

ABBREVIATIONS

&	AND	INT.	INTERIOR
∠	ANGLE	INV.	INVERT
@	AT	JAN.	JANITOR
⊥	CENTERLINE	JST.	JOIST
⊘	CHANNEL	JT.	JOINT
∅	DIAMETER	KIT.	KITCHEN
⊥	PERPENDICULAR	K.P.	KICK PIPE
#	PROPERTY LINE NUMBER	KO.	KNOCKOUT
ABV.	ABOVE	L.	LENGTH
ACOUST.	ACOUSTICAL	LAB.	LABORATORY
A.C.T.	ACOUSTIC CEILING TILE	LAM.	LAMINATE
A.D.	AREA DRAIN	L.F.	LIGHT FIXTURE
A.F.F.	ABOVE FINISHED FLOOR	LKR.	LOCKER
ADJ.	ADJUSTABLE	LG.	LONG
AGGR.	AGGRERGATE	L.L.V.	LONG LEG VERTICAL
ALT.	ALTERNATE	L.P.	LOW POINT
ALU.	ALUMINUM	LT.	LIGHT
A.P.	ACCESS PANEL	LT.WT.	LIGHT WEIGHT
APPROX.	APPROXIMATE	MATL.	MATERIAL
ANCH.	ANCHOR	MAS.	MASONRY
ARCH.	ARCHITECTURAL	MAX.	MAXIMUM
ASPH.	ASPHALT	MECH.	MECHANICAL
AUTO.	AUTOMATIC	MEM.	MEMBRANE
BD.	BOARD	MTL.	METAL
BITUM.	BITUMICUS	MFR.	MANUFACTURER
BLDG.	BUILDING	M.H.	MANHOLE
BLK.	BLOCK	MIN.	MINIMUM
BM.	BEAM	MISC.	MISCELLANEOUS
BOT.	BOTTOM	M.O.	MASONRY OPENING
BRKT.	BRACKET	M.P.	MOP PLAT
B.SMT.	BASEMENT	MTD.	MOUNTED
BRG.	BEARINGS	MULL.	MULLION
BEL.	BELOW	N.	NORTH
BRK.	BRICK	N.I.C.	NOT IN CONTRACT
CAB.	CABINET	NO.	NUMBER
C.B.	CATCH BASIN	NOM.	NOMINAL
CEM.	CEMENT	N.T.S.	NOT TO SCALE
CER.	CERAMIC	OA.	OVERALL
C.G.	COURNER GUARD	O.C.	ON CENTER
C.I.	CAST IORN	O.D.	OUTSIDE DIAMETER/ DIMENSION
C.I.P.	CAST IN PLACE	OFF.	OFFICE
C.J.	CONTROL JOINT	O.H.	OPOSITE HAND/ OVERHEAD
C.T.	CERAMIC TILE	OPNG.	OPENING
CLG.	CEILING	OP.	OPPOSITE
CL.	CLOSET	O.W.J.	OPEN WEB JOIST
CLR.	CLEAR	OZ.	OUNCE
CMU.	CONCRETE MASONRY UNIT	PAV.	PAVING
COL.	COLUMN	P.C.	POURED CONCRETE
CONC.	CONCRETE	PL.	PLATE
CONN.	CONNECTION	P.LAM.	PLASTIC LAMINATE
CONSTR.	CONSTRUCTION	PLAS.	PLASTER
CONT.	CONTINUOUS	PLYWD.	PLYWOOD
CORR.	CORRIDOR	PLBG.	PLUMBING
CNTR.	COUNTER	P.M.F.	PREMOLDED FILLER
CTSK.	COUNTERSINK	PR.	PAIR
CU.	CUBIC	POL.	POLISHED
DBL.	DOUBLE	PRCST.	PRECAST
DEPT.	DEPARTMENT	PT.	POINT
DET.	DETAIL	PTN.	PARTITION
D.F.	DRINKING FOUNTAIN	Q.T.	QUARRY TILE
DIA.	DIAMETER	R.	RISER
DIM.	DIMENSION	RAD.	RADIUS
DISP.	DISPENSER	R.D.	ROOF DRAIN
DMT.	DEMOUNTABLE	R.L.	ROOF LEADER
DN.	DOWN	REF.	REFERENCE
D.O.	DOOR OPENING	REFR.	REFRIGERATOR
DR.	DOOR	REINF.	REINFORCED
DWG.	DRAWING	REQ.	REQUIRED
DWGS.	DRAWINGS	REV.	REVISION
DWR.	DRAWER	RESIL.	RESILIENT
E.	EAST	RFL.	REFLECTED
EA.	EACH	RGR.	REGISTER
EL.	ELEVATION	RM.	ROOM
ELEC.	ELECTRICAL	R.O.	ROUGH OPENING
EMER.	EMERGENCY	S.	SOUTH
ENCL.	ENCLOSURE	S.C.	SOLID CORE
E.P.	ELECTRICAL PANELBOARD	SCHED.	SCHEDULE
EQPT.	EQUIPMENT	SECT.	SECTION
E.W.C.	ELECTRIC WATER COOLER	S.H.	SPRINKLER HEAD
EXP.	EXPANSION	SHT.	SHEET
EXP.JT.	EXPANSION JOINT	SIM.	SIMILAR
EXPO.	EXPOSED	SAN.	SANITARY
EXIST.	EXISTING	SPEC.	SPECIFICATION
EXT.	EXTERIOR	SPKR.	SPEAKER
F.A.	FIRE ALARM	SQ.	SQUARE
F.B.	FACE BRICK	S.SINK	SERVICE SINK
F.D.	FLOOR DRAIN	STA.	STANDARD
FDN.	FOUNDATION	STL.	STEEL
F.E.	FIRE EXTINGUISHER	S.S.	STAINLESS STEEL
F.E.C.	FIRE EXTINGUISHER CABINET	STOR.	STORAGE
F.H.C.	FIRE HOSE CABINET	STRUCT.	STRUCTURAL
FIN.	FINISH	SUSP.	SUSPENDED
FL.	FLOOR	SYM.	SYMMETRICAL
FLASH.	FLASHING	SYS.	SYSTEM
FLOUR.	FLOURESCENT	T.	TREAD
F.O.C.	FACE OF CONCRETE	TEL.	TELEPHONE
F.O.S.	FACE OF STUD	TEMP.	TEMPERATURE
F.O.W.	FACE OF WALL	T&C.	TONGUE AND GROOVE
FPRF.	FIREPROOF(ING)	THK.	THICK
FR.	FRAME	T.O.C.	TOP OF CONCRETE
F.S.	FULL SIZE	T.O.P.	TOP OF PAVEMENT
FURR.	FURRING	T.O.S.	TOP OF STEEL
FUT.	FUTURE	T.V.	TELEVISION
G.C.	GENERAL CONTRACTOR	T.W.	TOP OF WALL
GA.	GAGE	TYP.	TYPICAL
GALV.	GALANIZED	UNFIN.	UNFINISHED
GL.	GLASS	U.O.N.	UNLESS OTHERWISE NOTED
GND.	GROUND	V.B.	VAPOR BARRIER
GR.	GRADE	VERT.	VERTICAL
GYP. BD.	GYPSSUM WALLBOARD	VEST.	VESTIBULE
H.B.	HOSE BIBB	VCT.	VINYL COMPOSITION
H.C.	HOLLOW CORE	VIF.	VERIFY IN FIELD
HD.	HEAD	V.T.R.	VENT THRU ROOF
HDWR.	HARDWARE	W.	WEST
HDWD.	HARDWOOD	w/	WITH
HOK.	HOOK	w/o	WITHOUT
HT.	HEIGHT	WP.	WATERPROOF
H.M.	HOLLOW METAL	WSCT.	WAINSCOT
HR.	HANDRAIL	WT.	WEIGHT
HORIZ.	HORIZONTAL	W.W.F.	WELED WIRE FRAME
H.P.	HIGH POINT		
HR.	HOOR		
H.V.A.C.	HEATING, VENTILATION, AIR CONDITIONING		
I.D.	INSIDE DIAMETER/ DIMENSION		
IN.	INCH		
INCL.	INCLUDE(D)		
INSUL.	INSULATION		

LIST OF DRAWINGS

ARCHITECTURAL DRAWINGS

T-000 TITLE SHEET

T-001	COVER SHEET
T-002	GENERAL NOTES
T-003	GENERAL NOTES

A-000 GENERAL CODE DATA & SITE PLAN

A-001	SITE PLAN
A-002	BUILDING EVALUATION SUMMARY
A-003	ADA DETAILS (ICC/ANSI)

A-100 FLOOR PLANS & WALL DETAILS

A-101	EXIST FOUNDATION PLAN, EXISTING ROOF PLAN
A-102	PROPOSED FLOOR PLAN
A-111	METAL STUD DETAILS
A-112	METAL STUD DETAILS

A-200 SECTIONS & DETAILS

A-201	SECTIONS, DETAILS
A-205	BATHROOM PLAN & ELEVS. WINDOW DETAILS

A-300 BUILDING EXTERIOR

A-301	ELEVATIONS
A-311	EIFS PERFORMANCE SPECS
A-312	STOREFRONT PERFORMANCE SPECS

A-400 EGRESS PLAN / RCP

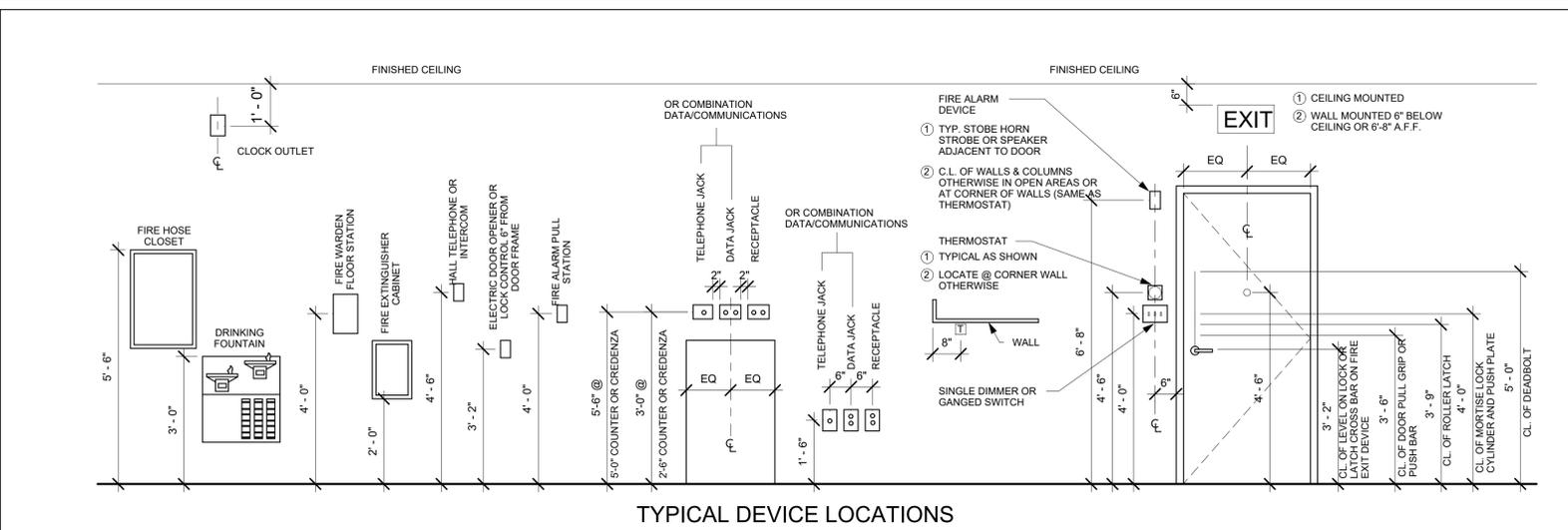
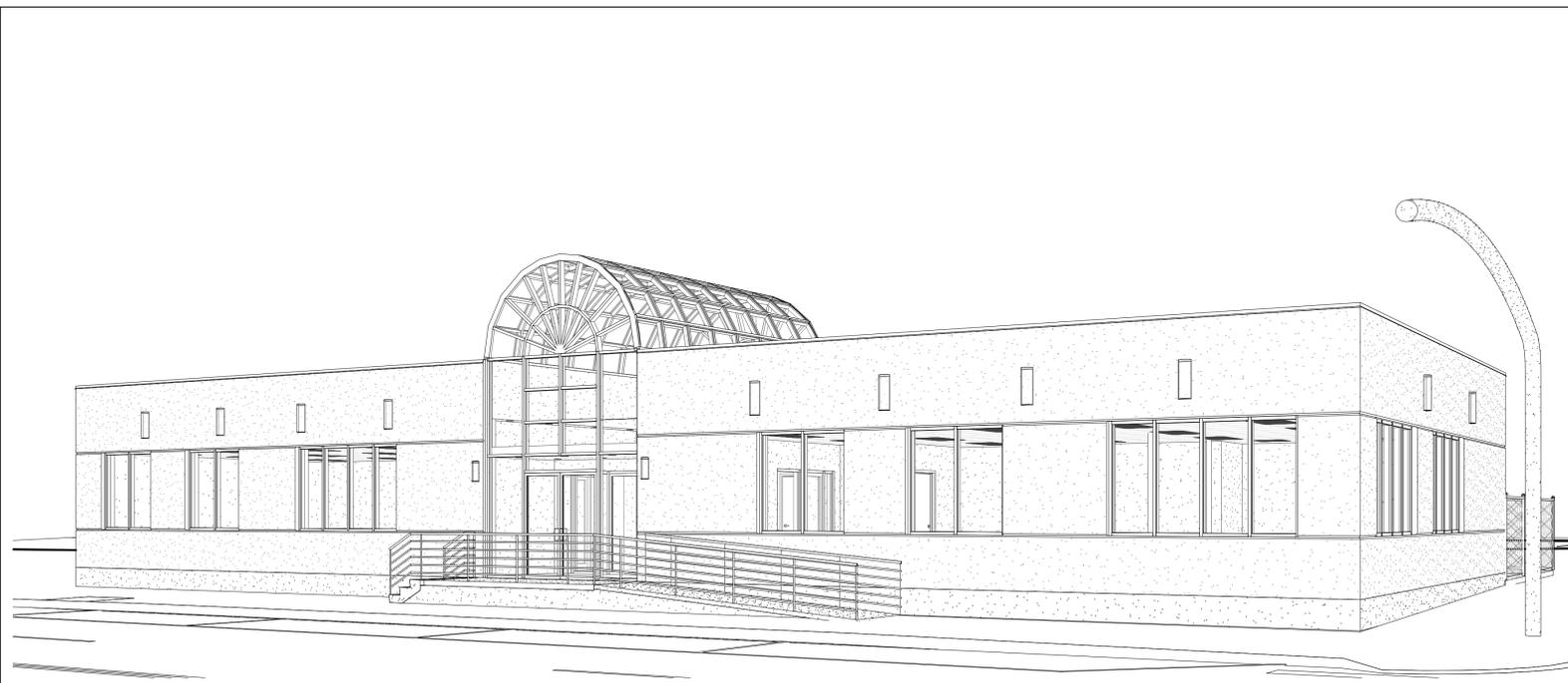
A-401	EGRESS PLAN, RCP PLAN & DETAILS
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A-500 SRTUCTURAL FRAMING

A-501	FRAMING PLAN
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SP-600 SITE SAFETY PLAN

SP-601	SITE SAFTEY PLAN
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- PLAN SHALL COMPLY WITH ALL STATE AND LOCAL CODE REQUIREMENTS AND ITS SUPPLEMENTS.
- PLANS SHALL COMPLY WITH ICC/ANSI A 117.1 - 2009 "ACCESSABLE AND USABLE BUILDINGS AND FACILITIES" (SEE A-003)
- SEPARATE FILING AND APPROVAL FROM NASSAU COUNTY FIRE MARSHAL IS REQUIRED FOR REQUIRED AUTOMATIC SPRINKLER SYSTEMS, AND FIRE ALARM & DETECTION SYSTEMS
- PLUMBER TO FILE APPLICATION FOR ALL PROPOSED PLUMBING WORK.
- ELECTRICITION TO FILE APPLICATION FOR ALL PROPOSED ELECTRICAL WORK.
- SPECIAL INSPECTIONS REQUIRED AS PER 2020 BCofNYS SECTION 1705 TO INCLUDE:
 - STEEL CONSTRUCTION
 - OPEN-WEB STEEL JOISTS AND JOIST GIRDERS
 - CONCRETE CONSTRUCTION
- ALL PROPOSED WORK TO COMPLY WITH CHAPTER 33 "SAFEGUARDS DURING CONSTRUCTION" AS PER 2020 BCofNYS. SEE SHEET SP-1 - SITE SAFETY PLAN

PART 1: GENERAL REQUIREMENTS

1.1 COORDINATION AND PROJECT CONDITIONS

- A. COORDINATE SCHEDULING, SUBMITTALS, AND WORK OF THE VARIOUS SECTIONS OF THE PROJECT MANUAL TO ENSURE EFFICIENT AND ORDERLY SEQUENCE OF INSTALLATION OF INTERDEPENDENT CONSTRUCTION ELEMENTS, WITH PROVISIONS FOR ACCOMMODATING ITEMS INSTALLED LATER.
- B. COORDINATE REQUIRED UTILITY SERVICES CONNECTIONS WITH UTILITY COMPANIES.
 - 1. CONTACT UTILITY COMPANIES TO ARRANGE FOR INSTALLATION OF REQUIRED SERVICES AND SERVICE CONNECTIONS
- C. VERIFY UTILITY REQUIREMENTS AND CHARACTERISTICS OF OPERATING EQUIPMENT ARE COMPATIBLE WITH BUILDING UTILITIES
- D. COORDINATE WORK OF VARIOUS SECTIONS HAVING INTERDEPENDENT RESPONSIBILITIES FOR INSTALLING, CONNECTING TO, AND PLACING IN SERVICE SUCH EQUIPMENT.
- E. COORDINATE SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WHICH ARE INDICATED DIAGRAMMATICALLY ON DRAWINGS. FOLLOW ROUTING SHOWN FOR PIPES, DUCTS AND CONDUIT, AS CLOSELY AS PRACTICABLE. PLACE RUNS PARALLEL WITH LINES OF BUILDING. UTILIZE SPACES EFFICIENTLY TO MAXIMIZE ACCESSIBILITY FOR OTHER INSTALLATIONS. FOR MAINTENANCE AND FOR REPAIRS.
- F. IN FINISHED AREAS EXCEPT AS OTHERWISE INDICATED, CONCEAL PIPES, DUCTS, AND WIRING WITHIN THE CONSTRUCTION.
- G. COORDINATE LOCATIONS OF FIXTURES AND OUTLETS WITH FINISH ELEMENTS.
- H. COORDINATE COMPLETION AND CLEAN-UP OF WORK OF SEPARATE SECTIONS IN PREPARATION FOR SUBSTANTIAL COMPLETION.
- I. AFTER OWNER OCCUPANCY OF PREMISES, COORDINATE ACCESS TO SITE FOR CORRECTION OF DEFECTIVE WORK AND WORK NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS, TO MINIMIZE DISRUPTION OF OWNERS ACTIVITIES.

1.2 COORDINATION DOCUMENTS

- A. PREPARE COORDINATION DRAWINGS TO ORGANIZE INSTALLATION OF MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL EQUIPMENT, AND SYSTEMS FOR EFFICIENT USE OF AVAILABLE SPACE FOR PROPER SEQUENCE OF INSTALLATION TO IDENTIFY POTENTIAL CONFLICTS.
- B. SHOW ALL SYSTEMS FOR EACH AREA ON SINGLE DRAWING. INDICATE SYSTEMS SHOWING ACTUALLY SIZE INCLUDING SIZE TRANSITIONS, PROPOSED LOCATION, AND ELEVATION.
- C. INDICATE CLEARANCES WHERE SYSTEMS CROSS STRUCTURAL FRAMING.
- D. IDENTIFY CERTAIN CONFLICTS AND CONTROL WIRING REQUIRED FOR EACH ITEM OF EQUIPMENT.
- E. REVISE DRAWINGS AS REQUIRED TO ELIMINATE CONFLICTS PREVENTING COMPLETION OF ANY ELEMENT OF THE WORK.
- F. REQUIRE EACH SUBCONTRACTOR WITH WORK INDICATED ON COORDINATION DRAWINGS TO SIGN DRAWINGS INDICATING ACCEPTANCE OF ASSIGNMENT OF LOCATION AND SPECIFICATIONS TO ARCHITECT.
- G. MAINTAIN DOCUMENTS FOR THE DURATION OF THE WORK. RECORDING CHANGES DUE TO SITE INSTRUCTIONS, MODIFICATIONS OR ADJUSTMENTS.
- H. AFTER ARCHITECT REVIEW OF ORIGINAL AND REVISED DOCUMENTS, REPRODUCE AND DISTRIBUTE COPIES TO CONCERNED PARTIES.

1.3 FIELD ENGINEERING

- A. EMPLOY A LAND SURVEYOR REGISTERED WHERE THE PROJECT IS LOCATED AND ACCEPTABLE TO OWNER.
- B. LOCATE AND PROTECT SURVEY CONTROL, AND REFERENCE POINTS. PROMPTLY NOTIFY ARCHITECT OF ANY DISCREPANCIES DISCOVERED.
- C. CONTROL DATUM FOR SURVEY SHOWN ON DRAWINGS.
- D. VERIFY SET-BACKS AND EASEMENTS, CONFIRM DRAWING DIMENSIONS AND ELEVATIONS.
- E. PROVIDE FIELD ENGINEERING SERVICES, ESTABLISH ELEVATION LINES, LEVELS AND LOCATIONS OF THE WORK UTILIZING RECOGNIZED ENGINEERING SURVEY PRACTICES.
- F. MAINTAIN A COMPLETE AND ACCURATE LOG OF CONTROL AND SURVEY WORK AS IT PROGRESSES.
- G. PROTECT SURVEY CONTROL POINTS PRIOR TO STARTING SITE WORK, PRESERVE PERMANENT REFERENCE POINTS DURING CONSTRUCTION.
- H. PROMPTLY REPORT TO ARCHITECT THE LOSS OR DESTRUCTION OF ANY REFERENCE POINT OR RELOCATION REQUIRED BECAUSE OF CHANGES IN GRADES OR OTHER REASONS.
- I. REPLACE DISLOCATED SURVEY CONTROL POINTS BASED ON ORIGINAL SURVEY CONTROL. MAKE NO CHANGES WITHOUT PRIOR WRITTEN NOTICE TO ARCHITECT.

1.4 PRE INSTALLATION MEETING

- A. WHEN REQUIRED IN INDIVIDUAL SPECIFICATION SECTIONS CONVENE A PRE INSTALLATION MEETING AT THE SITE PRIOR TO COMMENCING WORK OF THE SECTION.
- B. REQUIRE ATTENDANCE OF PARTIES DIRECTLY AFFECTING OR AFFECTED BY, WORK OF THE SPECIFIC SECTION.
- C. NOTIFY ARCHITECT 5 DAYS IN ADVANCE OF MEETING DATE.
- D. PREPARE AGENDA AND PRESIDE AT MEETING.
 - 1. REVIEW CONDITIONS OF INSTALLATIONS PREPARATION AND INSTALLATION PROCEDURES.
- E. RECORD MINUTES AND DISTRIBUTE COPIES WITHIN TWO DAYS AFTER MEETING TO PARTICIPANTS, WITH COPIES TO ARCHITECT, OWNER AND THOSE AFFECTED BY DECISIONS MADE.

1.5 REQUEST FOR INFORMATION PROCEDURES

- A. PUBLISH AGENDA PRIOR TO PROGRESS MEETING, LISTING QUESTIONS TO BE ADDRESSED, SO ARCHITECT CAN BE PREPARED TO ANSWER THE QUESTIONS.
- B. PRESENT QUESTIONS AT REGULAR PROJECT PROGRESS MEETING.
- C. ARCHITECT WILL PROVIDE ANSWERS TO QUESTIONS AT PROJECT PROGRESS MEETING WHEREVER POSSIBLE. RECORD ANSWERS IN MEETING MINUTES.
- D. RFI'S SUBMITTED BEFORE SUBMITTING QUESTION AT PROGRESS MEETING WILL BE RETURNED WITHOUT ACTION FOR CONTRACTORS INTRODUCTION AT NEXT REGULAR PROGRESS MEETING.
- E. IDENTIFY DRAWING OR SPECIFICATION REQUIRING CLARIFICATION AND DESCRIBE CONDITION REQUIRING CLARIFICATION.
- F. DRAWINGS INCLUDE DRAWING NUMBER DETAILS OR SECTION NUMBER, COLUMN LINE COORDINATES AND OTHER INFORMATION TO CLEARLY IDENTIFY AREA OF DRAWING IN QUESTION.
- G. SPECIFICATION: INCLUDE SECTION NUMBER, PAGE NUMBER AND ARTICLE, PARAGRAPH AND SUBPARAGRAPH NUMBER AS APPROPRIATE.
- H. ARCHITECT WILL REVIEW RFI AND RESPOND IN WRITING, WHEN REQUIRED. ARCHITECT MAY ISSUE SKETCHES AND REVISED SPECIFICATIONS TO SUPPLEMENT RESPONSE.
- I. DISTRIBUTE ARCHITECTS RESPONSE TO THOSE AFFECTED BY RESPONSE.
 - 1. PROMPTLY ENTER INFORMATION FROM RESPONSE IN PROJECT RECORD DOCUMENTS.

PART 2: SUBMITTAL PROCEDURES

2.1 SUMMARY

- A. SECTION INCLUDES:
 - 1. SUBMITTAL PROCEDURES.
 - 2. PRODUCT DELIVERY REQUIREMENTS
 - 3. SHOP DRAWINGS.
 - 4. SAMPLES.
 - 5. DESIGN DATA.
 - 6. TEST REPORTS.
 - 7. CERTIFICATES.
 - 8. MANUFACTURERS INSTRUCTIONS.
 - 9. MANUFACTURERS FIELD REPORTS.
 - 10. ERECTION DRAWINGS.
 - 11. CONSTRUCTION PHOTOGRAPHS.

2.2 SUBMITTAL PROCEDURES

- A. TRANSMIT EACH SUBMITTAL WITH ARCHITECT ACCEPTED FORM.
- B. SEQUENTIALLY NUMBER THE TRANSMITTAL FORM, REVISE SUBMITTALS WITH ORIGINAL NUMBER AND A SEQUENTIAL ALPHABETICAL SUFFIX.
- C. IDENTIFY PROJECT, CONTRACTOR, SUBCONTRACTOR AND SUPPLIER, PERTINENT DRAWING AND DETAIL NUMBER, AND SPECIFICATION SECTION NUMBER AS APPROPRIATE.
- D. APPLY CONTRACTORS STAMP, SIGNED OR INITIALED CERTIFYING THAT REVIEW, APPROVAL, VERIFICATION OF PRODUCTS REQUIRED, FIELD DIMENSIONS, ADJACENT CONSTRUCTION WORK AND COORDINATION OF INFORMATION IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE WORK AND CONTRACT DOCUMENTS.
- E. SCHEDULE SUBMITTALS TO EXPEDITE THE PROJECT. COORDINATE SUBMISSION OF RELATED ITEMS FOR DELIVERY AT THE SAME TIME. ALL SUBMITTALS TO BE SUBMITTED NO LATER THAN 6 WEEKS FROM PROJECT START DATE.
- F. MAKE SUBMITTALS TO PARTIES AS SCHEDULED IN THIS SECTION.
- G. FOR EACH SUBMITTAL RECEIVED, ALLOW AT LEAST SEVEN DAYS FOR REVIEW. SUBMITTALS SHALL BE PROVIDED IN AN ORDER OF PRIORITY BASE ON THEIR IMPACT TO THE PROJECT SCHEDULE. IN THE EVENT THAT AN EXPEDITED OR CONCURRENT REVIEW IS NEEDED TO PREVENT A HINDRANCE TO THE PROJECT SCHEDULE, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE ARCHITECT AND OWNER PRIOR TO SUBMISSION.
- H. IDENTIFY VARIATIONS FROM CONTRACT DOCUMENTS AND PRODUCT OR SYSTEM LIMITATIONS WHICH MAY BE DETRIMENTAL TO SUCCESSFUL PERFORMANCE OF THE COMPLETED WORK. SUBMITTALS CONTAINING SUBSTITUTED PRODUCTS WILL BE RETURNED WITHOUT ACTION UNTIL SUCH TIME AS APPROVED SUBSTITUTIONS REQUEST FORM HAS BEEN PROVIDED.
- I. PROVIDE SPACE FOR CONTRACTOR AND ARCHITECT REVIEW STAMPS.
- J. WHEN REVISED FOR RESUBMISSION, IDENTIFY ALL CHANGES MADE SINCE PREVIOUS SUBMISSION.
- K. DISTRIBUTE COPIES OF REVIEWED SUBMITTALS TO AFFECTED PARTIES. INSTRUCT PARTIES TO PROMPTLY REPORT ANY INABILITY TO COMPLY WITH REQUIREMENTS.
- L. SUBMITTALS NOT REQUESTED WILL NOT BE RECOGNIZED OR PROCESSED.
- M. A COPY OF ALL APPROVED SUBMITTALS SHALL BE MAINTAINED AT THE PROJECT SITE UNTIL THE CONCLUSION OF THE PROJECT.

2.3 PRODUCT DATE

- A. PRODUCT DATE: SUBMIT TO ARCHITECT FOR REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR THE CONFORMANCE WITH THE INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
- B. SUBMIT PRODUCT DATA IN QUANTITIES AS SCHEDULED IN THIS SECTION. TWO COPIES WILL BE RETAINED BY ARCHITECT.
- C. MARK UP EACH COPY TO IDENTIFY APPLICABLE PRODUCTS, MODELS, OPTIONS AND OTHER DATA. SUPPLEMENT MANUFACTURERS' STANDARD DATA TO PROVIDE INFORMATION SPECIFIC TO THIS PROJECT.
- D. INDICATE PRODUCT UTILITY AND ELECTRICAL CHARACTERISTICS, UTILITY CONNECTION REQUIREMENTS AND LOCATION OF UTILITY OUTLETS FOR SERVICE FOR FUNCTIONAL EQUIPMENT AND APPLIANCES.
- E. MATERIAL SAFETY DATA SHEETS (MSDS) ARE NOT PERMITTED AS SUBMITTAL.
- F. WHEN REQUIRED BY OWNER, SUBMIT MSDS DIRECTLY TO THE OWNER.
- G. AFTER REVIEW PROVIDED AND DISTRIBUTED COPIES IN ACCORDANCE WITH SUBMITTAL PROCEDURES ARTICLE AND FOR RECORD DOCUMENTS.

2.4 PRODUCT DATE

- A. SHOP DRAWINGS: SUBMIT TO ARCHITECT FOR REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
- B. WHEN REQUIRED BY INDIVIDUAL SPECIFICATION SECTIONS, PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY PROFESSIONAL ENGINEER.
 - 1. RESPONSIBLE FOR DESIGNING COMPONENTS SHOWN ON SHOP DRAWINGS.
 - 2. INCLUDE SIGNED AND SEALED CALCULATIONS TO SUPPORT DESIGN.
- C. SUBMIT DRAWINGS AND CALCULATIONS IN FORM SUITABLE FOR SUBMISSION TO AND APPROVAL BY AUTHORITIES HAVING JURISDICTION.
- D. INDICATE UTILITY AND ELECTRICAL CHARACTERISTICS, UTILITY CONNECTION REQUIREMENTS AND LOCATION OF UTILITY OUTLETS FOR SERVICE FOR FUNCTIONAL EQUIPMENT AND APPLIANCES.
- E. SUBMIT SHOP DRAWINGS IN THE FORM AND QUANTITIES AS SCHEDULED IN THIS SECTION. REPRODUCIBLE SHOP DRAWINGS WILL BE RETURNED.
- F. PROVIDE AND DISTRIBUTE COPIES IN ACCORDANCE WITH SUBMITTAL PROCEDURES ARTICLE AND FOR RECORD DOCUMENTS.

2.5 SAMPLES

- A. SAMPLES SUBMIT TO ARCHITECT FOR REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
- B. SAMPLES FOR SELECTION AS SPECIFIED IN PRODUCTS SECTIONS:
 - 1. SUBMIT TO ARCHITECT FOR AESTHETIC, COLOR OR FINISH SELECTION.
 - 2. SUBMIT SAMPLES OF FINISHES FROM THE FULL RANGE OF MANUFACTURERS' STANDARD COLORS, TEXTURES AND FINISHES FOR ARCHITECT SELECTION. INCLUDE CUSTOM COLORS AND OTHER PRODUCT CHARACTERISTICS ON PROPOSAL.
 - 3. AFTER REVIEW PRODUCE DUPLICATES AND DISTRIBUTE IN ACCORDANCE WITH SUBMITTAL PROCEDURES ARTICLE AND FOR RECORD DOCUMENTS.
- C. SUBMIT SAMPLE TO ILLUSTRATE FUNCTIONAL AND AESTHETIC CHARACTERISTIC OF THE PRODUCT, WITH INTEGRAL PARTS AND ATTACHMENT DEVICES. COORDINATE SAMPLE SUBMITTALS FOR INTERFACING WORK WHERE AESTHETIC SELECTIONS ARE REQUIRED SO THAT THE FINISHES ARE SUBMITTED AT THE SAME TIME.
- D. INCLUDE IDENTIFICATION ON EACH SAMPLE WITH FULL PROJECT INFORMATION.
- E. SUBMIT THE NUMBER OF SAMPLES SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, ONE OF WHICH WILL BE RETAINED BY ARCHITECT.
- F. RETAINED SAMPLES WHICH MAY BE USED IN THE WORK ARE INDICATED IN INDIVIDUAL SPECIFICATION SECTIONS.
- G. SAMPLES WILL NOT BE USED FOR TESTING PURPOSES UNLESS SPECIFICALLY STATED IN THE SPECIFICATION SECTION.

2.6 DESIGN DATA

- A. SUBMIT FOR THE ARCHITECTS KNOWLEDGE AS CONTRACT ADMINISTRATOR OR FOR THE OWNER IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. SUBMIT FOR INFORMATION FOR THE LIMITED PURPOSE OF ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.

2.7 TEST REPORTS

- A. SUBMIT FOR THE ARCHITECTS KNOWLEDGE AS THE CONTRACT ADMINISTRATOR OR FOR THE OWNER IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. SUBMIT TEST REPORTS FOR THE INFORMATION FOR THE LIMITED PURPOSE OF ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.

2.8 CERTIFICATES

- A. WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, SUBMIT CERTIFICATION BY THE MANUFACTURER, INSTALLATION/APPLICATION SUBCONTRACTOR OR THE CONTRACTOR TO ARCHITECT IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. INDICATE MATERIAL OR PRODUCT CONFORMS TO OR EXCEEDS SPECIFIED REQUIREMENTS. SUBMIT SUPPORTING REFERENCE DATA, AFFIDAVITS AND CERTIFICATIONS AND APPROPRIATE.

2.9 MANUFACTURERS INSTRUCTIONS

- A. WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS SUBMIT PRINTED INSTRUCTIONS FOR DELIVERY, STORAGE, ASSEMBLY INSTALLATION START-UP, ADJUSTING AND FINISHING TO ARCHITECT FOR DELIVERY TO OWNER IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. INDICATE SPECIAL PROCEDURES, PERMETER CONDITIONS REQUIRING SPECIAL ATTENTION AND SPECIAL ENVIRONMENTAL CRITERIA REQUIRED FOR APPLICATION OR INSTALLATION.

2.10 MANUFACTURERS FIELD REPORTS

- A. SUBMIT REPORTS FOR THE ARCHITECTS BENEFIT AS CONTRACT ADMINISTRATOR FOR THE OWNER IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. SUBMIT REPORT IN DUPLICATE WITHIN 5 DAYS OF OBSERVATION TO ARCHITECT FOR INFORMATION.
- C. SUBMIT FOR INFORMATION FOR THE LIMITED PURPOSE OF ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.

2.11 ERECTION DRAWINGS

- A. SUBMIT DRAWINGS FOR THE ARCHITECTS BENEFIT AS CONTRACT ADMINISTRATOR OR FOR THE OWNER IN QUANTITIES AS SCHEDULED IN THIS SECTION.
- B. SUBMIT FOR INFORMATION FOR THE LIMITED PURPOSE OF ASSESSING CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
- C. DATA INDICATING INAPPROPRIATE OR UNACCEPTABLE WORK MAY BE SUBJECT TO ACTION BUY THE ARCHITECT OR OWNER.

2.12 CONSTRUCTION PHOTOGRAPHS

- A. PROVIDE PHOTOGRAPHS OF SITE AND CONSTRUCTION THROUGHOUT PROGRESS OF WORK PRODUCED BY EXPERIENCED, COMMERCIAL PHOTOGRAPHER ACCEPTABLE TO ARCHITECT.
- B. TAKE PHOTOGRAPHS USING DIGITAL FORMAT.
- C. TAKE UP TO EIGHT PHOTOGRAPHS FROM LOCATIONS AS DIRECTED BY ARCHITECT INDICATING THE RELATIVE PROGRESS OF THE WORK, 10 DAY INTERVALS FOR SUBMITTING EACH APPLICATION FOR PAYMENT.
- D. IDENTIFY PHOTOGRAPHS WITH THE DATE, TIME, ORIENTATION AND PROJECT IDENTIFICATION.
- E. DELIVER DIGITAL FILES TO OWNER WITH PROJECT RECORD DOCUMENT, CATALOG AND INDEX FILES IN CHRONOLOGICAL SEQUENCE PROVIDE TYPED TABLE OF CONTENTS.

2.13 ARCHITECTS REVIEW

- A. THE ARCHITECTS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT EXPRESSED IN THE CONTRACT DOCUMENTS. APPROVAL OF A PARTICULAR ELEMENT DOES NOT CONSTITUTE APPROVAL OF AN ASSEMBLY OF WHICH THE ELEMENTS IS A PART.
- B. MARK UP DRAWINGS TO INDICATE ANY DISCREPANCIES OR DEVIATIONS FROM THE CONTRACT DOCUMENTS. DOCUMENTS NOR PERMITTING CONTRACTORS DEVIATION FROM CONTRACT DOCUMENTS.
- C. THE CONTRACTOR REMAINS ONLY SOLELY RESPONSIBLE FOR SUBMITTAL DETAILS, DIMENSIONS, ACCURACY AND QUANTITIES, INSTALLATION AND PERFORMANCE OF EQUIPMENT AND SYSTEMS DESIGNED BY THE CONTRACTOR FOR SELECTING FABRICATION PROCESSES FOR TECHNIQUES, OF ASSEMBLY FOR CONSTRUCTION MEANS, METHODS SEQUENCE AND PROCEDURES AND FOR PERFORMING THE WORK IN A SAFE MANNER.
- D. ARCHITECT WILL REVIEW EACH ORIGINAL SUBMITTAL AND ONE RESUBMITTAL OF EACH ORIGINAL SUBMITTAL AT NO CHARGE TO CONTRACTOR COST TO ARCHITECT TO REVIEW ADDITIONAL RESUBMITTALS WILL BE PAID BY OWNER AND REIMBURSED BY CONTRACTOR BY CHANGE ORDER REDUCING CONTRACT SUM BY AMOUNT EQUAL TO ARCHITECTS COST.
- E. ARCHITECT WILL MARK EACH SUBMITTAL WITH REVIEW STAMP AND INDICATE ACTION REQUIRED OF CONTRACT ARCHITECTS MARKING WILL BE SIMILAR TO THE FOLLOWING:
 - 1. APPROVED OR NO EXCEPTIONS TAKEN. WORK INDICATED BY SUBMITTAL MAY PROCEED.
 - 2. APPROVED AS NOTED OR MAKE CORRECTIONS NOTED. WORK INDICATED BY SUBMITTAL MAY PROCEED PROVIDED WORK COMPLIES WITH ARCHITECTS COMMENTS ON SUBMITTAL.
 - 3. REJECTED OR REVISE AND RESUBMIT. MAKE CORRECTION NOTED ON SUBMITTAL AND RESUBMIT WORK INDICATED ON SUBMITTAL MAY NOT PROCEED UNTIL SUBSEQUENT RESUBMITTAL IS RECEIVED BY THE ARCHITECT AND MARKED TO PERMIT WORK TO PROCEED.

PART 3: QUALITY REQUIREMENTS

3.1 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. MONITOR QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS SERVICES, SITE CONDITIONS AND WORKMANSHIP. TO PRODUCE WORK OF SPECIFIED QUALITY.
- B. COMPLY WITH MANUFACTURERS INSTRUCTIONS INCLUDING EACH STEP IN SEQUENCE.
- C. WHEN MANUFACTURERS INSTRUCTIONS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.
- D. COMPLY WITH SPECIFIED STANDARDS AS MINIMUM QUALITY FOR THE WORK EXCEPT WHERE MORE STRINGENT TOLERANCES, CODES OR SPECIFIED REQUIREMENTS INDICATE HIGHER STANDARDS OR MORE PRECISE WORKMANSHIP.
- E. PERFORM WORK BY PERSONS QUALIFIED TO PRODUCE REQUIRED AND SPECIFIED QUALITY.
- F. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON SHOP DRAWINGS OR AS INSTRUCTED BY THE MANUFACTURER.
- G. SECURE PRODUCTS IN PLACE WITH POSITIVE ANCHORAGE DEVICES DESIGNED AND SIZED TO WITHSTAND STRESSES, VIBRATION, PHYSICAL DISTORTION OR DISFIGUREMENT.

3.2 TOLERANCES

- A. MONITOR FABRICATION AND INSTALLATION TOLERANCE CONTROL OF PRODUCTS TO PRODUCE ACCEPTABLE WORK DO NOT PERMIT TOLERANCES TO ACCUMULATE.
- B. COMPLY WITH MANUFACTURERS TOLERANCES WHEN MANUFACTURERS TOLERANCE CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.
- C. ADJUST PRODUCTS TO APPROPRIATE DIMENSIONS, POSITION BEFORE SECURING PRODUCTS IN PLACE.

3.3 REFERENCES

- A. FOR PRODUCTS OR WORKMANSHIP SPECIFIED BY ASSOCIATION TRADE, OR OTHER CONSENSUS STANDARDS, COMPLY REQUIREMENTS OF THE STANDARD, EXCEPT WHEN MORE RIGID REQUIREMENTS ARE SPECIFIED OR ARE REQUIRED BY APPLICABLE CODES.
- B. CONFORM TO REFERENCE STANDARD BY DATE OF ISSUE CURRENT ON DATE OF CONTRACT DOCUMENTS EXCEPT WHERE A SPECIFIC DATE IS ESTABLISHED BY CODE.
- C. WHEN SPECIFIED REFERENCE STANDARDS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING.
- D. NEITHER THE CONTRACTUAL RELATIONSHIPS, DUTIES OR RESPONSIBILITIES OF THE PARTIES IN CONTRACT NOR THOSE OF THE ARCHITECT SHALL BE ALTERED FROM THE CONTRACT DOCUMENTS BY THE MENTION OR INFERENCE OTHERWISE IN ANY REFERENCE DOCUMENTS.

3.4 MOCK-UP REQUIREMENTS

- A. ASSEMBLE AND ERECT ITEMS SPECIFIED IN INDIVIDUAL SECTIONS WITH SPECIFIED ATTACHMENT AND ANCHORAGE DEVICES, FLASHING SEALS AND FINISHES.
- B. ACCEPTED MOCK-UPS SHALL BE A COMPARISON STANDARD FOR THE QUALITY OF THE WORK.
- C. WHERE MOCK-UP HAS BEEN ACCEPTED BY ARCHITECT AND IS SPECIFIED IN PRODUCT SPECIFICATION SECTIONS TO BE REMOVED, REMOVE MOCK-UP AND CLEAR AREA WHEN DIRECTED TO DO SO BY ARCHITECT.

3.5 MANUFACTURERS FIELD SERVICES

- A. WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, REQUIRE MATERIAL OR PRODUCT SUPPLIERS OR MANUFACTURERS TO PROVIDE QUALIFIED STAFF PERSONNEL TO OBSERVE SITE CONDITIONS, CONDITIONS OF SURFACES AND INSTALLATION, QUALITY OF WORKMANSHIP, MAINTENANCE AND TO INITIATE INSTRUCTIONS WHEN NECESSARY.
- B. REPORT OBSERVATIONS AND SITE DECISIONS OR INSTRUCTIONS GIVEN TO APPLICATORS OR INSTALLERS THAT ARE SUPPLEMENTAL OR CONTRARY TO MANUFACTURERS WRITTEN INSTRUCTIONS.
- C. SUBMIT REPORT OF FIELD SERVICES WITHIN 5 DAYS OF OBSERVATION.

3.6 EXAMINATION

- A. VERIFY THAT EXISTING SITE CONDITIONS AND SUBSTRATE SURFACES ARE ACCEPTABLE FOR SUBSEQUENT WORK. BEGINNING NEW WORK MEANS ACCEPTANCE OF EXISTING CONDITIONS.
- B. VERIFY THAT EXISTING SUBSTRATE IS CAPABLE OF STRUCTURAL SUPPORT OF ATTACHMENT OF NEW WORK BEING APPLIED OR ATTACHED.
- C. VERIFY TOLERANCES OF EXISTING SUBSTRATE FOR PLUMB, LEVEL, PLANE AND LINE ARE ACCEPTABLE FOR ATTACHMENT OF NEW WORK.
- D. EXAMINE AND VERIFY SPECIFIC CONDITIONS DESCRIBED IN INDIVIDUAL SPECIFICATION SECTIONS.
- E. VERIFY THAT UTILITY SERVICES ARE AVAILABLE OF THE CORRECT CHARACTERISTICS AND IN THE CORRECT LOCATIONS.

3.7 PREPARATION

- A. CLEAN SUBSTRATE SURFACES PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE.
- B. SEAL CRACKS OR OPENINGS OF SUBSTRATE PRIOR TO APPLYING NEXT MATERIAL OR SUBSTANCE.
- C. REMOVE ALL MATERIALS REQUIRED OR RECOMMENDED SUBSTRATE PRIMER, SEALER OR CONDITIONER PRIOR TO APPLYING ANY NEW MATERIAL OR SUBSTANCE IN CONTACT OR BOND.

PART 4: TESTING REQUIREMENTS

- 4.1 SELECTION AND PAYMENT**
 - B. CONTRACTOR SHALL EMPLOY AND PAY FOR SERVICES OF AN INDEPENDENT TESTING AGENCY OR LABORATORY ACCEPTABLE TO THE OWNER TO PERFORM SPECIFIED TESTING AS SCHEDULED IN THIS SECTION.
 - 1. EMPLOY THE TESTING LABORATORY DOES NOT RELIEVE CONTRACTOR OR OBLIGATION TO PERFORM IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.

4.2 QUALITY ASSURANCE

- A. LABORATORY AUTHORIZED TO OPERATE IN STATE IN WHICH PROJECT IS LOCATED.
- B. LABORATORY STAFF: MAINTAIN A FULL TIME REGISTERED ENGINEER ON STAFF TO REVIEW SERVICES.
- C. TESTING EQUIPMENT: CALIBRATED AT REASONABLE INTERVALS WITH DEVICES OF AN ACCURACY TRACEABLE TO EITHER NATIONAL BUREAU OF STANDARDS OR ACCEPTED VALUES OF NATURAL PHYSICAL CONSTANTS.

4.3 CONTRACTOR SUBMITTALS

- A. PRIOR TO THE START OF WORK, SUBMIT TESTING LABORATORY NAME, ADDRESS, TELEPHONE AND NAMES OF FULL TIME REGISTERED ENGINEER AND RESPONSIBLE OFFICER.

4.4 LABORATORY RESPONSIBILITIES

- A. THE INDEPENDENT FIRM WILL PERFORM TEST, INSPECTIONS AND OTHER SERVICES SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS.
 - 1. PERFORM ADDITIONAL INSPECTIONS AND TESTS REQUIRED BY OWNER OR ARCHITECT.
 - 2. TESTING, INSPECTORS AND SOURCE QUALITY CONTROL, MAY OCCUR ON OR OFF THE PROJECT SITE, PERFORM OFF-SITE TESTING AS REQUIRED BY THE ARCHITECT OR THE OWNER.
 - 3. TEST SAMPLES OF MIXES SUBMITTED BY CONTRACTOR.
 - 4. PROVIDE QUALIFIED PERSONNEL AT SITE COOPERATE WITH OWNER AND CONTRACTOR IN PERFORMANCE OF SERVICES.
 - 5. PERFORM SPECIFIED INSPECTION, SAMPLING, AND TESTING OF PRODUCTS IN ACCORDANCE WITH SPECIFIED STANDARDS.
 - 6. PROVIDE INCIDENTAL LABOR AND FACILITIES TO PROVIDE ACCESS TO WORK TO BE TESTED TO OBTAIN AND HANDLE SAMPLE AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED TO FACILITATE TESTS AND INSPECTIONS, STORAGE AND CURING OF TESTS SAMPLES.
 - 7. TYPE OF INSPECTION OR TEST.
 - 8. DATE OF TEST.
 - 9. RESULTS OF TESTS.
 - 10. COOPERATION WITH CONTRACT DOCUMENTS.
- C. WHEN REQUESTED BY OWNER OR ARCHITECT, PROVIDE INTERPRETATION OF TEST RESULTS.

4.5 LABORATORY REPORTS

- A. AFTER EACH INSPECTION AND TEST, PROMPTLY SUBMIT COPIES OF LABORATORY REPORT TO THE FOLLOWING:
 - 1. ARCHITECT, TWO COPIES
 - 2. OWNER, ONE COPY
 - 3. CONTRACTOR, TWO COPIES
 - 4. LOCAL AUTHORITY HAVING JURISDICTION, ONE COPY
- B. INCLUDE:
 - 1. DATE ISSUED
 - 2. PROJECT TITLE AND NUMBER
 - 3. NAME OF INSPECTOR
 - 4. DATE AND TIME OF SAMPLING OR INSPECTION
 - 5. IDENTIFICATION OF PRODUCT AND SPECIFICATION SECTION.
 - 6. LOCATION IN THE PROJECT.
 - 7. TYPE OF INSPECTION OR TEST.
 - 8. DATE OF TEST.
 - 9. RESULTS OF TESTS.
 - 10. COOPERATION WITH CONTRACT DOCUMENTS.
- C. WHEN REQUESTED BY OWNER OR ARCHITECT, PROVIDE INTERPRETATION OF TEST RESULTS.

4.6 CONTRACTOR RESPONSIBILITIES

- A. DELIVER TO LABORATORY AT DESIGNATED LOCATION, ADEQUATE SAMPLES OF MATERIALS PROPOSED TO BE USED WHICH REQUIRE TESTING ALONG WITH PROPOSED MIX DESIGNS.
- B. COOPERATE WITH LABORATORY PERSONNEL AND PROVIDE ACCESS TO THE WORK AND TO MANUFACTURERS FACILITIES.
- C. PROVIDE INCIDENTAL LABOR AND FACILITIES TO PROVIDE ACCESS TO WORK TO BE TESTED TO OBTAIN AND HANDLE SAMPLE AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED TO FACILITATE TESTS AND INSPECTIONS, STORAGE AND CURING OF TESTS SAMPLES.
- D. NOTIFY LABORATORY 24 HOURS PRIOR TO EXPECTED TIME FOR OPERATING REQUIRING INSPECTION AND TESTING SERVICES. COORDINATE SCHEDULE WITH LABORATORY TO ENSURE TESTING AND INSPECTION PERSONNEL ARE AVAILABLE AT THE SITE WHEN REQUIRED WORK IN PROGRESS.
- E. ARRANGE WITH LABORATORY AND PAY FOR ADDITIONAL SAMPLES AND TESTS REQUIRED BY CONTRACTOR BEYOND SPECIFIED REQUIREMENTS.

4.7 TESTING AND INSPECTION SCHEDULE

- A. DELIVER TO LABORATORY AT DESIGNATED LOCATION, ADEQUATE SAMPLES OF MATERIALS PROPOSED TO BE USED WHICH REQUIRE TESTING ALONG WITH PROPOSED MIX DESIGNS.
- B. COOPERATE WITH LABORATORY PERSONNEL AND PROVIDE ACCESS TO THE WORK AND TO MANUFACTURERS FACILITIES.
- C. PROVIDE INCIDENTAL LABOR AND FACILITIES TO PROVIDE ACCESS TO WORK TO BE TESTED TO OBTAIN AND HANDLE SAMPLE AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED TO FACILITATE TESTS AND INSPECTIONS, STORAGE AND CURING OF TESTS SAMPLES.
- D. NOTIFY LABORATORY 24 HOURS PRIOR TO EXPECTED TIME FOR OPERATING REQUIRING INSPECTION AND TESTING SERVICES. COORDINATE SCHEDULE WITH LABORATORY TO ENSURE TESTING AND INSPECTION PERSONNEL ARE AVAILABLE AT THE SITE WHEN REQUIRED WORK IN PROGRESS.
- E. ARRANGE WITH LABORATORY AND PAY FOR ADDITIONAL SAMPLES AND TESTS REQUIRED BY CONTRACTOR BEYOND SPECIFIED REQUIREMENTS.

PART 5: EXISTING CONDITIONS AND UTILITIES

NOTE: REFER TO SHEET A-001 AND MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES.

PART 6: PRODUCT REQUIREMENT

6.1 SUMMARY

- A. SECTION INCLUDES:
 - 1. PRODUCTS
 - 2. PRODUCT DELIVERY REQUIREMENTS
 - 3. PRODUCT STORAGE AND HANDLING REQUIREMENTS
 - 4. PRODUCT OPTIONS
 - 5. PRODUCTS SUBSTITUTION PROCEDURES

6.2 PRODUCTS

- A. PROVIDE PRODUCTS OF QUALIFIED MANUFACTURERS SUITABLE FOR INTENDED USE PROVIDE PRODUCTS OF WHICH TYPE BY A SINGLE MANUFACTURER UNLESS SPECIFIED OTHERWISE.
- B. DO NOT USE MATERIALS AND EQUIPMENT REMOVED FROM EXISTING PREMISES, EXCEPT AS SPECIFICALLY PERMITTED BY THE CONTRACT DOCUMENTS.
- C. PROVIDE INTERCHANGEABLE COMPONENTS OF THE SAME MANUFACTURER FOR COMPONENTS BEING REPLACED.

6.3 PRODUCTS DELIVERY REQUIREMENTS

- A. PACKAGE PRODUCT FOR PROTECTION DURING SHIPMENT, HANDLING AND STORAGE, PROTECT SENSITIVE EQUIPMENT AND FINISHES AGAINST IMPACT, ABRASION AND OTHER DAMAGE.
- B. TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- C. ARRANGE DELIVERIES OF PRODUCTS IN ACCORDANCE WITH PROJECT SCHEDULE ALLOW TIME FOR INSPECTION PRIOR TO INSTALLATION.
- D. COORDINATE DELIVERIES TO AVOID CONFLICT WITH WORK AND CONDITIONS AT THE SITE, LIMITATIONS ON STORAGE SPACE, AVAILABILITY OF PERSONNEL AND HANDLING EQUIPMENT, AND OWNERS USE OF PREMISES.
- E. DELIVER PRODUCTS IN UNLADDED, DRY CONDITION, IN ORIGINAL UNOPENED CONTAINERS OR PACKAGING WITH IDENTIFYING LABELS INTACT AND LEGIBLE.
- F. CLEARLY MARK PARTIAL DELIVERIES ON COMPONENT PARTS OF EQUIPMENT TO IDENTIFY EQUIPMENT AND CONTENTS TO PERMIT EASY ACCUMULATION OF PARTS AND TO FACILITATE ASSEMBLY.
- G. PROMPTLY INSTRUCT SHIPMENTS TO ENSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS, QUANTITIES ARE CORRECT AND PRODUCTS ARE UNLADDED.
- H. PROVIDE EQUIPMENT AND PERSONNEL TO HANDLE PRODUCTS BY METHODS TO PREVENT SOILING, DISFIGUREMENT, OR DAMAGE.

6.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- B. STORE WITH SEALS AND LABELS INTACT AND LEGIBLE.
- C. STORE SENSITIVE PRODUCTS IN WEATHER TIGHT, CLIMATE CONTROLLED ENCLOSURES IN AN ENVIRONMENT FAVORABLE TO PRODUCT.
- D. FOR EXTERIOR STORAGE OF FABRICATED PRODUCTS, PLACE ON SLOPED SUPPORTS ABOVE GROUND.
- E. PROVIDE OFF-SITE STORAGE AND PROTECTION WHEN SITE DOSE NOT PERMIT ON-SITE STORAGE OR PROTECTION.
- F. COVER PRODUCTS SUBJECT TO DETERIORATION WITH IMPERVIOUS SHEET COVERING. PROVIDE VENTILATION TO PREVENT CONDENSATION AND DEGRADATION OF PRODUCTS.
- G. STORE LOOSE GRANULAR MATERIAL ON SLOPED SURFACES IN A WELL-DRAINED AREA, PREVENT MIXING WITH FOREIGN MATTER.
- H. PROVIDE EQUIPMENT AND PERSONNEL TO STORE PRODUCTS BY METHODS TO PREVENT SOILING, DISFIGUREMENT, OR DAMAGE.
- I. ARRANGE STORAGE OF PRODUCTS TO PERMIT ACCESS FOR INSPECTION PERIODICALLY INSPECT TO VERIFY PRODUCTS ARE UNLADDED AND ARE MAINTAINED IN ACCEPTABLE CONDITION.

6.5 PRODUCT OPTIONS

- A. PRODUCTS SPECIFIED BY REFERENCE STANDARD OR BY DESCRIPTION ONLY: ANY PRODUCT MEETING THOSE STANDARDS OR DESCRIPTION.
- B. PRODUCTS SPECIFIED BY NAMING ONE OF MORE MANUFACTURERS, PRODUCTS OF ONE MANUFACTURERS NAMED AND MEETING SPECIFICATIONS, NO OPTIONS OR SUBSTITUTIONS ALLOWED.
- C. PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS WITH A PROVISION FOR SUBSTITUTIONS: SUBMIT A REQUEST FOR SUBSTITUTION FOR ANY MANUFACTURER NOT NAMED IN ACCORDANCE WITH THE FOLLOWING ARTICLE.
 - 1. HAS INVESTIGATED PROPOSED PRODUCT AND DETERMINED THAT IT MEETS OR EXCEEDS THE QUALITY LEVEL OF THE SPECIFIED PRODUCT.
 - 2. WILL PROVIDE THE SAME WARRANTY FOR THE SUBSTITUTION AS FOR THE SPECIFIED PRODUCT.
 - 3. WILL COORDINATE INSTALLATION AND MAKE CHANGES TO OTHER WORK WHICH MAY BE REQUIRED FOR THE WORK TO BE COMPLETE WITH NO ADDITIONAL COST TO OWNER.
 - 4. WAIVES CLAIMS FOR ADDITIONAL COSTS OR TIME EXTENSION WHICH MAY SUBSEQUENTLY BECOME APPARENT.

6.6 PRODUCTS SUBSTITUTION PROCEDURES

- A. PRODUCTS SPECIFIED BY REFERENCE STANDARD OR BY DESCRIPTION ONLY: ANY PRODUCT MEETING THOSE STANDARDS OR DESCRIPTION.
- B. PRODUCTS SPECIFIED BY NAMING ONE OF MORE MANUFACTURERS, PRODUCTS OF ONE MANUFACTURERS NAMED AND MEETING SPECIFICATIONS, NO OPTIONS OR SUBSTITUTIONS ALLOWED.
- C. PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS WITH A PROVISION FOR SUBSTITUTIONS: SUBMIT A REQUEST FOR SUBSTITUTION FOR ANY MANUFACTURER NOT NAMED IN ACCORDANCE WITH THE FOLLOWING ARTICLE.
 - 1. HAS INVESTIGATED PROPOSED PRODUCT AND DETERMINED THAT IT MEETS OR EXCEEDS THE QUALITY LEVEL OF THE SPECIFIED PRODUCT.
 - 2. WILL PROVIDE THE SAME WARRANTY FOR THE SUBSTITUTION AS FOR THE SPECIFIED PRODUCT.
 - 3. WILL COORDINATE INSTALLATION AND MAKE CHANGES TO OTHER WORK WHICH MAY BE REQUIRED FOR THE WORK TO BE COMPLETE WITH NO ADDITIONAL COST TO OWNER.
 - 4. WAIVES CLAIMS FOR ADDITIONAL COSTS OR TIME EXTENSION WHICH MAY SUBSEQUENTLY BECOME APPARENT.

E. SUBSTITUTIONS WILL NOT BE CONSIDERED:

- 1. WHEN THEY ARE INDICATED OR IMPLIED ON SHOP DRAWING OR PRODUCT AND PROPOSED DATA SUBMITTALS, WITHOUT SEPARATE WRITTEN REQUEST.
 - 2. WHEN ACCEPTANCE WILL REQUIRE REVISION TO CONTRACT DOCUMENTS.
 - 3. WHEN REQUEST IS FROM A SOURCE OTHER THAN CONTRACTOR.
- F. SUBSTITUTION SUBMITTAL PROCEDURES
- 1. SUBMIT ONE COPY OF REQUEST FOR SUBSTITUTION FOR CONSIDERATION.
 - 2. SUBMIT SIDE-BY-SIDE COMPARISON OF FEATURES OF SPECIFIED PRODUCT AND PROPOSED SUBSTITUTION BURDEN OF PROOF THAT PROPOSED SUBSTITUTION IS EQUIVALENT TO SPECIFIED PRODUCT IS ON PROPOSAL.
 - 3. SUBMIT SHOP DRAWINGS, PRODUCT DATA AND CERTIFIED TEST RESULTS ATTESTING TO THE PROPOSED PRODUCT EQUIVALENCE.
 - 4. THE ARCHITECT WILL NOTIFY CONTRACTOR IN WRITING OF DECISION TO ACCEPT OR REJECT REQUEST.
 - 5. ARCHITECT WILL CONSIDER ONLY ONE REQUEST FOR SUBSTITUTION FOR EACH PRODUCT. IF REQUEST IS NOT ACCEPTED PROVIDE SPECIFIED PRODUCT.

PART 7: OWNER FURNISHED ITEMS

- NOTE: REFER TO CONTRACT WITH OWNER FOR OWNER PROVIDED ITEMS. C. TO COORDINATE WITH OWNER ON OWNER SUPPLIED, PURCHASED, AND INSTALLED ITEMS.

PART 8: EXECUTION REQUIREMENTS

8.1 CLOSEOUT PROCEDURES

- A. SUBMIT WRITTEN CERTIFICATION THAT CONTRACT DOCUMENTS HAVE BEEN REVIEWS, WORK HAS BEEN INSPECTED AND THAT WORK IS COMPLETE IN ACCORDANCE WITH CONTRACT DOCUMENTS AND READY FOR ARCHITECTS REVIEW.
- B. PROVIDE SUBMITTALS TO ARCHITECT THAT ARE REQUIRED BY GOVERNING OR OTHER AUTHORITIES.
- C. SUBMIT FINAL APPLICATION FOR PAYMENT IDENTIFYING TOTAL ADJUSTED CONTRACT SUM, PREVIOUS PAYMENTS, AND SUM REMAINING DUE.
- D. OWNER WILL OCCUPY THE PROJECT AT SUBSTANTIAL COMPLETION.
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PART 9: CUTTING AND PATCHING

- 9.1 SUMMARY**
- A. SECTION INCLUDES:
1. REQUIREMENTS AND LIMITATIONS FOR CUTTING AND PATCHING OF THE NEW WORK AND EXISTING FACILITIES.
- 9.2 SUBMITTALS**
- A. SUBMITTAL PROCEDURES
- B. SUBMIT WRITTEN REQUEST IN ADVANCE FOR CUTTING OR ALTERATION WHICH AFFECTS:
1. STRUCTURAL INTEGRITY OF ANY ELEMENT OF A PROJECT.
 2. INTEGRITY OF WEATHER EXPOSED OR MOISTURE RESISTANT ELEMENT.
 3. EFFICIENCY, MAINTENANCE OR SAFETY OF ANY OPERATIONAL ELEMENT.
 4. VISUAL QUALITIES OF SIGHT EXPOSED ELEMENTS.
 5. WORK OF OWNER OR SEPARATE CONTRACTOR.
 6. CONTINUOUS OPERATION OF UTILITIES, BUILDING SERVICES, FIRE SUPPRESSION, FIRE ALARM OR SECURITY SYSTEM.
- C. INCLUDE IN REQUEST:
1. IDENTIFICATION OF PROJECT
 2. LOCATION AND DESCRIPTION OF AFFECTED WORK.
 3. NECESSITY FOR CUTTING OR ALTERATION.
 4. DESCRIPTIONS OF PROPOSED WORK AND PRODUCTS TO BE USED.
 5. ALTERNATIVE TO CUTTING AND PATCHING.
 6. EFFECT ON WORK OF OWNER OR SEPARATE CONTRACTOR.
 7. WRITTEN PERMISSION OF AFFECTED SEPARATE CONTRACTOR.
 8. DATE AND TIME WORK WILL BE EXECUTED.

- 9.3 WARRANTY**
- A. PERFORM CUTTING AND PATCHING IN A MANNER TO PRESERVE CONDITIONS SUITABLE FOR EXECUTING SPECIFIED WARRANTIES AND MAINTAINING PREVIOUSLY ISSUED WARRANTIES FOR THE WORK.

- 9.4 EXAMINATION**
- A. EXAMINE EXISTING CONDITIONS PRIOR TO COMMENCING WORK, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR MOVEMENT DURING CUTTING AND PATCHING.
- B. AFTER UNCOVERING EXISTING WORK, ASSESS CONDITIONS AFFECTING PERFORMANCE OF WORK.
- C. BEGINNING OF CUTTING OR PATCHING MEANS ACCEPTANCE OF EXISTING CONDITIONS.

- 9.5 PREPARATION**
- A. PROVIDE TEMPORARY SUPPORTS TO ENSURE STRUCTURAL INTEGRITY OF THE WORK PROVIDE DEVICES AND METHODS TO PROTECT OTHER PORTIONS OF PROJECT FROM DAMAGE.
- B. PROVIDE PROTECTION FROM ELEMENTS FOR AREAS WHICH MAY BE EXPOSED BY UNCOVERING WORK.
- C. MAINTAIN EXCAVATIONS FREE OF WATER.

- 9.5 PREPARATION**
- A. PROVIDE TEMPORARY SUPPORTS TO ENSURE STRUCTURAL INTEGRITY OF THE WORK PROVIDE DEVICES AND METHODS TO PROTECT OTHER PORTIONS OF PROJECT FROM DAMAGE.
- B. PROVIDE PROTECTION FROM ELEMENTS FOR AREAS WHICH MAY BE EXPOSED BY UNCOVERING WORK.
- C. MAINTAIN EXCAVATIONS FREE OF WATER.

- 9.6 CUTTING**
- A. EXECUTE WORK BY METHODS TO AVOID DAMAGE TO OTHER WORK, AND WHICH WILL PROVIDE PROPER SURFACES TO RECEIVE PATCHING AND FINISHING.
- B. IDENTIFY HAZARDOUS SUBSTANCES OR CONDITIONS EXPOSED DURING THE WORK TO THE ARCHITECT OF DECISION OR REMEDY.
- C. EXECUTE CUTTING AND FITTING TO COMPLETE THE WORK.
- D. UNCOVER WORK TO INSTALL IMPROPERLY SEQUENCED WORK.
- E. REMOVE AND REPLACE DEFECTIVE OR NON-CONFORMING WORK.
- F. REMOVE SAMPLES OF INSTALLED WORK FOR TESTING WHEN REQUESTED.
- G. PROVIDE OPENINGS IN THE WORK FOR PENETRATION OF MECHANICAL AND ELECTRICAL WORK.
- H. NEW CONSTRUCTION: EMPLOY ORIGINAL INSTALLER TO PERFORM CUTTING FOR WEATHER EXPOSED AND MOISTURE RESISTANT ELEMENTS AND SIGHT EXPOSED SURFACES.
- I. FOR SIGHT EXPOSED SURFACES:
1. CUTTING NEW WORK: EMPLOY ORIGINAL INSTALLER.
 2. CUTTING EXISTING FACILITIES TO ACCOMMODATE NEW WORK: EMPLOY QUALIFIED INSTALLER.
- J. CUT RIGID MATERIALS USING POWER SAW OR CORE DRILL. PNEUMATIC TOOLS NOT ALLOWED WITHOUT PRIOR APPROVAL.

- 9.6 PATCHING**
- A. EXECUTE PATCHING TO COMPLIMENT ADJACENT WORK.
- B. FOR PRODUCTS TOGETHER TO INTEGRATE WITH OTHER WORK.
- C. FOR SIGHT-EXPOSED SURFACES:
1. PATCHING NEW WORK: EMPLOY ORIGINAL INSTALLER.
 2. PATCHING EXISTING FACILITIES TO ACCOMMODATE NEW WORK: EMPLOY QUALIFIED INSTALLER.
- D. RESTORE WORK WITH NEW PRODUCTS IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.
- E. FIT WORK TO PIPES, SLEEVES, DUCTS, CONDUIT AND OTHER PENETRATIONS THROUGH SURFACES.
- F. AT PENETRATIONS OF FIRE RATED WALL, PARTITIONS, CEILING OR FLOOR CONSTRUCTION, COMPLETELY SEAL VOIDS.
- G. REFINISH SURFACES TO MATCH ADJACENT FINISH FOR CONTIGUOUS SURFACES. REFINISH TO NEAREST INTERSECTION OR NATURAL BREAK. FOR AN ASSEMBLY, REFINISH ENTIRE UNIT.

PART 10: BENTONITE WATERPROOFING

- 10.1 SUMMARY**
- A. SECTION INCLUDES:
1. BENTONITE FLOOR SLAB WATERPROOFING.
- 10.2 PERFORMANCE REQUIREMENTS**
- A. WATERPROOFING SYSTEM: CAPABLE OF PREVENTING MOISTURE MIGRATION TO INTERIOR.
1. REFER TO SUBSURFACE INVESTIGATION REPORT FOR THE EXPECTED WATER HEAD AND WATER TABLE DEPTH.
 2. SOIL CONTAINING ACID, ALKALI, BRINE OF GROUND WATER CONTAMINATION SHOULD HAVE SOIL SAMPLES SUBMITTED TO A BENTONITE CLAY WATERPROOFING PANEL MANUFACTURER FOR ANALYSIS AND RECOMMENDATIONS FOR SUITABILITY OF BENTONITE CLAY WATERPROOFING CAPABILITY.

- 10.3 QUALIFICATIONS**
- A. MANUFACTURER COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS DOCUMENTED EXPERIENCE.

- 10.4 WARRANTY**
- B. PROVIDE FIVE YEAR MANUFACTURER LABOR AND MATERIAL WARRANTY FOR WATERPROOFING FAILING TO RESIST PENETRATION OF WATER.

- 10.5 FLOOR SLAB WATERPROOFING**
- A. MANUFACTURERS:
1. COLLOID ENVIRONMENTAL TECHNOLOGIES COMPANY (CETCO); VOLTEX
 2. CARLISLE COATINGS AND WATERPROOFING; MIRCLAY
- B. WATERPROOFING SHEET (CONTRACTORS OPTION):
1. (TYPE 1): COMPOSITE WOVEN AND NON-WOVEN POLYPROPYLENE GEOTEXTILE FABRIC FACINGS, CORE FILLED WITH SELF EXPANDING BENTONITE CLAY GRANULES:
 - A. NOMINAL SHEET SIZE: 4 X 15 FEET
 - B. MINIMUM BENTONITE FILL: 1.0 LB/SQ. FT.
 2. (TYPE 2): COMPOSITE SHEET WITH SPUN POLYPROPYLENE ON ONE FACE AND HIGH DENSITY POLYETHYLENE ON OTHER FACE. CORE FILLED WITH SELF EXPANDING BENTONITE CLAY GRANULES:
 - A. NOMINAL SHEET SIZE: 4 X 15 FEET
 - B. MINIMUM BENTONITE FILL: 1.0 LB/SQ. FT.
- C. PRODUCT: VOLTEX OR MIRCLAY

- 10.6 COMPONENTS**
- A. WATERSTOP: FLEXIBLE STRIP OF BENTONITE WATERPROOFING COMPOUND IN COIL FORM FOR JOINTS IN CONCRETE CONSTRUCTION.
1. WATERSTOP-RX 101, MANUFACTURED BY CETCO.
 2. MIRASTOP MANUFACTURED BY CARLISLE COATING & WATERPROOFING.
 3. TREMCO SEALANT/WEATHERPROOFING DIVISION: SUPERSTOP 3/4 INCH.

- 10.7 ACCESSORIES**
- A. BENTONITE MASTIC: TROWELABLE GRADE BENTONITE WATERPROOFING FOR APPLICATION AT JOINTS AND PENETRATIONS.
- B. LIQUID FLASHIN: TROWELABLE GRADE HIGH SOLIDS BITUMEN MODIFIED POLYURETHANE WATERPROOFING MEMBRANE.
- C. FASTENERS: GALVANIZED NAILS.
- D. ADHESIVE: MANUFACTURER'S RECOMMENDED TYPE.
- E. TAPE: MANUFACTURER'S RECOMMENDED TYPE.
- F. FLEXIBLE FLASHINGS: TYPE RECOMMENDED BY WATERPROOFING MANUFACTURER TO MEET OR EXCEED SPECIFIED AND DESIGN REQUIREMENTS.

- 10.8 INSTALLATION-UNDER SLABS ON GRADE**
- A. APPLY WATERPROOFING IN MATERIALS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- B. APPLY WATERPROOFING WITH EDGES OVERLAPPED 4 INCHES. SECURE PANELS TO PREVENT DISPLACEMENT. STAGGER JOINTS OF ADJOINING PANEL ROWS.
- C. SEAL PENETRATIONS WITH MINIMUM 2 INCHES OF DRY GRANULAR BENTONITE. CUT WATERPROOFING SHEET TO FIT TIGHT AROUND PENETRATIONS. SEAL SHEET JOINTS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- D. DO NOT EXTEND BENTONITE PANELS OVER PILE CAPS OF FOOTINGS SUPPORTING SLAB EDGES.
- E. EXTEND WATERPROOFING MEMBRANE UNDER FOOTING AND GRADE BEAMS. PROVIDE MINIMUM 6 INCH OVERLAP BETWEEN UNDER SLAB AND VERTICAL WALL WATERPROOFING.
- F. INSPECT WATERPROOFING BEFORE PLACING CONCRETE SLAB TO ENSURE PRODUCTS ARE NOT DAMAGED.

PART 11: BUILDING INSULATION

- 11.1 SUMMARY**
- A. SECTION INCLUDES:
1. BOARD INSULATION AT PERIMETER FOUNDATION WALL.
 2. BATT INSULATION IN EXTERIOR WALL CONSTRUCTION.
- 11.2 ENVIRONMENTAL REQUIREMENTS**
- A. PRODUCT REQUIREMENTS:
- B. DO NOT INSTALL ADHESIVE WHEN TEMPERATURE OR WEATHER CONDITIONS ARE DETRIMENTAL TO SUCCESSFUL INSTALLATION.
- 11.3 BOARD INSULATION**
- A. MANUFACTURERS:
1. DOW CHEMICAL COMPANY: STYROFOAM SQUARE EDGE.
 2. OWENS CORNING; FOAMULAR 250.
 3. PACTIVE BUILDING PRODUCTS; GREENGUARD CM INSULATION BOARD.
 4. PRODUCT REQUIREMENTS.
- B. BOARD INSULATION: ASTM 5678, TYPE IV EXTRUDED POLYSTYRENE LABELED BY AN APPROVED AGENCY, CONFORMING TO THE FOLLOWING:
1. THERMAL RESISTANCE R OF 5.0 PER INCH THICKNESS MINIMUM AT 75 DEGREES F, ASTM 0518.
 2. COMPRESSIVE STRENGTH: MINIMUM 25 PSI, ASTM D162.
 3. WATER ABSORPTION: MAXIMUM 0.1 PERCENT BY VOLUME, ASTM D272.
 4. EDGES: SQUARE EDGES.
 5. FLAME/SMOKE PROPERTIES: 25/450 MAXIMUM IN ACCORDANCE WITH ASTM E84.

- 11.4 BATT INSULATION**
- A. MANUFACTURERS:
1. OWENS CORNING THERMAL SPREAD 25 INSULATION.
 2. CERTANTEED: FLAME RESISTANT FOIL INSULATION (FSK-25)
 3. JOHNS MANSVILLE; FSK-25 FIBER GLASS THERMAL INSULATION.
 4. KNAUF FIBER GLASS; FSK-25 BATT INSULATION.
 5. PRODUCT REQUIREMENTS.

- 11.5 ACCESSORIES**
- A. ADHESIVE: GUN GRADE MASTIC TYPE, AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATION
- B. TAPE: BRIGHT ALUMINUM SELF-ADHERING TYPE FOR FOIL FACED INSULATION.
- C. WIRE MESH: GALVANIZED STEEL, HEXAGONAL WIRE MESH.
- D. SPINDLE FASTENERS: TYPE RECOMMENDED BY INSULATION MANUFACTURER TO SUIT APPLICATION.

- 11.6 INSTALLATION-FOUNDATION-BOARD INSULATION**
- A. ADHERE A 6 INCH WIDE STRIP OF POLYETHYLENE SHEET OVER CONSTRUCTION JOINTS WITH DOUBLE BEADS OF ADHESIVE EACH SIDE OF JOINT.
1. TAPE SEAL JOINTS.
 2. EXTEND SHEET FULL HEIGHT OF JOINT.
- B. APPLY ADHESIVE TO INSULATION IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- C. INSTALL BOARDS ON FOUNDATION WALL PERIMETER.
1. PLACE BOARDS IN A METHOD TO MAXIMIZE CONTACT BEDDING.
 2. BUTT EDGES AND ENDS TIGHT TO ADJACENT BOARD AND TO PROTRUSIONS.
 3. D. EXTEND BOARDS OVER CONTROL AND EXPANSION JOINTS, MINIMUM THREE INCHES ON ONE SIDE OF JOINT. BOND INSULATION TO ONLY ONE SIDE OF EACH JOINT.
 4. CUT AND FIT INSULATION TIGHT TO PROTRUSIONS OR INTERRUPTIONS TO THE INSULATION PLANE.

- 11.7 INSTALLATION-BATT INSULATION**
- A. INSTALL IN EXTERIOR WALLS WITHOUT GAPS OF VOIDS FLUFF INSULATION TO FULL THICKNESS FOR SPECIFIED R-VALUE BEFORE INSTALLATION. DO NOT COMPRESS INSULATION.
- B. TRIM IN INSULATION NEATLY TO FIT SPACES. INSULATE MISCELLANEOUS GAPS AND VOIDS.
- C. FIT INSULATION TIGHT IN SPACES AND TIGHT TO EXTERIOR SIDE OF MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLACE OF INSULATION.
- D. INSTALL WITH FACTORY APPLIED VAPOR RETARDER MEMBRANE FACING WARM SIDE OF BUILDING SPACES LAP ENDS AND SIDE FLANGES OF MEMBRANE OVER FRAMING MEMBERS. TAPE IN PLACE.
- E. TAPE SEAL BUTT ENDS, LAPPED FLANGES AND TEARS OR CUTS IN MEMBRANE
- F. RETAIN INSULATION IN PLACE WITH WIRE MESH SECURED TO HORIZONTAL FRAMING MEMBERS WHERE REQUIRED
- G. EXTEND VAPOR RETARDED RIGHT TO FILL PERIMETER OF ADJACENT WINDOW AND DOOR FRAMES AND OTHER ITEMS INTERRUPTING THE PLACE OF MEMBRANE. TAPE SEAL IN PLACE.

PART 12: JOINT SEALERS

- 12.1 SUMMARY**
- A. SECTION INCLUDES
1. SEALANTS AND JOINT BACKING.
- 12.2 ENVIRONMENTAL REQUIREMENTS**
- A. PRODUCTS REQUIREMENTS
- B. MAINTAIN TEMPERATURE AND HUMIDITY RECOMMENDED BY SEALANT MANUFACTURER DURING AND AFTER INSTALLATION.

- 12.3 JOINT SEALERS**
- A. SEALANT MANUFACTURERS
1. PECORA CORPORATION.
 2. GENERAL ELECTRIC SILICONES
- B. SILICONE EXTERIOR JOINTS: ASTM C920, TYPE S, GRADE NS, CLASS 25; NT, M, G, A AND O; SINGLE COMPONENT, NEUTRAL CURING, NONSTAINING NON BLEEDING COLOR AS SELECTED
1. GENERAL ELECTRIC; SILPRUF.
 2. APPLICATIONS: USE FOR EXTERIOR NON-TRAFFIC BEARING JOINTS, INCLUDING EIFS JOINTS
 - A. CONTROL AND SOFT JOINTS IN MASONRY.
 - B. JOINT BETWEEN CONCRETE OR STONE AND OTHER MATERIALS.
 - C. JOINTS BETWEEN METAL FRAMES AND OTHER MATERIALS.
- C. ACRYLIC INTERIOR JOINTS: ASTM C834; SINGLE COMPONENT, SOLVENT CURING, NONSTAINING, NONBLEEDING NONSAGGING COLOR AS SELECTED;
1. TREMCO; ACRYLIC LATEX.
 2. APPLICATIONS: USE FOR INTERIOR JOINTS ONLY
 - A. INTERIOR WALL AND CEILING CONTROL JOINTS.
 - B. INTERIOR JOINTS BETWEEN DOOR AND WINDOW FRAMES AND WALL SURFACES.
 - C. OTHER INTERIOR JOINTS FOR WHICH NO THERE TYPE OF SEALANT IS INDICATED.
- D. POLYURETHANE TRAFFIC JOINTS: ASTM C920, TYPE M, GRADE P, CLASS 25; SELF LEVELING, TWO COMPONENT, CHEMICAL CURING, NON STAINING NONBLEEDING, CAPABLE OF CONTINUOUS WATER IMMERSION, COLORS SELECTED:
1. TREMCO, THC-900
 2. APPLICATIONS: USE FOR INTERIOR AND EXTERIOR HORIZONTAL TRAFFIC BEARING JOINTS
 - A. JOINTS IN CONCRETE FLOORS AND PAVING.
 - B. OTHER TRAFFIC BEARING JOINTS FOR WHICH NO OTHER SEALANT IS INDICATED.
- E. EXTERIOR METAL LAP JOINT SEALANT: ASTM C1311, BUTYL OR POLYISOBUTYLENE, NONDRYING, NON SKINNING, NON-CURING, COLOR AS SELECTED
1. TREMCO, THC-900
 2. APPLICATIONS: USE FOR INTERIOR AND EXTERIOR HORIZONTAL TRAFFIC BEARING JOINTS
 - A. CONCEALED SEALANT BEAD IN SHEET METAL AND FLASHING WORK
 - B. CONCEALED SEALANT BEAD IN SIDING OVERLAPS.
 - C. CONCEALED SEALANT BEAD IN THROUGH WALL FLASHING.
 - D. OTHER CONCEALED SEALANT JOINTS WHERE SPECIFIED IN OTHER SECTIONS.

- 12.4 ACCESSORIES**
- A. PRIMER: NON-STAINING TYPE RECOMMENDED BY SEALANT MANUFACTURER TO SUIT APPLICATION.
- B. JOINT CLEANER: NON-CROSVING AND NON-STAINING TYPE, RECOMMENDED BY SEALANT MANUFACTURER; COMPATIBLE WITH JOINT FORMING MATERIALS.
- C. JOINT BACKING: ROUND FOAM ROD COMPATIBLE WITH SEALANT; OVERSIZED 30 TO 50 PERCENT LARGER THAN JOINT WIDTH; RECOMMENDED BY SEALANT MANUFACTURER TO SUIT APPLICATION.
- D. BOND BREAKER: PRESSURE SENSITIVE TAPE RECOMMENDED BY SEALANT MANUFACTURER TO SUIT APPLICATION.

- 12.5 INSTALLATION**
- A. PERFORM INSTALLATION IN ACCORDANCE WITH ASTM C1193.
- B. MEASURE JOINT DIMENSIONS AND SIZE JOINT BACKERS TO ACHIEVE WIDTH-TO-DEPTH RATIO, NECK DIMENSION AND SURFACE BOND AREA AS RECOMMENDED BY MANUFACTURER, EXCEPT WHERE SPECIFIC DIMENSIONS ARE INDICATED.
- C. INSTALL BOND BREAKER WHERE JOINT BACKING IS NOT USED.
- D. INSTALL SEALANT BEAD IN CONCRETE, FOREIGN EMBEDDED MATTER, RIDGES AND SAGS.
- E. APPLY SEALANT WITHIN RECOMMENDED APPLICATION TEMPERATURE RANGES. CONSULT MANUFACTURER WHEN SEALANT CANNOT BE APPLIED WITHIN THESE TEMPERATURE RANGES.
- F. TOOL JOINTS AS DETAILED.

PART 13: FIRE STOPPING MATERIALS

- 13.1 SUMMARY**
- A. SECTION INCLUDES:
1. FIRESTOPPING FOR THROUGH PENETRATIONS AND JOINTS IN FIRE RATED ASSEMBLIES.
 2. FIRE RESISTANT JOINTS IN FIRE RATED FLOOR, ROOF, AND WALL ASSEMBLIES
 3. FIRE RESISTANT JOINTS BETWEEN FLOOR SLABS AND EXTERIOR WALLS.
- 13.2 SYSTEM DESCRIPTION**
- A. THROUGH PENETRATION FIRESTOPPING OF FIRE RATED ASSEMBLIES: ASTM E814 WITH 0.10 INCH WATER GAGE MINIMUM POSITIVE PRESSURE DIFFERENTIAL TO ACHIEVE FIRE F-RATING AND TEMPERATURE T-RATINGS AS INDICATED ON DRAWINGS, BUT NOT LESS THAN 1 HOUR.
1. WALL PENETRATIONS: FIRE F-RATING AS INDICATED ON DRAWINGS, BUT NOT LESS THAN 1 HOUR.
 2. FLOOR AND ROOF PENETRATIONS: FIRE F-RATINGS AND TEMPERATURE T-RATINGS AS INDICATED ON DRAWINGS, BUT NOT LESS THAN 1 HOUR.
 3. FLOOR PENETRATIONS WITHIN WALL CAVITIES: T-RATING IS NOT REQUIRED.
- B. FIRE RESISTANT JOINTS IN FIRE RATED FLOOR ROOF AND WALL ASSEMBLIES: UL 2079 TO ACHIEVE FIRE RESISTANT RATING AS INDICATED ON DRAWINGS FOR ASSEMBLY IN WHICH JOINT IS INSTALLED.
- C. FIRE RESISTANT JOINTS BETWEEN FLOOR SLABS AND EXTERIOR WALLS: ASTM E119 WITH 0.10 INCH WATER GAGE MINIMUM POSITIVE PRESSURE DIFFERENTIAL TO ACHIEVE FIRE RESISTANT RATING AS INDICATED ON DRAWINGS FOR FLOOR ASSEMBLY.
- D. SURFACE BURNING CHARACTERISTICS: CLASS A WHEN TESTED IN ACCORDANCE WITH ASTM E84 FOR MATERIALS EXPOSED TO BUILDING INTERIOR IN COMPLETED CONSTRUCTION.

- 13.3 PERFORMANCE REQUIREMENTS**
- A. FIRESTOPPING DESIGNS: CONFORM TO ASSEMBLIES LISTED WITH UNDERWRITERS LABORATORIES OR INTERTEK TESTING SERVICES (WARNOCK HERSEY LISTED).
- B. PROVIDE CERTIFICATE OF COMPLIANCE FROM AUTHORITY HAVING JURISDICTION INDICATING APPROVAL OF MATERIALS USED.

- 13.4 ENVIRONMENTAL REQUIREMENTS**
- A. PRODUCT REQUIREMENTS
- B. DO NOT APPLY MATERIALS WHEN TEMPERATURE OF SUBSTRATE MATERIAL AND AMBIENT AIR IS BELOW 60 DEGREES F.
- C. MAINTAIN THIS MINIMUM TEMPERATURE BEFORE, DURING, AND FOR MINIMUM 3 DAYS AFTER INSTALLATION OF MATERIALS.
- D. PROVIDE VENTILATION IN AREAS TO RECEIVE SOLVENT CURED MATERIALS.

- 13.5 FIRESTOPPING**
- A. MANUFACTURERS:
1. NELSON
 2. 3M FIRE PROTECTION PRODUCTS.
 3. COLOR: DARK GRAY.
- 13.6 FIRESTOPPING**
- A. FILL, VOID AND CAVITY MATERIALS: ONE OR MORE OF THE FOLLOWING TYPES, AS APPROPRIATE FOR PARTICULAR CONSTRUCTION CONDITIONS.
1. SILICONE FOAM MATERIAL, ROOM TEMPERATURE, VULCANIZING, 14 TO 20 LB/CU FT DENSITY.
 2. SILICONE SEALANT MATERIAL, EXCEPT ON FINISHED SURFACES TO BE PAINTED.
 3. CAULK TYPE MATERIAL.
 4. PUTTY TYPE MATERIAL.
 5. COMPOSITE SHEET TYPE MATERIAL, 1/4 INCH NOMINAL THICKNESS, FOIL-FACED
 6. WRAP STRIP TYPE MATERIAL, 1/4 INCH NOMINAL THICKNESS, INTUMESCENT ELASTOMERIC.
 7. MORTAR AS SPECIFIED IN SECTION 04065 WHERE PERMITTED BY APPLICABLE CODE.
- B. PACKING MATERIALS: ONE OR MORE OF THE FOLLOWING TYPES, AS APPROPRIATE FOR PARTICULAR CONSTRUCTION CONDITIONS.
1. CERAMIC FIBER BLANKET, 4 LB/CU FT. DENSITY.
 2. CERAMIC FIBER INSULATION, MINIMUM 1 INCH THICK, 8 LB/CU FT MINIMUM DENSITY.
 3. MINERAL WOOL BATT INSULATION, 6.0 LB/CU MINIMUM DENSITY.
- C. FORMING MATERIALS: AS REQUIRED BY TESTED DESIGN FOR PARTICULAR CONSTRUCTION CONDITIONS.

- 13.7 ACCESSORIES**
- A. PRIMER: TYPE RECOMMENDED BY FIRESTOPPING MANUFACTURER FOR SPECIFIC SUBSTRATE SURFACES AND SUITABLE FOR REQUIRED FIRE RATINGS.
- B. DAM MATERIAL FOR PERMANENT INSTALLATION.
1. MINERAL FIREBOARD.
 2. MINERAL FIBER MATTING.
 3. SHEET METAL.
 4. PLYWOOD OR PARTICLE BOARD.
 5. ALUMINA SILICATE FIRE BOARD.
- C. INSTALLATION ACCESSORIES: PROVIDE CLIPS, COLLARS, FASTENERS, TEMPORARY STOP OR DAMS AND OTHER DEVICES REQUIRED TO POSITION AND RETAIN MATERIALS IN PLACE

- 13.8 APPLICATION**
- A. INSTALL MATERIAL AT FIRE RATED CONSTRUCTION PERIMETERS AND OPENINGS WHICH CONTAIN PENETRATING SLEEVES, PIPING, DUCTWORK CONDUIT AND OTHER ITEMS. REQUIRING FIRESTOPPING
- B. APPLY PRIMER WHERE RECOMMENDED BY MANUFACTURER FOR TYPE OF FIRESTOPPING MATERIAL AND SUBSTRATE INVOLVED, AND AS REQUIRED FOR COMPLIANCE WITH REQUIRED FIRESTOPPING.
- C. APPLY FIRESTOPPING MATERIAL IN SUFFICIENT THICKNESS TO ACHIEVE REQUIRED FIRE AND SMOKE RATING.
1. INSTALL MORTAR TO FULL THICKNESS OF MASONRY WALL AND CONCRETE FLOORS.
- D. REMOVE DAM OR FORMING MATERIAL NOT REQUIRED TO REMAIN OF THE SYSTEM, AFTER FIRESTOPPING MATERIAL HAS CURED SUFFICIENTLY TO REMAIN IN PLACE.

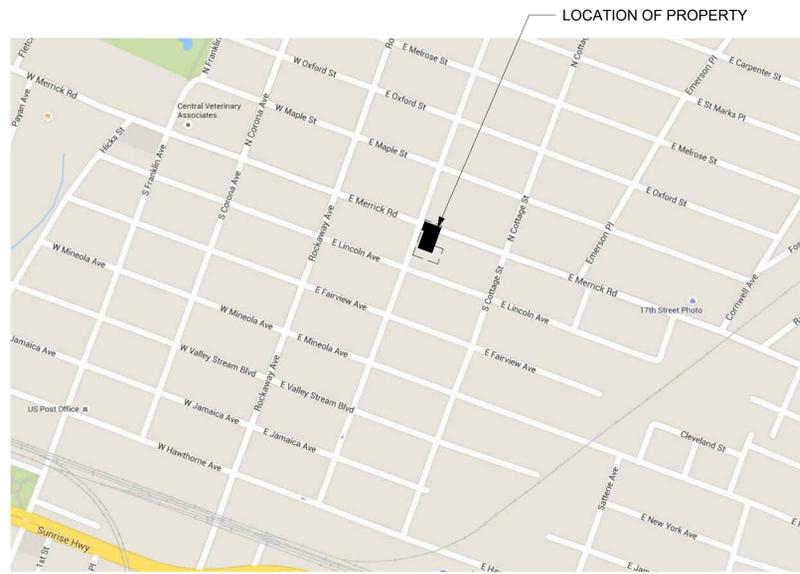
- PART 14: APPLIED FIRE PROOFING (FOR USE w/ ADD ALT #1)**
- 14.1 SUMMARY**
- A. SECTION INCLUDES:
1. CEMENTITIOUS FIREPROOFING
- 14.2 PERFORMANCE REQUIREMENTS**
- A. APPLIED (SPRAYED-ON) FIREPROOFING SYSTEMS: PROVIDE FIRE RATED ASSEMBLY RATINGS IN ACCORDANCE WITH FM, UL, OR, WH TESTED, DESIGNS, CONFORMING TO APPLICABLE CODE.
- B. AIR EROSION: MAXIMUM ALLOWABLE WEIGHT LOSS OF FIREPROOFING SHALL BE 0.025 GRAM/SQ. FT WHEN TESTED IN ACCORDANCE WITH ASTM E859.
- C. CORROSION: APPLIED FIREPROOFING SHALL NOT CONTRIBUTE TO CORROSION OF STEEL TEST PANELS WHEN TESTED IN ACCORDANCE WITH ASTM E937.
- D. MOLD RESISTANCE: MATERIAL TO SHOW RESISTANCE TO FUNGI GROWTH WHEN TESTED IN ACCORDANCE WITH EITHER ASTM C665 REQUIREMENTS FOR FUNGI RESISTANCE OF INSULATION OR ASTM 621.

- 14.3 ENVIRONMENTAL REQUIREMENTS**
- A. MAINTAIN MINIMUM AMBIENT AND SUBSTRATE TEMPERATURE OF 40 DEGREES F DURING AND FOR MINIMUM 24 HOURS AFTER APPLICATION OF FIREPROOFING, UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER.
- B. PROVIDE VENTILATION IN AREAS TO RECEIVE FIREPROOFING DURING APPLICATION AND 24 HOURS AFTERWARD TO DRY APPLIED MATERIAL.
- C. PROVIDE TEMPORARY ENCLOSURE TO PREVENT SPRAY FROM CONTAMINATING AIR.
- 14.4 APPLIED CEMENTITIOUS FIREPROOFING-LOW DENSITY**
- A. MANUFACTURERS FIREPROOFING (TYPE 1- FOR INTERIOR APPLICATIONS ONLY CONCEALED FROM VIEW).
1. GRACE CONSTRUCTION PRODUCTS: ZONOLITE MONOKOTE, MK-6HY AND MK-65.
 2. ISOLATEK INTERNATIONAL; CAFCO 300
 3. SOUTHWEST FIREPROOFING PRODUCTS CO.; TYPE 5GP OR TYPE 5F.
- B. APPLIED FIREPROOFING (TYPE 1-REFER DRAWINGS FOR LOCATION); LOW DENSITY CEMENTITIOUS TYPE, FACTORY MIXED, ASBESTOS FREE, BLENDED FOR UNIFORM TEXTURE, NON-FIBROUS MATERIALS; CONFORMING TO THE FOLLOWING REQUIREMENTS:
1. COMPRESSIVE STRENGTH: ASTM E761, MINIMUM 1,440 PSF.
 2. DRY DENSITY; ASTM E805, MINIMUM AVERAGE DENSITY OF 15 LB/CU FT.
 3. BOND STRENGTH: ASTM E736, 339 PSF WHEN SET AND DRY.
 4. BOND IMPACT: ASTM E760, NO CRACKING, FLAKING OR DELAMINATION.
 5. SURFACE BURNING CHARACTERISTICS: MAXIMUM FLAME SPREAD OF 0 AND MAXIMUM SMOKE DEVELOPED 0 PER ASTM E84.
- C. APPLICATIONS: INTERIOR CONCEALED LOCATIONS, EXCEPT WHERE OTHER FIREPROOFING PRODUCTS ARE SPECIFIED.

- 14.5 ACCESSORIES**
- A. PRIMER, ADHESIVE, BONDING AGENT, OR COATING: TYPE RECOMMENDED BY FIREPROOFING MANUFACTURER.
- B. OVERCOAT OR SEALER: AS RECOMMENDED BY MANUFACTURER OF FIREPROOFING MATERIAL.
- C. METAL LATH: EXPANDED METAL LATH: 3.4 LB/SQ. FT. GALVANIZED FINISH; CONFORM WITH ASTM C847.
- D. WATER: CLEAN, POTABLE.
- 14.6 APPLICATION-CEMENTITIOUS FIREPROOFING**
- A. INSTALL METAL LATH OVER STRUCTURAL MEMBERS AS INDICATED OR AS REQUIRED BY FIRE RATED ASSEMBLY DESIGN NUMBERS.
- B. APPLY SELECTED SYSTEM IN ACCORDANCE WITH FIRE RATED DESIGN INDICATED ON DRAWINGS.
- C. APPLY PRIMER, ADHESIVE OR COATING AS REQUIRED, FIREPROOFING AND OVERCOAT OR SEALER AS REQUIRED IN ACCORDANCE WITH FIRE RATED DESIGN INDICATED ON DRAWINGS.
- D. APPLY FIREPROOFING IN SUFFICIENT THICKNESS TO ACHIEVE REQUIRED FIRE RATINGS, WITH AS MANY PASSES AS NECESSARY TO COVER WITH MONOLITHIC BLANKET OF UNIFORM DENSITY AND TEXTURE.
- E. IN EXPOSED LOCATIONS, TROWEL SURFACE SMOOTH AND FORM SQUARE EDGES, USING TOOLS AND PROCEDURES RECOMMENDED BY FIREPROOFING MANUFACTURER.
- F. APPLY OVERCOAT OR SEALER AT RATE RECOMMENDED BY FIREPROOFING MANUFACTURER.
- G. PATCH DAMAGED WORK.

PART 15: CONCRETE & FOUNDATION NOTES

- A. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE AS FOLLOWS:
- a) FOOTINGS, PIERS, FOUNDATION WALLS: FC = 3,000 P.S.I. STONE CONCRETE.
 - b) SLAB ON GROUND: FC = 2,500 P.S.I. CONCRETE
 - c) SUPERSTRUCTURE: SLAB: FC = 3,000 P.S.I. CONCRETE.
- B. PERFORM REQUIRED ALTERATIONS TO EXISTING CONCRETE. NEW WORK INSTALLED ADJACENT TO AND CONNECTING WITH PRESENT WORK SHALL MATCH EXISTING. JOINTS BETWEEN NEW AND EXISTING WORK SHALL BE TROWELED SMOOTH AND EVEN. PROVIDE EXPANSION JOINTS AS REQUIRED.
- C. FOOTINGS AT DIFFERENT LEVELS SHALL BE STEPPED SO THAT THE CLEAR DISTANCE BETWEEN ADJACENT BOTTOM EDGES SHALL NOT EXCEED A SLOPE OF ONE VERTICAL TO TWO HORIZONTAL.
- D. CONCRETE FOUNDATIONS SHALL BE POURED CONTINUOUSLY. IF POUR IS INTERRUPTED A VERTICAL KEY SHALL BE PROVIDED. HORIZONTAL JOINTS ARE NOT PERMITTED.
- E. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF SLOTS, PIPE SLEEVES, INSERTS, ANCHOR BOLTS, ELECTRIC CONDUITS, ETC. AS REQUIRED FOR TRADES BEFORE PLACING CONCRETE.
- F. ANTI-HYDRO SHALL BE ADDED IF POURING TAKES PLACE AT 32 DEGREES F OR LESS.
- G. CONCRETE FOOTINGS SHALL BE PROTECTED FROM FREEZING DURING DEPOSITING AND FOR A PERIOD OF NOT LESS THAN 5 DAYS THEREAFTER. WATER SHALL NOT BE ALLOWED TO FLOW THROUGH THE DEPOSITED CONCRETE.
- H. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH CHAPTER 18 OF THE NYSBC



4 AREA MAP NTS

LOT AREA - 21,832 SF

ZONING ANALYSIS & CALCULATIONS - VILLAGE OF VALLEY STREAM

SEC: 37 BLOCK: 103 LOT: 16-27 ZONE: C-2

CODE	ZONING ITEM	REQUIRED/PERMITTED	EXISTING	COMMENTS
99-1301 (B)	PERMITTED USE		BUSINESS OFFICE USE	EXISTING
99-1302 (A)	LOT REQUIREMENTS	BLDG AREA MAX 80% = 17,466SF	54.69% = 11,940 SF	EXISTING
99-1303 (A)	BUILDING HEIGHT	3 STORIES OR 45'	(+/-) 15'-10" T.O. PARAPET (+/-) 22'-4" T.O. ATRIUM	EXISTING
99-1304 (A.1)	FYSB - E MERRICK	7'	5'	EXISTING
99-1304 (A.1)	FYSB - GROVE	10' MIN	0.2'	EXISTING
99-1304 (A.2)	RYSB	10' MIN	38.7'	EXISTING
99-1304 (A.2.c)	SYSB	10' MIN	0.2'	EXISTING

OCCUPANCY CALCULATIONS FOR PROPOSED ADDITION

BUSINESS = 1 PER 150 SF GROSS - Table 1004.5

SPACE	AREA (SF)	FACTOR	OCC LOAD
SUITE 101	1,055	150 G	7.03
SUITE 102	942		6.28
SUITE 103	1,022		6.81
SUITE 104	1,046		6.97
SUITE 105	1,045		6.97
SUITE 106	1,046		6.97
SUITE 107	1,045		6.97
SUITE 108	1,046		6.97
SUITE 109	1,000		6.67
SUITE 110	984		6.56
COMMON AREA	1110		7.40
TOTAL OCCUPANT LOAD = 75.60 = 76 MAX			

PARKING CALCULATIONS

ART XXII, SEC. 99-2201 - BUSINESS OFFICE USES AND PROFESSIONAL USES - 1 PARKING SPACE FOR EVERY 200 SQUARE FEET OF GROSS FLOOR AREA OR MAJOR PART THEREOF

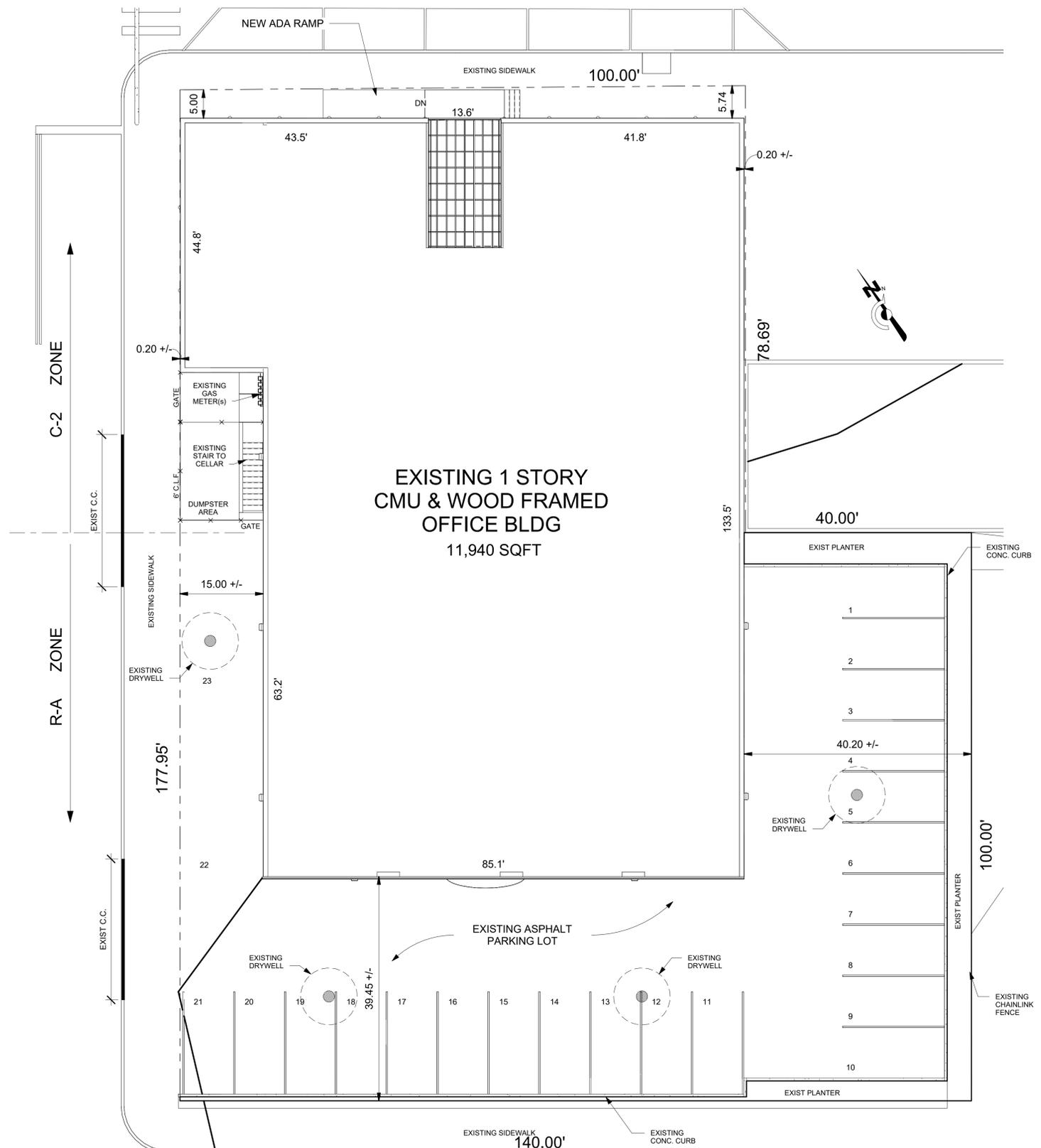
NOTE: EXISTING BUILDING PARKING CALCULATED AT 1/400 AS PER BUILDING DEPARTMENT RECORDS

FLOOR	AREA (net)	REQ'D	COMMENTS
EXIST 1ST FLR	10588 / 400	= 26.47	
TOTAL PARKING REQD.		27	
TOTAL PARKING EXIST/PROP.		23	EXISTING

EXISTING DRYWELL CALCULATIONS

ITEM	AREA (SF)	CALCULATION	REQUIRED (CF)
PRINCIPLE BUILDING	10,423 sf	3(in) / 12(in/ft) x 10423(sf)	= 2605.75 cf
PARKING & SIDWALK	8,589 sf	3(in) / 12(in/ft) x 8589(sf)	= 2147.25 cf
EXISTING DRAINAGE PROVIDED FOR			= 4,753 cf

S GROVE STREET



LINCOLN AVENUE

1 PROPOSED SITE PLAN
3/32" = 1'-0"

2020 BUILDING CODE OF NEW YORK STATE ANALYSIS

COMMERCIAL BUILDING ANALYSIS

DATE: NOVEMBER 19th, 2020
 DESIGNED BY: John F. Capobianco, RA
 ADDRESS: 159 Doughty Blvd. Inwood, NY 11096
 TELEPHONE: 516-239-8775
 FAX: 516-239-0449
 PROJECT: Interior Alteration & Exterior Alteration
 to Finish and Windows
 LOCATION: 40 E. Merrick Road
 Valley Stream, NY 11580

GENERAL NOTES TO LIST CODES

2020 BUILDING CODE of NEW YORK STATE (BCNYS)
 2020 FIRE CODE of NEW YORK STATE (FCNYS)
 2020 ENERGY CONSERVATION CONSTRUCTION CODE of NEW YORK STATE (ECCCNYS)
 2020 MECHANICAL CODE of NEW YORK STATE (MCNYS)
 2020 PLUMBING CODE of NEW YORK STATE (PCNYS)
 2020 EXISTING BUILDING CODE of NEW YORK STATE (EBCNYS)
 2020 FUEL GAS CODE of NEW YORK STATE (FGCNYS)

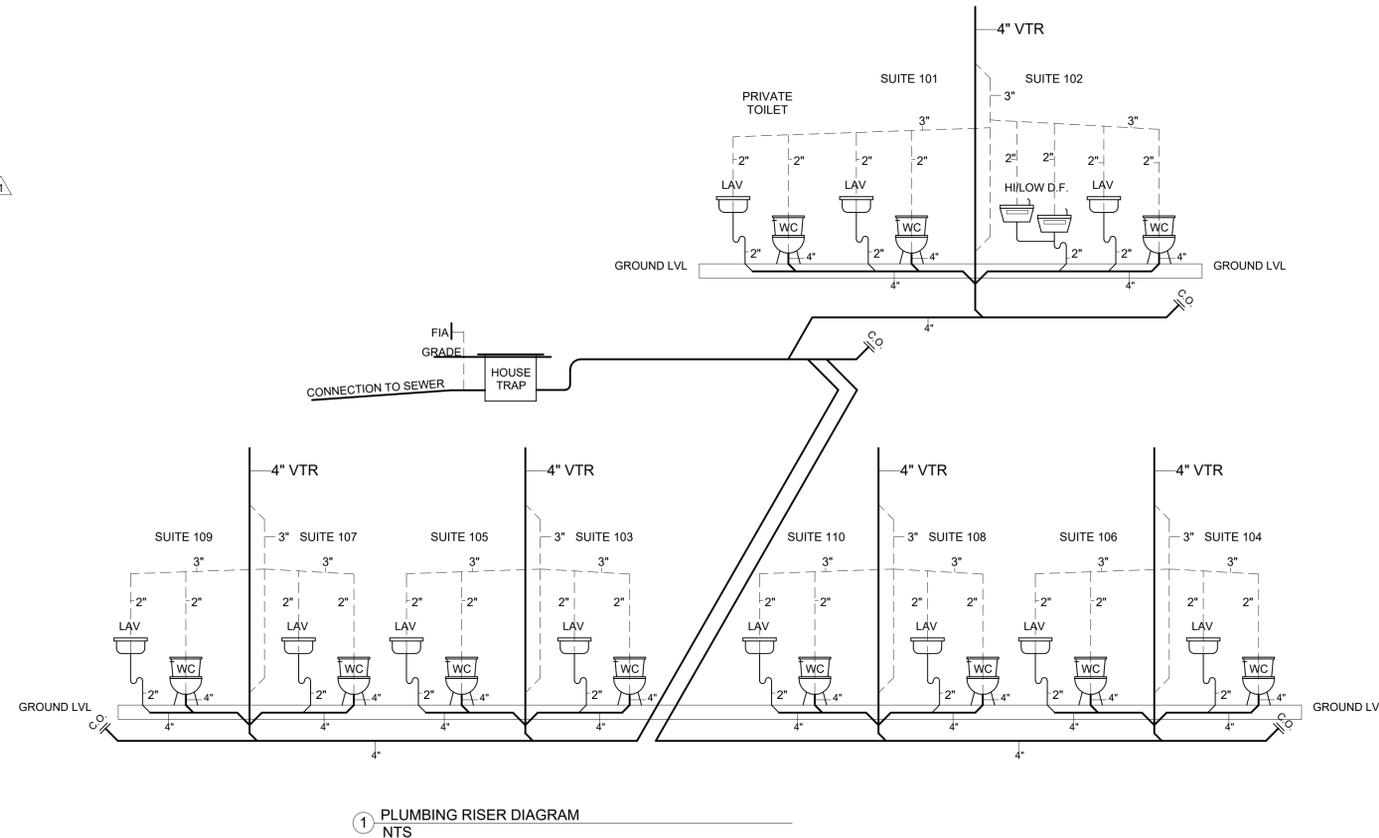
TYPE OF WORK

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> New Construction | <input checked="" type="checkbox"/> Alteration (NYSEBC) | <input type="checkbox"/> Additions (NYSEBC) | <input type="checkbox"/> Factory Manufactured |
| <input type="checkbox"/> Repairs (NYSEBC) | <input type="checkbox"/> Reconstruction (NYSEBC) | <input type="checkbox"/> Historic Building (NYSEBC) | <input type="checkbox"/> Panel Construction |
| <input checked="" type="checkbox"/> Renovations (NYSEBC) | <input type="checkbox"/> Butler Building | <input type="checkbox"/> Change of Occupancy (NYSEBC) | <input type="checkbox"/> Relocate Structure (NYSEBC) |

NO.	TOPIC	CODE SECTION	REQUIRED / ALLOWED	PROPOSED																								
1	Building Classification	BCNYS Table 1604.5	-	Category I																								
2	Flood Plain	BCNYS 1603.1.7	Not in Flood Zone	Zone "X" - FEMA Ref# 36059C0212G																								
3	Classification of Work	EBCNYS 601	Alteration - Level 2	Alteration - Level 3																								
4	Occupancy	BCNYS 303, 390 / EBCNYS 1001	No Change in Occupancy	Group B																								
	Occupancy Load	BCNYS Table 1004.5	Ground Floor - BUSINESS = 1 PER 150 SF GROSS	= 75.67																								
			NOTE SEE OCCUPANCY CALCULATIONS ON SHEET A-001 FOR FULL BREAKDOWN OF SPACE USE.																									
				TOTAL OCCUPANT LOAD = 76 MAX																								
6	Type of Construction	BCNYS 602		Type IV-A																								
	FR-X for Building Elements	BCNYS Table 601	<table border="1"> <thead> <tr> <th>Bldg. Element</th> <th>FR-X (Hours)</th> <th>FR-X (Hours)</th> </tr> </thead> <tbody> <tr><td>Struct. Frame</td><td>1</td><td>1</td></tr> <tr><td>Bearing Wall (Ext)</td><td>2</td><td>2</td></tr> <tr><td>Bearing Wall (Int)</td><td>1</td><td>1</td></tr> <tr><td>Non-Bearing Wall (Ext)</td><td>1</td><td>1</td></tr> <tr><td>Non-Bearing Wall (Int)</td><td>0</td><td>0</td></tr> <tr><td>Floor Construction</td><td>1</td><td>1</td></tr> <tr><td>Roof Construction</td><td>1</td><td>1</td></tr> </tbody> </table>	Bldg. Element	FR-X (Hours)	FR-X (Hours)	Struct. Frame	1	1	Bearing Wall (Ext)	2	2	Bearing Wall (Int)	1	1	Non-Bearing Wall (Ext)	1	1	Non-Bearing Wall (Int)	0	0	Floor Construction	1	1	Roof Construction	1	1	
Bldg. Element	FR-X (Hours)	FR-X (Hours)																										
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Floor Construction	1	1																										
Roof Construction	1	1																										
7	Height & Building Area	BCNYS Table 504.3.504.4 BCNYS Table 506.2	Type IV-A Occp. B 85 ft - 6 Stories (max) 114,000 sf (max)	+/-22'-4" - 1 Stories 11,940 sf																								
8	Interior Wall & Ceiling Finish	BCNYS Table 803.11	<table border="1"> <thead> <tr> <th>Room/Element</th> <th>Class</th> <th>Class</th> </tr> </thead> <tbody> <tr><td>Int. Stair/Ramp</td><td>Class "B"</td><td>Class "B"</td></tr> <tr><td>Exit Acces Corrid.</td><td>Class "C"</td><td>Class "C"</td></tr> <tr><td>Rooms & Encls.</td><td>Class "C"</td><td>Class "C"</td></tr> </tbody> </table>	Room/Element	Class	Class	Int. Stair/Ramp	Class "B"	Class "B"	Exit Acces Corrid.	Class "C"	Class "C"	Rooms & Encls.	Class "C"	Class "C"													
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9	Automatic Sprinkler	EBCNYS 803.2 / 904	An Automatic Sprinkler System Shall be Provided in work area where required as per EBCNYC Section 803.2 & 904	Automatic Sprinkler System Existing, and to be Modified to Proposed Plans.																								
	Fire Alarm Detection	EBCNYS 803.4	Automatic Fire Detection System Required	Existing - Shall Comply																								
	Min. No. of Exits	BCNYS - Table 1006.3.2	1-500 Occupants = 2 Exits (min)	2 Exits Provided																								
	Egress Travel Distance	BCNYS 1017 / EBCNYS 905	w/ Sprinkler System - 300'	See A-401																								
	Egress Lighting	BCNYS 1008 / EBCNYS 905.2	1 ft-Candle (11 lux) @ walking surface	Shall Comply																								
	Emergency Power	BCNYS- 1013	Min. 90 minute battery backup on all exit signs	Shall Comply																								
NOTE: SEPARATE APPLICATION IS REQUIRED WITH THE NASSAU COUNTY FIRE MARSHAL FOR ALL ALTERATIONS / INSTUKKATUINS OF FIRE PROTECTION SYSTEMS.																												
10	Exterior wall openings	BCNYS Table 705.8	0' > 3' Protected / Sprinklered - Not Permitted 25' > 30' Protected / Nonsprinklered - No Limit	Shall Comply Merrick Ave Elev - 530sf / 1365sf = 38.9% S Groce St Elev - 360sf / 1715sf = 21.0% S Groce St Elev - 325sf / 1280sf = 25.4% Side Elev - 140sf / 790sf = 17.7%																								
11	Ventilation	BCNYS-1203	Nat. = 4% of floor area 1st floor 11,940 x .04 = 477.6 sf)	Nat. & Artificial Ventilation Provided																								
12	Light	BCNYS-1204	Nat. = 8% of floor area 1st floor 11,940 x .08 = 955.2 sf)	Nat. & Artificial Lighting Provided																								
13	Corridor Width	BCNYS- 1020.2	44"	44" min provided																								
	Door Width	BCNYS - 1010.1.1	32"	32" min provided																								
	Exit Passageway	BCNYS- 1024	44"	44" min provided																								
	Panic Hardware	BCNYS - 1010.1.9.2	max. unlatching force = 15 pounds	Provided																								
	Landings at doors	BCNYS- 1008.1.5	44"	44" min provided																								
14	Stairs Fire Rating	BCNYS- 1023.2	Less than 4 Stories = 1hr rated	1hr rating min provided																								
	Riser (Max)	BCNYS- 1011.5	7" max Com / 7.75" max Res	Shall Comply																								
	Tread (Min)	BCNYS- 1011.5	11" min Com / 10" min Res	Shall Comply																								
	Width	BCNYS- 1009.3 (2)	48" min (44" min w/ sprinkler system)	44" min provided																								
	Headroom	BCNYS- 1011.3	80" min	Shall Comply																								
	Vertical Rise	BCNYS- 1011.8	12' Between floors/landings	Shall Comply																								
	Hand Rails	BCNYS- 1014.2	34" min / 38" max	36" Provided																								
	Guard Rails	BCNYS- 1015.3	42" min	42" Provided																								
	Landings (Clear Area)	BCNYS- 1011.3	Width of stairs served (min)	44" min provided																								
15	Energy Conservation	EBCNYS- 907	New Alterations shall Comply w/ ECCNYS	Shall Comply																								

No. of Plumbing Fixtures PCNYS - Table 403.1									
Classification	Occupancy	Required PER SUITE		Required		TOTAL Proposed			
		Water Closets	Lavatories	Drink. Fount.	Serv. Sink	Water Closets	Lavatories	Drink. Fount.	Serv. Sink
Business	<15 PER SUITE	(1 per suite) = 10	(1 per suite) = 10			11 WC	11 WC		
	76			1 DF	1 SS			1 DF	1 SS

IPC §403.2.2 Separate Facilities other than malls. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer. (SEE SHEET A-001 FOR TENNANT OCCUPANCY BRAKDOWN)
 Drinking fountain to be a High-Low fountain to comply with ADA requirements.





INTERNATIONAL ACCESSIBILITY SYMBOL



INTERNATIONAL SIGN OF ACCESSIBILITY



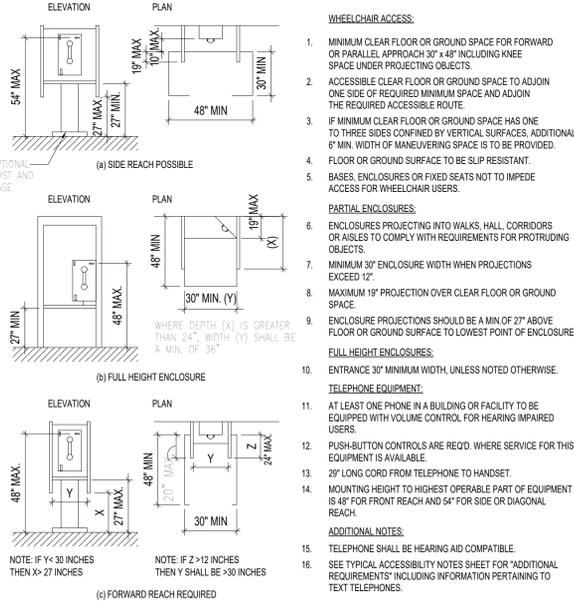
INTERNATIONAL SYMBOL OF ACCESS FOR HEARING IMPAIRED

SIGNS / PICTOGRAMS

- 1. LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS-SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE. (SEC. 11178.5.1)
2. RAISED CHARACTERS OR SYMBOLS SHALL BE A MINIMUM OF 5/8" HIGH. (SEC. 11178.5.2)
3. PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT. (SEC. 11178.5.3)
4. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3.5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1.5 AND 1:10. (SEC. 11178.5.3)
5. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND. (SEC. 11178.5.5)
6. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE X. LOWER CASE CHARACTERS ARE PERMITTED. FOR SIGNS SUSPENDED OR PROJECTED ABOVE THE FINISH FLOOR IN COMPLIANCE WITH SECTION 11218, THE MINIMUM CHARACTER HEIGHT SHALL BE 3". (SEC. 11178.5.4)
7. CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFICALLY REQUIRED IN OTHER PORTIONS OF THESE REGULATIONS. DOTS SHALL BE 1/10" ON CENTERS IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS. DOTS SHALL BE RAISED A MINIMUM OF 1/64" ABOVE THE BACKGROUND. (SEC. 11178.5.2)
SIGN LOCATIONS:
8. ALL BUILDING ENTRANCES THAT ARE ACCESSIBLE TO AND USABLE BY PERSONS WITH DISABILITIES AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL SHALL BE IDENTIFIED WITH A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS. (SEC. 11178.5.7 & 11278.3)
9. WHEN PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE PROVIDED AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH SECTION 11178.5.6. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOOR WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT LEAF DOORS. SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING HEIGHT SHALL BE 60" ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION SHALL BE DETERMINED SO THAT THE PERSON MAY APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. (SEC. 11178.5.5)
10. ADDITIONAL DIRECTIONAL SIGNS ALONG ACCESSIBLE PATH OF TRAVEL ARE REQUIRED.
11. BUILDINGS REMODELED TO PROVIDE ACCESSIBLE SANITARY FACILITIES FOR PUBLIC USE SHALL HAVE INFORMATION POSTED IN THE LOBBY AS PART OF THE BUILDING DIRECTORY.
INTERNATIONAL SYMBOL OF ACCESSIBILITY:
12. STANDARD USED TO IDENTIFY ACCESSIBLE FACILITIES.
13. WHITE FIGURE ON BLUE BACKGROUND, COLOR # 15090 OR FEDERAL STANDARD # 595A.
14. WHEN ENFORCING AGENCY DETERMINES, IF APPROPRIATE, SPECIAL DESIGNS AND COLORS MAY BE APPROVED.
BRAILLE:
15. USE CONTRASTED GRADE 2 BRAILLE. DOTS TO BE 0.1 INCH ON CENTER IN EACH CELL.
16. 0.2 INCH SPACE BETWEEN CELLS.
17. DOTS RAISED MINIMUM 0.025 INCH ABOVE BACKGROUND.
18. SEE 4T-4 FOR MORE INFO.

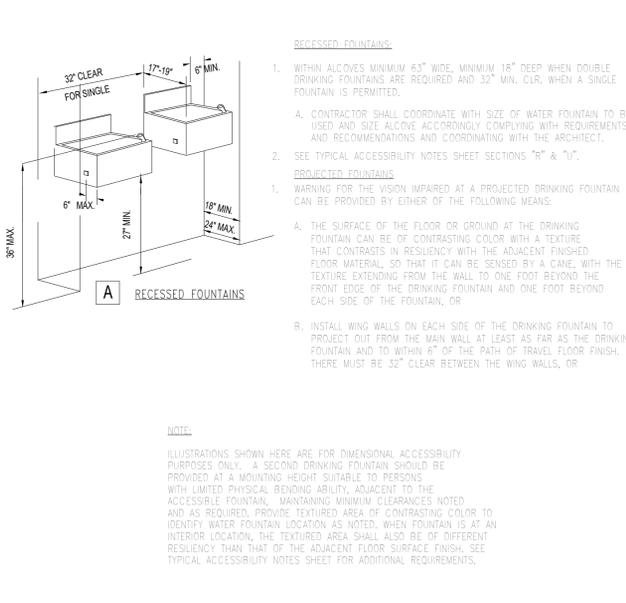
SCALE NONE 11

PUBLIC TELEPHONES



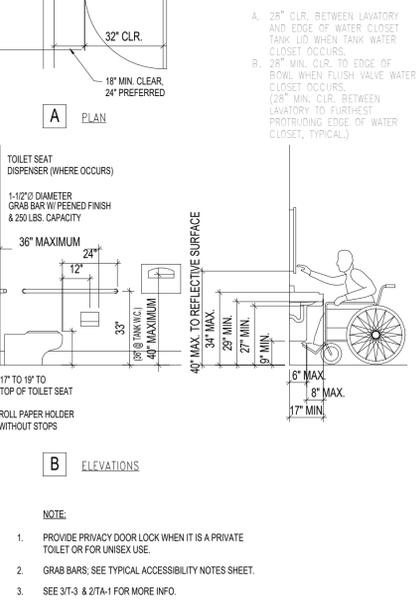
SCALE NONE 7

DRINKING FOUNTAINS

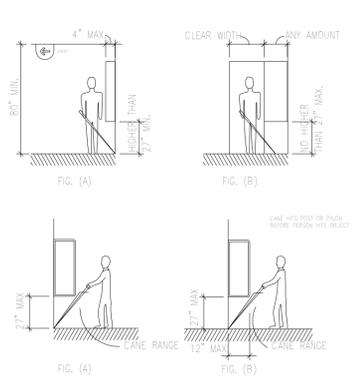


SCALE NONE 4

PRIVACY / UNISEX TOILET ROOM

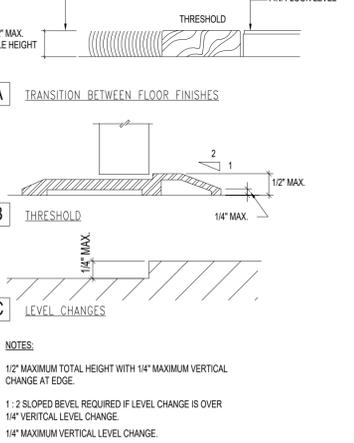


SCALE NONE 2



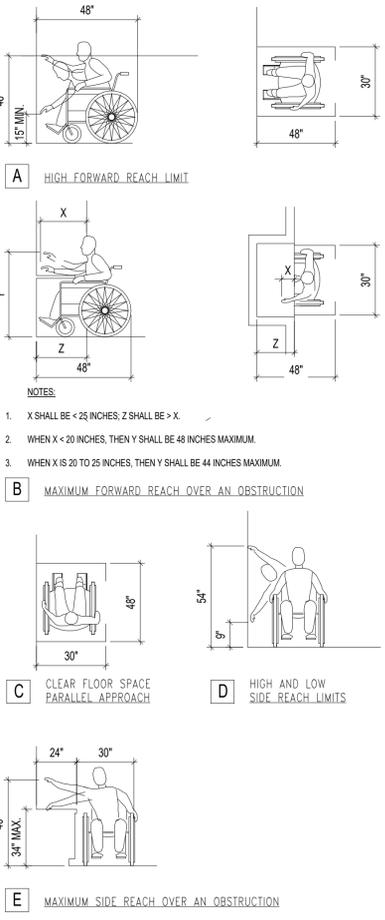
PROTRUDING OBJECTS

SCALE NONE 10



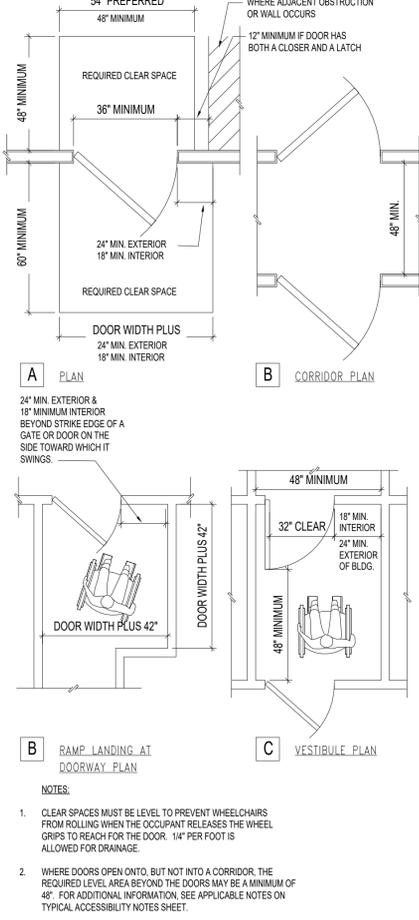
THRESHOLD / LEVEL CHANGES

SCALE NONE 9



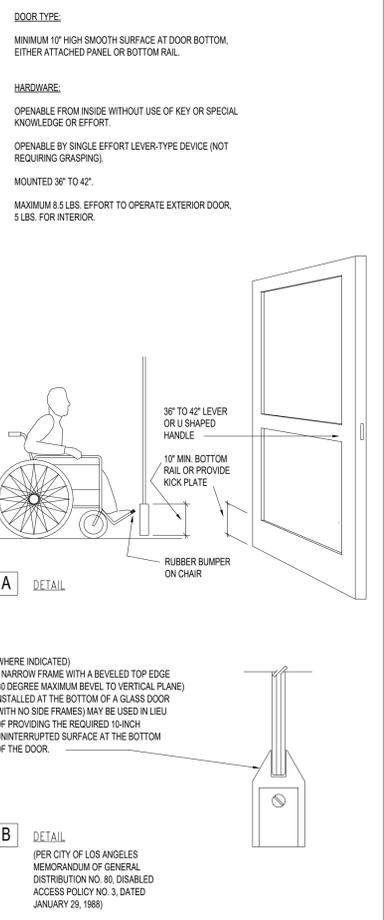
REACH REQUIREMENTS

SCALE NONE 8



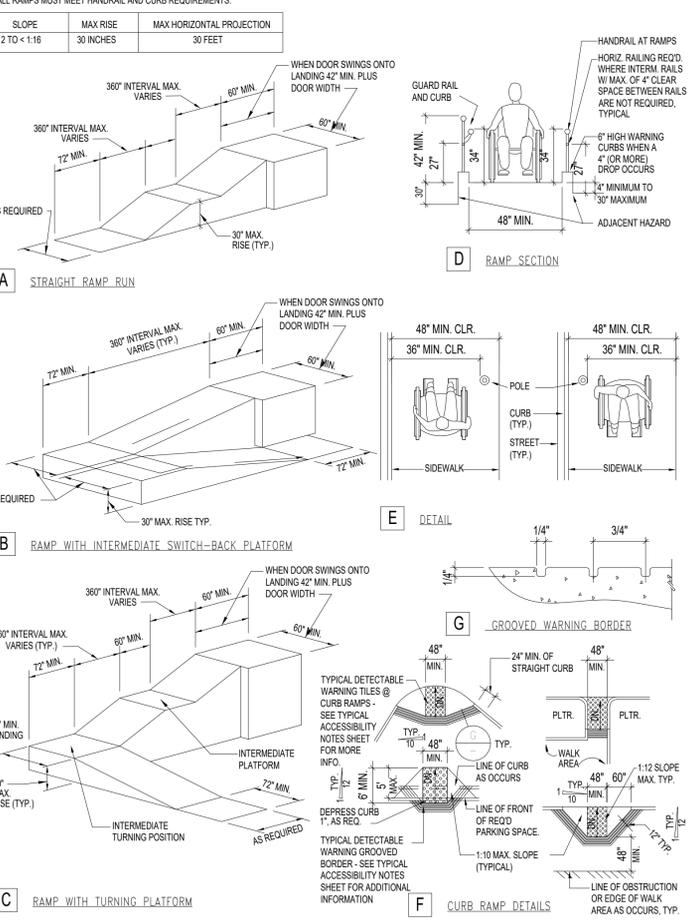
DOOR CLEAR SPACE

SCALE NONE 6



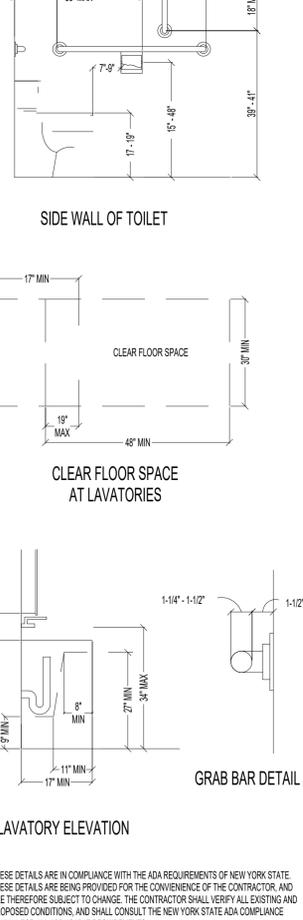
DOOR

SCALE NONE 3



RAMP DETAILS AND NOTES

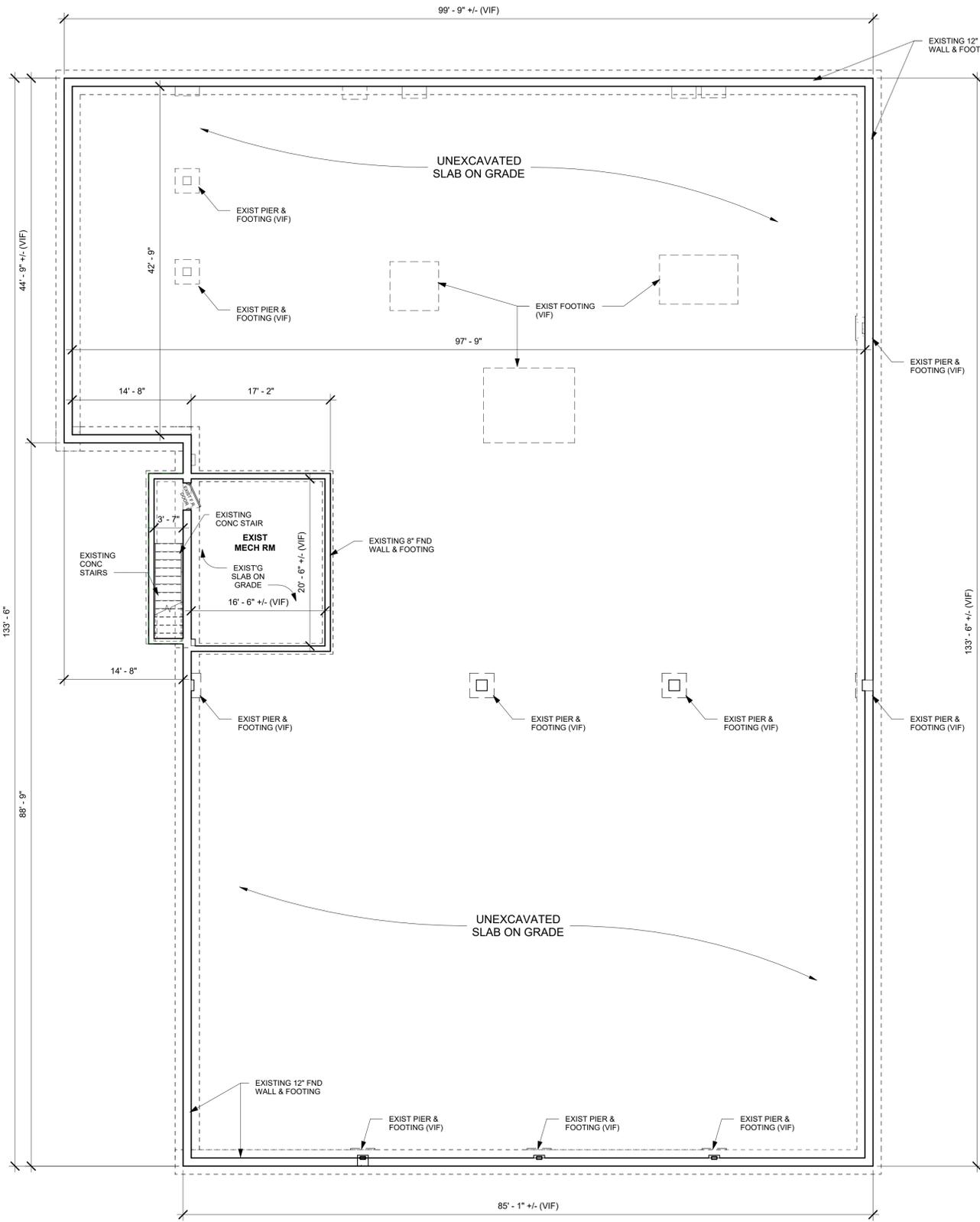
SCALE NONE 1



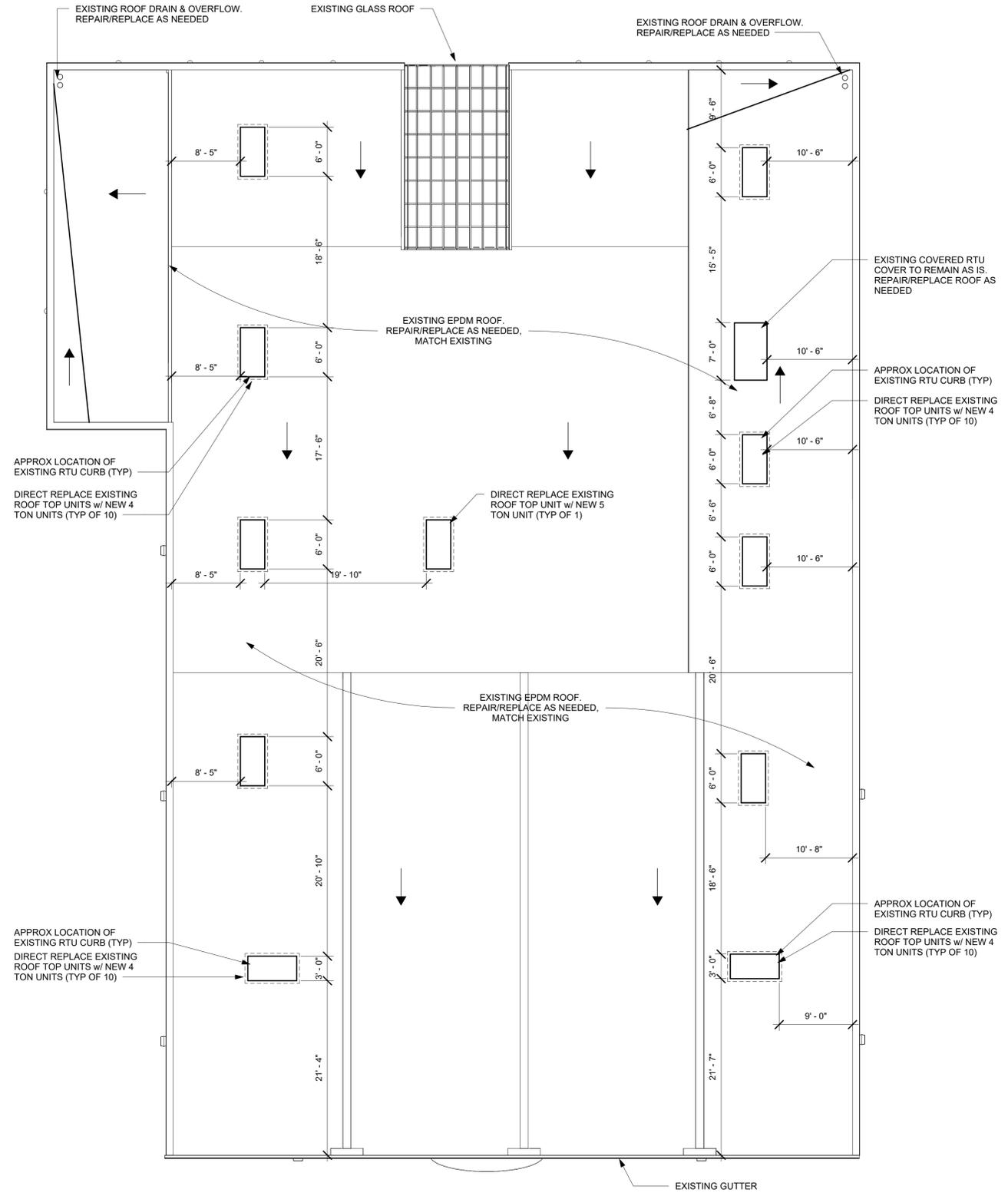
LAVATORY ELEVATION

SCALE NONE 1

THESE DETAILS ARE IN COMPLIANCE WITH THE ADA REQUIREMENTS OF NEW YORK STATE. THESE DETAILS ARE BEING PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR, AND ARE THEREFORE SUBJECT TO CHANGE. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED CONDITIONS, AND SHALL CONSULT THE NEW YORK STATE ADA COMPLIANCE MANUAL FOR ALL APPLICABLE REQUIREMENTS.

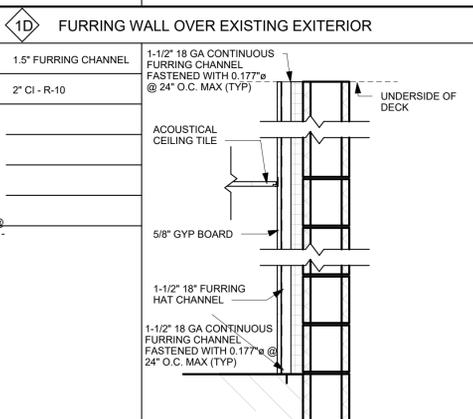
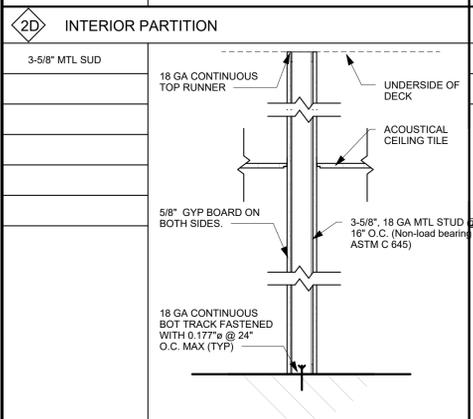
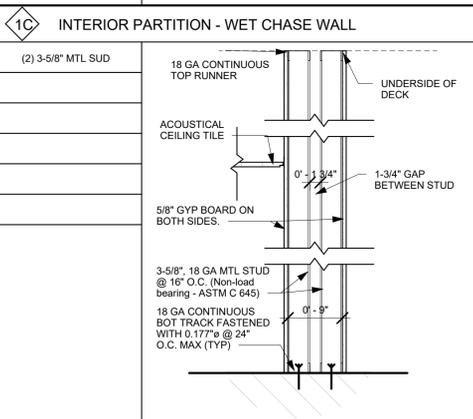
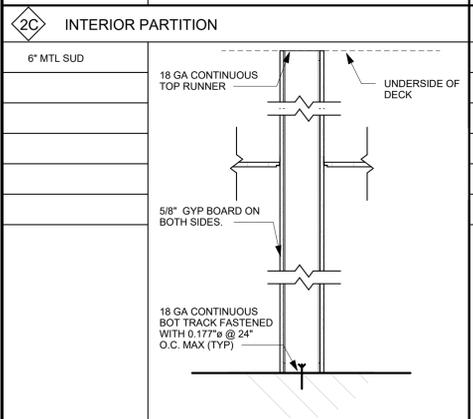
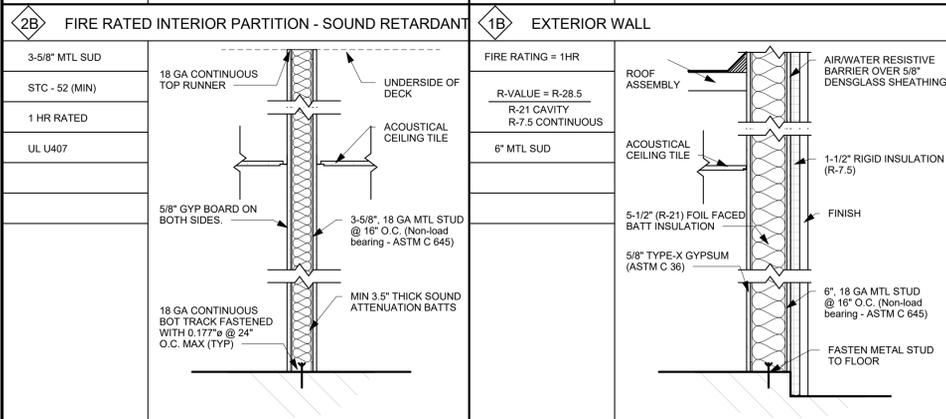
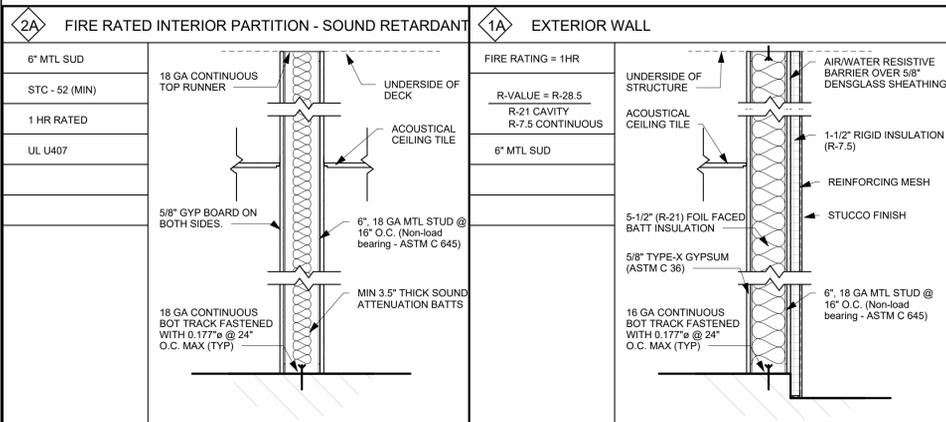


① EXISTING FOUNDATION PLAN
1/8" = 1'-0"



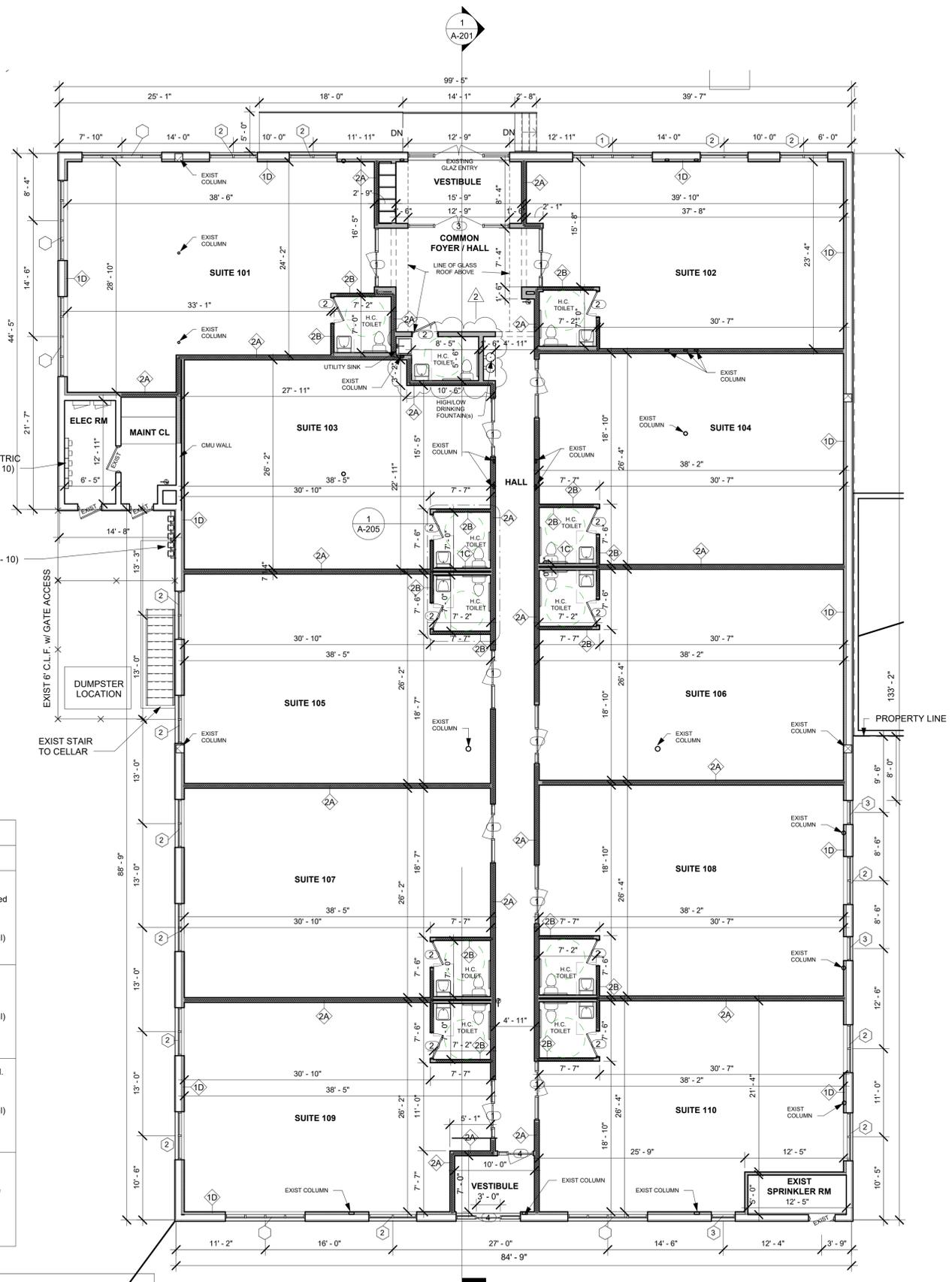
② EXISTING ROOF PLAN
1/8" = 1'-0"

NOTE:
V.I.F. LOCATION OF EXISTING CONDITIONS PRIOR TO
WORK. CONTACT ARCHITECT OF ANY DISCREPANCIES.



DOOR ELEVATIONS & PROFILE TYPES

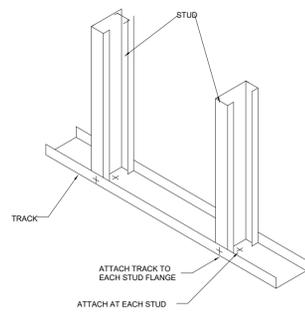
DOOR TYPE	DOOR IMAGE	DOOR SPECIFICATIONS & DESCRIPTIONS
A		SINGLE LEAF FLUSH PANEL DOOR Interior: Solid Core Wood Door with frames finished to match adjacent wall material or selected finish scheme wood plastic laminate color. Hardware: White Metal with Satin Finish (Typical)
B		DOUBLE LEAF ALUM. & GLASS DOOR W/ ALUM. FRAMES PAINTED TO MATCH ADJ. WALL MATERIAL. Hardware: White Metal with Satin Finish (Typical)
C		SINGLE LEAF ALUM. & GLASS DOOR W/ ALUM. FRAMES PAINTED TO MATCH ADJ. WALL MATERIAL. Hardware: White Metal with Satin Finish (Typical)
D		ALUMINUM FRAME, GLASS DOOR Hardware: Vertical Pull, Top/Bottom Pivot Hinge and Patch Lock where RQD. White Metal with Satin Finish (Typical)



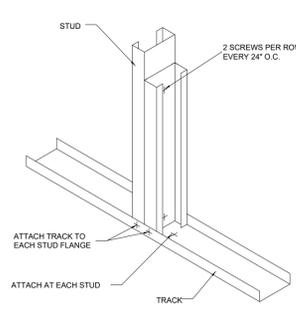
DOOR SCHEDULE

Type Mark	Type	Count	Width	Height	Thickness	Material	Tapered Glass	Fire Rating & Class	Remarks
1	D	10	3' - 0"	7' - 0"	1 3/4"	ALUMINUM & GLASS	YES	N/A	PUSH / PULL HANDEL, BOLT LOCK, SELF CLOSING
2	A	11	3' - 0"	7' - 0"	1 3/4"	SOLID WOOD	N/A	N/A	KNOB HANDEL w/ LOCK
3	B	1	6' - 0"	7' - 0"	1 3/4"	ALUMINUM & GLASS	YES	N/A	KEY/BUZZER ENTRY w/ PULL BAR, PANIC PUSH PADDEL (OR BAR), BOLT LOCK, SELF CLOSING
4	C	2	3' - 0"	8' - 0"	1 3/4"	ALUMINUM & GLASS	YES	N/A	KEY ENTRY w/ PULL BAR, PANIC PUSH PADDEL (OR BAR), BOLT LOCK, SELF CLOSING

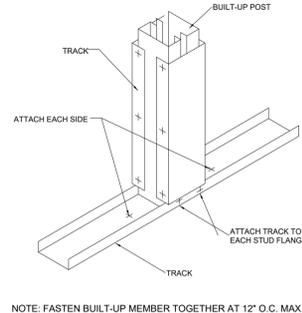
1 PROPOSED FIRST FLOOR PLAN
1/8" = 1'-0"



1 STUDS IN PLACE
LOAD BEARING WALL

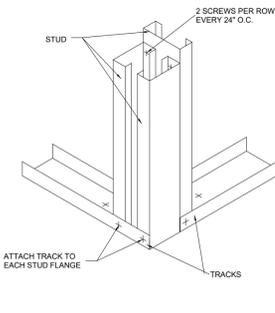


2 BACK-TO-BACK STUDS
LOAD BEARING WALL

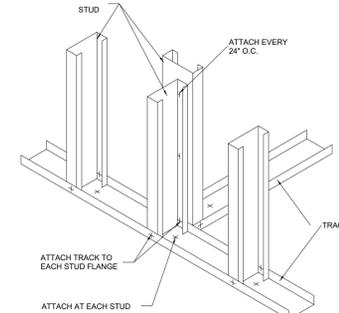


3 BUILD-UP POST
LOAD BEARING WALL

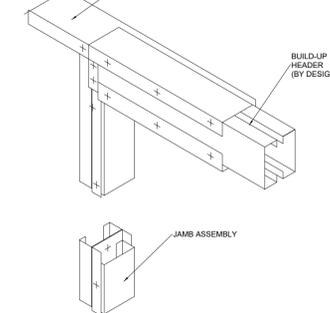
NOTE: FASTEN BUILT-UP MEMBER TOGETHER AT 12" O.C. MAX



4 THREE STUD CORNER
LOAD BEARING WALL

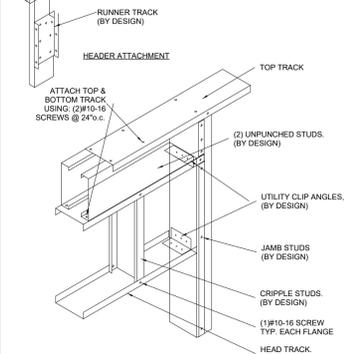


5 PARTITION INTERSECTION
LOAD BEARING WALL

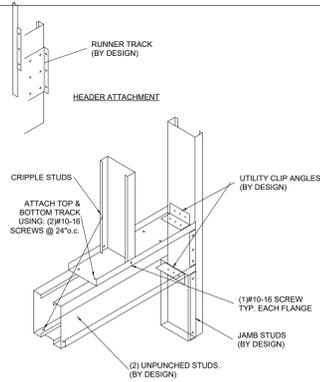


6 BEARING HEADER
TOP OF WALL CONDITION

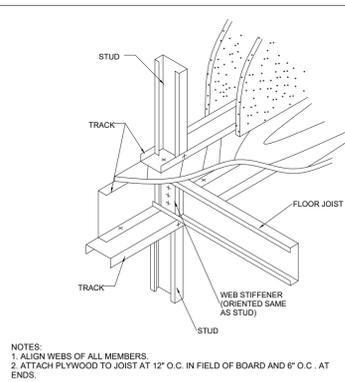
NOTE: FASTEN BUILT-UP MEMBER TOGETHER AT 12" O.C. MAX



7 BOXED HEADER CONNECTION
LOAD BEARING WALL - TWO MEMBER BOXED

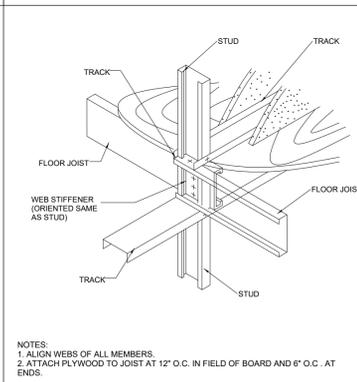


8 BOXED HEADER CONNECTION
LOAD OVER OPENING - TWO MEMBER BOXED



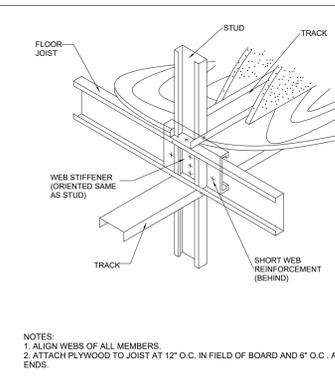
9 EXTERIOR WALL
LOAD BEARING WALL

NOTES:
1. ALIGN WEBS OF ALL MEMBERS.
2. ATTACH PLYWOOD TO JOIST AT 12" O.C. IN FIELD OF BOARD AND 6" O.C. AT ENDS.



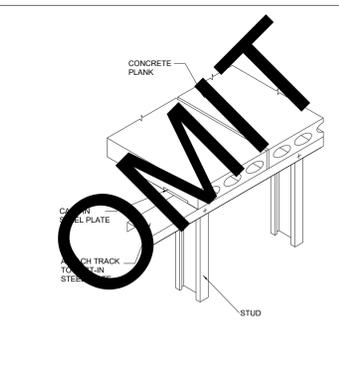
10 INTERIOR WALL-LAPPED JOISTS
LOAD BEARING WALL

NOTES:
1. ALIGN WEBS OF ALL MEMBERS.
2. ATTACH PLYWOOD TO JOIST AT 12" O.C. IN FIELD OF BOARD AND 6" O.C. AT ENDS.

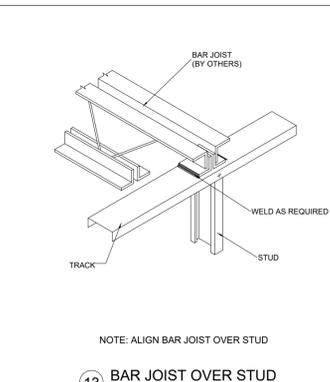


11 INTERIOR WALL-CONTINUOUS JOISTS
LOAD BEARING WALL

NOTES:
1. ALIGN WEBS OF ALL MEMBERS.
2. ATTACH PLYWOOD TO JOIST AT 12" O.C. IN FIELD OF BOARD AND 6" O.C. AT ENDS.

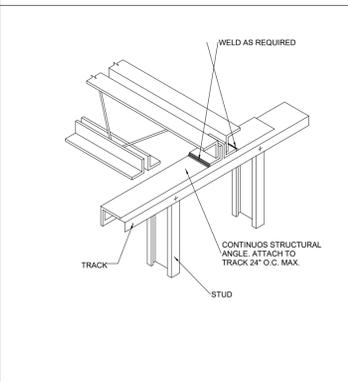


12 EXTERIOR WALL - CONCRETE PLANK
LOAD BEARING WALL

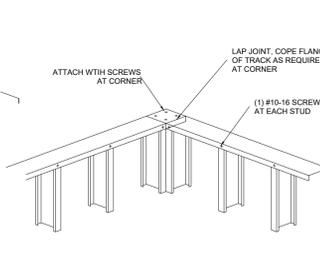


13 BAR JOIST OVER STUD
LOAD BEARING WALL

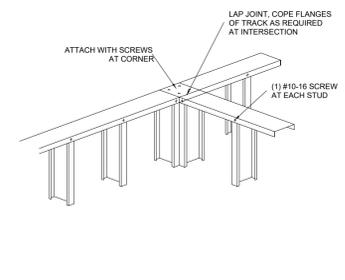
NOTE: ALIGN BAR JOIST OVER STUD



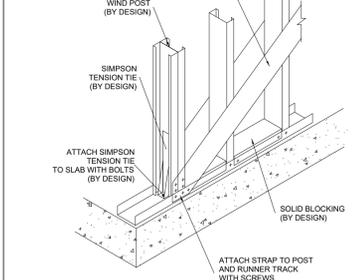
14 BAR JOIST BETWEEN STUD WITH ANGLE
LOAD BEARING WALL



15 EXTERIOR CORNER TIE
COPE FLANGES OF TRACKS @ CORNER

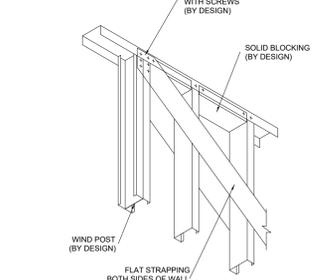


16 INTERIOR CORNER TIE
COPE FLANGES OF TRACKS @ INTERSECTION

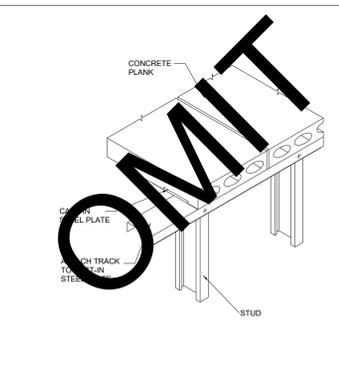


17 SHEAR BRACING CONNECTION
WIND POST ANCHORED TO SLAB USING SIMPSON HOLD DOWN

WIND POST ANCHORED TO SLAB USING SIMPSON HOLD DOWN

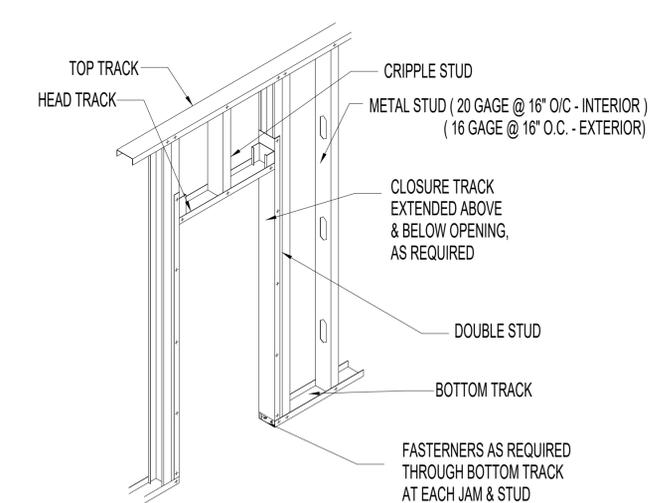


18 SHEAR BRACING CONNECTION

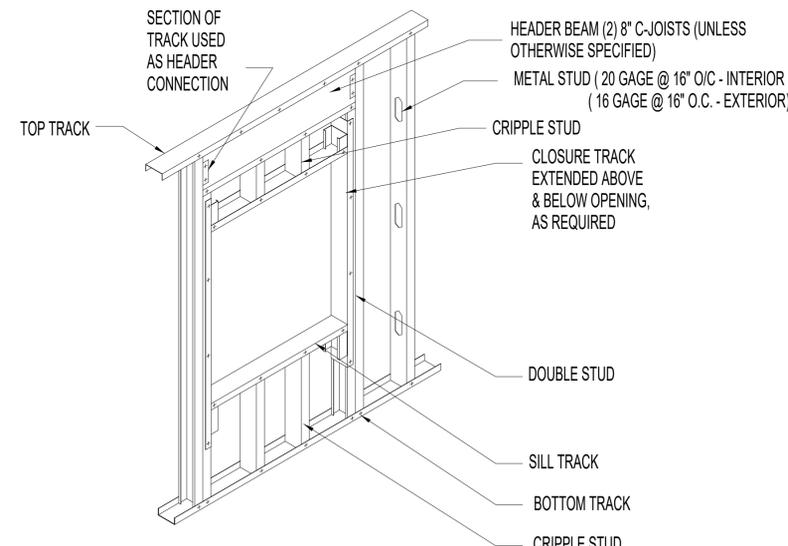


19 EXTERIOR WALL - CONCRETE PLANK
LOAD BEARING WALL

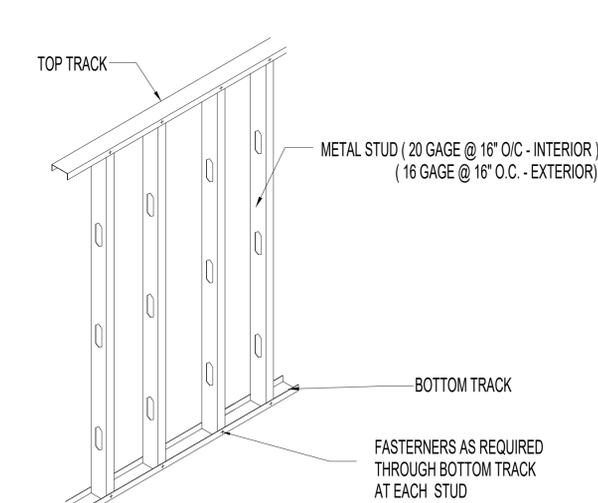
OMIT



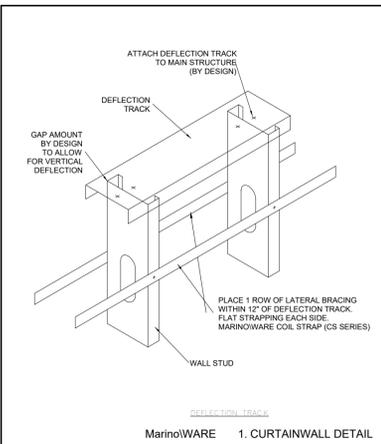
W1 TYPICAL DETAIL AT STUD FRAMING AROUND DOOR
SCALE: NTS



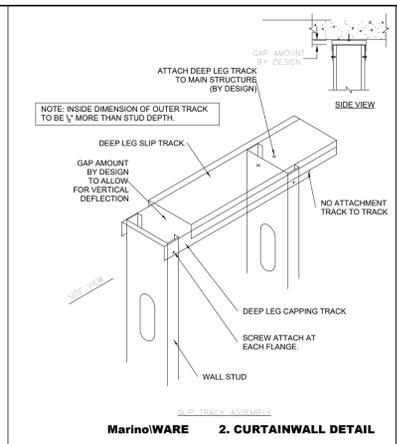
W2 TYPICAL DETAIL AT STUD FRAMING AROUND WDW
SCALE: NTS



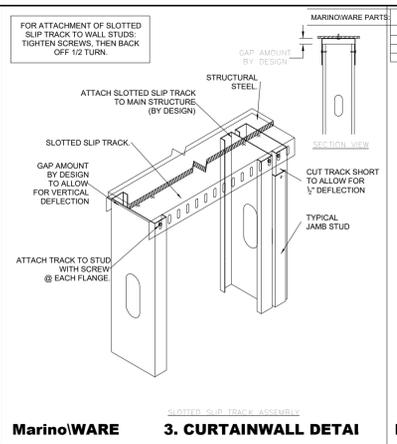
W3 TYPICAL DETAIL AT METAL STUD FRAMING
SCALE: NTS



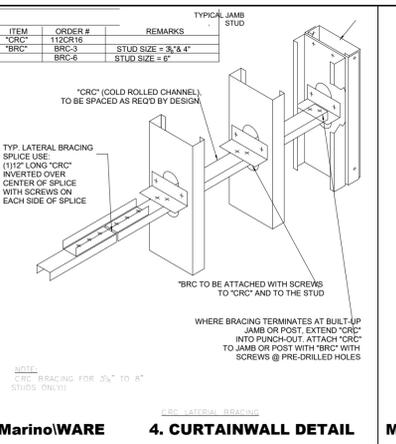
MarinoWARE 1. CURTAINWALL DETAIL



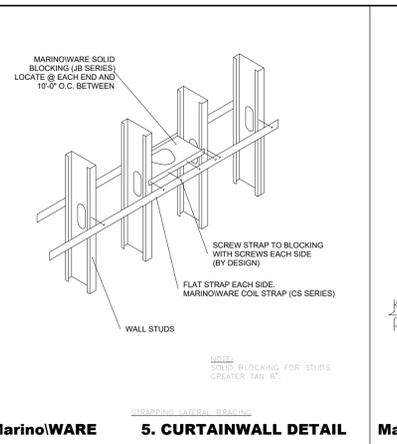
MarinoWARE 2. CURTAINWALL DETAIL



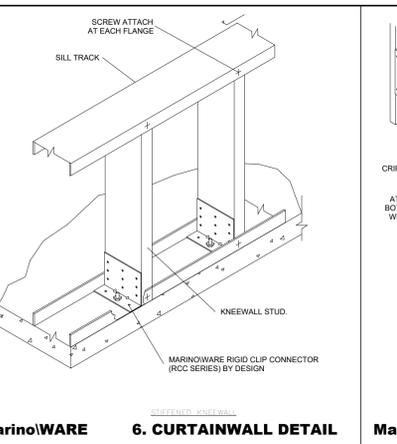
MarinoWARE 3. CURTAINWALL DETAIL



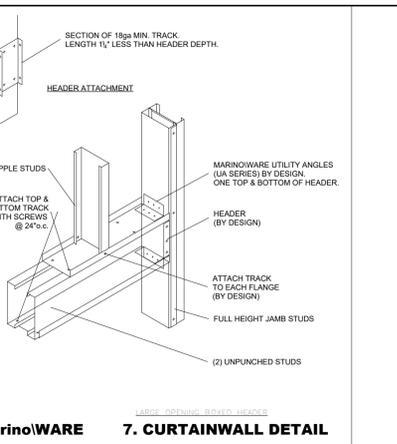
MarinoWARE 4. CURTAINWALL DETAIL



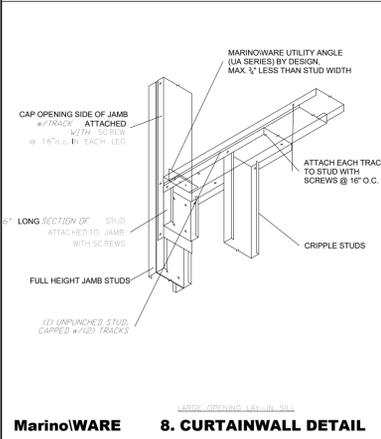
MarinoWARE 5. CURTAINWALL DETAIL



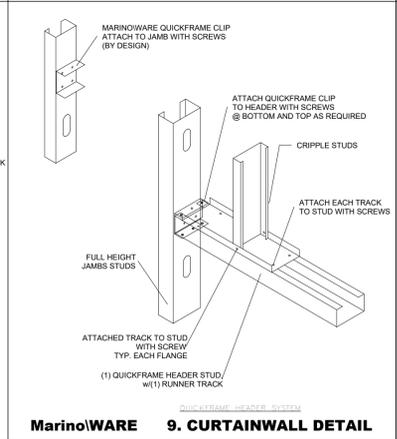
MarinoWARE 6. CURTAINWALL DETAIL



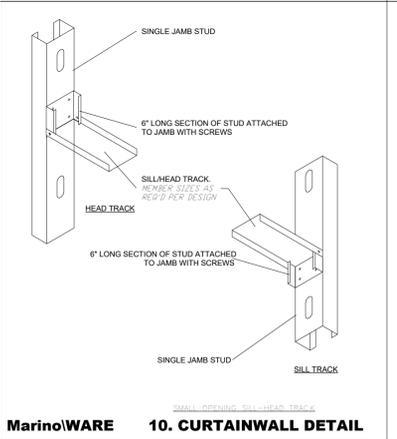
MarinoWARE 7. CURTAINWALL DETAIL



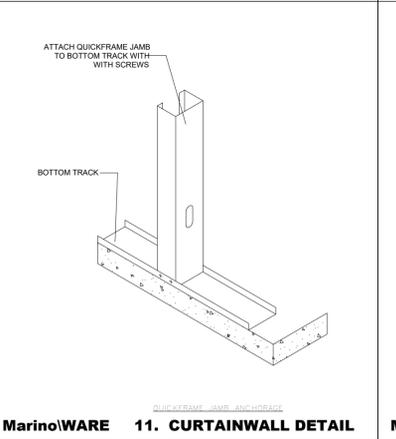
MarinoWARE 8. CURTAINWALL DETAIL



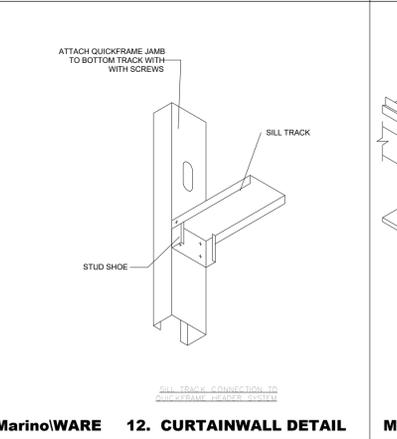
MarinoWARE 9. CURTAINWALL DETAIL



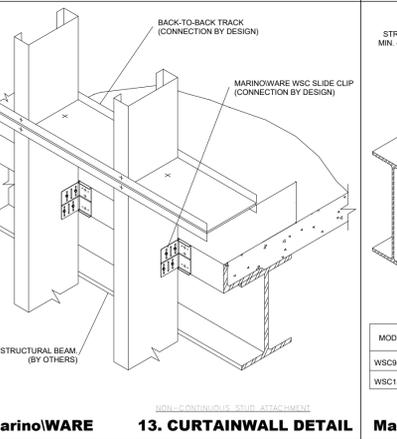
MarinoWARE 10. CURTAINWALL DETAIL



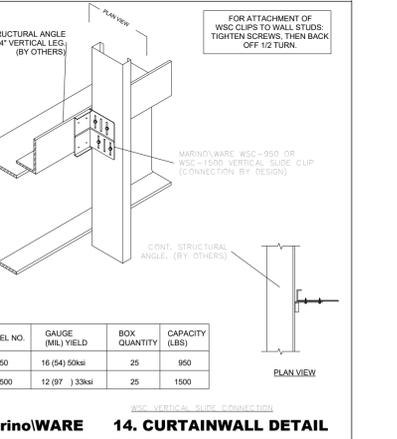
MarinoWARE 11. CURTAINWALL DETAIL



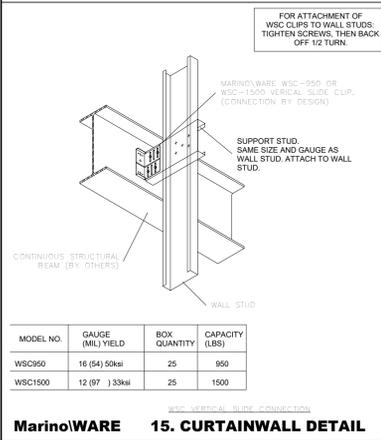
MarinoWARE 12. CURTAINWALL DETAIL



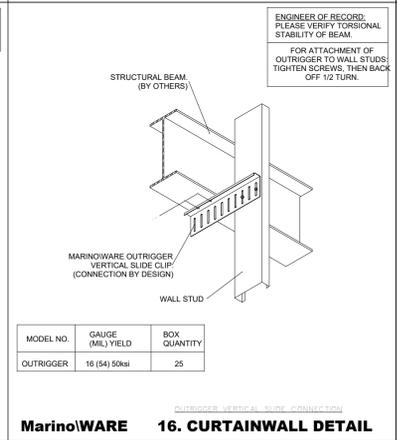
MarinoWARE 13. CURTAINWALL DETAIL



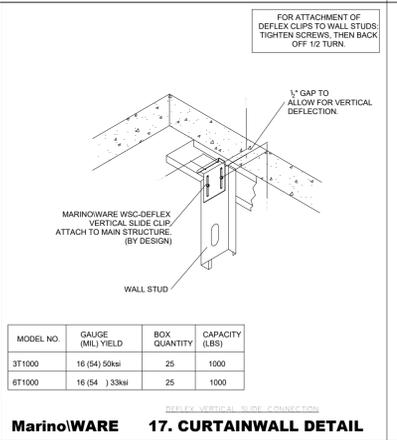
MarinoWARE 14. CURTAINWALL DETAIL



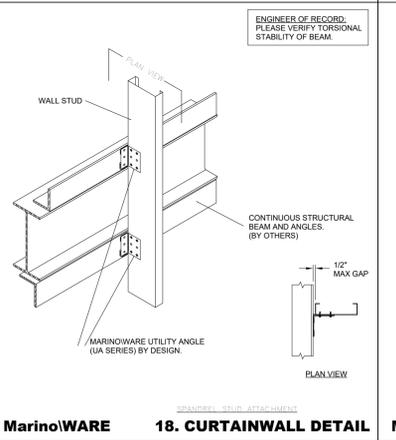
MarinoWARE 15. CURTAINWALL DETAIL



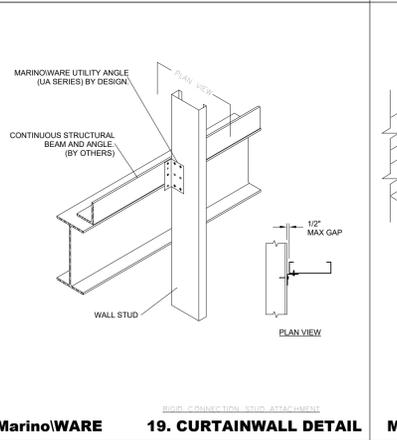
MarinoWARE 16. CURTAINWALL DETAIL



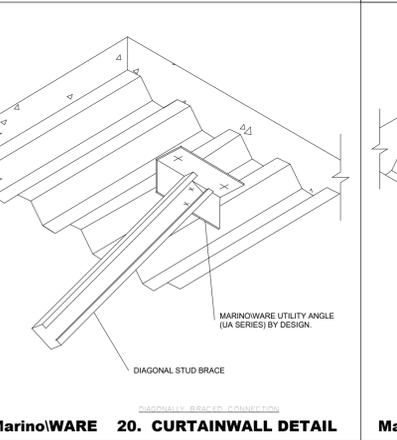
MarinoWARE 17. CURTAINWALL DETAIL



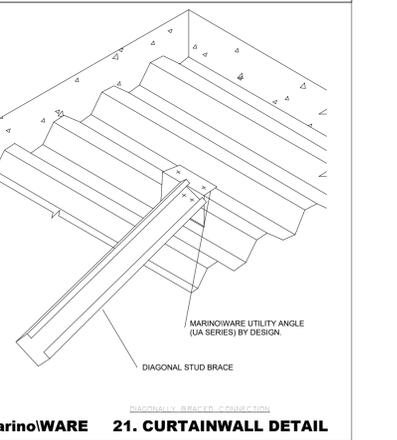
MarinoWARE 18. CURTAINWALL DETAIL



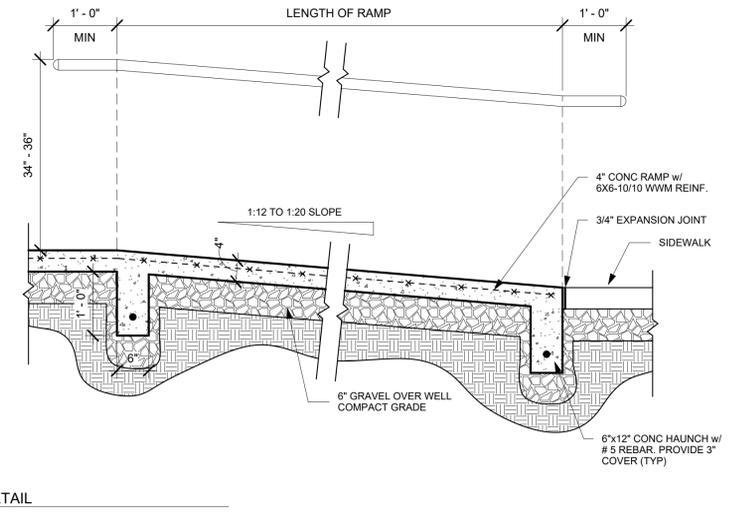
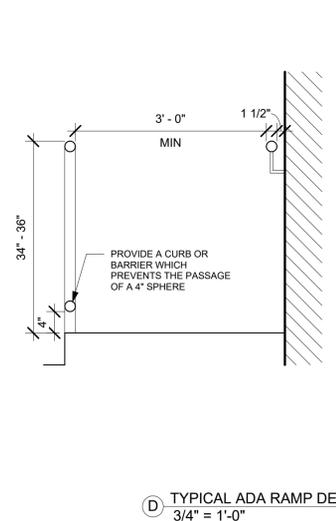
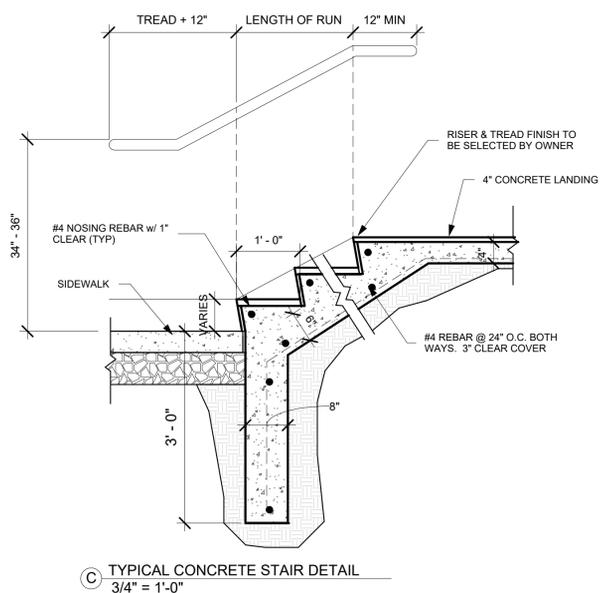
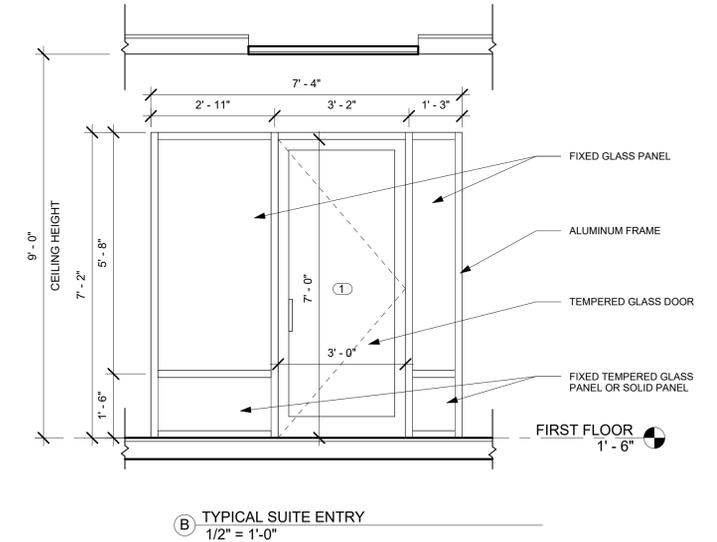
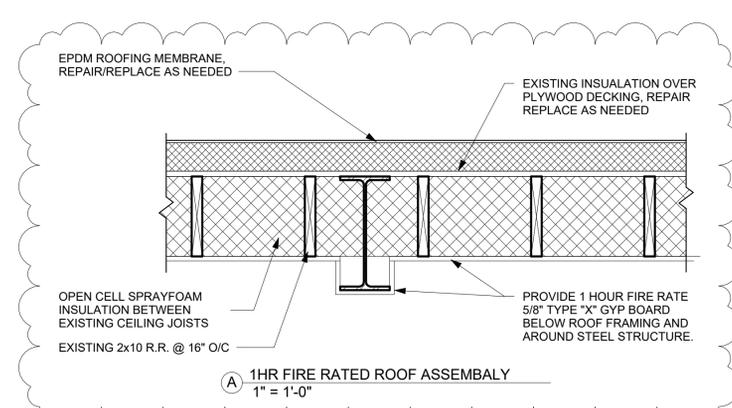
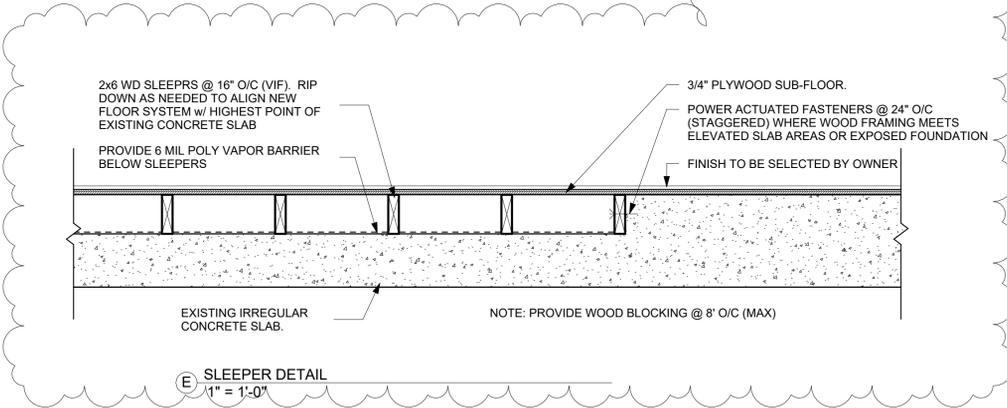
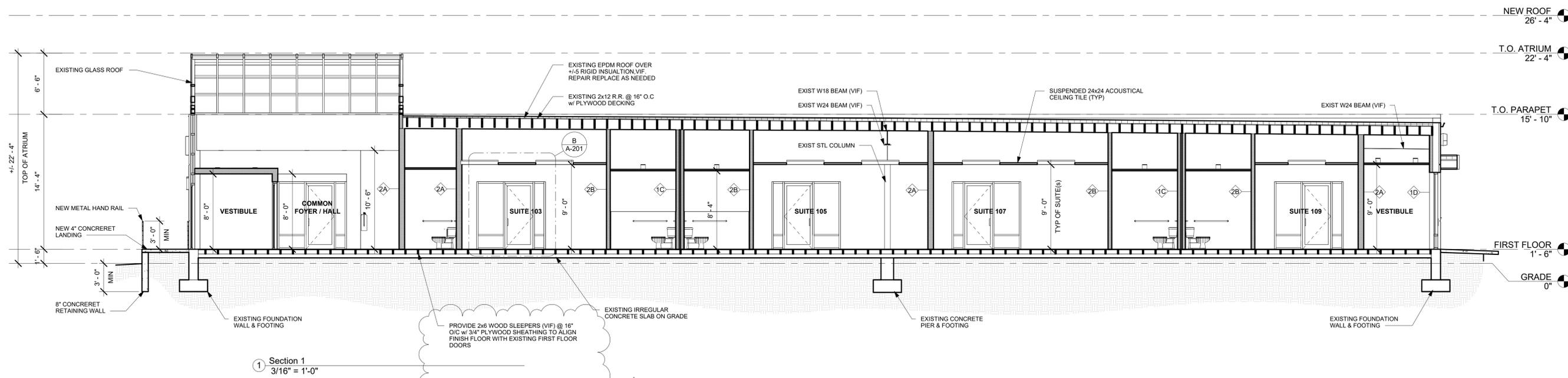
MarinoWARE 19. CURTAINWALL DETAIL

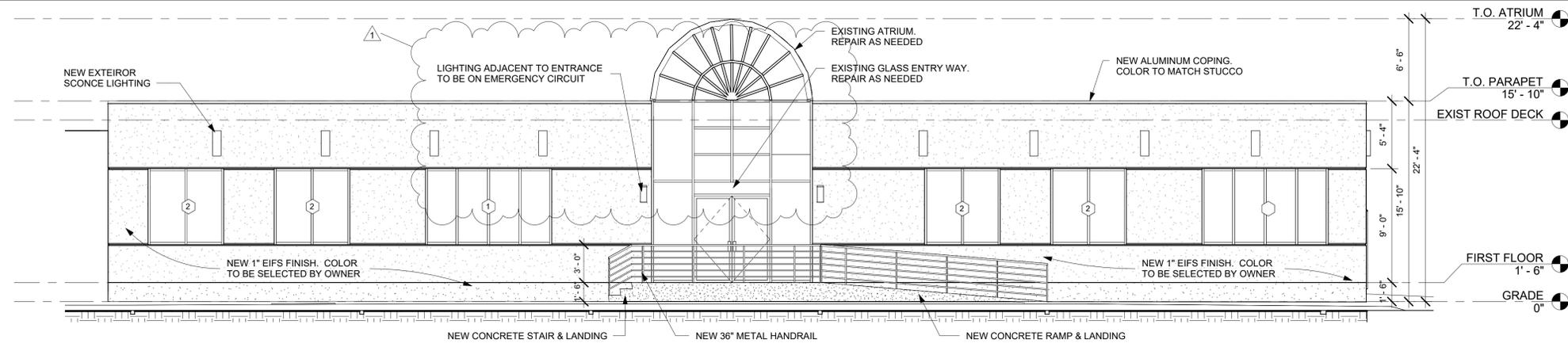


MarinoWARE 20. CURTAINWALL DETAIL

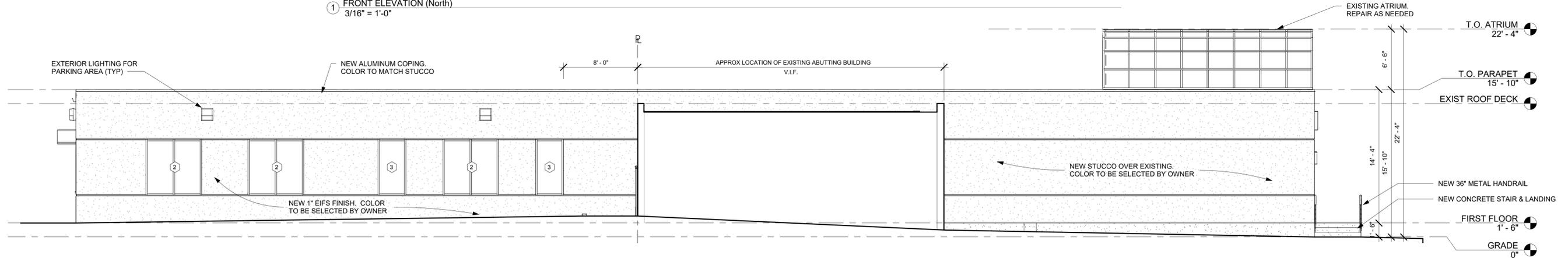


MarinoWARE 21. CURTAINWALL DETAIL

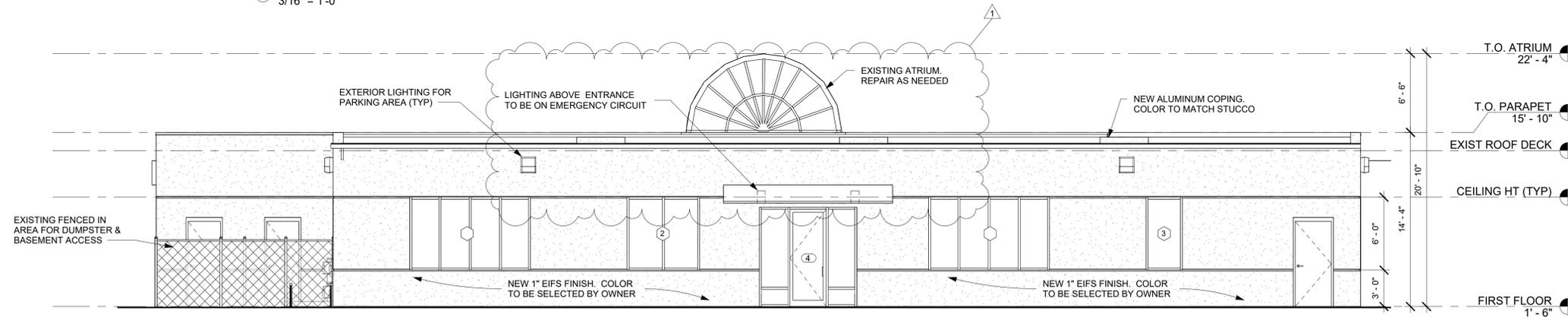




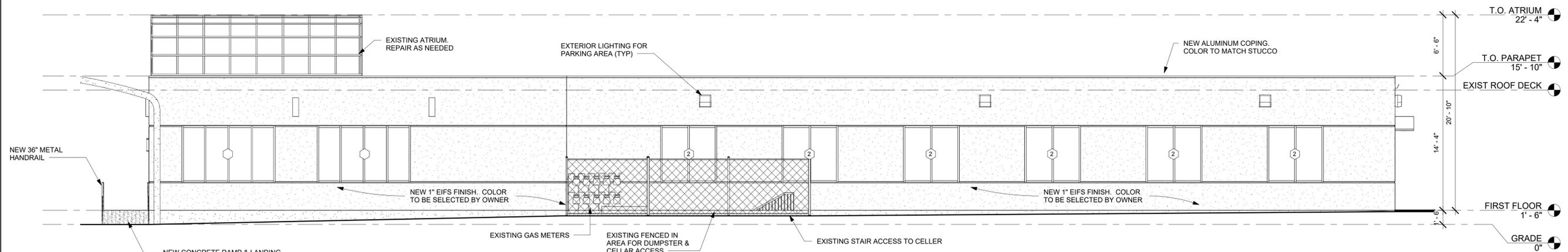
① FRONT ELEVATION (North)
3/16" = 1'-0"



② LEFT ELEVATION (East)
3/16" = 1'-0"



③ REAR ELEVATION (South)
3/16" = 1'-0"



④ RIGHT ELEVATION (West)
3/16" = 1'-0"

CSI SECTION 07 24 00 - Exterior Insulation & Finish System (EIFS) - Class PB

SYSTEM OVERVIEW

The Standard System is a Class PB EIF System qualified for use on noncombustible construction, combustible non-residential construction, and fire resistance rated walls.

This system is not qualified for use on wood-frame residential construction, including multi-unit. (Refer to Parex WaterMaster LCR (Light Commercial/Residential).)

The system is qualified for application to certain types of OSB (oriented strand board) sheathing only in areas shown in the Parex Acceptable Substrates and Areas of Use Technical Bulletin.

For installation on OSB in other regions refer to Parex WaterMaster LCR (Light Commercial/Residential.)

•Some jurisdictions may require special inspections.

•The system does not contribute structural strength to the wall. It depends on the substrate wall for support and attachment.

•Substrate construction must resist all design loads. Sheathing attachment to framing must resist design negative windloads because it transfers those loads to the framing. Appropriate safety factors must be applied.

•All penetrations and terminations of the system must be made weather-tight, typically by sealants and/or flashings

•The EPS in EIFS has a maximum service temperature of 165F (74C). Dark colors will increase the surface temperature of the EIFS wall.

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Installation of Parex Standard System EIFS

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete
- B. Section 04 20 00 - Unit Masonry
- C. Section 06 16 00 - Sheathing
- D. Section 07 62 00 - Sheet Metal Flashing and Trim
- E. Section 07 90 00 - Joint Protection
- F. Section 08 50 00 - Windows
- G. Section 09 21 16 - Gypsum Board Assemblies

1.3 REFERENCES

- A. ASTM B117 - Test Method for Salt Spray (Fog) Testing.
- B. ASTM C203 - Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- C. ASTM C1135 - Test Method for Determining Tensile Adhesion Properties of Structural Sealants.
- D. ASTM D968 - Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- E. ASTM D1037 - Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials
- F. ASTM D2247 - Practice for Testing Water Resistance of Coatings in 100 Percent Relative Humidity.
- G. ASTM D2294 - Standard Test Method for Creep Properties of Organic Coatings to the Effects of Rapid Deformation (Impact)
- B. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- C. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- D. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings
- E. ASTM E119-00 - Standard Test Method for Fire Tests of Building Construction and Materials.
- F. ASTM E330 - Test Method for Structural Performance by Uniform Static Air Pressure Difference.
- G. ASTM E331 - Test Method for Water Penetration by Uniform Static Air Pressure Difference.
- H. ASTM E695 - Method for Measuring Relative Resistance to Impact Loading.
- I. ASTM E2134 - Standard Test Method for Evaluating the Tensile-Adhesion Performance of an Exterior Insulation and Finish System (EIFS)
- J. ASTM E2273 - Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies
- K. ASTM E2430 - Standard Specification For Expanded Polystyrene ("EPS") Thermal Insulation Boards For Use In Exterior Insulation and Finish Systems ("EIFS")
- L. ASTM E2485 - Standard Test Method for Freeze/Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water Resistive Barrier Coatings
- M. ASTM E2486 - Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
- N. ASTM G155 and G153 - Accelerated Weathering for Exposure of Nonmetallic Materials.
- O. Federal Specification TT-C-555B - Coating, Textured (For Interior and Exterior Masonry Surfaces)
- P. MIL STD 810B - Military Standard, Environmental Test Methods
- Q. NFPA 259 - Test Method for Potential Heat of Building Materials.
- R. NFPA 268 - Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
- S. NFPA 285 - Standard Method of Test for the Evaluation of Flammability characteristics of Exterior Nonload-bearing Wall Assemblies Containing Combustible Components Using the Intermediate-scale, Multistory Test Apparatus.

1.2 SYSTEM DESCRIPTION

- A. Description of Parex Standard System :
 1. An Exterior Insulation and Finish System (EIFS) consisting of Adhesive, Expanded Polystyrene Insulation (EPS) Board, Base Coat with embedded Reinforcing Fabric Mesh, Primer (Optional), and Finish Coat. This system is installed over glass mat gypsum sheathing, cement board sheathing, CDX plywood, Exposure 1, OSB, concrete or CMU. For OSB restrictions see the *Parex Acceptable Substrates and Areas of Use Technical Bulletin*.
- B. Parex EIFS Functional Criteria:
 1. General:
 - a. Insulation Board: At system termination, completely encapsulate insulation board edges by mesh reinforced base coat, substrate or drainage track (limited to terminations at foundation for non-combustible construction). The use of and maximum thickness of insulation board shall be in accordance with applicable building codes and Parex USA requirements.
 - b. Flashing: Flashing shall be continuous and watertight. Flashing shall be designed and installed to prevent water infiltration behind the EIFS. Refer to Division 07 Flashing Section for specified flashing materials.
 - c. The configuration of the water resistive barrier, drainage plane, flashing with Parex materials, must allow for the egress of incidental moisture
 - d. See Current ICC Evaluation Service Report or Contact Parex Technical Department for Design Windloads.
 - e. Inclined surfaces shall follow the guidelines listed below:
 - (1) Minimum slope: 6 in (152 mm) of vertical rise in 12 in (305 mm) of horizontal run.
 - (2) For sloped surfaces, run of slope shall be a maximum of 12 in (305 mm).
 - (3) Usage not meeting above criteria shall be approved by Parex USA in writing prior to installation.

- f. The building interior shall be separated from the insulation board by in (12.7 mm) of gypsum board or equivalent 15 minute thermal barrier.
- 2. Performance Requirements
 - a. System to meet the performance and testing requirements of the International Code Council Acceptance Criteria AC 219
 - b. Shall meet the testing requirements of the Parex Product Performance Sheet.
- 3. Substrate Systems:
 - a. Shall be engineered to withstand applicable design loads including required safety factor.
 - b. Maximum deflection of substrate system under positive or negative design loads shall not exceed L/240 of span except as otherwise approved in writing by Parex USA prior to installation.
 - c. Substrate dimensional tolerance: Flat within ¼ in (6.4 mm) in any 4 ft (122 cm) radius.
 - d. Surface irregularities: Sheathing not over ¼ in (3 mm); masonry not over 3/16 in (4.8 mm).
- 4. Impact Resistance Classification: Parex Standard System shall be classified in accordance with ASTM E2486 classification and impact ranges as follows.
 - a. Standard Impact Resistance, 25-49 in-lbs (2.8 - 5.6 J) Impact Range
 - b. Medium Impact Resistance, 50-89 in-lbs (5.7-10.1 J) Impact Range
 - c. High Impact Resistance, 90-150 in-lbs (10.2-17.0 J) Impact Range
 - d. Ultra High Impact Resistance, >150 in-lbs (> 17.0 J) Impact Range
- 5. Expansion Joints: Continuous expansion joints shall be installed at the following locations in accordance with manufacturer's recommendations:
 - a. At building expansion joints.
 - b. At substrate expansion joints.
 - c. At floor lines in wood frame construction.
 - d. Where Parex EIFS panels abut one another.
 - e. Where Parex EIFS abuts other materials.
 - f. Where significant structural movement occurs, such as at
 - (1) Changes in roof line.
 - (2) Changes in building shape and/or structural system.
 - g. Where substrate changes. (For exceptions to joints at substrate changes, contact the Parex USA Technical Department)
 - h. Substrate movement and expansion and contraction of Parex EIFS and adjacent materials shall be taken into account in design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, coefficients of expansion of materials, joint width to depth ratios, and other material factors. Minimum width of expansion joints shall be as follows:
 - (1) ½ in (12.7 mm) where EIFS abuts other materials.
 - (2) ¾ in (19 mm) when EIFS abuts the EIFS.
 - (3) Larger width where indicated on drawings.
- 6. Manufacturer's Detail:
 - a. Parex EIFS latest published information shall be followed for standard detail treatments.
 - b. Non-standard detail treatments shall be as recommended by Parex USA, approved by Project Designer and be part of the Contract Documents.
- 7. Building Code Conformance: Parex EIFS shall be acceptable for use on this project under building code having jurisdiction.

1.3 SUBMITTALS

- A. General: Submit Samples, Evaluation Reports and Certificates in accordance with Division 01 General Requirements Submittal Section.
- B. Samples: Submit samples for approval. Samples shall be of materials specified and of suitable size as required to accurately represent each color and texture used on project. Prepare each sample using same tools and techniques for actual project application. Maintain and make available, at job site, approved samples.
- C. Manufacturer's Warranty: Submit sample copies of Manufacturer's Warranty indicating Single Source Responsibility.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 1. Manufacturer: Shall have marketed Exterior Insulation and Finish Systems in United States for at least ten years.
 - a. Shall have completed projects of same building size and type as this project.
 2. Applicator:
 - a. Shall have attended a Parex USA Educational Seminar for installation of systems.
 - b. Shall possess a current certificate of education.
 - c. Shall be experienced and competent in installation of plaster-like materials.
 - B. Regulatory Requirements:
 1. Insulation Board: Shall be produced and labeled under a third party quality program as required by applicable building code.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver Parex Standard System products in original packaging with manufacturer's identification.
- B. Storage: Store EIFS materials supplied by Parex USA in a cool, dry location, out of sunlight, protected from weather and other harmful environment, and at a temperature above 40 °F (4°C) and below 110 °F (43°C) in accordance with manufacturer's instructions. Store insulation board flat.

1.6 PROJECT / SITE CONDITIONS

- A. Installation Ambient Air Temperature: Minimum of 40 (4°C) and rising, and remain so for 24 hours thereafter.
- B. Substrate Temperature: Do not apply Parex materials to substrates whose temperature are below 40 °F (4°C) or contain frost or ice.
- C. Inclement Weather: Do not apply Parex materials during inclement weather, unless appropriate protection is employed.
- D. Sunlight Exposure: Avoid, when possible, installation of the Parex materials in direct sunlight. Application of Parex Finishes in direct sunlight in hot weather may adversely affect aesthetics.
- E. Parex materials shall not be applied if ambient temperature exceeds 120°F (49°C) or falls below 40 °F (4°C) within 24 hours of application. Protect base coat from uneven and excessive evaporation during hot, dry weather.
- F. Prior to installation, the wall shall be inspected for surface contamination, or other defects that may adversely affect the performance of the Parex materials and shall be free of residual moisture.

1.7 COORDINATION AND SCHEDULING:

- A. Coordination: Coordinate Parex Standard System installation with other construction operations.

1.8 WARRANTY

- A. Warranty: Upon request, at completion of installation, provide Parex Standard System Limited Warranty. See Parex's warranty schedule for available Parex EIFS Warranties.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807
- B. Components: Obtain components of Parex Standard System from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from Parex USA for this project.

2.2 MATERIALS

- A. Adhesives
 1. Parex 121 Base Coat & Adhesive: 100% acrylic polymer based, requiring the addition of portland cement; used as an adhesive to laminate EPS Insulation Board to the substrate. Not for use with wood based sheathing
 2. Parex 121 Dry Base Coat & Adhesive: Copolymer based, factory blend of cement and proprietary ingredients; requiring the addition of water only, used as an adhesive to laminate EPS Insulation Board to the substrate. Not for use with wood based sheathing
 3. Parex 302 ABC-N1 Base Coat & Adhesive: 100% acrylic polymer base, ready to use, applied without the addition of cement.
 4. Parex 303 Sheathing Adhesive: 100% acrylic polymer based; ready to use, applied without the addition of cement; used as an adhesive to laminate EPS Insulation Board to gypsum sheathing, glass mat gypsum sheathing and wood based sheathing.
- B. Insulation Board: In compliance with manufacturer's requirements for Standard System EIFS.
 1. Produced and labeled under a third party quality program as required by applicable building code; and produced by a manufacturer approved by Parex USA.
 2. Shall conform to ASTM C578 and ASTM E 2430, Type I and the Parex USA specification for Molded Expanded Polystyrene Insulation board.
 3. Maximum size shall be 2 ft x 4 ft (610 mm x 1219 mm).
 4. Thickness: ¾ in, minimum (19 mm)
- C. Base Coats:
 1. 121 Base Coat: 100% acrylic polymer base, requiring the addition of portland cement.
 2. 121 Dry Base Coat: Copolymer based, factory blend of cement and proprietary ingredients requiring addition of water.
 3. 302 ABC-N1 Base Coat & Adhesive: 100% acrylic polymer base, ready to use, applied without the addition of cement.
- D. Parex Reinforcing Mesh:
 1. 355 Standard Mesh: Weight 4.5 oz. per sq. yd. (153 g/sq m); coated for protection against alkali. Standard reinforcement of Parex EIFS, or for use with High Impact 358.14 Mesh, or Ultra High Impact 358.20 Mesh.
 2. 356 Short Detail Mesh: Reinforcing mesh used for backwrapping and details.
 3. 352 Self Adhesive Detail Mesh: Reinforcing mesh used for complex details.
 4. 358.10 Intermediate Impact 10 Mesh: Weight 12 oz per sq. yd. (407 g/sq m) Reinforcing mesh used with Parex Standard System, to achieve ASTM E2486 intermediate impact strength.
 5. 358.14 High Impact 14 Mesh: Weight 15 oz. per sq. yd. (509 g/sq m) Reinforcing mesh used with Parex Standard System; to achieve ASTM E2486 high impact strength.
 6. 358.20 Ultra High Impact 20 Mesh: Weight 20 oz. per sq. yd. (678 g/sq m) Reinforcing mesh used with Parex Standard System; to achieve ultra-high impact strength.
 7. 357 Corner Mesh: Reinforcing mesh used as corner reinforcement; required when using Ultra-High Impact 20 Mesh

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807
- B. Components: Obtain components of Parex Standard System from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from Parex USA for this project.

2.2 MATERIALS

- A. Adhesives
 1. Parex 121 Base Coat & Adhesive: 100% acrylic polymer based, requiring the addition of portland cement; used as an adhesive to laminate EPS Insulation Board to the substrate. Not for use with wood based sheathing
 2. Parex 121 Dry Base Coat & Adhesive: Copolymer based, factory blend of cement and proprietary ingredients; requiring the addition of water only, used as an adhesive to laminate EPS Insulation Board to the substrate. Not for use with wood based sheathing
 3. Parex 302 ABC-N1 Base Coat & Adhesive: 100% acrylic polymer base, ready to use, applied without the addition of cement.
 4. Parex 303 Sheathing Adhesive: 100% acrylic polymer based; ready to use, applied without the addition of cement; used as an adhesive to laminate EPS Insulation Board to gypsum sheathing, glass mat gypsum sheathing and wood based sheathing.
- B. Insulation Board: In compliance with manufacturer's requirements for Standard System EIFS.
 1. Produced and labeled under a third party quality program as required by applicable building code; and produced by a manufacturer approved by Parex USA.
 2. Shall conform to ASTM C578 and ASTM E 2430, Type I and the Parex USA specification for Molded Expanded Polystyrene Insulation board.
 3. Maximum size shall be 2 ft x 4 ft (610 mm x 1219 mm).
 4. Thickness: ¾ in, minimum (19 mm)
- C. Base Coats:
 1. 121 Base Coat: 100% acrylic polymer base, requiring the addition of portland cement.
 2. 121 Dry Base Coat: Copolymer based, factory blend of cement and proprietary ingredients requiring addition of water.
 3. 302 ABC-N1 Base Coat & Adhesive: 100% acrylic polymer base, ready to use, applied without the addition of cement.
- D. Parex Reinforcing Mesh:
 1. 355 Standard Mesh: Weight 4.5 oz. per sq. yd. (153 g/sq m); coated for protection against alkali. Standard reinforcement of Parex EIFS, or for use with High Impact 358.14 Mesh, or Ultra High Impact 358.20 Mesh.
 2. 356 Short Detail Mesh: Reinforcing mesh used for backwrapping and details.
 3. 352 Self Adhesive Detail Mesh: Reinforcing mesh used for complex details.
 4. 358.10 Intermediate Impact 10 Mesh: Weight 12 oz per sq. yd. (407 g/sq m) Reinforcing mesh used with Parex Standard System, to achieve ASTM E2486 intermediate impact strength.
 5. 358.14 High Impact 14 Mesh: Weight 15 oz. per sq. yd. (509 g/sq m) Reinforcing mesh used with Parex Standard System; to achieve ASTM E2486 high impact strength.
 6. 358.20 Ultra High Impact 20 Mesh: Weight 20 oz. per sq. yd. (678 g/sq m) Reinforcing mesh used with Parex Standard System; to achieve ultra-high impact strength.
 7. 357 Corner Mesh: Reinforcing mesh used as corner reinforcement; required when using Ultra-High Impact 20 Mesh.

Locations: _____; ASTM E2486 Impact Classification: _____

E. Parex Primers:

- 1. 310 Primer: 100% acrylic based coating to prepare surfaces for Parex finishes.
- 2. 313 Sanded Primer: 100% acrylic based coating to prepare surface for Parex Cerastone and Spraystone finishes.

F. Parex Finish:

- 1. Parex DPR Optimum Finish: Factory blended, 100% acrylic polymer based finish, integrally colored..
 - a. Finish type, texture and color as selected by Project Designer
- OR-
- 1. Parex DPR Standard Finish: Factory blended, 100% acrylic polymer based finish, integrally colored..
 - a. Finish type, texture and color as selected by Project Designer.

-OR-

- 1. Parex E-La@Finish: Factory blended, 100 % acrylic polymer based elastomeric textured finish, integrally colored.
 - a. Finish type, texture and color as selected by Project Designer
- G. Parex 369 DrainEdge™: Pre-punched strip of non-woven fabric to allow for drainage at the head of system penetrations.
- H. Water: Clean, cool, potable water
- I. Portland Cement: ASTM C150, Type I or Type I-II.

2.3 RELATED MATERIALS AND ACCESSORIES

- A. Substrate Materials:
 1. Glass mat gypsum sheathing: Minimum ½ in thick, conforming to ASTM C1177.
 2. Cement Fiber Sheathing: Minimum ½ in thick, conforming to ASTM C1325
 3. Gypsum Sheathing: Minimum ½ in thick, core-treated, weather-resistant, exterior gypsum sheathing complying with ASTM C1396.
 4. Plywood: Minimum 7/16 in thick, Minimum 4-ply APA-Engineered Wood Association Exposure 1 or Exterior grade C-D or better. Installed with C or better side out gapped ¼ in at all edges
 5. Oriented Strand Board (OSB): 7/16 in - ½ in Wall-16 or Wall-24, approved by the APA, TECO, or PSI/PTL. Stamped as Exposure 1 or Exterior Sheathing with a PS2 or PRP-108 rating.
 6. Concrete Masonry Units (CMU): Non-painted (uncoated).
 7. Concrete (poured or pre-cast).
 8. Other Approved by Parex USA in writing prior to the project.
- B. Flashing: Refer to Division 07 Flashing Section for flashing materials.
- C. Sealant System:
 1. Sealant for expansion joints between paneled Parex EIFS sections shall be ultra-low modulus designed for minimum 100% elongation and minimum 50% compression and as selected by Project Designer.
 2. Sealant for perimeter seals around window and door frames and other wall penetrations shall be low modulus, designed for minimum 50% elongation and minimum 25% compression, and as selected by Project Designer.
 3. Sealants shall conform to ASTM C920, Grade NS.
 4. Expansion joints between sections of Parex EIFS shall have a minimum width of ¼ in (19 mm).
 5. Perimeter seal joints shall be a minimum width ¼ in (12.7 mm).
 6. Sealant backer rod shall be closed-cell polyethylene foam.
 7. Apply sealant to tracks or base coat of Parex EIFS.
 8. Refer to Parex USA current bulletin for listing of sealants which have been tested and have been found to be compatible with Parex EIFS.
 9. Color shall be as selected by Project Designer.
 10. Joint design, surface preparation, and sealant primer shall be based on sealant manufacturer's recommendations and project conditions.

3.1 EXAMINATION

- A. Verify project site conditions under provisions of Section 01 00 00.
- B. Compliance: Comply with manufacturer's instructions for installation of Parex Standard.
- C. Substrate Examination: Examine prior to Parex Standard System installation as follows:
 1. Substrate shall be of a type approved by Parex USA. Plywood and OSB substrates shall be gapped ¼ in (3.2 mm) at all edges. Cut edges (non-factory edges) must also be sealed with a Parex USA water-resistive coating.
 2. Substrate shall be examined for soundness, and other harmful conditions.
 3. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
 4. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
- D. Sealants and Backer Rod: To be installed, where required, in accordance with the sealant manufacturer's specifications and published literature, and using the sealant manufacturer's recommended primers.
- E. Advise Contractor of discrepancies preventing installation of the Parex Standard System. Do not proceed with the Parex Standard System Assembly work until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Protection: Protect surrounding material surfaces and areas during installation of system.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 MIXING

- A. Mix Parex proprietary products in accordance with manufacturer's instructions.

3.4 APPLICATION

- A. General: Installation shall conform to this specification and Parex EIFS Application Guide, written instructions and drawing details.
 1. Plywood and OSB substrate cut edges (non-factory edges) must be sealed with a Parex USA water-resistive coating.
- B. Insulation Board
 1. Install back-wrap mesh or edge-wrap mesh at system terminations.
 2. Apply Parex adhesive to backs of insulation boards with a Parex drainage notched trowel, with ribbons of adhesive oriented in a vertical direction (parallel to the 2 ft (61 mm) dimension of the EPS board).
 3. Install insulation board without gaps in a running bond pattern and interlocked at corners.
 4. Rasp irregularities off insulation board after adhesive has dried a minimum of 24 hours.
- C. Apply base coat and fully embed mesh in base coat; include diagonal mesh patches at corners of openings and reinforcing mesh patches at joints of track sections. Apply multiple layers of base coat and mesh where required for specified impact resistance classification.
- D. Apply primer to base coat after drying. Primer may be omitted if it is not required by the manufacturer's product data sheets for the specified finish coat or otherwise specified for the project.
- E. Finish Coat: Apply finish coat to match specified finish type, texture, and color. Do not apply finish coat to surfaces to receive sealant. Keep finish out of sealant joint gaps.

3.5 CLEAN-UP

- A. Removal: Remove and legally dispose of Parex Standard System component debris material from job site.
- B. Clean EIFS surfaces and work area of foreign materials resulting from EIFS operations.

3.6 PROTECTION

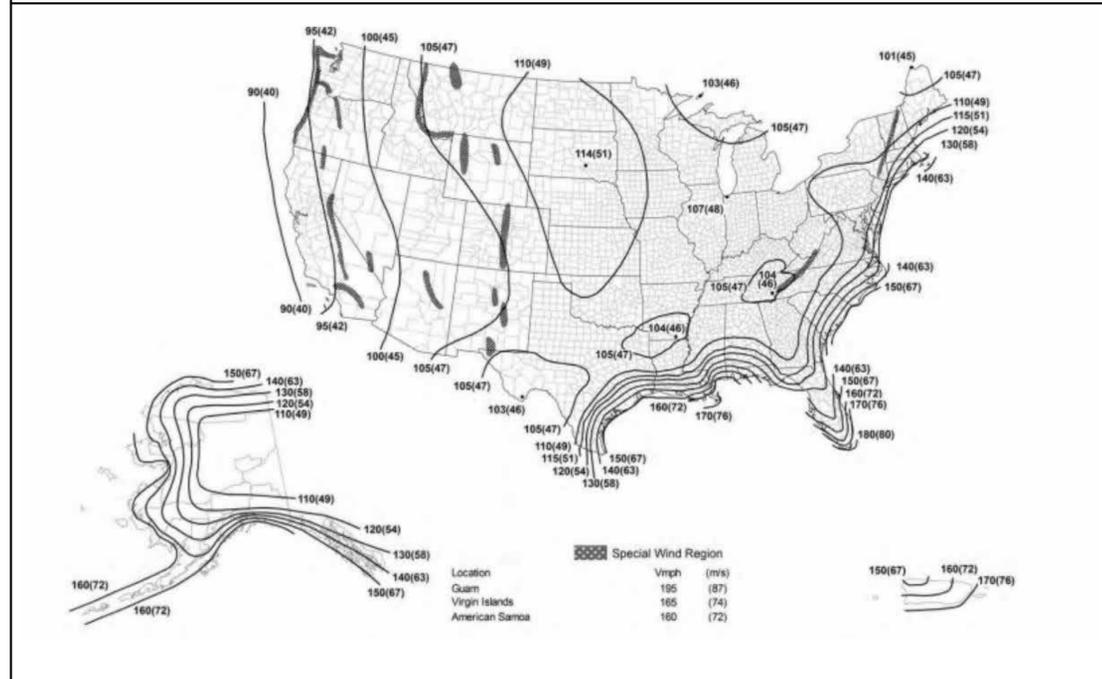
- A. Provide protection of installed materials from water infiltration into or behind them.
- B. Provide protection of installed stucco from dust, dirt, precipitation, and freezing during installation.
- C. Provide protection of installed finish from dust, dirt, precipitation, freezing and continuous high humidity until fully cured and dry.
- D. Clean exposed surfaces using materials and methods recommended by the manufacturer of the material or product being cleaned. Remove and replace work that cannot be cleaned to the satisfaction of the Project Designer/Owner.

END OF SECTION

Disclaimer: This guide specification is intended for use by a qualified designer. The guide specification is not intended to be used verbatim as an actual specification without appropriate modifications for the specific use intended. The guide specification must be integrated into and coordinated with the procedures of each design firm, and the requirements of a specific project

2020 BUILDING CODE OF NEW YORK STATE - TABLE 2406.2(1) (MINIMUM CATEGORY CLASSIFICATION OF GLAZING)						
EXPOSED SURFACE AREA OF ONE SIDE OF ONE LITE	GLAZING IN STORM OR COMBINATION DOORS (Category Class)	GLAZING IN DOORS (Category Class)	GLAZED PANELS REGULATED BY SECTION 2406.4.3 (Category Class)	GLAZED PANELS REGULATED BY SECTION 2406.4.2 (Category Class)	DOORS AND ENCLOSURES REGULATED BY SECTION 2406.4.5 (Category Class)	SLIDING GLASS DOORS PATIO TYPE (Category Class)
9 square feet or less	I	I	NO REQUIREMENT	I	II	II
More than 9 square feet	II	II	II	I	II	II

2020 BUILDING CODE OF NEW YORK STATE - FIGURE 1609.3(1)
ULTIMATE DESIGN WIND SPEEDS, FOR RISK CATEGORY II BUILDINGS



AS PER 2020 BCNYS. ALL STORFRONT GLAZING SHALL BE DESIGNED TO CONFORM WITH CHAPTER 16 & CHAPTER 24 OF THE CODE. SPECIFICALLY, ALL STORFRONT GLAZING WILL BE DESIGNED TO WITHSTAND THE 130 MPH WIND SPEED AS PER SEC. 1609.3.1 & TABLE 1609.3.1 AND SHALL BE DESIGNED TO PROVIDE THE PROPER SAFETY GLASS IN ACCORDANCE WITH TABLE 2406.2(1) OF THE 2020 BCNYS.

WIND SPEED CONVERSIONS TABLE 1609.3.1

V_{ult}	100	110	120	130	140	150	160	170	180	190	200
V_{asd}	78	85	93	101	108	116	124	132	139	147	155

SECTION 084113 (08410)

145 ALUMINUM STOREFRONT

- Types of CAPITOL 145 Non-Thermal Aluminum Frame System, 1 3/4" x 4 1/2" nominal dimension, center glazed, weather-seal, shear block, stick or punched opening fabrication

ED NOTE: Below related sections are specified elsewhere, however, CAPITOL recommends single source responsibility for all of these sections as indicated in 2.07 source quality control.

- A. Related sections:
- Section 085113 - Aluminum Windows
 - Section 087100 - Hardware
 - Section 084413 - Aluminum Curtain Wall System
 - Section 088000 - Glazing
 - Section 079200 - Sealants

1.02 References (Industry Standards)

ED NOTE: Refer to index for any and all applicable standards.

1.03 System Description

- A. Frames
- The aluminum frames shall be constructed from 1 3/4" x 4 1/2" tubular aluminum members.
 - The door stop shall be designed to snap into a recess in the frame and no screws for attaching the stop or anchors for the frame shall be exposed.
 - Sidelite glazing shall be accomplished with snap in retainers and cushion-sealed with vinyl gasket.
 - Door stops shall have vinyl weather-stripping.
 - Glazing members shall be of such design that is snapped in. Screw applied glass retainer shall be unacceptable.

1.04 Submittals

- A. General: Submit in accordance with Section 013000.
- B. Product Data:
- Submit manufacturer's descriptive literature for each manufactured product.
 - Shop Drawings:
 - Submit drawings indicating elevations, detailed design, dimensions, member profiles, joint locations, arrangement of units and member connections.
- Show following items:
 - Details of special shapes.
 - Reinforcing.
 - Anchor system.
 - Interfacing with building construction.
 - Provisions for expansion and contraction.
 - Indicate typical glazing details, (locations of various types and thickness of glass), and internal sealant requirements as recommended by sealant manufacturer.
 - Clearly indicate locations of fasteners and joints for Architect's acceptance.
- D. Certificates:
- Submit manufacturer's certification stating that installed system is in compliance with specified requirements.
- E. Qualification Data:
- Submit installer qualifications verifying years of experience.
 - Include list of projects having similar scope of work identified by name, location, date, reference name and phone number.
- F. Manufacturer's Instructions:
- Submit manufacturer's printed installation instructions.
- G. Warranty:
- Submit specified warranties.

1.05 Warranty

- A. Project Warranty: Refer to "Conditions of the Contract" for project warranty provisions.
- B. Manufacturer's Product Warranty: Submit, for Owner's acceptance, manufacturer's warranty for Storefront frame system as follows:
- Warranty Period: One (1) year from last date of shipment by Capitol Aluminum and Glass Corporation.

1.06 Quality Assurance

- A. Qualifications:
- Installer Qualifications: Installer experienced to perform work of this section who has specialized in the installation of work similar to that required for this project and who is acceptable to product manufacturer.
 - Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction, approving acceptable installer and approving application method.
 - Per-Installation Meeting: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.07 Delivery, Storage and Handling

- A. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- B. Packing, shipping, handling and unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and protection: Store materials protected from exposure to harmful weather conditions. Handle Storefront frame material and components to avoid damage.

PART 2 - PRODUCTS

2.01 Manufacturers (Acceptable Manufacturers/Products)

- A. Acceptable manufacturers:
- Capitol Aluminum & Glass Corporation, 1276 W. Main Street, Bellevue, OH 44811 (419)483-7050 - (419)483-7830 fax
Proprietary Product(s)/System(s): CAPITOL 145 Non-Thermal Aluminum Frame System
Finish/Color (See Section 2.06 Aluminum Finishes)

2.02 Materials

- A. Aluminum (145 Frame and Components):
- Material Standard: Extruded Aluminum, ASTM B 221, 6063-T5 alloy and temper.
 - Member Wall Thickness: Each framing member shall have a wall thickness of .125".
 - Tolerances: Reference to tolerances for wall thickness and other cross-sectional dimensions of storefront members are nominal and in compliance with AA Aluminum Standards and Data.
 - Trim Metal: All interior and exterior trim metal shall be extruded aluminum sections and shall not be less than .060" in wall thickness. Brake metal or formed aluminum sheet is not acceptable.

2.03 Accessories

- A. Fasteners:
- Aluminum, non-magnetic stainless steel or other materials warranted by manufacturer to be non-corrosive and compatible with components being fastened.
 - For exposed locations, provide countersunk Phillips head screws with finish matching items fastened.
 - For concealed locations, provide manufacturer's standard fasteners.
- B. Glazing Gaskets:
- Compression type design, replaceable, molded or extruded neoprene, or ethylene propylene diene monomer (EPDM).
 - Profile and hardness as necessary to maintain uniform pressure for watertight seal.
 - Provide in manufacturer's standard black color.
- C. Expansion Anchor Devices: Lead-shield or toothed-steel, drilled-in, expansion bolt anchors.

2.04 Related Materials

- A. Glass and Glazing Accessories:
- Refer to Section 088000.
- B. Sealants
- Refer to Section 079200.

2.05 System Fabrication

- A. Take accurate field measurements to verify required dimensions prior to fabrication.
- B. Fabricate components in accordance with approved shop drawings. Remove burrs and smooth edges. Shop fabricate to greatest extent practicable to minimize field cutting, splicing and assembly. Disassemble only to extent necessary for shipping and handling limitations.
- C. Fabricate components true to detail and free from defects impairing appearance, strength or durability. (Fabricate custom extrusions indicated and as necessary for complete installation.)
- D. Provide structural reinforcing within framing members where required to maintain rigidity and accommodate design loads.
- E. Allow for adequate clearance around perimeter of system to enable proper installation and for thermal movement within system.
- F. Separate dissimilar metals with protective coating to prevent contact and corrosion.

2.06 Aluminum Finishes

- A. Clear Anodized 30-Minute Velo Class II AA-M12-C22-A31
Clear Anodized 60-Minute Velo Class I AA-M12-C22-A41
Dark Bronze Anodized 2-step Class I AA-M12-C22-A44
Champagne Anodized 2-step Class I AA-M12-C22-A44
FloroponR (70% PVDF)** AAMA 2605
DuramarR, DuramarR XL (70%PVDF)** AAMA 2605
AcroflurTM (50% PVDF)** AAMA 2604
AcrynarRFX (50% PVDF)** AAMA 2604
PolyureR 1500** AAMA 2603
DuracronR** AAMA 2603
**Manufacturer's standard colors

2.07 Source Quality Control

- A. Source Quality: Provide aluminum 145 frame specified herein from a single source.
- Building Enclosure System: When aluminum 145 frame is part of a building enclosure system, including entrances, entrance hardware, windows, curtain wall framing and related products, provide building enclosure system products from a single source manufacturer.

PART 3 - EXECUTION

3.01 Examination

- A. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions. Verify openings are sized to receive Storefront frame system and sill plate is level in accordance with manufacturer's acceptable tolerances.
- Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements, fabrication schedule with construction progress to avoid construction delays.

3.02 Installation

- A. General: Install Storefront frames plumb. Level and true to line, without warp or rack of frames with manufacturer's prescribed tolerances and installation instructions. Provide support and anchor in place.
- Dissimilar materials: Provide separation of aluminum materials from sources of corrosion or electrolytic action contact points.
 - Weather-tight construction: Install sill members and other members in a bed of sealant or with joint filler or gaskets, to provide weather-tight construction. Coordinate installation with wall flashings and other components of construction.
- B. Related Products Installation Requirements:
- Sealants (Perimeter): Refer to Division 7 Joint Treatment (Sealants) Section.
 - Glass: Refer to Division 8 Glass and Glazing Section.
 - Reference: ANSI Z97.1, CPSC 16 CFR 1201 and GANA Glazing Manual.

3.03 Protection and Cleaning

- A. Protection: Protect installed Storefront systems finish surfaces from damage during construction. (i.e. grinding, polishing compounds, plaster, lime, acid, cement, or other harmful contaminants).
- B. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

DISCLAIMER STATEMENT

This guide specification is intended to be used by a qualified construction specifier. The guide specification is not intended to be verbatim as a project specification without appropriate modifications for the specific use intended. The guide specification must be used and coordinated with the procedures of each design firm, and the particular requirements of a specific construction project.

