



MANATEE COUNTY SHERIFF'S DESOTO CENTER

Building Code Analysis

SITE FACTORS			
ZONING:	R&F-1		
REQUIRED SETBACKS TO PROPERTY LINES:	(F) N/A (R) N/A (L6) N/A (R6) N/A (FEET)		
Maximum Height (Stories/Feet)	4/55		
PROPOSED Height (Stories/Feet)	2/25		
FAR Maximum	N/A		
PROPOSED FAR	N/A		
BUILDING FACTORS			
CLASSIFICATION OF BUILDING BY OCCUPANCY:	BUSINESS (B)		
CLASSIFICATION OF BUILDING BY CONSTRUCTION TYPE:	III-B , LEVEL 2 ALTERATION 20,840 s.f.		
SPRINKLERED:	YES		
THRESHOLD BUILDING:	NO		
FLOOD ZONE:	A-10		
BASE FLOOD ELEVATION:	10.0		
CODES IN EFFECT and YEAR:	2001 FLORIDA BUILDING CODE with 2009 AMENDMENTS		
	2008 NEC		
	2001 FLORIDA FIRE PREVENTION CODE		
BUILDING HEIGHT & AREA / AREA MODIFICATION (FBC TABLE 503)			
BUILDING HEIGHT (ALLOWABLE / ACTUAL)	55' / 25'		
NUMBER OF STORIES (ALLOWABLE / ACTUAL)	4 / 2		
MAXIMUM ALLOWABLE FLOOR AREA PER STORY:	19,000 SF x 200% = 38,000		
ACTUAL FLOOR AREA per FLOOR:	98,426 ± SF. PER FLOOR		
FLOOR AREA ENTIRE BUILDING:	132,442 ± SF TOTAL		
AREA MODIFICATIONS (FBC SECTION 506):	N/A		

SCOPE OF WORK

Scope of work consists of renovating a portion of the existing interior to create Evidence Storage Expansion. Work also includes installation of Generator backup, addition of storm / security shutters over storefront system, relocation of fence and repair work to ADA ramps at rear entrances. A T.C.O. will be obtained before the existing evidence space demolition occurs.

FIRE RESISTANCE RATING OF BUILDING COMPONENTS AND PERCENTAGE OF OPENINGS (FBC TABLES 601 AND 602)			
HORIZONTAL SEPARATION FROM PROPERTY LINES AND/OR BUILDINGS: (F) 299'± (R) 35'± (L6) 54'± (R6) 35'± FEET			
STRUCTURAL FRAME (INCLUDING COLUMNS, GIRDERS AND TRUSSES):	0 HOUR		
EXTERIOR BEARING WALL RATING REQUIREMENTS:	0 HOUR		
EXTERIOR NON-BEARING WALL RATING REQUIREMENTS:	0 OR 1 HOUR		
	TABLE 602 WHERE DISTANCE IS LESS THAN 10 FEET TO EAST PROPERTY LINE		
INTERIOR BEARING WALL RATING REQUIREMENTS:	0 HOUR		
INTERIOR NON-BEARING WALL RATING REQUIREMENTS:	0 HOUR		
FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS):	0 HOUR		
ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS):	0 HOUR		
EXIT ACCESS ENCLOSURES / CORRIDORS (Table 1011):	0 HOUR		
EXIT ENCLOSURES / STAIRS:	N/A - SECT 1014		
TENANT SEPARATION (FBC 108.11 EXCEPTION 1):	1 HOUR		
MAXIMUM ALLOWABLE EXIT ACCESS TRAVEL DISTANCE (Table 1016.1):	300 FEET - BUSINESS		
STANDPIPE SYSTEM (FBC 905.1)	n/a		
PERCENTAGE OF ALLOWABLE OPENINGS (UNPROTECTED): (F) NL (R) NL (L6) NL (R6) NL			%
(PROTECTED): (F) NL (R) NL (L6) NL (R6) NL			%
PERCENTAGE OF PROVIDED OPENINGS (UNPROTECTED): (F) NL (R) NL (L6) NL (R6) NL			%
(PROTECTED): (F) 0 (R) 0 (L6) 0 (R6) 0			%
DESIGN LOADS AND STRESSES (FBC Table 1601.1)			
ROOF: LIVE LOAD: 20 P&F DEAD LOAD: 35 P&F ROOF SLOPE: FLAT			
FLOOR: LIVE LOAD: 100 P&F (50 min) DEAD LOAD: 65 P&F			
CORRIDORS: LIVE LOAD: 100 P&F (80 min above 1st floor)			
BALCONIES: LIVE LOAD: N/A			
WIND LOAD: VELOCITY:	130 MPH		
WIND EXPOSURE CATEGORY:	C		
IMPORTANCE FACTOR:	1.0		
ENCLOSURE CLASSIFICATION (OPEN, ENCLOSED):	ENCLOSED		
INTERNAL PRESSURE COEFFICIENT: G.C.F.I.:	+0.18 / -0.18		
COMPONENTS & CLADDING, DESIGN WIND PRESSURE:	N/A, LEVEL 2 INTERIOR ALTERATION		
	N/A, LEVEL 2 INTERIOR ALTERATION		
	N/A, LEVEL 2 INTERIOR ALTERATION		
SOIL BEARING CAPACITY:			

Index Of Drawings

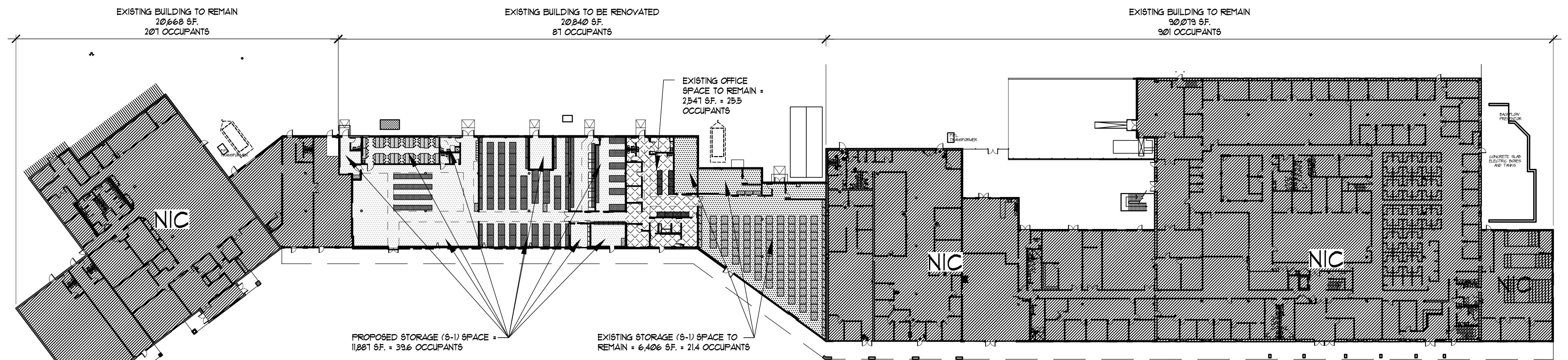
ARCHITECTURAL		ELECTRICAL	
T-1	COVER SHEET & AERIAL WITH LIMITS OF RENOVATION	E-10	ELECTRICAL LEGEND & GENERAL NOTES
SP-1	EXISTING SITE PLAN	E-21	ELECTRICAL DEMOLITION - WEST
D-3.1	PARTIAL EXISTING FLOOR PLAN WITH DEMOLITION	E-22	ELECTRICAL DEMOLITION - EAST
D-3.2	PARTIAL EXISTING FLOOR PLAN WITH DEMOLITION	E-31	LIGHTING PLAN - WEST
A-0.0	ARCHITECTURAL NOTES	E-32	LIGHTING PLAN - EAST
A-1.0	LIFE SAFETY PLAN	E-41	POWER AND SYSTEMS PLAN - WEST
A-3.1	PARTIAL PROPOSED FLOOR PLAN	E-42	POWER AND SYSTEMS PLAN - EAST
A-3.2	PARTIAL PROPOSED FLOOR PLAN	E-43	ROOF PLAN
A-4.1	DOOR, WINDOW, SHUTTER, AND FINISH SCHEDULES	E-51	EXISTING ONE-LINE RISER DIAGRAM
A-4.2	INTERIOR & TOILET ROOM ELEVATIONS	E-52	NEW ONE-LINE RISER DIAGRAM
A-9.1	SECTIONS	E-53	NEW ONE-LINE RISER DIAGRAM ALTERNATE 1 AND 2
A-9.2	SECTIONS	E-54	EXISTING AND NEW ONE-LINE RISER DIAGRAM OPTION 3
A-9.3	SECTIONS	E-6.1	GENERAL NOTES AND PENETRATION DETAILS
A-9.4	DETAILS	PE-10	PLUMBING AND ELECTRICAL SITE PLAN
MECHANICAL			
M-1.0	MECHANICAL LEGEND & GENERAL NOTES		
M-2.0	MECHANICAL DEMOLITION ROOF PLAN		
M-2.1	MECHANICAL NEW FLOOR PLAN - WEST		
M-2.2	MECHANICAL NEW FLOOR PLAN - EAST		
M-2.3	MECHANICAL ROOF PLAN		
M-3.0	MECHANICAL SCHEDULES		
M-4.0	MECHANICAL DETAILS		
M-5.0	MECHANICAL SPECIFICATIONS		
PLUMBING			
P-1.0	PLUMBING LEGEND & GENERAL NOTES		
P-2.0	PLUMBING FLOOR PLAN, SCHEDULES & DETAILS		
FIRE PROTECTION			
FA-1.0	ADDITION TO EXISTING ADDRESSABLE FIRE ALARM SYSTEM		
FP-1.0	FIRE PROTECTION LEGEND & GENERAL NOTES		
FP-2.0	FIRE PROTECTION DEMOLITION PLAN		
FP-2.1	FIRE PROTECTION NEW FLOOR PLAN - WEST		
FP-2.2	FIRE PROTECTION NEW FLOOR PLAN - EAST		
FP-2.3	FIRE PROTECTION DEMOLITION, NEW FLOOR PLAN AND DETAILS AT FIRE DEPARTMENT CONNECTION		

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

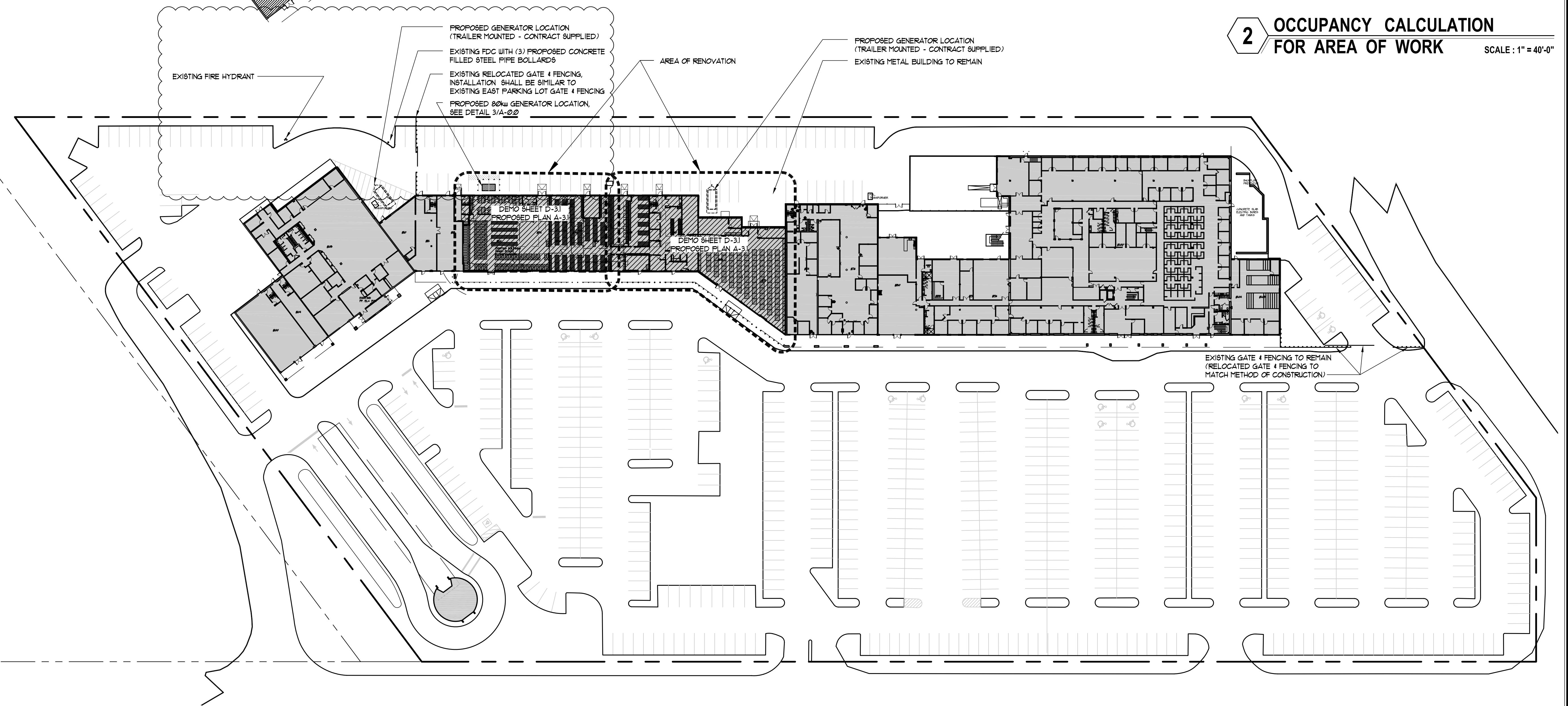
JERRY N. ZOLLER
 ARCHITECT / PLANNER
 AIA
 P.A.
 TEL: (941) 748-4465
 FL. REG. 5926

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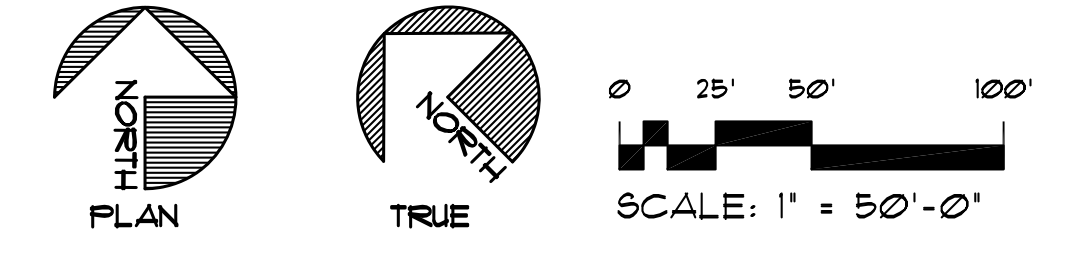
2 OCCUPANCY CALCULATION FOR AREA OF WORK SCALE: 1" = 40'-0"



PLUMBING FIXTURE REQUIRED / PROVIDED

OCCUPANCY CAT: BUSINESS	EVIDENCE STORAGE		SHERIFFS OFFICES		SUPERVISOR ELECTIONS		TOTAL	
	81	901	201	1195	81	901	201	1195
WC WOMEN	1	25	8.5	16	3	7.5	12.5	26
WC MEN	1	2.5	8.5	11	3	5.5	12.5	19
URINALS	0	0	0	11	0	2	0	13
LAVATORIES	2	5	13	25	3	15	16	39
DRINKING FOUNTAINS	1	2	10	8 + BOTTLED WATER	3	2 + BOTTLED WATER	12	12 + BOTTLED WATER
SERVICE SINKS	1	2	1	1	0	0	1	10
SHOWERS	0	1	0	4	0	0	0	5
DISHWASHERS	0	0	0	1	0	0	0	1

3 PLUMBING FIXTURE TABULATION



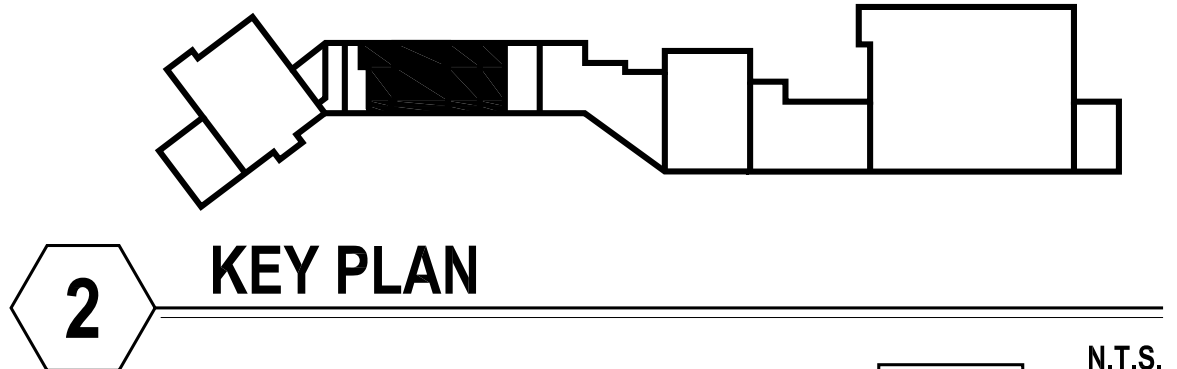
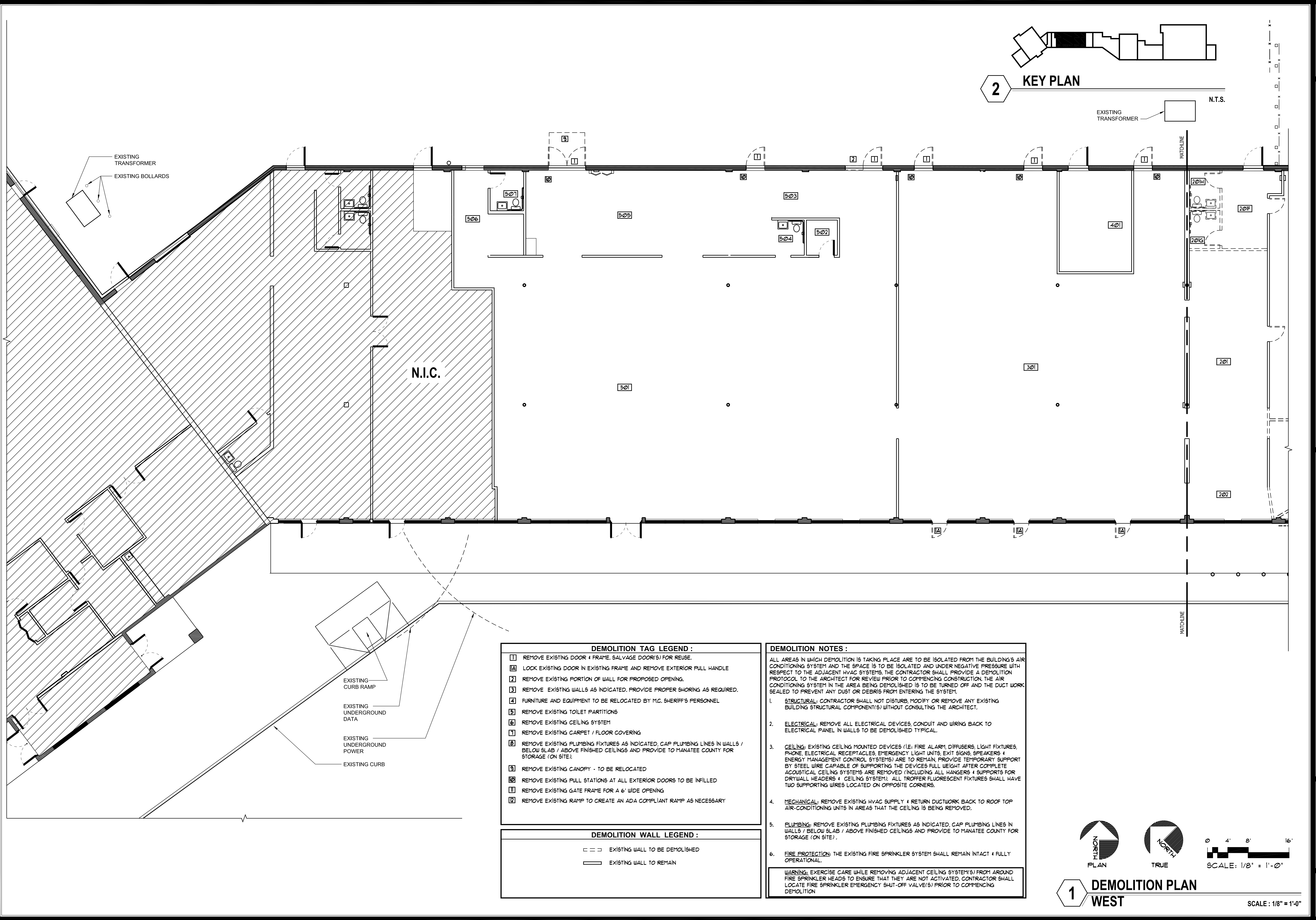
PID ADDRESS: 4835305105
600 US 301 BLVD WEST

1 ARCHITECTURAL SITE PLAN SCALE: 1" = 50'-0"

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 600 U.S. 301 BLVD. WEST

JERRY N. ZOLLER
AIA C000567
ARCHITECT / PLANNER
P.A.
 TEL: (941) 748-4465
 914 14th STREET W. BRADENTON, FL 34205
 FL. REG. 5926

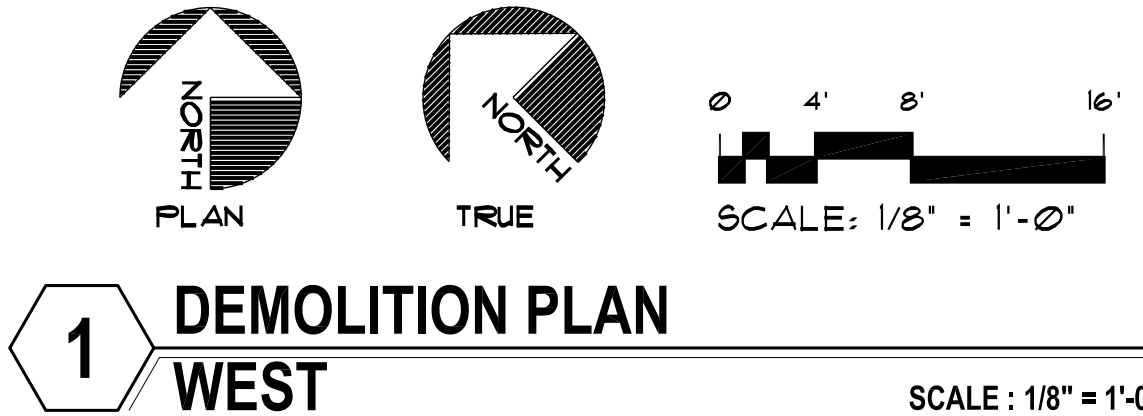
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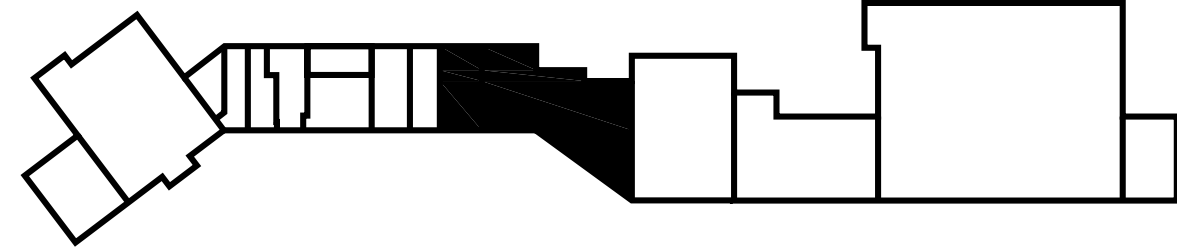


- DEMOLITION TAG LEGEND :**
- 1 REMOVE EXISTING DOOR & FRAME. SALVAGE DOOR(S) FOR REUSE.
 - 2 LOCK EXISTING DOOR IN EXISTING FRAME AND REMOVE EXTERIOR FULL HANDLE
 - 3 REMOVE EXISTING PORTION OF WALL FOR PROPOSED OPENING.
 - 4 REMOVE EXISTING WALLS AS INDICATED. PROVIDE PROPER SHORING AS REQUIRED.
 - 5 FURNITURE AND EQUIPMENT TO BE RELOCATED BY M.C. SHERIFF'S PERSONNEL
 - 6 REMOVE EXISTING TOILET PARTITIONS
 - 7 REMOVE EXISTING CEILING SYSTEM
 - 8 REMOVE EXISTING CARPET / FLOOR COVERING
 - 9 REMOVE EXISTING PLUMBING FIXTURES AS INDICATED. CAP PLUMBING LINES IN WALLS / BELOW SLAB / ABOVE FINISHED CEILINGS AND PROVIDE TO MANATEE COUNTY FOR STORAGE (ON SITE).
 - 10 REMOVE EXISTING CANOPY - TO BE RELOCATED
 - 11 REMOVE EXISTING PULL STATIONS AT ALL EXTERIOR DOORS TO BE INFILLED
 - 12 REMOVE EXISTING GATE FRAME FOR A 6' WIDE OPENING
 - 13 REMOVE EXISTING RAMP TO CREATE AN ADA COMPLIANT RAMP AS NECESSARY

- DEMOLITION WALL LEGEND :**
- EXISTING WALL TO BE DEMOLISHED
 - EXISTING WALL TO REMAIN

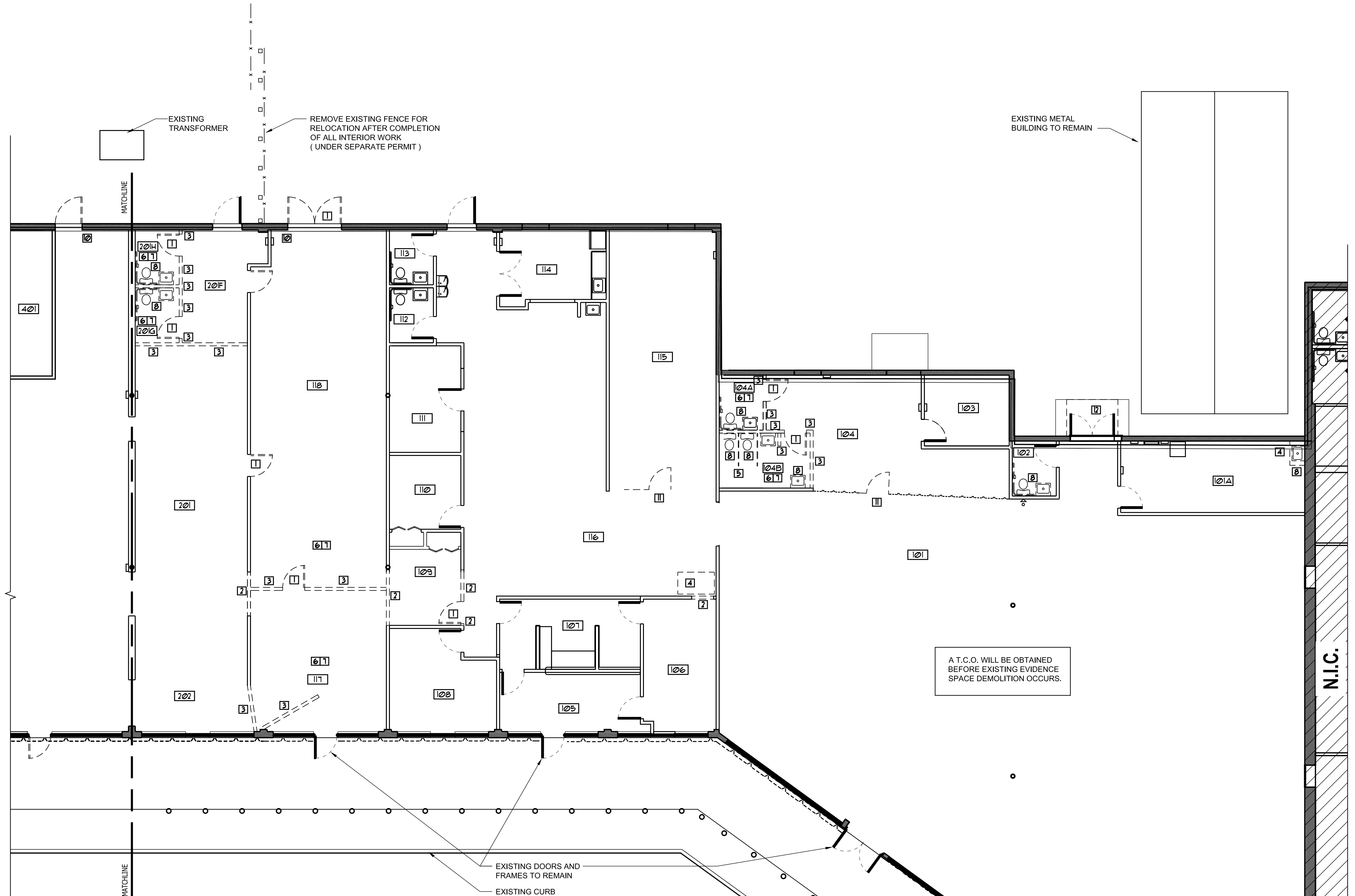
- DEMOLITION NOTES :**
1. **STRUCTURAL:** CONTRACTOR SHALL NOT DISTURB, MODIFY OR REMOVE ANY EXISTING BUILDING STRUCTURAL COMPONENT(S) WITHOUT CONSULTING THE ARCHITECT.
 2. **ELECTRICAL:** REMOVE ALL ELECTRICAL DEVICES, CONDUIT AND WIRING BACK TO ELECTRICAL PANEL IN WALLS TO BE DEMOLISHED TYPICAL.
 3. **CEILING:** EXISTING CEILING MOUNTED DEVICES (IE: FIRE ALARM, DIFFUSERS, LIGHT FIXTURES, PHONE, ELECTRICAL RECEPTACLES, EMERGENCY LIGHT UNITS, EXIT SIGNS, SPEAKERS & ENERGY MANAGEMENT CONTROL SYSTEMS) ARE TO REMAIN. PROVIDE TEMPORARY SUPPORT BY STEEL WIRE CAPABLE OF SUPPORTING THE DEVICES FULL WEIGHT AFTER COMPLETE ACOUSTICAL CEILING SYSTEMS ARE REMOVED (INCLUDING ALL HANGERS & SUPPORTS FOR DRYWALL HEADERS & CEILING SYSTEM). ALL TROFFER FLUORESCENT FIXTURES SHALL HAVE TWO SUPPORTING WIRES LOCATED ON OPPOSITE CORNERS.
 4. **MECHANICAL:** REMOVE EXISTING HVAC SUPPLY & RETURN DUCTWORK BACK TO ROOF TOP AIR-CONDITIONING UNITS IN AREAS THAT THE CEILING IS BEING REMOVED.
 5. **PLUMBING:** REMOVE EXISTING PLUMBING FIXTURES AS INDICATED. CAP PLUMBING LINES IN WALLS / BELOW SLAB / ABOVE FINISHED CEILINGS AND PROVIDE TO MANATEE COUNTY FOR STORAGE (ON SITE).
 6. **FIRE PROTECTION:** THE EXISTING FIRE SPRINKLER SYSTEM SHALL REMAIN INTACT & FULLY OPERATIONAL.
- WARNING:** EXERCISE CARE WHILE REMOVING ADJACENT CEILING SYSTEM(S) FROM AROUND FIRE SPRINKLER HEADS TO ENSURE THAT THEY ARE NOT ACTIVATED. CONTRACTOR SHALL LOCATE FIRE SPRINKLER EMERGENCY SHUT-OFF VALVE(S) PRIOR TO COMMENCING DEMOLITION.





2 KEY PLAN

N.T.S.



DEMOLITION TAG LEGEND :

1	REMOVE EXISTING DOOR & FRAME. SALVAGE DOOR(S) FOR REUSE.
2	LOCK EXISTING DOOR IN EXISTING FRAME AND REMOVE EXTERIOR FULL HANDLE
3	REMOVE EXISTING PORTION OF WALL FOR PROPOSED OPENING.
4	REMOVE EXISTING WALLS AS INDICATED. PROVIDE PROPER SHORING AS REQUIRED.
5	FURNITURE AND EQUIPMENT TO BE RELOCATED BY M.C. SHERIFF'S PERSONNEL
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DEMOLITION WALL LEGEND :

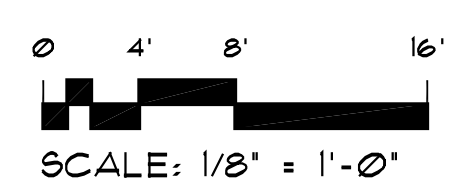
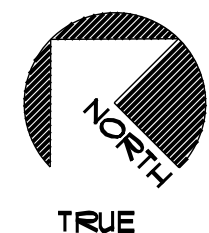
---	EXISTING WALL TO BE DEMOLISHED
—	EXISTING WALL TO REMAIN

DEMOLITION NOTES :

ALL AREAS IN WHICH DEMOLITION IS TAKING PLACE ARE TO BE ISOLATED FROM THE BUILDING'S AIR CONDITIONING SYSTEM AND THE SPACE IS TO BE ISOLATED AND UNDER NEGATIVE PRESSURE WITH RESPECT TO THE ADJACENT HVAC SYSTEMS. THE CONTRACTOR SHALL PROVIDE A DEMOLITION PROTOCOL TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCING CONSTRUCTION. THE AIR CONDITIONING SYSTEM IN THE AREA BEING DEMOLISHED IS TO BE TURNED OFF AND THE DUCT WORK SEALED TO PREVENT ANY DUST OR DEBRIS FROM ENTERING THE SYSTEM.

- STRUCTURAL:** CONTRACTOR SHALL NOT DISTURB, MODIFY OR REMOVE ANY EXISTING BUILDING STRUCTURAL COMPONENT(S) WITHOUT CONSULTING THE ARCHITECT.
- ELECTRICAL:** REMOVE ALL ELECTRICAL DEVICES, CONDUIT AND WIRING BACK TO ELECTRICAL PANEL IN WALLS TO BE DEMOLISHED TYPICAL.
- CEILING:** EXISTING CEILING MOUNTED DEVICES (I.E. FIRE ALARM, DIFFUSERS, LIGHT FIXTURES, PHONE, ELECTRICAL RECEPTACLES, EMERGENCY LIGHT UNITS, EXIT SIGNS, SPEAKERS & ENERGY MANAGEMENT CONTROL SYSTEMS) ARE TO REMAIN. PROVIDE TEMPORARY SUPPORT BY STEEL WIRE CAPABLE OF SUPPORTING THE DEVICES FULL WEIGHT AFTER COMPLETE ACoustICAL CEILING SYSTEMS ARE REMOVED (INCLUDING ALL HANGERS & SUPPORTS FOR DRYWALL HEADERS & CEILING SYSTEM). ALL TROFFER FLUORESCENT FIXTURES SHALL HAVE TWO SUPPORTING WIRES LOCATED ON OPPOSITE CORNERS.
- MECHANICAL:** REMOVE EXISTING HVAC SUPPLY & RETURN DUCTWORK BACK TO ROOF TOP AIR-CONDITIONING UNITS IN AREAS THAT THE CEILING IS BEING REMOVED.
- PLUMBING:** REMOVE EXISTING PLUMBING FIXTURES AS INDICATED. CAP PLUMBING LINES IN WALLS / BELOW SLAB / ABOVE FINISHED CEILINGS AND PROVIDE TO MANATEE COUNTY FOR STORAGE (ON SITE).
- FIRE PROTECTION:** THE EXISTING FIRE SPRINKLER SYSTEM SHALL REMAIN INTACT & FULLY OPERATIONAL.

WARNING: EXERCISE CARE WHILE REMOVING ADJACENT CEILING SYSTEM(S) FROM AROUND FIRE SPRINKLER HEADS TO ENSURE THAT THEY ARE NOT ACTIVATED. CONTRACTOR SHALL LOCATE FIRE SPRINKLER EMERGENCY SHUT-OFF VALVE(S) PRIOR TO COMMENCING DEMOLITION



1 DEMOLITION PLAN EAST

SCALE: 1/8" = 1'-0"

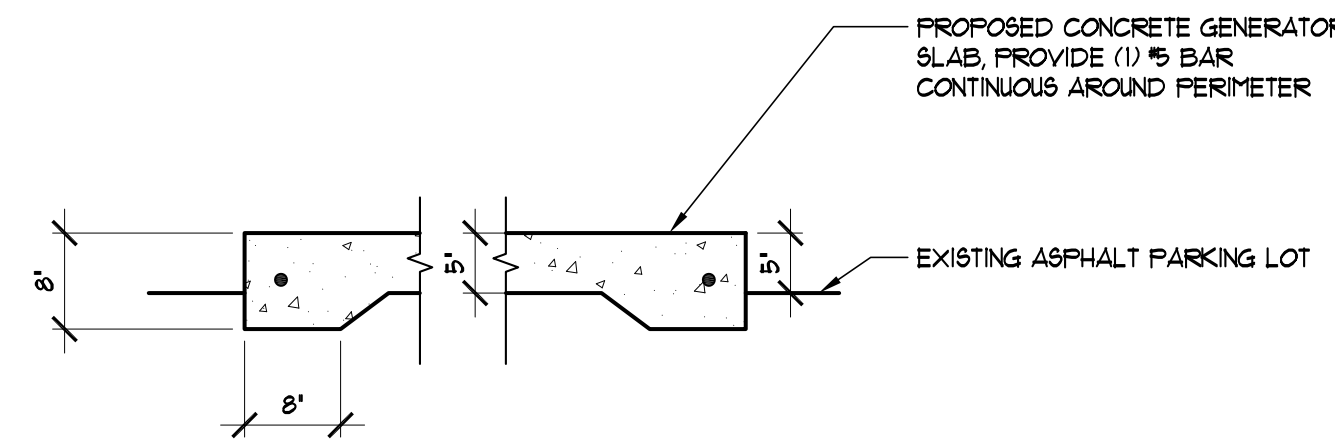
PROPOSED RENOVATION FOR:
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 600 U.S. 301 BLVD. WEST

JERRY N. ZOLLER
AA C000567
ARCHITECT / PLANNER
AIA P.A.

914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4465
 FL. REG. 5926

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3 EQUIPMENT SLAB DETAIL

SCALE: 3/4" = 1'-0"

EXTERIOR FINISHES:

1. ALL EXTERIOR WALL CEMENTITIOUS SURFACES SHALL BE PAINTED WITH 'SHERMAN WILLIAMS' PRODUCTS LISTED BELOW OR EQUAL.

1ST COAT: LOXON EXTERIOR ACRYLIC MASONRY PRIMER, A241B200
 2ND COAT: SHERMAN WILLIAMS A-100 EXTERIOR LATEX SATIN, A82 SERIES
 3RD COAT: SHERMAN WILLIAMS A-100 EXTERIOR LATEX SATIN, A82 SERIES

2. THE EXTERIOR PAINT SHALL HAVE THE FOLLOWING THICKNESSES:

1ST COAT: SHALL HAVE A 8 MILS WET, 3 MILS DRY THICKNESS PER COAT
 2ND COAT: SHALL HAVE A 4 MILS WET, 14 MILS DRY THICKNESS PER COAT
 3RD COAT: SHALL HAVE A 4 MILS WET, 14 MILS DRY THICKNESS PER COAT

3. EXTERIOR SHEATHING SHALL BE 1/2" THICK GLASS-MAT FACED MOISTURE RESISTANT GYPSUM SHEATHING, GEORGIA-PACIFIC "DENS-SLASH GOLD" OR EQUIVALENT, CONFORMING TO ASTM G111. FASTEN SHEATHING TO COLD ROLLED STEEL FRAMING WITH 1-5/8" BUCKLE HEAD GALVANIZED DRYWALL SCREWS AT 8" O.C. MAXIMUM. TAPE AND BED ALL JOINTS AND SPOT PATCH ALL FASTENERS USING JOINT COMPOUND AND ACCESSORIES SPECIFIED BY THE BOARD MANUFACTURER.

4. EXTERIOR FINISH SHALL BE DECORATIVE CEMENTITIOUS COATING OVER CMU, OR EXTERIOR SHEATHING BOARD. PREPARE CMU SURFACE TO ASSURE FULL BOND OF CEMENTITIOUS COATING. FURNISH AND INSTALL METAL LATH OVER EXTERIOR SHEATHING BOARD TO SECURE CEMENTITIOUS COATING. ALL PLASTER ACCESSORIES AND INSERTS SHALL BE SOLID VINYL OR ALUMINUM. SUBDIVIDE CEMENTITIOUS SURFACES INTO AREAS NOT TO EXCEED 100 SF. WITH VINYL INSERT CONTROL JOINTS. PROPORTIONS OF PANELS SHALL BE LESS THAN 3:1.

INTERIOR FINISHES:

1. INTERIOR WALLS SHALL BE SHEATHED WITH 5/8" GYPSUM WALLBOARD ON BOTH SIDES UNLESS OTHERWISE NOTED. ALL OUTSIDE CORNERS SHALL HAVE VINYL REINFORCEMENT BEADS. ALL END BOARD EDGE CONDITIONS SHALL HAVE A VINYL J-BEAD.

2. ALL INTERIOR WALLS SHALL HAVE A LEVEL 3 FINISH WITH LIGHT ORANGE-PEEL TEXTURE AND SHALL RECEIVE A PRIMER AND (2) FINISH COATS OF FLAT ACRYLIC LATEX ENAMEL. OWNER TO SPECIFY COLOR.

3. GYPSUM BOARD CEILING SHALL BE 1/2" HIGH STRENGTH CEILING BOARD SCREWED TO THE BOTTOM OF FRAMING MEMBERS OR ATTACHED TO ARMSTRONG DRYWALL SUSPENSION SYSTEM. FINISH WITH STIPPLE TEXTURE. PAINT WITH (2) COATS OF FLAT LATEX. OWNER TO SPECIFY COLOR.

4. PAINT GRADE MILLWORK AND WOOD TRIM SHALL RECEIVE A PRIMER AND (2) FINISH COATS OF SEMI-GLOSS LATEX ENAMEL. SAND BETWEEN COATS. OWNER TO SPECIFY PAINT.

5. ALL CASEWORK SHALL BE CONSTRUCTED WITH MEDIUM DENSITY FIBER BOARD WITH MELAMINE INTERIOR AND LAMINATED EXTERIORS. DOORS, COUNTERTOPS, AND CABINET FRONTS SHALL BE LAMINATED MEDIUM DENSITY FIBER BOARD AND SOLID WOOD.

6. ACOUSTIC CEILING TILE SHALL BE ARMSTRONG ULTIMA BEVELED REGULAR WITH SONATA XL 9/16" DIMENSIONAL TEE GRID. TILE #912 FOR CLOSED PLAN ROOMS AND TILE #942 FOR OPEN PLAN SPACES.

SUBGRADE PREPARATION NOTES

1. SITE SHALL BE STRIPPED OF ALL VEGETATION ORGANIC MATTER AND ALL CELLULOSE CONTAINING MATERIAL TO 1 FOOT OUTSIDE OF THE FOUNDATION PERIMETER AND FROM ALL SOILS BELOW SLABS ON GRADE. EXCAVATION SHALL EXTEND TO FIRM NATIVE SOIL MATERIALS. ALL FILL SOILS SHALL BE PLACED IN 6' LIFTS AND COMPACTED TO 95% MAX. DENSITY. TEST SHALL BE REQUIRED FOR ALL FILLS IN EXCESS OF 12'.

2. ALL SOILS SHALL BE TREATED TO EXTERMINATE SUBTERRANEAN TERMITES AND OTHER PESTS. SEE NOTES FOR TERMITE PROTECTION.

3. INSTALL 10 MIL STEGO INDUSTRIES (OR EQUAL) POLYOLEFIN VAPOR BARRIER THAT MEETS ASTM E1748 CLASS A BELOW ALL SLABS ON GRADE. TAPE ALL JOINTS AND AROUND ALL PENETRATIONS WITH VAPOR BARRIER MANUFACTURERS RECOMMENDED PRODUCTS AND PROCEDURES.

4. AFTER ALL WORK IS COMPLETED ALL WOOD FORMS, WOOD SUPPORTS, WOOD GRADE STAKES AND OTHER CELLULOSE CONTAINING MATERIALS SHALL BE COMPLETELY REMOVED FROM AREA UNDER THE BUILDING AND WITHIN A FOOT OF THE FOUNDATION PERIMETER.

ROOFING NOTES:

1. ROOF SHALL BE THERMOPLASTIC SINGLE PLY MEMBRANE ROOFING BY SEAMANS CORP. 'FIBERTITE' OR EQUAL. ROOFING PRODUCTS SHALL MEET OR EXCEED THE FOLLOWING ASTM'S D411, D151, D202, D2104, D2136, D2240, D5602, D5635, G54, G55, AND G21.

2. ALL ROOFING SHALL BE PERFORMED BY A 'FIBERTITE' CERTIFIED ROOFING CONTRACTOR. ROOFING SYSTEM SHALL HAVE A 15-YEAR WARRANTY PERIOD.

3. THE ROOFING SHALL BE MECHANICALLY FASTENED TO THE DECK AND SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE. SIZE AND NUMBER OF FASTENERS SHALL BE IN COMPLIANCE WITH MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS FOR HIGH WIND LOAD LOCATIONS (30 MPH MINIMUM (3 SECOND GUST)). THERE SHALL BE AT A MINIMUM OF 6 FASTENERS WITH 2" STRESS PLATES PER INSULATION BOARD PRIOR TO SECURING ROOFING. FASTENERS SHALL PENETRATE FULL THICKNESS OF THE STRUCTURAL DECK.

4. ROOFER SHALL FURNISH AND INSTALL ALL TRIM PIECES, FLASHINGS, COPING, WALKWAY PADS AND ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION. ALL METAL ACCESSORIES SHALL BE EITHER ALUMINUM OR STAINLESS STEEL.

5. COPING METAL (2020 ALUMINUM) SHALL BE INSTALLED WITH A MAXIMUM OF 10 FEET AND MINIMUM OF 4 FEET BETWEEN LAP TYPE EXPANSION JOINTS. ALL COPINGS SHALL HAVE A FACTORY KYNAR FINISH.

EXPANSION ANCHORS

1. UNLESS OTHERWISE INDICATED, EMBEDMENT OF EXPANSION ANCHORS INTO CONCRETE SHALL BE A MINIMUM OF 4 INCHES.

2. UNLESS OTHERWISE INDICATED, ANCHOR SPACING SHALL BE AS FOLLOWS: MINIMUM SPACING BETWEEN ANCHORS = 10 HOLE DIAMETERS, MINIMUM EDGE DISTANCE = 5 HOLE DIAMETERS.

3. INSTALLATION SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS.

OPENINGS

OPENINGS, SLEEVES, ETC. TO BE PLACED THROUGH ANY STRUCTURAL MEMBER SHALL FIRST BE APPROVED BY THE ARCHITECT. SLEEVES SHALL BE PROVIDED FOR OPENINGS PRIOR TO PLACING OF CONCRETE. CUTTING OF HARDENED CONCRETE SHALL NOT BE PERMITTED EXCEPT BY SPECIAL STRUCTURAL APPROVAL WHICH WILL BE ON AN INDIVIDUAL BASIS.

EMBEDDED CONDUIT

1. EMBEDDED CONDUITS AND/OR PIPES SHALL NOT BE LARGER THAN ONE-THIRD THE THICKNESS OF THE SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED. THEY SHALL BE LOCATED IN THE MIDDLE THIRD OF THE SLAB, WALL OR BEAM AND SHALL BE SPACED NOT LESS THAN 3 DIAMETERS ON CENTER. PIPES NOT MEETING THIS CRITERIA MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

2. CONDUITS AND/OR PIPES EMBEDDED VERTICALLY IN COLUMNS SHALL NOT, WITH THEIR FITTINGS, DISPLACE MORE THAN 4% OF THE AREA OF THE CROSS SECTION OF THE COLUMN. AND SHALL NOT INTERFERE WITH VERTICAL REINFORCEMENT BONDING TO CONCRETE.

3. CONDUITS AND/OR PIPES SHALL BE PROTECTED AGAINST RUSTING. ALUMINUM CONDUITS AND/OR PIPES SHALL NOT BE EMBEDDED IN CONCRETE.

FRAMING NOTES:

1. ALL METAL FRAMING SHALL BE 20 GAGE MINIMUM.

2. ANCHORS & CONNECTORS SHALL BE PROVIDED AS NOTED ON THE PLANS & AS REQUIRED BY CODE.

INSULATION NOTES:

1. INSULATE EXISTING METAL ROOF DECK WITH A CLOSED CELL SPRAY FOAM INSULATION, MINIMUM R-19 VALUE. THE INSULATION SHALL BE PROVIDED WITH FIRE PROTECTION, MINIMUM 15 MINUTE THERMAL BARRIER VIA FIREFREE 88 PRODUCT.

2. INSULATE ALL EXISTING STOREFRONT WINDOWS WITH DOW 1" THICK TUFF-R.

DOORS & WINDOWS:

SEE SHEET A-41

TERMITE PROTECTION NOTES:

1. A WEATHER RESISTANT JOB SITE POSTING BOARD SHALL BE PROVIDED TO RECEIVE DUPLICATE TREATMENT CERTIFICATES AS EACH REQUIRED PROTECTIVE TREATMENT IS COMPLETED. PROVIDING A COPY FOR THE PERMIT HOLDER AND ANOTHER COPY FOR THE BUILDING PERMIT FILE. THE CERTIFICATE SHALL IDENTIFY THE APPLICATOR, THE PRODUCT USED, PERCENT CONCENTRATION, NUMBER OF GALLONS USED, SITE LOCATION, AREA TREATED AND THE TIME AND DATE OF TREATMENT. THE FINAL EXTERIOR TREATMENT SHALL BE COMPLETED PRIOR TO FINAL BUILDING APPROVAL. (FLORIDA BUILDING CODE 2004, SECTION 105.10)

2. A PERMANENT SIGN THAT IDENTIFIES THE TERMITE TREATMENT PROVIDER AND THE NEED FOR RE-INSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. (FLORIDA BUILDING CODE 2004, SECTION 105.11)

3. EXTERIOR WALL COVERING SHALL HAVE A MINIMUM CLEARANCE OF 6' ABOVE THE EXTERIOR FINISH GRADE. EXCEPTION: DECORATIVE CEMENTITIOUS COATING LESS THAN 5/8" THICK APPLIED DIRECTLY TO MASONRY FOUNDATION WALLS (FLORIDA BUILDING CODE 2004, SECTION 1403.8)

4. CONDENSATE LINES AND ROOF DRAIN SPOUTS SHALL DISCHARGE AT LEAST 1-FOOT AWAY FROM EXTERIOR WALL BY MEANS OF UNDERGROUND PIPING, TAIL EXTENSIONS OR SPLASH BLOCKS. IRRIGATION SYSTEMS AND RISERS FOR SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1-FOOT OF THE EXTERIOR WALLS (FLORIDA BUILDING CODE 2004, SECTION 1503.6)

5. TERMITE PROTECTION SHALL BE PROVIDED BY REGISTERED TERMITICIDES LABELED FOR USE AS A PREVENTIVE TREATMENT FOR NEW CONSTRUCTION. THE INITIAL SOIL TREATMENT INSIDE THE FOUNDATION PERIMETER SHALL BE DONE AFTER ALL EXCAVATION, PLACEMENT OF UNDERGROUND PIPING, BACK FILLING AND COMPACTION ARE COMPLETED AND JUST PRIOR TO PLACEMENT OF THE VAPOR BARRIER. ANY SOIL AREA DISTURBED AFTER INITIAL CHEMICAL TREATMENT SHALL BE TREATED PRIOR TO PROCEEDING WITH THE WORK. IF RAINFALL OCCURS PRIOR TO THE PLACEMENT OF THE VAPOR BARRIER, THE SOIL MUST BE RETREATED. METAL OR PLASTIC FORMS SHALL BE USED TO BOX OUT FOR THE INSTALLATION OF PLUMBING TRAPS, DRAINS, ETC. (FLORIDA BUILDING CODE 2004, SECTION 106.11)

6. CONCRETE OVER FOUR OR ACCUMULATED MORTAR ALONG THE FOUNDATION PERIMETER SHALL BE REMOVED PRIOR TO EXTERIOR CHEMICAL TREATMENT TO ENHANCE THE VERTICAL PENETRATION OF THE CHEMICALS. THE SOIL BENEATH CONCRETE PLACED WITHIN 1-FOOT OF THE FOUNDATION PERIMETER SHALL BE TREATED. A CHEMICAL BARRIER TREATMENT SHALL BE APPLIED TO ALL SOILS WITHIN 1-FOOT OF THE FOUNDATION PERIMETER PROMPTLY AFTER CONSTRUCTION IS COMPLETED INCLUDING THE INSTALLATION OF LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THIS BARRIER TREATMENT SHALL BE PROMPTLY RETREATED. (FLORIDA BUILDING CODE 2004, SECTION 106.15)

7. PROTECTIVE SLEEVES AROUND METALLIC PIPES PENETRATING CONCRETE SLABS-ON-GRADE SHALL NOT BE A CELLULOSE CONTAINING MATERIAL AND SHALL BE TREATED WITH A TERMITICIDE APPLIED IN THE ANNULAR SPACE BETWEEN SLEEVE AND PIPE (FLORIDA BUILDING CODE 2004, SECTION 106.2)

8. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWING STATEMENT: 'THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.'

9. NO WOOD VEGETATION, STUMPS, DEAD ROOTS, CARDBOARD, TRASH OR OTHER CELLULOSE CONTAINING MATERIAL SHALL BE BURIED ON THE BUILDING LOT. DUMPSTER SHALL BE AVAILABLE ON LOT DURING CONSTRUCTION FOR ALL DEBRIS COLLECTION.

CONTRACTOR NOTES

1. PROVIDE 1/2" PREMOLDED EXPANSION MATERIAL WHERE SLAB ON GRADE IS POURED AROUND COLUMNS UNLESS OTHERWISE SHOWN. COLOR - GREY. TRIM AND CAULK WITH ELASTOMERIC SEALANT.

2. ANY CONFLICT BETWEEN STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK AFFECTED. CONTRACTOR SHALL BE BOUND BY THE MORE RESTRICTIVE OR DEMANDING REQUIREMENT.

3. ALL FIELD BENDING OF REINFORCING SHALL BE DONE COLD. HEATING OF BARS SHALL NOT BE PERMITTED.

SHOP DRAWING SUBMITTAL

1. CONTRACTOR SHALL ALLOW FOR (10) TEN BUSINESS DAYS FOR SHOP DRAWING REVIEW.

2. OUR OFFICE WILL ACCEPT SHOP DRAWINGS IN BOTH ELECTRONIC AND PAPER FORMAT.

3. ALL SHOP DRAWINGS WILL BE SUBMITTED THRU THE OFFICE OF JERRY N. ZOLLER.

4. IF THE SHOP DRAWINGS ARE IN A PAPER FORMAT, WE WILL REQUIRE (4) THREE COPIES MINIMUM BE SUBMITTED WITH TWO (2) COPIES TO BE RETAINED BY OUR OFFICE (1 COPY RETAINED FOR NON-ENGINEERING ASSOCIATED ITEMS)

5. IF THE SHOP DRAWINGS ARE IN ELECTRONIC FORMAT THE FOLLOWING SHALL APPLY:

- A. THE ONLY ACCEPTED ELECTRONIC FORMAT SHALL BE ADOBE PDF FORMAT.
- B. IF THE ELECTRONIC FILES ARE E-MAILED TO OUR OFFICE, THE E-MAIL ADDRESS IS MANATEECOUNTYDESOTO@jerryzoller.com AND A FAXED TRANSMITTAL (941-741-1952) SHALL BE SENT TO OUR OFFICE INFORMING US THAT THE DRAWINGS WERE SENT VIA E-MAIL.
- C. IF THE ELECTRONIC FILES ARE SENT TO OUR OFFICE ON A CD OR DVD, A TRANSMITTAL SHALL BE INCLUDED IN THE PACKAGE.
- D. THE REVIEWED SHOP DRAWINGS SHALL BE RETURNED TO PROJECT ARCHITECT (OR DIRECTED PARTY) IN EITHER ELECTRONIC FORMAT OR PAPER FORMAT AS DIRECTED BY CLIENT. IF PAPER FORMAT IS REQUESTED, IT SHALL BE BLACKLINE COPIES WITH ANY COMMENTS GENERATED BY OUR OFFICE IN CONTRASTING FONT OR 'BOXED'. ADDITIONALLY WE WILL INVOICE FOR THE PRINTING COSTS ASSOCIATED WITH THE PRODUCTION OF THESE DRAWINGS BASED ON THE PREVAILING PRINTS COSTS PER OUR CONTRACT.

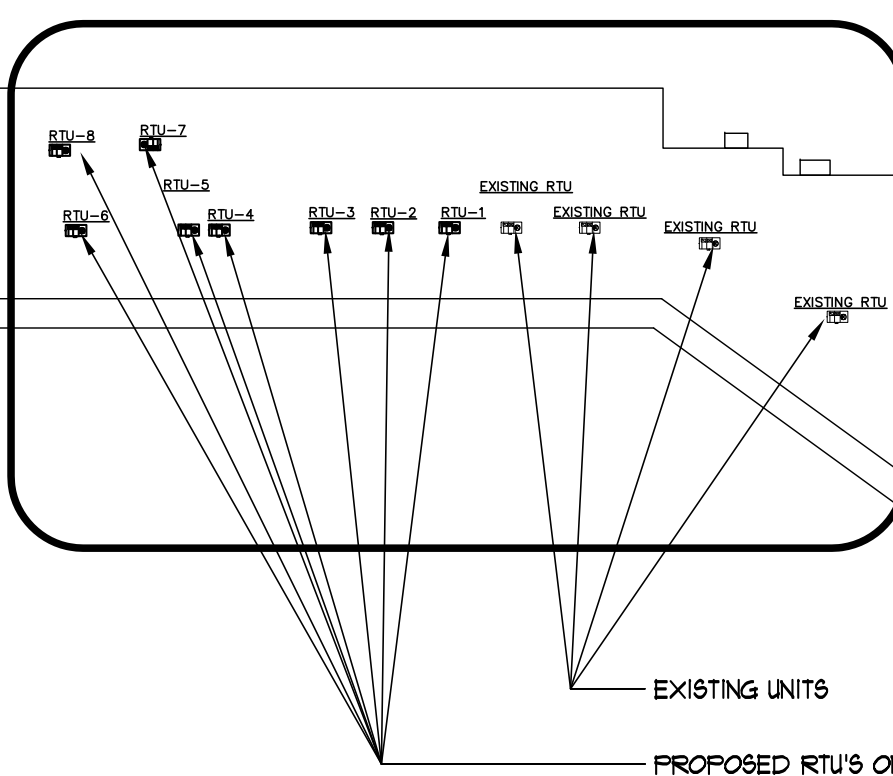
6. GENERAL CONTRACTOR SHALL SUBMIT TO THE ARCHITECT THE FOLLOWING ITEMS:

- A. CONCRETE DESIGN MIX
- B. MASONRY / CONCRETE
- C. ROOF / FLOORING FRAMING
- D. STRUCTURAL STEEL / METAL DECK / LIGHT GAUGE STEEL FRAMING
- E. FIRE SPROINKLER SYSTEMS
- F. FIRE ALARM SYSTEMS
- G. MECHANICAL SYSTEMS AND DEVICES
- H. ELECTRICAL SYSTEMS AND DEVICES
- I. PLUMBING SYSTEMS AND FIXTURES
- J. DOOR AND WINDOW SYSTEMS AND HARDWARE
- K. AWINGS

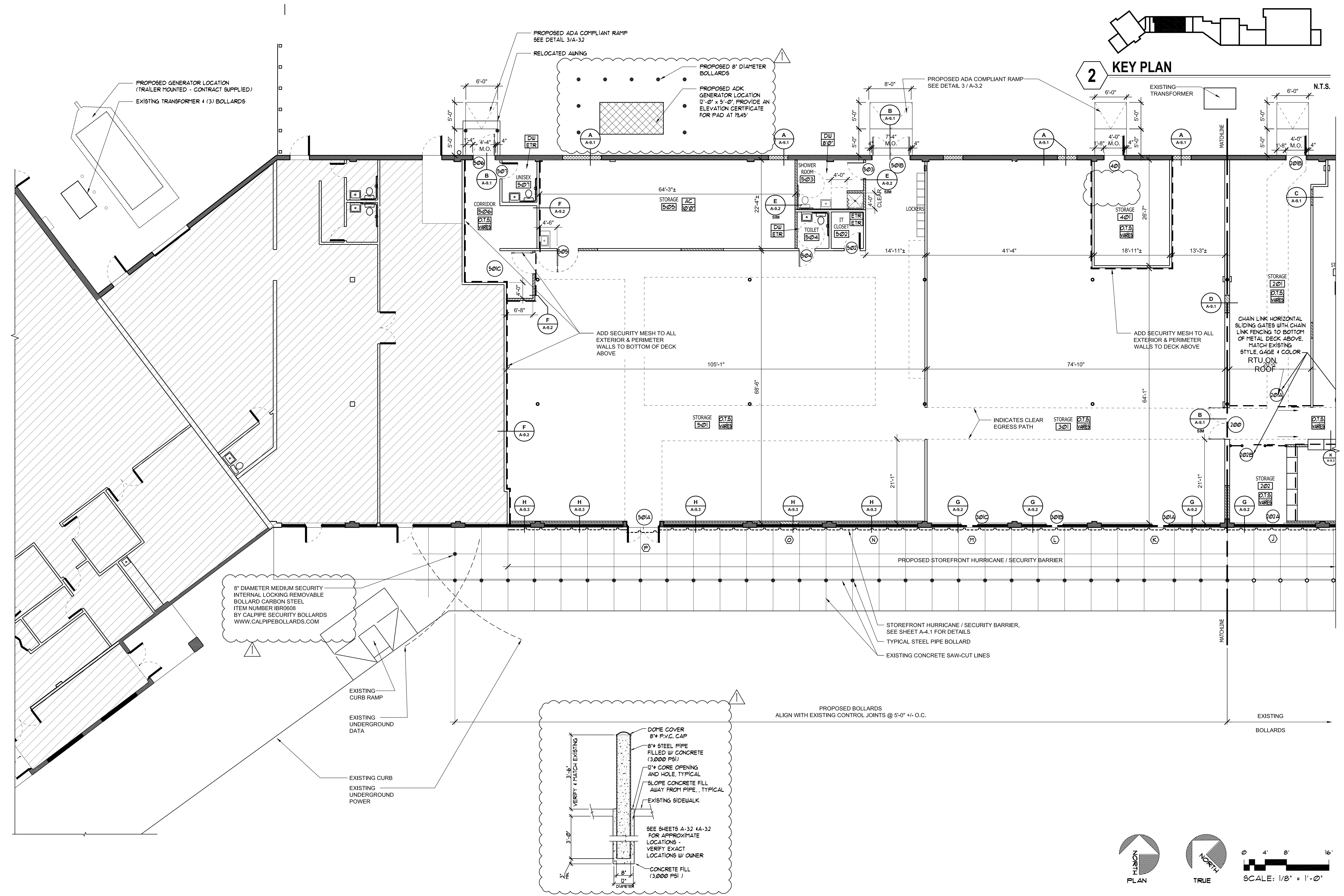
1 ARCHITECTURAL NOTES

2 ROOF PLAN

NOTE:
 PROVIDE SHOP DRAWINGS WITH FLORIDA ENGINEER'S SEAL ON NO. 9 RATED CURBS WITH TIE DOWN DETAILS



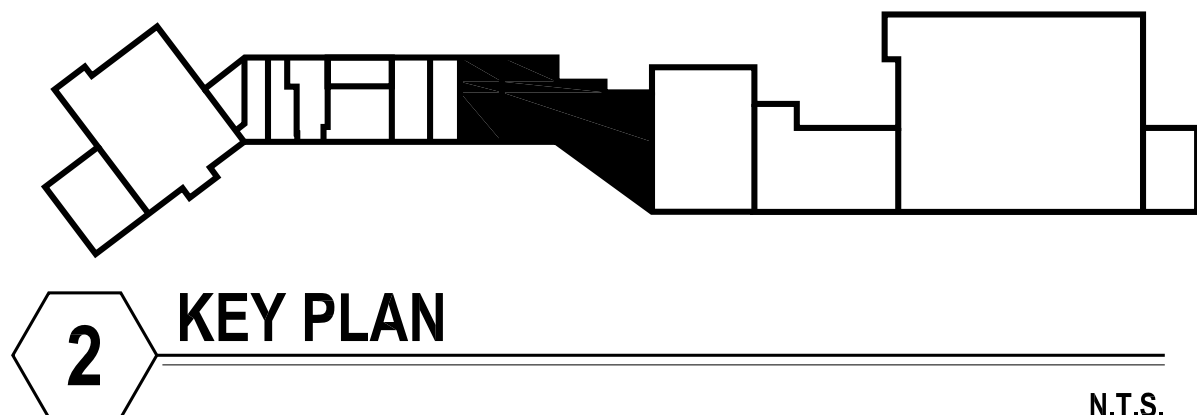
AIA
P.A.
JERRY N. ZOLLER
FL. REG. # 000567
ARCHITECT / PLANNER
 914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4465
 BRADENTON, FLORIDA
 600 U.S. 301 BLVD. WEST
PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 JOB NO 0601J
 DATE MAR 08, 2012
 DRAWN SC
 CHECKED JZ
 REVISIONS
 REV 1 05/24/2012
A-0.0



A TYPICAL PIPE BOLLARD
SCALE: 1/2" = 1'-0"

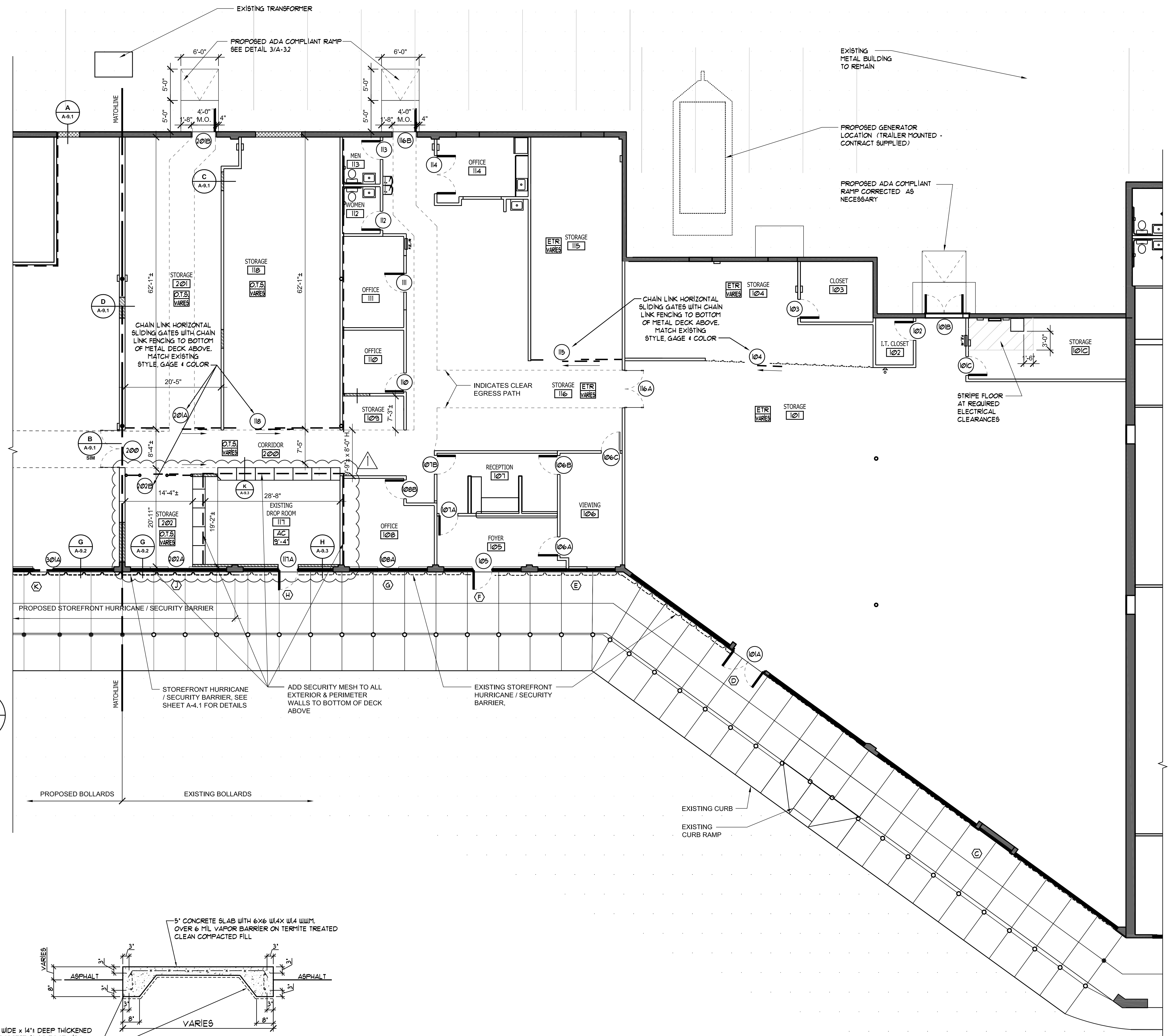
1 PARTIAL FLOOR PLAN
WEST
SCALE: 1/8" = 1'-0"

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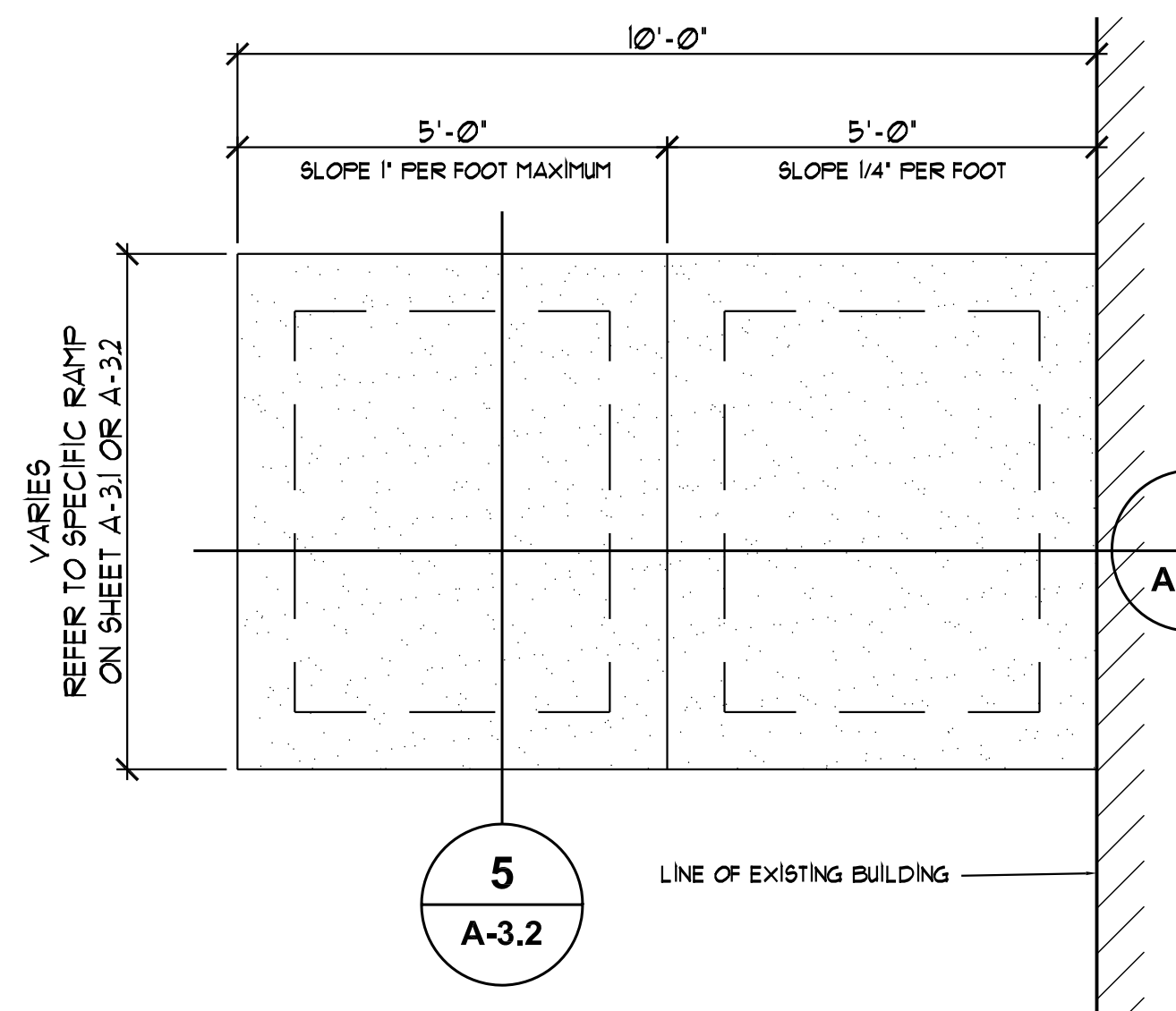
2 KEY PLAN

N.T.S.



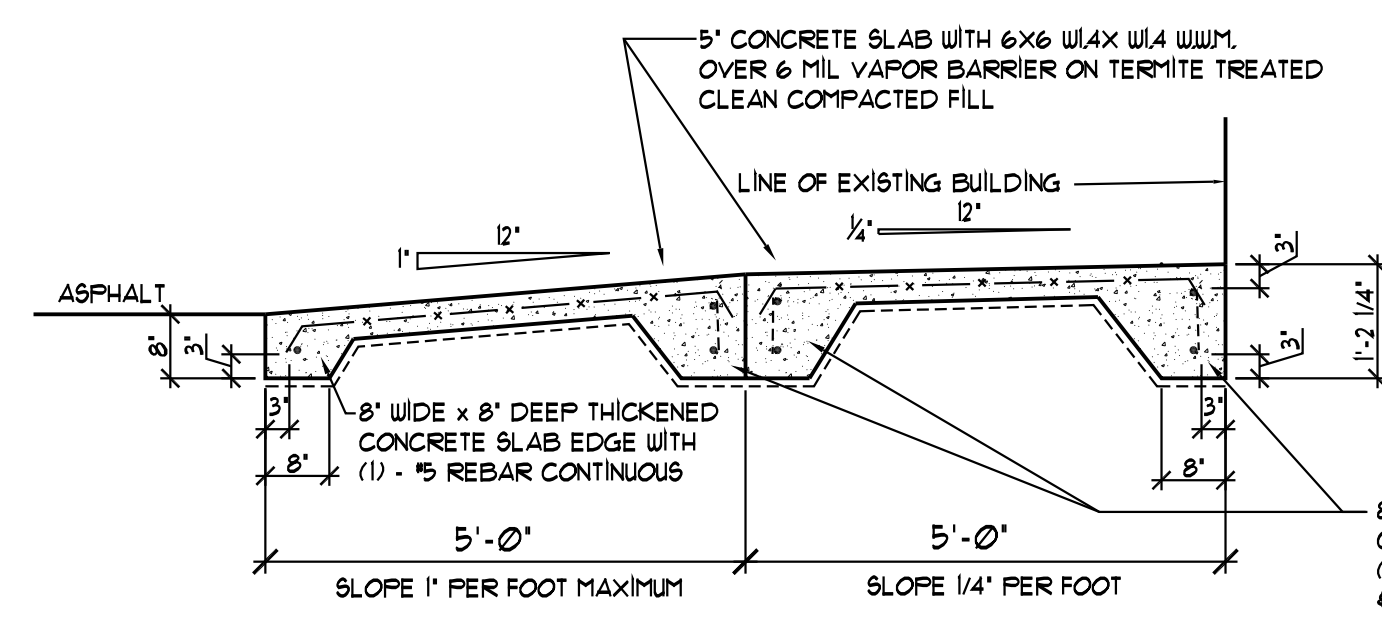
1 PARTIAL FLOOR PLAN EAST

SCALE: 1/8" = 1'-0"



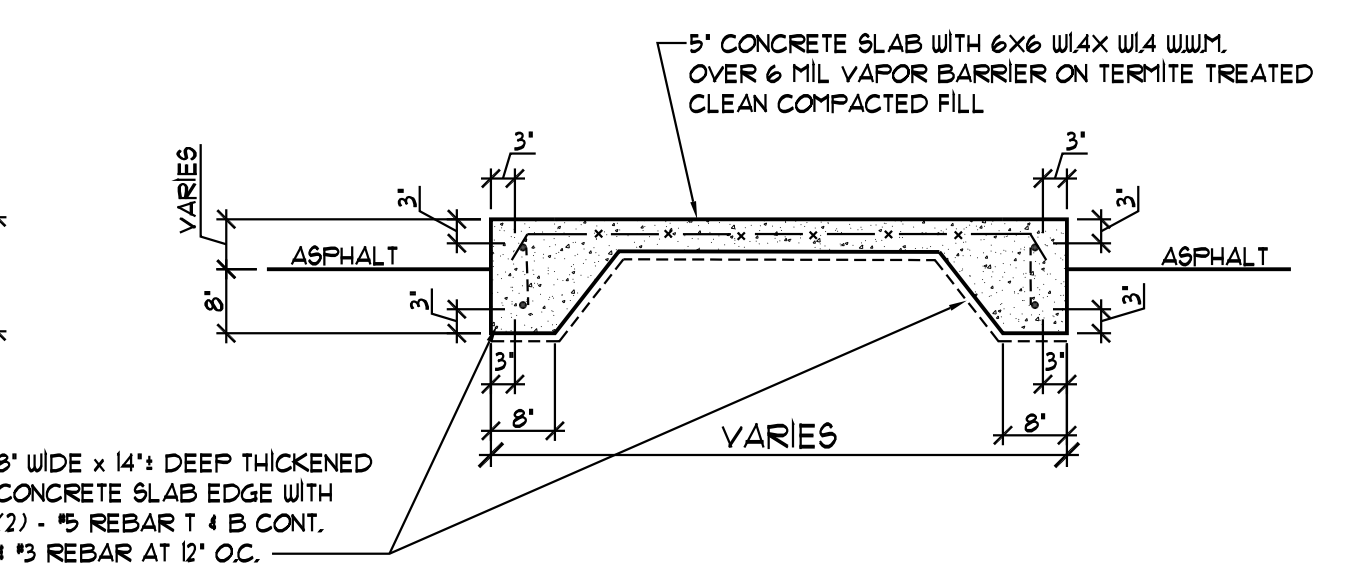
3 TYPICAL RAMP PLAN

SCALE: 1/2" = 1'-0"



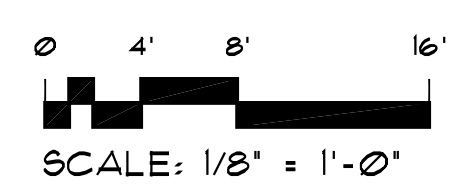
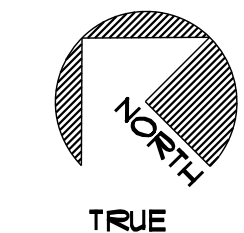
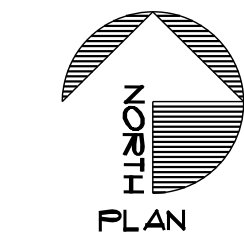
4 RAMP SECTION DETAIL

SCALE: 1/2" = 1'-0"



5 RAMP SECTION DETAIL

SCALE: 1/2" = 1'-0"



SCALE: 1/8" = 1'-0"

PROPOSED RENOVATION FOR:
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 BRADENTON, FLORIDA

JERRY N. ZOLLER
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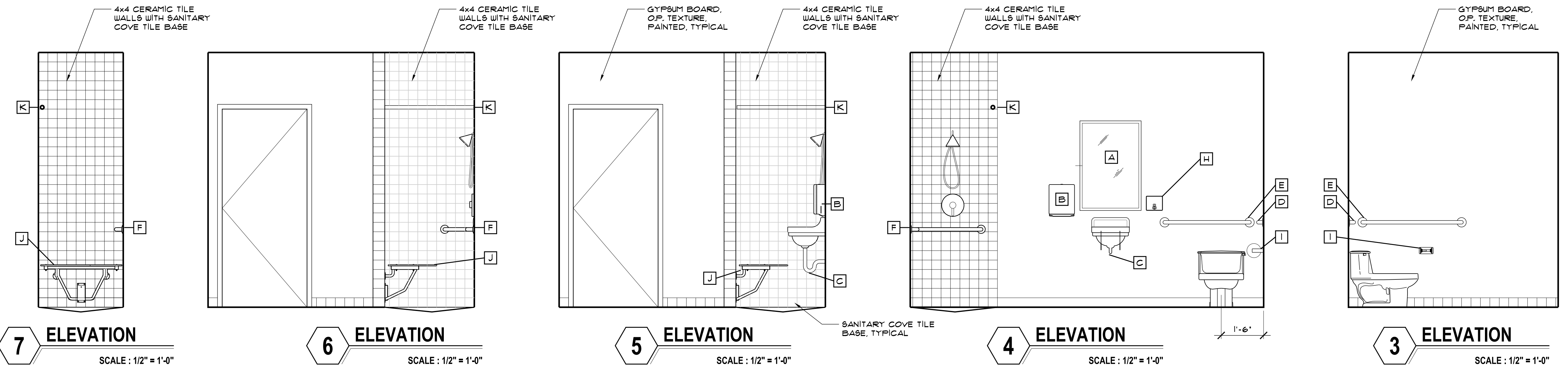
914 14th STREET W. BRADENTON, FL 34205
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P.A.

AA-C000567

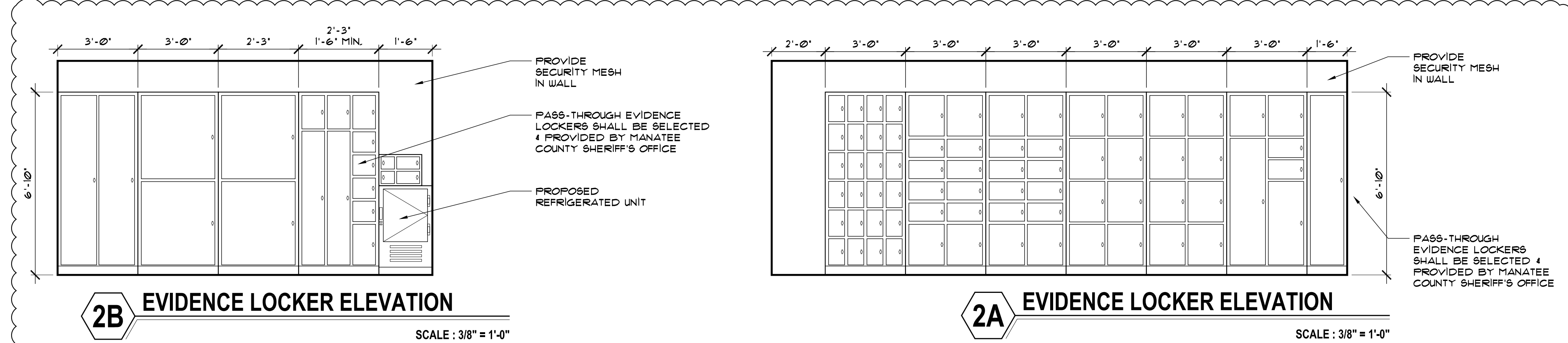
FL. REG. 5926

A-3.2

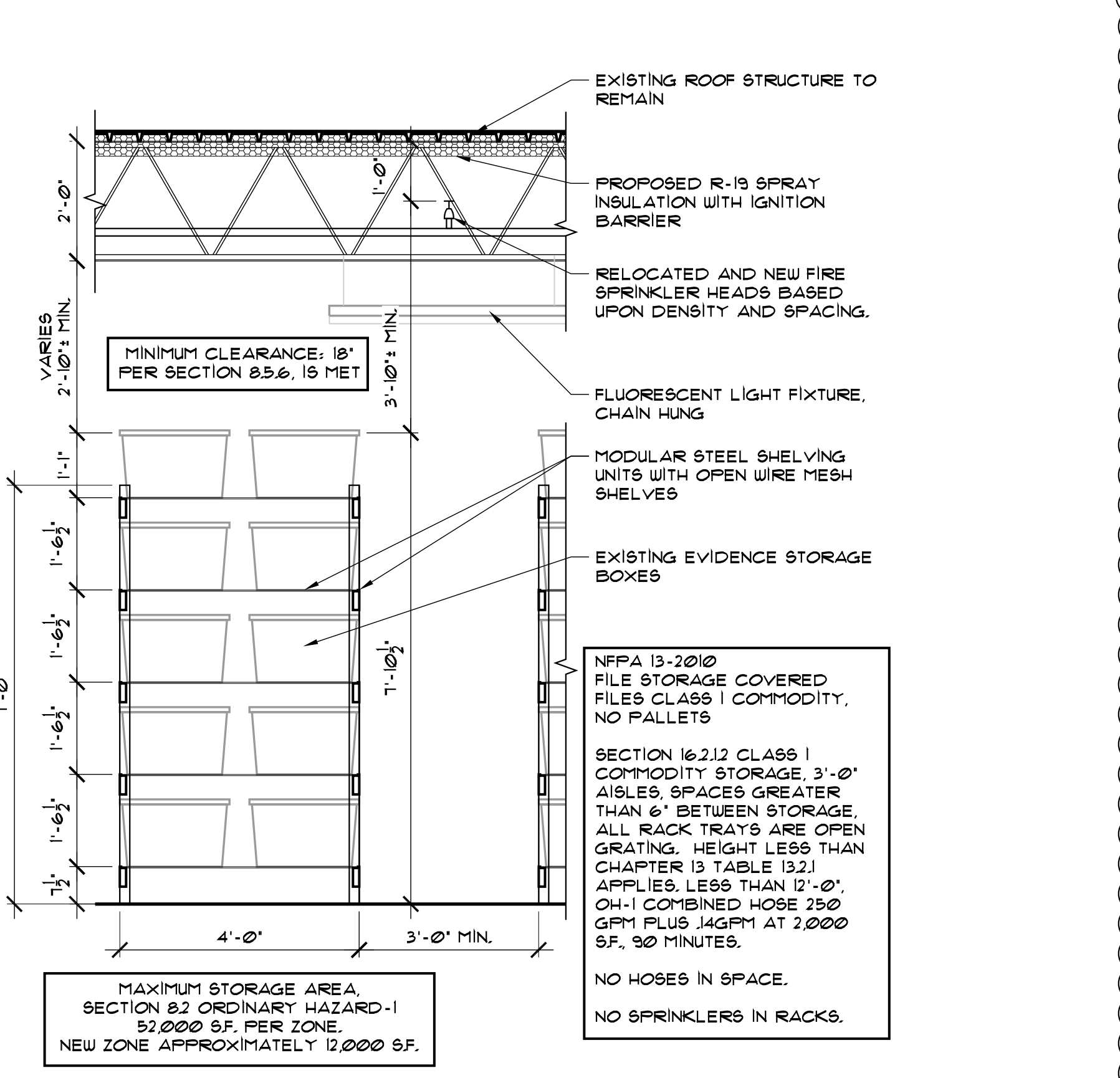


7 ELEVATION SCALE: 1/2" = 1'-0"
6 ELEVATION SCALE: 1/2" = 1'-0"
5 ELEVATION SCALE: 1/2" = 1'-0"
4 ELEVATION SCALE: 1/2" = 1'-0"
3 ELEVATION SCALE: 1/2" = 1'-0"

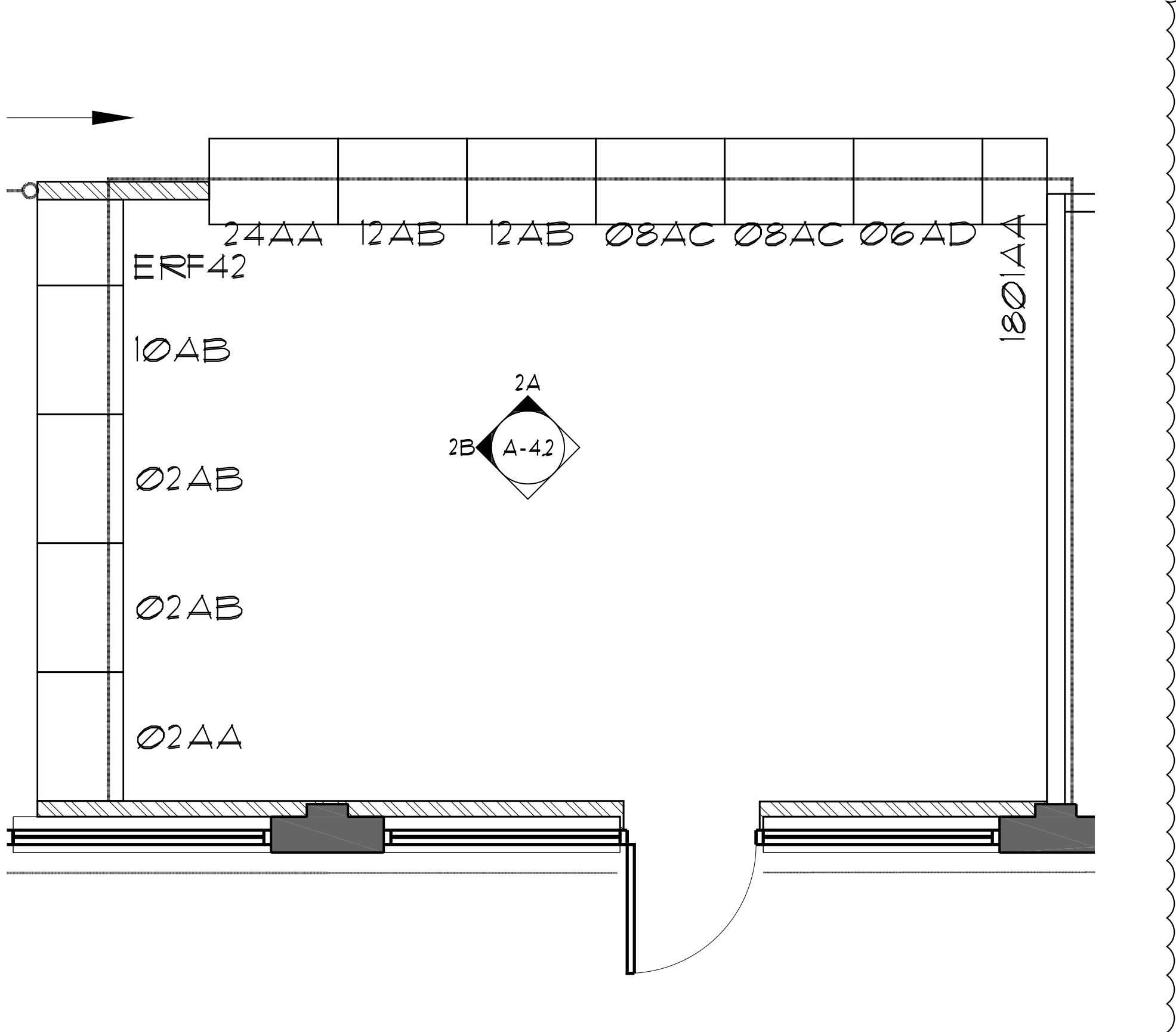
TOILET ACCESSORIES					
MARK	DESCRIPTION	MANUF.	MODEL #	MOUNTING HEIGHT	REMARKS
A	MIRROR	BOBRICK	B-293 1836	40" AFF TO BOTTOM OF REFLECTIVE SURFACE	VERIFY
B	PAPER TOWEL DISPENSER	BOBRICK	B-4262	52" TO TOP OF UNIT	
C	PIPE INSULATION	TRUBRO	#02	UNDER ALL SINKS	WHITE
D	GRAB BAR	BOBRICK	B-6806x36	36" AFF.	
E	GRAB BAR	BOBRICK	B-6806x42	36" AFF.	
F	GRAB BAR	BOBRICK	B-6861	33" AFF.	
G	UN-USED	-	-	-	
H	SOAP DISPENSER	BOBRICK	B-4112	AT ALL LAVATORIES	
I	TISSUE DISPENSER	BOBRICK	B-264	24" TO CENTER OF UNIT AFF. AND 36" TO FRONT EDGE FROM WALL	SURFACE MTD
J	FOLDING SHOWER SEAT	BOBRICK	B-511	111" AFF.	SURFACE MTD
K	SHOWER CURTAIN ROD	BOBRICK	B-201x36	80" AFF.	SURFACE MTD



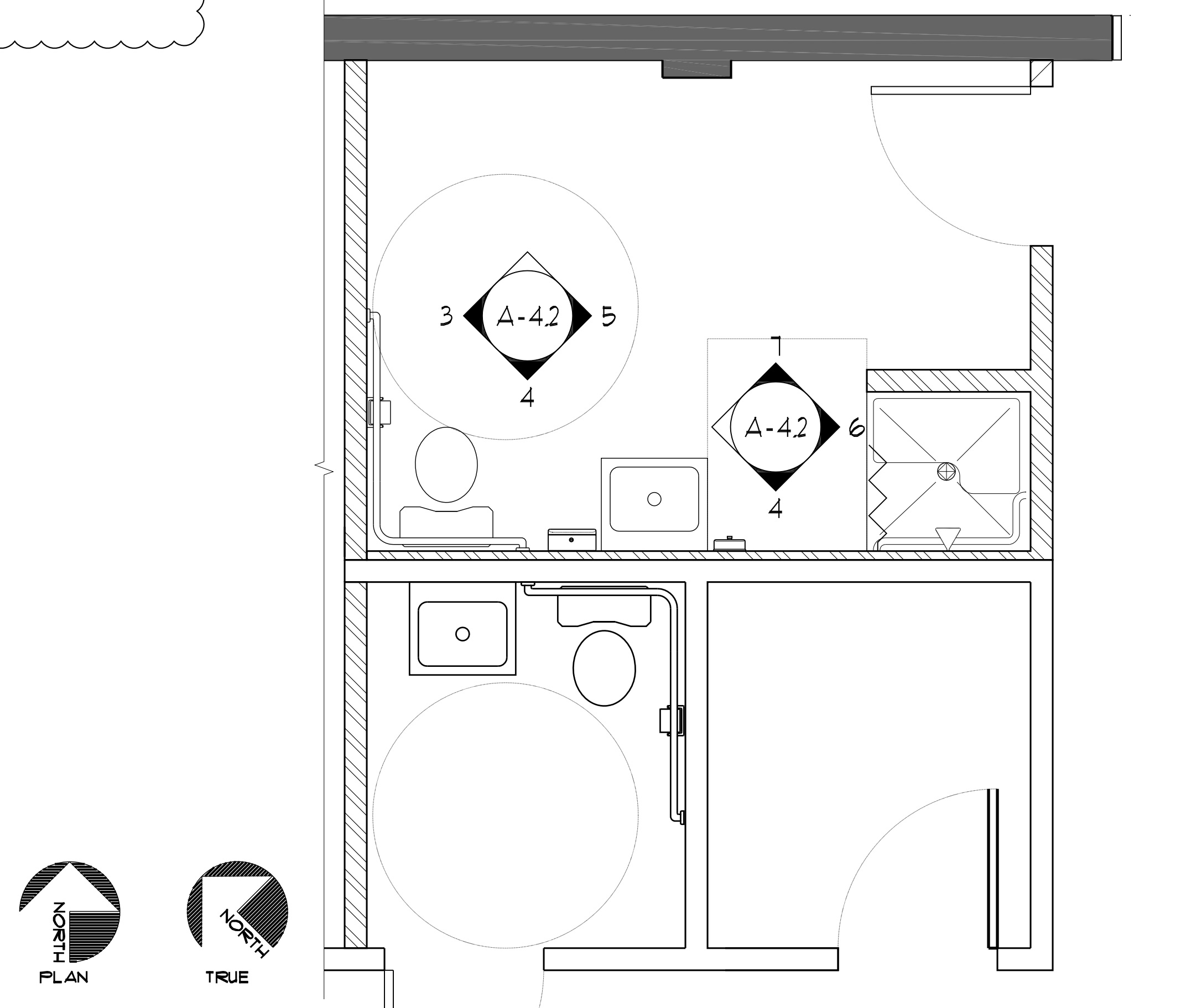
2B EVIDENCE LOCKER ELEVATION SCALE: 3/8" = 1'-0"
2A EVIDENCE LOCKER ELEVATION SCALE: 3/8" = 1'-0"



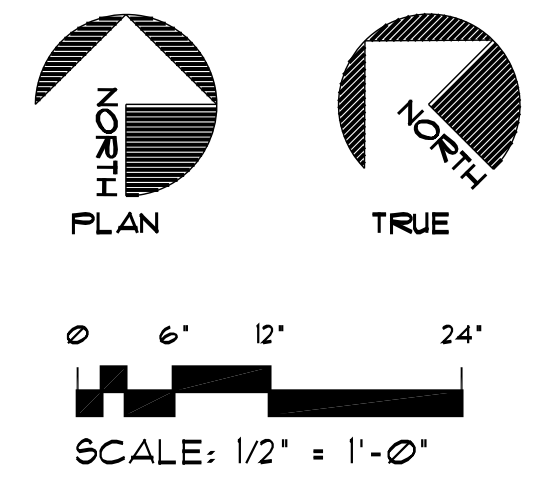
8 STORAGE RACK SECTION SCALE: 1/2" = 1'-0"



2 PARTIAL FLOOR PLAN SCALE: 3/8" = 1'-0"

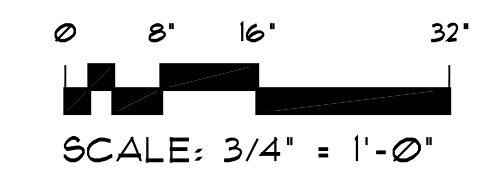
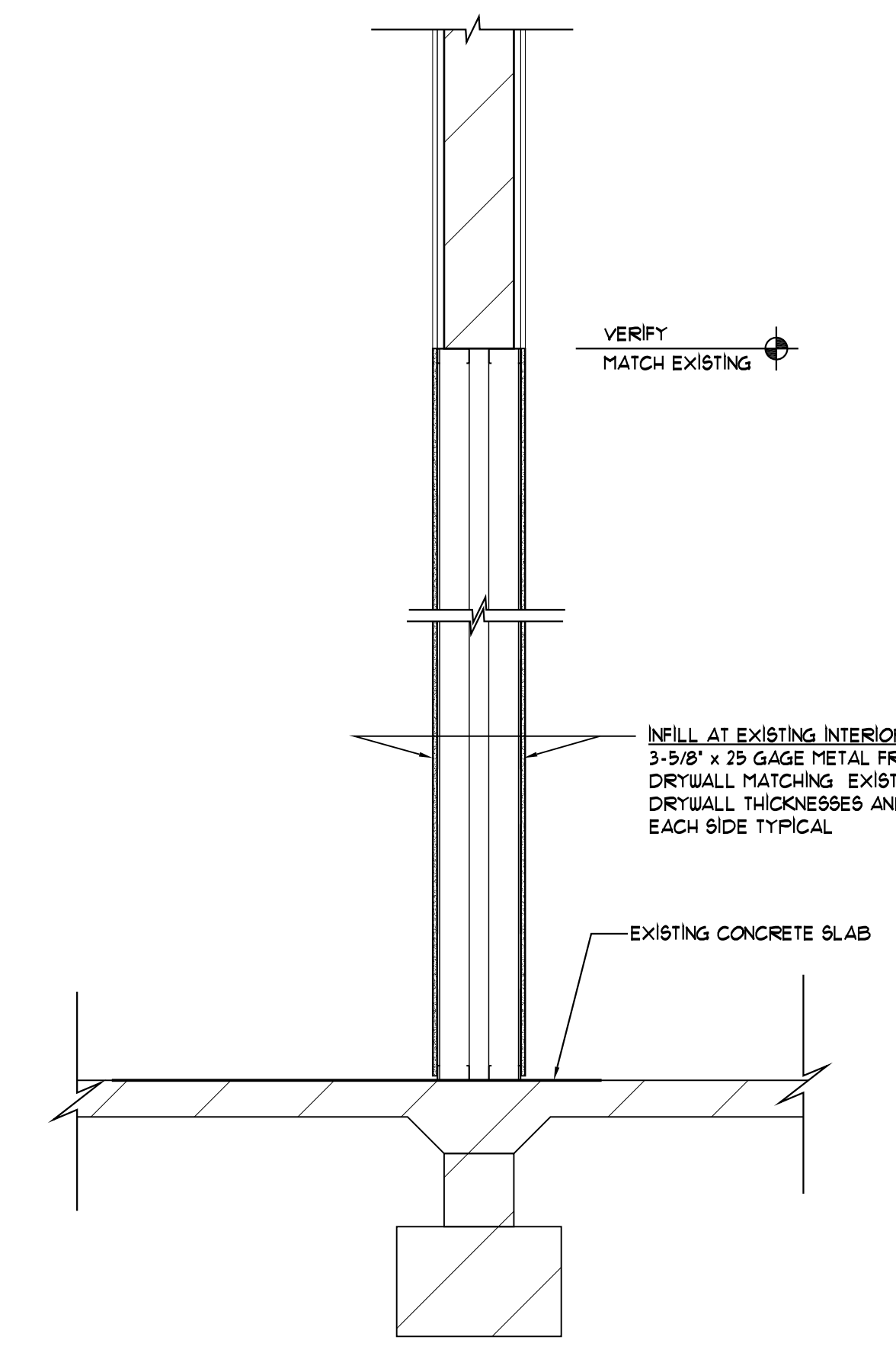
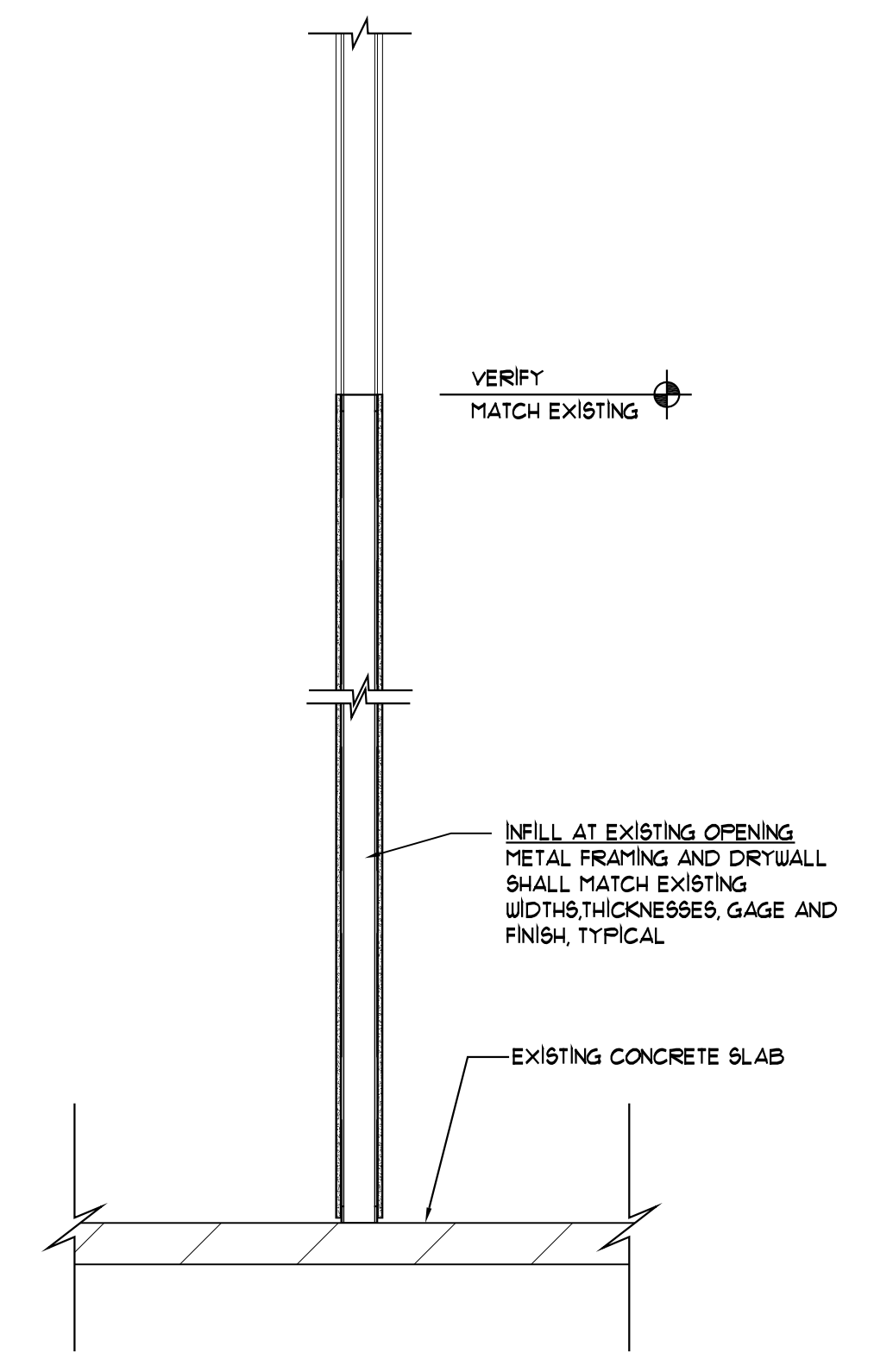
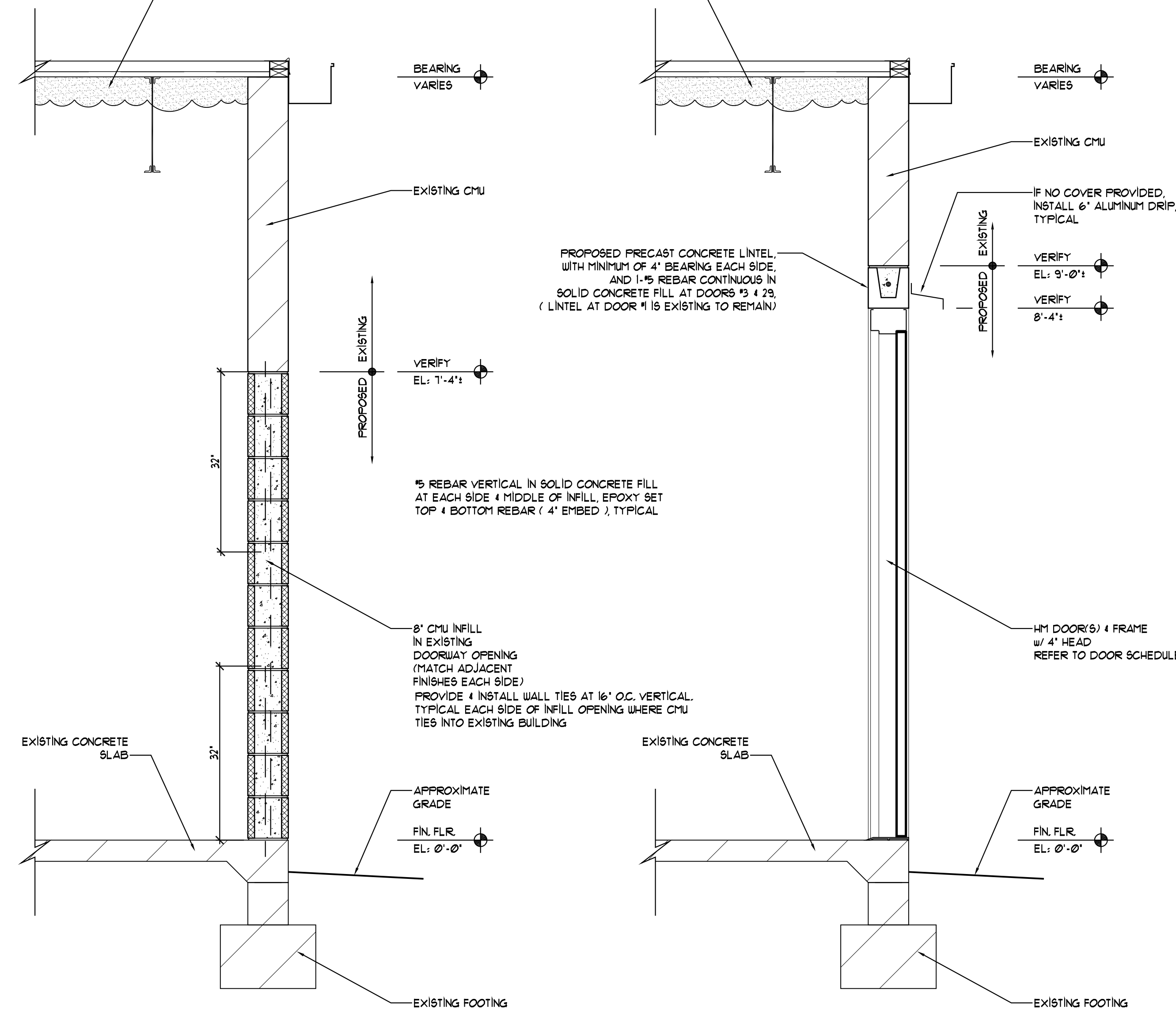


1 PARTIAL FLOOR PLAN SCALE: 1/2" = 1'-0"



INSULATION SHALL BE AN OPEN CELL SPRAY FOAM INSULATION, MINIMUM R-19 VALUE (5.5 INCHES MINIMUM THICKNESS - BASIS OF DESIGN - ICYNENE LD-C-560 - R3.1 PER INCH). THE INSULATION SHALL BE PROVIDED WITH A FIRE PROTECTION, MINIMUM 15 MINUTE THERMAL BARRIER (GAMA-X2 / SHELTER SHIELD - COLOR TO MATCH EXISTING SPACES)

APPROVED INSULATION MANUFACTURERS:
 ICYNENE
 DOWELAC
 CERTAINTEED



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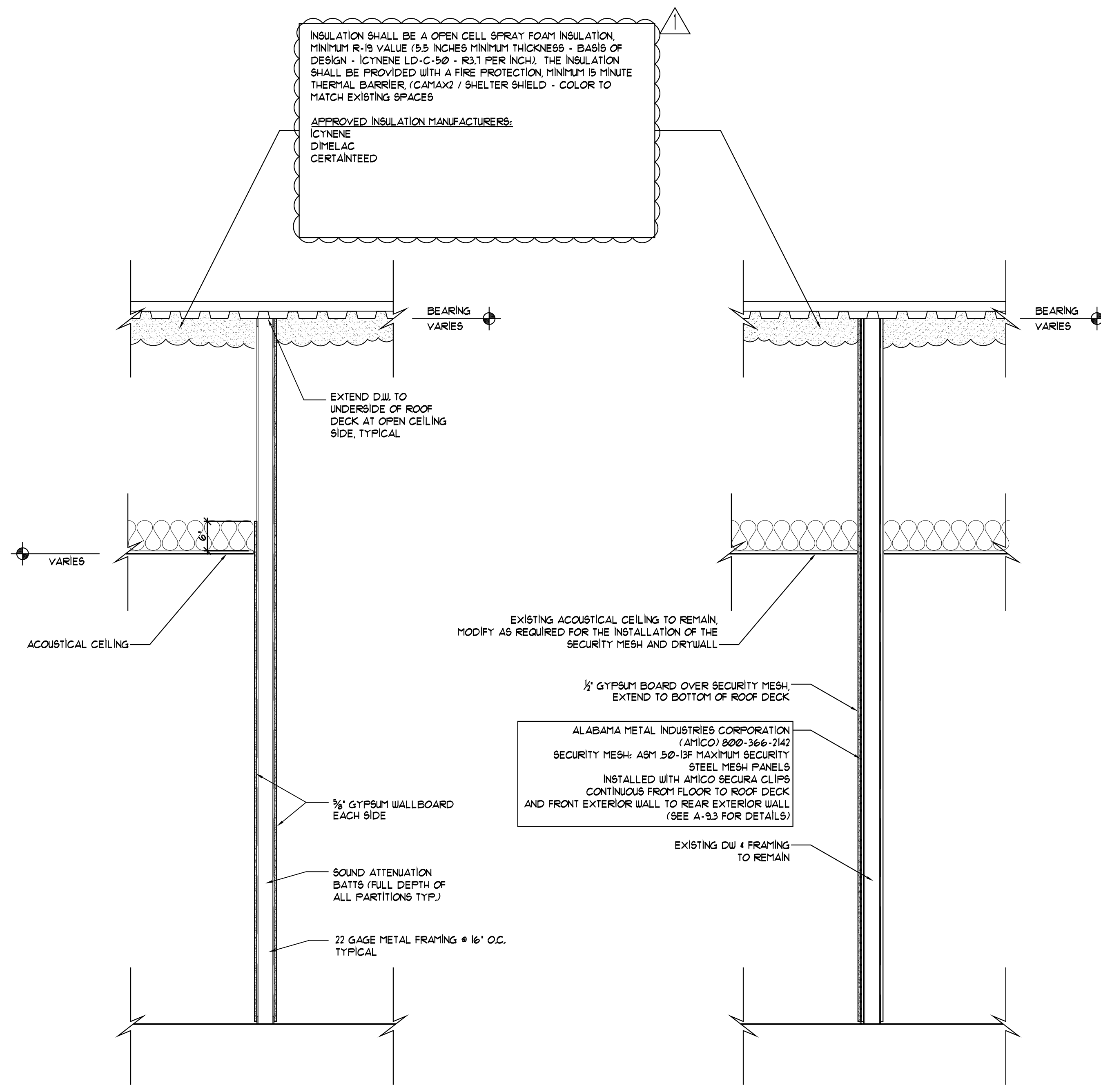
JERRY N. ZOLLER
AA C000567
ARCHITECT / PLANNER

914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4465 FL. REG. 5926

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

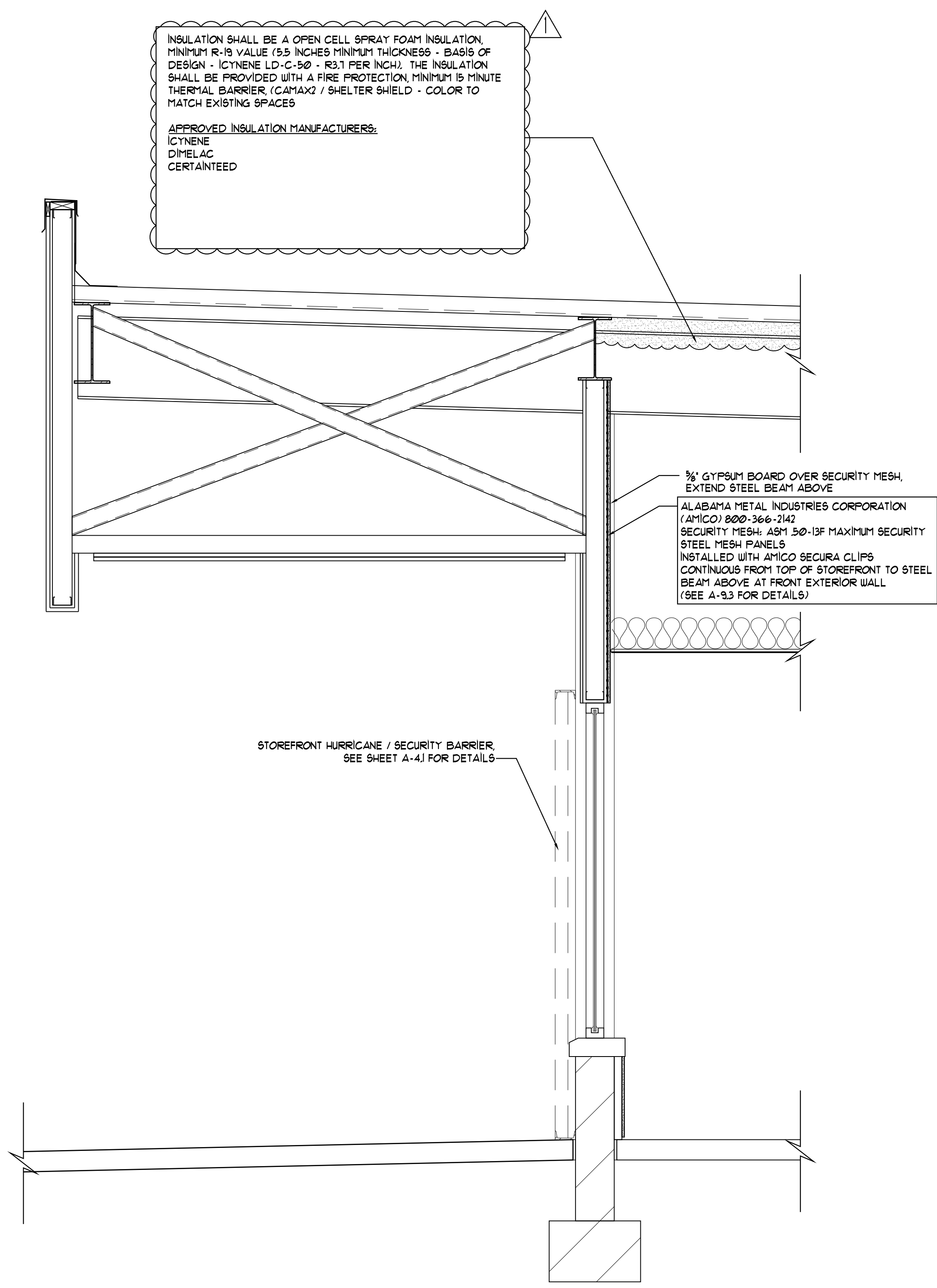
JOB NO	0601J
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DRAWN	SC
CHECKED	JZ
REVISIONS	
REV 1	05/24/2012

A-9.1



E SECTION OF PROPOSED WALL
SCALE: 3/4" = 1'-0"

F SECTION AT SECURITY WALL
SCALE: 3/4" = 1'-0"



G SECTION AT FRONT SECURITY WALL
SCALE: 3/4" = 1'-0"

INSULATION SHALL BE AN OPEN CELL SPRAY FOAM INSULATION, MINIMUM R-19 VALUE (9.5 INCHES MINIMUM THICKNESS - BASIS OF DESIGN - ICYNENE LD-C-50 - R3.1 PER INCH). THE INSULATION SHALL BE PROVIDED WITH A FIRE PROTECTION, MINIMUM IS MINUTE THERMAL BARRIER, (CAMAX2 / SHELTER SHIELD - COLOR TO MATCH EXISTING SPACES)

APPROVED INSULATION MANUFACTURERS:
ICYNENE
DIMELAC
CERTAINTEED

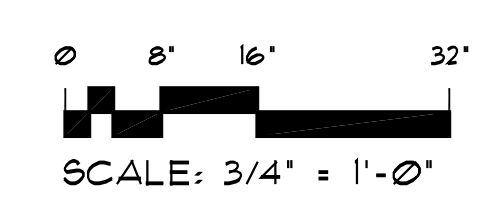
INSULATION SHALL BE AN OPEN CELL SPRAY FOAM INSULATION, MINIMUM R-19 VALUE (9.5 INCHES MINIMUM THICKNESS - BASIS OF DESIGN - ICYNENE LD-C-50 - R3.1 PER INCH). THE INSULATION SHALL BE PROVIDED WITH A FIRE PROTECTION, MINIMUM IS MINUTE THERMAL BARRIER, (CAMAX2 / SHELTER SHIELD - COLOR TO MATCH EXISTING SPACES)

APPROVED INSULATION MANUFACTURERS:
ICYNENE
DIMELAC
CERTAINTEED

ALABAMA METAL INDUSTRIES CORPORATION (AMICO) 800-366-2142 SECURITY MESH: AS1 50-13F MAXIMUM SECURITY STEEL MESH PANELS INSTALLED WITH AMICO SECURA CLIPS CONTINUOUS FROM FLOOR TO ROOF DECK AND FRONT EXTERIOR WALL TO REAR EXTERIOR WALL (SEE A-9.3 FOR DETAILS)

3/2" GYPSUM BOARD OVER SECURITY MESH, EXTEND STEEL BEAM ABOVE

ALABAMA METAL INDUSTRIES CORPORATION (AMICO) 800-366-2142 SECURITY MESH: AS1 50-13F MAXIMUM SECURITY STEEL MESH PANELS INSTALLED WITH AMICO SECURA CLIPS CONTINUOUS FROM TOP OF STOREFRONT TO STEEL BEAM ABOVE AT FRONT EXTERIOR WALL (SEE A-9.3 FOR DETAILS)



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JERRY N. ZOLLER
ARCHITECT / PLANNER

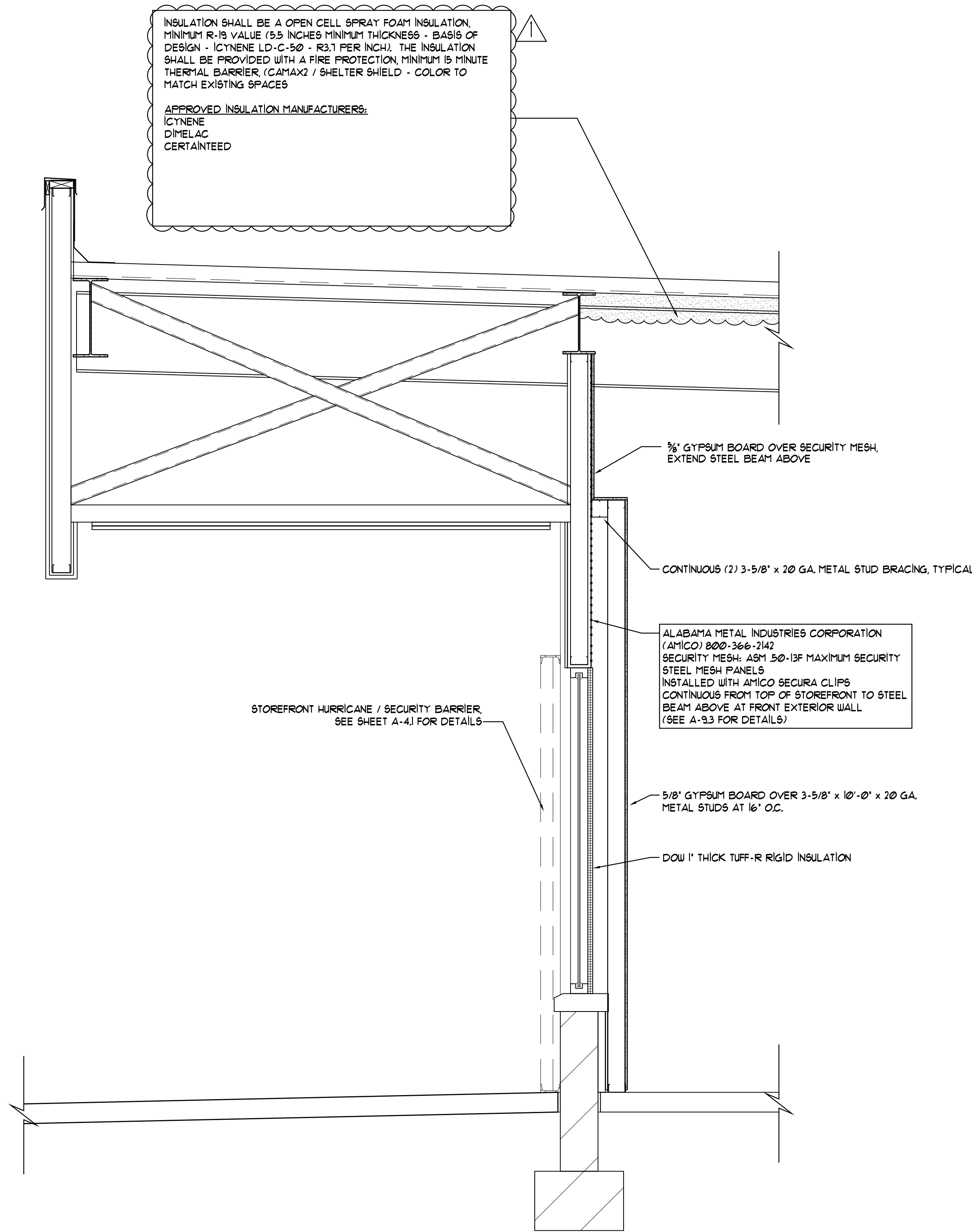
PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**

600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

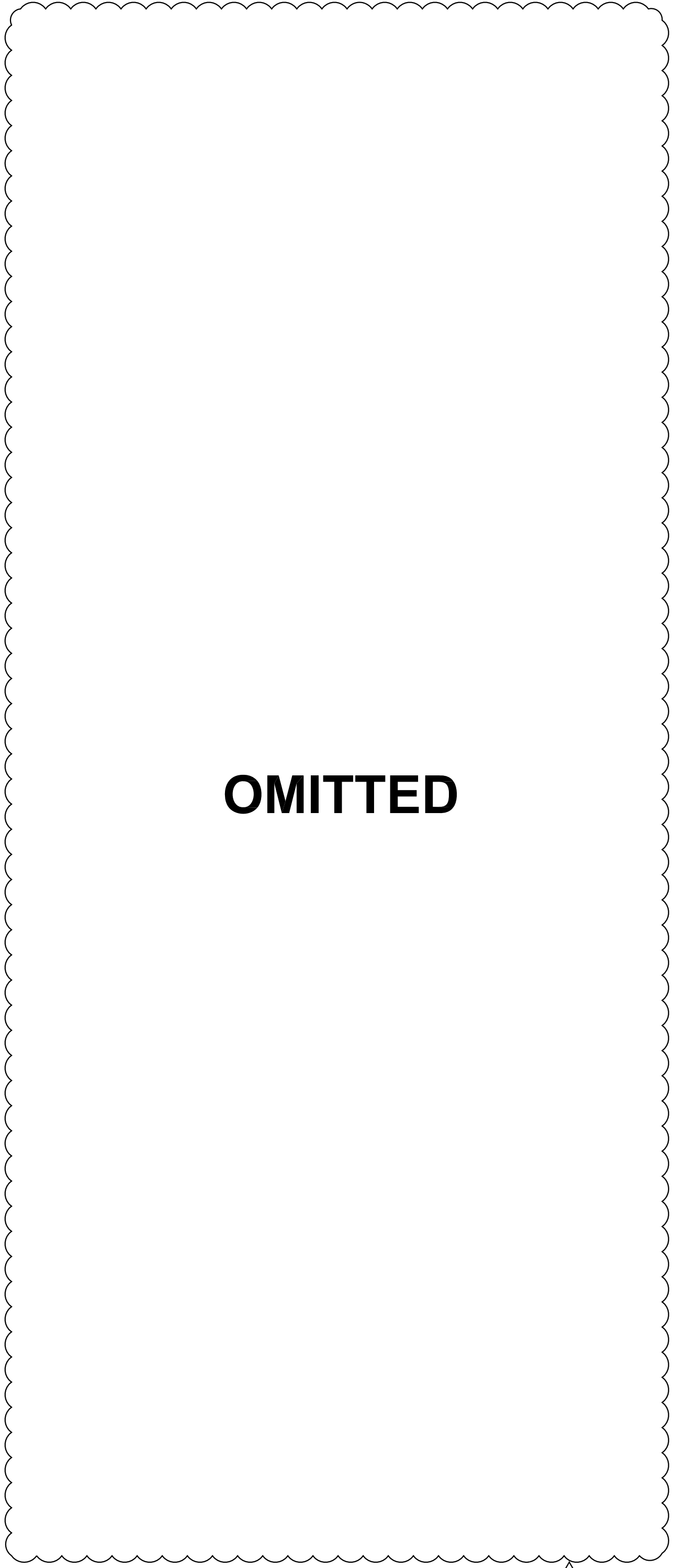
TEL: (941) 748-4465
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JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	SC
CHECKED	JZ
REVISIONS	
REV 1	05/24/2012

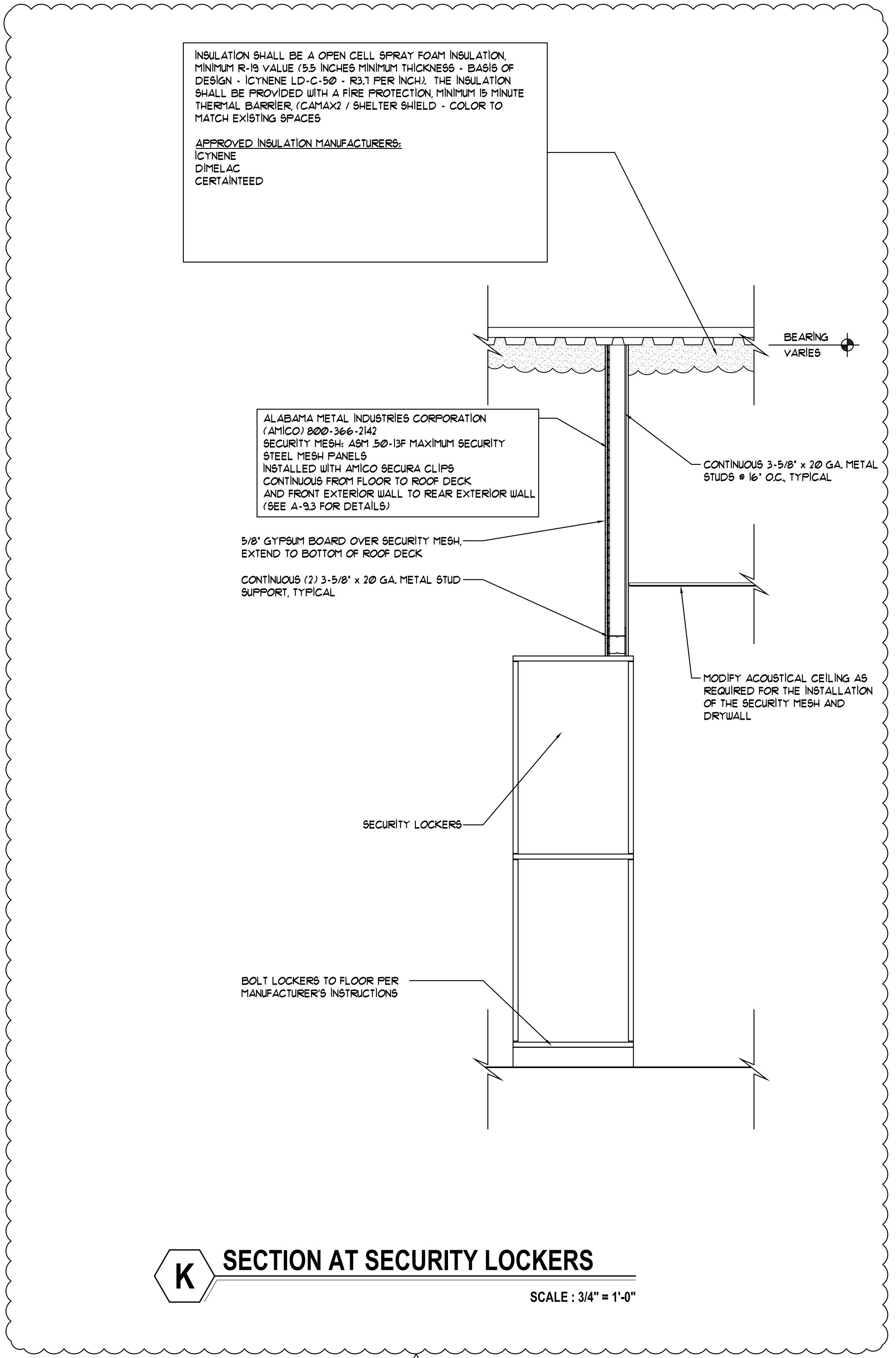
A-9.2



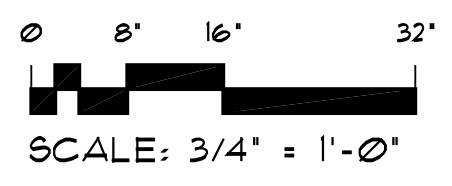
H SECTION AT SECURITY WALL
SCALE: 3/4" = 1'-0"



J SECTION AT HATCH
SCALE: 3/4" = 1'-0"



K SECTION AT SECURITY LOCKERS
SCALE: 3/4" = 1'-0"



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ARCHITECT / PLANNER

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PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	SC
CHECKED	JZ
REVISIONS	
REV 1	05/24/2012

A-9.3

SECURITY MESH™
ASM .50-13F
Maximum Security

1.01 SCOPE OF WORK
 Supply and install steel expanded metal panels as a penetration barrier behind wall board using the manufacturers' recommended method of installation as specified.

1.02 SYSTEM DESCRIPTION
 As manufactured by Alabama Metal Industries Corporation, (AMICO), Security Mesh shall be made from a sheet of steel that is simultaneously silt and stretched into a rigid, open mesh diamond making one continuous sheet that cannot unravel. The finished shape of the mesh openings shall be a flattened diamond. **Conventional expanded metal not manufactured specifically for security purposes is NOT acceptable for this use.** Security Mesh shall be attached to framing members by using AMICO Secura Clips following the manufacturers recommended spacing.

1.03 REFERENCES
 All components and parts in this specification shall meet or exceed current standards and specifications as designated by the American Society for Testing and Materials. Shall be certified Security Mesh per ASTM F1287, Type 2, Class 1 mill finish. Underwriters Laboratories Fire Rated Assemblies (per UL subject File #1857) will not be jeopardized by using AMICO's Security Mesh in the fire rated assembly.

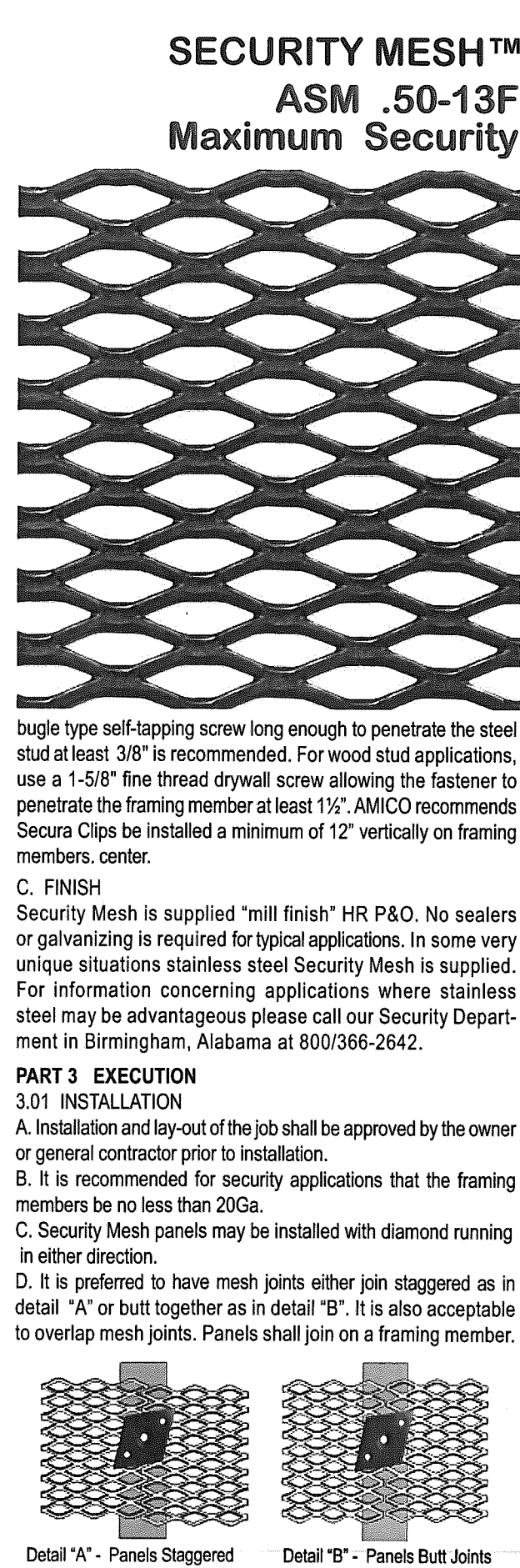
1.04 SUBMITTAL
 The manufacturers' submittal information shall include brochures, details and specifications and samples if requested prior to ordering.

1.05 STORAGE AND HANDLING
 Materials shall be stored in a clean dry location with proper ventilation to avoid damage from moisture. Materials shall be protected against damage from weather, vandalism and theft. In the event of freight damage, note on freight bill and contact manufacturer immediately.

PART 2 MATERIALS
2.01 MANUFACTURER
 ALABAMA METAL INDUSTRIES CORPORATION, (AMICO),
 3245 Fayette Avenue • Birmingham, AL 35208
 Telephone 800/366-2642 • Facsimile 205/786-6527
 Internet homepage- www.amico-securityproducts.com

2.02 MATERIALS
A. AMICO SECURITY MESH - ASM .50 - 13F
 The Security Mesh used shall conform to the following specification:
 Carbon steel - meet or exceed ASTM A-1011 HSLA Steel
 1. Width of panel - 4 ft. (Also produced in 5ft. & 6ft. widths)
 2. Length of panel - 8 ft. (Also produced in 12ft lengths)
 3. Mesh diamond width - 0.500 inch x 1.260 inch long bond to bond with 24 diamonds per lineal foot
 4. Mesh size opening - width 0.250 inch x 1.000 inch long allowing 57% open area
 5. Mesh strand width - 0.122 inch
 6. Mesh strand thickness - 0.070 inch
 7. Weight - 1.40 pounds per square foot
 8. Security Mesh shall be manufactured from HSLA steel as produced by Alabama Metal Industries Corporation, (AMICO).
 Tolerances: SWD = 0 + 1/4" per foot of dimension
 LWD = 0 + 1/4" per foot of dimension

B. AMICO SECURA CLIPS
 Security Mesh shall be attached to framing members using AMICO Secura Clips and the appropriate threaded fasteners. A flat head



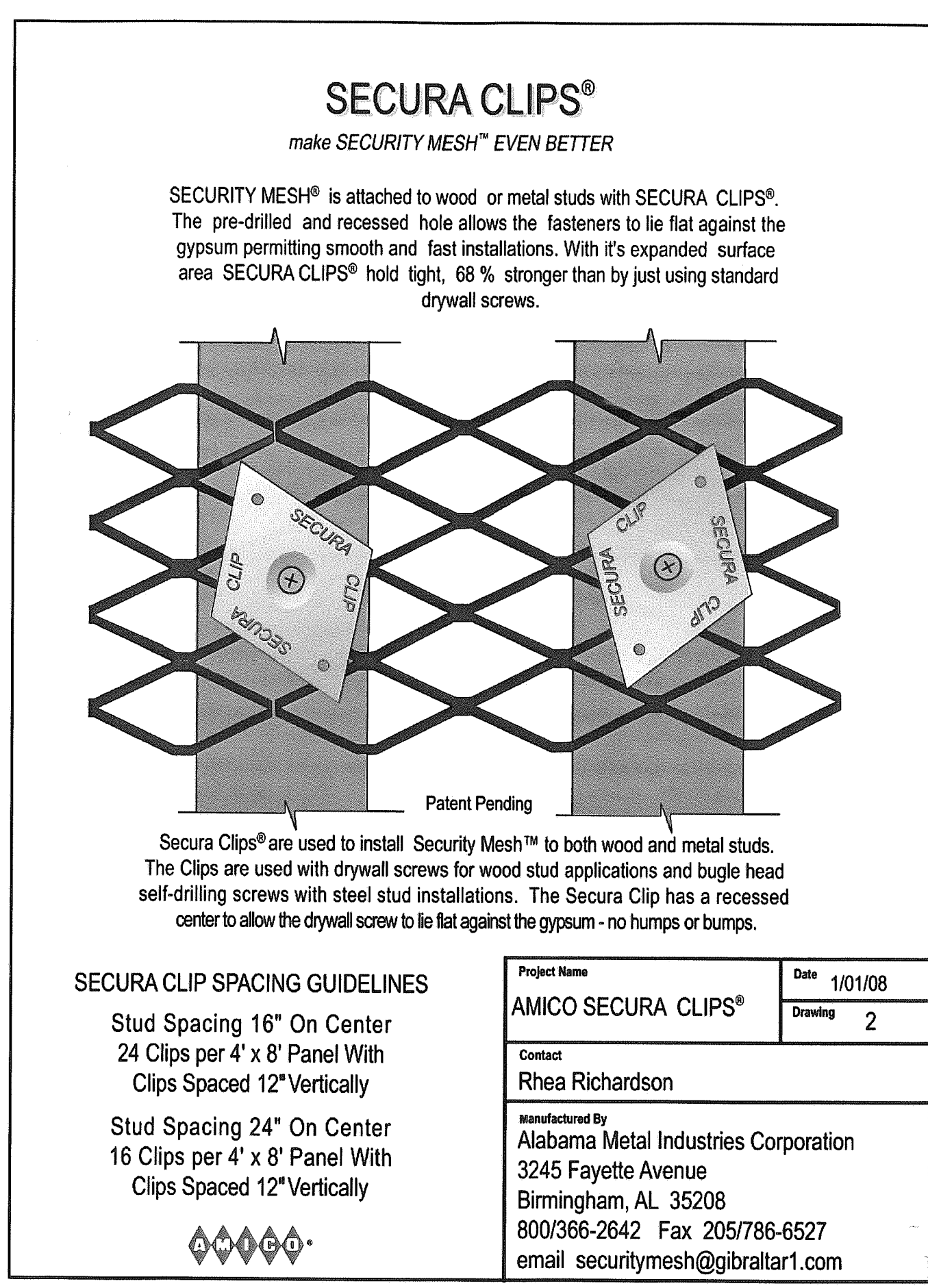
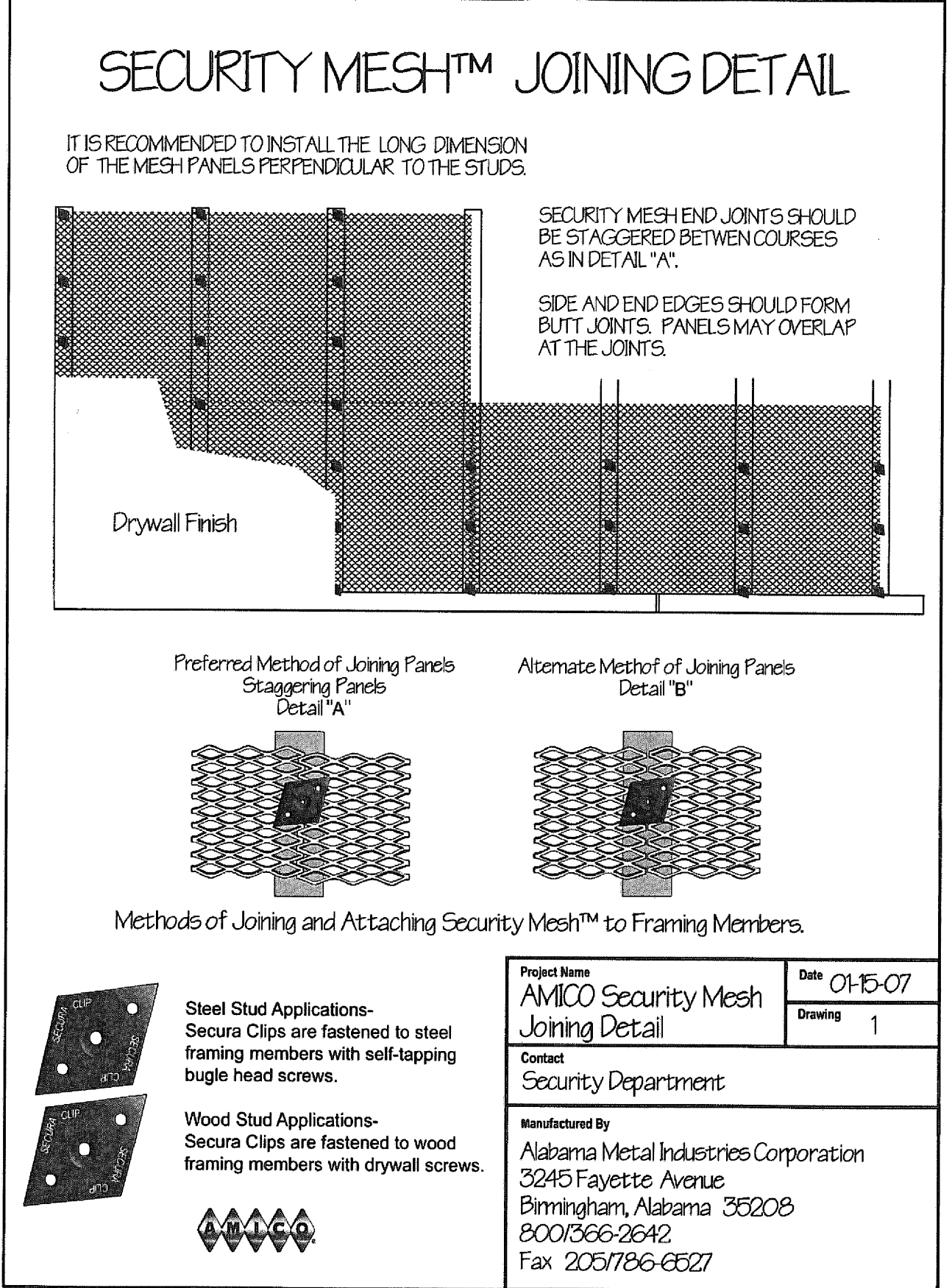
Security Mesh™
 Wall Penetration Barrier

Alabama Metal Industries Corporation
 January 2005



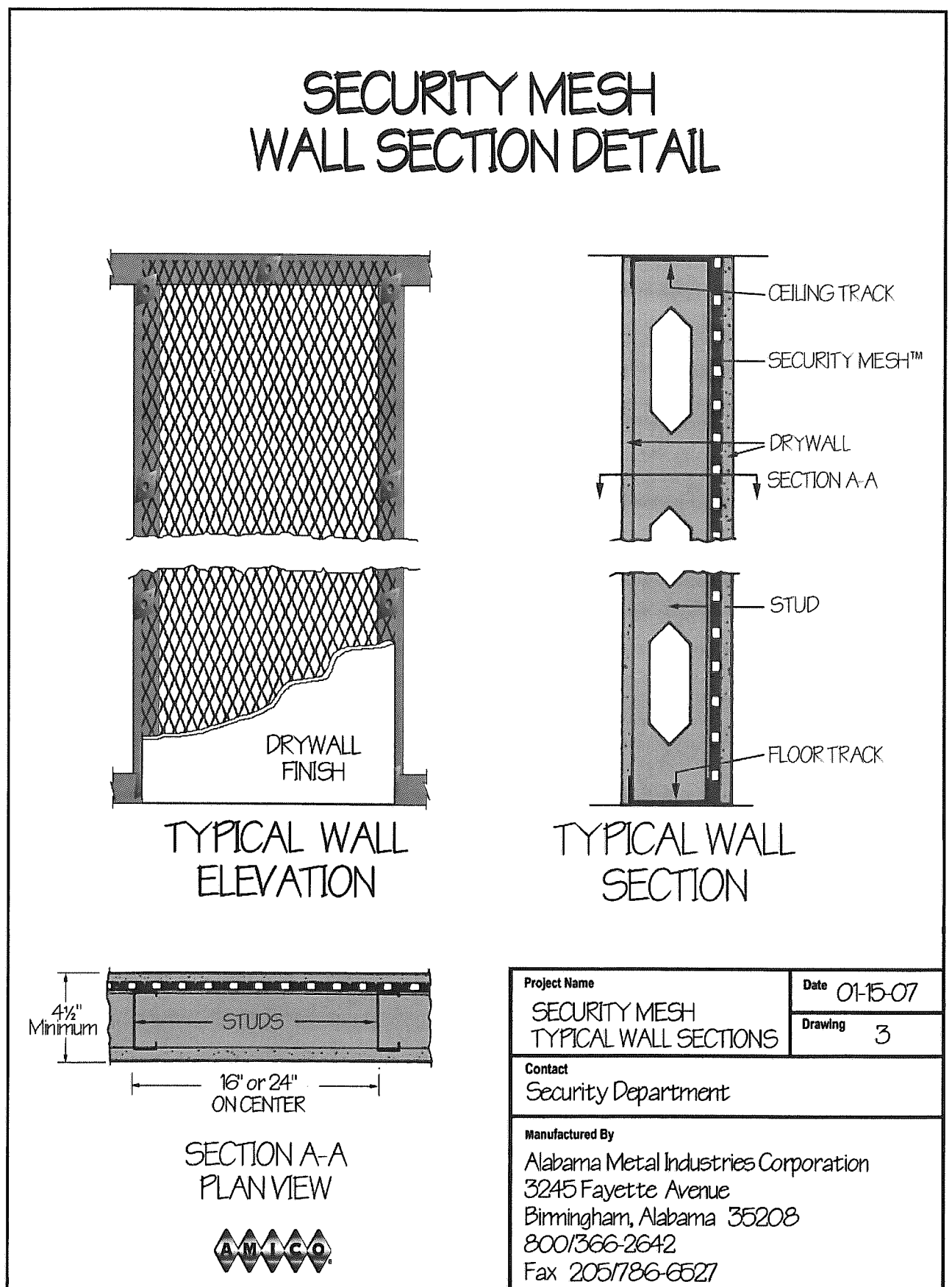
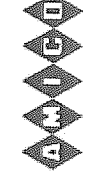
Security Mesh™
 Wall Penetration Barrier

Alabama Metal Industries Corporation
 January 2007



Security Mesh™
 Wall Penetration Barrier

Alabama Metal Industries Corporation
 January 2008



Security Mesh™
 Wall Penetration Barrier

Alabama Metal Industries Corporation
 January 2007



LEGENDS, GENERAL NOTES AND ABBREVIATIONS

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BOT	BOTTOM
CC	COOLING COIL
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING CLEANOUT
CO	COOLING TOWER
CT	CONDENSING UNIT
CU	COLD WATER
CW	CONDENSER WATER RETURN
CWR	CONDENSER WATER SUPPLY
DB	DRY BULB
DCC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ENERGY CONTROL CENTER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EW	ENTERING WATER TEMPERATURE
EXIST	EXISTING
FDPR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FPI	FINS PER INCH
FPF	FINS PER FOOT
FPM	FEET PER MINUTE
G	GUARD
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HE	HEAT EXCHANGER
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MC	MECHANICAL CONTRACTOR
MD	MOTORIZED DAMPER
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
OA	OUTSIDE AIR
OS&Y	OUTSIDE SCREW & YOKE
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PERF	PERFORATED
PRESS	PRESSURE
RA	RETURN AIR
RD	ROOF DRAIN
RL	RAIN LEADER
RTU	ROOF TOP UNIT
S	SANITARY
SDPR	SMOKE DAMPER
SA	SUPPLY AIR
SPIR	SPIRAL
SURF	SURFACE
SP	STATIC PRESSURE
TCC	TEMPERATURE CONTROL CONTRACTOR
T	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT

DUCTWORK

	UP	DN	SUPPLY DUCT (UP & DOWN)
	UP	DN	EXHAUST DUCT (UP & DOWN)
	UP	DN	RETURN AIR DUCT (UP & DOWN)
			CEILING DIFFUSERS
			SIDE WALL REGISTER OR GRILLE
			RETURN OR EXHAUST CEILING GRILLE
			EXHAUST OR RETURN WALL MTD GRILLE
	10x8		NEW DUCT - WIDTH X DEPTH (SINGLE LINE)
			EXISTING DUCT TO REMAIN (SINGLE LINE)
			EXISTING DUCT TO BE REMOVED (SINGLE LINE)
			FLEXIBLE DUCTWORK (INSULATED) (SINGLE LINE)
			SPIN-IN FITTING (SINGLE LINE)
			DUCT SIZE TRANSITION (CONCENTRIC) (SINGLE LINE)
			DUCT SIZE TRANSITION (ECCENTRIC) (SINGLE LINE)
			DUCT TRANSITION (RECTANGULAR TO ROUND) (SINGLE LINE)
			ACOUSTICALLY LINED DUCT
			INCLINED RISE, IN DIRECTION OF AIR FLOW
			INCLINED DROP, IN DIRECTION OF AIR FLOW
			FLEXIBLE CONNECTION
			LOUVER
			MANUAL VOLUME DAMPER
			FIRE DAMPER
			SMOKE DAMPER
			FIRE / SMOKE DAMPER
			SMOKE DETECTOR
			DUCT HEATER
			VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
			VANED ELBOW (SHORT RADIUS)
			STANDARD RADIUS ELBOW
			VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
			THERMOSTAT / TEMPERATURE SENSOR
			HUMIDISTAT / HUMIDITY SENSOR
			UNDERCUT (1" U.O.N.)
			DOOR GRILLE (18"x12" U.O.N.)
	A		AIR DEVICE TYPE
	100		AIR FLOW CFM
	6"		NECK SIZE
			4-WAY AIR FLOW
			3-WAY AIR FLOW
			2-WAY AIR FLOW
			1-WAY AIR FLOW

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

PIPING

	CWS	CONDENSER WATER SUPPLY
	CWR	CONDENSER WATER RETURN
	CHWS	CHILLED WATER SUPPLY
	CHWR	CHILLED WATER RETURN
	CD	CONDENSATE LINE
	RL	REFRIGERANT LIQUID
	RS	REFRIGERANT SUCTION
	RHG	REFRIGERANT HOT GAS
	HWS	HOT WATER SUPPLY
	HWR	HOT WATER RETURN
		DOMESTIC WATER
		GATE VALVE
		GLOBE VALVE
		CHECK VALVE
		BALL VALVE
		PLUG VALVE
		PRESSURE REDUCING VALVE
		2-WAY CONTROL VALVE
		3-WAY MODULATING CONTROL VALVE
		SAFETY OR PRESSURE RELIEF VALVE
		MANUAL AIR VENT
		BUTTERFLY VALVE
		HOSE BIBB
		ANGLE GLOBE VALVE
		MOTOR OPERATED GATE VALVE
		MOTOR OPERATED GLOBE VALVE
		TEST PLUG (PRESSURE / TEMPERATURE)
		OUTSIDE SCREW & YOKE (O S & Y)
		DIRECTION OF FLOW
		ANCHOR
		REDUCER OR INCREASER
		ECCENTRIC REDUCER
		TOP CONNECTION, 45 OR 90 DEG.
		BOTTOM CONNECTION, 45 OR 90 DEG.
		SIDE CONNECTION
		CAPPED OUTLET
		RISE OR DROP IN PIPE
		UNION
		STRAINER
		THERMOMETER
		PRESSURE GAGE
		WATER FLOW MEASURING DEVICE
		EXISTING PIPE TO BE REMOVED

DRAWING SYMBOLS

	2	DETAIL NUMBER
	FP5	DRAWING NUMBER WHERE DRAWN
	A	SECTION LETTER
	FP5	DRAWING NUMBER WHERE DRAWN
		POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
		POINT OF DEMOLITION P.O.D.
		POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- HVAC WORK CONSISTS OF PROVIDING AND INSTALLING AIR CONDITIONING SYSTEMS FOR A COMPLETE OPERATING SYSTEM AND AS INDICATED ON THE DRAWINGS. ALL WORK SHALL COMPLY WITH APPLICABLE CODES IN SPECIFICATIONS. IT IS THE INTENTION OF THE CONTRACT DRAWINGS AND SPECIFICATIONS TO CALL FOR COMPLETE, FINISHED WORK, TESTED, AND READY FOR OPERATION.
- TEST AND BALANCE SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS AS SUBCONTRACTOR TO THE HVAC CONTRACTOR, GENERAL CONTRACTOR, OR OWNER. THE TEST AND BALANCE CONTRACTOR SHALL BE A MEMBER OF NEBB.
- DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE AIR PASSAGE DIMENSIONS.
- PROVIDE SPIN-IN FITTINGS AT ALL FLEXIBLE DUCT RUNOUTS TO DIFFUSERS WITH AIR EXTRACTOR AND DAMPER.
- MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0".
- ALL PIPING SUBJECT TO THERMAL EXPANSION AND/OR CONTRACTION THAT PENETRATES A SMOKE, FIRE, OR FIRE/SMOKE WALL, PARTITION, OR FLOOR SLAB SHALL BE SUITABLY SLEEVED AND FIRE SAFED.
- PROVIDE IDENTIFICATION OF THE LOCATION OF ALL BALANCING DAMPERS. IDENTIFICATION TAGS SHALL BE AFFIXED TO THE WALLS OR CEILINGS AND SHALL BE VISIBLE FROM THE OCCUPIED SPACE.
- ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
- INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS.
- CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
- PENETRATIONS THROUGH FIRE RATED ASSEMBLIES, PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING FIRE STOP MATERIAL. FIRE STOP SEALANTS SHALL BE UL LISTED. APPLY FIRE STOP AS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ITS LISTING TO MEET OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH IT IS INSTALLED.
- ALL INSULATION SHALL BE FIRE RATED IN ACCORDANCE WITH ASHRAE 90A 50/25 SMOKE DEVELOPMENT AND FLAME SPREAD REQUIREMENTS. INSULATION "R" VALUES SHALL COMPLY WITH THE FLORIDA ENERGY CODE.
- MOUNT ALL SPACE THERMOSTATS/ HUMIDISTATS AND/OR SENSORS 4 FEET ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
- INSTALL DUCT MOUNTED SMOKE DETECTORS (FURNISHED BY DIVISION 16) IN SUPPLY AIR DUCTWORK CONNECTED TO EACH A/C UNIT. WIRE DUCT MOUNTED SMOKE DETECTORS SUCH THAT ACTIVATION WILL DE-ENERGIZE AIR HANDLING UNIT FAN. LOCATE DUCT MOUNTED SMOKE DETECTORS THE REQUIRED DISTANCE DOWNSTREAM FROM BENDS OR INLETS AS RECOMMENDED BY THE MANUFACTURER.
- AIR HANDLING/ ROOFTOP UNITS SHALL BE SHUT DOWN BY THE FIRE ALARM SYSTEM. WIRE THROUGH FIRE ALARM RELAY CONTACT (PROVIDED BY THE FIRE ALARM CONTRACTOR) TO SHUT DOWN AIR HANDLING UNITS UPON FIRE ALARM ACTIVATION. COORDINATE WITH FIRE ALARM CONTRACTOR ACCORDINGLY.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL AIR DEVICES LOCATED IN THE CEILING.
- SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT.
- UNLESS OTHERWISE NOTED, INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO THE BOTTOM OF THE STRUCTURE (JOISTS). COORDINATE ELEVATION AND LOCATION WITH RAIN LEADERS, WATER PIPING, PLUMBING VENTS, AND MAJOR ELECTRICAL CONDUITS OR CABLE TRAY.
- PROVIDE MOTORIZED DAMPERS IN ALL OUTSIDE AIR DUCTS.
- PROVIDE DRAIN P-TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
- ROUTE FULL SIZE (MIN. 1") COPPER DRAIN PIPE FROM EACH RTU DRAIN PAN TO RESPECTIVE ROOF DRAIN. INSULATE WITH 3/4" ARMSTRONG "ARMAFLEX" INSULATION. PROVIDE AND INSTALL CONDENSATE FLOAT SWITCHES ON ALL PAN DRAIN LINES FOR UNIT SHUT DOWN.
- THE ARCHITECT/ ENGINEER HAS MADE AN EXTENSIVE EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ARCHITECT/ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- THE WORK INDICATED ON THESE DRAWINGS IS GENERALLY DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF DUCTWORK AND EQUIPMENT, ETC.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- PROVIDE BALANCING DAMPER IN EACH BRANCH CONNECTION.
- ALL DUCTWORK INSTALLED ON THIS PROJECT SHALL BE OF SHEET METAL CONSTRUCTION. DUCTWORK SHALL BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH SMACNA REQUIREMENTS. ALL EXPOSED DUCTWORK SHALL BE INSULATED TO PREVENT CONDENSATION.
- ALL ROOF ATTACHED EQUIPMENT AND APPURTENANCES INCLUDED IN THE SCOPE OF THIS PROJECT ARE REQUIRED TO BE SECURED TO THE UNDERLYING BUILDING STRUCTURE. THE FASTENING SYSTEMS SHALL BE DESIGNED TO WITHSTAND A 140 MPH WIND LOAD.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.
- PROVIDE AND INSTALL BURGLAR BARS ON ALL ROOF AND WALL PENETRATIONS AS PER THE DETAILS.
- METAL DUCTS WHICH PENETRATE 1 HOUR RATED FIRE WALLS AND ARE LESS THAN 100 SQUARE INCHES SHALL EXTEND A MINIMUM OF 5 FEET ON BOTH SIDES OF THE WALL WITHOUT AN OPENING (TO PRECLUDE THE REQUIREMENT OF A FIRE DAMPER). DUCTWORK SHALL IN NO CASE BE LIGHTER (TO PRECLUDE THE REQUIREMENT OF A FIRE DAMPER). DUCTWORK SHALL IN NO CASE BE LIGHTER THAN 24 GAUGE STEEL.

DRG. D. CAMERON
09/14/2008

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SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

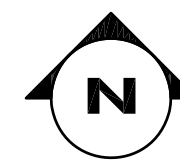
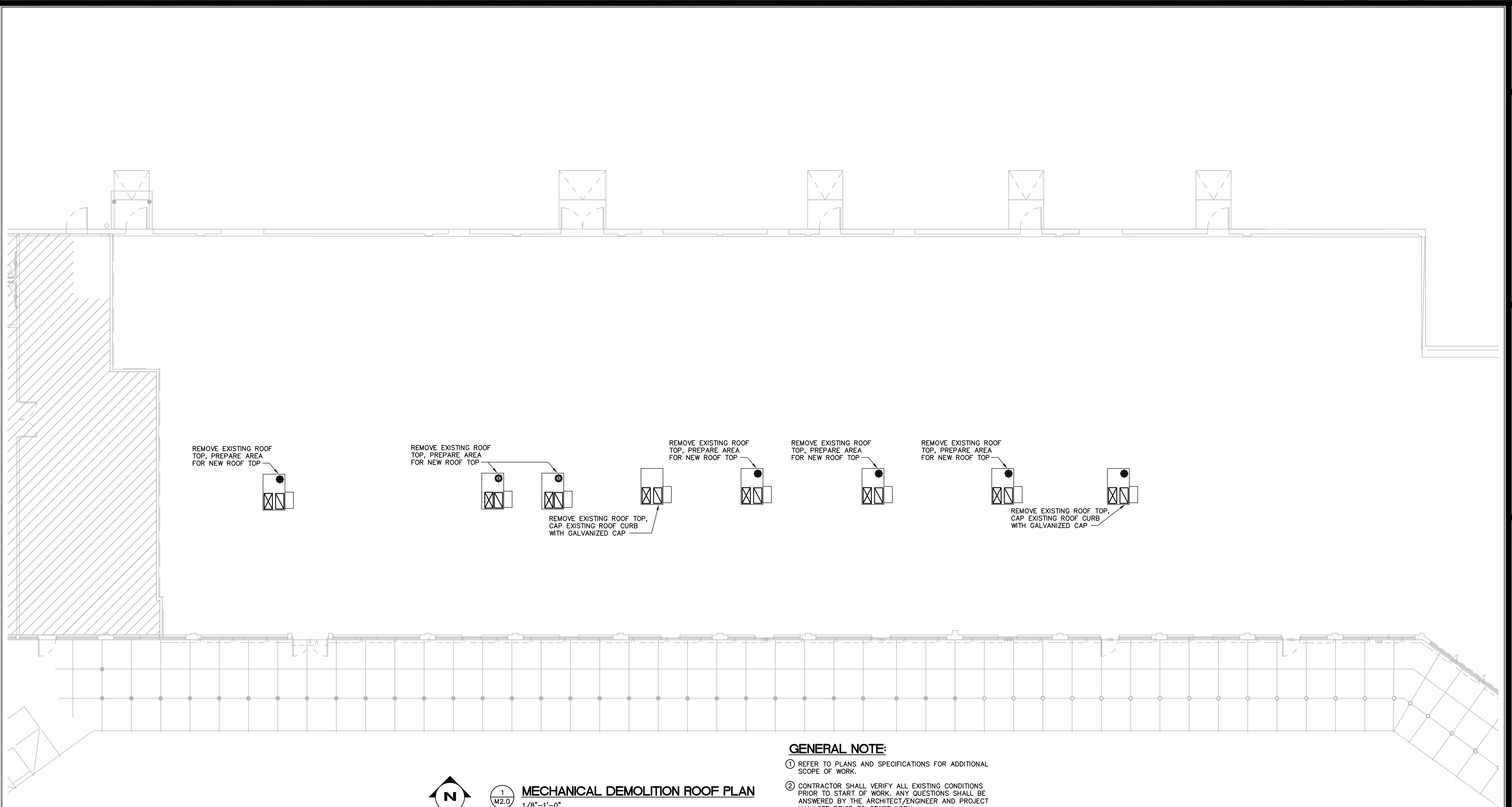


JERRY N. ZOLLER AIA
ARCHITECT / PLANNER P.A.
014 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4665

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
BRADENTON, FLORIDA

JOB NO 0601J
DATE MAR 08, 2012
DRAWN
CHECKED
REVISIONS

M-1.0



1
M2.0

MECHANICAL DEMOLITION ROOF PLAN
1/8" = 1'-0"

GENERAL NOTE:

- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.

JOHN D. CAMERON
 P.E. #12345

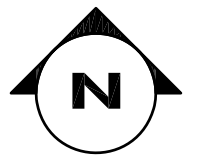
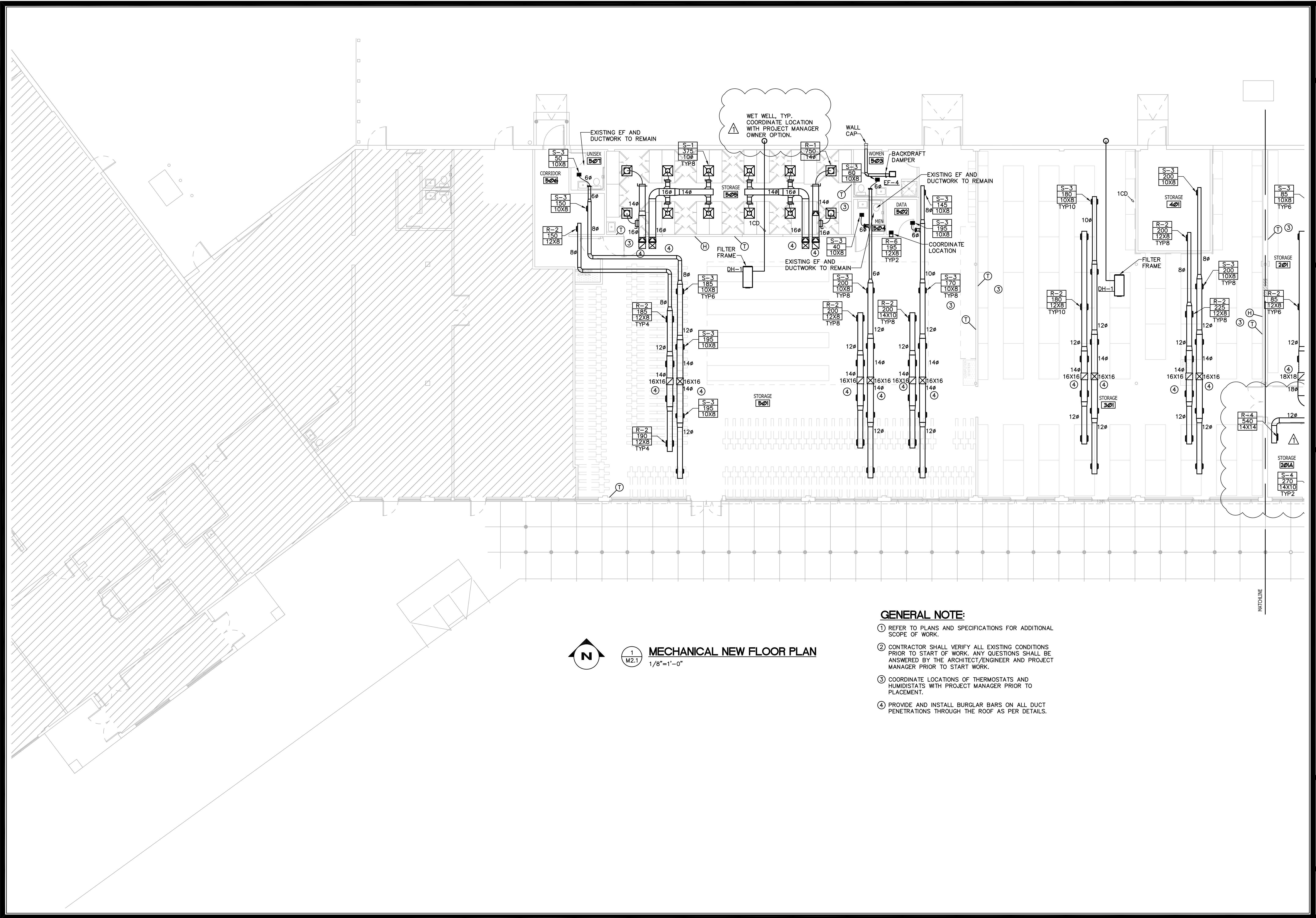
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 SARASOTA, FLORIDA
 ENGR. BUSINESS #8908
 941-360-2181

JERRY N. ZOLLER
 AIA
 ARCHITECT / PLANNER P.A.
C0000567
 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

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REVISIONS	

M-2.0



1
M2.1
MECHANICAL NEW FLOOR PLAN
1/8"=1'-0"

GENERAL NOTE:

- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- ③ COORDINATE LOCATIONS OF THERMOSTATS AND HUMIDISTATS WITH PROJECT MANAGER PRIOR TO PLACEMENT.
- ④ PROVIDE AND INSTALL BURGLAR BARS ON ALL DUCT PENETRATIONS THROUGH THE ROOF AS PER DETAILS.

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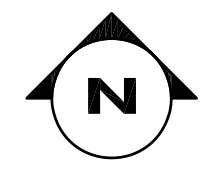
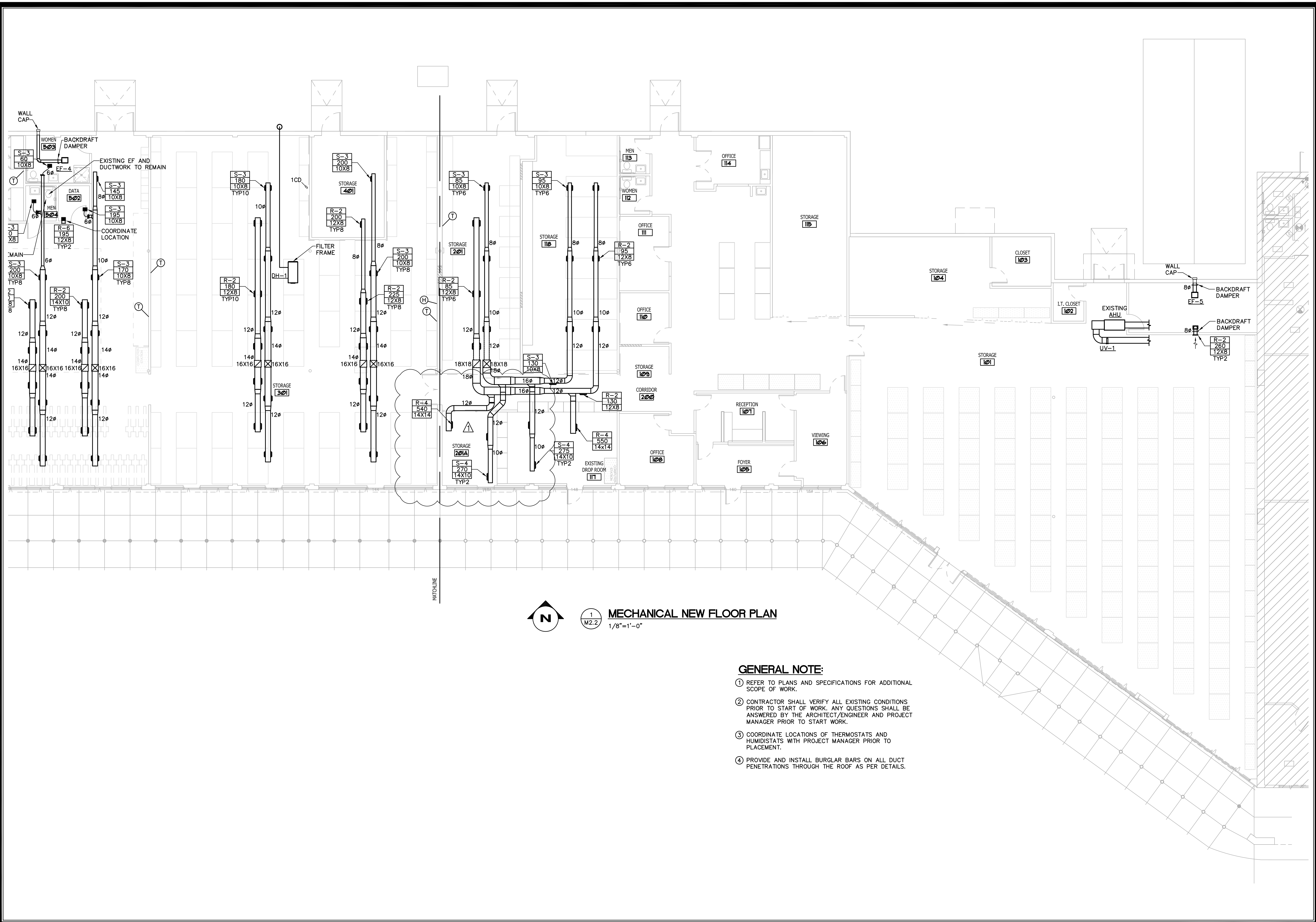
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ARCHITECT / PLANNER P.A.
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

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**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

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	05/11/2012

M-2.1

DATE: 03/08/12
DRAWN BY: J.C.



1
M2.2
MECHANICAL NEW FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTE:

- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- ③ COORDINATE LOCATIONS OF THERMOSTATS AND HUMIDISTATS WITH PROJECT MANAGER PRIOR TO PLACEMENT.
- ④ PROVIDE AND INSTALL BURGLAR BARS ON ALL DUCT PENETRATIONS THROUGH THE ROOF AS PER DETAILS.

JOHN D. CAMDEN
 P.E. 12535

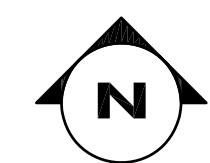
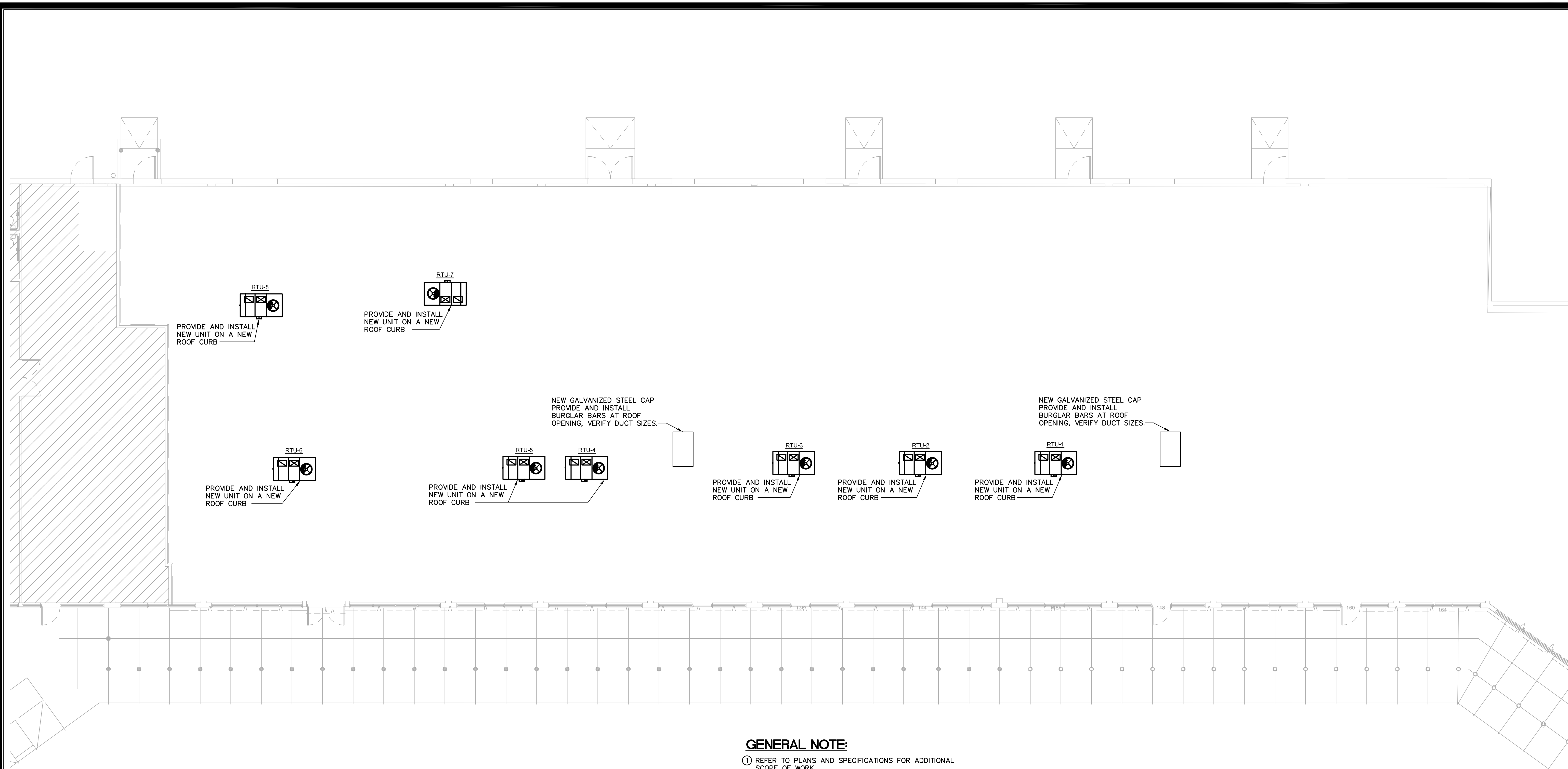
ATP ENGINEERING SOUTH, PL
 SARASOTA, FLORIDA
 ENGR. BUSINESS #8908
 941-360-2181

JERRY N. ZOLLER
 AIA
 ARCHITECT / PLANNER
 P.A.
0000567
 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4655

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

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M-2.2



1
M2.3
MECHANICAL NEW ROOF PLAN
1/8"=1'-0"

- GENERAL NOTE:**
- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
 - ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.

ORNL D. CAMDEN
03/16/2012

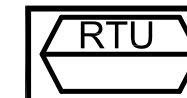
ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER AIA
ARCHITECT / PLANNER P.A.
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

JOB NO	0601J
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CHECKED	JK
REVISIONS	

M-2.3



PACKAGED ROOFTOP HVAC UNIT SCHEDULE (ELECTRIC) TWO MANUFACT. SHOWN FOR COMP.BID.

TAG NO.	AREA SERVED	NOMINAL TONS	EVAPORATOR DATA			REFRIGERANT TYPE	EVAPORATOR COIL DATA								CONDENSER		COMPRESSOR			HEATING DATA			FILTER DATA			ELECTRICAL DATA			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS	
			CFM	EXT. S.P. IN. WG.	HP		E.D.B. °F	E.W.B. °F	L.D.B. °F	L.W.B. °F	TOTAL MBH	SENSIBLE MBH	COIL FACE AREA	ROWS	FINS/INCH	AMBIENT TEMP °F	FAN HP	QTY.	STAGES	LRA	MBH OUTPUT	KW	STAGES	TEMP. RISE	TYPE	EFF %	VOLTS	PHASE					HERTZ
1	118/201	5	2300	.5	1.0	r410a	76	65	58	57	61.17	40.70	7.71	4	16	95	.4	1	scroll	110	44.7	13.1	2	17.9	2"TA	8	208	3	60	TRANE	TSC060	797	1-6
2,3	301	4	1800	.5	1.0	r410a	76	65	59	56	48.2	31.6	7.71	4	16	95	.33	1	scroll	91	40.7	13.1	2	20.8	2"TA	8	208	3	60	TRANE	TSC048	747	1-6
4,5,6	501	4	1700	.5	1.0	r410a	76	65	59	56	48.2	31.5	7.71	4	16	95	.33	1	scroll	91	40.7	13.1	2	22	2"TA	8	208	3	60	TRANE	TSC048	747	1-6
7,8	505	3	1440	.5	.75	r410a	76	65	59	57	36.7	24.5	7.71	3	16	95	.33	1	scroll	95		4.2	2	20.9	2"TA	8	208	3	60	TRANE	TSC036	716	1-6

NOTES:

- UNIT SUPPLIED WITH 120 VOLT RECEPTACLE, OUTSIDE AIR DAMPER AND HOOD, MFR WELDED 12" ROOF CURB, FRAMES AND RACKS FOR 2" MERV 8 PLEATED DISPOSABLE FILTERS, TWO SETS OF FILTERS, ONE 7 DAY 24 HOUR PROGRAMMABLE THERMOSTAT, OA DAMPER IS OPEN WHEN UNIT IS ON, CLOSED WHEN OFF.
- FILTERS, CONDENSATE SWITCH, SMOKE DETECTOR SHUT DOWN, EQUAL STEPS OF ELECTRIC HEAT, SEER 13.0.
- UNIT SHALL BE ARRANGED FOR SINGLE POINT ELECTRICAL CONNECTION. DISCONNECT BY EC. RTU-1 60 MOCP, RTU-2,3 40 A MOCP, RTU-4,5,6 40A, RTU -7,8 35A.
- COLOR OF UNIT SHALL BE AS SELECTED BY ARCHITECT.
- ASSURE PROTECTION OF EXISTING ROOF WARRANTY STAYS IN AFFECT. COORDINATE WITH ARCHITECT.



PACKAGED ROOFTOP HVAC UNIT SCHEDULE (ELECTRIC)

TAG NO.	AREA SERVED	NOMINAL TONS	EVAPORATOR DATA			REFRIGERANT TYPE	EVAPORATOR COIL DATA								CONDENSER		COMPRESSOR			HEATING DATA			FILTER DATA			ELECTRICAL DATA			MANUFACTURER	MODEL NO.	WEIGHT	REMARKS	
			CFM	EXT. S.P. IN. WG.	HP		E.D.B. °F	E.W.B. °F	L.D.B. °F	L.W.B. °F	TOTAL MBH	SENSIBLE MBH	COIL FACE AREA	ROWS	FINS/INCH	AMBIENT TEMP °F	FAN HP	QTY.	STAGES	LRA	MBH OUTPUT	KW	STAGES	TEMP. RISE	TYPE	EFF %	VOLTS	PHASE					HERTZ
1	118/201	5	2300	.5	1.5	r410a	76	65	57	56	62.9	43.3	5.06	4	13	95	1/2	1	scroll	123	54.25	15.9	2	21.8	2"TA	8	208	3	60	York	ZR060	654	1-6
2,3	301	4	1800	.5	1.5	r410a	76	65	57	56	47.7	32.7	5.06	3	13	95	1/2	1	scroll	120	40.62	11.9	2	20.9	2"TA	8	208	3	60	York	ZR048	644	1-6
4,5,6	501	4	1700	.5	1.5	r410a	76	65	57	56	47.7	32.7	5.06	3	13	95	1/2	1	scroll	120	40.62	11.9	2	20.9	2"TA	8	208	3	60	York	ZR048	644	1-6
7,8	505	3	1500	.5	1.5	r410a	76	65	57	56	36.4	26.6	5.06	3	13	95	1/2	1	scroll	95	13.46	4.2	2	20.9	2"TA	8	208	3	60	York	ZR048	644	1-6

NOTES:

- UNIT SIZED AT COOLING COIL ENTERING AT 95°F CONDENSING TEMPERATURE. UNIT RTU-1-8 SEER 13.0, OA RTU 1 - 130CFM, RTU-2,3 150CFM EACH, RTU-4,5,6 130 CFM, RTU-7,8 - 40 CFM EACH
- UNIT SUPPLIED WITH 120 VOLT RECEPTACLE, OUTSIDE AIR DAMPER AND HOOD, MFR WELDED 12" ROOF CURB, FRAMES AND RACKS FOR 2" MERV 8 PLEATED DISPOSABLE FILTERS, TWO SETS OF FILTERS, ONE 7 DAY 24 HOUR PROGRAMMABLE THERMOSTAT. FILTERS, CONDENSATE SWITCH, SMOKE DETECTOR SHUT DOWN, EQUAL STEPS OF ELECTRIC HEAT, SEER 13.0.
- UNIT SHALL BE ARRANGED FOR SINGLE POINT ELECTRICAL CONNECTION. DISCONNECT BY EC. RTU-1 70A MOCP, RTU-2,3 50 A MOCP, RTU-4,5,6 50A, RTU -7,8 30A.
- COLOR OF UNIT SHALL BE AS SELECTED BY ARCHITECT.
- ASSURE PROTECTION OF EXISTING ROOF WARRANTY STAYS IN AFFECT. COORDINATE WITH ARCHITECT AND PROJECT MANAGER.

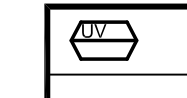


GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS
S-1	4 WAY	10#	24X24	TBAR	ALUM	WHITE	150-385	OBD	TITUS	PAS-AA	1,2,3,5
S-2	4 WAY	12#	24X24	TBAR	ALUM	WHITE	230-500	OBD	TITUS	PAS-AA	1,2,3,5
S-3	DBL DFLT	8X6	10X8	SURF	ALUM	WHITE	0-200	OBD	TITUS	272FS	1,2,3,4
S-4	DBL DFLT	12X8	14X10	SURF	ALUM	WHITE	180-400	OBD	TITUS	272FS	1,2,3,4
S-5	DBL DFLT	10X6	12X8	SURF/SPIR	ALUM	WHITE	0-280	OBD	TITUS	S300FL	1,2,3,4
S-6	DBL DFLT	12X8	14X10	SURF/SPIR	ALUM	WHITE	150-450	OBD	TITUS	S300FL	1,2,3,4
S-7	DBL DFLT	12X12	14X14	SURF/SPIR	ALUM	WHITE	260-750	OBD	TITUS	S300FL	1,2,3,4
R-1	PERF	14#	24X24	TBAR	ALUM	WHITE	0-790	OBD	TITUS	PAR-AA	1,2,3
R-2	EGCRATE	10X6	12X8	SURF	ALUM	WHITE	0-270	OBD	TITUS	50F	1,2,3,5
R-3	EGCRATE	12X8	14X10	SURF	ALUM	WHITE	170-500	OBD	TITUS	50F	1,2,3,5
R-4	EGCRATE	12X12	14X14	SURF	ALUM	WHITE	260-800	OBD	TITUS	50F	1,2,3,5
R-5	EGCRATE	18X10	20X12	SURF	ALUM	WHITE	330-1000	OBD	TITUS	50F	1,2,3,5
R-6		45	12X8	14X10	SURFACE	STEEL	0-285	OBD	TITUS	23RL	2,5

NOTES:

- COORDINATE CEILING FRAMES WITH CEILING TYPE ON ARCHITECTURAL PLANS.
- OPPOSED BLADE DAMPER, ADJUSTABLE FROM UNIT FRONT. VOLUME DAMPERS ON ALL DROPS
- REVIEW REFLECTED CEILING PLAN FROM ARCHITECTURAL PLANS, AND ELEVATIONS FOR FINAL LOCATIONS
- SIDE WALL GRILLES AIR THROW PROJECTED AT 14-18 FEET MEDIAN RANGE- 22.5 DEGREES.
- PROVIDE AND INSTALL INSULATED RECTANGULAR TO ROUND TRANSITION BOX FOR GRILLE.



ULTRAVIOLET UNIT SCHEDULE

MARK (UV)	SERVES	CFM	TYPE ACCESS	HOUSING DIM. (IN.)		PERCENT EFF	UNIT								MANUFACTURER	MODEL	REMARKS
				LENGTH	DIAMETER		UNIT VOLTAGE	FILTER									
UV-1	STORAGE	3-1200	SIDE	12	4	99.9%	12-24VDC								GUARDIAN	RGF-PHI	1,2

NOTES:

- UNIT IS SUPPLIED AND INSTALLED BY OTHERS - COUNTY MAINTENANCE, UNIT IS UL LISTED. VERIFY EXISTING SUPPLY DUCT DIMENSIONS.
- ALL DIMENSIONS ARE IN INCHES. UNLESS NOTED. UNIT USES 13.3 WATTS AT 12 VDC. SERIES NUMBER HVAC-PHI-118-GA.

DEHUMIDIFIER UNIT SCHEDULE

ITEM	---	DH-1
TOTAL SUPPLY AIR	CFM	425
ESP		.30
MOTOR, UNIT MCA- NO ELECT HT.	FLAMPS	14.5
ELECTRICAL	V/PH/HZ	120/1/60
DEHUMIDIFIER		16 PINTS/HR REMOVAL
TOTAL COOLING CAPACITY	MBH	12.0
TOTAL REHEATING CAPACITY	MBH	15.5
MANUFACTURER	---	AIR ENERGY
MODEL NO.	---	DVA400HSC

NOTES:

- UNIT SUPPLIED WITH VIBRATION ISOLATION, MERV 11 -19X21X4, DRAIN PAN, WALL HUMIDISTAT AND TIMER, 3/4" CONDENSATE LINE, OUTLET FLANGE, AND 120 VOLT PLUG, AND PIG TAIL. 185 LB.
- COOLING CAPACITY RATED AT COIL ENTERING 80°F DB/63°F WB, REFRIGERANT R410A. ROOM TEMP DESIGN 80° F.
- ALL UNITS SHALL BE HAVE FILTER ACCESS, AND CONDENSATE DRAIN. CONDENSATE PUMPS SHALL BE INTEGRAL WITH UNITS.
- PROVIDE DRAIN PAN OUT OUT SWITCH WIRED IN SERIES WITH INLINE FLOAT SWITCH AT DH PRIOR TO CONDENSATE LINE TRAP.
- THE AUXILIARY DRAIN PAN IS NOT TIED TO CONDENSATE LINE.

OUTDOOR AIR LOAD CALCULATIONS

(FMC SECTION 403) ASHRAE 62-2010
 17 CFM PER PERSON OFFICE
 .06 CFM/ SF STORAGE SPACE
 EXISTING RESTROOMS 50 CFM/ WC TO REMAIN
 6 PEOPLE AS PER ARCH. PLANS
 11659 SF STORAGE X .06 = 699 CFM
 6 X 17 = 102 CFM
 3 WC X 50 = 150 CFM
 SHOWER = 75 CFM - 120 CFM INSTALLED
 EXISTING RESTROOM EXHAUST SYSTEMS TO REMAIN
 EXCEPT IN SHOWER ROOM.
 260 CFM EXHAUST MANUAL OPERATION
 TO BE INSTALLED IN ONE STORAGE ROOM.
 SPACE OA = 801 CFM TOTAL REQUIRED
 900 CFM OA INSTALLED

HVAC LOAD CALCULATIONS SUMMARY

	ZONE 1 -118/201	ZONE 2 - 301	ZONE 3 - 501	ZONE 4 - 505
SIZING METHOD	CARRIER E20II	CARRIER E20II	CARRIER E20II	CARRIER E20II
AREA (SQ. FEET)	2302	3828	4723.2	805
TOTAL COOLING REQUIRED W/ OUTSIDE AIR (MBH)	50.4	88.5	118	60.9
OUTDOOR DRY BULB USED	93	93	93	93
OUTDOOR WET BULB USED	79	79	79	79
RELATIVE HUMIDITY %	55	55	55	57
INDOOR DRY BULB	75	75	75	75
TOTAL HEATING REQUIRED W/ OUTSIDE AIR (MBH)	22.2	40.6	51	8.5
TOTAL SENSIBLE GAIN (MBH)	42.1	71.5	99	56.5
TOTAL LATENT GAIN (MBH)	8.3	17	19	4.4
LB/LB SPECIFIC HUMIDITY ACROSS COIL	.00758	.00811	.00686	.00851

Reference: 13-407.1.ABC.1 SIZING, 2009 FLORIDA BUILDING CODE

FAN SCHEDULE

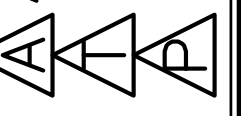
ITEM NO.	---	EF-4 SHOWER	EF-5 STORAGE
SERVICE	---	CABINET	CABINET
AIR QUANTITY	CFM	120	260
EXT. STATIC PRESSURE	IN. WTR.	.375	.625
FAN TYPE	---	CENTRIF	CENTRIF
DRIVE	---	DIRECT, VS	DIRECT, VS
SONES	---	1.5	4.0
MOTOR	HP	129 W	135W
FAN SPEED	RPM	849	1242
ELECTRICAL	V/PH./HZ.	120/1/60	120/1/60
CONTROLS	---	MOTION/TIMER	TIMER
LOCATION	---	CEILING SHOWER RM	CEILING STORAGE RM
MANUFACTURER	---	GREENHECK	GREENHECK
MODEL NO.	---	SP-B150 19#	SP-A390 32#

NOTES:

- PROVIDE FAN WITH BACKDRAFT DAMPER, WALL CAP STYLE OUTLET, MOTION SENSOR, TIMER, AND VIBRATION ISOLATION, AND CEILING GRILLE, UNIT DISCONNECT, FLEXIBLE CONNECTION, STEEL FAN.
- PROVIDE FAN WITH BACKDRAFT DAMPER, WALL CAP STYLE OUTLET, 10,30,60 MINUTE TIMER WITH PUSH BUTTON, VIBRATION ISOLATION, CEILING GRILLE, UNIT DISCONNECT, FLEXIBLE CONNECTION, STEEL FAN.

DAMI, D. CAMDEN
09/12/2008

ATP ENGINEERING SOUTH, PL
 SARASOTA, FLORIDA
 ENGR. BUSINESS #8908
 941-360-2181



JERRY N. ZOLLER
 ARCHITECT / PLANNER
 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
 MANATEE COUNTY DESOTO CENTER
 SHERIFF'S OFFICE EVIDENCE ROOM
 BRADENTON, FLORIDA

600 U.S. 301 BLVD. WEST

JOB NO 0601J
 DATE MAR 08, 2012
 DRAWN JG
 CHECKED JG
 REVISIONS

M-3.0

1. SCOPE

Furnish all necessary labor, materials, and equipment and perform all work called for on the Drawings and specified herein for a complete HVAC plumbing and fire protection system with functioning mechanical, general building, and electrical systems and all utility connections as required. Review and consultation with the Project Manager/ Architect is required prior to any work being performed and completed.

2. RELATED WORK SPECIFIED ELSEWHERE

All Bidding Documents, including Contract Conditions, Instructions to Bidders, Supplements, and Addendums are part of this specification. Should any questions or conflicts arise, request written clarification from the Project Manager/ Architect / Engineer and abide the interpretation of the Project Manager / Architect/ Engineer.

3. CODES AND STANDARDS

The following Codes and Standards are in effect or latest approved by the local jurisdiction for the project: Florida Mechanical Code, Florida Plumbing Code, Florida Fire Prevention Code, Florida Building Code, National Electrical Code, Florida Energy Code, NFPA Pamphlets, Florida Trench Act, Manatee County Local Codes and Ordinances, Cedar Hammock Fire Department Fire Review. Should any changes be required to the Drawings or Specifications to comply with these codes, request written clarification from the Project Manager/ Architect/ Engineer or abide by the interpretation of the Project Manager/ Architect/ Engineer. The current edition of each code shall be the one in effect for the project as adopted by the authority having jurisdiction.

4. PERMITS, LICENSES, FEES, AND INSPECTIONS

Obtain, pay for, and maintain all necessary Permits, Licenses, and Certificates of Inspection, pay for all installation charges, plant investment fees that are required by the Local utility company servicing the project.

5. QUALIFICATION OF CONTRACTOR/SUBCONTRACTOR

The Contractor shall be thoroughly experienced in the installation of the HVAC, plumbing, fire protection, electrical, and general building systems shown on the Drawings and specified herein. All work performed by the Contractor shall be of the highest quality. The Contractor shall be responsible for his Subcontractors to see that the systems are installed in accordance with the Drawings and Specifications.

6. WORK METHODS AND CONDITIONS

The Contractor shall be responsible for working conditions on the project, and shall see that no unsafe working conditions or methods are used. The Architect/Engineer shall not be responsible for unsafe working conditions or methods used on the project. The Architect/ Engineer is also not responsible for hazardous materials testing, inspection and remediation of any perceived or actual denoted hazardous material on the job site. It is the responsibility of the Owner to provide proof to the Contractor if any such substance is not on site.

7. ACCESS TO EQUIPMENT

Provide for easy removal of coils, fan shafts, fan wheels, drives, belts, filters, electrical equipment and other parts requiring periodic replacement or maintenance. Arrange for access to all motors, and controls. Provide all access panels in equipment, ducts, walls, ceilings and floors for same. (ADA) The Americans Disability Act applies to access to all controls, fixtures, and light switches Refer to Florida Building Code for locations of all items.

8. COORDINATION

The Drawings show the general arrangement of the work, piping, equipment, and appearances. Follow the Drawings as closely as possible but make necessary offsets, transitions, and fittings that may be required to avoid conflicts. Work shall occur at times beyond the normal Monday-Friday day time schedules; pricing shall include, nights, week-ends, and holiday work to perform change-outs so as not to shutdown the operation of public facilities.

9. GUARANTEE

Guarantee all work against any defects in equipment, material, or workmanship for a period of one year after the final date of acceptance. The guarantee does not include maintenance of equipment.

10. EQUIPMENT SUBMITTALS AND SHOP DRAWINGS

Submit four copies of each of the following submittals to the Engineer for approval: Piping, valves, insulation, covering, Gas valves, plumbing fixtures, ADA accessories, electric water heater, Concrete testing, and compaction testing, and steel material lists. Refer to each specification sheet for each discipline's requirements (Electrical, and Mechanical) if a contractor provides a piece of equipment that exceeds the scheduled capacities and physical size as on the plans, as a substitution or equal, the contractor shall pay for all systems, mechanical, electrical, fire, plumbing, utility, structural, and architectural changes to install the substituted equipment.

11. OPERATION AND MAINTENANCE MANUALS

Provide three copies of the Operations and Maintenance Manuals consisting of three ring binders, plastic pressed base. Provide Manufacturers literature for each piece of equipment including installation instructions, operating instructions, maintenance instructions, replacement parts list, as-built drawings, lubrication schedule, name and address, and phone number of nearest service agency.

12. SEISMIC BRACING

All equipment, piping, ductwork, interior and exterior electrical, and appurtenances shall be adequately braced to withstand the lateral forces from the seismic event or weather wind occurrence of a magnitude indicated in the Florida Building Code for the project location. As a minimum this shall include anchoring of all equipment to the walls of floors and double diagonal bracing of every fourth duct, conduit, and pipe hanger.

13. TEMPORARY SERVICES

The Contractor will provide temporary power, water, sewer, utility services and demolition hauling services. If the Contractor interrupts a service, the owner shall be notified and repairs or temporary service arrangements will commence within an eight-hour period. Scheduling of service outages will be notified to owners. Notification will be at least in written form within 24 hours of the outage, with verbal notification 4 hours prior to the service outage of each affected owner.

The use of the Owner's utilities, heating and cooling system, and restrooms is prohibited unless arrangements have been made, prior to contract signing. An on-site trailer with telephone, and portable restroom, and drinking water, and the demolition container shall be part of the contractor's contract. Waste hauling for excess materials shall be by the contractor. Security of the site will be coordinated with the Owner.

14. MATERIALS AND EQUIPMENT

All materials shall be new and of the highest quality of their respective kinds. The Contractor at no cost to the owner shall replace any material or equipment that is unsound, unfit, or damaged.

15. EXISTING CONDITIONS

The Contractor shall visit the site prior to bidding to verify existing conditions. Resolve any questions prior to bidding. Refer to all documentation provided by the Project Manager during the pre-bid walk-through for clarifications.

16. WORKMANSHIP AND COMPLETION OF INSTALLATION

The Contractor shall be skilled in the trades performed and shall be responsible for a complete and proper installation of all work required for the project. If the contractor damages a portion of the existing facility, he will correct at no expense to the Owner all damages to the original condition including painting and landscape. The Contractor shall also correct at no expense to the Owner all errors in installation and repair all leaks in piping and equipment. The Contractor shall follow the approved manufacturer's recommendations and instructions where details of specific installation instructions are not provided.

Close all pipe, duct and conduit openings with caps or plugs during installation. Protect and store on-site in a secure area all materials, fixtures, and equipment against dirt, water, chemical, vandalism, theft, and mechanical damage. Thoroughly clean all surfaces in areas of work upon completion, and deliver in perfect, unblemished condition the project. Store all equipment as required by the manufacturer's instructions including the covering and storing in a container if need be.

The Contractor shall receive all materials including the unloading of materials to a mutually agreed location with the Owner on-site. Install all safety devices, request inspection, and obtain approval of the authority having jurisdiction, before placing systems in operation. Demolition includes the following work: disconnect, demolish and remove the work specified, and as indicated. Where pipe, ductwork, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality. Equipment removed by the contractor shall be the contractor's responsibility for clean up, hauling, and salvage. All backfill shall be screened, clean, and removed of rocks, and waste material. Elevations shall match existing.

All new grass/ sod shall be St Augustine sod. The existing PVC sprinkler system shall be rerouted and extended into the new area. The Owner, Architect/ Engineer, and Project Manager have full power to condemn or reject any work, materials, and equipment not in accordance with the specifications, and drawings or not in compliance with the manufacturer's installation instructions which are approved by the Owner, Architect/ Engineer, and Project Manager. Work that has been rejected shall be removed and replaced to the satisfaction of the Owner, Architect/Engineer, and Project Manager. All decisions made by the Owner, Architect/Engineer, and Project Manager shall be stated in writing, and made binding upon the parties thereto.

17. FINAL ADJUSTMENT

Check equipment for proper operation and complete final adjustments prior to final inspection. After the final inspection, make all necessary adjustments to obtain satisfactory operation of the systems in operation.

18. ACCEPTANCE TESTS

Upon completion of final adjustments, demonstrate to Owner, and the Engineer/Engineer the operation of each system on simulated operation cycles.

19. OWNER OCCUPANCY

The Owner shall occupy the site and existing buildings during the entire construction period. The contractor and subcontractors shall cooperate and coordinate all work with the Owner, and Architect/ Project Manager during construction operations to minimize conflicts and facilitate Owner usage. Perform the work as to not interfere with the Owner's operations.

20. MISCELLANEOUS PROVISIONS

Minor materials and work not specifically mentioned herein but necessary for the Proper completion of the specified work shall be furnished and installed at no additional cost to the Owner. Should deteriorated materials of major nature be uncovered in the course of work, it should be brought to the attention of the Owner, Project Manager, and Architect prior to the initiating any repairs. Repairs by the Contractor shall be made as approved in the scope and pricing by the Owner, Project Manager, and Architect. No allowances for contract completion times shall be made for these repairs. Should the equipment or material be beyond repair, an adjustment will be considered at the convenience to the Owner, Project Manager, and Architect.

21. EXISTING WORK/ CLEAN UP

Where existing work is changed, removed, or where new work adjoins, connects or abuts to existing work, the existing work shall be altered as necessary and connected in a substantial and workmanlike manner. All new work and replacement, reinstalled work, and repairs shall match the adjacent and/or similar work. Protection of existing areas shall be taken. Clean up by the contractor shall be done and reviewed by the Owner, Project Manager, and Architect for acceptance. The Owner, Project Manager, and Architect have full rights to reject any and all work performed including clean up.

22. NO SMOKING / NO INTERACTION

There shall be no smoking by the Contractors and subcontractors allowed on the facility campus at any time unless specifically arranged. There shall be no interaction with the employees of the Owner, and the contractors. All discussions shall occur with the Project Manager, Architect and Engineer.

23. OSHA

All work shall comply with the US Department Of Labor - Occupational Safety and Health Administration, entitled OSHA Standards. National Consensus Standards, and Established Federal Standards.

24. SUBSTANTIAL COMPLETION

The contractor shall submit application of payment showing 100 percent completion based upon work claimed substantially complete. Provide all items as required by the Owner's purchasing department. Provide maintenance instructions on all equipment, arranger for each installer to provide this service with the factory representative. Provide a written list of all personnel who received training.

25. CONTRACTOR'S BID LIST

The contractor shall provide a list of all subcontractors used with each major trade for the site security used on the project. The County Sheriff's department prior to access shall clear all personnel. If an individual is deemed unacceptable to work on the project the contractor shall submit other individuals.

26. EXCAVATION AND BACKFILLING

The Contractor shall do all required excavation for underground piping/conduit and shall repair or pay for any damage to streets, alleys, sidewalks, floors, walls and landscaping. Trench grades to slope uniformly. Backfilling of concrete and structural repair shall be completed. Backfilling shall be a minimum of 95% compaction. Asphalt repairs and patches shall be made in paved areas. The contractor shall be responsible for all dewatering processes for the proper excavation of the areas. All dewatering of areas shall be the responsibility of the excavation contractor. All jack boring as an option to excavation can be used if areas are cleared by the Project Manager Architect, and Engineer. Call before you dig #811. Coordinate utility connections with the existing utilities and their documentation prior to start.

27. PIPE/CONDUIT HANGERS

Type adjustable clevis with threaded rod. Roller type shall be used for expansion of piping or conduit. Shields semi-circular sheet metal, 18 gage under insulation. Materials, steel for all piping except copper, copper plated steel for copper piping. All piping shall be cross-braced for seismic support.

28. PIPE /CONDUIT SLEEVES

Material shall be schedule 40 steel welded. Wall sleeves flush on both sides of wall. Floor Sleeves shall be flush on bottom side of floor, 1/2" above floor on top side. Caulking 3M-fire barrier foam or caulk, UL Labeled for rating of penetration. Finish plates, chrome plated for all exposed pipe/ conduit penetrations.

29. VALVES

Gate, Stockham, Model B-107 or B-109, solid wedge, 125 psig, bronze body, rising stem, soldered or threaded ends. Ball, Apollo, chrome plated ball, screwed or soldered ends, 150 psig, bronze body, swing away design, full port, Teflon seats, lock handle. Globe, Stockham B-29, 150 psig, bronze body, rising stem, union bonnet, plug disk, removable seat, threaded or soldered ends. Eccentric Plug, Dezurik, Series 400, semi-steel plug and body, lever operated with adjustable memory stop. Or Miliken. Check, Stockham, Model B-310 or B-320, 125 psig, bronze body, swing type, compression disk, soldered or threaded ends. Butterfly, Dezurik, or Lunkenheimer, Model 632 semi-steel body and disk, resilient seat, lug type, lever operated, memory stop, 125 psig. Control Johnson, Penn, Delta, Belimo, Fischer, Fisher

30. MOTORS

Manufacturers: Reliance, General Electric, Baldor open drip proof or TEFC, suitable for continuous or intermittent operation unless specified. NEMA Design B minimum, Class F insulation for Variable speed drive motors. Nema 3R minimum installations for exterior use. Premium efficiency motors are required as per Florida Energy code. Service Factor: Minimum of 1.15 at 40 degrees C, full load and at project altitude. Conformance: NEC, AIEE, NEMA. Features: Ball bearing, conduit connection boxes, cast iron yoke, integral supporting feet, grease lubricated bearings, accessible grease inlet and outlet plug and inner bearing dust caps. Voltage: Motors 1/2 HP and larger shall be the voltage and phase shown on the plans. Motors smaller than 1/2 HP shall be 120 volts, single phase, 60 cycle. Speed: 1750 RPM unless noted otherwise. Efficiency: Meet or exceed ASHRAE Energy Standards, latest edition. Voltage Motors shall be designed to operate satisfactorily at voltages +/- 10 % of the designated voltage. Sheave: adjustable slide rails. Motor Mount: adjustable slide rails. Belts: matched set rated at 150% of maximum load. Guards: around belts with holes for Tachometer placement.

31. HANGERS AND SUPPORTS

Support the vertical lines and conduit at the base with a suitable hanger or a pedestal. Install inserts in concrete structures for hanging of pipe or conduit. Hang piping or conduit from lower cord of steel beams or joists in steel frame buildings. Drilling into concrete structures for means of hanging piping or conduit will be allowed only if the Architect approves. Install hangers and supports to interfere with expansion and contraction of the piping. Space hanger installations in accordance with MSS SP-69 and the Florida Building Code.

32. INSTALLATION OF PIPING OR CONDUIT

Support all piping from the structure. Make minor modifications to the Drawings to coordinate with other work. Install all piping or conduit in a neat, workmanlike manner. Verify that all piping, conduit, boxes, devices, valves, etc. will fit in the designated space. Request clarification if pipe size is not apparent. Run piping or conduit concealed in all finished areas unless noted otherwise. Run piping or conduit exposed in all unfinished areas unless noted otherwise. Run piping or conduit vertically within walls where shown near walls for clarity. Do not run horizontal pipes and conduit in walls or partitions. Install exposed risers and runouts as close to the wall or ceiling as practical. Piping and conduit shall not interfere with other work, door or window. In general, run piping and conduit parallel or perpendicular with building lines. Run horizontal lines horizontal or with uniform pitch as indicated. Run vertical lines exactly plumb. Out piping and conduit accurately on the site. Anchor all piping and conduit securely at the site. Install piping without strain, forcing or cold springing. Make all changes in direction with factory-fabricated fittings (except underground). Install no underground fittings for pressurized systems and other systems. Replace all defective pipe, and fittings for pressurized systems. Handle piping, and conduit carefully to prevent bending and damage. Clean all pieces before installation. Furnish all temporary connections that are required. Patch all holes in walls, ceilings, and floors required for installation of work under this Division.

33. INSULATION - PIPE

Manufacturers: Armstrong, Johns Manville, Owens Corning, CSG Insulation Requirements: The following systems shall be insulated as specified: Domestic Cold water piping interior with 1/2" fiberglass with aluminum exterior or interior foil and paper jacket to 1 1/4" or 1/2" flexible armaflex elastomeric insulation Domestic Hot Water piping interior with 1/2" fiberglass with aluminum exterior or interior foil and paper jacket to 1 1/4" or 1/2" flexible armaflex elastomeric insulation Roof Drain bowls and piping with 1/2" fiberglass with foil and paper jacket Sanitary Drains with 1" fiberglass with PVC jacket kit if exposed for ADA. If not and in wall, 1" fiberglass with foil and paper jacket for noise deadening in walls. Install insulation continuous through walls, floors, ceiling, and roofs. Seal vapor barriers on all systems carrying fluids below 70 degrees F. Do not use staples on vapor jacket. Follow manufacturer's installation instructions carefully. Do not exceed the recommended adhesive coverage. Leave all insulation surfaces clean and ready for painting. Seal all exposed butt ends of insulation with adhesive. Seal all transverse and longitudinal joints with pressure sensitive tape. Use a semicircular shield at all piping hangers and supports. Cover and insulate all valve extensions.

34. PLUMBING PIPING AND SPECIALTIES

Plumbing piping systems within the building including the following: Potable water distribution, including cold and hot water supply and hot water circulation. Drainage and vent systems, including sanitary. Plumbing specialties for water distribution systems; soil, waste, and vent systems. Compliance: ASME B31.9. and Florida Plumbing Code with amendments Piping System Working Pressure Ratings: Water Distribution Systems, Below Ground: 150 psig. Water Distribution Systems, Above Ground: 125 psig. Soil, Waste, and Vent Systems: 10-foot head of water. Pipes and Tubes: Hard Copper Tube: ASTM B 88, Types K, L, and M, water tube, drawn temper. Soft Copper Tube: ASTM B 88, Types K and L, water tube, annealed temper. Copper Drainage Tube: ASTM B 306, Type DWV, drawn temper. Steel Pipe: ASTM A 53, Type S, grade A, Schedule 40, galvanized, plain ends. Ductile-Iron Pipe: AWWA C151, Classes 50 and 51, mechanical joint and push-on joint, with AWWA C104 cement-mortar lining Flanged Ductile-Iron Pipe: AWWA C115, ductile-iron barrel, Class 150 or 300 iron-alloy threaded flanges, with AWWA C104 cement-mortar lining. Hub and Spigot, Cast-Iron Soil Pipe: ASTM A 74, service class. Hubless, Cast-Iron Soil Pipe: CISP 301. CPVC Plastic Pipe and Tube: ASTM D 2846, SDR 11, plain ends. CPVC Plastic Pipe: ASTM F 441, Schedules 40 and 80, plain ends. PVC Plastic Water Pipe: ASTM D 1785; Schedules 40, 80, and 120; plain ends. PVC Plastic DWV Pipe: ASTM D 2665, Schedule 40, plain ends. Fittings and Valves: Pressure and Drainage Fittings for Pipe and Tubes: Suitable for working pressure, pipe, tube, and service. Joining Materials: Solder, brazing and welding filler metals; couplings. Valves: Gate, globe, ball, butterfly, and check valves suitable for service. Plumbing Specialties: Water Meters: AWWA C700-C710 series; type as required for service, register in gallons or cubic feet as required. Cap the service at the corporate meter stop and remove all existing unused water meters. Turn the unit over to Owners. Backflow Preventers: ASSE Standard backflow preventers for flow rate and maximum pressure loss required, 150-psig minimum working pressure. Miscellaneous Piping Specialties: hose-end drain valves, stop valves, water hammer arresters, trap seal primer valves, stack flashing fittings, vent caps, vent terminals, roof flashing assemblies.

Cleanouts: Cast-iron cleanouts, ASME A112.36.2M. Floor Drains: Cast-iron floor drains, ASME A112.21.1M; related fittings. Verify all covers with Architect prior to purchase. Sleeve Penetration Systems: UL 1479, through-penetration firestop assembly.

35. WATER EQUIPMENT TANKS

Commercial water heaters for potable water heat systems. QUALITY ASSURANCE Compliance, Water Heaters: UL 174, 732, 778, 1261, 1453; NSF 5; ASME Code Compliance. PRODUCTS Water Heaters: Point-of-Use Tankless Electric Water Heaters: Automatic type, wall-mounted tankless type, T&P valve, drain valve, dielectric fittings, with integral controls. Accessories: Valves, gages, thermometer, wall bracket.

36. PLUMBING FIXTURES

Plumbing fixtures and trim, fittings, and related accessories and appliances. Compliance: ANSI A117.1; Applicable accessibility regulations, Florida Building Code and Plumbing Code. Plumbing Fixtures: Refer to schedule for equipment specified. Clean all existing fixtures, Repair any leaks, replace flush valves in toilets, and maintain the equipment. Water Closets: Consumption per flush cycle, material, bowl type, mounting, outlet, rim height, tank type, trim suitable for service required. Lavatories: Material, mounting, fittings and accessories suitable for service required. Showers: fittings suitable for service required. Verify floor and wall finishes with plans prior to start of work. Refer to the Architectural plans for Shower curtain, ADA bars, seat, and accessories required. Toilet Seats: Compatible with water closet. Commercial Faucets: Cast-brass faucets. Commercial/Residential Faucets: Cast-brass and cast-brass underbody faucets. Bath/Shower Pressure Balance Faucets: Single-lever type. Bath/Shower Thermostatic Mixing Valve Faucets: Single-lever type. Fittings, Except Faucets: Supplies, stops, traps, continuous wastes, and escutcheons. Supports: ASME A112.6.1M, categories and types as required for fixtures required, including wall reinforcement.

36. GAS PIPING

EXTERIOR / INTERIOR ABOVE GRADE Schedule 40 black steel pipe Fittings Malleable, 150 psig Joints welded or screwed EXTERIOR BELOW GRADE Pipe Polyethylene Joints Socket fusion welded Rating ASTM D2513 Cover Min 2 feet with red tape marker and tracer wire Valves; Lubricated plug, Regulators as recommended by Gas company, Meter supplied by Gas Company. - (Tecco Peoples Gas - Tracy Laird 941-342-3045) Riser Schedule 40 black steel with PVC tape wrapping on below grade portion Provide pressure as recommended by generator manufacturer.

37. FIRE PROTECTION SYSTEM

A licensed fire protection contractor in the business for at least five years shall modify the existing sprinkler system for all the areas of construction of the building. The modifications shall be in accordance with NFPA #13,NFPA #25, the local Fire Marshal, and the Florida Fire Prevention Code, latest edition. The system shall be hydraulically modified based upon the incoming water pressure available during the entire year. Obtain water pressure from both the Water Company and Fire Department records of the flow test of the nearest fire hydrant. Schedules provided show latest fire flow. All main and branch piping revisions and all head locations shall be arranged with due consideration given to the other systems located within the building. Failure to properly coordinate the sprinkler system installation shall cause the rejection of the system. Furnish Shop Drawings to the Architect/ Engineer, and General Contractor that has been approved by the Building Department and Fire marshal. The Shop Drawings shall be a minimum scale 1/16" per foot with blow-up sections of 1/8" for the modifications, and show all head locations modified, pipe elevations, pipe sizes, equipment locations, and other pertinent information. The Owner shall receive a copy of the drawings for submittal to their insurance, for review. All material shall be new and approved for installation in the fire protection system. All components shall be UL labeled. All sprinkler heads shall match existing units. Route all piping in joist spaces, as existing. Perform all required tests and inspections for a period of one year after the date of final acceptance by the Fire Marshal.

38. CONDENSATE DRAIN PIPING

Pipe Type L drawn copper water tube with 95/5 solder, or schedule 40 PVC painted pipe Fittings Wrought Copper, or solvent welded PVC schedule 40 fittings Joints sweat soldered copper type, or solvent welded PVC Terminate condensate in rain trough at exterior of building. Keep condensate away from walk ways as per FMC.



PROPOSED RENOVATION FOR: MANATEE COUNTY DESOTO CENTER SHERIFF'S OFFICE EVIDENCE ROOM 600 U.S. 301 BLVD. WEST BRADENTON, FLORIDA

JERRY N. ZOLLER AIA ARCHITECT / PLANNER 941-746-4665

ATP ENGINEERING SOUTH, PL SARASOTA, FLORIDA ENGR. BUSINESS #8908 941-360-2181

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	JC
CHECKED	JC
REVISIONS	
	05/17/2012

M-5.0

ABBREVIATIONS, LEGENDS AND GENERAL NOTES

ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSE POWER
BOT	BOTTOM
CLG	CEILING
CO	CLEANOUT
CW	COLD WATER
DI	DIGITAL INPUT
DN	DIGITAL OUTPUT
DO	DOWN
ET	EXPANSION TANK
EL	ELEVATION
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWI	ENTERING WATER TEMPERATURE
EXIST	EXISTING
FD	FLOOR DRAIN
FL	FLOOR
FIPI	FINS PER INCH
FPF	FINS PER FOOT
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
KW	KILOWATT
MAX	MAXIMUM
MIN	MINIMUM
PD	PRESSURE DROP
PRESS	PRESSURE
RD	ROOF DRAIN
RL	RAIN LEADER
S	SANITARY
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VENT
VAC	VACUUM
VTR	VENT THRU ROOF
W	WASTE
WCO	WALL CLEANOUT

SYMBOLS

	VALVE - SEE SPECIFICATIONS FOR TYPE, GATE VALVE WHEN NOT SPECIFIED.
	GATE VALVE
	GLOBE VALVE
	PRESSURE REDUCING VALVE
	OS&Y VALVE
	CHECK VALVE
	BACK WATER VALVE
	BACK FLOW PREVENTER
	UNION
	BUTTERFLY VALVE
	BALL VALVE
	GAS COCK
	STRAINER
	EXPANSION JOINT
	GRADE CLEANOUT IN-LINE
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	PIPE ANCHOR
	FLOW DIRECTION
	PRESSURE GAUGE
	HAMMER ARRESTOR (PDI SIZE INDICATED)
	TEMPERATURE GAUGE
	SAFETY OR PRESSURE RELIEF VALVE
	ANGLE GLOBE VALVE
	MANUAL AIR VENT
	CLEANOUT EXPOSED
	FLOOR CLEANOUT
	GRADE CLEANOUT END-LINE
	CAPPED OUTLET
	VALVE IN RISER
	GATE VALVE W/ ADAPTER TO 3/4" HOSE THREAD
	P-TRAP
	HOSE BIBB W/ VACUUM BREAKER
	WALL HYDRANT W/ VACUUM BREAKER
	FLOOR DRAIN
	ROOF DRAIN

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

PIPING AND CONNECTIONS

	NEW SOIL OR WASTE PIPING
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	VENT PIPING
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	CHEMICAL RESISTANT PIPING
	FIRE PROTECTION PIPING
	GAS PIPING
	OXYGEN PIPING
	AIR PIPING
	NITROGEN PIPING
	VACUUM PIPING
	NITROUS OXIDE PIPING
	IN-LINE UP CONNECTION
	END-LINE UP
	IN-LINE DOWN/UP CONNECTION
	END-LINE DOWN CONNECTION
	BOTTOM CONNECTION, 45 OR 90 DEG.
	TOP CONNECTION, 45 OR 90 DEG.
	CROSSING BOTTOM CONNECTION
	SIDE CONNECTION
	Y-1/8 BEND

DRAWING SYMBOLS

	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
	POINT OF DEMOLITION P.O.D.
	POINT OF INTERFACE BETWEEN CONTRACTORS

GENERAL NOTES

- CONTRACTOR SHALL PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED ON THESE DRAWINGS. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- ALL PLUMBING WORK SHALL BE DESIGNED, INSTALLED, TESTED, AND CLEANED IN ACCORDANCE WITH FLORIDA PLUMBING CODE REQUIREMENTS.
- VERIFY THE EXACT LOCATION OF EXISTING SOIL, WASTE, VENT, HOT AND COLD WATER PIPING MAINS FROM THE ACTUAL JOB SITE. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY PREVIOUS INSTALLER, ARE TO BE PROVIDED BY THIS INSTALLER.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. PANELS SHALL MATCH EXISTING.
- THE INSTALLER SHALL VISIT THE JOB SITE AND INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- THE PLANS AND DIAGRAMS OF PLUMBING PIPING ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING.
- PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING UTILITIES IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- EXACT LOCATION NUMBER AND TYPE OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS. VERIFY SUCH LOCATIONS BEFORE PROCEEDING ROUGH-IN.
- INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
- PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
- FIELD VERIFY ALL EXISTING PIPE SIZES PRIOR TO INSTALLATION.
- NO VENT THRU ROOF SHALL TERMINATE CLOSER THAN 10 FT. TO ANY OUTSIDE AIR INTAKE.
- ALL SANITARY AND WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 18" BELOW GRADE OR FINISHED FLOOR UNLESS NOTED OTHERWISE.
- PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
- THE ARCHITECT/ ENGINEER HAS MADE AN EXTENSIVE EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ARCHITECT/ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.

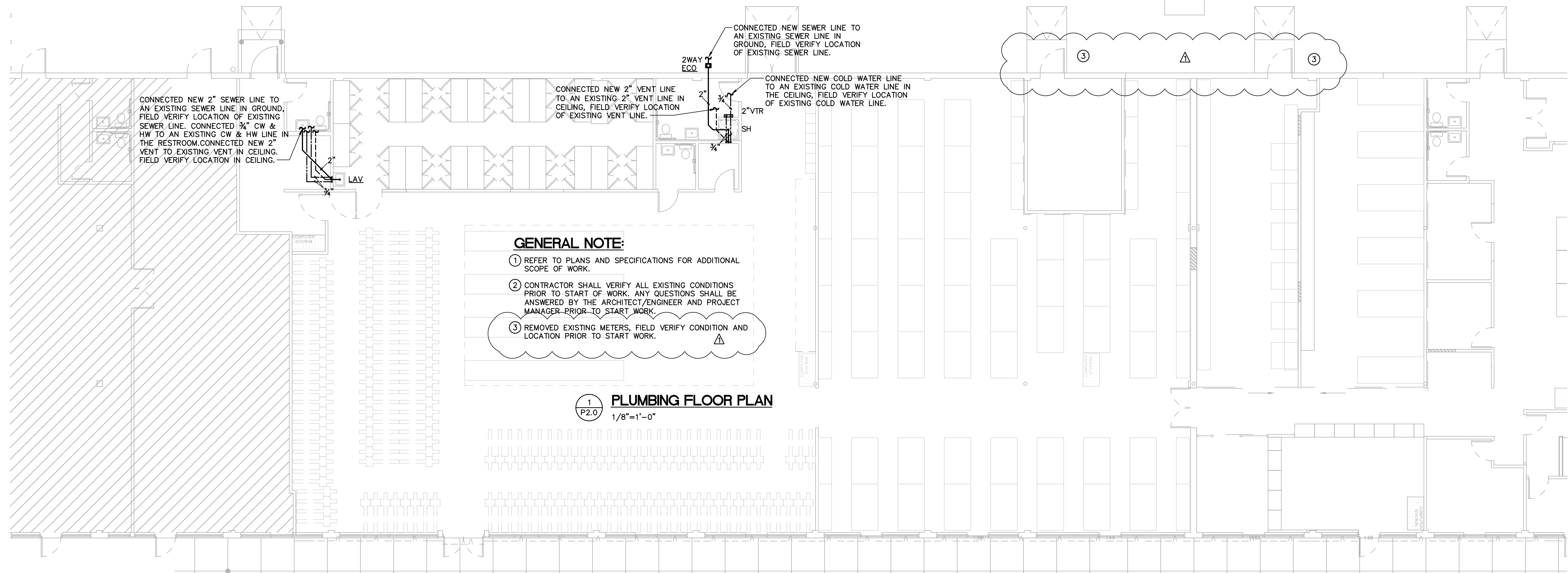
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P.L. 061508

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER
ARCHITECT / PLANNER
AIA C0006577 P.A.
914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4465

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	TC
CHECKED	TC
REVISIONS	



GENERAL NOTE:

- REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- REMOVED EXISTING METERS, FIELD VERIFY CONDITION AND LOCATION PRIOR TO START WORK.

1 PLUMBING FLOOR PLAN
1/8"=1'-0"

MARK	DESCRIPTION	COMPONENTS PROVIDED BY P.C.	FIXTURE		FIXTURE RUNOUT SIZE					REMARKS
			BASIC FIXTURE	TRIM AND ACCESSORIES	DRAIN WASTE	VENT	C.W.	H.W.	OTHER	
LAV	VITREOUS CHINA WALL HUNG LAVATORY, WHITE, 21"x18", 4" CENTER SETS	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	AMERICAN STANDARD 'LUCERNE' MODEL # 0355.012	FAUCET: RELIANT SINGLE HANDLE FAUCET MODEL #7385.003, 4" CTR, ROSE SPRAY OUTLET, GRID STRAINER DRN. ASSEMBLY TRAP COVER: PROFLO #PF202WH SUPPORT: CONGEALED FL. WTD. WATTS TCA411 CW & HW SHUTOFF VALVES @ WALL. PROVIDE .5 GPM ROSETTE SPRAY WITH FAUCET	1 1/2"	1 1/2"	1/2"	1/2"	---	CAULK AT WALL CONTACT WITH WHITE SILICONE SEALANT. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. PROVIDE INSULATION ON DRN. AND WATER PIPING.
FD-1	FLOOR DRAIN	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	ZURN MODEL # Z-415 SERIES, WATTS FD-100 COORDINATE TOP W/ ARCHITECT.	JR SMITH TRAP PRIMER TIED TO L-1	2"	---	---	---	1/2"	COORDINATE INSTALLATION WITH G.C. PRIOR TO CONCRETE FLOOR PLACEMENT.
TP-1	TRAP PRIMER	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	JR SMITH 2698	PROVIDE ON LAVATORY TRAP LINE	---	---	---	---	1/2"	COORDINATE INSTALLATION WITH G.C. PRIOR TO WALL PLACEMENT.
SH	SHOWER, MIXING VALVE SPRAY HEAD AND FLOOR DRAIN.	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	TILE SHOWER, SEAT, AND BAR BY G.C. COORDINATE ROUGH IN OF DRAIN AND SHOWER UNIT	FLOOR DRAIN: WATTS # FD-100/BRONZE STRAINER. PRESSURE BALANCE VALVE: AMERICAN STD. MODEL # R120SS WITH SCREWDRIVER STOPS. MODEL # T385.507 LEVER HANDLE, FACEPLATE, SHOWER HEAD, ARM AND FLANGE, POLISHED CHROME FINISH. #1662.604 3 WAY HAND SHOWER, CHECK VALVE AND SLIDE BAR. -1.5 GPM	2"	1 1/2"	1/2"	1/2"	---	COORDINATE PLACEMENT OF FLOOR DRAIN WITH G.C. PRIOR TO POURING FLOOR. COMPLIES WITH ADA REQUIREMENTS, TILE BASIN BY G.C. LOW FLOW SHOWER NOZZLE
WHA	WATER HAMMER ARRESTER	COMPLETE UNIT WITH ALL TRIM & ACCESSORIES	J.R. SMITH "HYDROTROL" MODEL# 5005-5020. JOSAM SERIES-75000. ZURN "SHOCKSTOP" MODEL# Z-1700. WATTS SG SERIES	SEE P.D.I. SIZES. P.D.I. SIZE PIPE SIZE FIXTURE UNIT ZURN JOSAM J.R. SMITH A 3/4" 1-11 100 75001 5005 B 1" 12-32 200 75002 5010 C 1" 33-60 300 75003 5020						SIZES TO MATCH MAINS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE WATER DISTRIBUTION DIAGRAM FOR LOCATION.

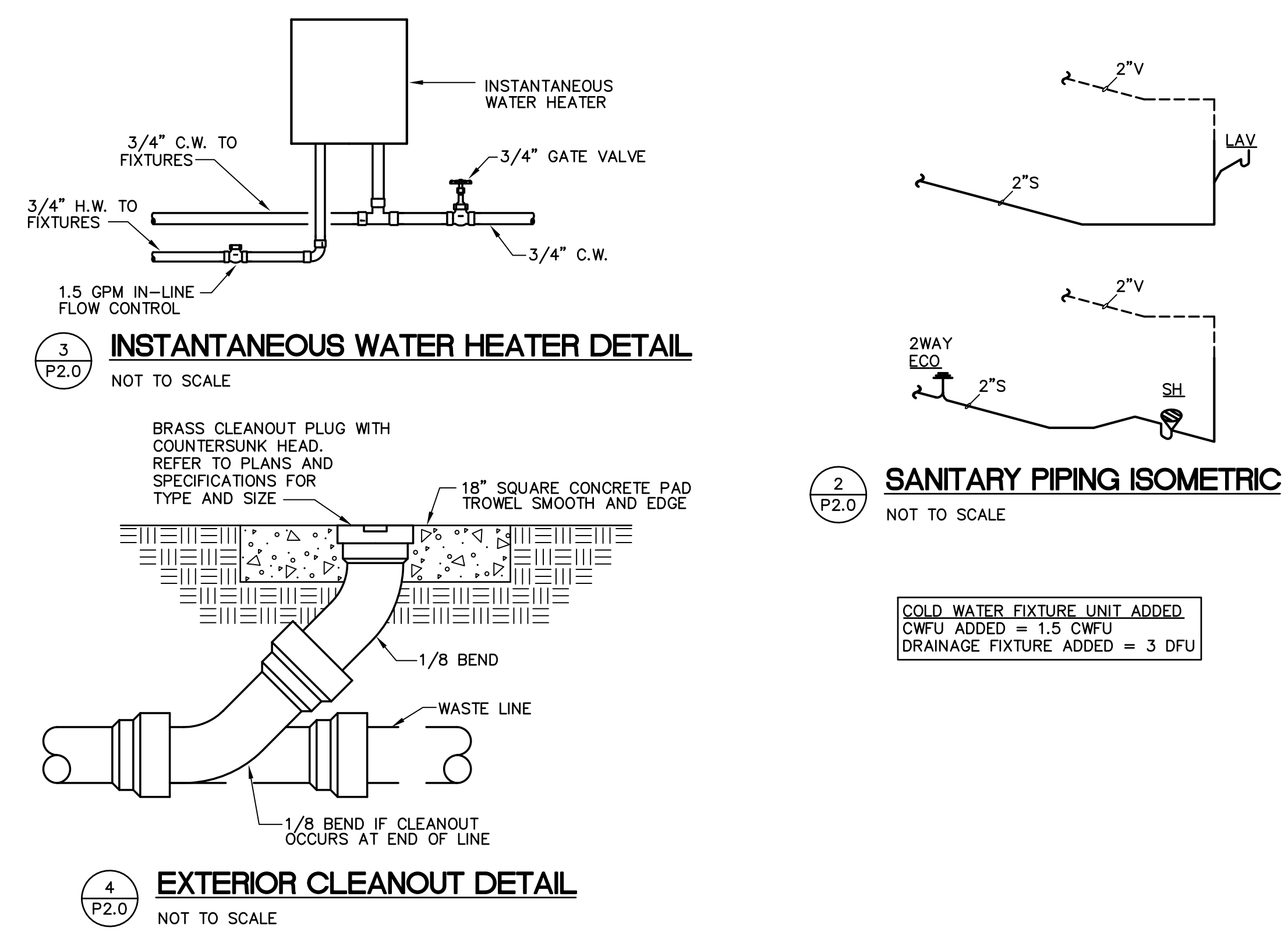
SCHEDULES NOTES:

- ALL FIXTURES SHALL BE SUPPLIED WITH MCGUIRE SUPPLY KITS WITH BRASS STEMS, AND CHROME PLATED BRASS STOPS. PROVIDE AND INSTALL BRAIDED FLEXIBLE CONNECTION LINES, AND ESCUTCHEONS.
- ALL ADA FIXTURES (LAVS) SHALL HAVE PROVIDED PLUMBEREX P TRAP COVERS AND VALVE SUPPLY COVERS.
- PROVIDE DIELECTRIC COUPLINGS ON ALL COPPER TO STEEL, COPPER TO CAST IRON FITTINGS.

Tag No.	Location	Storage Capacity Gallons	Recovery GPH	Temp. Rise F	KW	V/PH/Hz	IN/OUT Diameter	Manufacturer	Model No.	Weight	Remarks
EW-1	RESTROOM	---	---	49	18	208/3/60	1/2"	EEMAX	EX180	15Lb	1,2

NOTES:

- T & P RELIEF VALVE, COMMERCIAL INSTANTANEOUS WATER HEATER WITH BOX, UNIT CONTROL PANEL INTEGRAL.
- WALL BRACKET, EXTERIOR CABINET, STAINLESS STEEL FLEX FOR WATER CONNECTIONS. PROVIDE BALL VALVES ON WATER.
- SET AT 105 DEGREES F FOR SHOWER AND SINKS, PROVIDE FLOW RESTRICTOR FOR LAV FAUCETS AND SHOWER.
- UNIT- PROVIDE PROGRAMMABLE TIME CLOCK, AND THERMOSTAT WITH UNIT FOR OPERATIONAL ENERGY SAVINGS.



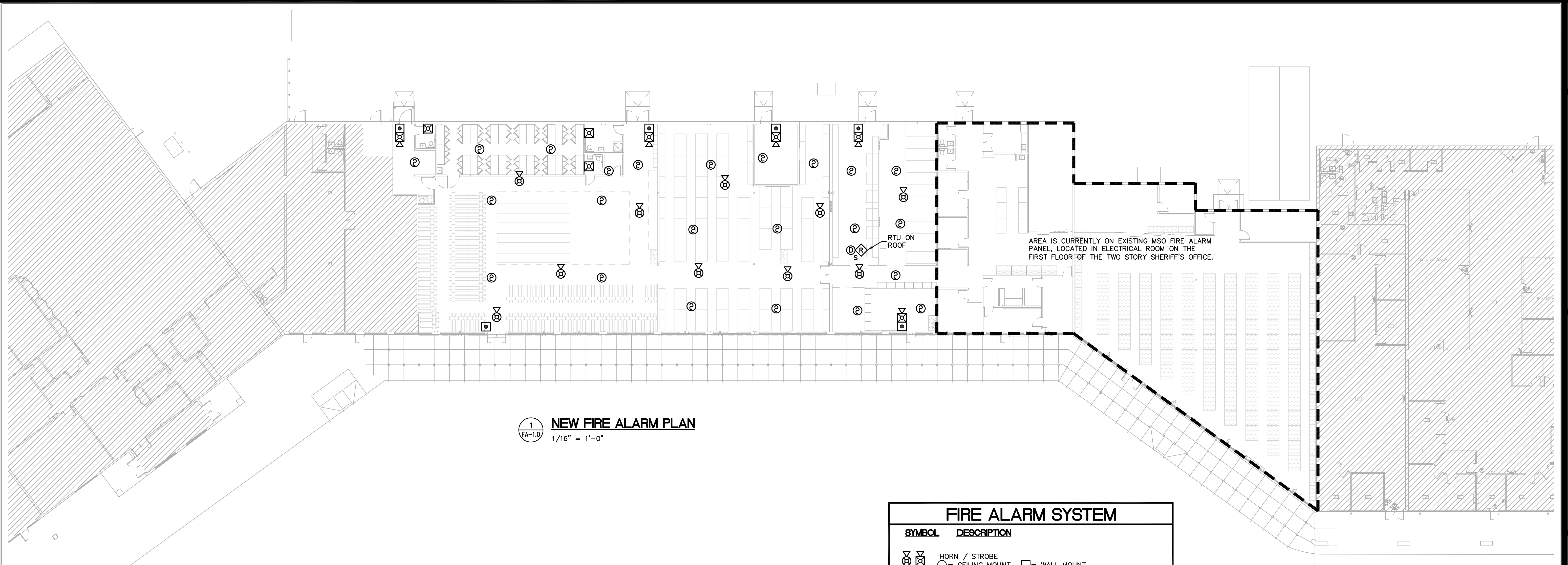
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PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
 SHERIFF'S OFFICE EVIDENCE ROOM**
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

JOB NO 0601J
 DATE MAR 08, 2012
 DRAWN JG
 CHECKED JG
 REVISIONS
 5/1/2012

P-2.0



1
FA-1.0
NEW FIRE ALARM PLAN
1/16" = 1'-0"

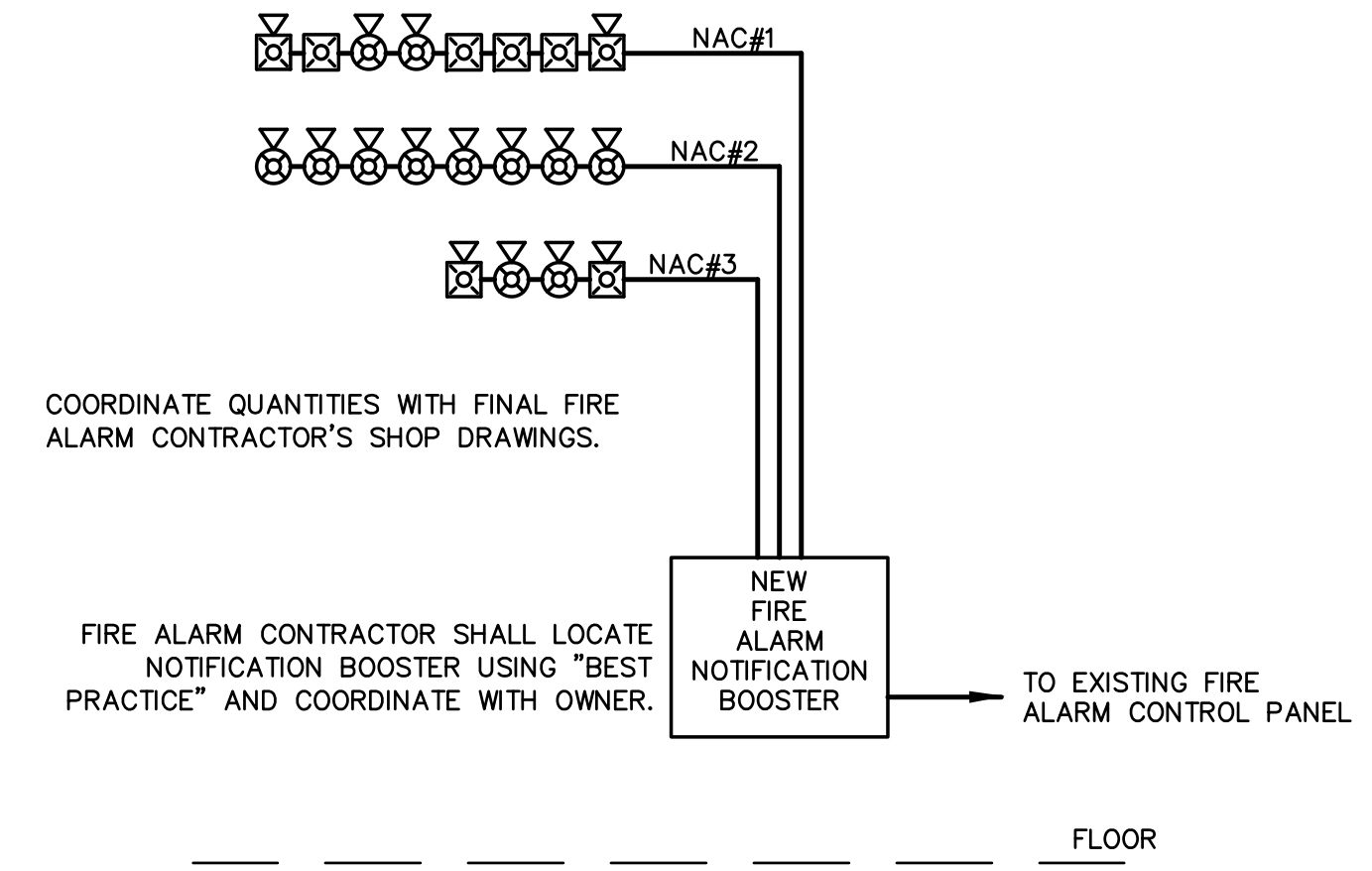
GENERAL NOTES (APPLY TO ALL DRAWINGS):

1. THE WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES FOR A COMPLETE SYSTEM IN EVERY RESPECT AND DETAIL. TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO THE NEC (NFPA 70 & 72) AND ALL APPLICABLE CODES, AND BE COMPLETED BY A QUALIFIED, EXPERIENCED, LICENSED ELECTRICAL CONTRACTOR.
2. THE ARCHITECT/ENGINEER HAS MADE AN EFFORT TO COORDINATE WORK WITH OTHER TRADES AND IDENTIFY ANY AND ALL CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE FIELD WORK BETWEEN TRADES AND TO IDENTIFY FIELD CONDITIONS PRIOR TO INSTALLATION AND REPORT ANY CONFLICTS TO THE ENGINEER.
3. WHEN A CONFLICT OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE ITEMS OF GREATER QUANTITY AND/OR COST SHALL BE PROVIDED.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT FURNISHED BY OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUGH-IN INSTALLATION WITH EQUIPMENT DETAILS.
5. ALL OPENINGS IN FIRE AND SMOKE PARTITIONS SHALL BE SEALED AS REQUIRED BY THE NEC/FLORIDA BUILDING CODE. PROVIDE UL LISTED COMPOUND TO MATCH PARTITION RATING.
6. DO NOT SCALE DRAWINGS. VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION FOR EXACT DEVICE / EQUIPMENT LOCATION.
7. DEMOLITION WORK: PROVIDE DEMOLITION AND REMOVAL WORK AS INDICATED OR NEEDED. EQUIPMENT THAT IS TO BE REMOVED INCLUDES ALL ASSOCIATED WIRING, BOXES AND CONDUIT BACK TO SOURCE. CLOSE ALL UNUSED OPENINGS IN JUNCTION BOXES THAT REMAIN WITH SUITABLE PLUG OR COVER. WHEN REMOVING OR RELOCATING LIGHT FIXTURES OR OTHER DEVICES, FIELD VERIFY REMAINING DEVICES IN THE SAME CIRCUIT AND RECONNECT FOR CONTINUED SERVICE. EXISTING ELECTRICAL WORK INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REROUTED TO SUIT FINAL INSTALLATION. CUTTING AND PATCHING REQUIRED SHALL BE DONE TO RESTORE AREAS TO ORIGINAL CONDITION.
8. CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUT SHEETS AT TIME OF APPLICATION IF REQUESTED.

FIRE ALARM SPECIFICATIONS:

1. MAIN FIRE ALARM PANEL IS AN EXISTING SYSTEM, IN MAIN TWO STORY BUILDING, AND SHALL BE REPLACED WITH NEW FIRE LITE 9600 FOR THE EXPANSION OF THE STORAGE FACILITY. SYSTEM SHALL INCLUDE ALL PROGRAMMING NECESSARY FOR SYSTEM OPERATION. ALL F.A. OUTAGES SHALL BE SCHEDULED WITH THE OWNERS REPRESENTATIVES.
2. FIRE ALARM SYSTEM ADDITIONS SHALL BE ADDRESSABLE TYPE. SYSTEM SHALL HAVE CAPACITY FOR QUANTITY OF DEVICES SHOWN. FIELD VERIFY CAPACITY.
3. SYSTEM AND INSTALLATION SHALL COMPLY WITH NFPA 72, AND ALL AHJ REQUIREMENTS.
4. OPERATION OF ANY DEVICE SHALL AUTOMATICALLY CAUSE ALL ALARMS IN THE BUILDING TO SOUND OR FLASH, AND SIGNAL TO BE SENT VIA DACT. ALL ALARMS SHALL BE VISIBLE ON THE REMOTE ANNUNCIATOR.
5. OPERATION OF ANY DUCT MOUNTED SMOKE DETECTOR SHALL CAUSE THE UNIT TO SHUT DOWN AND ALL ALARM DEVICES TO SOUND OR FLASH.
6. INSTALLER SHALL BE A FACTORY AUTHORIZED INSTALLER.
7. ALL NEW EQUIPMENT, DEVICES AND WIRING SHALL BE NEW.
8. AUDIBLE TYPE SIGNAL DEVICES SHALL PRODUCE A SOUND LEVEL 15dB ABOVE AMBIENT SOUND LEVELS AND INCLUDE VISUAL DEVICE AS SPECIFIED BELOW. AUDIBLE DEVICE SHALL BE FIELD PROGRAMMABLE TO CHANGE dB LEVEL. MOUNT DEVICE AT +80".
9. VISUAL DEVICES SHALL COMPLY WITH ADA REQUIREMENTS PER UL 1971. MOUNT DEVICE AT +80".
10. MANUAL PULL STATIONS SHALL BE SINGLE ACTION, MOUNTED WITH THE HIGHEST OPERABLE PART OF THE CONTROLS NO HIGHER THAN 48" AFF TO COMPLY WITH ADA 4.27 REQUIREMENTS.
11. DUCT MOUNTED DETECTORS SHALL BE PHOTOELECTRIC TYPE, ADDRESSABLE, ADJUSTABLE SENSITIVITY INSTALLED IN DUCT MOUNTED HOUSING WITH SAMPLING TUBES AS REQUIRED.
12. SMOKE/FIRE DAMPER ACTUATORS SHALL BE ADDRESSABLE TYPE.
13. HEAT DETECTORS SHALL BE ADDRESSABLE TYPE, RATE OF RISE TYPE.
14. ADDRESSABLE RELAYS: PROVIDE ADDRESSABLE RELAYS AS REQUIRED FOR CONTROL OF HVAC EQUIPMENT AND DOOR HOLD/RELEASE DEVICES.
15. WIRING MAY BE INSTALLED WITHOUT CONDUIT ABOVE ACCESSIBLE CEILINGS. WIRING SHALL BE INSTALLED IN CONDUIT IN WALLS AND ABOVE HARD CEILINGS AND EXPOSED CEILINGS. ALL JUNCTION BOX COVERS SHALL BE PAINTED RED.
16. FIRE ALARM SYSTEM COMPONENTS ADDED SHALL MATCH ORIGINAL MANUFACTURERS SYSTEM.
17. ALL SYSTEM TESTING AND REVIEW SHALL INCLUDE THE CEDAR HAMMOCK FIRE DEPARTMENT.
18. PROVIDE SUBMITTALS TO THE CEDAR HAMMOCK FIRE DEPARTMENT.

FIRE ALARM SYSTEM	
SYMBOL	DESCRIPTION
	HORN / STROBE
	CEILING MOUNT HORN
	WALL MOUNT HORN
	SMOKE DETECTOR
	PULL STATION
	AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS): NONE = PHOTO ELECTRIC TYPE S= SUPPLY R= RETURN
	EQUIPMENT SHUT DOWN RELAY



2
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ADDITION TO EXISTING ADDRESSABLE FIRE ALARM SYSTEM
NOT TO SCALE

JERRY N. ZOLLER
 ARCHITECT / PLANNER
 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465
 AIA C0006567 P.A.

ATP ENGINEERING SOUTH, PL
 SARASOTA, FLORIDA
 ENGR. BUSINESS #8908
 941-360-2181

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	JN
CHECKED	JN
REVISIONS	

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JOHN D. CAMDEN
 0014 00000000

ABBREVIATIONS, LEGENDS AND GENERAL NOTES

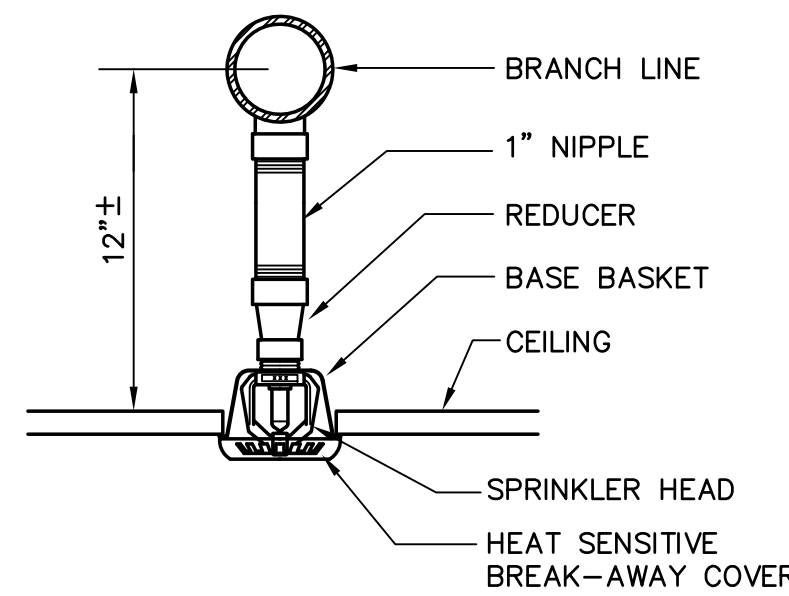
ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BOT	BOTTOM CEILING
CLG	CLEANOUT
CO	COLD WATER
CW	DUCTILE IRON PIPE
DIP	ELEVATION
EL	EQUIPMENT
EQUIP	EXISTING
EXIST	FIRE SERVICE
F	FLOOR DRAIN
FD	FIRE DEPARTMENT CONNECTIONS
FDC	FIRE DEPARTMENT VALVE
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FL	FLOOR
FSP	FIRE STANDPIPE RISER
HB	HOSE BIBB
OS&Y	OUTSIDE SCREW & YOKE
SPK	SPRINKLER
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS OTHERWISE NOTED
W/TS	WITH TAMPER SWITCH

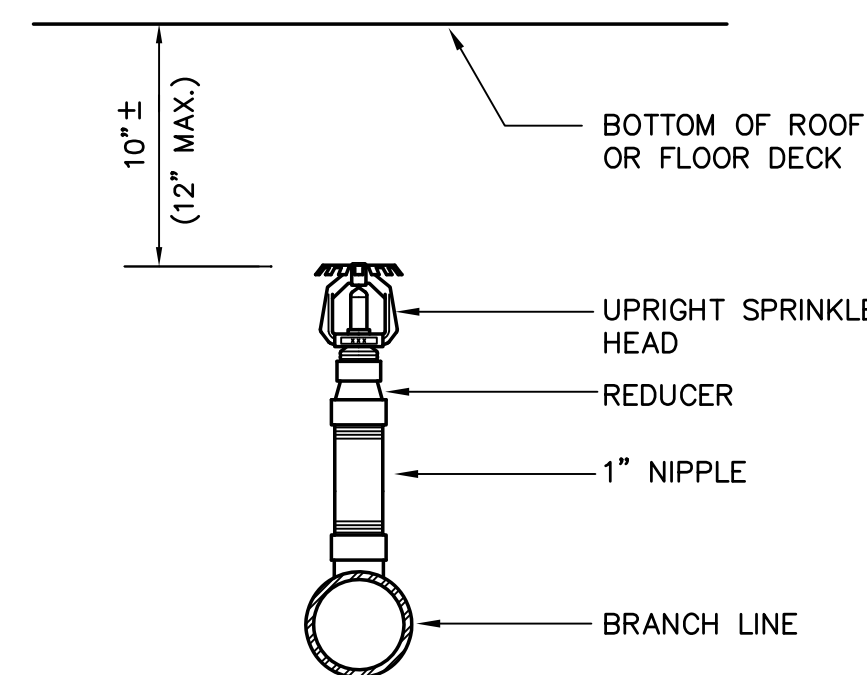
FIRE PROTECTION SYSTEM SERVES

TOTAL AREA - 12,343.9 S.F.
 CLASSIFICATION - CLASS 1 COMMODITY OH-1
 WET PIPE SYSTEM
 DENSITY - .14 GPM per 2000 SF
 COVERAGE PER SPRINKLER 130 SF MAX
 NO. OF SPRINKLER HEADS CALCULATED - 13
 SPRINKLER "K" FACTOR - 5.6
 HMD MINIMUM RESIDUAL PRESSURE - 7.0 PSI
 HOSE STREAM ALLOWANCE - 250 GPM
 SCHEDULE 40/10 STEEL PIPE -
 SCREWED AND GROOVED CONNECTIONS
 IF OR SPRINK. USED AREA REDUCTION ALLOWED

TEST FLOW CHFD, HYDRANT # 2002-005, 01/28/2012
 FIRE HAZARD - CLASS 1 COMMODITY OH-1, CLOSED FILE BOXES
 TEST STATIC PRESSURE - 70 PSI
 TEST FLOW - 1113 GPM AT 46 PSI
 RESIDUAL PRESSURE - 46 PSI 2.5" OFFICE = 630 GPM
 DEMAND FLOW - 280 GPM + 250 HOSE STREAM = 530 GPM
 REQUIRED PRESSURE - 49.8 PSI



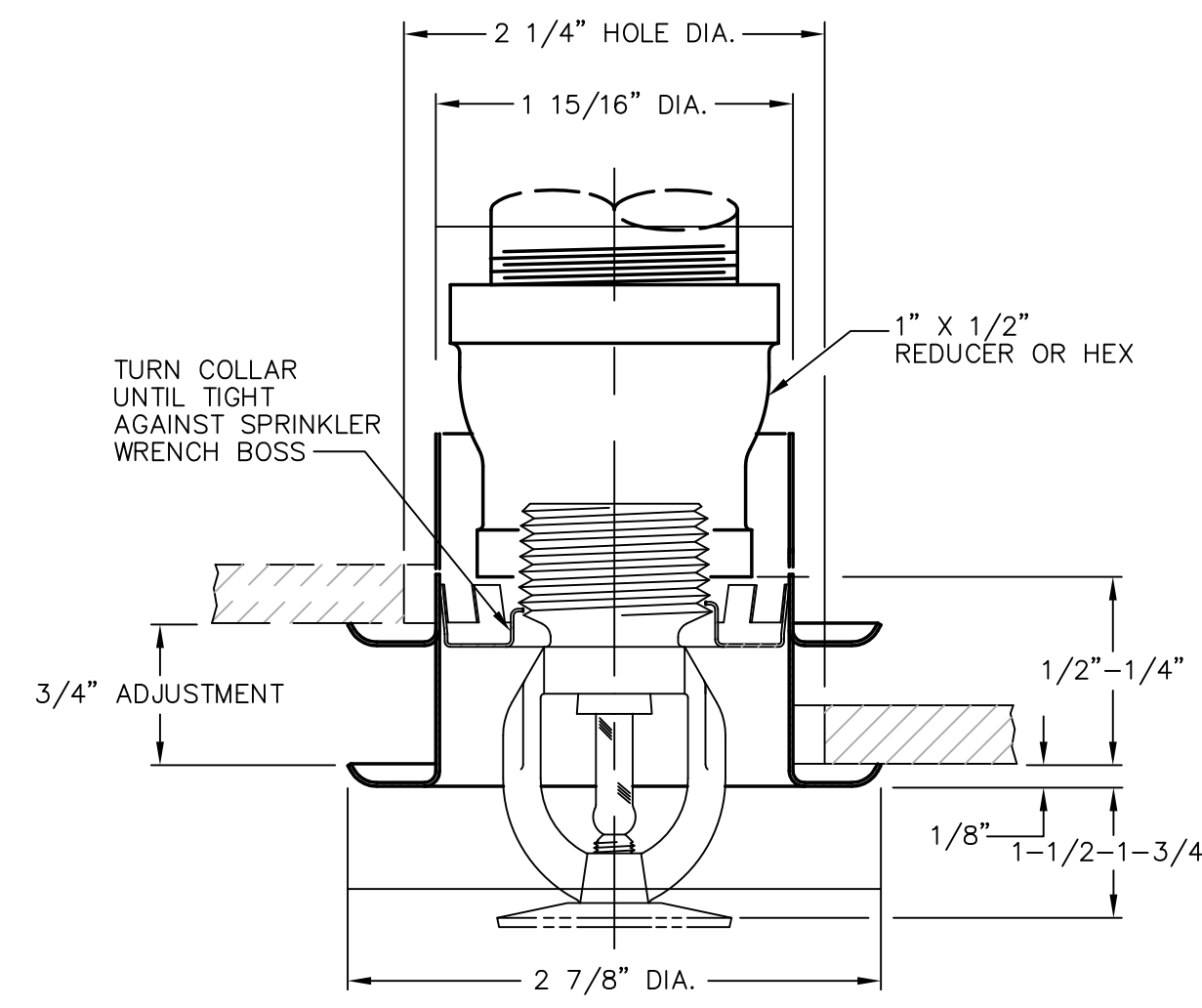
1 RECESSED PENDENT SPRINKLER HEAD
 NOT TO SCALE



2 UPRIGHT SPRINKLER HEAD DETAIL
 NOT TO SCALE

FIRE PROTECTION

	SPRINKLER HEAD - UPRIGHT "N" - NEW, "E" - EXISTING VERIFY IF EXIST UNITS ARE RELOCATED "R".
	SPRINKLER HEAD - PENDENT "N" - NEW, "E" - EXISTING VERIFY IF EXIST UNITS ARE RELOCATED "R".
	SPRINKLER HEAD - SPECIAL
	SPRINKLER HEAD - SIDEWALL
	VALVE IN RISER
	FIRE DEPARTMENT CONNECTION
	DIRECTION OF PIPE PITCH (DOWN)
	DIRECTION OF FLOW
	ANCHOR
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45 OR 90 DEG.
	BOTTOM CONNECTION, 45 OR 90 DEG.
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	ORIFICE UNION
	STRAINER
	PRESSURE GAGE
	EXISTING PIPE TO BE REMOVED
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BALL VALVE
	BUTTERFLY VALVE
	GATE VALVE W/ ADAPTER TO 3/4" HOSE THREAD
	ANGLE GLOBE VALVE
	OUTSIDE SCREW & YOKE (O S & Y)



3 RECESSED SPRINKLER HEAD PENETRATION DETAIL
 NOT TO SCALE

RELIABLE F1FR-56 165 DEGREE F SPRINKLER, QUICK RESPONSE, 1/2 INCH, K=5.6
 VERIFY PRIOR TO PURCHASE AND INSTALLATION, CENTRALIZED RECESSED UNITS,
 WHITE SPRINKLER, AND ESCUTCHEON MATCHING EXISTING.

VERIFY ALL CEILING LOCATIONS, AND SURFACES WITH ARCHITECTURAL PLANS.

NOTE

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

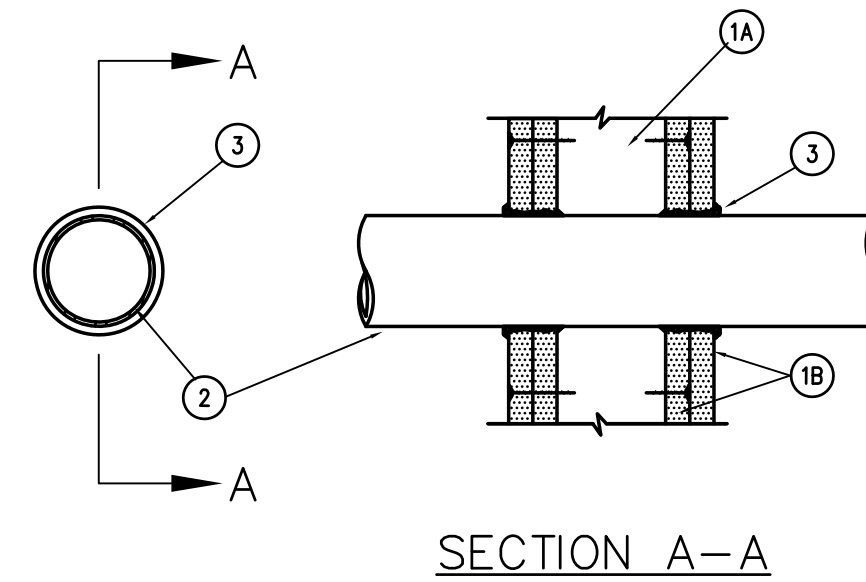
DRAWING SYMBOLS

	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	POINT OF INTERFACE BETWEEN NEW & EXISTING P.O.C.
	POINT OF DEMOLITION P.O.D.
	POINT OF INTERFACE BETWEEN CONTRACTORS

SYSTEM NO. WL1001

(Formerly System No. 147)

F Ratings - 1, 2, 3 and 4 Hr. (See item 2 and 3)
 T Ratings - 0, 1, 2, 3, and 4 Hr. (See item 3)



1. WALL ASSEMBLY - THE 1, 2, 3 OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS CONSIST OF NOMINAL 2 BY 4 IN. LUMBER SPACED 16 INCHES OC WITH NOMINAL 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX. 24 IN. OC.

B. WALL BOARD GYPSUM* - 1/2 IN. OR 5/8 IN. THICK 4 FOOT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIAM OF OPENING IS 13-1/2 IN.

2. PIPE OR CONDUIT - NOMINAL 12 IN. DIAM. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL CONDUIT, NOM. 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL CONDUIT MECHANICAL OR TYPE L OR (HEAVIER) COPPER TUBING OR MON. 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT.

3. FILL, VOID OR CAVITY MATERIAL* - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND W/ A MIN. 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX. PIPE OR CONDUIT DIAM. in.	ANNULAR SPACE	F RATING	T RATING
1 in.	0 to 3/16 in.	1 or 2	0+, 1 or 2
1 in.	1/4 to 1/2	3 or 4	3 or 4
4 in.	0 to 1 1/2	1 or 2	0
6 in.	1/4 to 1/2	3 or 4	0
12 in.	3/16 to 3/8	1 or 2	0

*WHEN COPPER PIPE IS USED, T RATING IS O H.

MINNESOTA MINING & MANUFACTURING CO. - TYPES CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+

*BEARING THE UL CLASSIFICATION MARKING

4 UL PENETRATION DETAILS
 NOT TO SCALE

GENERAL NOTES

- FIRE PROTECTION WORK SHALL BE DESIGNED, INSTALLED, AND TESTED IN ACCORDANCE WITH NFPA 13 NFPA 14 AND 25 LATEST EDITION OR AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- THE INSTALLER SHALL VISIT THE JOB SITE, INSPECT ALL EXISTING CONDITIONS AFFECTING THE WORK. SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, HVAC, FIRE PROTECTION, AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING. CONTRACTOR SHALL ADJUST PIPE ROUTING AS NECESSARY TO AVOID CONFLICTS WITH EXISTING DUCTWORK, EQUIPMENT, LIGHTING, ETC.
- INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
- PROVIDE TAMPER SWITCHES ON ALL VALVES THAT CAN SHUT OFF FLOW IN MAINS OR BRANCHES. CHAINS AND LOCKS IN LIEU OF TAMPER SWITCHES MAY BE USED AT OUTDOOR BACKFLOW PREVENTERS ONLY IF APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- PIPE SIZED, GENERAL ROUTING, AND CONFIGURATION IN SYSTEMS REQUIRED TO BE HYDRAULICALLY CALCULATED SHALL BE INSTALLED PER THE ARCHITECT'S AND ENGINEER'S CONSTRUCTION DOCUMENTS. ANY DEVIATION SUBMITTED BY THE CONTRACTOR SHALL BE RE-DESIGNED BY THIS ARCHITECT/ ENGINEER WITH RELATED RE-DESIGN FEES BORN BY THE CONTRACTOR.
- CONTRACTOR SHALL ARRANGE FOR, OBTAIN AND BEAR THE COST OF NECESSARY PERMITS, BONDS, AND FEES.
- ALL MATERIALS SHALL BE U.L. LISTED AND BEAR THE U.L. LABEL.
- CONDITIONS SHOWN AS EXISTING (LOCATIONS, MATERIALS, ELEVATIONS, SIZED, ETC.) ARE BASED ON AVAILABLE EXISTING DATA AND SHOULD BE INTERPRETED TO BE APPROXIMATE. CONTRACTOR SHALL VERIFY CONDITIONS IN THE FIELD. EXISTING CONDITIONS FOUND TO DEVIATE FROM THOSE SHOWN SHALL BE REPORTED TO THE ENGINEER.
- PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE STOP MATERIAL FIRE STOP MATERIAL SHALL BE U.L. LISTED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO MEET OR EXCEED THE FIRE RATING OF THE PENETRATED ASSEMBLY.
- BEFORE SHUTTING OFF ANY SECTION OF THE FIRE PROTECTION SYSTEM TO MAKE ADJUSTMENTS OR ADDITIONAL CONNECTIONS, COORDINATE WITH THE OWNER AND NOTIFY THE AUTHORITY HAVING JURISDICTION. PLAN THE WORK CAREFULLY AND ASSEMBLE ALL MATERIALS TO ENABLE COMPLETION IN THE SHORTEST POSSIBLE TIME. WORK SHALL BE USED TO COMPLETION WITHOUT INTERRUPTION, AND PROTECTION SHALL BE RESTORED AS PROMPTLY AS POSSIBLE.
- WHERE ELECTRICAL PANELS EXIST, PROVIDE DEFLECTORS ON ELECTRICAL EQUIPMENT TO PREVENT WETTING PANELS. SPRINKLER PIPING SHALL NOT BE INSTALLED DIRECTLY ABOVE ELECTRIC PANELS.
- PROVIDE FLUSHING CONNECTION AT END OF SPRINKLER SYSTEM WHERE LAY-IN CEILING OCCURS. ALL SPRINKLER PIPING THAT REQUIRES CHANGE IN ELEVATION DUE TO COORDINATION ROUTING OF PIPING SHALL HAVE FLUSH CONNECTION AT ALL LOWER ELEVATION. THE SPRINKLER SYSTEM SHALL BE INSTALLED WITH COMPLETE DRAINABLE SYSTEM.
- VERIFY THE EXACT LOCATION OF EXISTING FIRE PROTECTION PIPING, FROM THE ACTUAL JOB SITE. ALL NEW LINES ARE TO BE ROUTED TO AND/OR FROM VERIFIED LOCATIONS. TAPS, WHEN NOT PROVIDED BY PREVIOUS INSTALLER SHALL BE PROVIDED BY THIS INSTALLER.
- PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING FIRE PROTECTION SYSTEM IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- NEW SPRINKLER HEADS IN RENOVATION AREA SHALL MATCH EXISTING TYPE SPRINKLER HEADS.
- THE ARCHITECT AND ENGINEER HAS MADE AN EXTENSIVE EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO ALSO CHECKING FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ARCHITECT/ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
- ALL WORK IS TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.

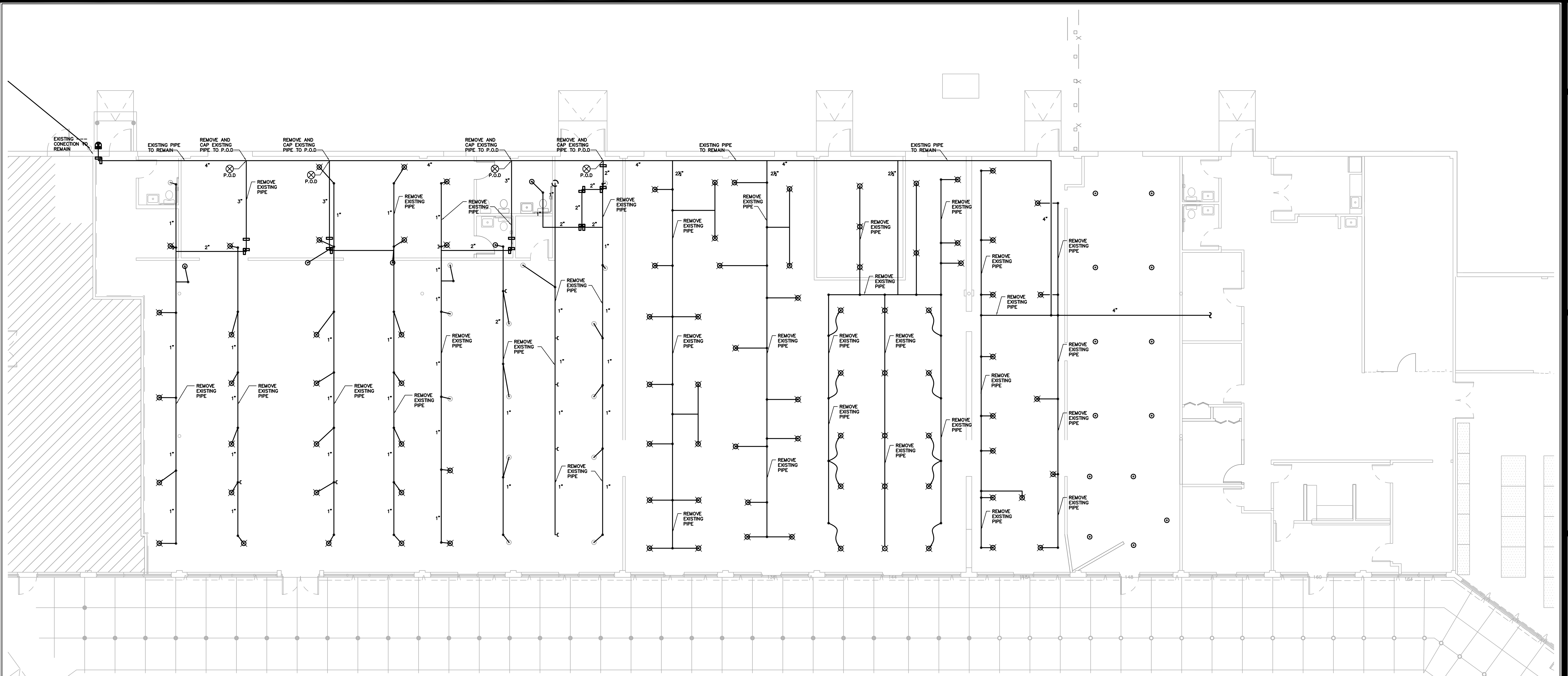
ATP ENGINEERING SOUTH, PL
 SARASOTA, FLORIDA
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 941-360-2181

JERRY N. ZOLLER
 ARCHITECT / PLANNER
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 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
 SHERIFF'S OFFICE EVIDENCE ROOM**
 BRADENTON, FLORIDA
 600 U.S. 301 BLVD. WEST

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	JG
CHECKED	JG
REVISIONS	

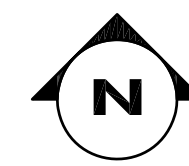
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FIRE SPRINKLER GENERAL NOTES:

- 1 CONTRACTOR SHALL COORDINATE ALL FINAL HEAD LOCATIONS WITH ARCHITECT AND CONFORM TO NFPA 13.
- 2 REPLACE AND RELOCATE EXISTING SPRINKLERS TO NEW LOCATIONS, SHOWN
- 3 REFER TO GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- 4 ALL SPRINKLER HEADS IN AREA OF WORK ARE TO BE REPLACED RELOCATED AS INDICATED.
- 5 CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND SPRINKLER LOCATIONS PRIOR TO FIT UP.
- 6 COORDINATE PIPING LOCATIONS WITH EXISTING AND NEW CEILING SYSTEMS PRIOR TO PLACEMENT AND FIT UP.
- 7 CENTER ALL SPRINKLERS IN CENTER OF NEW ACOUSTICAL TILE. (TYP)
- 8 REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK .REFER TO GENERAL NOTES FOR SCOPE OF WORK REQUIREMENTS ON PLASTIC AND BRASS.
- 9 CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE PROJECT MANAGER AND ARCHITECT PRIOR TO START.

- ⊗ EXISTING TO BE REMOVED OR RELOCATED
- ⊙ EXISTING TO BE REMAIN
- ⊕ NEW SPRINKLER



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FIRE PROTECTION DEMOLITION FLOOR PLAN
1/8"=1'-0"

0091 D. CAMDEN
03/11/2012

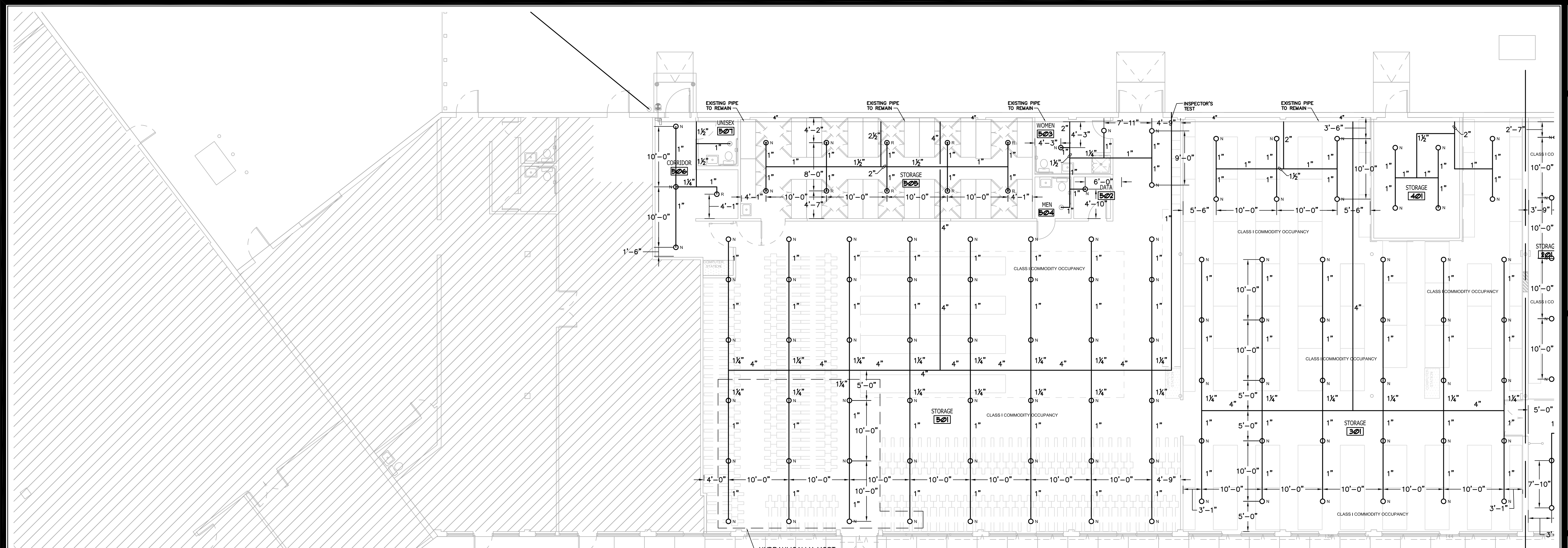
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ARCHITECT / PLANNER P.A.
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

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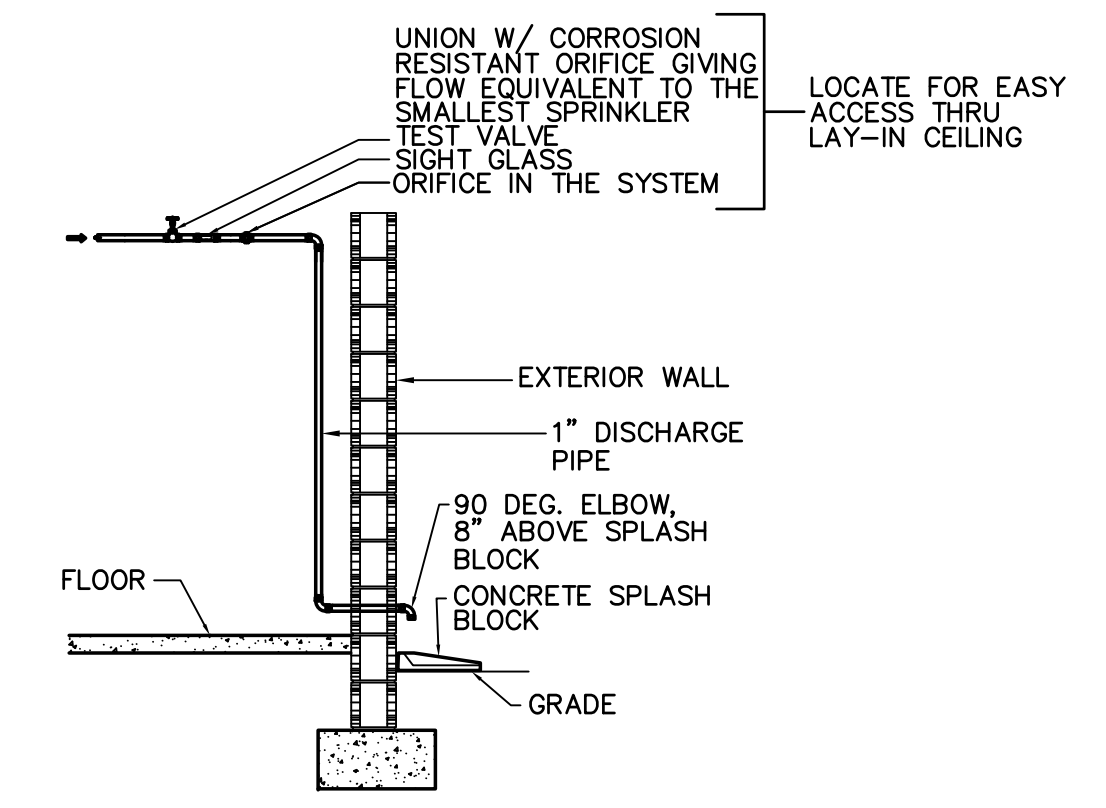


1 FIRE PROTECTION NEW FLOOR PLAN
1/8"=1'-0"

- ⊙ EXISTING TO BE REMAIN
- ⊙ NEW SPRINKLER (N) RELOCATED (R)
- REFER TO LEGEND SHEET FOR SPRINKLER TYPE - PENDANT, UP RIGHT

FIRE SPRINKLER GENERAL NOTES:

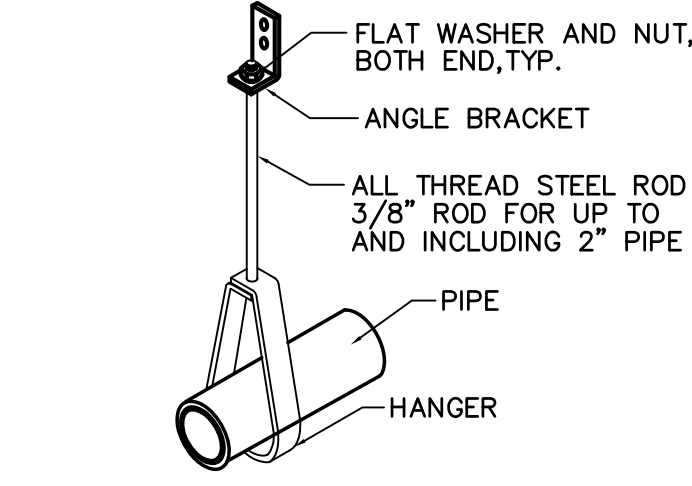
- ① CONTRACTOR SHALL COORDINATE ALL FINAL HEAD LOCATIONS WITH ARCHITECT AND CONFORM TO NFPA 13.
- ② REPLACE AND RELOCATE EXISTING SPRINKLERS TO NEW LOCATIONS SHOWN.
- ③ ALL SPRINKLER HEADS IN AREA OF WORK ARE TO BE REPLACED RELOCATED AS INDICATED.
- ④ CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND SPRINKLER LOCATIONS PRIOR TO FIT UP.
- ⑤ COORDINATE PIPING LOCATIONS WITH EXISTING AND NEW CEILING SYSTEMS PRIOR TO PLACEMENT AND FIT UP.
- ⑥ CENTER ALL SPRINKLERS IN CENTER OF NEW ACOUSTICAL TILE. (TYP)
- ⑦ REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ⑧ CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE OWNER AND ARCHITECT PRIOR TO START.



3 INSPECTOR'S TEST (OPTION)
NOT TO SCALE

HANGER DISTANCE		
PIPE	SPAN DISTANCE	ROD DIA SIZE
1"	7'-0"	3/8"
1 1/4"	7'-0"	3/8"
1 1/2"	9'-0"	3/8"
2"	10'-0"	3/8"
2 1/2"	10'-0"	1/2"
3"	12'-0"	1/2"
4"	14'-0"	5/8"
6"	15'-0"	3/4"

TRAPEZE HANGER SCHEDULE		
PIPE	SPAN DISTANCE	STEEL CROSS PIPE SUPPORT
1"	8'-0"	2" SCH. 40
1 1/4"	8'-0"	2" SCH. 40
1 1/2"	8'-0"	2" SCH. 40
2"	8'-0"	2" SCH. 40
2 1/2"	7'-0"	2" SCH. 40
2 1/2"	8'-0"	2 1/2" SCH. 40
3"	6'-0"	2" SCH. 40
3"	6'-0"	2 1/2" SCH. 40
4"	5'-0"	2" SCH. 40
4"	8'-0"	2 1/2" SCH. 40
6"	3'-0"	2" SCH. 40
6"	5'-0"	2 1/2" SCH. 40
6"	7'-0"	2 1/2" SCH. 40
6"	10'-0"	3" SCH. 40



2 FIRE SPRINKLER HANGER DETAIL
NOT TO SCALE REFER TO SCHEDULES FOR PIPE SUPPORTS

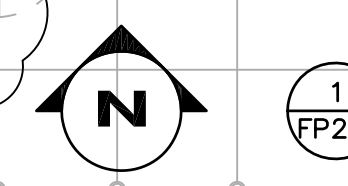
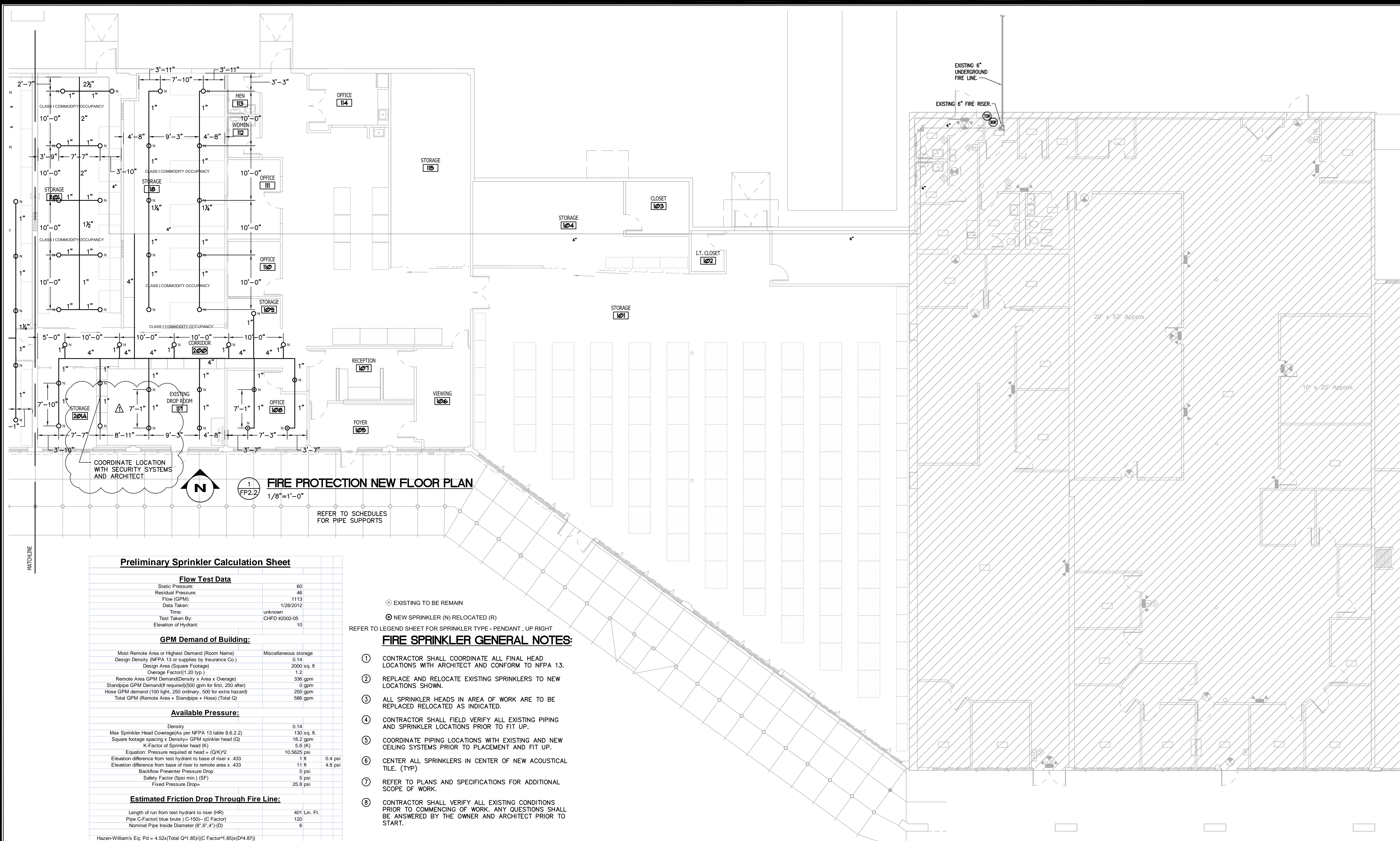
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REVISIONS

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1
FP2.2 **FIRE PROTECTION NEW FLOOR PLAN**
1/8"=1'-0"

REFER TO SCHEDULES FOR PIPE SUPPORTS

Preliminary Sprinkler Calculation Sheet

Flow Test Data

Static Pressure:	60
Residual Pressure:	46
Flow (GPM):	1113
Data Taken:	1/28/2012
Time:	unknown
Test Taken By:	CHFD #2002-05
Elevation of Hydrant:	10

GPM Demand of Building:

Most Remote Area or Highest Demand (Room Name)	Miscellaneous storage
Design Density (NFPA 13 or supplies by Insurance Co.)	0.14
Design Area (Square Footage)	2000 sq. ft.
Overage Factor(1.20 typ.)	1.2
Remote Area GPM Demand(Density x Area x Overage)	336 gpm
Standpipe GPM Demand(if required)(500 gpm for first, 250 after)	0 gpm
Hose GPM demand (100 light, 250 ordinary, 500 for extra hazard)	250 gpm
Total GPM (Remote Area + Standpipe + Hose) (Total Q)	586 gpm

Available Pressure:

Density	0.14
Max Sprinkler Head Coverage(As per NFPA 13 table 8.6.2.2)	130 sq. ft.
Square footage spacing x Density= GPM sprinkler head (Q)	18.2 gpm
K-Factor of Sprinkler head (K)	5.6 (K)
Equation: Pressure required at head = (Q/K)^2	10.5625 psi
Elevation difference from test hydrant to base of riser x .433	1 ft 0.4 psi
Elevation difference from base of riser to remote area x .433	11 ft 4.8 psi
Backflow Preventer Pressure Drop	5 psi
Safety Factor (psi min.) (SF)	5 psi
Fixed Pressure Drop=	25.8 psi

Estimated Friction Drop Through Fire Line:

Length of run from test hydrant to riser (HR)	401 Lin. Ft.
Pipe C-Factor(blue brute) C-150)- (C Factor)	120
Nominal Pipe Inside Diameter (8", 6", 4")-(D)	6
Hazen-William's Eq: Pd = 4.52x(Total Q^1.85)/(C Factor^1.85x(D^4.87))	
Friction Loss in pipe (psi/ft)Based upon Hazen William Eq.(H/W1)	0.01379 psi/ft
HRx1.30xHW1 =	7.19 Est. psi
Length of run from riser to last sprinkler head(estimated.) (RS)	354 Lin. Ft.
Base of Riser to furthest sprinkler	342
Pipe C Factor (Black Steel C-120)	120
Nominal Pipe Inside Diameter (6", 4")	4
Hazen-William's Eq: Pd = 4.52x(Total Q^1.85)/(C Factor^1.85x(D^4.87))	
Friction Loss in pipe (psi/ft)Based upon Hazen William Eq.(H/W1)	0.0994 psi/ft
HRx1.30xHW1 =	0.0366918 psi/ft
HRx1.30xHW1 =	16.88557610 Est. psi

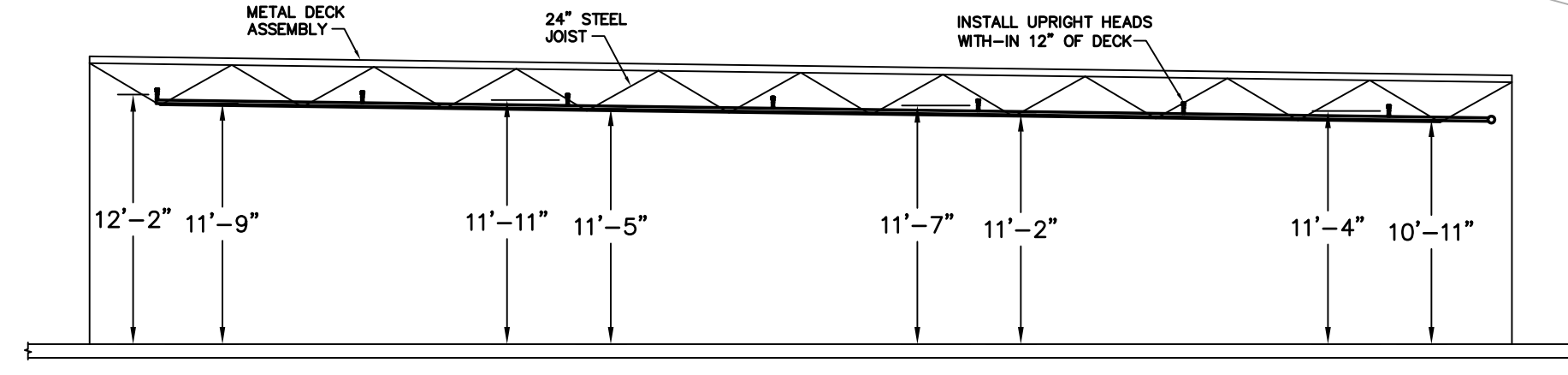
total pressure required at flow 49.83 psi
(min code 7 psi required at sprinkler included)
Sufficient water flow available 586 gpm

- ⊙ EXISTING TO BE REMAIN
- ⊙ NEW SPRINKLER (N) RELOCATED (R)

REFER TO LEGEND SHEET FOR SPRINKLER TYPE - PENDANT , UP RIGHT

FIRE SPRINKLER GENERAL NOTES:

- 1 CONTRACTOR SHALL COORDINATE ALL FINAL HEAD LOCATIONS WITH ARCHITECT AND CONFORM TO NFPA 13.
- 2 REPLACE AND RELOCATE EXISTING SPRINKLERS TO NEW LOCATIONS SHOWN.
- 3 ALL SPRINKLER HEADS IN AREA OF WORK ARE TO BE REPLACED RELOCATED AS INDICATED.
- 4 CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPING AND SPRINKLER LOCATIONS PRIOR TO FIT UP.
- 5 COORDINATE PIPING LOCATIONS WITH EXISTING AND NEW CEILING SYSTEMS PRIOR TO PLACEMENT AND FIT UP.
- 6 CENTER ALL SPRINKLERS IN CENTER OF NEW ACOUSTICAL TILE. (TYP)
- 7 REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- 8 CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE OWNER AND ARCHITECT PRIOR TO START.



2
FP2.2 **SECTION THROUGH BUILDING**
NOT TO SCALE

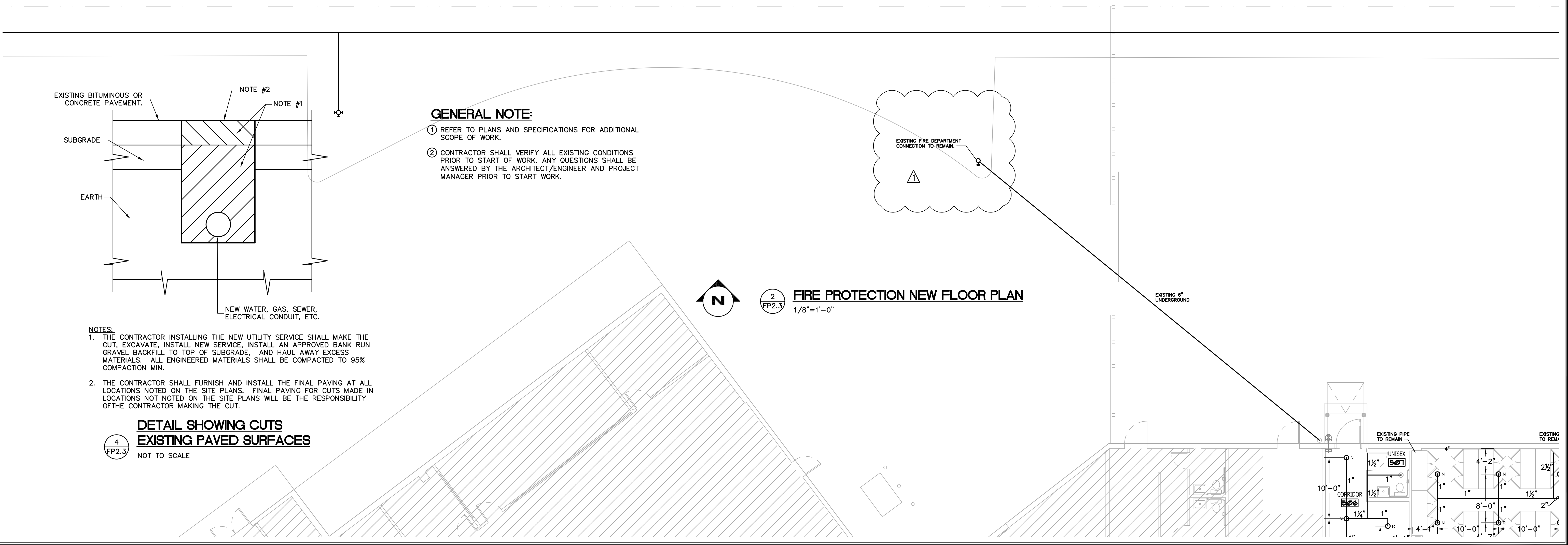
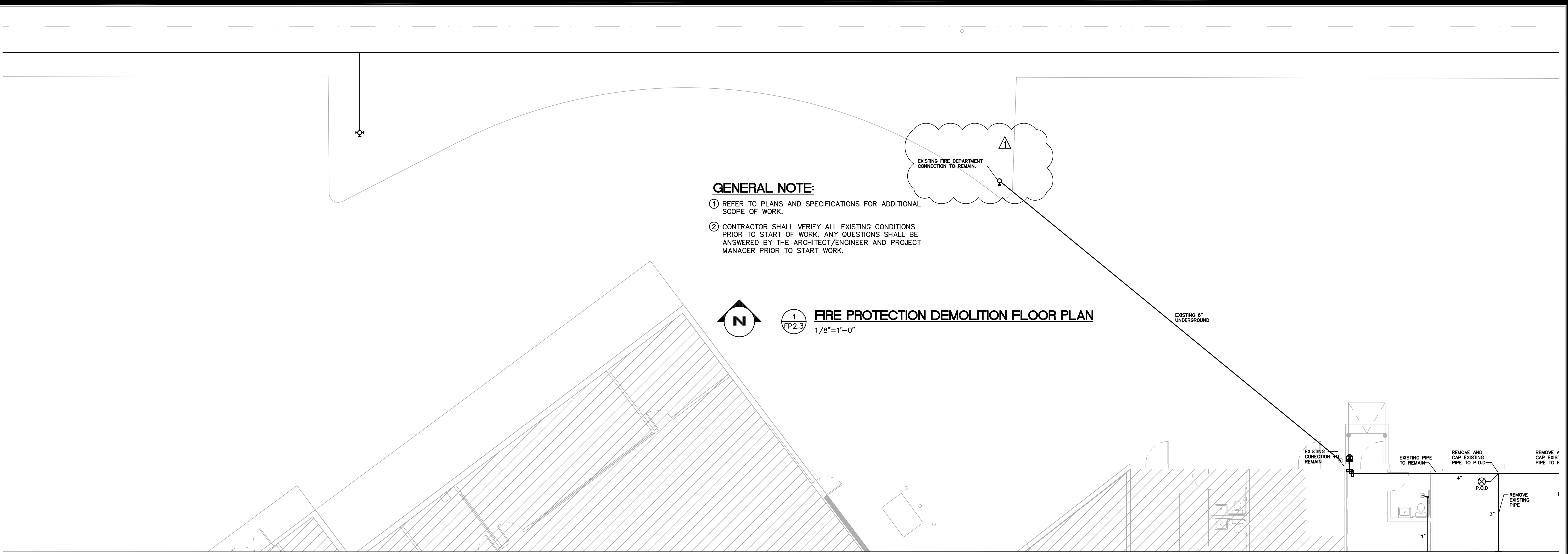
ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER AIA
ARCHITECT / PLANNER P.A.
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
BRADENTON, FLORIDA
600 U.S. 301 BLVD. WEST

JOB NO 0601J
DATE MAR 08, 2012
DRAWN JG
CHECKED JG
REVISIONS
5/11/2012

FP-2.2



ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE:

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

THESE DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE CONSULTANT HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS. NOTIFY THIS ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND.

EQUIPMENT	
SYMBOL	DESCRIPTION
	DISTRIBUTION PANELBOARD AND CABINET - RECESSED MOUNT
	DISTRIBUTION PANELBOARD AND CABINET - SURFACE MOUNT
	BRANCH PANELBOARD AND CABINET - RECESSED MOUNT
	BRANCH PANELBOARD AND CABINET - SURFACE MOUNT
	LOAD CENTER - SURFACE MOUNT
	LOAD CENTER - RECESSED MOUNT
	NOTES PANEL/PANELBOARD DESIGNATION
	MOTOR "X" INDICATES HORSEPOWER "Y" INDICATES PHASE
	CAPACITOR "X" INDICATES KVAR
	DISCONNECT SWITCH - FUSED "X" = RATING, "Y" = FUSE SIZE
	DISCONNECT SWITCH - NON-FUSED
	DISCONNECT SWITCH - CIRCUIT BREAKER
	MOTOR STARTER
	COMBINATION MOTOR STARTER
	DRY TYPE TRANSFORMER - "XX" INDICATES KVA
	METER SOCKET
	CURRENT TRANSFORMER METER SOCKET
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	GENERATOR
	TRANSFER SWITCH ATS = AUTOMATIC TRANSFER SWITCH MTS = MANUAL TRANSFER SWITCH N = NORMAL POWER E = EMERGENCY POWER L = LOAD
	WIREWAY
	BUSWAY
	GROUND CONNECTION
	HORSEPOWER RATED MANUAL MOTOR STARTER TOGGLE SWITCH WITH THERMAL OVERLOAD PROTECTION "X" INDICATES AS FOLLOWS NONE - SINGLE POLE 2 - 2 POLE 3 - 3 POLE
	HORSEPOWER RATED MANUAL MOTOR STARTER TOGGLE SWITCH WITH THERMAL OVERLOAD PROTECTION WITH PILOT LIGHT "X" INDICATES AS FOLLOWS "Y" INDICATES AS FOLLOWS NONE - SINGLE POLE Y - YELLOW LENS 2 - 2 POLE G - GREEN LENS 3 - 3 POLE R - RED LENS W - WHITE LENS B - BLUE LENS A - AMBER
	LOW VOLTAGE DRAWOUT TYPE CIRCUIT BREAKER "X" INDICATES AS FOLLOWS A - AIR TYPE S - SF6 TYPE V - VACUUM TYPE
	MOLDED CASE CIRCUIT BREAKER
	FUSE
	DRAW OUT MOTOR STARTER ASSEMBLY

RACEWAY SYSTEM	
SYMBOL	DESCRIPTION
	CONCEALED CONDUIT
	4" CONDUIT SLEEVE WITH BUSHINGS THRU WALL ABOVE CEILING
	LETTER DESIGNATION REFERS TO SYSTEM (SEE ABBREVIATIONS)
	PHASE CONDUCTORS A-XX F50 GROUND SWITCH LEG NEUTRAL
	QUANTITY OF CONDUCTORS OR CABLES IN CONDUIT "F50" DENOTES THE FEEDER SIZE "A-XX" DENOTES PANEL AND CIRCUIT #
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	JUNCTION OR PULL BOX
	CABLE TRAY
	U/G CONDUIT TURNED UP
	U/G CONDUIT TURNED DOWN

LIGHTING	
SYMBOL	DESCRIPTION
X-2-C	X = FIXTURE TYPE, 2 = CIRCUIT NUMBER, C = SWITCH LEG
F	FLUORESCENT
K	INCANDESCENT
H	H.I.D.
	FLUORESCENT STRIP TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE
	FLUORESCENT TYPE FIXTURE WITH EMERGENCY BATTERY BALLAST
	CEILING MOUNT LIGHT FIXTURE
	CEILING MOUNT RECESSED LIGHT FIXTURE
	WALL MOUNT FIXTURE
	LIGHT POLE WITH ONE FIXTURE (FIXTURE LOCATION AND SPACING AS SHOWN)
	2 HEAD POLE LIGHT. LOCATION AND SPACING AS SHOWN.
	3 HEAD POLE LIGHT. LOCATION AND SPACING AS SHOWN.
	EXIT LIGHT - CEILING MOUNTED ARROWS DENOTE EGRESS PATH
	EXIT LIGHT - WALL MOUNTED ARROWS DENOTE EGRESS PATH
	EMERGENCY CEILING MOUNT W/ BATTERY UNIT
	EMERGENCY WALL MOUNT W/ BATTERY UNIT
	EXIT / EMERGENCY WALL MOUNT W/ BATTERY UNIT ARROWS DENOTE EGRESS PATH
	EMERGENCY WALL MOUNT REMOTE HEAD

DEVICES	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE - NORMAL CIRCUIT "X" INDICATES AS FOLLOWS: NONE = 20 AMP, 125VAC GFI = 20 AMP, 125VAC, GROUND FAULT INTERRUPTER TYPE HM = 20 AMP, 125VAC, HORIZONTAL MOUNT TYPE IG = 20 AMP, 125VAC, ISOLATED GROUND TYPE S = 20 AMP, 125VAC, TVSS PROTECTION TYPE WP = 20 AMP, 125VAC, WEATHERPROOF TYPE
	DOUBLE DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
	DOUBLE DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
	SINGLE RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
	SPECIAL RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
	SINGLE RECEPTACLE - FLOOR, SEE DRAWINGS AND SPECIFICATIONS.
	DUPLEX RECEPTACLE - FLOOR, SEE DRAWINGS AND SPECIFICATIONS.
	CLOCK RECEPTACLE - 120VAC
	TOGGLE SWITCH - SINGLE POLE
	TOGGLE SWITCH - DOUBLE POLE
	TOGGLE SWITCH - 3-WAY
	WALL MOUNTED OCCUPANCY SENSOR
	CEILING MOUNTED OCCUPANCY SENSOR x = TYPE, SEE PLANS
	JUNCTION BOX
	HVAC THERMOSTAT
	HVAC HUMIDISTAT
	FURNITURE POWER POLE
	FURNITURE CABLE MANAGEMENT POLE.
	MUSHROOM HEAD RED PUSH BUTTON

DRAWING SYMBOLS	
	DETAIL NUMBER
	DRAWING NUMBER WHERE DRAWN
	SECTION LETTER
	DRAWING NUMBER WHERE DRAWN
	REFER TO LIKE NUMBER NOTES.
	REFER TO LIKE NUMBER NOTES.

FIRE ALARM SYSTEM	
SYMBOL	DESCRIPTION
	HORN / STROBE
	CEILING MOUNT
	WALL MOUNT
	CEILING MOUNT
	WALL MOUNT
	CEILING MOUNT
	WALL MOUNT
	BELL
	CEILING MOUNT
	WALL MOUNT
	SMOKE DETECTOR
	HEAT DETECTOR
	PULL STATION
	ELEVATOR WARNING LIGHT
	FIREFIGHTER PHONE JACK
	TAMPER SWITCH
	FLOW SWITCH
	F.A.A.P. REMOTE ANNUNCIATOR
	FIRE ALARM CONTROL PANEL
	DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED
	SPEAKER - FIRE ALARM
	AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS): NONE = PHOTO ELECTRIC TYPE S = SUPPLY R = RETURN
	EQUIPMENT SHUT DOWN RELAY
	REMOTE DUCT DETECTOR INDICATOR LIGHT X = AIR HANDLER / ROOF TOP UNIT
	FIRE SUPPRESSION SYSTEM

INTERCOMMUNICATION SYSTEM	
SYMBOL	DESCRIPTION
	INTERCOM SYSTEM ROUGH-IN - SINGLE GANG BACKBOX MOUNTED AT +46"

GENERAL NOTES (APPLY TO ALL DRAWINGS):

- THE WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES FOR A COMPLETE SYSTEM IN EVERY RESPECT AND DETAIL. TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. WORK SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO THE NEC (NFPA 70 & 72) AND ALL APPLICABLE CODES, AND BE COMPLETED BY A QUALIFIED, EXPERIENCED, LICENSED ELECTRICAL CONTRACTOR.
- THE ENGINEER HAS MADE AN EFFORT TO COORDINATE WORK WITH OTHER TRADES AND IDENTIFY ANY AND ALL CONFLICTS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE FIELD WORK BETWEEN TRADES AND TO IDENTIFY FIELD CONDITIONS PRIOR TO INSTALLATION AND REPORT ANY CONFLICTS TO THE ENGINEER.
- WHEN A CONFLICT OCCURS BETWEEN THE SPECIFICATIONS AND DRAWINGS, THE ITEMS OF GREATER QUANTITY AND/OR COST SHALL BE PROVIDED.
- CONTRACTOR SHALL VERIFY THE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT FURNISHED BY OTHER TRADES PRIOR TO INSTALLATION. COORDINATE ROUGH-IN INSTALLATION WITH EQUIPMENT DETAILS.
- ALL OPENINGS IN FIRE AND SMOKE PARTITIONS SHALL BE SEALED AS REQUIRED BY THE NEC/FLORIDA BUILDING CODE. PROVIDE UL LISTED COMPOUND TO MATCH PARTITION RATING.
- DO NOT SCALE DRAWINGS. VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION FOR EXACT DEVICE / EQUIPMENT LOCATION.
- DEMOLITION WORK: PROVIDE DEMOLITION AND REMOVAL WORK AS INDICATED OR NEEDED. EQUIPMENT THAT IS TO BE REMOVED INCLUDES ALL ASSOCIATED WIRING, BOXES AND CONDUIT BACK TO SOURCE. CLOSE ALL UNUSED OPENINGS IN JUNCTION BOXES THAT REMAIN WITH SUITABLE PLUG OR COVER. WHEN REMOVING OR RELOCATING LIGHT FIXTURES OR OTHER DEVICES, FIELD VERIFY REMAINING DEVICES IN THE SAME CIRCUIT AND RECONNECT FOR CONTINUED SERVICE. EXISTING ELECTRICAL WORK INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REROUTED TO SUIT FINAL INSTALLATION. CUTTING AND PATCHING REQUIRED SHALL BE DONE TO RESTORE AREAS TO ORIGINAL CONDITION.
- CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUT SHEETS AT TIME OF APPLICATION IF REQUESTED.

SECURITY SYSTEM	
SYMBOL	DESCRIPTION
	DOOR CONTACT ROUGH-IN
	PROXIMITY CARD READER ROUGH-IN
	CCTV ROUGH-IN
	CAMERA ROUGH-IN

COMMUNICATION SYSTEMS	
SYMBOL	DESCRIPTION
	WALL MOUNTED VOICE OUTLET
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED COMBINATION VOICE / DATA OUTLET
	FLOOR MOUNTED VOICE OUTLET.
	FLOOR MOUNTED DATA OUTLET.
	FLOOR MOUNTED COMBINATION VOICE / DATA OUTLET.
	TELEPHONE CABINET
	COMMUNICATIONS CABINET

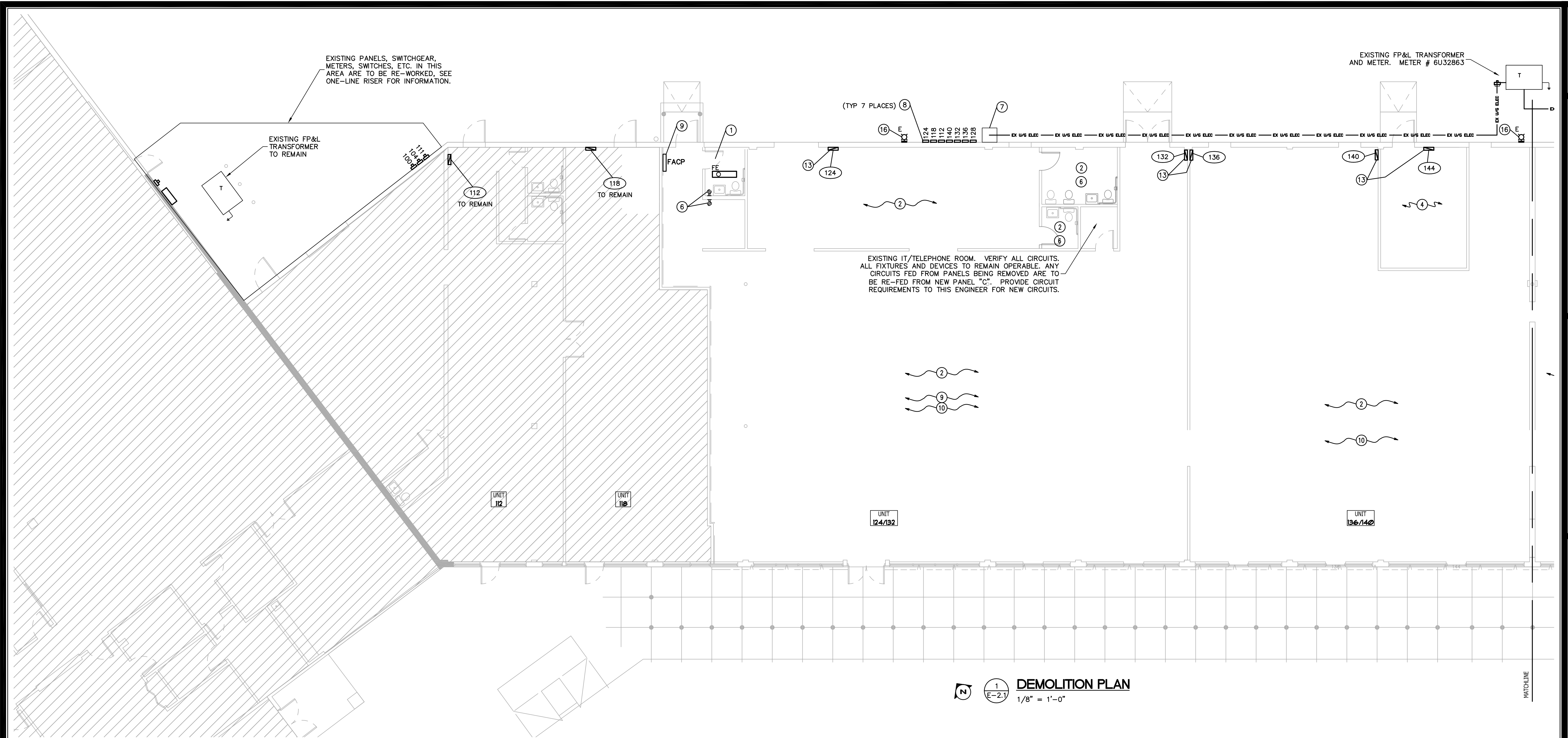
PAGING / AUDIO SYSTEM	
SYMBOL	DESCRIPTION
	LOUDSPEAKER - CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"
	VOLUME CONTROL - CONTROLS SPEAKERS "1"
	PAGING ROUGH-IN
	AUDIO JACK ROUGH-IN
	MICROPHONE ROUGH-IN
	PROJECTOR ROUGH-IN

TELEVISION SYSTEM	
SYMBOL	DESCRIPTION
	TELEVISION ROUGH-IN

ABBREVIATIONS	
A	AMPERE
AC	AIR CONDITIONING OR ALTERNATING CURRENT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
ARCH	ARCHITECT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CAT	CATEGORY
CB	CIRCUIT BREAKER
CH	CHILLER
CKT	CIRCUIT
CL	CENTER LINE
CLF	CURRENT-LIMITING FUSE
CM	CEILING MOUNTED
CNTL	CONTROL
CU	COPPER
DWG(S)	DRAWING(S)
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING TO REMAIN
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FACC	FIRE ALARM COMMAND CENTER
FATC	FIRE ALARM TERMINAL CABINET
FLR	FLOOR
FMC	FURNISHED BY MECHANICAL CONTRACTOR
FWE	FURNISHED WITH EQUIPMENT
GFI	GROUND FAULT INTERRUPTER
GND,G	GROUND
GRS	GALVANIZED RIGID STEEL CONDUIT
HOA	HAND-OFF-AUTO
HACR	HEATING/AIR CONDITIONING-RATED
HID	HIGH INTENSITY DISCHARGE
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HZ	HERTZ
HP	HORSEPOWER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METALLIC CONDUIT
JB	JUNCTION BOX
KAIC	KILO AMPERE INTERRUPTING CAPACITY
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
M-G	MOTOR GENERATOR
MDP	MAIN DISTRIBUTION PANEL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OVER CURRENT PROTECTIVE DEVICE
PNL	PANEL
Ø	PHASE
PB	PUSHBUTTON
PVC	POLYVINYL CHLORIDE CONDUIT
RTU	ROOF TOP UNIT
SCH	SCHEDULE
SEC	SECURITY
SW	SWITCH
SWGR	SWITCHGEAR
TEL,T	TELEPHONE
TBB	TELEPHONE BACKBOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TC	TIME CLOCK
XFMR	TRANSFORMER
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL,U.L.	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
U.O.N.	UNLESS OTHERWISE NOTED
VT	VAPORTIGHT
V	VOLT
W	WATT
WP	WEATHER PROOF

ELECTRICAL POWER PROCESS OF WORK:

- WEEKLY ELECTRICAL SCHEDULES OF AREAS AFFECTED SHALL BE PROVIDED FOR EACH PANELBOARD CHANGE-OUT AND REMOVAL.
- THE ELECTRICAL CONTRACTOR SHALL BUILD THE NEW SWITCHGEAR WITH NEW PANELBOARDS FIRST. NEW SYSTEM SHALL BE ENERGIZED PRIOR TO DEMOLITION OF EXISTING GEAR.
- THE UN-OCCUPIED AREA OF THE JOB SHALL BE CONFIGURED AND POWERED PRIOR TO ANY WORK IN THE CURRENTLY OCCUPIED SPACES.
- THE EXISTING MSO STORAGE AREA WILL THEN BE MODIFIED WITH UNITS RELOCATED ON A WEEKLY SCHEDULE PROVIDED TO THE OWNER ON CIRCUITS AND ITEMS AFFECTED.



DEMOLITION PLAN
1/8" = 1'-0"

PLAN NOTES:

- ① EXISTING FIXTURE TO REMAIN, VERIFY TYPE. RE-FED ON CIRCUIT SHOWN ON NEW PLANS, USE EXISTING SWITCHING. RECONNECT EXISTING EXHAUST FAN WITH LIGHTING FIXTURE.
- ② EXISTING LIGHTING FIXTURES TO BE REMOVED. REMOVE SWITCHING, AND CONDUITS/CONDUCTORS BACK TO SOURCE.
- ③ SECURITY SYSTEM TO BE RE-LOCATED, SEE NEW PLANS FOR NEW LOCATION AND CIRCUITS. COORDINATE DOWNTIME WITH OWNER.
- ④ ALL ELECTRICAL DEVICES AND LIGHTING IN THIS SPACE ARE TO BE RE-CIRCUITED, SEE NEW PLANS FOR ADDITIONAL INFORMATION. PRESERVE DEVICE LOCATION AND LIGHTING SWITCHING FOR RE-USE.
- ⑤ WALL TO BE REMOVED. LOCATE ALL ELECTRICAL DEVICES, TO INCLUDE ANY NOT SHOWN, ON WALL AND REMOVE DEVICES, CONDUITS AND CONDUCTORS BACK TO SOURCE. VERIFY CIRCUITS.
- ⑥ EXISTING RECEPTACLES TO REMAIN, RE-FED AND CONNECT TO CIRCUIT SHOWN ON NEW PLANS. RE-USE CONDUITS AND CONDUCTORS AS POSSIBLE.
- ⑦ EXISTING 800A MAIN DISCONNECT TO BE REPLACED. PRESERVE INCOMING FED FROM FP&L TRANSFORMER.
- ⑧ EXISTING METER CANS AND DISCONNECT SWITCHES TO BE REMOVED COMPLETE. SEE ONE-LINE RISER FOR ADDITIONAL INFORMATION.
- ⑨ EXISTING FIRE ALARM CONTROL PANEL TO BE RELOCATED TO UNIT 118. ALL EXISTING F.A. DEVICES CONNECTED TO THIS FACP THAT ARE IN UNITS 124/132 ARE TO BE DISCONNECTED AT THE FACP, AND WILL NOT BE RECONNECTED TO THIS FACP. PRESERVE ALL CONDUCTORS FOR RE-USE. THE INTENT IS TO SEPARATE THE BOARD OF ELECTIONS FIRE ALARM SYSTEM FROM THE SHERIFF'S OFFICE F.A. SYSTEM.
- ⑩ REMOVE ALL FIRE ALARM DEVICES, PRESERVE ANY THAT ARE ADDRESSABLE AND COMPATIBLE WITH EXISTING F.A. SYSTEM IN THE 1ST FLOOR ELECTRICAL ROOM (RM128) OF THE 2-STORY SHERIFF'S BUILDING FOR RE-USE. SEE NEW PLANS FOR LOCATIONS.
- ⑪ VERIFY EXISTING FIRE ALARM DEVICES ARE ADDRESSABLE AND COMPATIBLE WITH EXISTING F.A. SYSTEM IN THE 1ST FLOOR ELECTRICAL ROOM OF THE 2-STORY SHERIFF'S BUILDING. ANY NON-ADDRESSABLE AND/OR NON-COMPATIBLE DEVICES TO BE REMOVED.
- ⑫ REFRIGERATORS TO BE RELOCATED, REMOVE ALL REFRIGERATOR RECEPTACLES, CONDUITS AND CONDUCTORS BACK TO SOURCE.
- ⑬ EXISTING ELECTRICAL GEAR (IE, TRANSFORMER, PANELBOARDS, ETC.) TO BE REMOVED COMPLETE. SEE NEW PLANS FOR ANY CIRCUITS TO BE RELOCATED TO NEW PANELS. COORDINATE SHUTDOWNS AND POWER OUTAGES WITH GC AND OWNER.
- ⑭ EXISTING ELECTRICAL PANELS AND ELECTRICAL EQUIPMENT TO STAY PER THE OWNER.
- ⑮ EXISTING PANEL TO BE REMOVED, SUB-PANEL "C" TO REMAIN AND BE RE-FED, SEE NEW PLANS.
- ⑯ EXISTING WALLPACKS ARE TO BE REMOVED COMPLETE.

GENERAL NOTES:

ALL CONDITIONS NEED TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING AND STARTING WORK.
CONTRACTOR TO REMOVE ANY AND ALL PVC & ENT CONDUIT, AND ANY NON-PLENUM RATED CABLING. REPLACE AS NECESSARY.
REFER TO PROCESS OF WORK ON SHEET E-1.0.

DATE: 03/08/2012
DRAWN: JZ
CHECKED: JZ
REVISIONS:

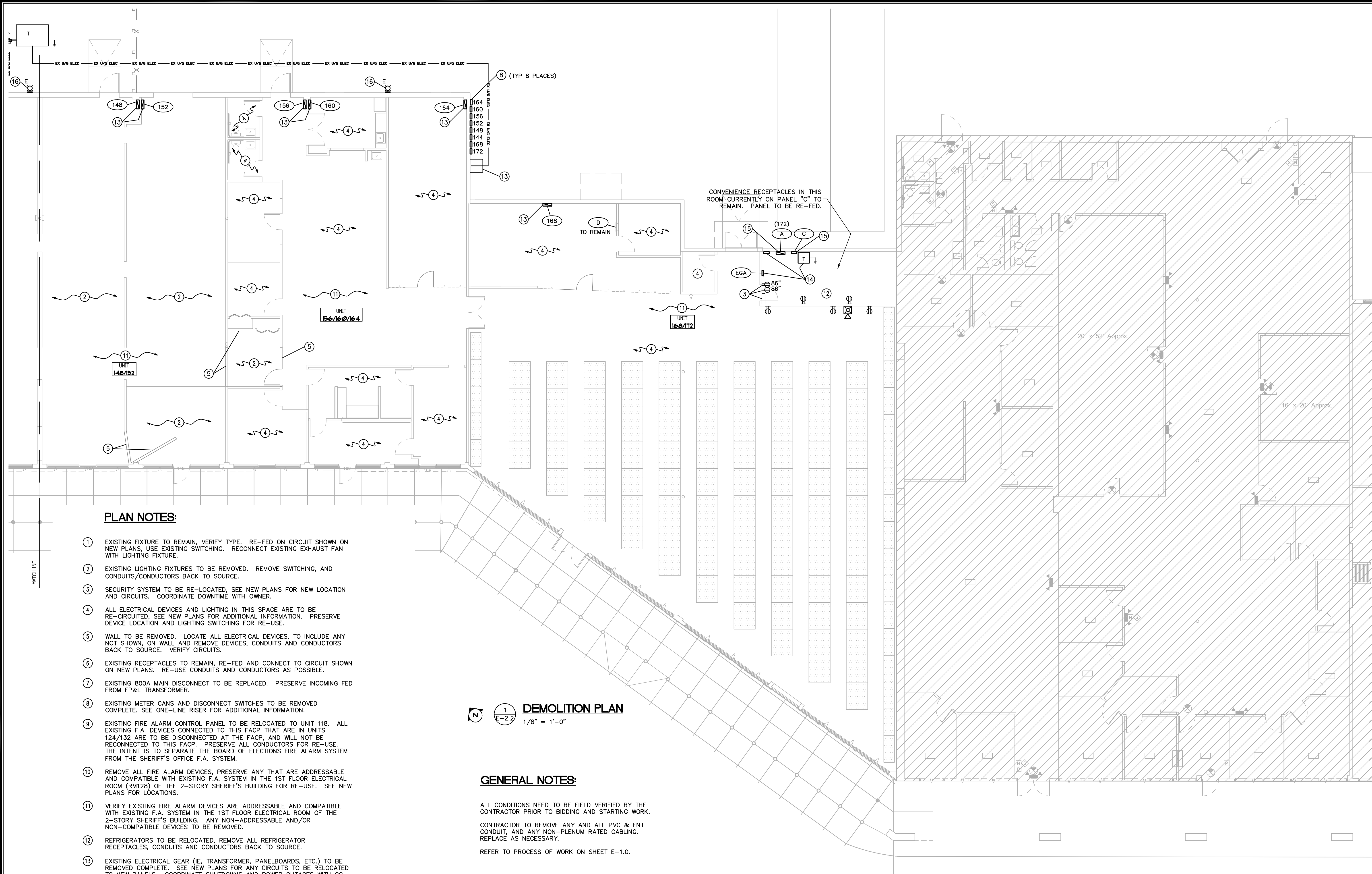
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ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER AIA
ARCHITECT / PLANNER P.A.
914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
BRADENTON, FLORIDA
600 U.S. 301 BLVD. WEST

JOB NO: 0601J
DATE: MAR 08, 2012
DRAWN: JZ
CHECKED: JZ
REVISIONS:

E-2.1



PLAN NOTES:

- 1 EXISTING FIXTURE TO REMAIN, VERIFY TYPE. RE-FED ON CIRCUIT SHOWN ON NEW PLANS, USE EXISTING SWITCHING. RECONNECT EXISTING EXHAUST FAN WITH LIGHTING FIXTURE.
- 2 EXISTING LIGHTING FIXTURES TO BE REMOVED. REMOVE SWITCHING, AND CONDUITS/CONDUCTORS BACK TO SOURCE.
- 3 SECURITY SYSTEM TO BE RE-LOCATED, SEE NEW PLANS FOR NEW LOCATION AND CIRCUITS. COORDINATE DOWNTIME WITH OWNER.
- 4 ALL ELECTRICAL DEVICES AND LIGHTING IN THIS SPACE ARE TO BE RE-CIRCUITED, SEE NEW PLANS FOR ADDITIONAL INFORMATION. PRESERVE DEVICE LOCATION AND LIGHTING SWITCHING FOR RE-USE.
- 5 WALL TO BE REMOVED. LOCATE ALL ELECTRICAL DEVICES, TO INCLUDE ANY NOT SHOWN, ON WALL AND REMOVE DEVICES, CONDUITS AND CONDUCTORS BACK TO SOURCE. VERIFY CIRCUITS.
- 6 EXISTING RECEPTACLES TO REMAIN, RE-FED AND CONNECT TO CIRCUIT SHOWN ON NEW PLANS. RE-USE CONDUITS AND CONDUCTORS AS POSSIBLE.
- 7 EXISTING 800A MAIN DISCONNECT TO BE REPLACED. PRESERVE INCOMING FED FROM FP&L TRANSFORMER.
- 8 EXISTING METER CANS AND DISCONNECT SWITCHES TO BE REMOVED COMPLETE. SEE ONE-LINE RISER FOR ADDITIONAL INFORMATION.
- 9 EXISTING FIRE ALARM CONTROL PANEL TO BE RELOCATED TO UNIT 118. ALL EXISTING F.A. DEVICES CONNECTED TO THIS FACP THAT ARE IN UNITS 124/132 ARE TO BE DISCONNECTED AT THE FACP, AND WILL NOT BE RECONNECTED TO THIS FACP. PRESERVE ALL CONDUCTORS FOR RE-USE. THE INTENT IS TO SEPARATE THE BOARD OF ELECTIONS FIRE ALARM SYSTEM FROM THE SHERIFF'S OFFICE F.A. SYSTEM.
- 10 REMOVE ALL FIRE ALARM DEVICES, PRESERVE ANY THAT ARE ADDRESSABLE AND COMPATIBLE WITH EXISTING F.A. SYSTEM IN THE 1ST FLOOR ELECTRICAL ROOM (RM128) OF THE 2-STORY SHERIFF'S BUILDING FOR RE-USE. SEE NEW PLANS FOR LOCATIONS.
- 11 VERIFY EXISTING FIRE ALARM DEVICES ARE ADDRESSABLE AND COMPATIBLE WITH EXISTING F.A. SYSTEM IN THE 1ST FLOOR ELECTRICAL ROOM OF THE 2-STORY SHERIFF'S BUILDING. ANY NON-ADDRESSABLE AND/OR NON-COMPATIBLE DEVICES TO BE REMOVED.
- 12 REFRIGERATORS TO BE RELOCATED, REMOVE ALL REFRIGERATOR RECEPTACLES, CONDUITS AND CONDUCTORS BACK TO SOURCE.
- 13 EXISTING ELECTRICAL GEAR (I.E. TRANSFORMER, PANELBOARDS, ETC.) TO BE REMOVED COMPLETE. SEE NEW PLANS FOR ANY CIRCUITS TO BE RELOCATED TO NEW PANELS. COORDINATE SHUTDOWNS AND POWER OUTAGES WITH GC AND OWNER.
- 14 EXISTING ELECTRICAL PANELS AND ELECTRICAL EQUIPMENT TO STAY PER THE OWNER.
- 15 EXISTING PANEL TO BE REMOVED, SUB-PANEL "C" TO REMAIN AND BE RE-FED, SEE NEW PLANS.
- 16 EXISTING WALLPACKS ARE TO BE REMOVED COMPLETE.

DEMOLITION PLAN
 1/8" = 1'-0"

GENERAL NOTES:

ALL CONDITIONS NEED TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING AND STARTING WORK.
 CONTRACTOR TO REMOVE ANY AND ALL PVC & ENT CONDUIT, AND ANY NON-PLENUM RATED CABLING. REPLACE AS NECESSARY.
 REFER TO PROCESS OF WORK ON SHEET E-1.0.

JERRY N. ZOLLER AIA
 ARCHITECT / PLANNER
 814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

ATP ENGINEERING SOUTH, PL
 SARASOTA, FLORIDA
 ENGR. BUSINESS #8908
 941-360-2181

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST
 BRADENTON, FLORIDA

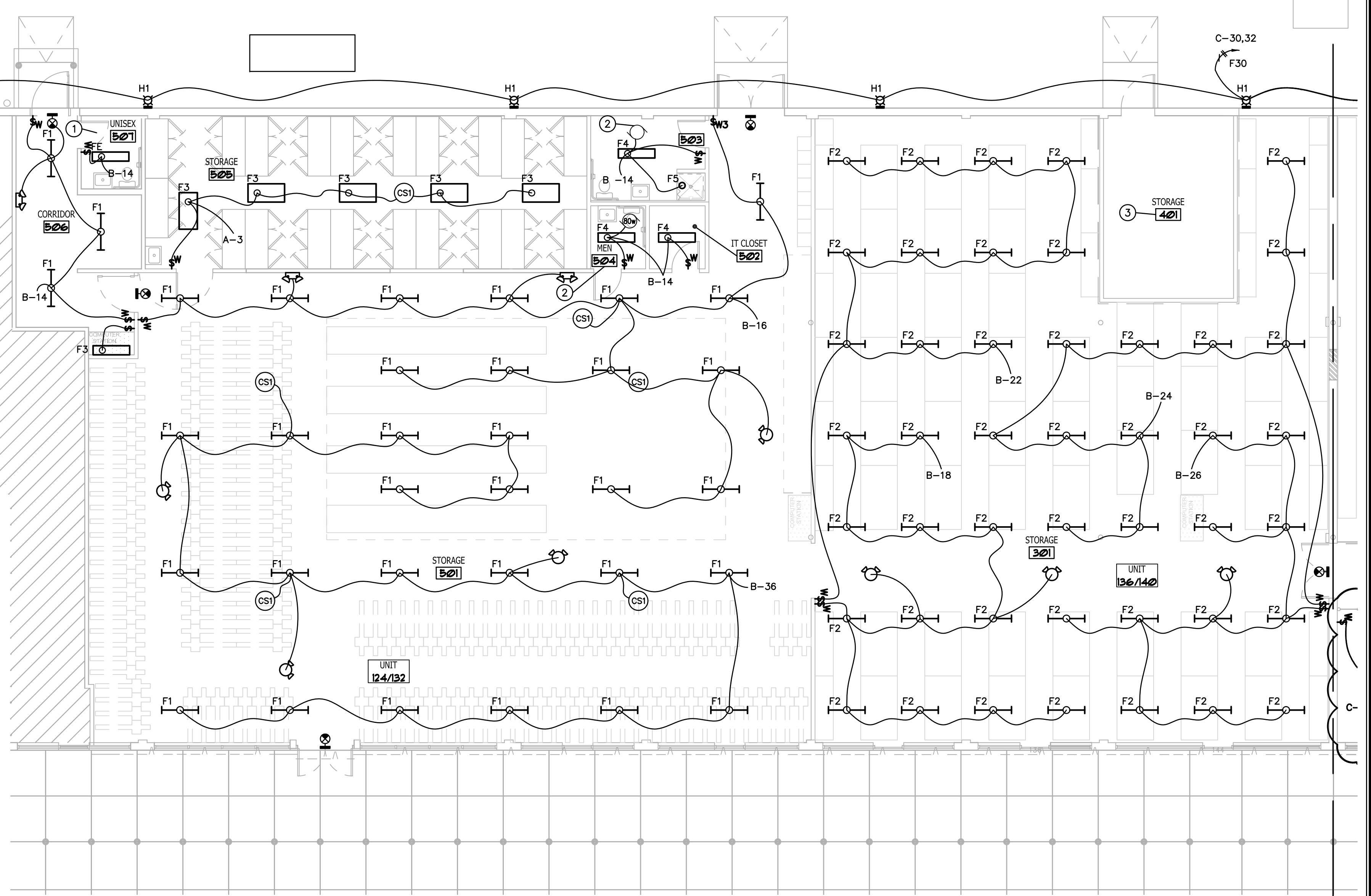
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REVISIONS	

E-2.2

LIGHT FIXTURE SCHEDULE								
TYPE	DESCRIPTION	VOLT	LAMP NUMBER AND TYPE	MOUNT	LENS	SERIES	ACCEPTABLE MANUFACTURERS	REMARKS
F1	NOMINALLY 4'X1'X5" DEEP, 2-LAMP LIGHT DUTY INDUSTRIAL FIXTURE. CODE GAUGE CHANNEL, BAKED WHITE ENAMEL FINISH. CLOSED TOP REFLECTOR. UL LISTED. PROVIDE WIRE GUARDS.	120	(2)32W T8	CEILING, CHAIN HANGER	N/A	ICF 81 CSR	METALUX H.E. WILLIAMS COLUMBIA	ELECTRONIC BALLAST
F2	NOMINALLY 4'X1'X5" DEEP, 3-LAMP LIGHT DUTY INDUSTRIAL FIXTURE. CODE GAUGE CHANNEL, BAKED WHITE ENAMEL FINISH. CLOSED TOP REFLECTOR. UL LISTED. PROVIDE WIRE GUARDS.	120	(3)32W T8	CEILING, CHAIN HANGER	N/A	ICF 81 CSR	METALUX H.E. WILLIAMS COLUMBIA	ELECTRONIC BALLAST
F3	WALL BRACKET, EXTRUDED ALUMINUM HOUSING WITH BRUSHED FINISH. INTERNAL CODE GAUGE STEEL CHANNEL, BAKED WHITE ENAMEL FINISH. ACRYLIC DIFFUSERS. UL LISTED.	120	(2)32W T8	WALL	PRISMATIC ACRYLIC #12	BAU MMA SA	METALUX H.E. WILLIAMS COLUMBIA	ELECTRONIC BALLAST
F4	NOMINALLY 4' LONG X 10" WIDE SURFACE MOUNT, WRAP AROUND FIXTURE. DIE FORMED CODE GAUGE STEEL CONSTRUCTION WITH BAKED WHITE ENAMEL FINISH. ACRYLIC PRISMATIC DIFFUSER.	120	(2)32W T8	SURFACE CEILING	ACRYLIC	W 17 WC	METALUX H.E. WILLIAMS COLUMBIA	ELECTRONIC BALLAST
F5	6" NOMINAL APERTURE, VERTICAL LAMP, ONE PIECE ALZAK REFLECTOR W/ SPUN PARABOLIC CONTOUR. BLACK BAFFLE W/ FRESNEL LENS. UL LISTED FOR WET LOCATION.	120	(1)26W TTT	SURFACE RECESS	FRESNEL	OS XX IBX	PORTFOLIO OMEGA PRESOLITE	ELECTRONIC BALLAST
FE	EXISTING FIXTURE, VERIFY TYPE	120	VERIFY	VERIFY				CLEAN & RELAMP
H1	MEDIUM TRAPEZOID IMPACT RESISTANT WALLPACK, DIE-CAST ALUMINUM HOUSING WITH REMOVABLE HINGED DOOR, UL LISTED WET. FIXTURE SHALL COME WITH FACTORY INSTALLED PHOTOCELL	208	250W PMH	WALL	TEMPERED FLAT GLASS	IMTR3A	MCGRAW-EDISON GARDCO HUBBELL	FORWARD THROW OPTICS (TYPE IV OPTICS) MOUNT AT 13' AFG
	EMERGENCY BATTERY PACK WITH THERMOPLASTIC HOUSING, SEALED LEAD-CADMIUM BATTERY AND TEST SWITCH FRONT MOUNTED HEADS. UL LISTED FOR DAMP LOCATIONS. CONTRACTOR GRADE.	120	5.4W KRYPTON	WALL/CEILING	N/A	CC2	SURE-LITES LITHONIA MCPHILBEN DUALLITE	UL LISTED FIVE YEAR WARRANTEE.
	LED ELECTRONIC EXIT LIGHT, SINGLE OR DOUBLE FACE AS INDICATED ON DRAWINGS. UNIVERSAL SURFACE MOUNTING CANOPY, END, BACK OR TOP MOUNT, DIRECTIONAL ARROW PANEL, STROKE STENCIL FACE RED LETTERS "EXIT". BATTERY BACKUP W/ NICKEL-CADMIUM BATTERY. PUSH TO TEST FEATURE.	120	MATCH EXISTING	SURFACE/CEILING		MATCH EXISTING	LITHONIA MCPHILBEN SURE-LITES DUALLITE	WHITE IN COLOR

NOTES:

- ALL F1 FIXTURES ARE EITHER EXISTING AND INSTALLED OR EXISTING AND IN STORAGE.
- CLEAN AND RELAMP ALL EXISTING REUSE FIXTURES. PROVIDE UNIT COST TO REPLACE BALLASTS AS NEEDED.
- ALL LIGHT FIXTURES TO BE SUPPLIED WITH LAMPS. LAMPS SHALL BE GE, PHILIPS, OR OSRAM/SLOVANIA, NO EXCEPTIONS.
- FLUORESCENT LAMP COLOR SHALL BE 3500 DEGREES K.



1 LIGHTING PLAN
1/8" = 1'-0"

PLAN NOTES:

- EXISTING FIXTURE TO REMAIN, VERIFY TYPE. RE-FED ON CIRCUIT SHOWN. PROVIDE NEW OCCUPANCY SENSOR SWITCH AS SHOWN UNLESS EXISTING IS OSS. RECONNECT EXISTING EXHAUST FAN WITH LIGHTING FIXTURE.
- CONNECT EXISTING EXHAUST FAN TO NEW LIGHTING CIRCUIT AND SWITCHING.
- RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS C-22.
- RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS. FIXTURES IN ROOMS 105-115 TO BE CONNECTED TO CIRCUITS C-1,-3,-5. MAXIMUM OF 12 AMPS PER CIRCUIT.
- RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS. FIXTURES IN ROOMS 101, 102, AND 104 TO BE CONNECTED TO CIRCUITS C-10, -12. MAXIMUM OF 12 AMPS PER CIRCUIT.
- EXISTING IT ROOM, NO LIGHTING WORK TO BE DONE IN THIS ROOM.

GENERAL NOTES:

ALL EMERGENCY FIXTURES, NIGHT LIGHT FIXTURES (NL), AND EXIT LIGHTS SHALL BE CONNECTED TO THE UN-SWITCHED PORTION OF THE CIRCUIT. (HOT ALL OF THE TIME).

WALL SWITCHES (SW) TO BE LEVITON OCCUPANCY SENSORS IPP15-1L, SINGLE-POLE & 3-WAY, 180 DEGREE, 900 SQ. FT. COVERAGE, PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR, COMMERCIAL GRADE - IVORY, OR APPROVED EQUAL.

CEILING MOUNT (CS) TO BE LEVITON OCCUPANCY SENSORS OSC05-M. MULTI-TECHNOLOGY, 360 DEGREE, 500 SQ. FT. COVERAGE, SELF-ADJUSTING, CEILING MOUNT OCCUPANCY SENSOR, COMMERCIAL GRADE - WHITE OR APPROVED EQUAL. POWER PACKS SHALL MATCH SENSOR MANUFACTURER.

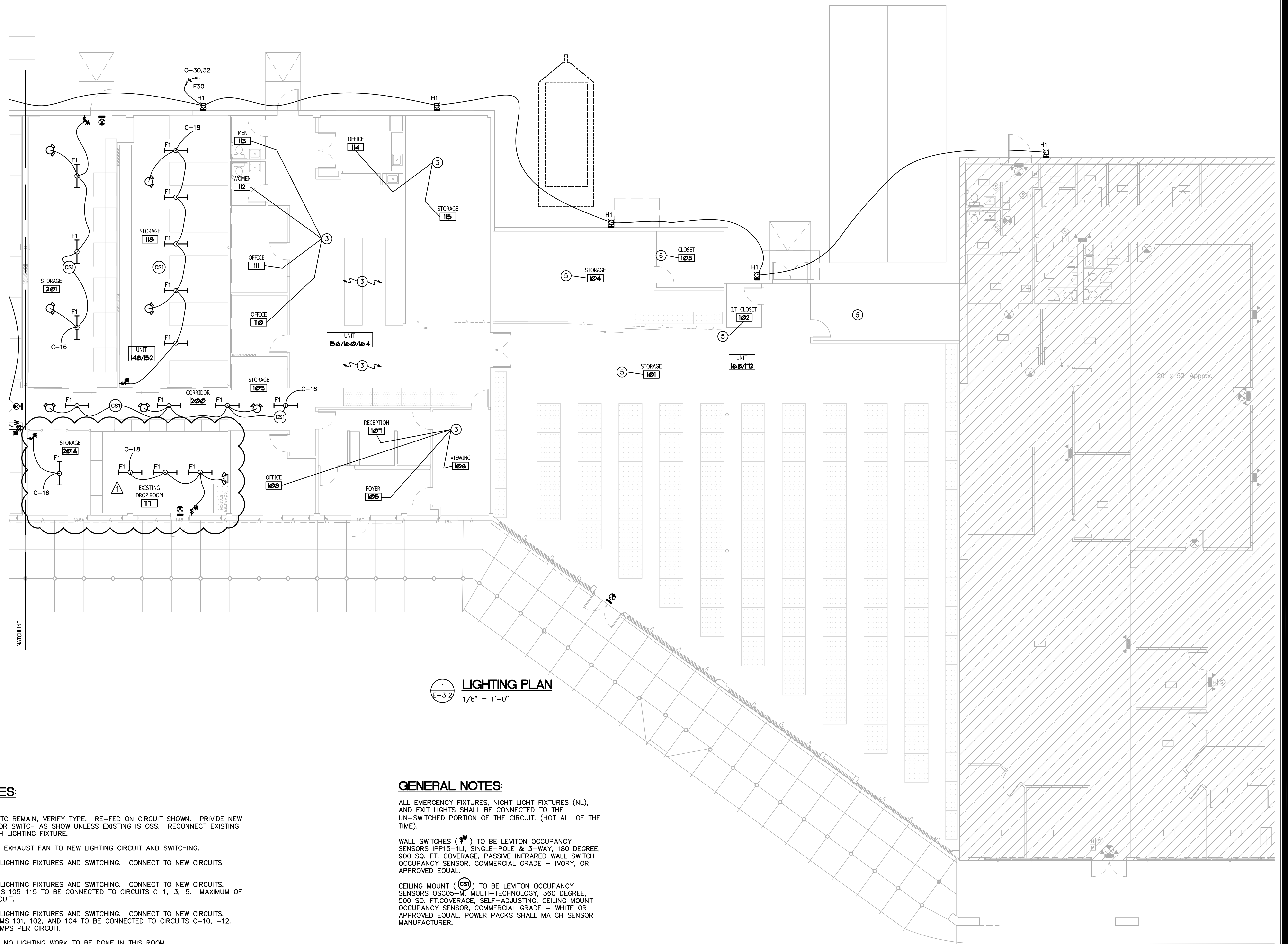
ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER AIA
ARCHITECT / PLANNER P.A.
1014 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM
BRADENTON, FLORIDA
600 U.S. 301 BLVD. WEST

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	JC
CHECKED	JC
REVISIONS	

E-3.1



1 LIGHTING PLAN
 E-3.2
 1/8" = 1'-0"

PLAN NOTES:

- ① EXISTING FIXTURE TO REMAIN, VERIFY TYPE. RE-FED ON CIRCUIT SHOWN. PROVIDE NEW OCCUPANCY SENSOR SWITCH AS SHOWN UNLESS EXISTING IS OSS. RECONNECT EXISTING EXHAUST FAN WITH LIGHTING FIXTURE.
- ② CONNECT EXISTING EXHAUST FAN TO NEW LIGHTING CIRCUIT AND SWITCHING.
- ③ RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS C-22.
- ④ RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS. FIXTURES IN ROOMS 105-115 TO BE CONNECTED TO CIRCUITS C-1, -3, -5. MAXIMUM OF 12 AMPS PER CIRCUIT.
- ⑤ RE-USE EXISTING LIGHTING FIXTURES AND SWITCHING. CONNECT TO NEW CIRCUITS. FIXTURES IN ROOMS 101, 102, AND 104 TO BE CONNECTED TO CIRCUITS C-10, -12. MAXIMUM OF 12 AMPS PER CIRCUIT.
- ⑥ EXISTING IT ROOM, NO LIGHTING WORK TO BE DONE IN THIS ROOM.

GENERAL NOTES:

ALL EMERGENCY FIXTURES, NIGHT LIGHT FIXTURES (NL), AND EXIT LIGHTS SHALL BE CONNECTED TO THE UN-SWITCHED PORTION OF THE CIRCUIT. (HOT ALL OF THE TIME).

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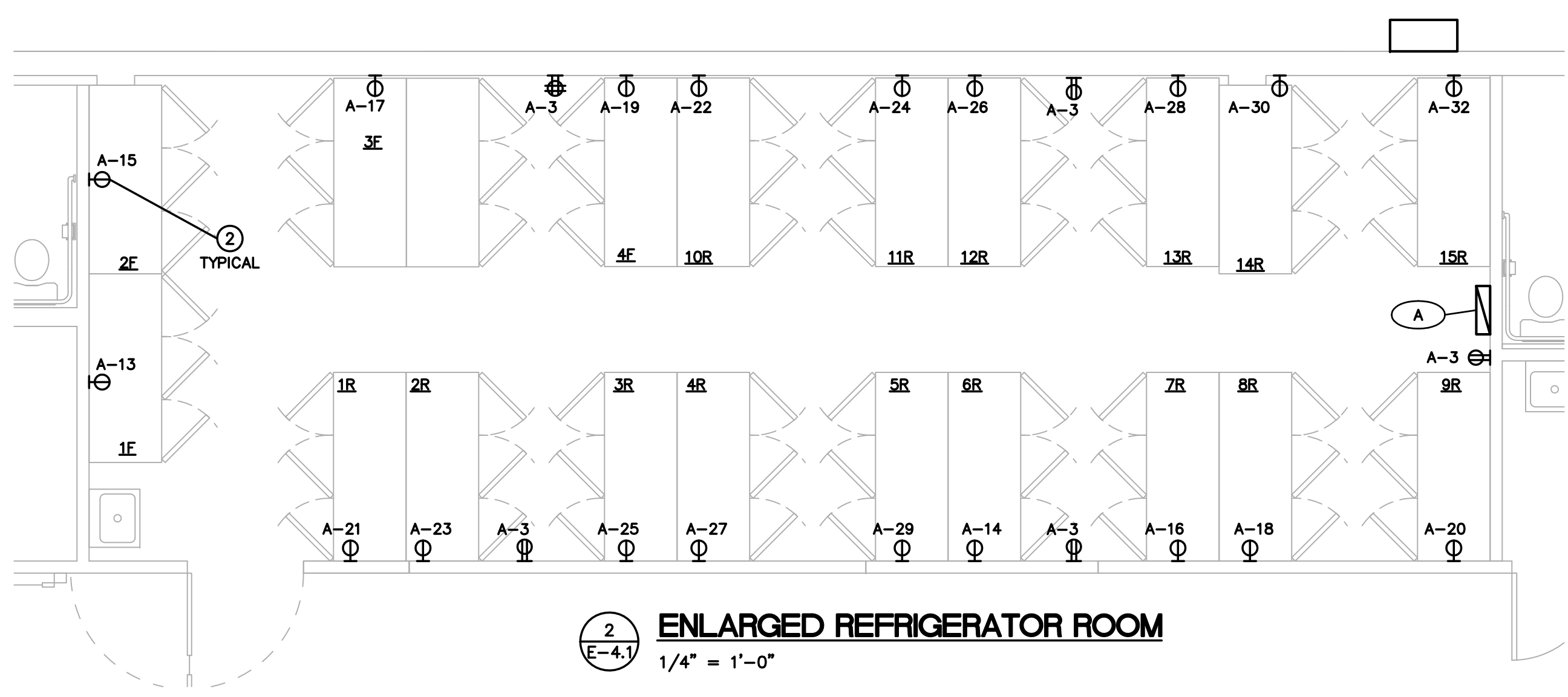
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	5/11/2012

E-3.2

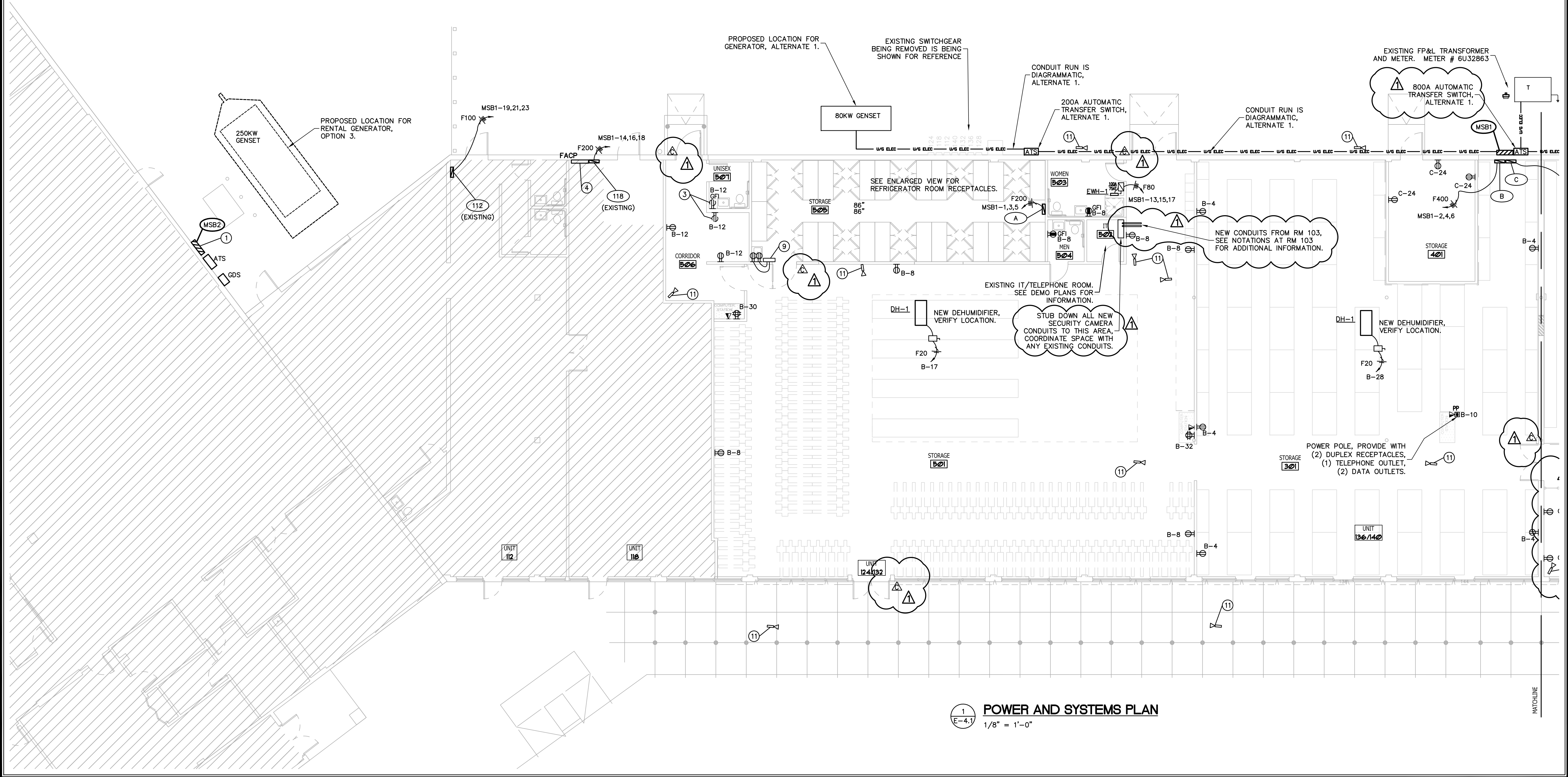
JOHN D. CAMDEN
 12/23/08



2 ENLARGED REFRIGERATOR ROOM
 1/4" = 1'-0"

PLAN NOTES:

- ① OPTION 3, NEW 800A MAIN CIRCUIT BREAKER TYPE DISCONNECT, SEE ONE-LINE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. CONNECT TO EXISTING INCOMING FED FROM FP&L TRANSFORMER.
- ② COORDINATE RECEPTACLE LOCATION WITH MANUFACTURERS SPECIFICATIONS. PROVIDE NEMA 5-15R FOR REFRIGERATORS AND NEMA 5-20R FOR FREEZERS.
- ③ EXISTING RECEPTACLE LOCATION TO REMAIN, CONNECT TO CIRCUIT SHOWN. VERIFY LOCATION.
- ④ NEW LOCATION FOR EXISTING FIRE ALARM CONTROL PANEL. RECONNECT ALL F.A. DEVICES IN THE SUPERVISOR OF ELECTIONS AREAS TO THIS FACP. PROVIDE POWER VIA AVAILABLE CIRCUIT IN PANEL 111. VERIFY THAT SYSTEM IS OPERATIONAL.
- ⑤ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 105-115 TO BE CONNECTED TO CIRCUITS C-7, -9, -11, -13, -15, -17, -19, -23, -29. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑥ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 117 - 118 TO BE CONNECTED TO CIRCUIT C-18. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑦ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 101, 102, AND 104 TO BE CONNECTED TO CIRCUITS C-10, -12. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑧ NEW RECEPTACLES FOR IT CLOSET (RM 102) TO BE CONNECTED TO SPARE SPACE IN PANEL "C". COORDINATE REQUIREMENTS WITH OWNERS IT DEPARTMENT.
- ⑨ RELOCATED SECURITY PANEL RECEPTACLES ARE TO BE FED FROM CIRCUIT A-34 AND A-36.
- ⑩ EXISTING COPIER/PRINTER, REPLACE RECEPTACLE AND RE-CIRCUIT ON CIRCUIT SHOWN. VERIFY LOCATION.
- ⑪ PROVIDE JUNCTION BOX WITH 1/2" CONDUIT WITH CONTINUOUS RUN BACK TO IT ROOM 502. PROVIDE PULLSTRING. VERIFY LOCATIONS WITH OWNER.
- ⑫ PROVIDE PRE-SET TIMER SWITCH, 10-20-30-60 MINUTES, LIKE LEVITON 6560M-1, OR APPROVED EQUAL. LABEL "EXHAUST FAN".
- ⑬ EXISTING CAMERA LOCATION, EXTEND CONDUCTORS FROM RM 103 TO RM 502.

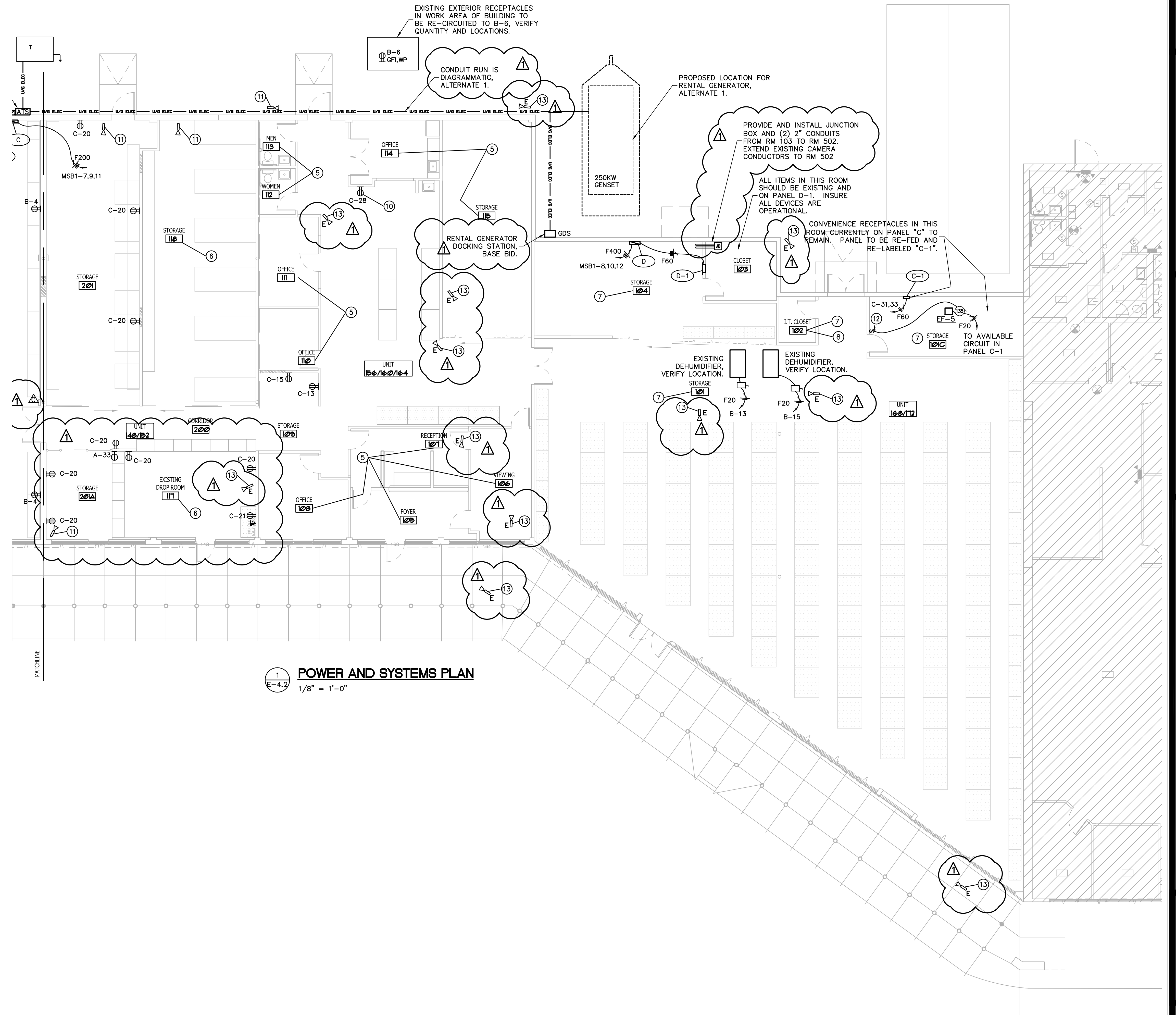


1 POWER AND SYSTEMS PLAN
 1/8" = 1'-0"

MATCHLINE

PLAN NOTES:

- ① OPTION 3, NEW 800A MAIN CIRCUIT BREAKER TYPE DISCONNECT, SEE ONE-LINE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. CONNECT TO EXISTING INCOMING FED FROM FP&L TRANSFORMER.
- ② COORDINATE RECEPTACLE LOCATION WITH MANUFACTURERS SPECIFICATIONS. PROVIDE NEMA 5-15R FOR REFRIGERATORS AND NEMA 5-20R FOR FREEZERS.
- ③ EXISTING RECEPTACLE LOCATION TO REMAIN, CONNECT TO CIRCUIT SHOWN. VERIFY LOCATION.
- ④ NEW LOCATION FOR EXISTING FIRE ALARM CONTROL PANEL. RECONNECT ALL F.A. DEVICES IN THE SUPERVISOR OF ELECTIONS AREAS TO THIS FACP. PROVIDE POWER VIA AVAILABLE CIRCUIT IN PANEL 111. VERIFY THAT SYSTEM IS OPERATIONAL.
- ⑤ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 105-115 TO BE CONNECTED TO CIRCUITS C-7,-9,-11,-13,-15,-17,-19,-23,-29. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑥ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 117 - 118 TO BE CONNECTED TO CIRCUIT C-18. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑦ RE-USE EXISTING RECEPTACLE LOCATIONS, REPLACE RECEPTACLE WITH NEW AND CONNECT TO NEW CIRCUIT. RECEPTACLES IN ROOMS 101, 102, AND 104 TO BE CONNECTED TO CIRCUITS C-10, -12. MAXIMUM OF (6) RECEPTACLES PER CIRCUIT.
- ⑧ NEW RECEPTACLES FOR IT CLOSET (RM 102) TO BE CONNECTED TO SPARE SPACE IN PANEL "C". COORDINATE REQUIREMENTS WITH OWNERS IT DEPARTMENT.
- ⑨ RELOCATED SECURITY PANEL RECEPTACLES ARE TO BE FED FROM CIRCUIT A-34 AND A-36.
- ⑩ EXISTING COPIER/PRINTER, REPLACE RECEPTACLE AND RE-CIRCUIT ON CIRCUIT SHOWN. VERIFY LOCATION.
- ⑪ PROVIDE JUNCTION BOX WITH 1/2" CONDUIT WITH CONTINUOUS RUN BACK TO IT ROOM 502. PROVIDE PULLSTRING. VERIFY LOCATIONS WITH OWNER.
- ⑫ PROVIDE PRE-SET TIMER SWITCH, 10-20-30-60 MINUTES, LIKE LEVITON 6560M-I, OR APPROVED EQUAL. LABEL "EXHAUST FAN".
- ⑬ EXISTING CAMERA LOCATION, EXTEND CONDUCTORS FROM RM 103 TO RM 502.



1 POWER AND SYSTEMS PLAN
1/8" = 1'-0"

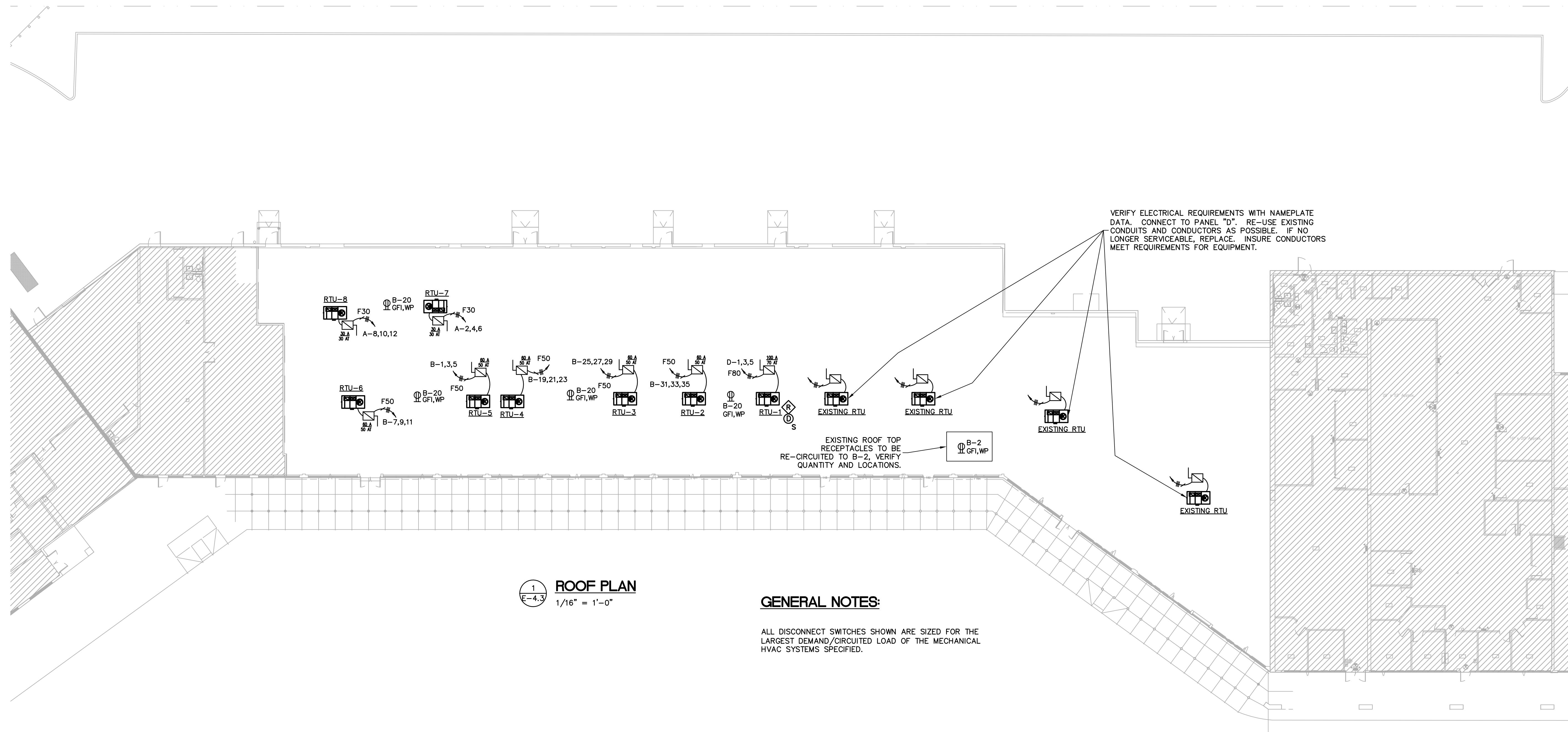
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SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER AIA
ARCHITECT / PLANNER
914 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

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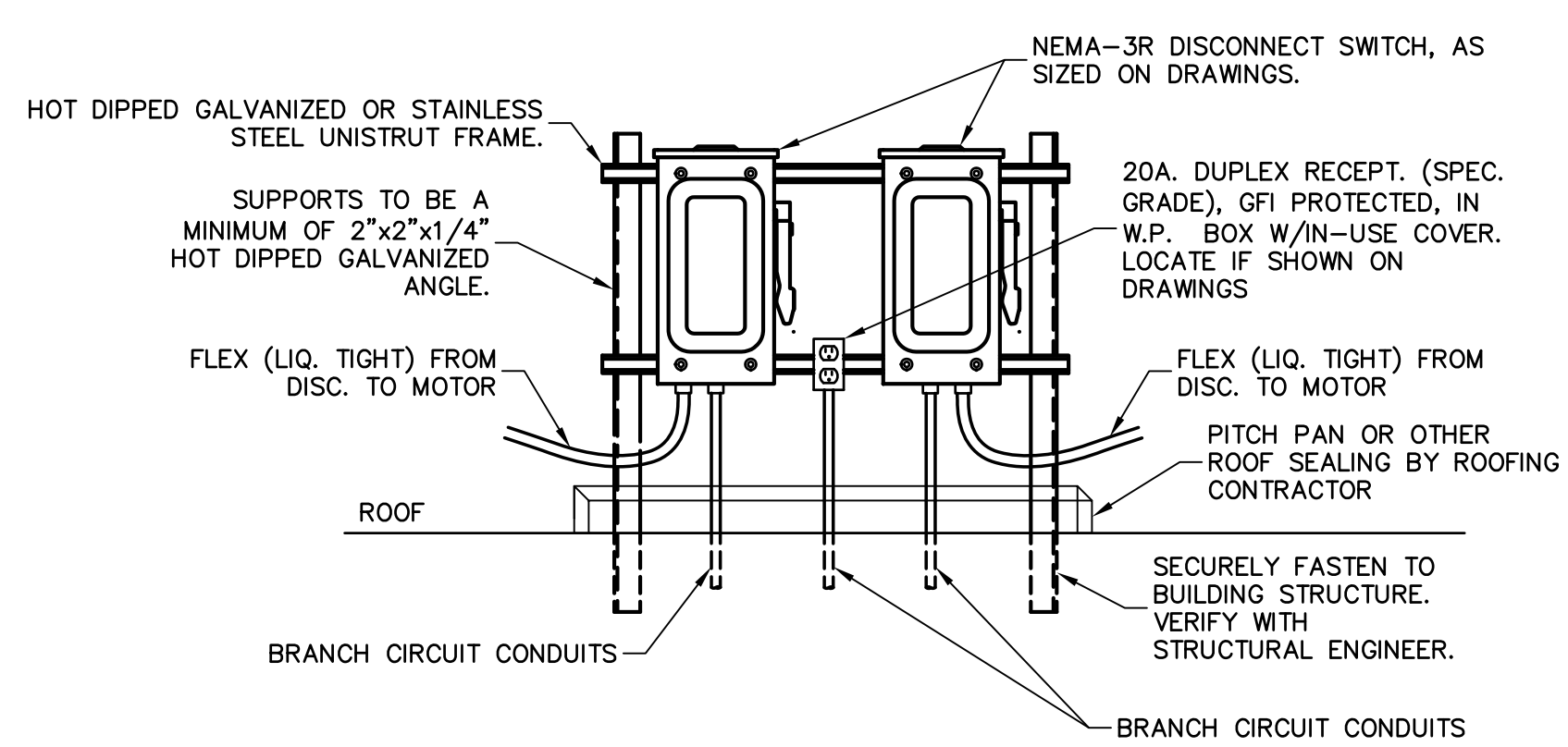
E-4.2



1 ROOF PLAN
E-4.3
1/16" = 1'-0"

GENERAL NOTES:

ALL DISCONNECT SWITCHES SHOWN ARE SIZED FOR THE LARGEST DEMAND/CIRCUITED LOAD OF THE MECHANICAL HVAC SYSTEMS SPECIFIED.



2 ROOF TOP DISCONNECT SWITCH MOUNTING DETAIL
E-4.3
NOT TO SCALE

ORNL D. CAMDEN
0001 03/08

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

JERRY N. ZOLLER
ARCHITECT / PLANNER
AIA
C0006577
P.A.
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 746-4465

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E-4.3

VOLTAGE DROP FOR 1 ϕ , 20A BRANCH CIRCUITS

FEEDER SIZE TO USE	DISTANCE ALLOWED		
	120V	208V	277V
F20	0 - 70 FEET	0 - 125 FEET	0 - 165 FEET
F30	70 - 115 FEET	125 - 200 FEET	165 - 265 FEET
F40-50	115 - 185 FEET	200 - 320 FEET	265 - 425 FEET
F60	185 - 290 FEET	320 - 510 FEET	425 - 675 FEET
F70-80	290 - 460 FEET	510 - 810 FEET	675 - 1075 FEET

NOTES:

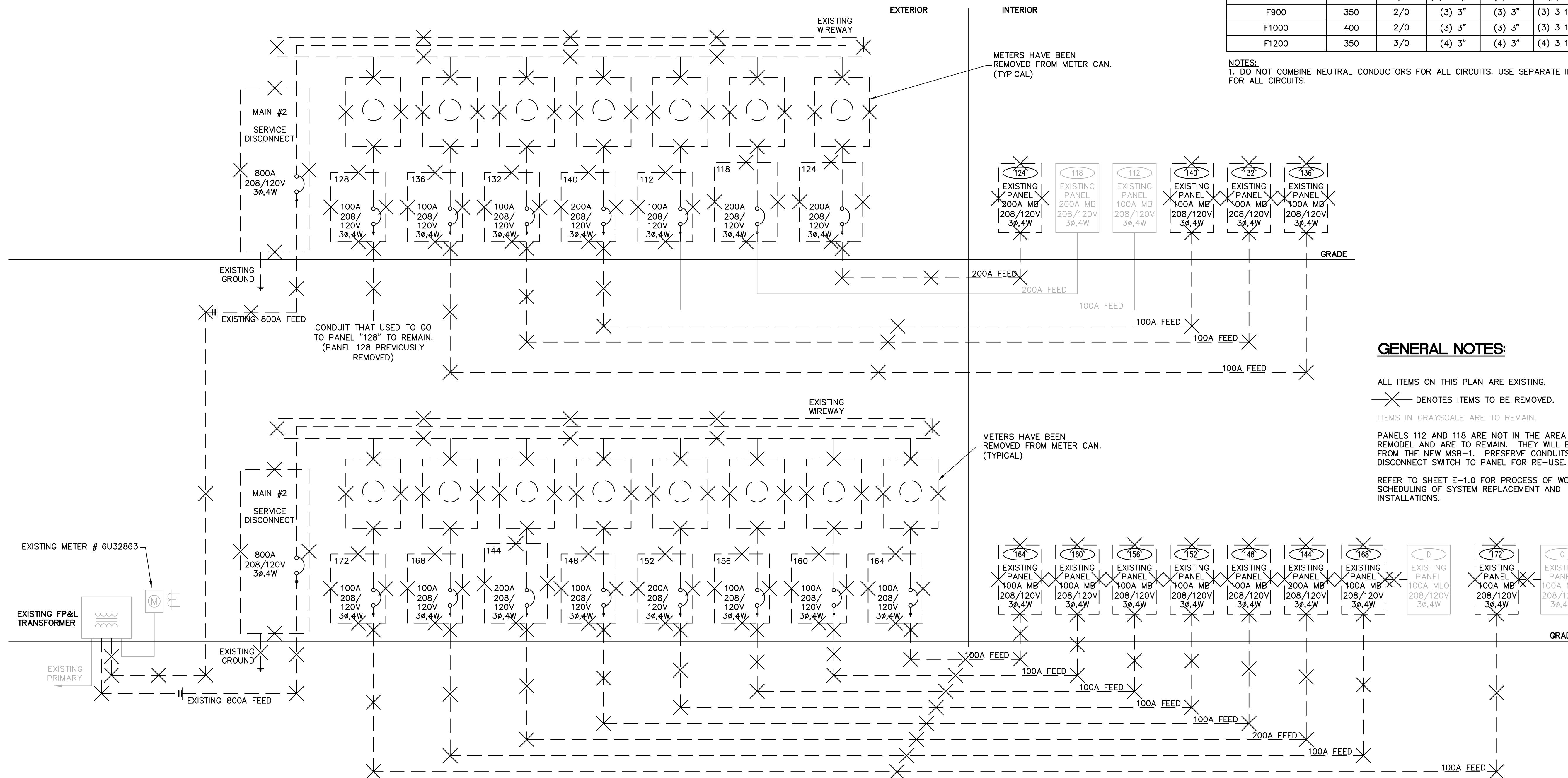
- 20 A BRANCH CIRCUITS SHALL BE SIZED FOR VOLTAGE DROP. WIRE SIZES ARE NOT INDICATED ON THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP FOR THESE CIRCUITS. CONTRACTOR SHALL UTILIZE WIRE SIZE SHOWN ABOVE FOR DISTANCES LISTED ABOVE.
- VOLTAGE DROP WIRE SIZES WILL BE STRICTLY ENFORCED. CONTRACTOR SHALL SUBMIT A LIST OF CIRCUITS THAT WILL EXCEED THE DISTANCES ALLOWED AND INDICATE WIRE SIZE TO BE USED PRIOR TO ANY WIRE BEING INSTALLED.

FEEDER AND BRANCH CIRCUIT SCHEDULE

FEEDER BRANCH CIRCUIT DESIGNATION	COPPER CONDUCTOR THHN, THWN, & THWN-2		CONDUIT SIZE AND QUANTITY [QUANTITY IS 1, UNLESS NOTED IN ()]						
	PHASE & NEUTRAL	EQUIPMENT GROUND	1P, 1N, 1G, 2P, 1G	2P, 1N, 1G, 3P, 1G	3P, 1N, 1G	3P, 2N, 1G	3P, 3N, 1G	3P, 1N, 2G	
F20	12	12	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	
F30	10	10	3/4"	3/4"	3/4"	1"	1"	1"	
F40-50	8	10	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"	
F60	6	10	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	
F70-F80	4	8	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	
F90-F100	3	8	1 1/4"	1 1/4"	1 1/2"	1 1/2"	2"	1 1/2"	
F110	2	6	1 1/4"	1 1/2"	1 1/2"	2"	2"	2"	
F125	1	6	1 1/2"	2"	2"	2"	2 1/2"	2"	
F150	1/0	6	1 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	
F175	2/0	6	2"	2"	2 1/2"	3"	3"	2 1/2"	
F200	3/0	6	2"	2 1/2"	2 1/2"	3"	3"	3"	
F225	4/0	4	2"	2 1/2"	3"	3"	3"	3"	
F250	250	4	2 1/2"	3"	3"	3 1/2"	3 1/2"	3-1/2"	
F300	350	4	3"	3"	3 1/2"	4"	4"	3 1/2"	
F350	2/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 2 1/2"	
F400	3/0	3	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 2 1/2"	
F450	4/0	2	(2) 2"	(2) 2 1/2"	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	
F500	250	2	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3 1/2"	(2) 3 1/2"	
F600	350	1	(2) 2 1/2"	(2) 3"	(2) 3"	(2) 3"	(2) 3 1/2"	(2) 3"	
F800	300	1/0	(3) 2 1/2"	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 3 1/2"	
F900	350	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 3 1/2"	
F1000	400	2/0	(3) 3"	(3) 3"	(3) 3 1/2"	(3) 3 1/2"	(3) 4"	(3) 4"	
F1200	350	3/0	(4) 3"	(4) 3"	(4) 3 1/2"	(4) 3 1/2"	(4) 4"	(4) 4"	

NOTES:

- DO NOT COMBINE NEUTRAL CONDUCTORS FOR ALL CIRCUITS. USE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS FOR ALL CIRCUITS.



GENERAL NOTES:

- ALL ITEMS ON THIS PLAN ARE EXISTING.
- X DENOTES ITEMS TO BE REMOVED.
- ITEMS IN GRAYSCALE ARE TO REMAIN.

PANELS 112 AND 118 ARE NOT IN THE AREA OF REMODEL AND ARE TO REMAIN. THEY WILL BE RE-FEED FROM THE NEW MSB-1. PRESERVE CONDUITS FROM DISCONNECT SWITCH TO PANEL FOR RE-USE.

REFER TO SHEET E-1.0 FOR PROCESS OF WORK AND SCHEDULING OF SYSTEM REPLACEMENT AND INSTALLATIONS.

1
E-5.1
EXISTING ONE-LINE RISER DIAGRAM
NTS
EVIDENCE STORAGE SPACE

DATE: 5-11-2012
DRAWN: JCB
CHECKED: JCB
REVISIONS:

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

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AIA
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CHECKED: JCB
REVISIONS:

E-5.1

PANELBOARD SCHEDULE		DESIGNATION: MSB1			LOCATION: 208Y/120 3 PHASE, 4 WIRE			MAINS: BUS SIZE: 800 A MB 800 AMP			PANEL MOUNTING: SURFACE 22,000 AIC		
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.
					A	B	C						
1	PANEL A	P	8.98	200	3	34.22		400	3	25.25	P	PANEL B	2
3	*	P	9.70			36.45		26.74		26.74	P	*	4
6	*	P	9.30			25.63					P	*	6
7	PANEL C	P	8.39	200	3	38.38		400	3	29.99	P	PANEL D	8
9	*	P	6.99			38.98				29.99	P	*	10
11	*	P	7.10			37.09				29.99	P	*	12
13	Water Heater	M	6.00	75	3	11.50		200	3	5.50	P	PANEL 118	14
15	*	M	6.00			11.50				5.50	P	(Existing)	16
17	*	M	6.00			11.75				5.76	P	*	18
19	PANEL 112	P	3.70	100	3	3.70							20
21	(Existing)	P	2.50			2.50							22
23		P	2.50			2.50							24
25						0.00							26
27						0.00							28
29						0.00							30
31						0.00							32
33						0.00							34
35						0.00							36
37						0.00		30	3			TYSS	38
39						0.00							40
41						0.00							42

MSO Storage Facility
ATP Engineering South, P.L.

Available Fault Current Calculation

Utility Fault Current: 32,552 amperes
 $I = \frac{kVA \times 1000}{E \times 1.732} = \frac{208 \times 1000}{1.732 \times 208} = 32,552$ amperes

Point to Point Method:
 Length (distance) L = 110
 1.732 x L x I (ASC) I_{sc} = 32,552
 N x C x E L-N
 Phase conductor constant C = 20,863 Phase Conductor
 Volt Line to Line E-L-L = 208 Volt
 f = 0.476
 Neutral conductor constant C = 20,863 Neutral Conductor
 Volt Line to Neutral E-L-N = 120 Volt
 f = 0.625

Multiplier:
 $M = \frac{1}{1+f} = \frac{1}{1+0.625} = 0.612$

Line to Line M = 0.677
 Line to Neutral M = 0.548

Fault Current at Service Equipment:
 I_{sc} x M = fault current at terminals of main disconnect L-L = 22,050 amperes
 I_{sc} x M = fault current at terminals of main disconnect L-N = 17,831 amperes

Fault Current from ATS to MSB for the Facility

Three Phase Feeder:
 Length (distance) L = 30
 1.732 x L x I (ASC) I_{sc} = 22,050 Phase 17,831 Neutral
 N x C x E L-N
 Phase conductor constant C = 20,863 Phase Conductor
 Volt Line to Line E-L-L = 208 Volt
 f = 0.988
 Neutral conductor constant C = 20,863 Neutral Conductor
 Volt Line to Neutral E-L-N = 120 Volt
 f = 0.123

Multiplier:
 $M = \frac{1}{1+f} = \frac{1}{1+0.123} = 0.899$

Line to Line M = 0.919
 Line to Neutral M = 0.890

I_{sc} x M = fault current at terminal of the panel L-L = 20,267 amperes
 I_{sc} x M = fault current at terminal of the panel L-N = 15,874 amperes

Branch Circuit Fault from MDP to Panel A (400A Panel)

Three Phase Branch:
 Length (distance) L = 80
 1.732 x L x I (ASC) I_{sc} = 20,267 Phase 15,874 Neutral
 N x C x E L-N
 Phase conductor constant C = 13,823 Phase Conductor
 Volt Line to Line E-L-L = 208 Volt
 f = 0.485
 Neutral conductor constant C = 13,823 Neutral Conductor
 Volt Line to Neutral E-L-N = 120 Volt
 f = 0.658

Multiplier:
 $M = \frac{1}{1+f} = \frac{1}{1+0.658} = 0.603$

Line to Line M = 0.673
 Line to Neutral M = 0.603

I_{sc} x M = fault current at terminal of the panel L-L = 13,649 amperes
 I_{sc} x M = fault current at terminal of the panel L-N = 9,573 amperes

Branch Circuit Fault from 400A Panel to Receptacle

Three Phase Branch:
 Length (distance) L = 25
 1.732 x L x I (ASC) I_{sc} = 13,649 Phase 9,573 Neutral
 N x C x E L-N
 Phase conductor constant C = 673 Phase Conductor
 Volt Line to Line E-L-L = 208 Volt
 f = 2.303
 Neutral conductor constant C = 617 Neutral Conductor
 Volt Line to Neutral E-L-N = 120 Volt
 f = 2.799

Multiplier:
 $M = \frac{1}{1+f} = \frac{1}{1+2.799} = 0.263$

Line to Line M = 0.303
 Line to Neutral M = 0.263

I_{sc} x M = fault current at terminal of the panel L-L = 4,133 amperes
 I_{sc} x M = fault current at terminal of the panel L-N = 2,520 amperes

OWNER REVISIONS

OWNERS REVISIONS - OWNER HAS CHOSEN TO ELIMINATE BASE AND GO WITH ALTERNATE 1 BID.

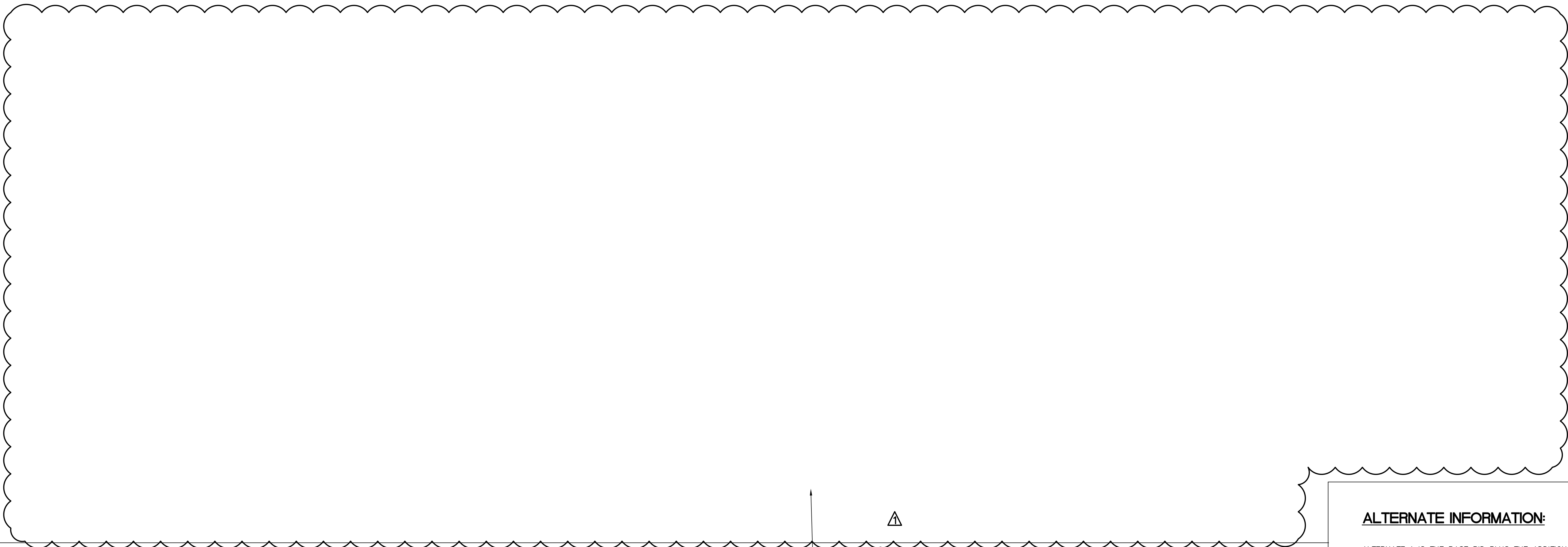
PANELBOARD SCHEDULE		DESIGNATION: A			LOCATION: RM 605 208Y/120 3 PHASE, 4 WIRE			MAINS: BUS SIZE: 200 A MB 200 AMP			PANEL MOUNTING: SURFACE 22,000 AIC				
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.	
						A	B	C							
1	Spare					2.0	1	3.11		30	3	3.11	M	RTU-7	2
3	RM 605 LTS	L	0.45	20	1	3.61		3.66					M	*	4
5	RM 505 Recept	R	1.08	20	1			4.19					M	*	6
7						3.11		3.11		30	3	3.11	M	RTU-8	8
9													M	*	10
11								3.11					M	*	12
13	Freezer 1	R	1.44	20	1	2.59				20	1	1.15	R	Refrigerator 6	14
15	Freezer 2	R	1.44	20	1	2.59				20	1	1.15	R	Refrigerator 7	16
17	Freezer 3	R	1.44	20	1	2.59		2.59		20	1	1.15	R	Refrigerator 8	18
19	Freezer 4	R	1.44	20	1	2.59				20	1	1.15	R	Refrigerator 9	20
21	Refrigerator 1	R	1.15	20	1			2.30		20	1	1.15	R	Refrigerator10	22
23	Refrigerator 2	R	1.15	20	1			2.30		20	1	1.15	R	Refrigerator11	24
25	Refrigerator 3	R	1.15	20	1			2.30		20	1	1.15	R	Refrigerator12	26
27	Refrigerator 4	R	1.15	20	1			2.30		20	1	1.15	R	Refrigerator13	28
29	Refrigerator 5	R	1.15	20	1			2.30		20	1	1.15	R	Refrigerator14	30
31	Spare					1.15		1.15		20	1	1.15	R	Refrigerator15	32
33	Locker Room Refrigerator	R	1.08	15	1	1.88				20	1	0.50	P	Existing Security System	34
35								0.50		20	1	0.50	P	Existing Security System	36
37						0.00		0.00							38
39						0.00		0.00							40
41						0.00		0.00							42

PANELBOARD SCHEDULE		DESIGNATION: C			LOCATION: 208Y/120 3 PHASE, 4 WIRE			MAINS: BUS SIZE: 200 A MB 200 AMP			PANEL MOUNTING: SURFACE 22,000 AIC				
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.	
						A	B	C							
1	Lighting RM 105-115	L	1.16	20	1	2.61				20	1	1.45	L	Lighting RM 105-104	2
3	Lighting RM 105-115	L	1.16	20	1			2.61		20	1	1.45	L	Lighting RM 105-104	4
5	Lighting RM 105-115	L	1.16	20	1			2.61		20	1	1.45	L	Lighting RM 105-104	6
7	Recept RM 105-115	R	1.08	20	1	2.63				20	1	1.45	L	Lighting RM 105-104	8
9	Recept RM 105-115	R	1.08	20	1			2.63		20	1	1.08	R	Recept RM 105-104	10
11	Recept RM 105-115	R	1.08	20	1			2.63		20	1	1.08	R	Recept RM 105-104	12
13	Recept RM 105-115	R	1.08	20	1	1.98				20	1	0.90	L	Lighting RM 117-518	14
15	Recept RM 105-115	R	1.08	20	1	1.98				20	1	0.90	L	Lighting RM 117-518	16
17	Recept RM 105-115	R	1.08	20	1	2.16				20	1	1.08	R	Recept RM 200-201	18
19	Recept RM 105-115	R	1.08	20	1	2.16				20	1	1.08	R	Recept RM 200-201	20
21	Computer in Locker Room	R	0.18	20	1	0.36				20	1	0.18	L	Lighting RM 401	22
23	Recept RM 105-115	R	1.08	20	1	1.82				20	1	0.84	R	Recept RM 401	24
25	Spare					0.00				20	1				26
27	Spare					2.88				30	1	2.88	R	Existing Copier/Printer	28
29	Recept RM 105-115	R	1.08	20	1	2.46				20	2	1.38	L	Exterior LED Wall Packs	30
31	Existing Panel "C-1" in	P	0.52	60	2	1.90									32
33	Rm 101C	P	0.52			0.52									34
35						0.00									36
37						0.00									38
39						0.00									40
41						0.00									42

*Panel C-1 has 5 receptacles with 1 exhaust fan (150W)

PANELBOARD SCHEDULE		DESIGNATION: B			LOCATION: Corridor by Rm 503 208Y/120 3 PHASE, 4 WIRE			MAINS: BUS SIZE: 400 A MB 400 AMP			PANEL MOUNTING: SURFACE 22,000 AIC				
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.	
						A	B	C							
1	RTU-5	M	6.73	80	3	5.91				20	1	0.28	R	Roof Receptacles	2
3	*	M	6.73			6.63				20	1	0.90	R	Recept RM 301	4
5	*	M	6.73			5.91				20	1	0.58	R	Outside GFI	6
7	RTU-6	M	6.73	80	3	6.99				20	1	1.26	R	Recept RM 501, 503, 504	8
9		M	6.73			6.09				20	1	0.36	R	Computer station RM301	10
11		M	6.73			6.63				20	1	0.90	R	Recept RM506, 507	12
13	Existing Dehumidifier	M	1.70	20	1	2.09				20	1	0.39	L	LTS, Rm 502,03,04,06,07	14
15	Existing Dehumidifier	M	1.70	20	1	2.45				20	1	0.75	L	LTS Rm501	16
17	New Dehumidifier	M	1.70	20	1	2.67				20	1	0.97	L	Rm 301 LTS	18
19	RTU-4	M	6.73	80	3	6.45				20	1	0.72	R	Roof Receptacles	20
21		M	6.73			6.70				20	1	0.97	L	Rm 301 LTS	22
23		M	6.73			6.79				20	1	1.06	L	Rm 301 LTS	24
25	RTU-3	M	6.73	80	3	6.70				20	1	0.97	L	Rm 301 LTS	26
27		M	6.73			7.43				20	1	1.70	M	New Dehumidifier	28
29		M	6.73			6.09				20	1	0.36	R	Quad Recept Rm506	30
31	RTU-2	M	6.73	80	3	6.09				20	1	0.36	R	Quad Recept Rm501	32
33		M	6.73			5.73									34
35		M	6.73			6.78				20	1	1.05	L	Rm 301 LTS	36
37						0.00									38
39						0.00									40
41						0.00									42

PANELBOARD SCHEDULE		DESIGNATION: D			LOCATION: RM 301 208Y/120 3 PHASE, 4 WIRE			MAINS: BUS SIZE: 400 A MB 400 AMP			PANEL MOUNTING: SURFACE 22,000 AIC				
CKT NO.	LOAD DESCRIPTION	LOAD CODE	CONN. KVA	BREAKER AMPS	POLE	CONNECTED LOAD			BREAKER AMPS	POLE	CONN. KVA	LOAD CODE	LOAD DESCRIPTION	CKT NO.	
						A	B	C							
1	RTU-1	M	7.40	70	3	13.15				60	3	6.75	P	Existing SUBPANEL "D-1"	2
3		M	7.40			13.15				40	3	6.75	P	(Existing IT room)	4
5		M	7.40			13.15				40	3	6.75	P	(Existing IT room)	6
7	EXISTING RTU	M	4.79	80	3	8.62				40	3	3.83	M	EXISTING RTU	8
9		M</													



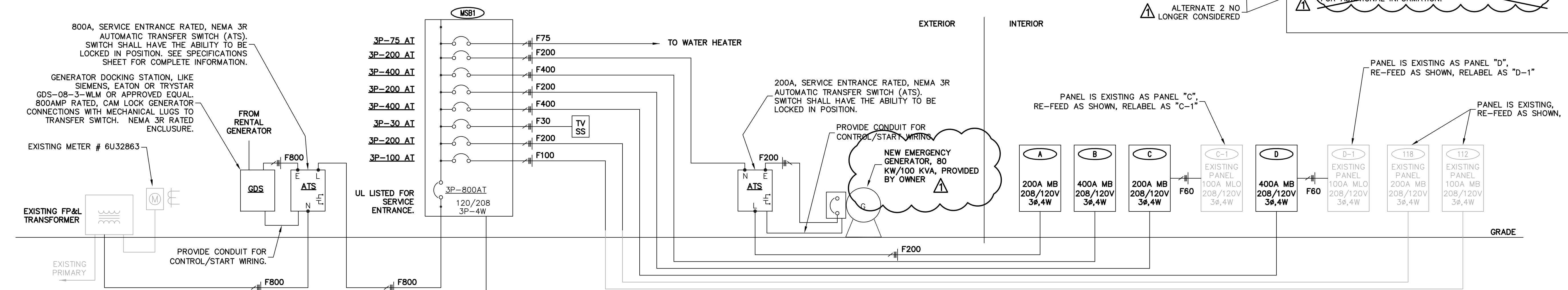
OWNER REVISIONS - ALTERNATES WERE ELIMINATED

ALTERNATE INFORMATION:

ALTERNATE 1 IS THE BASE BID PLUS THE ADDITION OF A NATURAL GAS STAND-BY GENERATOR AND AUTOMATIC TRANSFER SWITCH. SEE SPECIFICATIONS AND ONE-LINE FOR ADDITIONAL INFORMATION.

ALTERNATE 2 IS THE BASE BID WITH A PERMANENT NATURAL GAS STAND-BY GENERATOR AND AUTOMATIC TRANSFER SWITCH. SEE SPECIFICATIONS AND ONE-LINE FOR ADDITIONAL INFORMATION.

ALTERNATE 2 NO LONGER CONSIDERED



GENERAL NOTES:

- ITEMS IN GRAYSCALE ARE EXISTING.
- ITEMS IN BOLD ARE NEW UNLESS OTHERWISE NOTED.
- ALL NEW EXTERIOR ELECTRICAL GEAR SHALL BE NEMA 3R RATED.
- COORDINATE SEQUENCING OF DOWNTIME AND CIRCUIT CHANGE OVER WITH OWNER.
- THE MANUFACTURER OF THE MAIN CIRCUIT BREAKERS SHALL PROVIDE ALL SETTINGS FOR THE UNIT.
- PROVIDE LOAD RATED TRANSFER SWITCHES WITH INTERNAL CIRCUIT BREAKERS OR DISCONNECTS.
- PROVIDE A WRITTEN CERTIFICATION STATEMENT OF PHASE ROTATION A-B-C BY THE ELECTRICAL CONTRACTOR.

2
E-5.3
NEW ONE-LINE RISER DIAGRAM - ALTERNATE 1
NTS EVIDENCE STORAGE SPACE

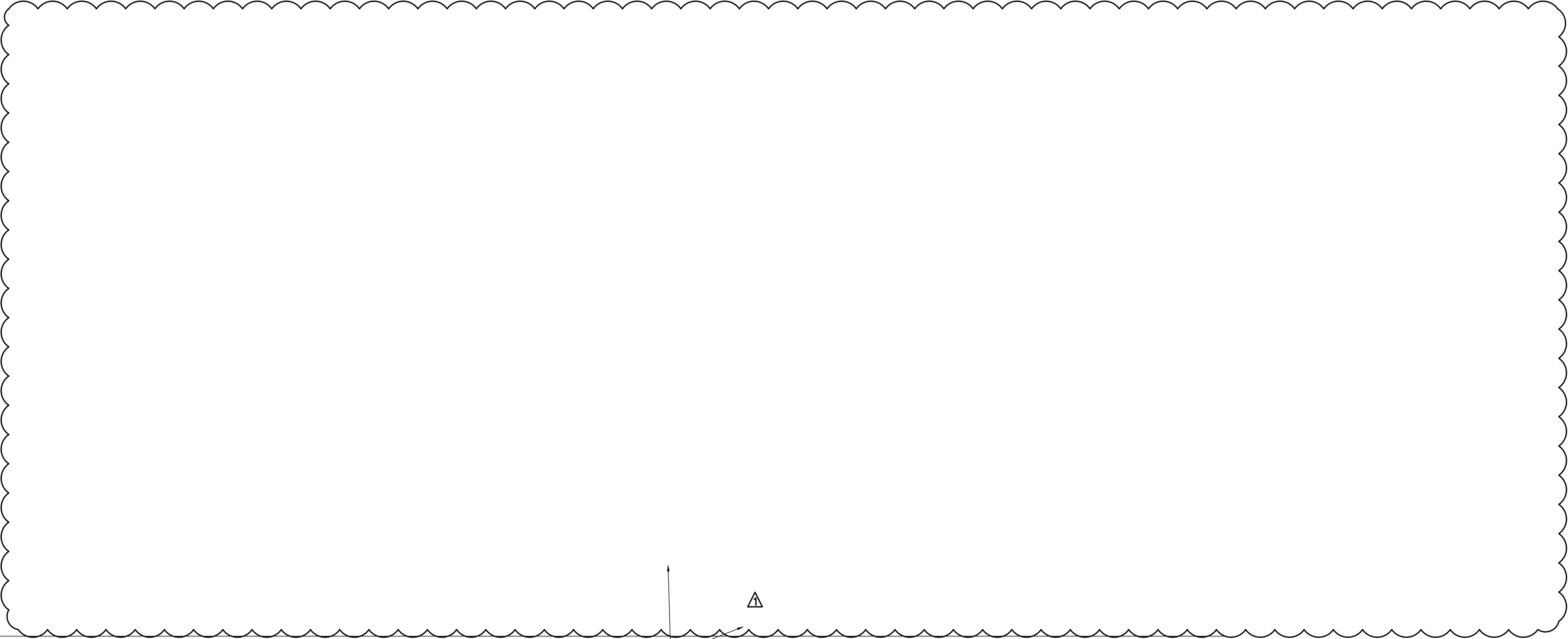
JOHN D. CAHLEN
0014 746-4465

AIA
JERRY N. ZOLLER
ARCHITECT / PLANNER
P.A.
0014 746-4465

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
BRADENTON, FLORIDA
600 U.S. 301 BLVD. WEST

JOB NO 0601J
DATE MAR 08, 2012
DRAWN JN
CHECKED JN
REVISIONS
5/11/2012

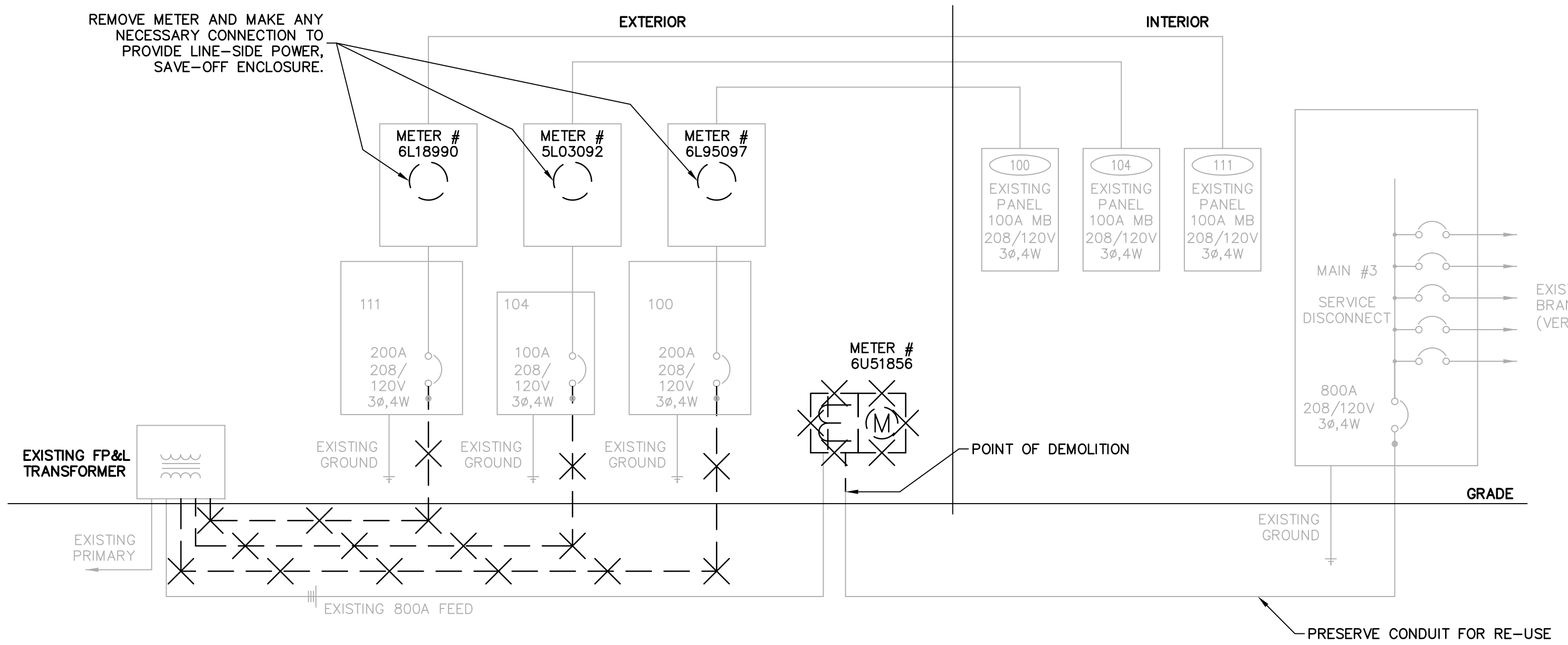
E-5.3



OWNER REVISIONS -
ALTERNATES WERE
ELIMINATED

PROVIDE SEPARATE BID FOR OPTION #3 - OWNER HAS OPTION TO NOT INCLUDE THESE ITEMS IN THE TOTAL PROJECT.

REMOVE METER AND MAKE ANY NECESSARY CONNECTION TO PROVIDE LINE-SIDE POWER, SAVE-OFF ENCLOSURE.



GENERAL NOTES:

ALL ITEMS ON THIS PLAN ARE EXISTING.
--- DENOTES ITEMS TO BE REMOVED.

ITEMS IN GRAYSCALE ARE TO REMAIN.

ALL CONDUITS TO INTERIOR PANEL ARE TO BE RE-USED, SEE NEW ONE-LINE RISER. REMOVE CONDUCTORS TO PANELS.

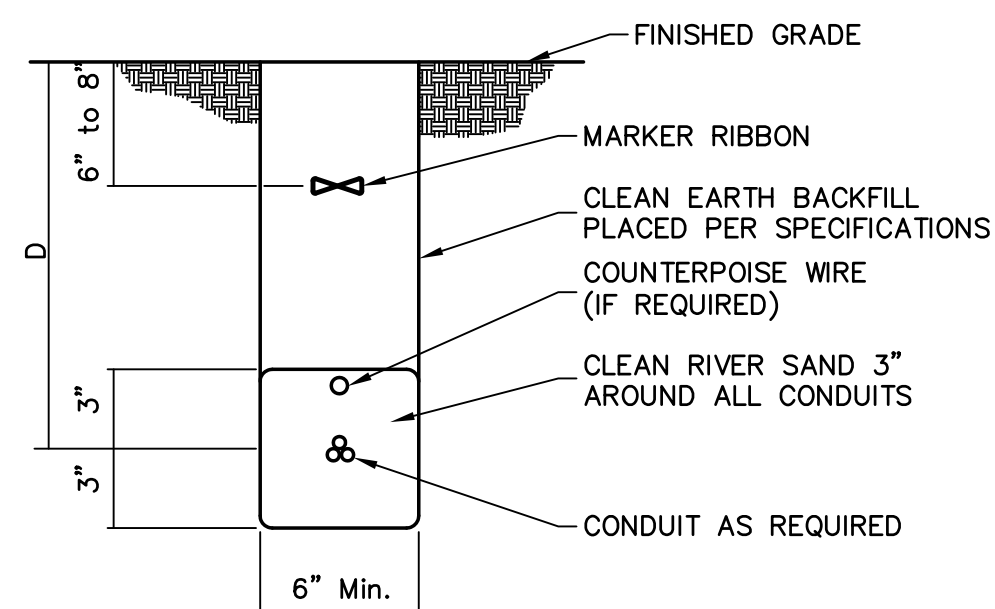
Supervisor of Elections - Manatee County	
ATP Engineering South, P.L.	
Available Fault Current Calculation	
Utility Fault Current	36,877 amperes
$I = \frac{kVA \times 1000}{E \times 1.732}$	$\frac{208 \times 1000}{208 \times 1.732} = 32,849$
$I_{sc} = \frac{trans. FLA \times 100}{transformer Z}$	$\frac{0 \times 100}{0} = 0$
$I_{sc} = \text{ampere short-circuit current RMS symmetrical}$	0 amperes
Point to Point Method	
Length (distance) (ft)	L = 25
$I' \text{ factor } = \frac{1.732 \times L \times I}{N \times C \times E \times L-N}$	$I' = \frac{1.732 \times 25 \times 36,877}{3 \times 20,868 \times 208} = 0.123$
Phase conductor constant	C = 20,868 Phase Conductor
Volt Line to Line	E-L-L = 208 Volt
Neutral conductor constant	C = 20,868 Neutral Conductor
Volt Line to Neutral	E-L-N = 120 Volt
Multiplier	M = 0.213
$M = \frac{1}{1 + f}$	$M = \frac{1}{1 + 0.123} = 0.891$
Line to Line	M = 0.891
Line to Neutral	M = 0.825
Fault Current at Service Equipment	
$I_{sc} \times M = \text{fault current at terminals of main disconnect L-L} =$	32,849 amperes
$I_{sc} \times M = \text{fault current at terminals of main disconnect L-N} =$	30,413 amperes
Fault Current from [ATS to MDP-1 in Supervisor of Elections Office]	
Three Phase Feeder	Length (distance) (ft) L = 50
$I' \text{ factor } = \frac{1.732 \times L \times I}{N \times C \times E \times L-N}$	$I' = \frac{1.732 \times 50 \times 32,849}{3 \times 20,868 \times 208} = 0.218$
Phase conductor constant	C = 20,868 Phase Conductor
Volt Line to Line	E-L-L = 208 Volt
Neutral conductor constant	C = 20,868 Neutral Conductor
Volt Line to Neutral	E-L-N = 120 Volt
Multiplier	M = 0.951
$M = \frac{1}{1 + f}$	$M = \frac{1}{1 + 0.218} = 0.821$
Line to Line	M = 0.821
Line to Neutral	M = 0.740
$I_{sc} \times M = \text{fault current at terminal of the panel L-L} =$	26,959 amperes
$I_{sc} \times M = \text{fault current at terminal of the panel L-N} =$	22,518 amperes
Calculation does not include motor contribution	

1
E-5.4
EXISTING ONE-LINE RISER DIAGRAM - OPTION 3
NTS BOARD OF ELECTIONS SPACE

GENERAL NOTES:

(APPLY TO ALL ELECTRICAL SHEETS)

- PROVIDE COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM.
- ALL WORK SHALL CONFORM TO OR EXCEED THE MINIMUM REQUIREMENTS OF THE CURRENT ANSI/NFPA 70 WITH STATE OF FLORIDA AMENDMENTS, ANSI/IEEE C2 AND ALL FEDERAL, STATE, LOCAL, AND MUNICIPAL CODES AND ORDINANCES. THE ELECTRICAL SUBCONTRACTOR SHALL COMPLY WITH THE DIRECTIONS OF ALL AUTHORITIES HAVING JURISDICTION.
- INSTALL WORK USING PROCEDURES DEFINED IN NECA STANDARDS OF INSTALLATION. ALL WORK SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR CEILING AND MILLWORK WORK BY THE SEPARATE GENERAL CONTRACT. COORDINATE ALL ELECTRICAL WORK.
- THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ALL FLOOR, WALL, AND CEILING PENETRATIONS TO COMPLETE HIS WORK. PROVIDE PROPER FIRE SAFING FOR ALL PENETRATIONS MADE.
- COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES TO ENSURE EFFECTIVE AND EFFICIENT OVERALL INSTALLATION.
- COORDINATE ALL ELECTRICAL SYSTEM DOWNTIME WITH THE OWNER, PERFORMANCE SERVICES, AND OTHER TRADES. DOWNTIME OF THE SYSTEM SHALL BE MINIMIZED. WEEKEND AND AFTER HOUR WORK SHALL BE REQUIRED TO PREVENT OR MINIMIZE INTERFERENCE WITH THE OWNER'S OPERATION.
- THE LOCATIONS OF NEW RECEPTACLES, PHONE/DATA JACKS, AND ROOM EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED DURING THE CONSTRUCTION PHASE.
- ALL NEW EQUIPMENT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING.
- PHYSICAL SIZES AND LOCATIONS OF ALL MECHANICAL EQUIPMENT SHOWN ON THESE DRAWINGS ARE APPROXIMATE. COORDINATE ELECTRICAL WORK FOR THIS EQUIPMENT WITH THE OTHER TRADES.
- PROVIDE APPROPRIATE SEALANT (I.E. FIRESAFING) TO MAINTAIN CONSTRUCTION INTEGRITY FOR ANY PENETRATIONS THROUGH FLOORS, STRUCTURAL CEILINGS, AND FIRE WALLS.
- ALL BRANCH CIRCUITS SHALL UTILIZE SEPARATE INDEPENDENT NEUTRAL CONDUCTOR, AND INSULATED GROUNDING CONDUCTOR. DO NOT COMBINE NEUTRAL CONDUCTORS.
- ALL FEEDER NEUTRAL/GROUNDED CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. DE-RATE MULTIPLE CONDUCTORS IN A RACEWAY ACCORDINGLY WITH NEC TABLES.
- INSTALL ALL CONDUITS, RACEWAYS, AND CABLE TRAY FOR MAXIMUM HEAD CLEARANCE IN MECHANICAL AREAS, AND ATTIC. COORDINATE CLEARANCES WITH PERFORMANCE SERVICES AND THE OWNER.
- ALL ELECTRICAL SERVICE WORK SHALL COMPLY WITH THE LOCAL UTILITY. COORDINATE ALL REQUIREMENTS AND MAXIMUM AVAILABLE FAULT CURRENT PRIOR TO BID AND INCLUDE ALL NECESSARY MATERIAL AND LABOR REQUIRED FOR THE ADDITION TO THE ELECTRICAL SERVICE. ADD UTILITY FEES TEXT.
- CONTRACTOR SHALL DEMOLISH ANY REMAINING EXISTING ELECTRICAL EQUIPMENT, DEVICES, CONDUIT, FIXTURES, WIRE, UTILITY TRANSFORMER, ETC. COMPLETE. FIELD VERIFY EXACT REQUIREMENTS PRIOR TO BID. ALL REMOVED EQUIPMENT/FIXTURES SHALL BE TURNED OVER TO THE OWNER.
- CAP AND FIRE STOP ALL EXISTING UNUSED CONDUITS AND CONDUIT PENETRATIONS THROUGH THE FLOOR AND TO THE FLOOR ABOVE.
- PROVIDE LABELING FOR ALL PANELBOARDS, SWITCHBOARDS, AND DISCONNECT SWITCHES TO INCLUDE AN ENGRAVED PLASTIC LABEL IDENTIFYING THE EQUIPMENT AND WHERE IT IS FED FROM. ALL BRANCH DEVICES IN THE MAIN SWITCHBOARD SHALL HAVE AN ENGRAVED PLASTIC LABEL. ALL PANELBOARDS SHALL INCLUDE A TYPED DIRECTORY. ALL RECEPTACLES SHALL HAVE CIRCUIT NUMBERS WRITTEN ON THE INSIDE OF THE COVERPLATE. ALL JUNCTION BOX COVERS SHALL BE IDENTIFIED TO INDICATE CIRCUITS CONTAINED. WHERE MULTIPLE SWITCHES ARE GANGED TOGETHER THE SWITCHES SHALL BE IDENTIFIED.

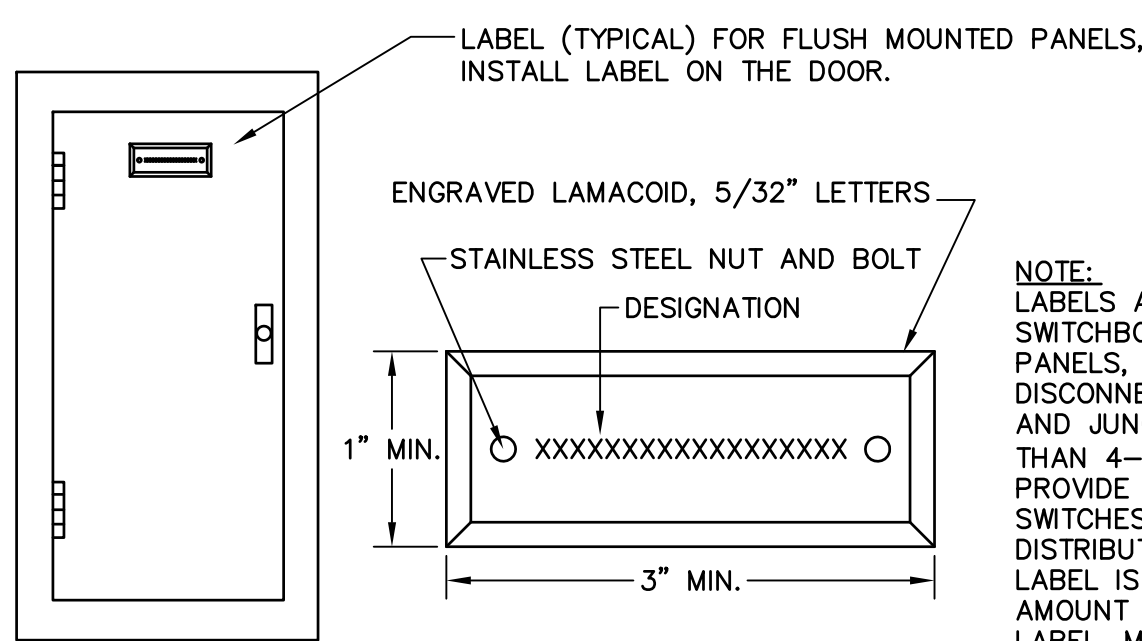


BURIAL DEPTH	
SERVICE	"D"
CCTV cable	1'-6"
Telephone	2'-0"
Power under 600V	3'-0"
Medium voltage power	3'-0"

NOTE:

USE BURIAL DEPTHS SHOWN ON TABLE UNLESS NOTED OTHERWISE IN SPECIFICATIONS OR ON DRAWINGS. BURIAL DEPTHS FOR UTILITY COMPANY CABLES SHALL BE AS DIRECTED BY THE UTILITY COMPANY.

2 CONDUIT BURIAL DETAIL
E-6.1 NOT TO SCALE

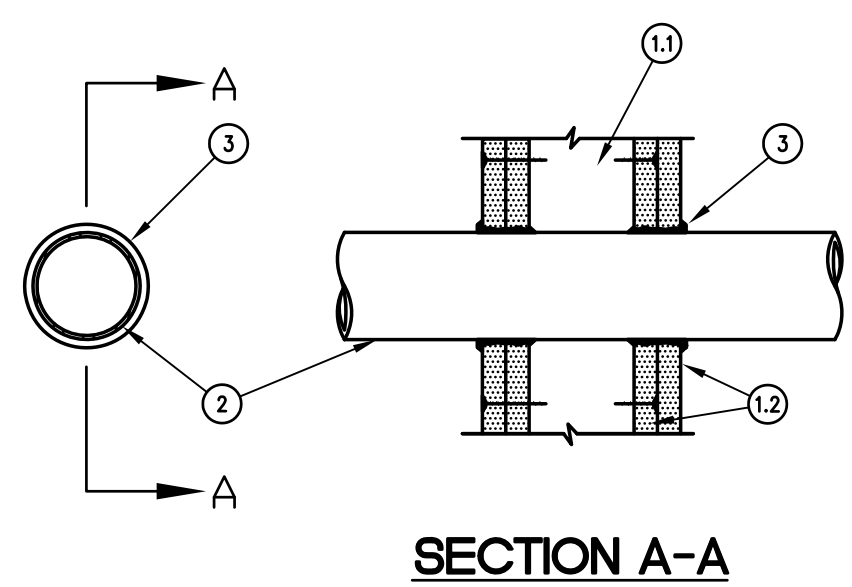


STANDARD COLORS:
1. NORMAL POWER- BLACK BACKGROUND, WHITE LETTERS
2. EMERGENCY POWER- RED BACKGROUND, WHITE LETTERING
3. IN ADDITION TO THE FUNCTION LABELS, PROVIDE LABELS IDENTIFYING ALL "MAIN SERVICE LABEL DISCONNECTS"- RED BACKGROUND, WHITE LETTERING

1 EQUIPMENT LABELING DETAIL
E-6.1 NOT TO SCALE

SYSTEM NO. WL1001

(FORMERLY SYSTEM NO. 147)
F RATING - 1, 2, 3 AND 4HR. (SEE ITEM 2 AND 3)
T RATINGS - 0, 1, 2, 3, AND 4 HR. (SEE ITEM 3)



- WALL ASSEMBLY - THE 1, 2, 3 OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD / STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS CONSIST OF NOMINAL 2 BY 4 IN. LUMBER SPACED 16 INCHES OC WITH NOMINAL 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.
 - WALL BOARD GYPSUM* - 1/2 IN. OR 5/8 IN. THICK 4 FOOT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13-1/2 IN.
- PIPE OR CONDUIT - NOMINAL 12 IN. DIAM. (OR SMALLER) SCHEDULE 10 (OR HEAVIER STEEL CONDUIT, NOM. 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL CONDUIT MECHANICAL OR TYPE L OR (HEAVIER) COPPER TUBING OR MON. 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT.
- FILL, VOID OR CAVITY MATERIAL* - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND W/ A MIN. 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

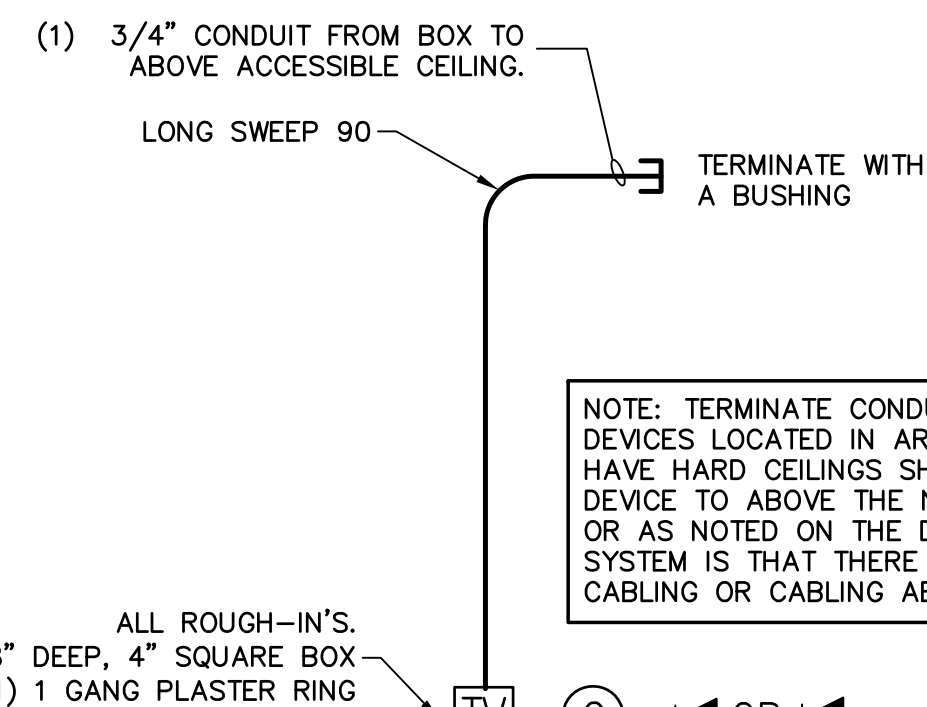
MAXIMUM PIPE OR CONDUIT DIAMETER (IN INCHES)	ANNULAR SPACE (IN INCHES)	F RATING HR	T RATING HR
1	0 TO 3/16	1 OR 2	0+, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1 1/2	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.

MINNESOTA MINING & MANUFACTURING CO. - TYPES CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+

* BEARING THE UL CLASSIFICATION MARKING

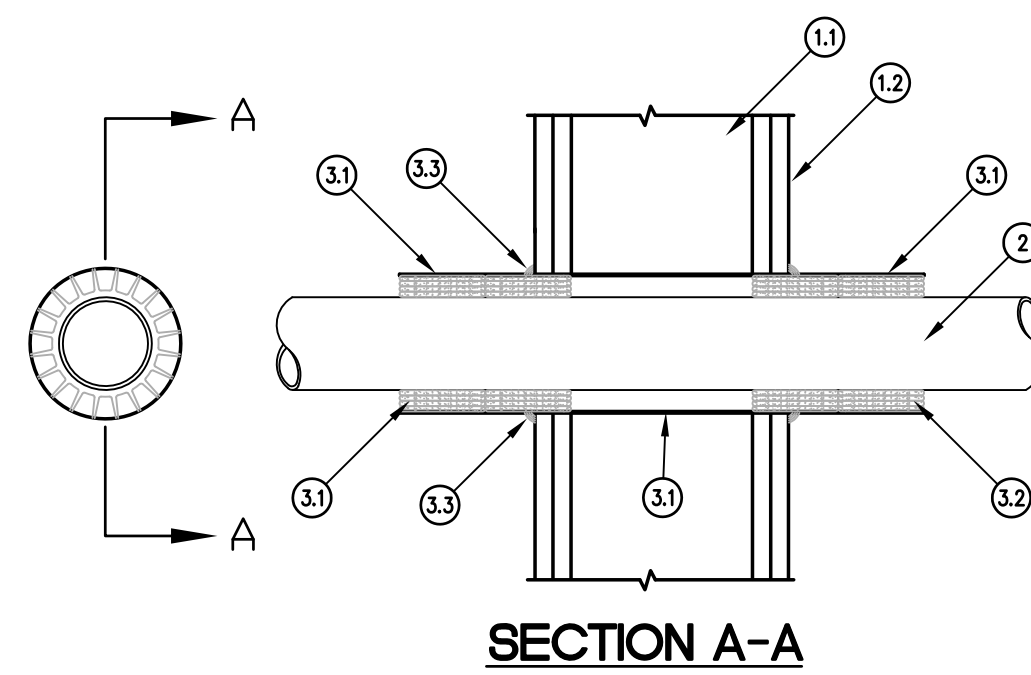
4 UL PENETRATION DETAIL
E-6.1 NOT TO SCALE



3 TYPICAL TELEVISION, TELEPHONE, DATA AND CCTV ROUGH-IN
E-6.1 NOT TO SCALE

SYSTEM NO. WL2154

F Ratings - 1 or 2 HR (See Item 1)
T Ratings - 1 or 2 HR (See Item 1)



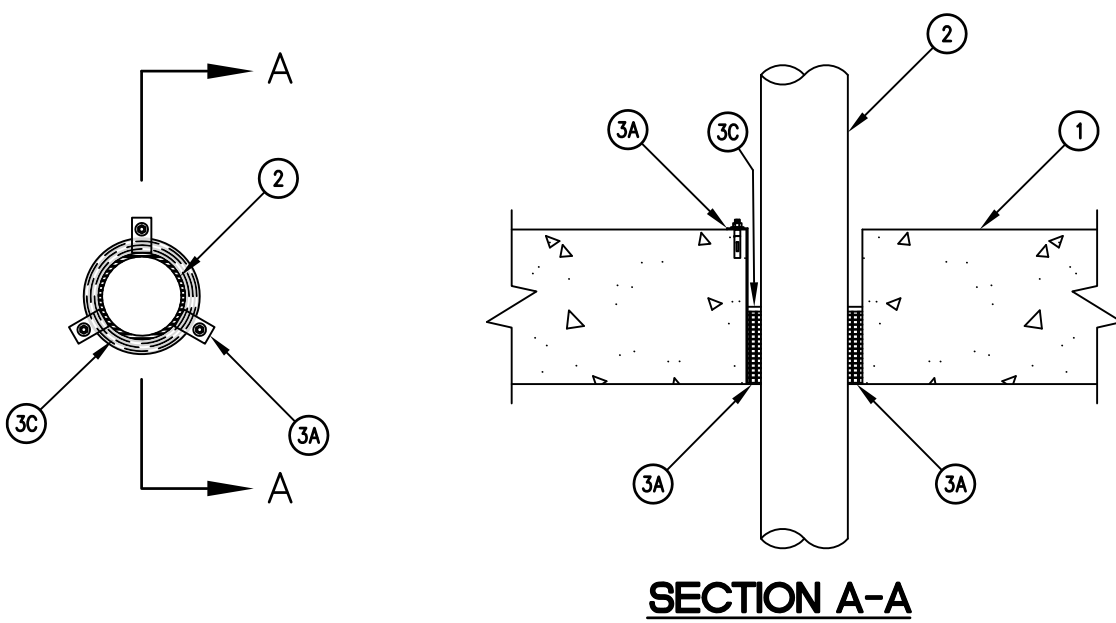
- WALL ASSEMBLY - THE 1 OR 2 HR FIRE RATED GYPSUM WALLBOARD / STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 3-1/2 IN. WIDE AND SPACED MAXIMUM 24 IN. OC.
 - WALLBOARD, GYPSUM BOARD* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS REQUIRED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAXIMUM DIAMETER OF OPENING IS 7-3/4 IN. THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
- THROUGH PENETRANTS - ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN OPENING WITH A NOM. 1/4 IN. ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:
 - POLYVINYL CHLORIDE (PVC) PIPE - NOM. 6 IN. DIAMETER (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
 - RIGID NONMETALLIC CONDUIT +- - NOM. 6 IN. DIAMETER (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).
 - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM 6 IN. DIAMETER (OR SMALLER) SDR17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
- FIRESTOP SYSTEM - THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
 - STEEL SLEEVE - MINIMUM 26 GAUGE GALVANIZED STEEL OUT 6 IN. LONGER THAN OVERALL WIDTH OF WALL WITH THE OUTSIDE DIAMETER EQUAL TO DIAMETER OF OPENING IN WALL WITH A MINIMUM 1 IN. OVERLAP ALONG LONGITUDINAL SEAM. SLEEVE PLACED IN WALL OPENING SUCH THAT 3 IN. EXTENDS BEYOND BOTH SIDES OF WALL. EDGES OF SLEEVE TO BE PROVIDED WITH 1/2 IN. LONG SLITS TO FORM RETAINING TABS.
 - FILL, VOID OR CAVITY MATERIALS* - WRAP STRIP - NOM. 1/8 IN. THICK INTUMESCENT MATERIAL SUPPLIED IN 2 IN. WIDE STRIPS. MINIMUM FOUR CONTINUOUS LAYERS OF WRAP STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE ON BOTH SIDES OF WALL, AND RECESSED WITHIN STEEL SLEEVE 2-1/2 IN. FROM THE END OF SLEEVE ON BOTH SIDE OF WALL. AN ADDITIONAL STACK OF FOUR CONTINUOUS LAYERS OF WRAP STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE ON BOTH SIDES OF THE WALL AND BUTTED TIGHTLY AGAINST SLEEVE. THE SLIT EDGES OF SLEEVE TO BE BENT 90 DEGREES TOWARD PIPE. TWO MINIMUM 1/2 IN. WIDE BY 0.028 IN. THICK STAINLESS STEEL BAND CLAMPS SHALL BE TIGHTLY FASTENED AROUND SLEEVE ON BOTH SIDES OF WALL, APPROXIMATELY 1/2 IN. FROM THE WALL SURFACES AND 3/4 IN. FROM EACH END OF SLEEVE. MINNESOTA MINING & MFG. CO. - ULTRA GS
 - FILL, VOID OR CAVITY MATERIALS* - CAULK - MINIMUM 1/2 IN. DIAMETER BEAD OF CAULK SHALL BE APPLIED TO OUTER PERIMETER OF SLEEVE ON BOTH SIDES OF WALL AT SLEEVE / WALL INTERFACE. MINNESOTA MINING & MFG. CO. - CP 25WB+ CAULK

* BEARING THE UL CLASSIFICATION MARKING
+- BEARING THE UL LISTED MARK

5 UL PENETRATION DETAIL
E-6.1 NOT TO SCALE

SYSTEM NO. C-AJ-2002

May 18, 2005
F Rating - 2 Hr
T Ratings - 0 and 2 Hr
L Rating at Ambient - 7 CFM/sq ft
L Rating at 400 F - less than 1 CFM/sq ft (See Item 3C)
W Rating - Class I (See Item 3)



- FLOOR OR WALL ASSEMBLY - MIN 2-1/2 IN. (64 MM) THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF CIRCULAR OPENING IS 6-1/2 IN. (165 MM).
- NONMETALLIC PIPE OR CONDUIT - NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE OR CELLULAR CORE, POLYVINYL CHLORIDE (PVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS OR RIGID NONMETALLIC CONDUIT+- OR SDR 13.5 CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM EXCEPT AS NOTED IN ITEM B. THE PIPE OR CONDUIT SHALL BE CENTERED IN THE THROUGH OPENING. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

SEE RIGID NONMETALLIC CONDUIT (DZKT) CATEGORY IN THE UL ELECTRICAL CONSTRUCTION MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS.

SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

ORIENTATION (a)	NOMINAL PIPE DIAMETER In. (mm)	ANNULAR SPACE In. (mm)	F RATING HR	T RATING HR
F(b)	1/2-2 (13-51 mm)	1/4-1 (6-25 mm)	2	0
F(b)	2-1/2, 3 (64, 76 mm)	1/2-1 (13-25 mm)	2	0
W,F	1/2-2 (13-51 mm)	1/4-1 (6-25 mm)	2	2
W,F	2-1/2, 3 (64, 76 mm)	1/2-1 (13-25 mm)	2	2
W,F	3-1/2, 4 (89, 102 mm)	3/4-1 (19-25 mm)	2	2

(a) W = WALL, F = FLOOR
(b) MIN CONCRETE FLOOR THICKNESS IS 2-1/2 IN. (64 MM).
THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

A. STEEL SUPPORT CLIPS - NOM 1 IN. (25 MM) WIDE BY NOM 0.019 IN. (0.5 MM) THICK (28 GAUGE) GALV STEEL STRIPS FIELD-FORMED INTO "Z"-SHAPE WITH HEIGHT OF Z-SHAPE EQUAL TO THE FLOOR THICKNESS AND WITH WIDTH OF BOTTOM (AS INSTALLED) LEG OF SUFFICIENT LENGTH TO SPAN ANNULAR SPACE. TOP (AS INSTALLED) LEG OF Z-SHAPE TO BE MIN 2 IN. (51 MM) LONG AND MAY OR MAY NOT BE SECURED TO TOP SURFACE OF FLOOR WITH MASONRY ANCHORS. AS ALTERNATE TO THE Z-SHAPE CLIPS, THE GALV STEEL STRIPS MAY BE FORMED INTO "L"-SHAPE WITH HEIGHT EQUAL TO 2 IN. (51 MM) AND WITH BOTTOM (AS INSTALLED) LEG OF SUFFICIENT LENGTH TO SPAN ANNULAR SPACE. CLIPS SECURED TO OUTERMOST WRAP STRIP LAYER WITH STEEL WIRE TIE PRIOR TO INSERTION IN THROUGH OPENING. MIN OF THREE STEEL SUPPORT CLIPS TO BE USED, SYMMETRICALLY LOCATED, WITH BOTTOM LEG OF CLIPS FLUSH WITH BOTTOM PLANE OF FLOOR. WHEN ANNULAR SPACE AROUND NOM 1/2 IN. TO 2 IN. (13 MM TO 51 MM) DIAM PIPE IN FLOOR ASSEMBLY IS 1/4 IN. TO 3/8 IN. (6 MM TO 10 MM), STEEL SUPPORT CLIPS ARE NOT REQUIRED.

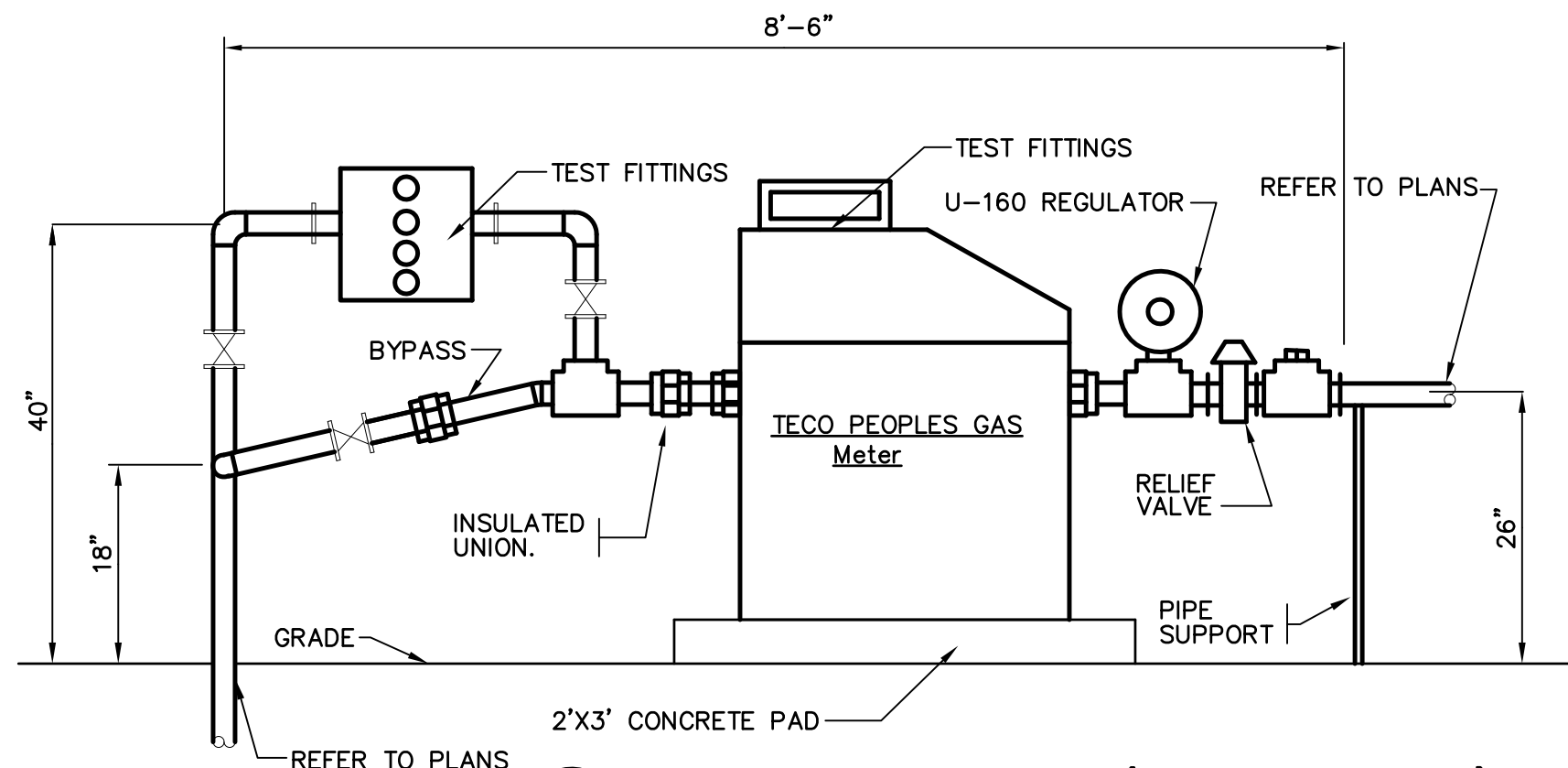
B. FILL, VOID OR CAVITY MATERIALS* - WRAP STRIP - NOM 1/4 IN. (6 MM) THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS. NOM 2 IN. (51 MM) WIDE STRIPS TIGHTLY WRAPPED AROUND NONMETALLIC PIPE (FOIL SIDE EXPOSED) TO FILL ANNULAR SPACE AROUND PIPE. A MIN OF ONE LAYER OF WRAP STRIP IS REQUIRED FOR NOM 1/2 IN. TO 2 IN. (13 MM TO 51 MM) DIAM PIPES. A MIN OF TWO LAYERS OF WRAP STRIP IS REQUIRED FOR NOM 2-1/2 IN. AND 3 IN. (64 MM AND 76 MM) DIAM PIPES. A MIN OF THREE LAYERS OF WRAP STRIP IS REQUIRED FOR NOM 3-1/2 IN. AND 4 IN. (89 MM AND 102 MM) DIAM PIPES. EACH LAYER OF WRAP STRIP TO BE INSTALLED WITH BUTTED SEAM WITH BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED. WRAP STRIP LAYERS SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO THROUGH OPENING SUCH THAT THE BOTTOM EDGES ARE FLUSH WITH THE BOTTOM PLANE OF THE FLOOR AND ARE RESTING ON THE STEEL SUPPORT CLIP LEGS. WHEN NOM 2 IN. TO 4 IN. (51 MM TO 102 MM) DIAM PVC PIPE IS USED IN MIN 4-1/2 IN. (114 MM) THICK CONCRETE FLOOR, THE PIPE MAY BE INSTALLED ECCENTRICALLY IN THE THROUGH OPENING (MIN ZERO CLEARANCE AT POINT CONTACT LOCATION) PROVIDED THAT (1) THE INSIDE DIAM OF THE THROUGH OPENING IS 1.3 TO 1.5 TIMES LARGER THAN THE OUTSIDE DIAM OF THE PIPE, (2) THE ANNULAR SPACE BETWEEN THE PIPE AND THE SIDES OF THE OPENING AT THE BOTTOM 2 IN. (51 MM) OF THE THROUGH OPENING IS COMPLETELY FILLED WITH WRAP STRIP LAYERS INSTALLED FOLLOWING THE CONTOUR OF THE PIPE AND (3) THE BOTTOM EDGES OF THE WRAP STRIP LAYERS ARE RELIABLY SUPPORTED BY "Z"-SHAPED STEEL SUPPORT CLIPS ANCHORED TO THE TOP SURFACE OF THE CONCRETE FLOOR. IN WALL ASSEMBLIES, THE WRAP STRIP LAYERS ON THE NONMETALLIC PIPE ARE TO BE INSTALLED IN THE SAME MANNER USED FOR FLOOR ASSEMBLIES, BUT SHALL BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF THE WALL WITH THE EXPOSED EDGES OF THE WRAP STRIP LAYERS FLUSH WITH THE WALL SURFACES.

C. FILL, VOID OR CAVITY MATERIALS* - CAULK OR SEALANT - MIN 1/4 IN. (6 MM) DIAM CONTINUOUS BEAD APPLIED TO INSIDE WALLS OF THROUGH OPENING PRIOR TO INSTALLATION OF STEEL SUPPORT CLIPS AND/OR WRAP STRIP. CAULK BEAD TO BE RECESSED 1 IN. (25 MM) FROM THE BOTTOM PLANE OR FLOOR. IN WALL ASSEMBLIES, CAULK BEAD TO BE RECESSED 1 IN. (25 MM) FROM WALL SURFACE ON BOTH SIDES OF WALL. IN FLOOR ASSEMBLIES, A NOM 1/2 IN. (13 MM) THICK COATING OF CAULK IS TO BE APPLIED TO THE TOP EDGES OF THE WRAP STRIP LAYERS AND TO FILL ALL GAPS AT THE WRAP STRIP / CONCRETE INTERFACE. IN WALL ASSEMBLIES, THE EXPOSED EDGES OF THE WRAP STRIP LAYERS AND ALL GAPS AT THE WRAP STRIP / CONCRETE INTERFACE ON BOTH SIDES OF THE WALL TO BE COATED WITH THIN LAYER OF CAULK.
(NOTE: W RATING APPLIES ONLY WHEN FB-3000 WT SEALANT IS USED. CP 25WB+ NOT SUITABLE FOR USE WITH CPVC PIPES.)
*BEARING THE UL CLASSIFICATION MARKING
+-BEARING UL LISTING MARK

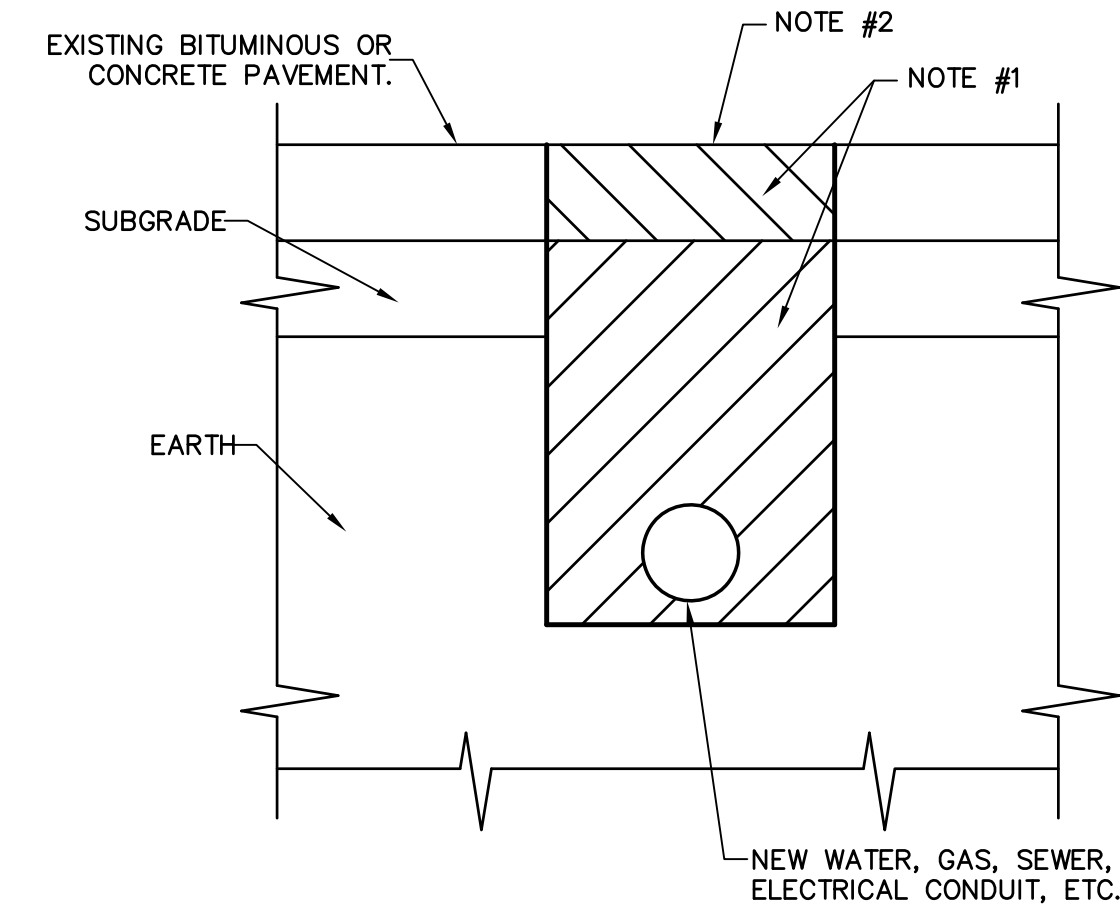
6 CONCRETE WALL OR FLOOR PENETRATION DETAIL
E-6.1 NOT TO SCALE

JERRY N. ZOLLER AIA ARCHITECT / PLANNER
 914 14th STREET NW, BRADENTON, FL 34205 TEL: (941) 746-4465
 PROPOSED RENOVATION FOR:
MANATEE COUNTY DESOTO CENTER SHERIFF'S OFFICE EVIDENCE ROOM
 600 U.S. 301 BLVD. WEST BRADENTON, FLORIDA
 JOB NO 0601J
 DATE MAR 08, 2012
 DRAWN JN
 CHECKED JN
 REVISIONS

E-6.1

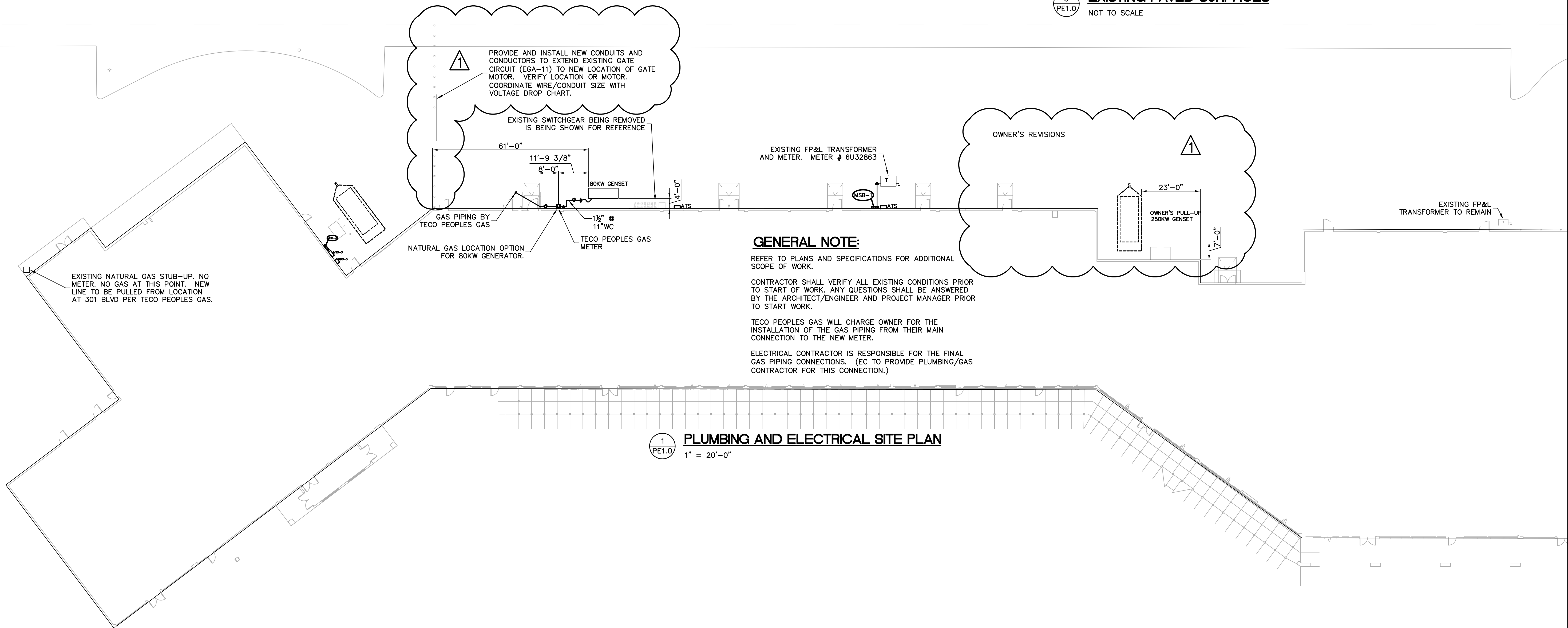


2
PE1.0
GAS METER DETAIL (BY GAS UTILITY)
NOT TO SCALE



NOTES:
1. THE CONTRACTOR INSTALLING THE NEW UTILITY SERVICE SHALL MAKE THE CUT, EXCAVATE, INSTALL NEW SERVICE, INSTALL AN APPROVED BANK RUN GRAVEL BACKFILL TO TOP OF SUBGRADE, AND HAUL AWAY EXCESS MATERIALS. ALL ENGINEERED MATERIALS SHALL BE COMPACTED TO 95% COMPACTION MIN. CALL 811 BEFORE YOU DIG. ALL DE-WATERING BY THE INSTALLATION/ EXCAVATION CONTRACTOR.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL THE FINAL PAVING AT ALL LOCATIONS NOTED ON THE SITE PLANS. FINAL PAVING FOR CUTS MADE IN LOCATIONS NOT NOTED ON THE SITE PLANS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR MAKING THE CUT.

3
PE1.0
DETAIL SHOWING CUTS EXISTING PAVED SURFACES
NOT TO SCALE



1
PE1.0
PLUMBING AND ELECTRICAL SITE PLAN
1" = 20'-0"

GENERAL NOTE:
REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ARCHITECT/ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
TECO PEOPLES GAS WILL CHARGE OWNER FOR THE INSTALLATION OF THE GAS PIPING FROM THEIR MAIN CONNECTION TO THE NEW METER.
ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE FINAL GAS PIPING CONNECTIONS. (EC TO PROVIDE PLUMBING/GAS CONTRACTOR FOR THIS CONNECTION.)

JERRY N. ZOLLER
ARCHITECT / PLANNER
814 14th STREET W. BRADENTON, FL 34205 TEL: (941) 748-4465
AIA C0006577 P.A.

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

PROPOSED RENOVATION FOR:
**MANATEE COUNTY DESOTO CENTER
SHERIFF'S OFFICE EVIDENCE ROOM**
600 U.S. 301 BLVD. WEST
BRADENTON, FLORIDA

JOB NO	0601J
DATE	MAR 08, 2012
DRAWN	JC
CHECKED	JC
REVISIONS	
	5/11/2012

PE-1.0