OUTLINE SPECIFICATIONS

1 GENERAL

1.01 FORM OF AGREEMENT: AIA DOCUMENT A101-2007, "STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR WHERE THE BASIS OF PAYMENT IS A STIPULATED SUM", WITH AIA DOCUMENT A201-2007 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION".

ADMINISTRATION OF THE CONTRACT WILL BE BY THE OWNER.

1.02 CONTRACT DOCUMENT AND FIELD CONDITION REVIEW: THE GENERAL CONTRACTOR SHALL COMPARE THE CONTRACT DOCUMENTS WITH EACH OTHER AND THE FIELD CONDITIONS, AND REPORT ANY INCONSISTENCIES, ERRORS, OR OMISSIONS TO THE ARCHITECT BEFORE BEGINNING THE WORK. VERIFY DIMENSIONS AND FIELD CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE BEGINNING THE WORK. WHERE DETAILED INFORMATION IS LACKING, REQUEST INSTRUCTIONS FROM THE ARCHITECT.

1.03 DEFINITIONS:

FURNISH: UNLESS OTHERWISE DEFINED IN GREATER DETAIL, SUPPLY AND DELIVER AN ITEM TO THE PROJECT SITE, READY FOR INSTALLATION.

INSTALL: UNLESS OTHERWISE DEFINED IN GREATER DETAIL, PLACE AN ITEM IN THE PROJECT SO THAT IT IS READY FOR SERVICE OR USE.

PROVIDE: UNLESS OTHERWISE DEFINED IN GREATER DETAIL, FURNISH AND INSTALL AN ITEM, COMPLETE AND READY FOR INTENDED USE.

1.04 SUBMITTALS: THE CONTRACTOR SHALL REVIEW EACH SUBMITTAL FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND COORDINATION WITH THE WORK, AND APPLY THE CONTRACTOR'S SIGNED REVIEW STAMP TO THE SUBMITTAL CERTIFYING COMPLIANCE WITH THE CONTRACT DOCUMENTS. SUBMITTALS WITHOUT THE CONTRACTOR'S REVIEW STAMP WILL BE RETURNED WITHOUT REVIEW. TRANSMIT ALL SUBMITTALS TO THE ARCHITECT. REVISE AND RESUBMIT SUBMITTALS AS REQUIRED. SCHEDULE SUBMITTALS TO AVOID DELAY IN THE PROGRESS OF THE WORK, ALLOWING 10 WORKING DAYS FROM ARCHITECT'S RECEIPT FOR INITIAL SUBMITTAL REVIEW, AND 5 WORKING DAYS FOR SUBSEQUENT RESUBMITTAL REVIEWS. SUBMIT RELATED ITEMS AS A SINGLE PACKAGE.

PRODUCT DATA: SUBMIT PDFs MARKED TO CLEARLY INDICATE APPLICABLE PRODUCTS, MODELS, OPTIONS, AND ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT PDFs UNLESS OTHERWISE INDICATED OR REQUIRED. PROVIDE DIMENSIONED DRAWINGS AND DETAILS, INCLUDING ADJACENT CONSTRUCTION AND RELATED WORK, AND CLEARLY INDICATE ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS. WHERE INDICATED, SUBMIT SHOP DRAWINGS AND ENGINEERING CALCULATIONS SEALED BY A DESIGN PROFESSIONAL REGISTERED TO PRACTICE IN THE JURISDICTION WHERE THE PROJECT IS LOCATED. CLOUD AND IDENTIFY ALL REVISIONS ON EACH RESUBMITTAL.

SAMPLES: SUBMIT 2 SAMPLES PLUS THE NUMBER REQUIRED BY THE CONTRACTOR, UNLESS OTHERWISE INDICATED. SUBMIT ADDITIONAL SAMPLES AS NECESSARY TO INDICATE THE RANGE OF COLOR, FINISH AND TEXTURE TO BE PROVIDED.

1.05 CUTTING AND PATCHING: CONTRACTOR IS RESPONSIBLE FOR CUTTING, FITTING, AND PATCHING REQUIRED TO COMPLETE THE WORK OR TO MAKE ITS PARTS FIT TOGETHER PROPERLY. DO NOT CUT AND PATCH STRUCTURAL ELEMENTS IN AMANNER THAT WILL REDUCE THEIR LOAD CARRYING CAPACITY. PROTECT EXISTING CONSTRUCTION DURING CUTTING AND PATCHING TO PREVENT DAMAGE. PATCH WITH DURABLE SEAMS THAT ARE AS INVISIBLE AS POSSIBLE. RESTORE EXPOSED FINISHES OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO ADJOINING CONSTRUCTION IN A MANNER THAT WILL ELIMINATE EVIDENCE OF PATCHING.

1.06 PRODUCTS: PRODUCTS ARE ITEMS PURCHASED BY THE CONTRACTOR FOR INCORPORATION INTO THE WORK. SELECT PRODUCTS THAT COMPLY WITHT THE CONTRACT DOCUMENTS AND GOVERNING REGULATIONS ACCORDING TO THE FOLLOWING:

SEMI-PROPRIETARY SPECIFICATION: WHERE PRODUCTS OR MANUFACTURERES ARE NAMED FOLLOWED BY THE TERM "OR APPROVED SUBSTITUTE", THE CONTRACTOR MAY SUBMIT UNNAMED PRODUCTS TO THE ARCHITECT FOR APPROVAL.

COMPLIANCE SPECIFICATION: WHERE ONLY COMPLIANCE WITH A CODE, STANDARD, OR REGULATION IS INDICATED, PROVIDE A PRODUCT THAT COMPLIES.

DESCRIPTIVE SPECIFICATION: WHERE EXACT CHARACTERISTICS ARE INDICATED, PROVIDE A PRODUCT THAT COMPLIES.

DELIVER, STORE, AND HANDLE PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INSTALL PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS; WHERE MANUFACTURER'S INSTRUCTIONS CONFLICT WITH THE CONTRACT DOCUMENTS, REQUEST DIRECTION FROM THE ARCHITECT.

1.07 QUALITY CONTROL: THE OWNER WILL PROVIDE AN INDEPENDENT AGENCY TO PERFORM TESTING AND INSPECTIONS INDICATED, OR REQUIRED BY THE AUTHORITIES HAVING JUSRISDICTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COSTS OF RETESTING, WHERE THE RESULTS OF TESTS AND INSPECTIONS PERFORMED INDICATE NONCOMPLIANCE WITH REQUIREMENTS. COOPERATE WITH TESTING AND INSPECTION AGENCIES, INCLUDING SCHEDULING TESTS AND INSPECTIONS, PROVIDING ACCESS TO THE WORK, FURNISHING INCIDENTAL LABOR, AND PROVIDING SECURITY AND PROTECTION OF SAMPLES. PROTECT CONSTRUCTION EXPOSED BY OR FOR TESTING AND INSPECTION, AND REPAIR CONSTRUCTION DAMAGED BY TESTING OR INSPECTION.

2 SITEWORK

2.01 EARTHWORK

GENERAL: SEE CIVIL DRAWINGS, STRUCTURAL DRAWINGS, AND GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS THAT APPLY TO THIS SECTION.

GEOTECHNICAL ENGINEERING: PERFORM SITE PREPARATION, FILL, BACKFILL, COMPACTION AND GRADING OPERATIONS UNDER A QUALITY CONTROL PROGRAM MONITORED BY THE OWNER'S GEOTECHNICAL ENGINEER.

2.02 TERMITE TREATMENT: ENGAGE A LICENSED PROFESSIONAL PEST CONTROL OPERATOR TO APPLY A SOIL TREATMENT TERMITICIDE BEARING A FEDERAL REGISTRATION NUMBER OF THE EPA AND REGISTERED WITH THE LOCAL AUTHORITIES HAVING JURISDICTION. APPLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. TREAT UNDER ALL BUILDING SLABS, ALONG BOTH SIDES OF FOUNDATION WALLS, AT ALL PENETRATIONS, AND IN ALL HOLLOW VOIDS OF FOUNDATION CONSTRUCTION. REAPPLY TREATMENT TO AREAS DISTURBED BY SUBSEQUENT CONSTRUCTION OR LANDSCAPING. PROVIDE A FIVE YEAR WRITTEN WARRANTY AGAINST TERMITE INFESTATION, AGREEING TO RETREAT AND REPAIR DAMAGE.

2.03 FOUNDATION DRAINAGE:

PRODUCTS:

DRAINAGE PIPE: ASTM F667, CORRUGATED POLYETHYLENE PIPE AND FITTINGS, PERFORATED, WITH COUPLINGS FOR SOIL TIGHT JOINTS.

FILTER FABRIC: NONWOVEN SYNTHETIC FIBER GEOTEXTILE FABRIC; "MIRAFI 160N" BY TENCATE GEOSYNTHETICS AMERICAS, OR APPROVED SUBSTITUTE.

DRAINAGE FILL: WASHED CRUSHED STONE, ASTM C33 NO. 57.

INSTALLATION: INSTALL PERFORATED PIPE WITH PERFORATIONS DOWN, JOINING PIPES AND FITTINGS WITH SOILTIGHT JOINTS. PROVIDE CLEAN-OUTS AT MAXIMUM 75 FOOT INTERVALS. PLACE GRAVEL AS INDICATED, SURROUNDED BY FILTER FABRIC.

EXTEND PIPE TO DAYLIGHT, PITCHED IN DIRECTION OF FLOW AT MINIMUM 1% SLOPE.

3 CONCRETE

3.01 CAST-IN-PLACE CONCRETE:

GENERAL: SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT APPLY TO THIS SECTION.

SUBMITTALS: SUBMIT PRODUCT DATA FOR REVIEW.

TOLERANCES: PLACE CONCRETE AT INDICATED LOCATIONS AND ELEVATIONS, TRUE TO LINE, PLUMB, AND LEVEL (1/8" IN 10', 1/4" IN TOTAL).

DRAINAGE FILL: WASHED CRUSHED STONE, ASTM C33 NO. 57. PLACE AND COMPACT DRAINAGE FILL MATERIAL TO REQUIRED ELEVATIONS, WITH A TOLERANCE OF 1/2" IN 10'.

VAPOR RETARDER: MINIMUM 10 MIL PLASTIC SHEET COMPLYING WITH ASTM E1745, CLASS A. INSTALL IN ACCORDANCE WITH ASTM E1643. LAP JOINTS MINMUM 12", AND SEAL JOINTS, PERIMETER AND PENETRATIONS WITH MANUFACTURER'S RECOMMENDED MASTIC OR TAPE.

WATERSTOPS: FLEXIBLE COMPOUND OF BUTYL RUBBER AND SODIUM BENTONITE CLAY; "CCW MIRASTOP" BY CARLISLE COATINGS & WATERPROOFING, INC., OR APPROVED SUBSTITUTE.

PERIMETER INSULATION: ASTM C578 TYPE IV, EXTRUDED POLYSTYRENE BOARD INSULATION, THICKNESS INDICATED, MINIMUM 5 YEAR AGED R-VALUE OF 5.0 PER INCH AT 75 DEG F (ASTM C518), MINIMUM 25 PSI COMPRESSIVE STRENGTH, MAXIMUM FLAME SPREAD INDEX OF 25 AND MAXIMUM SMOKE DEVELOPED INDEX OF 450 (ASTM E84). INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

EXPANSION JOINT FILLER: ASPHALT SATURATED CELLULOSE FIBER STRIPS (ASTM D1751).

EXPANSION JOINT FILLER FOR SEALANT JOINT: ASTM D4819, TYPE II, CLOSED CELL POLYETHYLENE JOINT FILLER, WITH REMOVABLE STRIP FOR SEALANT JOINT; "DEK-O-FOAM" BY W.R. MEADOWS, INC., OR APPROVED SUBSTITUTE.

FINISHING:

INTERIOR SLABS: FLOAT INTERIOR SLABS AND APPLY TROWEL FINISH TO PRODUCE UNIFORM TEXTURE FREE OF TROWEL MARKS.

EXTERIOR SLABS: FLOAT EXTERIOR SLABS AND TREADS, AND APPLY NON-SLIP BROOM FINISH PERPENDICULAR TO TRAFFIC DIRECTION.

FORMED SURFACES: PROVIDE FORM MATERIALS TO PRODUCE A SMOOTH, UNIFORM TEXTURE FOR CONCRETE EXPOSED TO VIEW, WITH REGULAR SEAM AND TIE PATTERNS. FILL VOIDS AND REMOVE PROJECTIONS TO MATCH FORMED CONCRETE COLOR AND TEXTURE.

CONCRETE SURFACE CATEGORY: CSC 2 (ACI 347.3R-13).

CURING: COMPLY WITH ACI 308.1. PROTECT CONCRETE FROM PREMATURE DRYING AND EXCESSIVE HOT OR COLD TEMPERATURES IN ACCORDANCE WITH ACI 305.1 AND ACI 306.1. BEGIN CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACES AFTER FINISHING.

CONCRETE CURING COMPOUND: ASTM C309 TYPE 1-D, DISSIPATING WATER-BASED LIQUID MEMBRANE-FORMING CONCRETE CURING COMPOUND WITH FUGITIVE DYE; "1100" BY W.R. MEADOWS, INC., OR APPROVED SUBSTITUTE. PREPARE SURFACES AND SPRAY APPLY TO NEW CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

INTERIOR CONCRETE SLAB CONTROL AND CONSTRUCTION JOINT FILLER: TWO-COMPONENT, SEMI-RIGID EPOXY JOINT FILLER, 100% SOLIDS, MINIMUM 90 SHORE A HARDNESS (ASTM D 2240), MINIMUM 1,300 PSI TENSIL STRENGTH (ASTM D638), MINIMUM 45% ELONGATION (ASTM D638), CUSTOM COLOR; "MM-80" BY METZGER/MCGUIRE, OR APPROVED SUBSTITUTE. ALLOW CONCRETE SLABS TO CURE MINIMUM 90 DAYS AND STABILIZE INTERIOR TEMPERATURE AT FINAL OCCUPANCY LEVEL BEFORE INSTALLATION. PREPARE SUBSTRATES AND INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AT INTERIOR CONCRETE SLAB CONTROL AND CONSTRUCTION JOINTS. PRIME SUBSTRATES AS RECOMMENDED, INSTALL FULL DEPTH AT CONTROL JOINTS AND MINIMUM 2" DEPTH AT CONSTRUCTION JOINTS, AND TRIM FLUSH WITH CONCRETE SLAB SURFACE.

5 METALS

5.01 METAL FABRICATIONS

GENERAL: SEE STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT APPLY TO THIS SECTION.

SUBMITTALS: SUMBIT SHOP DRAWINGS FOR INDICATED PRODUCTS SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE JURISDICTION WHERE THE PROJECT IS LOCATED, SHOWING COMPLIANCE WITH THE INDICATED STRUCTURAL REQUIREMENTS WITHOUT EXCEEDING ALLOWABLE WORKING STRESS OF MATERIALS, INCLUDING ANCHORS AND CONNECTIONS.

QUALITY ASSURANCE: FIELD VERIFY DIMENSIONS PRIOR TO SHOP FABRICATION. QUALIFY WELDING PROCESSES AND OPERATORS IN ACCORDANCE WITH AWS D1.1 AND D1.3. COMPLY WITH RECOMMENDATIONS OF NAAMM AMP 510-92 METAL STAIRS MANUAL AND NAAMM AMP 521-01 PIPE RAILING MANUAL.

METALS:

STEEL WIDE FLANGE SHAPES: ASTM A992.

STEEL CHANNELS, ANGLES, AND PLATES: ASTM A36.

STEEL PIPE: ASTM A53, GRADE B.

HOLLOW STEEL SECTIONS (HSS): ASTM A500, GRADE B.

STEEL FLOOR PLATE: ASTM A786, DIAMOND PATTERN.

STEEL SHEET: ASTM A1011.

ALUMINUM DIAMOND PLATE: ASTM B632, 3003-H14 ALLOY.

FABRICATION: FABRICATE TO INDICATED SIZES, DIMENSIONS AND DETAILS. ASSEMBLE WORK TRUE-TO-LINE, WITH TIGHT, CLOSE FITTING JOINTS. EASE EXPOSED EDGES AND GRIND ALL EXPOSED WELDS SMOOTH. PROVIDE COMPONENTS REQUIRED FOR PROPER ANCHORAGE.

FLOOR GRATINGS: BAR TYPE STEEL GRATING DESIGNED IN ACCORDANCE WITH NAAMM MBG 531 TO SUPPORT 100 PSF LIVE LOAD WITH MAXIMUM DEFLECTION OF L/240. HOT-DIP GALVANIZE TO COMPLY WITH ASTM A123 GRADE 65.

STEEL STAIRS AND RAILINGS: FABRICATE TO INDICATED SIZES, DIMENSIONS AND DETAILS. SUMBIT SEALED SHOP DRAWINGS INDICATING COMPLIANCE WITH THE FOLLOWING STRUCTURAL REQUIREMENTS WITHOUT EXCEEDING ALLOWABLE WORKING STRESS OF MATERIALS, INCLUDING ANCHORS AND CONNECTIONS:

1. TREADS AND PLATFORMS: UNIFORM LOAD OF 100 PSF, AND CONCENTRATED LOAD OF 300 LB APPLIED TO AREA OF 4 SQ IN.
2. FRAMING: RESULTING LOADS, INCLUDING RAILING SYSTEM.
3. HANDRAIL OR TOP RAIL OF GUARDRAIL: CONCENTRATED LOAD OF 200 LB APPLIED IN ANY DIRECTION, AND UNIFORM LOAD OF 50 PLF APPLIED IN ANY DIRECTION.
4. INTERMEDIATE GUARDRAIL COMPONENTS: HORIZONTAL LOAD OF 50 LB APPLIED TO AN AREA OF 1 SQ FT.
5. MAXIMUM DEFLECTION: L/240.

FINISH INTERIOR FABRICATIONS WITH SHOP PRIMER. HOT-DIP GALVANIZE EXTERIOR STAIRS AND RAILING FABRICATIONS TO COMPLY WITH ASTM A123 GRADE 85.

STEEL LADDERS: FIXED-RAIL TYPE WITH KNURLED STEEL RUNGS SHOULDERED AND HEADED INTO AND WELDED TO RAILS. SUMBIT SEALED SHOP DRAWINGS INDICATING COMPLIANCE WITH CONCENTRATED LOAD OF 250 POUNDS AT ANY POINT WITHOUT EXCEEDING ALLOWABLE WORKING STRESS OF MATERIALS, INCLUDING ANCHORS AND CONNECTIONS. FINISH INTERIOR FABRICATIONS WITH SHOP PRIMER.

STEEL BOLLARDS: FABRICATE FROM SCHEDULE 40 STEEL PIPE. PROVIDE CUTOUTS FOR FIXTURES AND HOLES FOR WIRING. FINISH WITH SHOP PRIMER.

FINISH: REMOVE SCALE, RUST AND OTHER DELETERIOUS MATERIALS FROM FERROUS METAL IN ACCORDANCE WITH SSPC SP-3 "POWER TOOL CLEANING". UNLESS INDICATED TO BE GALVANIZED OR POWDER COATED, SHOP PRIME FERROUS METAL WITH FABRICATOR'S STANDARD RUST-INHIBITIVE PAINT, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO PROVIDE A MINIMUM DRY FILM THICKNESS OF 2.5 MILS.

UNLESS OTHERWISE INDICATED, HOT-DIP GALVANIZE EXPOSED EXTERIOR ITEMS NOT INDICATED TO BE POWDER COATED, AND ITEMS EMBEDDED IN CONCRETE. COMPLY WITH ASTM A153 FOR FERROUS METAL HARDWARE, AND ASTM A123 GRADE 85 FOR FERROUS METAL SHAPES, PLATES AND BARS.

INSTALLATION: INSTALL WORK TRUE-TO-LINE, PLUMB AND LEVEL, ACCURATELY FITTED AND FREE OF DISTORTION AND DEFECTS. ANCHOR FABRICATIONS SECURELY IN PLACE WITH COMPATIBLE FASTENERS. TOUCH-UP PAINTING WITH SAME MATERIAL USED FOR SHOP PAINTING IMMEDIATELY AFTER ERECTION. REPAIR GALVANIZING TO COMPLY WITH ASTM A780.

FOR EXTERIOR APPLICATIONS AND WHERE BUILT INTO EXTERIOR WALLS, USE GALVANIZED FASTENERS WITH GALVANIZED FERROUS METAL, USE STAINLESS STEEL FASTENERS WITH STAINLESS STEEL AND ALUMINUM MATERIALS, AND USE CADMIUM PLATED FASTENERS WITH OTHER MATERIALS.

6 WOOD

6.01 ROUGH CARPENTRY:

GENERAL: STORE WOOD PRODUCTS OFF GROUND TO PREVENT TWISTING OR WARPING, WITH PROTECTION FROM WEATHER. REPLACE DAMAGED OR DETERIORATED MATERIALS.

SUBMITTALS: SUBMIT PRODUCT DATA FOR REVIEW.

LUMBER - BLOCKING: SOUTHERN YELLOW PINE, SPIB NO. 2, S4S AND GRADESTAMPED, 19% MAXIMUM MOISTURE CONTENT.

PLYWOOD: COMPLY WITH PS-1. PROVIDE APA RATED SHEATHING, EXPOSURE 1, GRADE C-D OR BETTER, THICKNESS AS INDICATED.

PRESERVATIVE PRESSURE TREATMENT (P.T.): PRESERVATIVE PRESSURE TREAT INTERIOR WOOD FRAMING INDICATED AS "P.T." WITH ZINC BORATE TO COMPLY WITH AWPA STANDARD U1 FOR USE CATAGORY 2, AND KILN DRIED AFTER TREATMENT TO MAXIMUM 19% MOISTURE CONTENT.

FIRE RETARDANT TREATMENT (FRT): PRESSURE TREAT WOOD INDICATED AS "FRT" TO COMPLY WITH AWPA STANDARD P49 TO PROVIDE WOOD WITH A FLAME SPREAD AND SMOKE DEVELOPED RATING OF LESS THAN 25 WHEN TESTED IN ACCORDANCE WITH ASTM E84 FOR MINIMUM 30 MINUTE DURATION. PROVIDE TREATMENT TYPE RECOMMENDED BY TREATMENT MANUFACTURER FOR INTENDED USE. TREATMENT TO PROVIDE PROTECTION AGAINST TERMITES AND FUNGAL DECAY, AND BE REGISTERED WITH EPA FOR USE AS A WOOD PRESERVATIVE. TREATED WOOD IN CONTACT WITH CARBON STEEL AND ALUMINUM TO HAVE CORROSION RATES OF LESS THAN 1 MIL PER YEAR WHEN TESTED IN ACCORDANCE WITH FED SPEC MIL-L-19140, PARAGRAPH 4.6.5.2. KILN DRY AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 19% FOR LUMBER AND 15% FOR PLYWOOD, AND STAMP EACH PIECE WITH UL LABEL CLASSIFICAION.

FASTENERS: PROVIDE FASTENERS AS REQUIRED, CORROSION RESISTANT WHERE EXPOSED TO THE EXTERIOR OR IN CONTACT WITH PRESERVATIVE PRESSURE TREATED OR FIRE RETARDANT TREATED WOOD.

INSTALLATION: DISCARD MATERIAL THAT IS TOO SHORT FOR OPTIMUM JOINT ARRANGEMENT, SPLIT, WARPED, BOWED, TWISTED, OR OTHERWISE DEFECTIVE. SET CARPENTRY WORK TO REQUIRED LINES AND ELEVATIONS, WITH MEMBERS PLUMB, LEVEL, SQUARE, AND STRAIGHT (1/4" IN 10', 1/2" TOTAL). CUT MEMBERS TO FIT TIGHTLY, AND SECURELY ATTACH TO SUBSTRATES AND SUPPORTING MEMBERS WITH FASTENERS THAT WILL NOT PENETRATE MEMBER WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR RECEIVE FINISH MATERIALS. PROVIDE BLOCKING AS REQUIRED FOR ATTACHMENT OF OTHER WORK.

6.02 INSULATING SHEATHING:

GENERAL: PROTECT PRODUCTS FROM EXPOSURE TO WEATHER AND CONTACT WITH WET SURFACES.

SUBMITTALS: SUBMIT PRODUCT DATA FOR REVIEW.

MINERAL WOOL BOARD INSULATION: ASTM C612 TYPE IVB, THICKNESS INDICATED, MINIMUM R-VALUE OF 4.0 PER INCH AT 75 DEG F (ASTM C518), MAXIMUM FLAME SPREAD INDEX OF 0 AND MAXIMUM SMOKE DEVELOPED INDEX OF 0 (ASTM E84), MINIMUM DENSITY OF 11 PCF (ASTM C303); "COMFORTBOARD 110" BY ROCKWOOL, INC., OR APPROVED SUBSTITUTE.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ATTACH TO METAL FRAMING WITH MANUFACTURER'S RECOMMENDED CORROSION RESISTANT SCREWS AND WASHERS COMLYING WITH ASTM C1002 OR ASTM C954.

7 THERMAL AND MOISTURE PROTECTION

7.01 FLUID-APPLIED WATERPROOFING

GENERAL: SUBMIT PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR REVIEW.

PROJECT CONDITIONS: PERFORM WORK ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS ARE WITHIN THE LIMITS RECOMMENDED BY THE WATERPROOFING MANUFACTURER. DO NOT INSTALL WHEN TEMPERATURES ARE EXPECTED TO FALL BELOW 40 DEGREES F WITHIN 4 HOURS AFTER APPLICATION, OR TO DAMP OR CONTAMINATED SURFACES.

WARRANTY: PROVIDE MANUFACTURER'S 5 YEAR SYSTEM WARRANTY.

FLUID WATERPROOFING: ASTM C836, COLD LIQUID-APPLIED, SINGLE-COMPONENT, SOLVENT-FREE, NON-SHRINK ELASTOMERIC WATERPROOFING MEMBRANE, MINIMUM 82% SOLIDS CONTENT BY WEIGHT (ASTM D1644), MINIMUM 400% ELONGATION (ASTM D412), AND MAXIMUM 0.08 PERMS WATER VAPOR TRANSMISSION (ASTM E96 METHOD B). PROVIDE MANUFACTURER'S RECOMMENDED PRIMERS, SEALANTS, AND ACCESSORIES.

PRODUCT: "HYDRALASTIC 836" BY W.R. MEADOWS, INC., OR APPROVED SUBSTITUTE.

DRAINAGE BOARD: MOLDED POLYSTYRENE DRAINAGE SHEET WITH NONWOVEN GEOTEXTILE FABRIC FACING, MINIMUM 0.40" THICK, MINIMUM FABRIC APPARENT OPENING SIZE 70 US STD SIEVE (ASTM D4751), MINIMUM 15,000 PSF COMPRESSIVE STRENGTH (ASTM D1621 MOD), AND MINIMUM 17 GPM/FT CORE IN PLANE FLOW RATE AT GRADIENT 1.0 (ASTM D4716).

PRODUCT: "MEL-DRAIN 5035" BY W.R. MEADOWS, INC., OR APPROVED SUBSTITUTE.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. REMOVE PROJECTIONS, FILL VOIDS, AND CLEAN SURFACES TO RECEIVE WATERPROOFING. APPLY WATERPROOFING MEMBRANE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO PRODUCE A SEAMLESS MEMBRANE WITH INDICATED MINIMUM CURED THICKNESS. ALLOW MEMBRANE TO CURE. INSTALL DRAINAGE BOARD.

VERTICAL SURFACES: MINIMUM CURED MEMBRANE THICKNESS OF 60 MILS.

7.02 BENTONITE WATERPROOFING

GENERAL: SUBMIT PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR REVIEW.

BENTONITE WATERPROOFING: SODIUM BENTONITE CLAY BETWEEN TWO LAYERS OF NEEDLE-PUNCHED WOVEN AND NONWOVEN POLYPROPYLENE FABRIC; "CCW MIRACLAY" BY CARLISLE COATINGS & WATERPROOFING, INC. OR APPROVED SUBSTITUTE. PROVIDE MANUFACTURER'S RECOMMENDED FASTENERS AND ACESSORIES.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROTECT PANELS FROM HYDRATING BEFORE BEING COVERED WITH OVERBURDEN. FOR UNDERSLAB APPLICATION, PLACE OVER LEVEL AND COMPACTED GRADE WITH NON-WOVEN SIDE UP. OVERLAP EDGES 4" MINIMUM AND STAPLE JOINTS. EXTEND MINIMUM 12" UP OR BEYOND PERIMETER FORMS. PROVIDE RECOMMENDED TREATMENT AT ALL PENETRATIONS.

7.03 INSULATION

GENERAL: PROTECT INSULATION PRODUCTS FROM EXPOSURE TO WEATHER AND CONTACT WITH WET SURFACES.

SUBMITTALS: SUBMIT PRODUCT DATA FOR REVIEW.

BATT INSULATION: ASTM C665, TYPE I, UNFACED GLASS FIBER THERMAL BATT INSULATION, MAXIMUM FLAME SPREAD INDEX OF 25 AND MAXIMUM SMOKE DEVELOPED INDEX OF 50 (ASTM E84).

VINYL FACED METAL BUILDING INSULATION: ASTM C991, TYPE I, FLEXIBLE GLASS FIBER INSULATION. PROVIDE WHITE POLYPROPYLENE LAMINATED FACING ON INTERIOR FACE OF FIBERGLASS, MAXIMUM FLAME SPREAD INDEX OF 25 AND MAXIMUM SMOKE DEVELOPED INDEX OF 50 (ASTM E84), AND PERMEANCE NOT EXCEEDING 0.05 WHEN TESTED IN ACCORDANCE WITH ASTM E96. PROVIDE EXTENDED TABS TO FACILITATE ATTACHMENT OVER PURLINS.

THERMAL BLOCKS: POLYISOCYANURATE CORE WITH 26 GAUGE STEEL CLADDING, AZ50 GALVALUME FINISH, MAXIMUM FLAME SPREAD INDEX OF 25 AND MAXIMUM SMOKE INDEX OF 150 (ASTM E84), 1" THICK x MINIMUM 2-1/2" WIDE; "SNS THERMAL SPACE" BY STEEL BUILDING INSULATION, OR APPROVED SUBSTITUTE.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE THICKNESS OF INSULATION INDICATED OR REQUIRED TO ACHIEVE R-VALUE INDICATED. SET VAPOR-RETARDER MEMBRANE TO CONDITIONED SIDE OF CONSTRUCTION. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS TO PROVIDE CONTINUOUS FULL-DEPTH LAYER OF INSULATION. SEAL ALL PENETRATIONS THROUGH EXTERIOR WALLS AND UPPERMOST CEILING/ROOF WITH SEALANT.

SEAL ALL SEAMS AND PENETRATIONS IN EXPOSED FACINGS WITH MANUFACTURER'S RECOMMENDED TAPE.

7.04 WATER RESISTIVE BARRIER (WRB)

GENERAL: SUBMIT PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR REVIEW.

WATER RESISTIVE BARRIER (WRB): NON-PERFORATED, NON-WOVEN, SPUNBONDED POLYOLEFIN, < 0.04 CFM/FT^2 AT 75 Pa AIR PENETRATION (ASTM E2357), MINIMUM 280 CM WATER PENETRATION RESISTANCE (AATCC TEST METHOD 127), 28 PERMS WATER VAPOR TRANSMISSION (ASTM E96 METHOD B), MAXIMUM FLAME SPREAD INDEX OF 10 AND MAXIMUM SMOKE DEVELOPED INDEX OF 10 (ASTM E84); "TYVEK COMMERCIALWRAP" BY DUPONT, OR APPROVED SUBSTITUTE. PROVIDE MANUFACTURER'S RECOMMENDED FASTENERS AND SEAM TAPE.

SELF-ADHERED FLASHING (SAF): BUTYL RUBBER ON POLYETHYLENE LAMINATE CARRIER SHEET, 30 MIL MINUMUM TOTAL THICKNESS, COMPLYING WITH AAMA 711-07, CLASS A, LEVEL 3; "STRAIGHT FLASH" BY DUPONT, OR APPROVED SUBSTITUTE. PROVIDE "FLEXWRAP NF" AT SILLS AND WHERE FLEXIBLE SAF IS REQUIRED.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. APPLY OVER EXTERIOR WALL SUBSTRATE TO PROVIDE A CONTINUOUS DRAINAGE PLANE. COVER EXTERIOR WALL SUBSTRATE WITH CONTINUOUS LAYER OF WRB APPLIED TO DIVERT WATER TO THE EXTERIOR, AND FASTEN TO SUBSTRATE. WEATHERLAP HORIZONTAL AND VERTICAL JOINTS MINIMUM 6", AND EXTEND WRB MINIMUM 12" BEYOND CORNERS. LAP WRB MINIMUM 4" OVER ADJACENT FLASHINGS. PROVIDE SAF FLASHING AT ALL WALL OPENINGS, FABRICATING SILL PAN FLASHING FROM FLEXIBLE SAF, AND INTEGRATE INTO WRB TO MAINTAIN DRAINAGE TO EXTERIOR. SEAL ALL JOINTS WITH SEAM TAPE.

7.05 METAL ROOF PANELS

GENERAL: PROVIDE STRUCTURAL METAL ROOF PANEL SYSTEMS MEETING INDICATED REQUIREMENTS AS DETERMINED BY QUALIFIED TESTING FACILITY:

STRUCTURAL PERFORMANCE: WITHSTAND DESIGN WIND, SNOW, AND OTHER LIVE LOADS INDICATED, WITH MAXIMUM DEFLECTION OF 1/180 OF THE SPAN.

WIND UPLIFT RESISTANCE: COMPLY WITH UL 580 FOR CLASS UL-60.

THERMAL MOVEMENT: ALLOW FOR THERMAL MOVEMENT AND DEFLECTION FROM AMBIENT AND INTERNAL TEMPERATURE VARIATIONS.

SUBMITTALS: SUBMIT SHOP DRAWINGS INDICATING PANEL LAYOUT AND DETAILS OF EACH CONDITION OF INSTALLATION, INCLUDING EDGE CONDITIONS, JOINTS, OPENINGS, PENETRATIONS, FLASHINGS, TRIM, AND FASTENERS AND SEALANT PLACEMENT. INCLUDE PRODUCT DATA AND TEST REPORTS INDICATING COMPLIANCE WITH REQUIREMENTS.

METAL TRAPEZOIDAL SEAM ROOF PANELS: MECHANICALLY SEAMED, CONCEALED FASTENER, TRAPEZOIDAL SEAM STRUCTURAL METAL ROOF PANELS FABRICATED FROM MINIMUM 24 GAUGE STEEL WITH SMOOTH SURFACE; "DOUBLE-LOK" BY MBCI, OR APPROVED SUBSTITUTE. FABRICATE PANELS IN CONTINUOUS LENGTHS WHERE POSSIBLE.

WEATHER TIGHTNESS WARRANTY: 15 YEARS FROM DATE OF SUBSTANTIAL COMPLETION, WITH NO MONETARY LIMITATION.

AIR INFILTRATION: MAXIMUM 0.014 CFM/SQ FT AT 6.24 LBF/SQ FT STATIC AIR PRESSURE (ASTM E1680).

WATER PENETRATION: NO UNCONTROLLED WATER PENETRATION AT 12 LBF/SQ FT STATIC AIR PRESSURE (ASTM E1646).

PANEL SIZE: 24" WIDTH x 3" HEIGHT TRAPEZOIDAL DOUBLE FOLDED JOINT.

PROVIDE WINDCLAMPS WHERE REQUIRED TO WITHSTAND DESIGN WIND LOADS.

GALVALUME FINISH: ALUMINUM-ZINC ALLOY-COATED STEEL SHEET (ASTM A792, GRADE 50, COATING CLASS AZ55), UNPAINTED GALVALUME PLUS FINISH, WITH 20 YEAR WARRANTY.

ACCESSORIES: PROVIDE MANUFACTURER'S RECOMMENDED TWO-PIECE FLOATING CLIPS, FASTENERS, CLOSURES, SEALANTS, AND ACCESSORIES. PROVIDE FLASHING AND TRIM TO MATCH METAL PANEL MATERIAL, THICKNESS AND FINISH.

SNOW GUARDS: ALUMINUM BRACKETS WITH STAINLESS STEEL SET SCREWS DESIGNED TO CLAMP TO STANDING SEAM OF ROOFING PANEL WITHOUT PENETRATING PANEL, WITH ATTACHED SNOW BARS CAPABLE OF ACCEPTING METAL INSERT FINISHED TO MATCH ROOFING PANEL; "SNOWMAX STANDING SEAM" BY ALPINE SNOWGUARDS, OR APPROVED SUBSTITUTE. PROVIDE ONE ICE FLAG ON SNOW BAR CENTERED BETWEEN SEAMS FOR ROOFING PANELS 24" WIDE OR LESS, AND TWO ICE FLAGS EVENLY SPACED FOR ROOFING PANELS WIDER THAN 24".

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE SUPPLEMENTAL FRAMING SUPPORTS IN ACCORDANCE WITH ASTM C754. SET UNITS TRUE TO LINE, LEVEL, AND PLUMB (1/16" AT JOINT BETWEEN ADJACENT PANELS, 1/8" IN 10', 1/4" TOTAL).

7.06 METAL WALL PANELS

GENERAL: PROVIDE STRUCTURAL METAL WALL PANEL SYSTEMS MEETING INDICATED REQUIREMENTS AS DETERMINED BY QUALIFIED TESTING AGENCY:

STRUCTURAL PERFORMANCE: WITHSTAND DESIGN WIND LOADS INDICATED, WITH MAXIMUM DEFLECTION OF 1/120 OF THE SPAN.

THERMAL MOVEMENT: ALLOW FOR THERMAL MOVEMENT AND DEFLECTION FROM AMBIENT AND INTERNAL TEMPERATURE VARIATIONS.

SUBMITTALS: SUBMIT SHOP DRAWINGS INDICATING PANEL LAYOUT AND DETAILS OF EACH CONDITION OF INSTALLATION, INCLUDING EDGE CONDITIONS, JOINTS, OPENINGS, PENETRATIONS, FLASHINGS, TRIM, AND FASTENERS AND SEALANT PLACEMENT. INCLUDE PRODUCT DATA AND TEST REPORTS INDICATING COMPLIANCE WITH REQUIREMENTS.

RIBBED METAL WALL PANELS: MINIMUM 26 GAUGE GALVALUME STEEL, SMOOTH SURFACE, 36" WIDE x 1-1/4" HEIGHT, 12" RIB SPACING, WITH GASKETED EXPOSED FASTENING SYSTEM; "PBR" BY MBCI, OR APPROVED SUBSTITUTE.

AIR INFILTRATION: MAXIMUM 0.006 CFM/SQ FT AT 6.24 LBF/SQ FT STATIC AIR PRESSURE (ASTM E1680).

WATER PENETRATION: NO UNCONTROLLED WATER PENETRATION AT 20 LBF/SQ FT STATIC AIR PRESSURE (ASTM E1646).

PREFINISHED: ALUMINUM-ZINC ALLOY-COATED STEEL SHEET (ASTM A792, GRADE 50, COATING CLASS AZ50), 2-COAT 70% FLUOROPOLYMER FINISH SYSTEM IN COLOR INDICATED, WITH 25 YEAR WARRANTY.

GALVALUME FINISH: ALUMINUM-ZINC ALLOY-COATED STEEL SHEET (ASTM A792, GRADE 50, COATING CLASS AZ50), UNPAINTED GALVALUME PLUS FINISH, WITH 20 YEAR WARRANTY.

ACCESSORIES: PROVIDE MANUFACTURER'S RECOMMENDED FASTENERS, CLOSURES, TAPE SEALERS, SEALANTS, AND ACCESSORIES. PROVIDE FLASHING AND TRIM TO MATCH METAL PANEL MATERIAL, THICKNESS AND FINISH.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE SUPPLEMENTAL FRAMING SUPPORTS IN ACCORDANCE WITH ASTM C754. SET UNITS TRUE TO LINE, LEVEL, AND PLUMB (1/16" AT JOINT BETWEEN ADJACENT PANELS, 1/8" IN 10', 1/4" TOTAL).

VERTICAL METAL WALL PANEL FASTENING: MINIMUM #12 TEK SCREWS SPACED 12" O.C. MAXIMUM INTO 16 GAUGE MINIMUM FRAMING SPACED 5'-4" O.C. MAXIMUM.

VERTICAL METAL WALL PANEL FASTENING AT PARAPET: MINIMUM #12 TEK SCREWS SPACED 6" O.C. MAXIMUM INTO 16 GAUGE MINIMUM FRAMING SPACED 4'-0" O.C. MAXIMUM .

7.07 FLASHING AND SHEET METAL

GENERAL: COMPLY WITH RECOMMENDATIONS OF SMACNA "ARCHITECTURAL SHEET METAL MANUAL". FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION. SUBMIT SHOP DRAWINGS INDICATING LAYOUT AND DETAILS, INCLUDING JOINTS AND ATTACHMENTS.

FABRICATION AND INSTALLATION: FABRICATE AND INSTALL IN ACCORDANCE WITH SMACNA "ARCHITECTURAL SHEET METAL MANUAL". INSTALL EXTERIOR FLASHING AND SHEET METAL WATER AND WEATHER TIGHT, TRUE TO LINE AND LEVEL. HEM EXPOSED EDGES OF FABRICATED SHEET METAL. SEPARATE METALS FROM CORROSIVE SUBSTRATES. PROVIDE FOR THERMAL EXPANSION AND BUILDING MOVEMENT. FABRICATE CLEATS AND ATTACHMENT DEVICES FROM SAME MATERIAL OR COMPATABLE NONCORROSIVE MATERIAL, THICKNESS AS RECOMMENDED BUT NOT LESS THAN METAL BEING SECURED. ANCHOR WORK IN PLACE WITH NON-CORROSIVE FASTENERS, CONCEALED WHERE POSSIBLE. SEAL JOINTS AND LAPS WITH ELASTOMERIC SEALANT.

GUTTERS AND DOWNSPOUTS: FABRICATE FROM MINIMUM 24 GAUGE GALVALUME STEEL (ASTM A792, GRADE 50, COATING CLASS AZ50), WITH 2-COAT FLUOROPOLYMER FINISH SYSTEM IN COLOR INDICATED. ATTACH DOWNSPOUTS TO GUTTERS AND STRAPS WITH STAINLESS STEEL RIVETS.

EXPOSED METAL TRIM: FABRICATE FROM MINIMUM 26 GUAGE GALVALUME STEEL (ASTM A792, GRADE 50, COATING CLASS AZ50), WITH 2-COAT FLUOROPOLYMER FINISH SYSTEM IN COLOR INDICATED.

EXPOSED METAL TRIM: FABRICATED FROM 0.032" PREFINISHED ALUMINUM IN (ASTM B209) IN COLOR AS SCHEDULED.

SELF-ADHERED FLASHING (SAF): BUTYL RUBBER ON POLYETHYLENE LAMINATE CARRIER SHEET, COMPLYING WITH AAMA 711-07, TYPE A, LEVEL 3.

7.08 PREFABRICATED ROOF SPECIALTIES

GENERAL: SUBMIT PRODUCT DATA FOR REVIEW.

ROOF HATCHES: SINGLE LEAF ROOF HATCH FABRICATED FROM 14 GAUGE GALVANIZED STEEL, 12" CURB HEIGHT, INSULATED AND WEATHERSTRIPPED, SPRING ASSISTED OPENING MECHANISM WITH AUTOMATIC LOCKING IN THE OPEN POSITION. FINISH WITH RED OXIDE ALKYD PRIMER.

36"x30" OPENING: "TYPE S ROOF HATCH" BY BILCO COMPANY, OR APPROVED SUBSTITUTE.

PROVIDE "LU-1 LADDERUP" SAFETY POST FOR INSTALLATION ON FIXED LADDER BELOW ROOF HATCH.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SET UNITS LEVEL, PLUMB, AND ALIGNED WITH ADJACENT CONSTRUCTION.

7 THERMAL AND MOISTURE PROTECTION (CONTINUED)

7.09 SEALANTS

GENERAL: SUBMIT PRODUCT DATA FOR REVIEW.

SEALANTS: PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS, AS RECOMMENDED BY THE MANUFACTURER. INSTALL SEALANTS IN COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ASTM C1193.

EXTERIOR ELASTOMERIC SEALANT: AT EXTERIOR JOINTS PROVIDE MULTI-COMPONENT CHEMICALLY-CURING, NON-SAG POLYURETHANE SEALANT COMPLYING WITH ASTM C920 TYPE M, GRADE NS, CLASS 50, USE M, A, G, T, AND O; "DYNATROL II" BY PECORA CORPORATION, OR APPROVED SUBSTITUTE. CUSTOM COLORS TO BE SELECTED. PRIME SUBSTRATES AS RECOMMENDED AND INSTALL OVER PLASTIC FOAM BACKER ROD OR BOND BREAKER TAPE.

INTERIOR GENERAL SEALANT: AT INTERIOR JOINTS NOT SUBJECT TO MOVEMENT, PROVIDE NON-SAG, MILDEW RESISTANT, PAINTABLE, ACRYLIC LATEX SEALANT COMPLYING WITH ASTM C834; "AC-20" BY PECORA CORPORATION, OR APPROVED SUBSTITUTE. INSTALL OVER CLOSED-CELL POLYURETHANE FOAM BACKER ROD OR BOND BREAKER TAPE.

INTERIOR FLOOR EXPANSION JOINT SEALANT: AT INTERIOR CONCRETE SLAB EXPANSION JOINTS, PROVIDE TWO-COMPONENT, NON-SAG POLYURETHANE SEALANT COMPLYING WITH ASTM C920 TYPE M, GRADE NS, CLASS 12.5, USE T, M, AND O, WITH MINIMUM 50 SHORE A HARDNESS (ASTM D2240 ULTIMATE); "DYNAFLEX" BY PECORA CORPORATION, OR APPROVED SUBSTITUTE. PRIME SUBSTRATES AS RECOMMENDED, AND INSTALL OVER CLOSED-CELL POLYURETHANE FOAM BACKER ROD OR BOND BREAKER TAPE AT EXPANSION JOINTS.

INTERIOR FIRE BARRIER SEALANT: AT FIRE-RATED ASSEMBLY JOINTS AND PENETRATIONS, PROVIDE NON-SLUMP, SINGLE COMPONENT, NEUTRAL CURE ELASTOMERIC FIRESTOP SEALANT, UL LISTED FOR APPLICATION INDICATED. PROVIDE MINERAL WOOL INSULATION BACKING AND INSTALL IN COMPLIANCE WITH UL LISTING.

8 OPENINGS

8.01 HOLLOW METAL DOORS AND FRAMES

GENERAL: COMPLY WITH ANSI A250.8/SDI 100.

SUBMITTALS: SUBMIT PRODUCT DATA AND SHOP DRAWINGS FOR REVIEW.

FIRE RATED OPENINGS: PROVIDE UL OR WH LABELED DOORS AND FRAMES TESTED IN ACCORDANCE WITH NFPA 252 OR UL 10C, AND COMPLYING WITH NFPA 80.

HOLLOW METAL FRAMES: FABRICATE FRAMES FROM MINIMUM 16 GAUGE COLD-ROLLED STEEL (ASTM A1008). PREPARE FRAMES TO RECEIVE MORTISED AND CONCEALED HARDWARE AND REINFORCE FRAMES TO RECEIVE SURFACE APPLIED HARDWARE IN ACCORDANCE WITH ANSI A250.6. MAKE PROVISIONS FOR INSTALLATION OF ELECTRICAL ITEMS. PREPARE FRAMES TO RECEIVE 3 SILENCERS ON STRIKE JAMB WHERE INDICATED. PROVIDE MINIMUM 2 FLOOR ANCHORS AND 6 JAMB ANCHORS FOR ALL FRAMES.

EXTERIOR AND MASONRY OPENINGS: FACE WELDED FRAMES WITH WELDS GROUND SMOOTH, FABRICATED FROM GALVANNEALED STEEL (ASTM A653 CLASS A60); "SU SERIES" STEEL FRAMES BY CECO DOOR, OR APPROVED SUBSTITUTE.

INTERIOR NON-MASONRY OPENINGS : FACE WELDED FRAMES WITH WELDS GROUND SMOOTH; "SU SERIES" STEEL FRAMES BY CECO DOOR, OR APPROVED SUBSTITUTE.

CONTRACTOR'S OPTION FOR INTERIOR NON-MASONRY OPENINGS LESS THAN 37" WIDE: KNOCKED-DOWN SLIP-ON DRYWALL TYPE FRAMES WITH INTERLOCKING MITERED CORNERS; "DU SERIES" STEEL FRAMES BY CECO DOOR, OR APPROVED SUBSTITUTE.

HOLLOW METAL DOORS: FABRICATE DOORS FROM MINIMUM 16 GAUGE COLD-ROLLED STEEL (ASTM A1008), WITH BEVELED EDGES, INVERTED CHANNEL REINFORCEMENT TOP AND BOTTOM, AND FULL FLUSH CONSTRUCTION. REINFORCE DOORS TO RECEIVE HARDWARE IN ACCORDANCE WITH ANSI A250.6.

VERTICAL EDGE SEAMS: VISIBLE INTERLOCKED EDGE SEAMS, EPOXY FILLED.

EXTERIOR OPENINGS: DOORS FABRICATED FROM GALVANNEALED STEEL (ASTM A653 CLASS A60), WITH CLOSURE AT TOP EDGE, 1.8 LB/CF DENSITY FOAMED IN PLACE POLYURETHANE CORE, MAXIMUM U-VALUE = 0.31 (ASTM C1363), MAXIMUM AIR INFILTRATION RATE OF 0.06 CFM/SF (ASTM E283); "IMPERIAL" BY CECO DOOR, OR APPROVED SUBSTITUTE.

INTERIOR OPENINGS: DOORS FABRICATED WITH KRAFT HONEYCOMB BONDED CORE; "REGENT" BY CECO DOOR, OR APPROVED SUBSTITUTE.

FINISHES: SHOP PRIME DOORS AND FRAMES WITH MANUFACTURER'S STANDARD BAKED-ON RUST-INHIBITIVE PRIMER IN ACCORDANCE WITH ASNI A250.3 AND A250.10, COMPATIBLE WITH SUBSTRATE AND FIELD APPLIED COATINGS.

INSTALLATION: INSTALL DOORS AND FRAMES IN ACCORDANCE WITH ANSI A250.11 AND ANSI A115.IG. SET FRAMES PLUMB, LEVEL, STRAIGHT, AND SQUARE, AND ANCHOR SECURELY IN PLACE. GROUT JAMBS IN MASONRY CONSTRUCTION. INSTALL DOORS TO ALIGN WITH FRAMES, WITH UNENCUMBERED OPERATION AND UNIFORM CLEARANCES OF 1/8" AT HEAD AND JAMBS, AND 3/4" AT SILL UNLESS OTHERWISE INDICATED. INSTALL FIRE RATED DOORS AND FRAMES IN ACCORDANCE WITH NFPA 80. INSTALL SMOKE AND DRAFT CONTROL DOOR ASSEMBLIES IN ACCORDANCE WITH NFPA 105 AND NFPA 80.

8.02 AUTOMATIC SLIDING ENTRANCES

GENERAL: SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR REVIEW. FIELD VERIFY ROUGH OPENING DIMENSIONS BEFORE FABRICATION.

AUTOMATIC SLIDING ENTRANCES: AUTOMATIC SLIDING DOOR ASSEMBLY FOR TWO-WAY TRAFFIC PATTERN IN CONFIGURATION INDICATED. PROVIDE EMERGENCY BREAKAWAY CAPABILITY FOR SLIDING LEAF(S) AND SIDELIGHT(S) REQUIRING NOT MORE THAN 50 LBF TO MANUALLY SET IN MOTION, AND COMPLYING WITH BHMA A156.10. FABRICATE FROM EXTRUDED 6063-T6 ALUMINUM MEMBERS. PROVIDE MAUNFACTURER'S STANDARD OPERATORS, ELECTRONIC CONTROLS, SAFETY DEVICES, MOTION AND PRESENCE SENSORS, EMERGENCY BREAKAWAY FEATURE, SLIDING WEATHERSTRIPPING, DOOR BOTTOM SWEEP, AND DOUBLE BEVEL ALUMINUM THRESHOLD.

NOMINAL 1-3/4"x4-1/2" FRAME, 2" STILES, 10" BOTTOM RAILS, AND 2" INTERMEDIATE RAILS.

LOCKING: PROVIDE ONE POINT LOCKING SYSTEM, WITH DEADBOLT OPERATED BY EXTERIOR CYLINDER AND INTERIOR THUMB TURN.

PROVIDE ACCESS CONTROL LOCKING SYSTEM FOR INTEGRATION WITH OWNER'S KEYPAD ACCESS SYSTEM, WITH FAIL-SECURE SOLENOID LOCKING DEVICE, KEYED CONTROL SWITCH, AND KEYED POWER SWITCH.

PRODUCT AND MANUFACTURER: "DURA-GLIDE 3000 SERIES" BY STANLEY ACCESS TECHNOLOGIES, OR APPROVED SUBSTITUTE.

FINISH: DARK BRONZE ANODIC COATING COMPLYING WITH AA-M12C22A44, ARCHITECTURAL CLASS I, AND AAMA 611.

INSTALLATION: INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SET ENTRANCE PLUMB, LEVEL, STRAIGHT AND SQUARE, AND FASTEN SECURELY IN PLACE. ADJUST DOOR OPERATORS, CONTROLS, AND HARDWARE FOR SMOOTH AND SAFE OPERATION, AND WEATHERTIGHT CLOSURE. COORDINATE INTEGRATION OF OWNER'S KEYPAD ACCESS SYSTEM.

8.03 HARDWARE

GENERAL: SUBMIT PRODUCT DATA AND HARDWARE SCHEDULE FOR REVIEW BEFORE ORDERING HARDWARE.

HARDWARE: PROVIDE HARDWARE AS SCHEDULED BY MANUFACTURER INDICATED, OR APPOVED SUBSTITUTE.

KEYING: PROVIDE 6-PIN CYLINDERS FOR ALL LOCKS. RE-KEY ALL LOCKS AT END OF CONSTRUCTION IN MASTERKEY SYSTEM AS DIRECTED BY OWNER. PROVIDE OWNER WITH 8 MASTERKEYS AND 2 CHANGE KEYS FOR EACH LOCK.

INSTALLATION: INSTALL HARDWARE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND TO COMPLY WITH GOVERNING REGULATIONS. SET UNITS PLUMB, LEVEL, AND TRUE TO LINE AND LOCATION. REINFORCE SUBSTRATES AS REQUIRED FOR PORPER INSTALLATION AND OPERATION, AND DRILL AND COUNTERSINK UNITS THAT ARE NOT PREPARED FOR ACHORAGE FASTENERS. ADJUST HARDWARE TO PROVIDE UNENCUMBERED OPERATION.

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