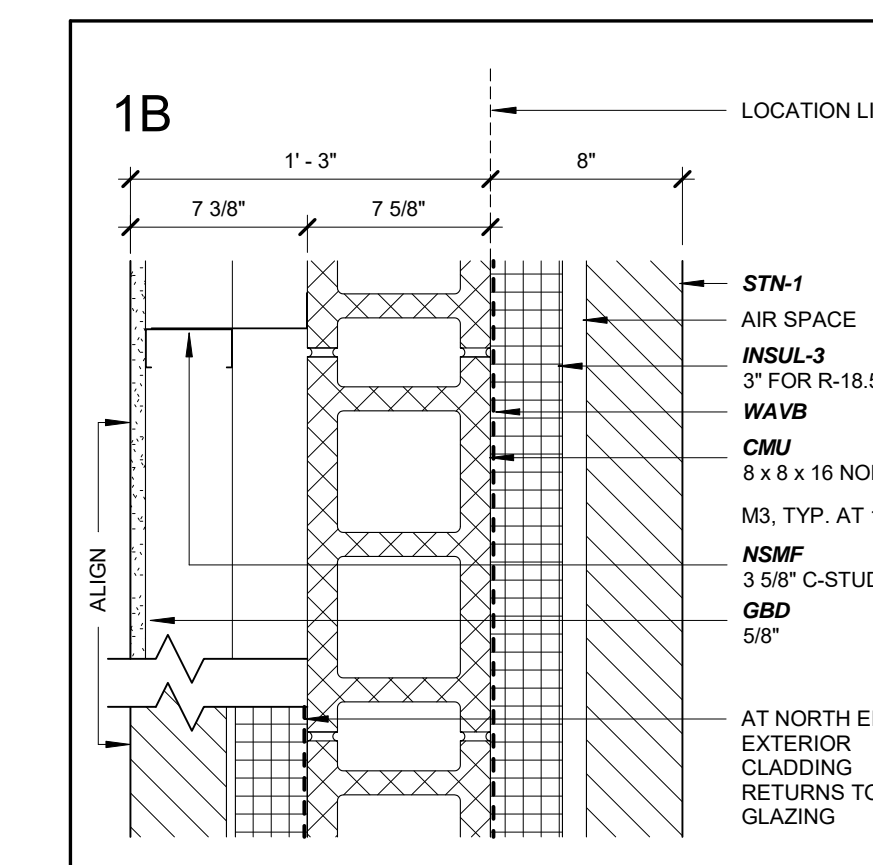
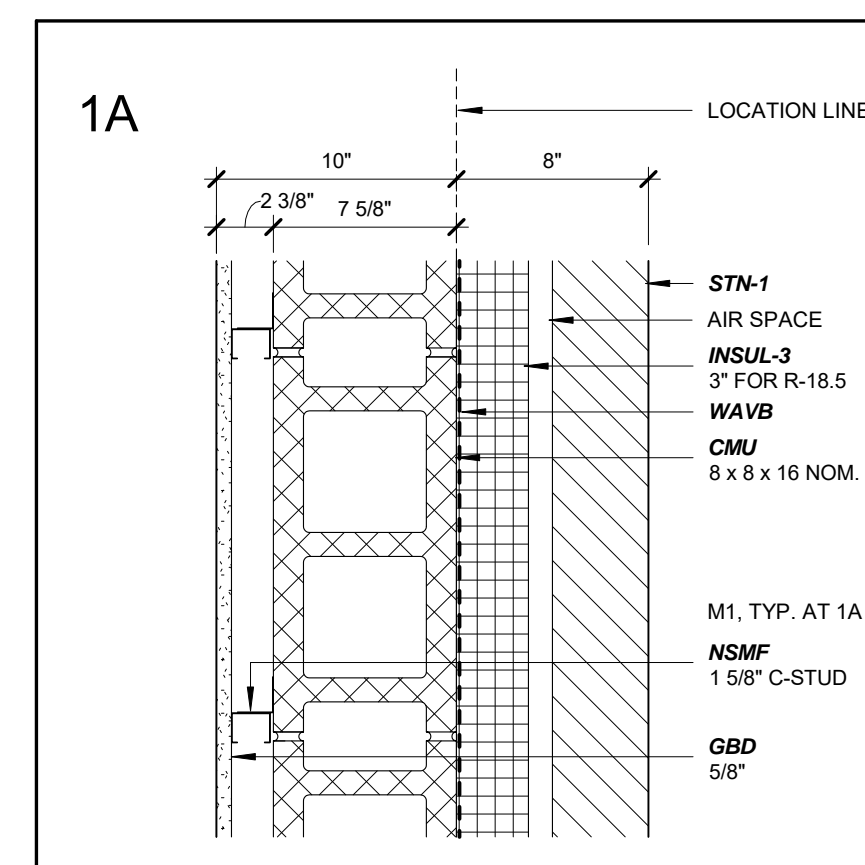
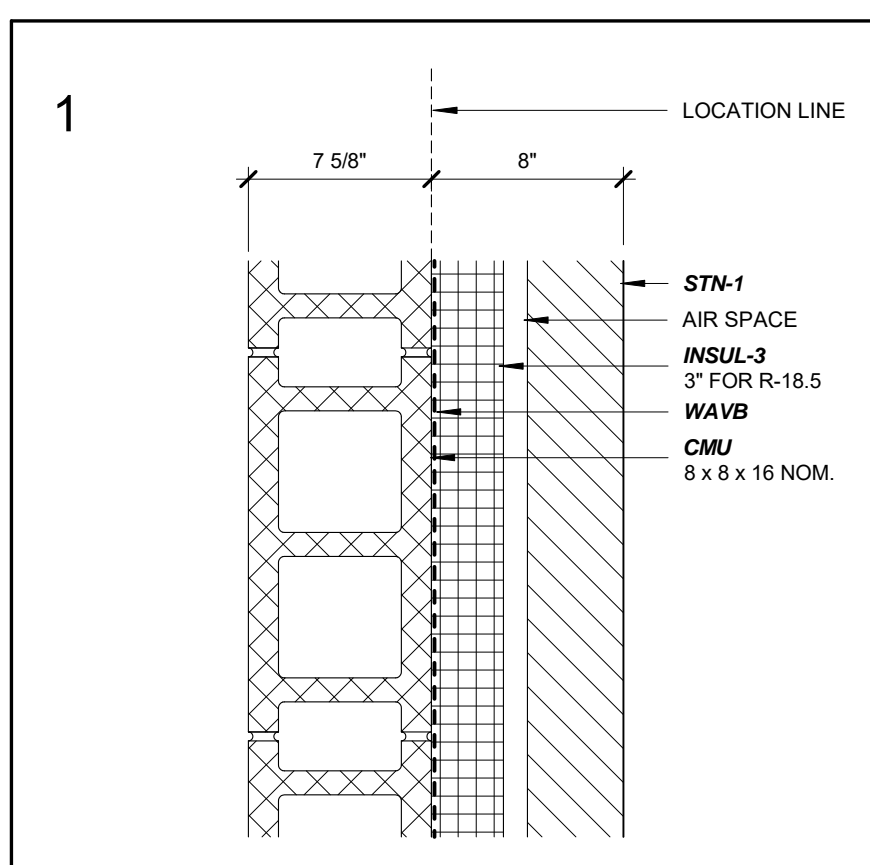
PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
M1	1 5/8"	SEE PLAN	NA	NA	NA	1
M2	2 1/2"	SEE PLAN	NA	NA	NA	
M3	3 5/8"	SEE PLAN	NA	NA	NA	
M4	4"	SEE PLAN	NA	NA	NA	
M6	6"	SEE PLAN	NA	NA	NA	

NOTES  
 1. TYPICAL PARTITION WIDTH AT M1: 2 3/8" UNO.

- GENERAL NOTES**
- SOME PARTITIONS DESCRIBED HERE MAY NOT BE USED ON THIS PROJECTS. SEE PLANS FOR SPECIFIC PARTITION TYPES USED.
- INTERIOR PARTITIONS TYPES TO BE INDICATED BY THIS SYMBOL ON FLOOR PLANS.
  - GAUGE, SPACING, AND PERFORMANCE REQUIREMENTS OF METAL STUDS TO BE DETERMINED BY SPECIFICATIONS UNLESS OTHERWISE NOTED.
  - TYPE "X" GYPSUM BOARD REQUIRED AT RATED PARTITIONS ONLY.
  - FIRE RATED OR ACOUSTICALLY RATED PARTITIONS TO EXTEND TO ROOF OR FLOOR DECK ABOVE UNLESS NOTED OTHERWISE. PROVIDE REQUIRED CLOSURE TO MAINTAIN FIRE OR ACOUSTICAL RATING. PROVIDE APPROPRIATE DEFLECTION JOINT AT TOP OF PARTITION TO ELIMINATE CRUSHING OF PARTITION.
  - AT NON-RATED PARTITIONS IN ROOMS WITH FINISHED CEILING, GYPSUM BOARD TO GO TO 6" ABOVE CEILING UNLESS NOTED OTHERWISE. AT NON-RATED PARTITIONS IN ROOMS WITHOUT FINISH CEILING, GYPSUM BOARD TO GO TO DECK UNLESS NOTED OTHERWISE.
  - PENETRATIONS IN FIRE RATED OR ACOUSTICAL RATED PARTITIONS AND CONNECTIONS TO THESE PARTITIONS BY OTHER PARTITIONS SHALL BE PER PARTITION MANUFACTURER'S WRITTEN RECOMMENDATIONS OR UL REQUIREMENTS FOR FIRE TEST AND ACOUSTICAL TEST RATINGS.
  - REFER TO SPEC FOR BACKER AT PARTITIONS SCHEDULED TO RECEIVE CERAMIC TILE. PROVIDE TILE BACKER BOARD TO PARTITIONS IN SHOWERS, HIGH MOISTURE AREAS OR SIMILAR AREAS AND WHERE NOTED. INSTALLATION OF MOISTURE RESISTANT GYPSUM BOARD OR TILE BACKER BOARD SHALL NOT REDUCE FIRE OR ACOUSTICAL RATINGS FOR ANY PARTITION.
  - ACOUSTICALLY RATED PARTITIONS SHALL HAVE CONTINUOUS SOUND BATT INSULATION AND ACOUSTICAL CAULKING UNLESS OTHERWISE NOTED. STAGGER JOINTS BOXES A MINIMUM OF 2'-6" BETWEEN PENETRATIONS AT ACOUSTICALLY RATED OR FIRE RATED PARTITIONS.
  - THERMALLY SEPARATED PARTITIONS SHALL HAVE VAPOR BARRIER AND THERMAL INSULATION AS SPECIFIED UNLESS OTHERWISE NOTED.
  - VERIFY WITH STRUCTURAL ALL NON-BEARING MASONRY PARTITION THAT ARE NOT ADEQUATELY BRACED BY FIXED ELEMENTS PRIOR TO ERECTION.
  - PROVIDE A MINIMUM OF 1'-0" OF SOLID MASONRY BETWEEN PENETRATIONS IN MASONRY PARTITIONS UNLESS OTHERWISE NOTED.
  - REFER TO STRUCTURAL DRAWINGS FOR INTERIOR STRUCTURAL PARTITIONS.
  - PROVIDE BLOCKING AND BACKER SUPPORT FOR ALL EQUIPMENT ATTACHMENT AND MOUNTING. COORDINATE LOCATION OF BLOCKING AND BACKER MATERIAL WITH OWNER AND CONTRACTOR SUPPLIED EQUIPMENT PRIOR TO CONSTRUCTION OF PARTITION. SEE FURNITURE PLAN FOR FURNITURE LOCATIONS THAT REQUIRE BLOCKING.
  - STC RATINGS INDICATED MINIMUM WALL REQUIREMENTS WITH SOUND BATT INSULATION. REFER TO GYPSUM ASSOCIATION BULLETIN #500 AND THE UL MANUAL FOR DETAILED CONSTRUCTION TECHNIQUES TO ACHIEVE STC RATINGS.

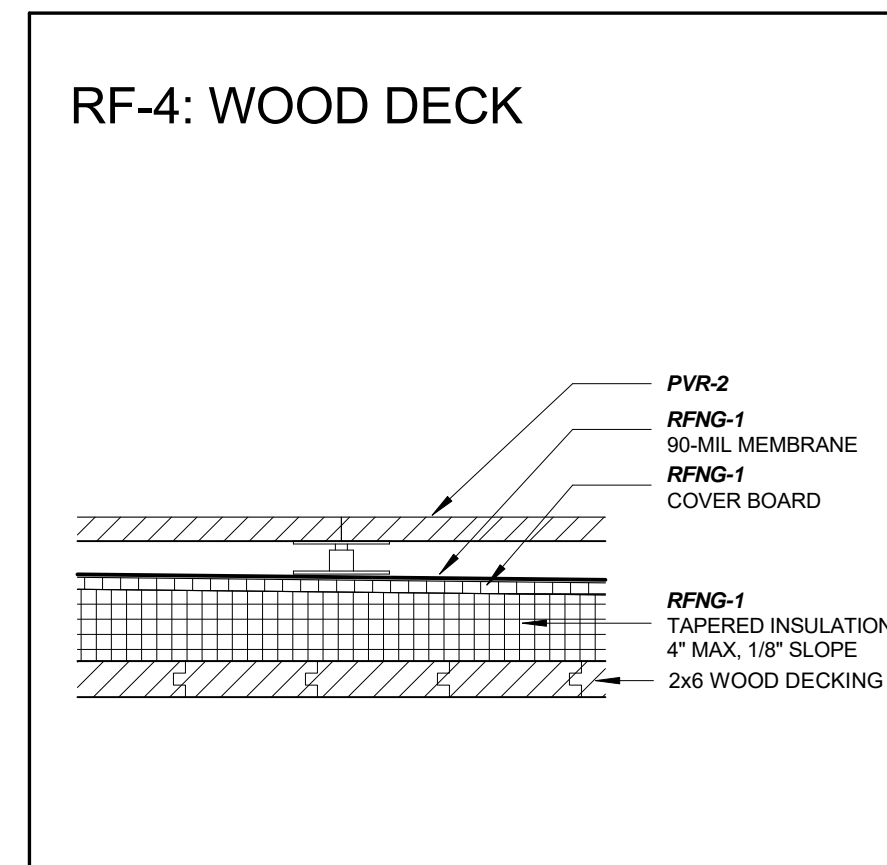
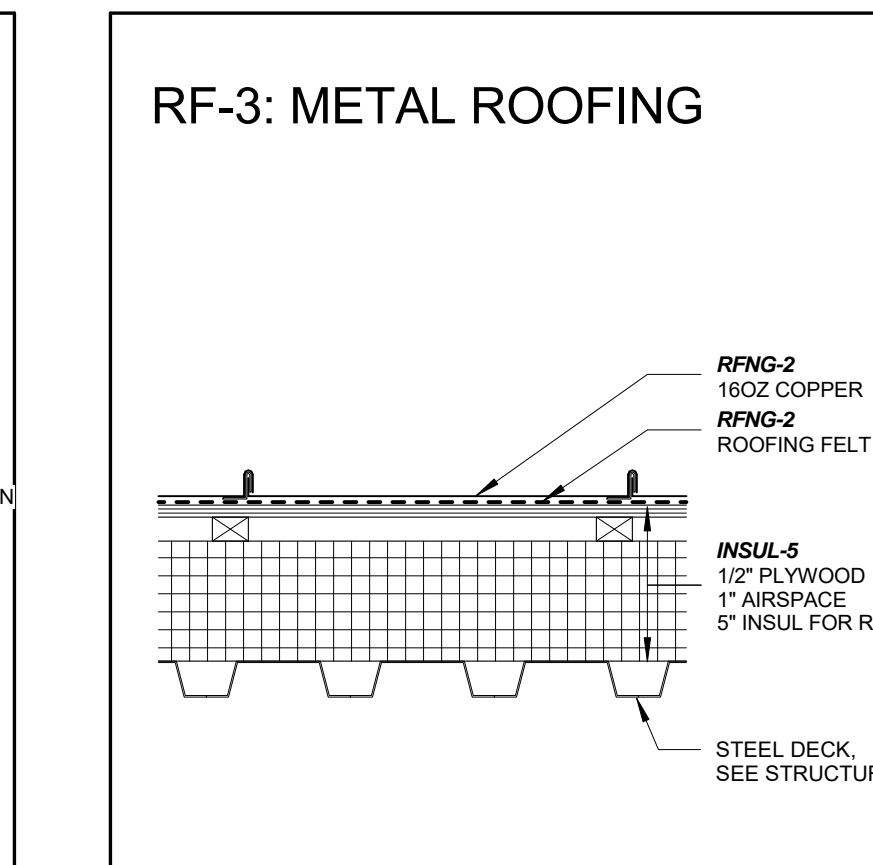
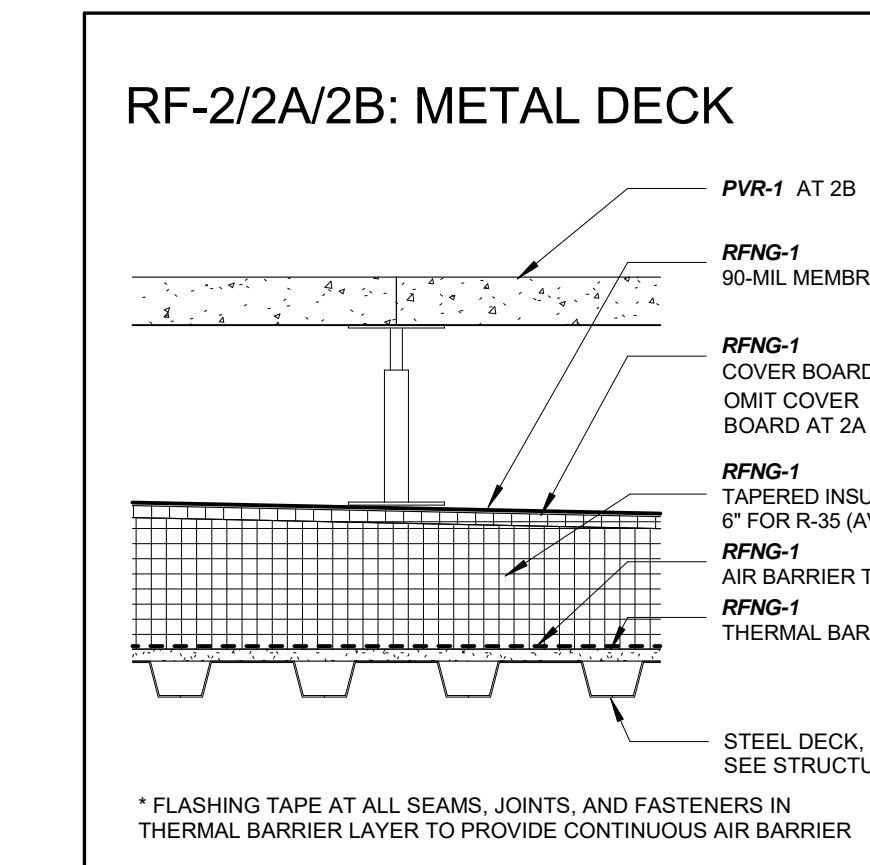
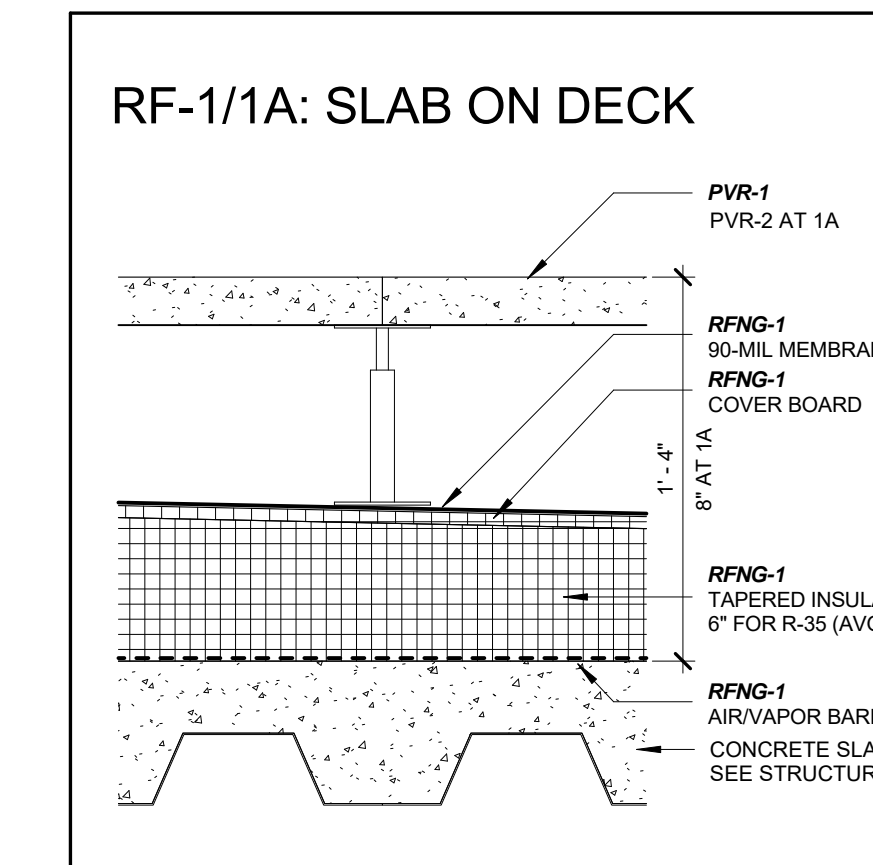
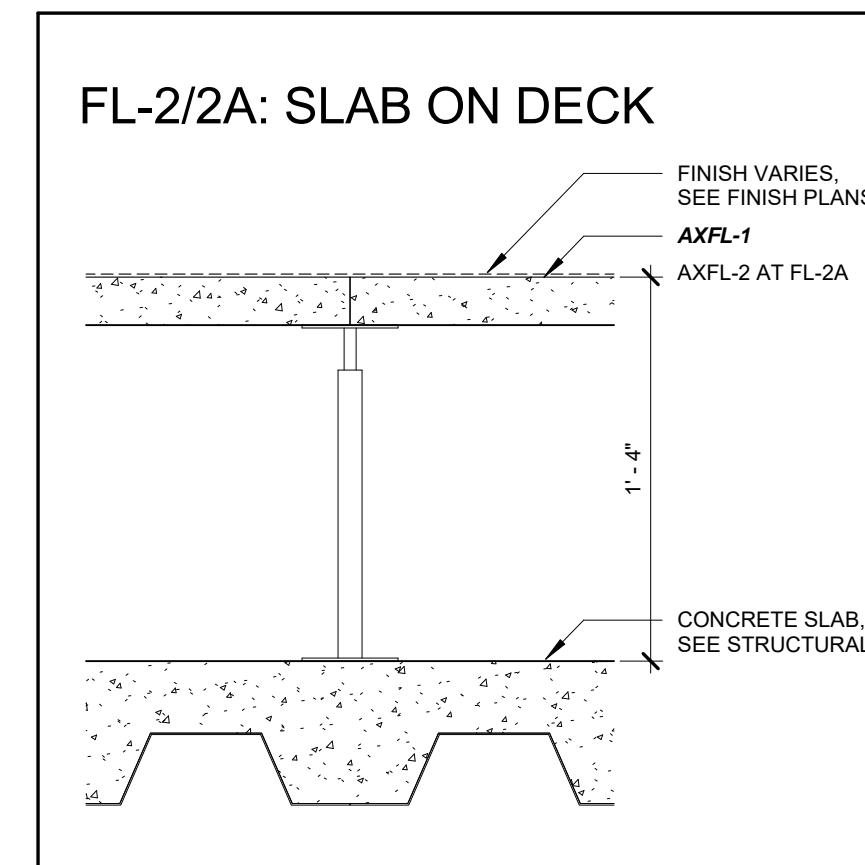
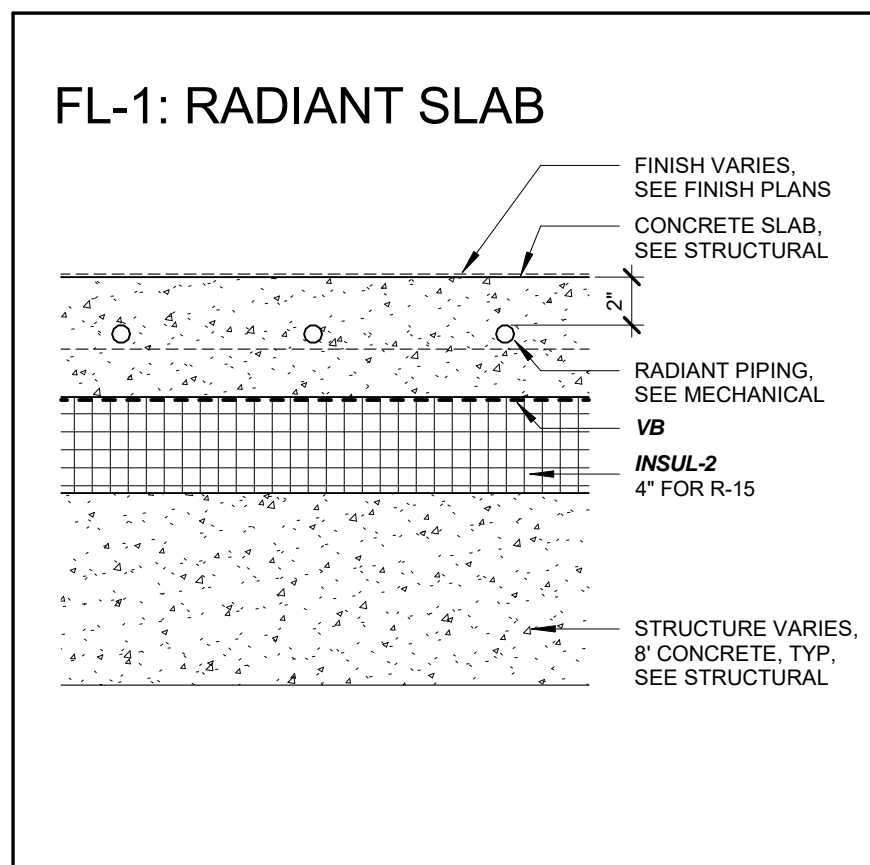
**4 WALL TYPES - PARTITION**

G002 1 1/2" = 1'-0"



**1 WALL TYPES - EXTERIOR**

G002 1 1/2" = 1'-0"



**2 FLOOR TYPES**

G002 1 1/2" = 1'-0"

**3 ROOF TYPES**

G002 1 1/2" = 1'-0"

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 608.826.0532 tel

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**Olbrich Botanical Gardens**  
**Expansion Phase 1**  
 BPW Project #8162  
 3330 Atwood Avenue  
 Madison, WI 53704

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the Laws of the State of Wisconsin.  
 ARCHITECT SEAL

Signature: *Jack Poling*  
 Print Name: Jack Poling  
 Date: JUNE 4, 2018 License No.: A-8984

ISSUE	DATE	DESCRIPTION
	09.29.2017	SCHEMATIC DESIGN SUBMISSION
	12.08.2017	DD PRICING SET
	01.10.2018	DESIGN DEVELOPMENT SUBMISSION
	01.17.2018	IUDC SUBMISSION
	03.30.2018	70% CD PRICING ISSUE
	04.26.2018	PARKING LOT AND SITE PLAN SUBMISSION
	05.04.2018	90% CD SUBMISSION
	06.01.2018	BID ISSUE
	06.04.2018	PERMIT ISSUE

PROJECT NO. 2017016  
 PROJECT PHASE BID DOCUMENTS  
 DRAWN BY MSR CHECKED BY MSR  
 www.msr.com

**TYPES AND SYSTEMS**

**EXHIBIT A**

**G002**