

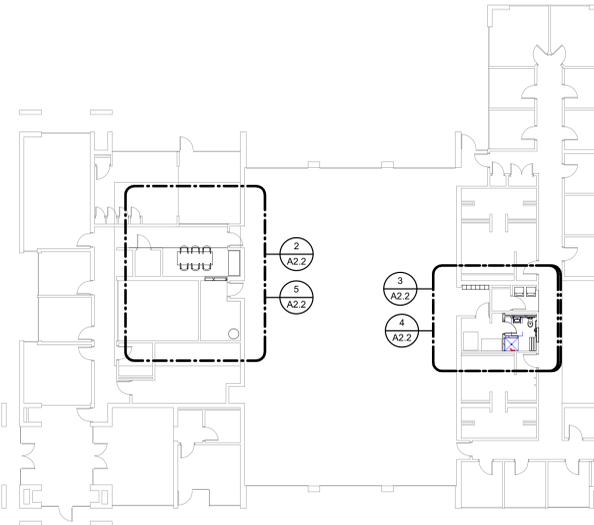
FINISH SCHEDULE FS2											
Department	NUMBER	NAME	FLOOR	BASE	WALLS				WAINSCOT	CEILING	NOTES
					NORTH	EAST	SOUTH	WEST			
FS2	112	WORK ROOM	ETR	--	PT	--	--	--	--	ACP	
FS2	136	LAUNDRY ROOM	ETR	ETR	PT	--	--	--	--	ETR	
FS2	139	DECONTAMINATION	ETR	ETR	PT	PT	PT	PT	--	ACP	
FS2	202	SHOWER ROOM	P-TILE	P-TILE	P-TILE	P-TILE	P-TILE	P-TILE	P-TILE	GB PT	FULL HEIGHT PORCELAIN TILE IN SHOWER. 7'-2" PORCELAIN TILE WAINSCOT NOT IN SHOWER AREA.
FS2	205	DINING	MATCH EXISTING	MATCH EXISTING	--	PT	PT	PT	--	ACP	NEW DINING AREA SHOULD MATCH THE FINISH OF THE ADJACENT EXISTING DINING AREA UNO. EXISTING FLOOR IN THE WORKROOM IS CONCRETE. PORTIONS OF THE EXISTING FLOOR MAY HAVE A LAYER OF CARPET WHICH SHALL BE REMOVED BY THE CONTRACTOR.

- ### FLOOR PLAN KEYNOTES
- REPRESENTED BY [A]
 APPLIES TO DRAWINGS A2.2 - A2.9
- SALVAGE WASHER AND DRYER. TURN OVER TO THE OWNER.
 - REMOVE BENCH.
 - REMOVE SINK.
 - STACKED WASHER/DRYER UNIT. APPLIANCE FURNISHED BY THE OWNER. CONTRACTOR SHALL PROVIDE THE NECESSARY HOOKUPS AND INSTALL THE APPLIANCE.
 - FURNITURE NIC.
 - 12"x12"x72" METAL GYM LOCKER PROVIDED BY OWNER.
 - EXISTING EXTRACTOR TO REMAIN.
 - EXISTING DRYING CABINET TO REMAIN.
 - REMOVE CEILING AND ALL HOSTED ELEMENTS, INCLUDING LIGHT FIXTURES, MECHANICAL DIFFUSERS, FIRE ALARMS, SMOKE DETECTORS, ETC.
 - MATCH HEIGHT OF ACOUSTIC CEILING WITH ADJACENT EXISTING CEILING.
 - PROVIDE 3/4" THICK STAINED WOOD SILL. PROVIDE POLYURETHANE COAT.
 - PROVIDE 3/4"x5" STAINED WOOD WALL BASE. PROVIDE POLYURETHANE COAT.
 - 5/8" GYPSUM BOARD.
 - 3 5/8" CFSF.
 - 8" NOMINAL CMU.
 - RELOCATED AIR COMPRESSOR.
 - SALVAGE EXISTING AIR COMPRESSOR FOR RELOCATION. IF THERE ARE VIBRATION PADS AT THE FEET OF THE COMPRESSOR, REINSTALL THE PADS AT THE NEW LOCATION.
 - 8" NOMINAL CMU.
 - 4" NOMINAL CMU.
 - INFILL OPENING. MATCH ADJACENT CONSTRUCTION AND FINISH UNO.
 - SALVAGE DOOR AND FRAME.
 - REMOVE RAILING AT THIS SIDE OF RAMP.
 - REMOVE PORTION OF WALL AS NECESSARY TO PROVIDE OPENING.
 - SS TOILET PARTITION.
 - 2'-6"x7'-0" SS TOILET STALL DOOR.
 - PROVIDE SHOWER ROD AND CURTAIN.
 - SALVAGE DOOR. FRAME SHALL REMAIN. REMOVE STRIKE AND PROVIDE STEEL OR ALUMINUM CLOSURE PLATE. PAINT TO MATCH FRAME COLOR.
 - EXISTING SHOWER CONTROLS TO REMAIN. TYPICAL THIS FIRE STATION.
 - EXISTING LINEAR DRAIN TO REMAIN.
 - EXISTING ACCESS PANEL AT CEILING.
 - PROVIDE GAP AT TOP AND BOTTOM OF PARTITION. DO NOT BLOCK AIRFLOW.
 - REMOVE HALFWALL.
 - EXISTING PIPING TO REMAIN.
 - ALIGN CMU CHASE WITH EXISTING CONSTRUCTION.
 - GROUTED COLLAR JOINT.
 - ALIGN DOOR FRAME WITH EXISTING OPENING.
 - SALVAGE EXISTING DRYING CABINET FOR RELOCATION. REMOVE RAISED CONCRETE PAD.
 - INSTALL SALVAGED DRYING CABINET AT THIS LOCATION. POUR CONCRETE BASE FOR CABINET. MATCH EXISTING BASE DIMENSIONS.
 - REMOVE FINISH FLOORING. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE.
 - GEAR GRID NIC. SHOWN FOR COORDINATION PURPOSES WITH THE OWNER.
 - SALVAGE EXISTING HOSE REEL SOLENOID SWITCH ASSEMBLY.
 - PROVIDE FROSTING FILM AT INTERIOR SIDE OF GLAZING.
 - PROVIDE CONCRETE SILL AT BASE OF DOOR OPENING.
 - PROVIDE METAL THRESHOLD TO STRADDLE THE FINISH FLOOR AND THE CONCRETE SILL.
 - SALVAGE STORAGE HOOKS AND RELOCATE TO ADJACENT WALL. COORDINATE WITH OWNER TO DETERMINE PRECISE LOCATION.
 - REMOVE EXISTING BENCH AND SHELF.
 - INSTALL SALVAGED HOSE REEL SOLENOID SWITCH ASSEMBLY. ORIENT SWITCH ASSEMBLY VERTICALLY. EXTEND AND MODIFY CONDUIT AS REQUIRED AND TEST SWITCHES FOR PROPER OPERATION.
 - 1 1/2" CIRCULAR GALVANIZED STEEL HANDRAIL.
 - CONTINUE HANDRAIL TO FLOOR. EMBED IN CONCRETE. TYPICAL.
 - REMOVE CASEWORK AND SHELF.
 - PAINT CMU WITHIN RECESSED AREA.

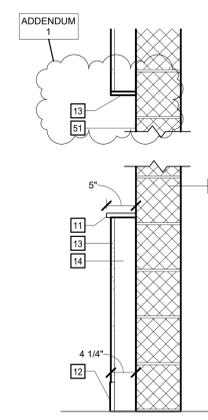
- ### DEMOLITION PLAN LEGEND
- APPLIES TO DRAWINGS A2.2 - A2.9
- EXISTING PARTITION/WALL/ITEM TO REMAIN
 - REMOVE EXISTING PARTITION/WALL/ITEM
 - REMOVE EXISTING WINDOW ASSEMBLY AND FRAMING, INCLUDING ANCHORS
 - SALVAGE EXISTING DOOR AND FRAME ASSEMBLY INCLUDING DOOR HARDWARE. IF FRAME DAMAGED DURING SALVAGING, DISCARD.
 - REMOVE EXISTING PLUMBING FIXTURE. REFER TO PLUMBING DEMOLITION PLAN FOR ADDITIONAL INFORMATION.

- ### FLOOR PLAN GENERAL NOTES
- UNLESS NOTED OTHERWISE, PAINT ALL NEW WALLS AND ALL EXISTING WALLS IN ROOMS INCLUDED IN THE WORK SCOPE.
 - PAINT ALL EXISTING DOOR FRAMES WHERE THE DOOR HAS BEEN SALVAGED OR REMOVED.
 - REFER TO STRUCTURAL DOCUMENTS FOR SLAB REMOVAL.

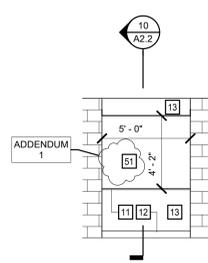
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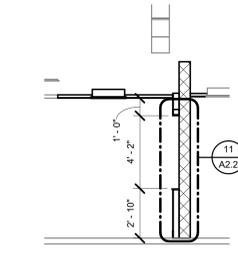
1 KEY PLAN
 A2.2 1/16" = 1'-0"



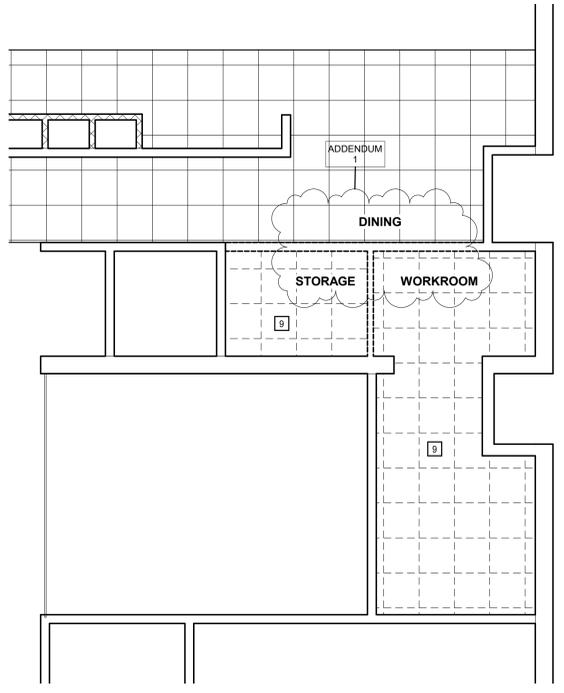
11 DETAIL
 A2.2/A2.2 1" = 1'-0"



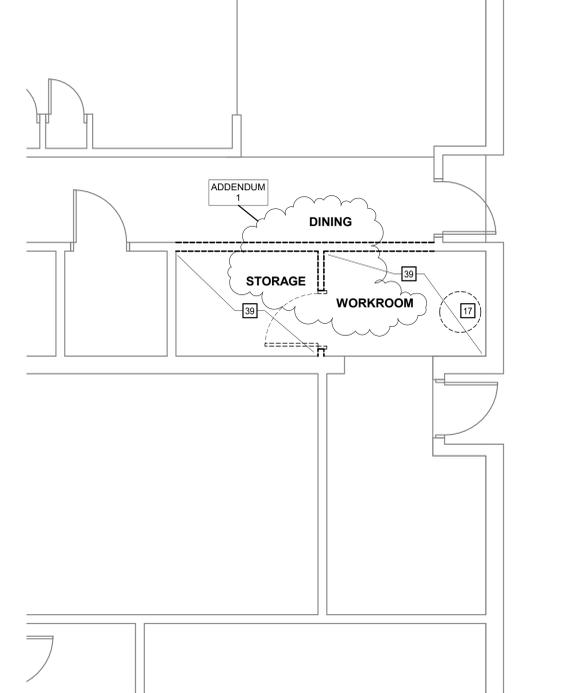
12 ELEVATION
 A2.2/A2.2 1/4" = 1'-0"



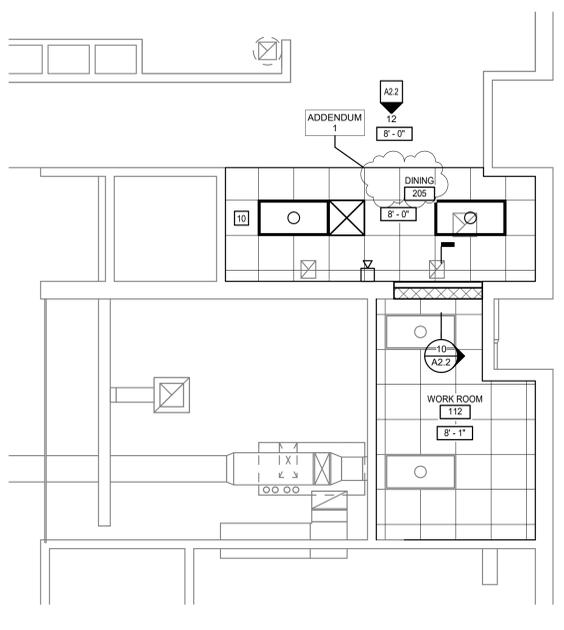
10 SECTION
 A2.2/A2.2 1/4" = 1'-0"



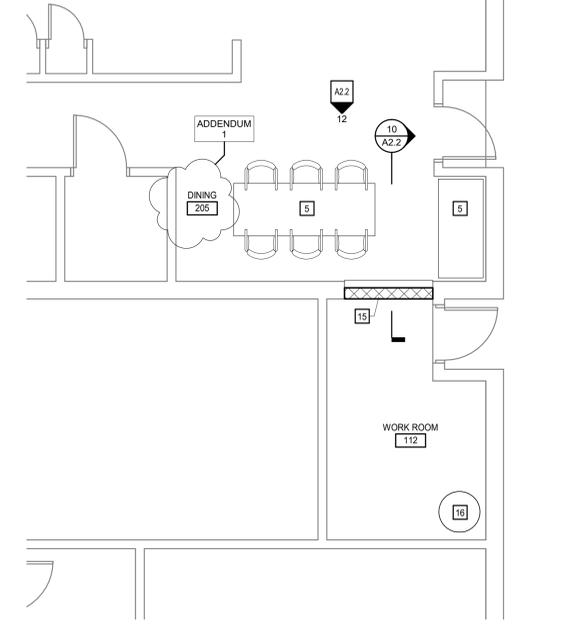
9 DINING RCP - DEMO
 A2.2 1/4" = 1'-0"



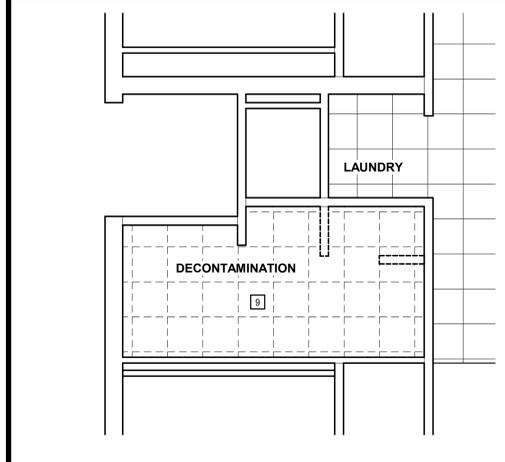
2 DINING - DEMO
 A2.2/A2.2 1/4" = 1'-0"



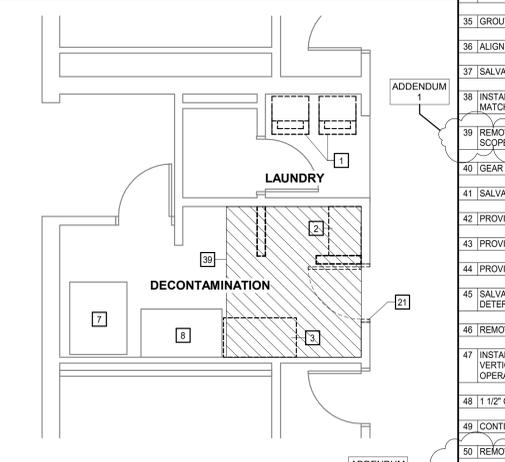
8 DINING RCP - NEW
 A2.2 1/4" = 1'-0"



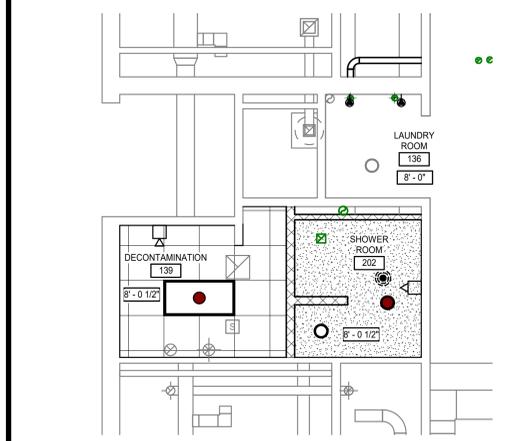
5 DINING - NEW
 A2.2/A2.2 1/4" = 1'-0"



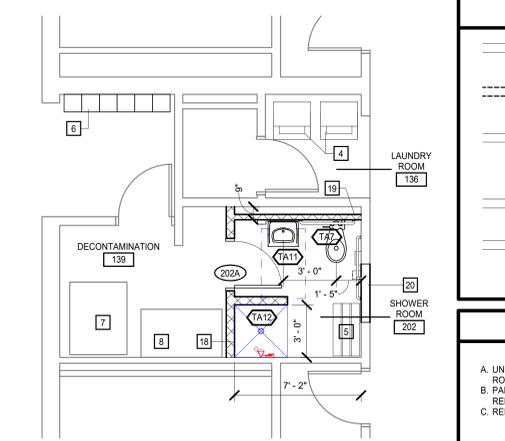
7 SHOWER RCP - DEMO
 A2.2 1/4" = 1'-0"



3 SHOWER - DEMO
 A2.2/A2.2 1/4" = 1'-0"



6 SHOWER RCP - NEW
 A2.2/A2.2 1/4" = 1'-0"



4 SHOWER - NEW
 A2.2/A2.2 1/4" = 1'-0"



STRUCTURAL ABBREVIATIONS

AB	ANCHOR BOLT	HS	HIGH STRENGTH
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	HSS	HOLLOW STRUCTURAL SECTION
AFF	ABOVE FINISHED FLOOR	HT	HEIGHT
ALUM	ALUMINUM	IN	INCH
APPROX	APPROXIMATE	INFO	INFORMATION
ARCH	ARCHITECTURAL ARCHITECT	INT	INTERIOR
AVG	AVERAGE	JBE	JOIST BEARING ELEVATION
BLDG	BUILDING	JS	JOIST SUBSTITUTE
BMC	BEAM	JST	JOIST
BM	BUILDING MOUNTED CANOPIES	JT	JOINT
BOT	BOTTOM	K	KIP
BRG	BEARING	LBS	POUNDS
BTWN	BETWEEN	LF	LINEAR FEET (FOOT)
CANT	CANTILEVER	LLH	LONG LEG HORIZONTAL
CFSE	COLD FORMED STEEL FRAMING	LLV	LONG LEG VERTICAL
CIP	CAST IN PLACE	M	METERS(S)
CJ	CONTROL JOINT	MAS	MASONRY
CLG	CEILING	MATL	MATERIAL
CLR	CLEAR	MAX	MAXIMUM
CMU	CONCRETE MASONRY UNIT	MECH	MECHANICAL
COL	COLUMN	MFR	MANUFACTURER
CONC	CONCRETE	MIN	MINIMUM
CONN	CONNECTION	MM	MILLIMETER(S)
CONSTR	CONSTRUCTION	NOM	NOMINAL
CONT	CONTINUOUS	NS	NON SHRINK
CTR	CENTER	OC	ON CENTER
DBA	DEFORMED BAR ANCHOR	OD	OUTSIDE DIAMETER
DBL	DOUBLE	OFCD	OWNER FURNISHED CONTRACTOR INSTALLED
DIA	DIAMETER	OPNG	OPENING
DIAG	DIAGONAL	OPPOSITE	OPPOSITE
DIM	DIMENSION	PP CONC	PRECAST CONCRETE
DN	DOWN	PEMB	PRE-ENGINEERED METAL BUILDING
DWG	DRAWING	PFBC	PRE-FABRICATED BUILDING COLUMN
EA	EACH	PLF	POUNDS PER LINEAR FOOT
EJ	EACH FACE	POLY	POLYETHYLENE
EF	EXPANSION JOINT	PPT	PRESSURE PRESERVATIVE TREATED
EL	ELEVATION	PSF	POUNDS PER SQUARE FOOT
ELECT	ELECTRICAL	R	RADIUS
ELEV	ELEVATOR	RD	ROOF DRAIN
EOS	EDGE OF DECK	REF	REFERENCE
EDS	EDGE OF SLAB	REINF	REINFORCING, REINFORCED
EQ	EQUAL	REQD	REQUIRED
EW	EACH WAY	SIM	SIMILAR
EX	EXISTING	SLOPE	SLOPE
EXP	EXPANSION	SOG	SLAB ON GRADE
EXT	EXTERIOR	SPA	SPACES
FD	FLOOR DRAIN	SS	STAINLESS STEEL
FDN	FOUNDATION	STD	STANDARD
FF	FINISHED FLOOR	STIFF	STIFFENER
FIN	FINISHED	STRUCT	STRUCTURAL
FLR	FLOOR	SUSP	SUSPENDED
FOB	FACE OF BRICK	SYM	SYMMETRICAL
FOC	FACE OF CONCRETE	T&B	TOP AND BOTTOM
FOM	FACE OF MASONRY	T&G	TONGUE AND GROOVE
FRMG	FRAMING	TF	TRANSFER FORCE
FRT	FIRE RETARDANT TREATED	TOP OF CONCRETE	
FT	FOOT	TOP OF STEEL	
FTG	FOOTING	TOSL	TOP OF SLAB
GA	GAGE	TOW	TOP OF WALL
GALV	GALVANIZED	TYP	TYPICAL
GB	GRADE BEAM	UNO	UNLESS NOTED OTHERWISE
GC	GENERAL CONTRACTOR	VB	VAPOR BARRIER
GRD	GRADE	VERT	VERTICAL
HD	HEADED	VR	VAPOR RETARDER
HK	HOOK	WPT	WORK POINT
HORIZ	HORIZONTAL	WWF	WELDED WIRE FABRIC

DESIGN LOAD DATA

1. CLASSIFICATION OF BUILDING RISK CATEGORY (IBC TABLE 1604.5)	IV
2. FLOOR LIVE LOADS	UNIFORM CONCENTRATED
LOBBIES AND FIRST FLOOR CORRIDORS	100 PSF 2000 LB
CONCENTRATED LOAD APPLIED OVER 2'-6" x 2'-6" AREA	
3. ROOF LIVE LOADS	JOIST
MINIMUM ROOF LIVE LOAD	20 PSF 300 LB
CONCENTRATED LOAD APPLIED OVER 2'-6" x 2'-6" AREA	
4. SUPERIMPOSED DEAD LOADS	ROOF
20 PSF	
5. ROOF SNOW LOAD	MATERIAL
GROUND SNOW LOAD (Pg)	25 PSF
IMPORTANCE FACTOR (Is)	1.2
EXPOSURE FACTOR (Ce)	1.0
THERMAL FACTOR (Ct)	1.0
FLAT ROOF SNOW LOAD (Pf = 0.7 x Ce x Ct x Is x Pg)	24 PSF
NOMINAL MINIMUM Pf FOR Pg > 20 PSF	24 PSF
NON SHRINK P/100 = 20 x I	24 PSF
SLOPED ROOF SNOW LOAD (Ps = Cs x Pf)	21 PSF

6. THE ABOVE LOADS ARE BASED ON IBC 2015 VUBSBC AND ARE INCLUDED SOLELY FOR THE PURPOSED OF MECHANICAL EQUIPMENT SUPPORT FROM EXISTING ROOF STRUCTURE AND FOR DESIGN/VERIFICATION THAT THE EXISTING STRUCTURE CAN SUPPORT ADDED LOADINGS.

7. WIND AND SEISMIC LOADS HAVE NOT BEEN INCLUDED IN THE DESIGN DATA INFORMATION AS THE RENOVATION IS NOT CHANGING THE ORIGINAL EXISTING STRUCTURE LATERAL FORCE SYSTEM.

GENERAL

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC), 2015 EDITION, EFFECTIVE SEPTEMBER 4, 2018.
- THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND THE DRAWINGS OF THE OTHER ENGINEERING DISCIPLINES.
- THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL, IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
- VERIFY AND COORDINATE MECHANICAL UNIT SUPPORTS AND OPENINGS WITH EQUIPMENT PURCHASED FOR THE PROJECT. COORDINATE REQUIREMENTS FOR SLEEVES, HANGERS, INSERTS, ANCHORS AND ALL OTHER ITEMS TO BE SET IN STRUCTURAL WORK.
- SPECIAL INSPECTIONS ARE REQUIRED BY THE USBC (SECTION 1704) FOR FIRE STATION #2. REFER TO THE STATEMENT OF SPECIAL INSPECTIONS PREPARED FOR THIS PROJECT AND THE PROJECT SPECIFICATIONS FOR SPECIFIC INSPECTION REQUIREMENTS.

ADDENDUM 1

CONCRETE

- REFER TO DRAWING SS 0.1 FOR REINFORCING BAR LAP LENGTHS.
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE".
- CONCRETE SHALL BE NORMAL WEIGHT TYPE II, WITH ASTM C618 FLY ASH OR ASTM C686 GRADE 100 OR 120 GROUND GRANULATED BLAST-FURNACE SLAG. ASTM C33 NORMAL WEIGHT 7" NOMINAL MAXIMUM COURSE AGGREGATE. ASTM C330 LIGHT WEIGHT AGGREGATE 3/4" NOMINAL MAXIMUM AGGREGATE SIZE. FINE AGGREGATE FREE OF DELTERIOUS REACTIVITY TO ALKALI CEMENT. ASTM C64 POTABLE WATER. AND SHALL OBTAIN ULTIMATE 28 DAY COMPRESSIVE STRENGTHS (F'c) AND HAVE SLUMP AND WATER/CEMENT RATIO, AS FOLLOWS:
 - FOOTINGS: 3000 PSI - 5 INCH PLUS OR MINUS 1 INCH SLUMP - MAX WATER/CEMENT = 0.56
 - SLAB-ON-GRADE: 3500 PSI - 5 INCH PLUS OR MINUS 1 INCH SLUMP - MAX WATER/CEMENT = 0.52
- ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED 6% +/-1%.
- REINFORCING STEEL SHALL BE AS FOLLOWS:
 - REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED
 - WELDED WIRE FABRIC: ASTM A1064, SHEET TYPE ONLY
 - WELDED REINFORCING BARS: ASTM A706 LOW ALLOY STEEL REINFORCING BARS, DEFORMED
 - DEFORMED BAR ANCHORS (DBA): ASTM A1064, DEFORMED
 - WELDING PER AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL
- MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE UNO:
 - UNFORMED SURFACE CAST AGAINST EARTH: 3 IN
 - FORMED SURFACE EXPOSED TO EARTH/WEATHER: 2 IN
 - FORMED SLABS AND WALLS NOT EXPOSED TO EARTH/WEATHER FOR #1 AND SMALLER BAR: 3/4 IN
 - ALL OTHER FORMED ELEMENTS NOT EXPOSED TO EARTH/WEATHER: 1 1/2 IN

6. CONTRACTOR SHALL SUBMIT MIX DESIGNS FOR EACH CONCRETE MIXTURE. CONTRACTOR SHALL SUBMIT ALTERNATE DESIGN MIXTURES WHEN CHARACTERISTICS OF MATERIALS, PROJECT CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT ADJUSTMENTS.

7. CONTRACTOR SHALL SUBMIT STEEL REINFORCEMENT SHOP DRAWINGS FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE THE BAR SIZE, LENGTHS, MATERIAL, GRADE, BAR SCHEDULES, STRIPUP SPACING, BENT BAR DIAGRAMS, BAR ARRANGEMENT, SPICES AND LAPS, TIE SPACING, HOOP SPACING, AND SUPPORTS FOR CONCRETE REINFORCEMENT.

8. CONTRACTOR SHALL SUBMIT MATERIAL CERTIFICATES FOR EACH OF THE FOLLOWING, SIGNED BY MANUFACTURER:

- CEMENTITIOUS MATERIALS
- ADMIXTURES
- PLYWOOD FORM MATERIALS AND COMMERCIALY FORMULATED FORM-RELEASE AGENTS
- STEEL REINFORCEMENT AND ACCESSORIES
- FIBER REINFORCEMENT
- CURING COMPOUNDS
- BONDING AGENTS ASTM C 1059/C 1059M, TYPE II, NON-REDISPERSIBLE, ACRYLIC EMULSION OR STYRENE BUTADIENE
- ADHESIVES
- VAPOR BARRIER: A 15 MIL VAPOR BARRIER WITH A WATER VAPOR TRANSMISSION RATE (WVTR) OF 0.008 GRAINS-H2O FT. OR LOWER WHEN TESTED IN ACCORDANCE WITH ASTM E 96, MEETING OR EXCEEDING THE REQUIREMENT OF ASTM E 1745 CLASS A AND WHEREIN THE VAPOR BARRIER COMPONENT (STD) IS NO LESS THAN 10 MILS THICK PER ACI 302.1 R-96, AND CONSISTS OF MULTI-LAYER EXTRUDED VIRGIN POLYOLEFIN PLASTIC, UNGRADED POLYETHYLENE SHEET IS NOT ACCEPTABLE. INCLUDE COMPANION JOINT TAPE, MASTIC, AND ACCESSORY MATERIALS
- LAP JOINTS AND SEAL TO VERTICAL INTERUPTIONS/ELEMENTS, INCLUDING FOUNDATION WALLS, COLLUMNS, AND UTILITIES, AND REPAIR DAMAGE PER MANUFACTURERS APPROVED PRINTED INSTRUCTIONS.
- ISOLATION JOINT-FILLER STRIP: ASTM D 1751, PRE-FORMED ASPHALT-SATURATED CELLULOSIC FIBER, WITH SCORED TOP STRIP TO FACILITATE INSTALLATION OF SEALANT. THICKNESS SHALL BE 1/4" UNLESS OTHERWISE INDICATED
- EXPANSION JOINT FILLER STRIP: PRE-FORMED SCORED CELL POLYETHYLENE FOAM WITH PRESSURE SENSITIVE ADHESIVE, AND SCORED TOP STRIP TO FACILITATE INSTALLATION OF SEALANT. THICKNESS SHALL BE 1/2" UNCH UNLESS OTHERWISE INDICATED
- BAR SUPPORTS - BOLSTERS AND CHAIRS
- REPAIR MATERIALS

9. CONTRACTOR SHALL PREPARE, CLEAN AND INSTALL JOINT FILLER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. DO NOT FILL JOINTS UNTIL CONSTRUCTION TRAFFIC HAS PERMANENTLY CEASED. REMOVE DIRT, DEBRIS, SAW CUTTINGS, CURING COMPOUNDS, AND SEALERS FROM JOINTS. LEAVE CONTACT FACES OF JOINT CLEAN AND DRY.

10. CONTRACTOR SHALL PLACE AND SECURE ANCHOR RODS, ACCURATELY LOCATED, TO ELEVATIONS REQUIRED AND COMPLYING WITH TOLERANCES IN SECTION 7.5 OF AISCS' CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

11. SOURCE LIMITATIONS: OBTAIN EACH TYPE OR CLASS OF CEMENTITIOUS MATERIAL OF THE SAME BRAND FROM THE SAME MANUFACTURER'S PLANT, OBTAIN AGGREGATE FROM SINGLE SOURCE, AND OBTAIN ADMIXTURES FROM SINGLE SOURCE FROM SINGLE MANUFACTURER.

12. THE OWNER SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM MATERIAL EVALUATION TESTS AND TO DESIGN CONCRETE MIXTURES.

13. CONTRACTOR SHALL NOTIFY OWNERS TESTING AGENT TO PERMIT INSPECTION IF SUB-BASE A MINIMUM OF 24 HOURS PRIOR TO PLACEMENT OF REINFORCING STEEL AND CONCRETE. CONTRACTOR SHALL NOTIFY OWNERS TESTING AGENT TO PERMIT INSPECTION OF REINFORCING STEEL A MINIMUM OF 24 HOURS PRIOR TO PLACEMENT OF CONCRETE.

14. TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:

- TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF.
- SLUMP: ASTM C 143, ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
- AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE. ASTM C 173, VOLUMETRIC METHOD, FOR STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
- CONCRETE TEMPERATURE: ASTM C 1064, ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW AND WHEN 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.
- UNIT WEIGHT: ASTM C 567, FRESH UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
- COMPRESSION TEST SPECIMENS: ASTM C 31:
 - CAST AND LABORATORY CURE ONE SET OF FIVE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
- COMPRESSION-STRENGTH TESTS: ASTM C 39; TEST ONE SET OF TWO SPECIMENS AT 7 DAYS AND ONE SET OF TWO SPECIMENS AT 28 DAYS. HOLD ONE SPECIMEN IN RESERVE FOR 56 DAY TEST.
 - A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.
- STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI.

15. REPAIR MATERIALS:

- REPAIR UNDERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN THICKNESSES FROM 1/8 INCH AND THAT CAN BE FEATHERED AT EDGES TO MATCH ADJACENT FLOOR ELEVATIONS.
 - CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
 - PRIMER: PRODUCT OF UNDERLAYMENT MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
 - AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH OR COARSE SAND AS RECOMMENDED BY UNDERLAYMENT MANUFACTURER.
 - COMPRESSIVE STRENGTH: NOT LESS THAN 4100 PSI AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109.
- REPAIR OVERLAYMENT: CEMENT-BASED, POLYMER-MODIFIED, SELF-LEVELING PRODUCT THAT CAN BE APPLIED IN THICKNESSES FROM 1/4 INCH AND THAT CAN BE FILLED IN OVER A SCARIFIED SURFACE TO MATCH ADJACENT FLOOR ELEVATIONS.
 - CEMENT BINDER: ASTM C 150, PORTLAND CEMENT OR HYDRAULIC OR BLENDED HYDRAULIC CEMENT AS DEFINED IN ASTM C 219.
 - PRIMER: PRODUCT OF TOPPING MANUFACTURER RECOMMENDED FOR SUBSTRATE, CONDITIONS, AND APPLICATION.
 - AGGREGATE: WELL-GRADED, WASHED GRAVEL, 1/8 TO 1/4 INCH OR COARSE SAND AS RECOMMENDED BY TOPPING MANUFACTURER.
 - COMPRESSIVE STRENGTH: NOT LESS THAN 5000 PSI AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C 109.

16. CONTRACTOR TO APPLY TROWEL FINISH AFTER FLOAT FINISH. CONSOLIDATE SURFACE BY HAND FLOATING THEN CONSOLIDATE CONCRETE BY HAND OR POWER-DRIVEN TROWEL. CONTINUE TROWELING PASSES UNTIL SURFACE IS FREE OF TROWEL MARKS AND UNIFORM IN TEXTURE AND APPEARANCE. GRIND SMOOTH OF DEFECTS THAT WOULD TELEGRAPH THROUGH APPLIED FLOORING.

STRUCTURAL STEEL

- ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING AISC DOCUMENTS:
 - AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
 - AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
 - RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS"
- STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:
 - WIDE FLANGE SHAPES AND ANGLES: ASTM A992 (FY=50 KSI)
 - MISCELLANEOUS SHAPES, PLATES & BARS (TO 8" THICK): ASTM A36 (FY=36 KSI)
 - HOLLOW STRUCTURAL SECTIONS (HSS):
 - SQUARE & RECTANGLE: ASTM A500, GRADE C (FY=50 KSI)
 - ROUND: ASTM A500 GRADE C (FY=46 KSI)
 - HIGH STRENGTH BOLTS (CONVENTIONAL): ASTM F1554 GRADE A525 OR A590 (TYPE 1)
 - WASHERS: ASTM F438 (FL) AND REVELED
 - HEAVY HEX NUTS: ASTM A563
 - ANCHOR RODS: ASTM F1554, GRADE 55 INCLUDE SUPPLEMENT S1
 - WELDING ELECTRODES: AWS D1.1 CLAUSE 7, TYPE B (FY=51 KSI)
 - HEADED SHEAR STUDS: ASTM A308
 - THREADED ROD: ASTM A308

3. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, AS SIMPLE CONNECTIONS USING ALLOWABLE STRENGTH DESIGN (ASD). CONNECTIONS FOR NON-COMPOSITE BEAMS SHALL BE DESIGNED FOR THE UNIFORM LOAD CAPACITY INDICATED IN THE ALLOWABLE UNIFORM LOAD TABLES, PART 3, OF THE AISC MANUAL. CONNECTIONS FOR COMPOSITE STEEL BEAMS SHALL BE DESIGNED FOR THE REACTIONS INDICATED ON THE PLANS.

4. BOLTED JOINTS SHALL BE "SNUG TIGHTENED", UNLESS OTHERWISE INDICATED.

5. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL".

6. WHERE STRUCTURAL STEEL IS EXPOSED BELOW GRADE, PROVIDE MINIMUM 3" CONCRETE COVER OR COAT WITH BITUMINOUS MASTIC.

7. STRUCTURAL STEEL EXPOSED TO WEATHER IN THE FINISHED WORK SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS NOTED OTHERWISE.

CONCRETE MASONRY (CMU)

1. ALL MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF TMS 602 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES WITH COMMENTARY" AND TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES WITH COMMENTARY".

2. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F'm) SHALL BE 2000 PSI, DETERMINED IN ACCORDANCE WITH THE UNIT STRENGTH METHOD PER TMS 602, UNLESS NOTED OTHERWISE.

3. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90, AND SHALL BE MADE WITH LIGHTWEIGHT AGGREGATE.

4. MORTAR FOR CMU SHALL CONFORM TO ASTM C270, TYPE S, UNLESS NOTED OTHERWISE.

5. GROUT SHALL CONFORM TO ASTM C476 AND SHALL BE PROPORTIONED TO OBTAIN MINIMUM ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.

6. PLACE GROUT IN ACCORDANCE WITH TMS 602. ALLOW A MINIMUM OF 24 HOURS FOR MASONRY TO SET PRIOR TO PLACING GROUT.

7. FILL COLLAR JOINTS OF COMPOSITE WALLS SOLID WITH MORTAR AS THE WALLS PROGRESS. BOND WYTHES OF COMPOSITE WALLS TOGETHER USING HORIZONTAL JOINT REINFORCING @ 16" ON CENTER, UNLESS NOTED OTHERWISE.

8. PROVIDE VERTICAL REINFORCING STEEL OF SIZE AND SPACING INDICATED. LAP SPLICED LENGTHS SHALL BE AS FOLLOWS:

#4 BAR AND SMALLER	26 INCHES
#5 BAR	34 INCHES
#6 BAR	38 INCHES
#7 BAR	45 INCHES

9. PROVIDE POSITIONERS TO HOLD VERTICAL WALL REINFORCING STEEL IN PROPER ALIGNMENT.

10. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60.

11. MASONRY WALLS OF HOLLOW UNITS WHICH CHANGE THICKNESS SHALL HAVE A CONTINUOUS SOLID OR GROUT FILLED COURSE BELOW THE TRANSITION. IF WALL THICKNESS IS GREATER ABOVE THE TRANSITION, THE COURSE ABOVE THE TRANSITION SHALL ALSO BE GROUTED SOLID.

12. FILL CMU CELLS WITH GROUT FROM TOP OF FOOTING TO TOP OF SLAB-ON-GRADE ELEVATION.

13. MASONRY WALL CONTROL JOINTS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS AND DETAILS. COORDINATE JOINT LOCATIONS TO AVOID BEAM BEARING LOCATIONS AND SHEAR WALLS. DO NOT BREAK BOND BEAM REINFORCEMENT AT CONTROL JOINTS.

FIBER REINFORCING

1. SYNTHETIC MACRO-FIBER REINFORCING MAY BE SUBSTITUTED FOR WELDED WIRE FABRIC IN SLAB ON GRADE AND IN SLAB ON COMPOSITE STEEL FLOOR DECK.

2. DOSAGE RATE SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.

3. FIBER SHALL BE ADDED AT THE CONCRETE BATCH PLANT.

4. FIBER SHALL BE INCLUDED IN THE CONCRETE MIX DESIGNS SUBMITTED FOR REVIEW.

COLD FORMED STEEL FRAMING

- ALL STRUCTURAL COLD FORMED STEEL FRAMING (CFSE) SHALL COMPLY WITH AISI'S "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
- CFSE-NS (NON-STRUCTURAL) INCLUDES INTERIOR NON-LOAD BEARING STUD WALLS AND SUSPENDED CEILING FRAMING SYSTEM. REFER TO SECTION 092216 FOR ADDITIONAL INFORMATION.
- ALL FRAMING MEMBERS, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL SHEET HAVING A GALVANIZED COATING IN ACCORDANCE WITH ASTM A653.
- ALL C- SHAPED FRAMING MEMBERS SHALL HAVE A MINIMUM FLANGE WIDTH OF 1 5/8 INCHES.
- MINIMUM YIELD STRENGTH SHALL BE AS FOLLOWS:
 - FY = 33,000 PSI 18 GAUGE AND 20 GAUGE
 - FY = 50,000 PSI 16 GAUGE, 14 GAUGE AND 12 GAUGE

POST INSTALLED ANCHORS & DOWELS

1. INSTALL ALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED PROCEDURES AT NOT LESS THAN THE MINIMUM EDGE DISTANCES INDICATED IN THE MANUFACTURER'S LITERATURE. SUBMIT MANUFACTURER'S PRODUCT DATA FOR REVIEW BY THE ARCHITECT.

2. ALL ANCHORS (INCLUDING THREADED RODS, NUTS, WASHERS) SHALL BE ZINC PLATED IN ACCORDANCE WITH ASTM B633, FOR SERVICE CONDITION SC-1.

3. SCREW ANCHORS SHALL BE ONE OF THE FOLLOWING:

- SCREW BOLT + BY SIMPSON STRONG-TIE ANCHORING SYSTEMS
- TITEN HD, BY SIMPSON STRONG-TIE ANCHORING SYSTEMS
- KWIK HUS-EZ, BY HILTI

HOLE DIAMETER THROUGH STEEL MEMBER SHALL BE 1/8" INCH LARGER THAN NOMINAL DIAMETER OF ANCHOR.

MINIMUM SCREW ANCHOR EMBEDMENTS SHALL BE AS FOLLOWS, UNO:

- 4" EMBEDMENT FOR 1/2" DIAMETER ANCHOR
- 6" EMBEDMENT FOR 5/8" DIAMETER ANCHOR
- 8" EMBEDMENT FOR 3/4" DIAMETER ANCHOR

4. ADHESIVE ANCHORS SHALL CONSIST OF THREADED ROD (ASTM A36), HEX NUT (ASTM A563), WASHER (ASTM F436), AND ADHESIVE (TYPE PER NOTES A, B OR C BELOW).

ADHESIVE DOWELS SHALL CONSIST OF DEFORMED REINFORCING BAR (ASTM A615, GRADE 60) AND ADHESIVE (TYPE PER NOTE A BELOW)

A. "ADHESIVE ANCHORS" OR "ADHESIVE DOWELS" INSTALLED IN SOLID CONCRETE SHALL UTILIZE ONE OF THE FOLLOWING ADHESIVE SYSTEMS, OR APPROVED EQUAL:

HYBRID (FAST CURE)

AC208+ BY DEWALT
ACRYLIC-TIE XP, BY SIMPSON STRONG-TIE ANCHORING SYSTEMS
HIT-HY 200, BY HILTI

EPOXY (SLOW CURE)

PUFURE 110+, BY DEWALT
SET-XP, BY SIMPSON STRONG-TIE ANCHORING SYSTEMS
HIT RE 500-V EPOXY ADHESIVE, BY HILTI

B. "ADHESIVE ANCHORS" INSTALLED IN SOLID GROUT FILLED CMU SHALL UTILIZE ONE OF THE FOLLOWING ADHESIVE SYSTEMS, OR APPROVED EQUAL:

HIT-HY 270, BY HILTI
AC 100+ GOLD, BY DEWALT
ACRYLIC-TIE, BY SIMPSON STRONG-TIE ANCHORING SYSTEMS

C. "SCREEN TUBE ANCHORS" INSTALLED IN HOLLOW CMU SHALL UTILIZE ONE OF THE FOLLOWING ADHESIVE SYSTEMS, OR APPROVED EQUAL:

HIT-HY 270, BY HILTI
AC 100+ GOLD, BY DEWALT
ACRYLIC-TIE, BY SIMPSON STRONG-TIE ANCHORING SYSTEMS

RENOVATION

1. EXISTING CONSTRUCTION INDICATED ON THE STRUCTURAL DRAWINGS IS BASED ON INFORMATION OBTAINED FROM THE ORIGINAL DESIGN DRAWINGS AND ON LIMITED OBSERVATIONS OF EXISTING CONDITIONS. THIS INFORMATION, INCLUDING STRUCTURAL COMPONENT TYPE, SIZE AND ORIENTATION HAS NOT BEEN CONFIRMED IN ALL CASES, AND MAY NOT MATCH AS-BUILT EXISTING CONSTRUCTION. ALL EXISTING CONDITIONS AND DIMENSIONS RELATING TO THE PROPOSED NEW WORK SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION OF STRUCTURAL ELEMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

2. EXISTING CONSTRUCTION IS INDICATED USING A LIGHTER LINE WEIGHT THAN PROPOSED NEW CONSTRUCTION IN PLANS AND SECTIONS.

TEMPORARY SHORING

1. PROVIDE TEMPORARY SHORING AND BRACING TO MAINTAIN THE EXISTING STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT CON