Y DESOTO CENTER

EVIDENCE ROOM

BRADENTON, FLORII



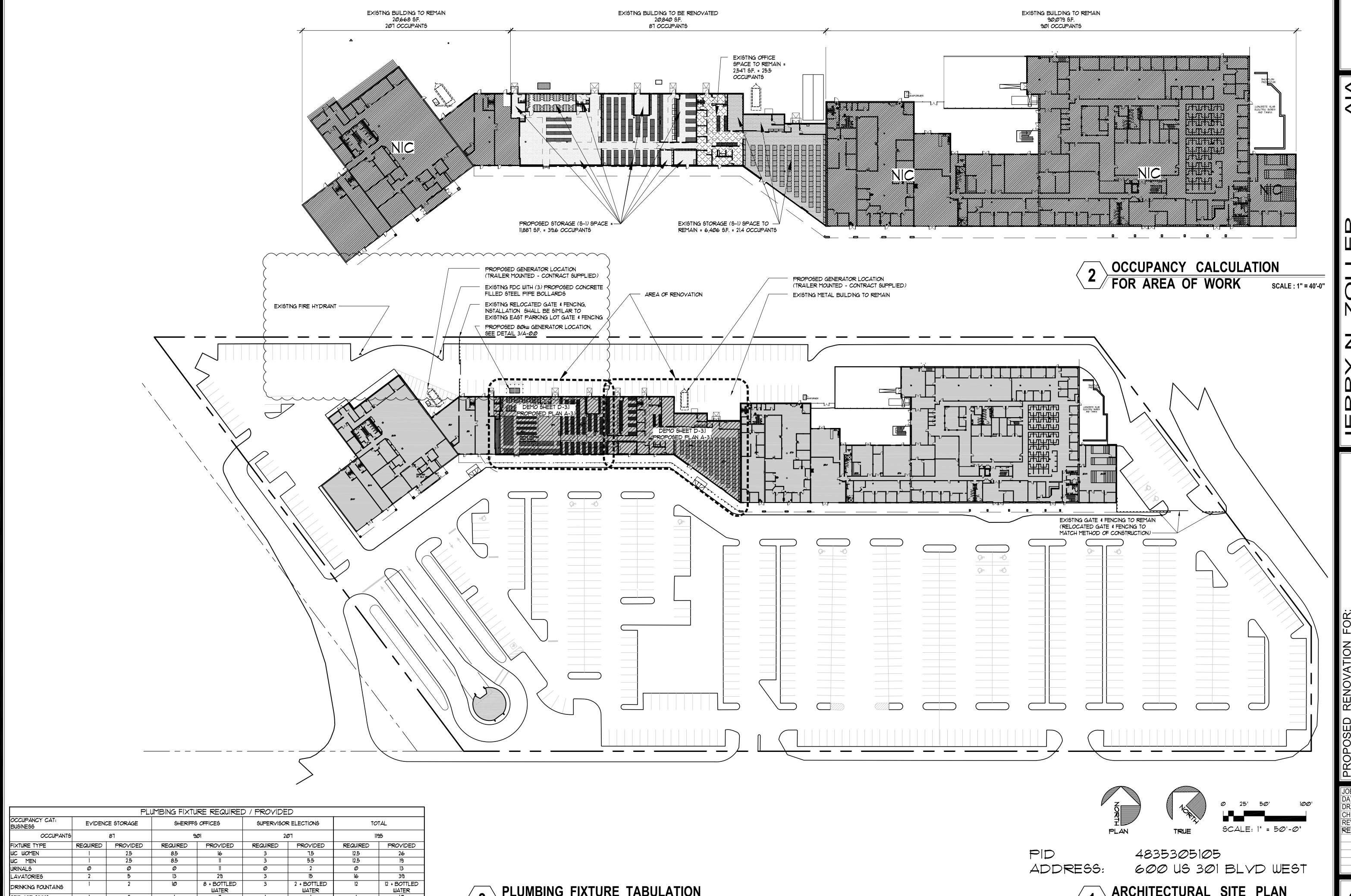
## MANATEE COUNTY SHERIFF'S DESOTO CENTER

ZONING: RSF-I  REQUIRED SETBACKS TO PROPERTY LINES: (F) N/A (R) N/A (LS) N/A (RS) N/A FEET 4/55 PROPOSED Height (Stories/Feet) 2/25 FAR MAXImum Height (Stories/Feet) 2/25 FAR MAXImum N/A N/A N/A N/A N/A N/A PROPOSED FAR. N/A N/A N/A N/A N/A N/A N/A PROPOSED FAR. N/A	SITE FACTORS	
Maximum Height (Stories/Feet)  PROPOSED Height (Stories/Feet)  FAR Maximum  NA  PROPOSED FAR  N/A  BUILDING FACTORS  CLASSIFICATION OF BUILDING BY OCCUPANCY:  CLASSIFICATION OF BUILDING BY CONSTRUCTION TYPE:  SPRINKLERED:  THRESHOLD BUILDING:  FLOOD ZONE:  BASE FLOOD ELEVATION:  CODES IN EFFECT and YEAR:  BUILDING HEIGHT (ALLOWABLE / ACTUAL)  MAXIMUM ALLOWABLE FLOOR AREA PER STORY:  MAXIMUM ALLOWABLE FLOOR:  FLOOR AREA ENTIRE BUILDING:  12,755  12,755  12,755  12,755  12,755  13,000 SF. x 200% = 38,000  38,426± SF. PER FLOOR  FLOOR AREA ENTIRE BUILDING:  132,442± SF. TOTAL	ZONING:	RSF-1
CLASSIFICATION OF BUILDING BY OCCUPANCY:  CLASSIFICATION OF BUILDING BY CONSTRUCTION TYPE:  SPRINKLERED:  THRESHOLD BUILDING:  FLOOD ZONE:  BASE FLOOD ELEVATION:  CODES IN EFFECT and YEAR:  BUILDING HEIGHT & AREA / AREA MODIFICATION (FBC TABLE 503)  BUILDING HEIGHT (ALLOWABLE / ACTUAL)  MAXIMUM ALLOWABLE FLOOR AREA PER STORY:  ACTUAL FLOOR AREA ENTIRE BUILDING:  BUILDING:  BUILDING:  BUILDING:  BUILDING:  BUILDING:  BUILDING AREA ENTIRE BUILDING:  BUILDING:	Maximum Height (Stories/Feet) PROPOSED Height (Stories/Feet) FAR Maximum	4/55 2/25 N/A
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	CLASSIFICATION OF BUILDING BY OCCUPANCY:  CLASSIFICATION OF BUILDING BY CONSTRUCTION TYPE:  SPRINKLERED:  THRESHOLD BUILDING:  FLOOD ZONE:  BASE FLOOD ELEVATION:	III-B, LEVEL 2 ALTERATION 20,840 s.f. YES NO A-10 10.0 2007 FLORIDA BUILDING CODE with 2009 AMENDMENTS 2008 NEC
BUILDING HEIGHT (ALLOWABLE / ACTUAL)  NUMBER OF STORIES (ALLOWABLE / ACTUAL)  MAXIMUM ALLOWABLE FLOOR AREA PER STORY:  ACTUAL FLOOR AREA per FLOOR:  FLOOR AREA ENTIRE BUILDING:  132,442± SF TOTAL		200 I FLORIDA FIRE I REVENTION CODE
ACTUAL FLOOR AREA per FLOOR:  98,426 ± S.F. PER FLOOR  FLOOR AREA ENTIRE BUILDING:  132,442 ± S.F. TOTAL	BUILDING HEIGHT (ALLOWABLE / ACTUAL)	
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	SCOPE OF WORK	

FIRE RESISTANCE RATING OF BUILDING COMP					<u>は3</u> (下	JU IA		OWI AN	1002
HORIZONTAL SEPARATION FROM PROPERTY				251.	/I C )	<b>=</b> 31.	(DC)	251.	
CIPICIUM I EN AME (NICLUMNIC COLUMNIC CO				35'+	(L5)	54'+	(KS)	<i>3</i> 5 +	
STRUCTURAL FRAME (INCLUDING COLUMNS, GI									
EXTERIOR BEARING WALL RATING REQUIREM					<b>-</b>				
EXTERIOR NON-BEARING WALL RATING REQU	IREMENIS:		00			^ <del></del>	<b></b>	+ 4.10=	
					-			-	IS LE
	NI±0		<b>4</b> 11		1101=	E1 10	EASI	PROP	ERTY
INTERIOR BEARING WALL RATING REQUIREMENT									
INTERIOR NON- BEARING WALL RATING REQUI									
FLOOR CONSTRUCTION (INCLUDING SUPPORTING CONSTRUCTION (INCLUDING CONSTRUCTION									
ROOF CONSTRUCTION (INCLUDING SUPPORTING	G BEAMS AND JOIST	5):	Ø H	<i>J</i> uR					
EXIT ACCESS ENCLOSURES / CORRIDORS (Ta	able 10171).		<b>а</b> ц						
EXIT ACCESS ENCLOSURES / CORRIDORS (18				- SEC1	ר <i>ס</i> ד <i>ב</i>	i			
TENANT SEPARATION (FBC 108.1.1 EXCEPTION	ļ <b>1</b> ),				1.7	r			
TENANT DEL ANATION (TEO 1903), TENDEL TION	<b>(</b> 1./		. 1 🗆	<b>4</b> 1\					
MAXIMUM ALLOWABLE EXIT ACCESS TRAVEL	DISTANCE (Table 101	6.1):	300	FEET	- Busi	NESS			
STANDPIPE SYSTEM (FBC 905.1)			n/a						
PERCENTAGE OF ALLOWABLE OPENINGS	(UNPROTECTED):	(F)	NL	(R)	NL	(LS)	NL	(RS)	NL
FBC TABLE 704.8	(PROTECTED):					(LS)		(RS)	
PERCENTAGE OF PROVIDED OPENINGS	· · · · · · · · · · · · · · · · · · ·				-	(LS)	-	(RS)	-
	(PROTECTED):	(F)	Ø	(R)	Ø	(LS)	Ø	(RS)	Ø
DESIGN LOADS AND STRESSES (FBC Table In	607.1)								
ROOF: LIVE LOAD: 20 PSF	DEAD LOAD:	35 P	SF	R00	F SLOT	⊃E:	FLAT	•	
FLOOR: LIVE LOAD: 100 PSF (50 mi	n) DEAD LOAD:								
CORRIDORS: LIVE LOAD: 100 PSF (80 mi	in above 1st floor)								
BALCONIES: LIVE LOAD: N/A									
WIND LOAD: YELOCITY:				1PH					
WIND EXPOSURE CATEGORY:			C						
IMPORTANCE FACTOR:			. 1.0						
ENCLOSURE CLASSIFICATION (OPEN, ENCLOSE	ED):		ENC	_OSED					
INTERNAL PRESSURE COEFFICIENT: G.C.P.I.:									
COMPONENTS & CLADDING, DESIGN WIND PRE	ESSURE:		•					RATION	
SOIL BEARING CAPACITY:			N/A,	LEVEL	. 2 INT	ERIOR	ALTE	RATION	1
A A II. A A I A I A I A I A I A I A I A				:					•

SINE	FEET %%	T-I 9P-I D-3.1 D-3.2 A-0.0 A-1.0 A-3.1 A-3.2 A-4.1 A-4.2 A-9.1 A-9.2 A-9.3 A-9.4 MECHA M-1.0 M-2.0 M-2.1 M-2.2 M-2.3 M-3.0	INTERIOR & TOILET ROOM ELEVATIONS SECTIONS SECTIONS SECTIONS DETAILS	ELECTE E-1.00 E-2.1 E-2.2 E-3.1 E-3.2 E-4.1 E-4.3 E-5.1 E-5.2 E-5.3 E-5.4 E-6.1 PE-1.00	ELECTRICAL LEGEND & GENERAL NOTES ELECTRICAL DEMOLITION - WEST ELECTRICAL DEMOLITION - EAST LIGHTING PLAN - WEST LIGHTING PLAN - EAST POWER AND SYSTEMS PLAN - WEST
	% %	M-4.0 M-5.0 P-1.0 P-2.0	MECHANICAL DETAILS MECHANICAL SPECIFICATIONS		T FIRE DEPARTMENT CONNECTION

Index Of Drawings



PLUMBING FIXTURE TABULATION

DRINKING FOUNTAINS

Ø

SERVICE SINKS

DISHWASHERS

WATER

Ø

10

CENTER E ROOM ADENTON, FLOR DESOTO

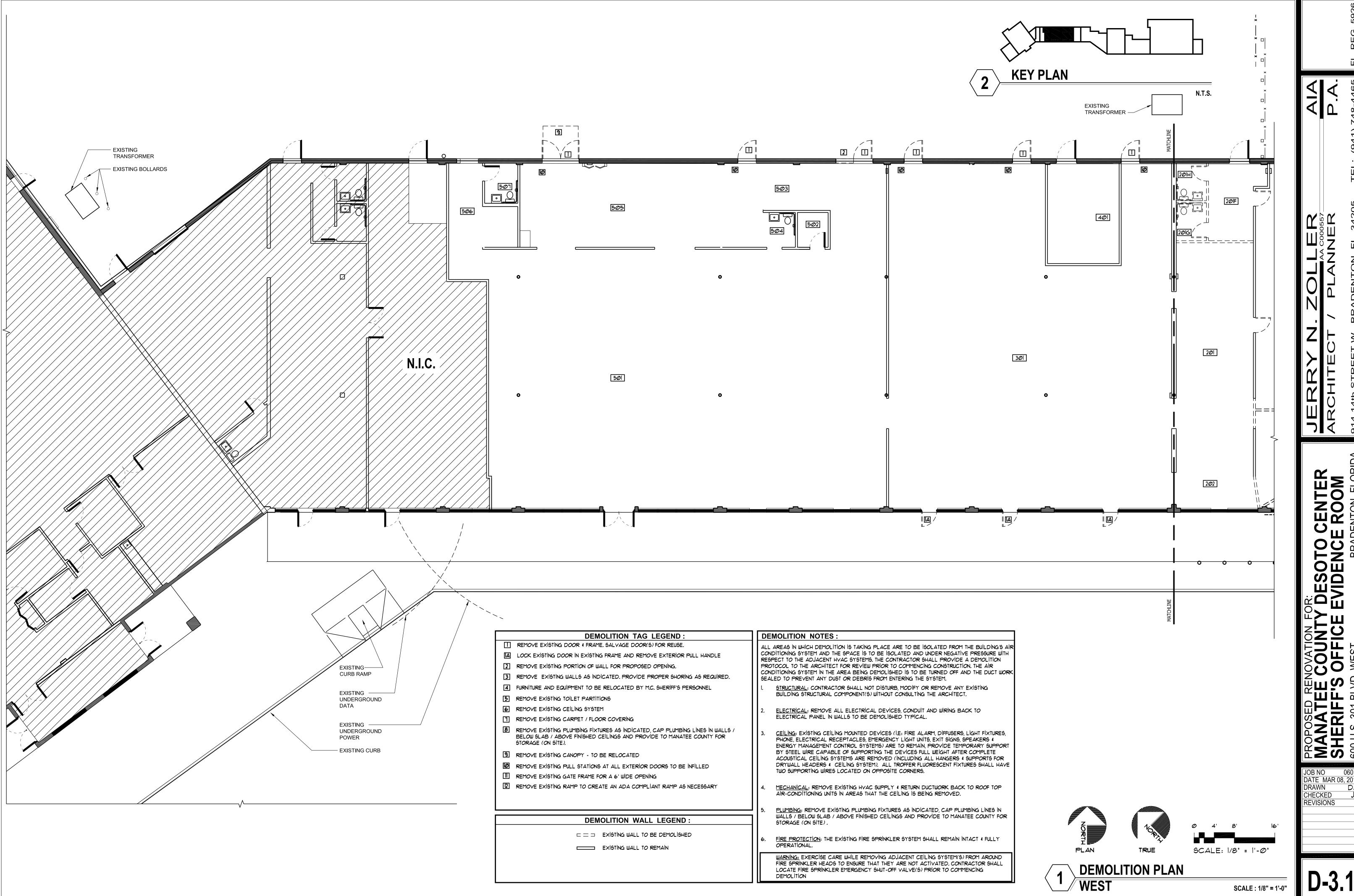
MANATE SHERIFF

JOB NO 0601, DATE MAR 08, 201 CHECKED REVISIONS REV 1 Ø5/24/2Ø12

ARCHITECTURAL SITE PLAN

SP-1

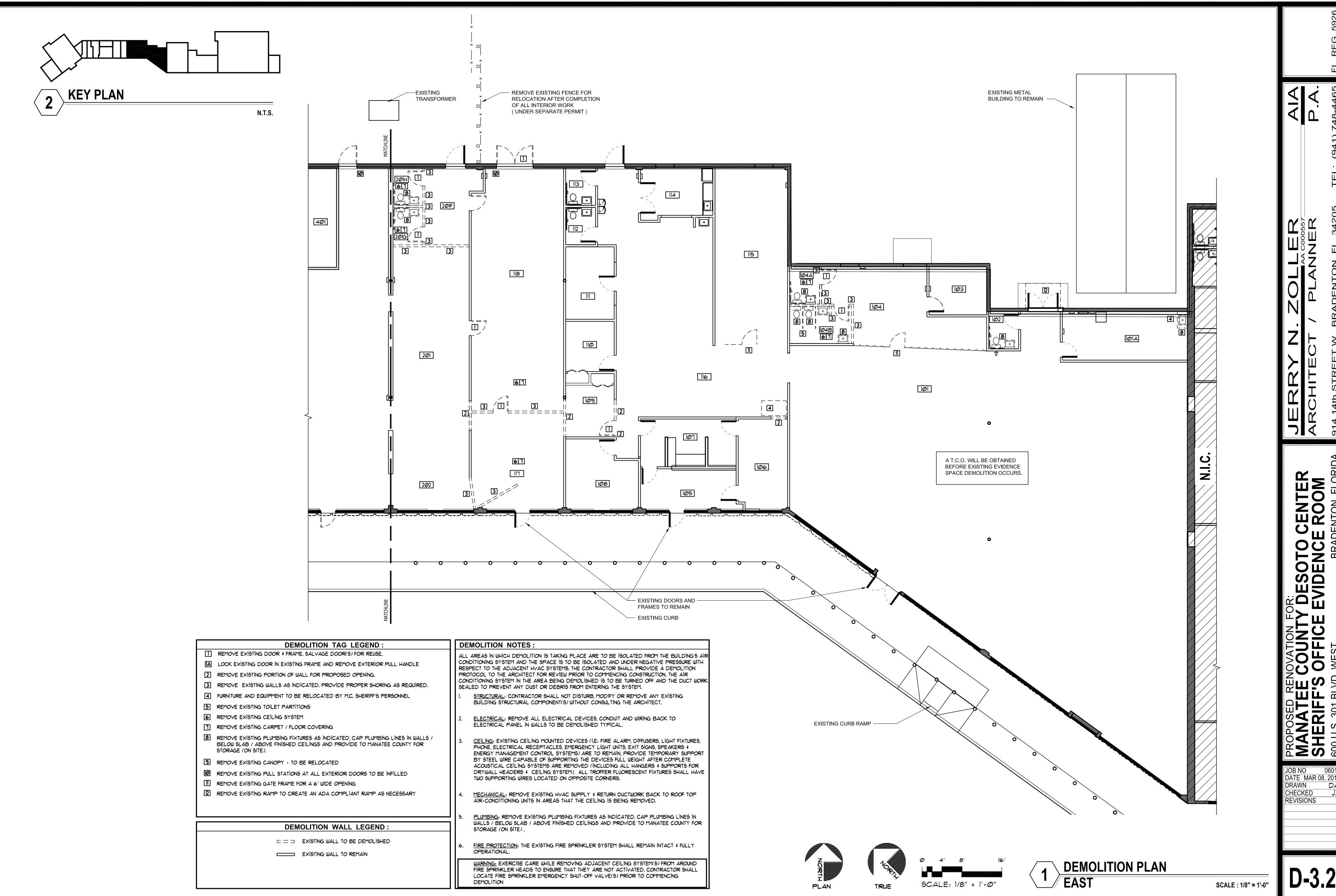
SCALE : 1" = 50'-0"



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SUBGRADE PREPARATION NOTES

SITE SHALL BE STRIPPED OF ALL VEGETATION ORGANIC MATTER AND ALL CELLULOSE

SEE NOTES FOR TERMITE PROTECTION.

3. INSTALL 10 MIL STEGO INDUSTRIES (OR EQUAL) POLYOLEFIN VAPOR BARRIER THAT MEETS ASTM EI745 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

ROOF SHALL BE THERMOPLASTIC SINGLE PLY MEMBRANE ROOFING BY SEAMANS CORP. "FIBERTITE" OR EQUAL. ROOFING PRODUCTS SHALL MEET OR EXCEED THE FOLLOWING ASTMS D471, D751, D882, D1204, D2136, D2240, D5602, D5635, G154, G155, AND G21.

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, 130 M.P.H. 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

2. UNLESS OTHERWISE INDICATED, ANCHOR SPACING SHALL BE AS FOLLOWS: MINIMUM SPACING

## **OPENINGS**

#### EMBEDDED CONDUIT

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

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

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

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.

SEE SHEET A-4.1

**EXTERIOR FINISHES:** 

IST COAT: LOXON EXTERIOR ACRYLIC MASONRY PRIMER, A24W300

2. THE EXTERIOR PAINT SHALL HAVE THE FOLLOWING THICKNESSES.

2ND COAT: SHERMAN WILLIAMS A-100 EXTERIOR LATEX SATIN, A82 SERIES

3RD COAT: SHERMAN WILLIAMS A-100 EXTERIOR LATEX SATIN, A82 SERIES

PRODUCTS LISTED BELOW OR EQUAL.

ALL EXTERIOR WALL CEMENTITIOUS SURFACES SHALL BE PAINTED WITH "SHERWIN WILLIAMS"

CONTAINING MATERIAL TO 1 FOOT OUTSIDE OF THE FOUNDATION PERIMETER AND FROM ALL SOILS BELOW SLABS ON GRADE. EXCAYATION 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".

ALL SOILS SHALL BE TREATED TO EXTERMINATE SUBTERRANEAN TERMITES AND OTHER PESTS.

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

SHALL PENETRATE FULL THICKNESS OF THE STRUCTURAL DECK.

3. 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.

4. COPING METAL (0,050 ALUMINUM) SHALL BE INSTALLED WITH A MAXIMUM OF 10 FEET AND MINIMUM OF 4 FEET BETWEEN BETWEEN LAP TYPE EXPANSION JOINTS. ALL COPINGS SHALL HAVE A FACTORY KYNAR FINISH

#### **EXPANSION ANCHORS**

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

BETWEEN ANCHORS = 10 HOLE DIAMETERS, MINIMUM EDGE DISTANCE = 5 HOLE DIAMETERS.

3. INSTALLATION SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS.

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 CONDUITS AND/OR PIPES SHALL NOT BE LARGER THAN ONE-THIRD THE THICKNESS OF

CONDUITS AND/OR PIPES EMBEDDED VERTICALLY IN COLUMNS SHALL NOT, WITH THEIR FITTINGS,

PIPES SHALL NOT BE EMBEDDED IN CONCRETE.

#### FRAMING NOTES

ALL METAL FRAMING SHALL BE 20 GAGE MINIMUM

#### **INSULATION NOTES:**

INSULATE EXISTING METAL ROOF DECK WITH A CLOSED CELL SPRAY FOAM INSULATION, MINIMUM

## DOORS & WINDOWS:

ARCHITECTURAL NOTES

TERMITE PROTECTION NOTES:

A WEATHER RESISTANT JOB SITE POSTING BOARD SHALL BE PROVIDED TO RECEIVE DUPLICATE

TREATMENT CERTIFICATES AS EACH REQUIRED PROTECTIVE TREATMENT IS COMPLETED, PROVIDING A

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

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

FINISH GRADE. EXCEPTION: DECORATIVE CEMENTITIOUS COATING LESS THAN 5/8" THICK APPLIED

4. CONDENSATE LINES AND ROOF DOWN SPOUTS SHALL DISCHARGE AT LEAST 1-FOOT AWAY FROM

IRRIGATION SYSTEMS AND RISERS FOR SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1-FOOT OF THE

TERMITE PROTECTION SHALL BE PROVIDED BY REGISTERED TERMITICIDES LABELED FOR USE AS

DIRECTLY TO MASONRY FOUNDATION WALLS (FLORIDA BUILDING CODE 2004, SECTION 1403.8)

EXTERIOR WALL BY MEANS OF UNDERGROUND PIPING, TAIL EXTENSIONS OR SPLASH BLOCKS.

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 YAPOR 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,

CONCRETE OVER POUR OR ACCUMULATED MORTAR ALONG THE FOUNDATION PERIMETER SHALL

BE REMOVED PRIOR TO EXTERIOR CHEMICAL TREATMENT TO ENHANCE THE VERTICAL PENETRATION OF

SHALL BE TREATED. A CHEMICAL BARRIER TREATMENT SHALL BE APPLIED TO ALL SOILS WITHIN

INSTALLATION OF LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THIS BARRIER

TREATMENT SHALL BE PROMPTLY RETREATED. (FLORIDA BUILDING CODE 2004, SECTION 1816.1.5)

SHALL NOT BE A CELLULOSE CONTAINING MATERIAL AND SHALL BE TREATED WITH A TERMITICIDE

8. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE

THE CHEMICALS. THE SOIL BENEATH CONCRETE PLACED WITHIN 1-FOOT OF THE FOUNDATION PERIMETER

1-FOOT OF THE FOUNDATION PERIMETER PROMPTLY AFTER CONSTRUCTION IS COMPLETED INCLUDING THE

PROTECTIVE SLEEVES AROUND METALLIC PIPES PENETRATING CONCRETE SLABS-ON-GRADE

APPLIED IN THE ANNULAR SPACE BETWEEN SLEEVE AND PIPE (FLORIDA BUILDING CODE 2004, SECTION

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

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

PROVIDE 1/2" PREMOLDED EXPANSION MATERIAL WHERE SLAB ON GRADE IS POURED AROUND

SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH

COLUMNS UNLESS OTHERWISE SHOWN. COLOR - GREY. TRIM AND CAULK WITH ELASTOMERIC SEALANT.

THE WORK AFFECTED. CONTRACTOR SHALL BE BOUND BY THE MORE RESTRICTIVE OR DEMANDING

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

DRAWING SUBMITTAL

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

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

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 (I COPY RETAINED FOR

B.IF THE ELECTRONIC FILES ARE E-MAILED TO OUR OFFICE, THE E-MAIL ADDRESS IS JNZ@JNZarchitect.com AND A FAXED TRANSMITTAL (941-747-7952) SHALL BE SENT TO OUR

C.IF THE ELECTRONIC FILES ARE SENT TO OUR OFFICE ON A CD OR DVD, A TRANSMITTAL

BY CLIENT. IF PAPER FORMAT IS REQUESTED, IT SHALL BE BLACKLINE COPIES WITH ANY

PRODUCTION OF THESE DRAWINGS BASED ON THE PREVAILING PRINTS COSTS PER OUR

D.THE REVIEWED SHOP DRAWINGS SHALL BE RETURNED TO PROJECT ARCHITECT (OR DIRECTED PARTY) IN EITHER ELECTRONIC FORMAT OR PAPER FORMAT AS DIRECTED

COMMENTS GENERATED BY OUR OFFICE IN CONTRASTING FONT OR 'BOXED'.

ADDITIONALLY WE WILL INVOICE FOR THE PRINTING COSTS ASSOCIATED WITH THE

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

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

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

STRUCTURAL STEEL / METAL DECK / LIGHT GUAGE STEEL FRAMING

SHALL BE INCLUDED IN THE PACKAGE.

A. THE ONLY ACCEPTED ELECTRONIC FORMAT SHALL BE ADOBE PDF FORMAT

OFFICE INFORMING US THAT THE DRAWINGS WERE SENT VIA E-MAIL.

ANY CONFLICT BETWEEN STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS AND/OR

EXTERIOR WALLS (FLORIDA BUILDING CODE 2004, SECTION 1503.6)

AND CONSUMER SERVICES."

LOT DURING CONSTRUCTION FOR ALL DEBRIS COLLECTION

NON-ENGINEERING ASSOCIATED ITEMS)

CONCRETE DESIGN MIX MASONRY / CONCRETE ROOF / FLOORING FRAMING

FIRE SPRINKLER SYSTEMS FIRE ALARM SYSTEMS

MECHANICAL SYSTEMS AND DEVICES

ELECTRICAL SYSTEMS AND DEVICES PLUMBING SYSTEMS AND FIXTURES

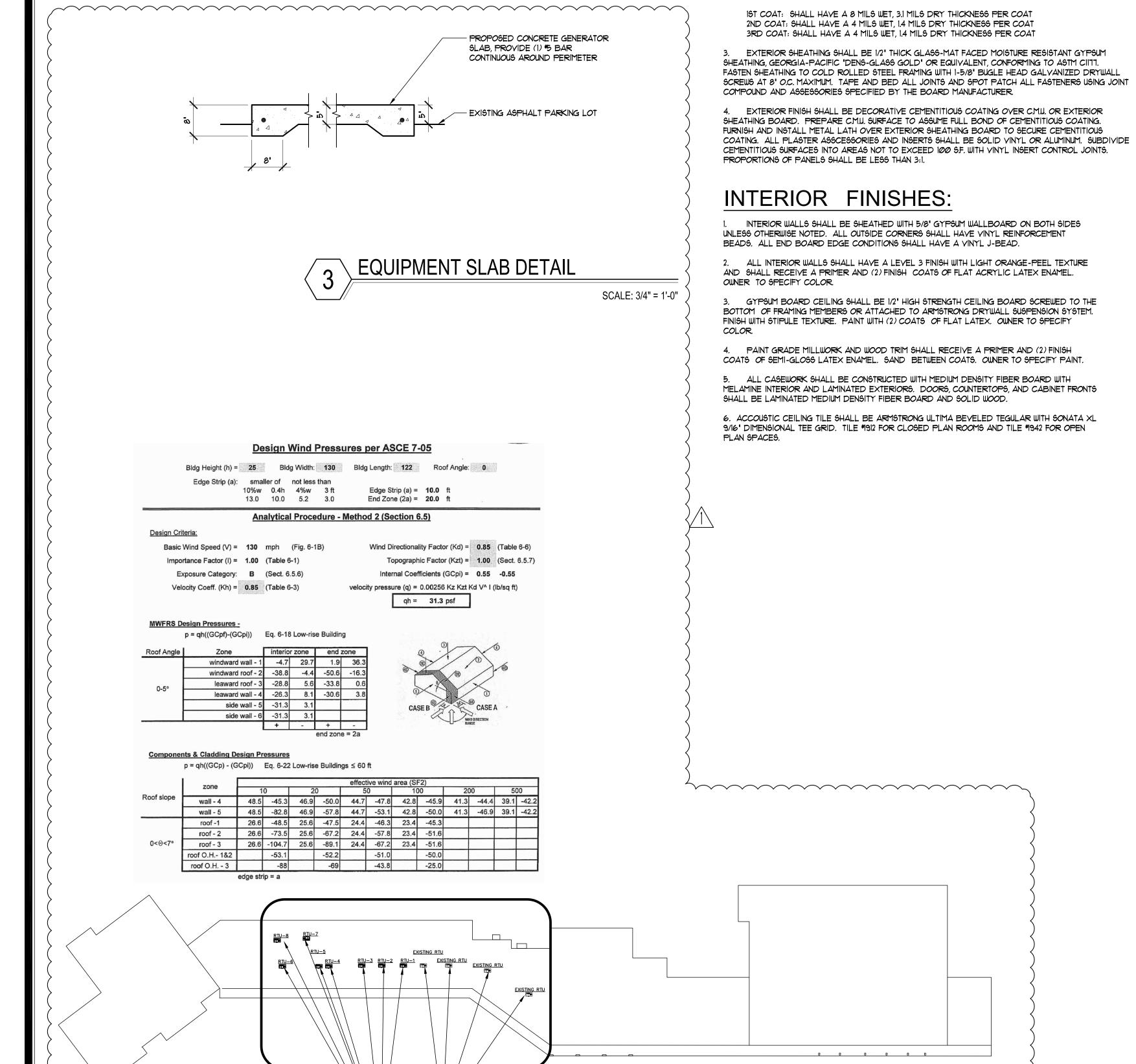
DOOR AND WINDOW SYSTEMS AND HARDWARE

CONTRACTOR NOTES

EXTERIOR WALL COVERING SHALL HAVE A MINIMUM CLEARANCE OF 6" ABOVE THE EXTERIOR

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

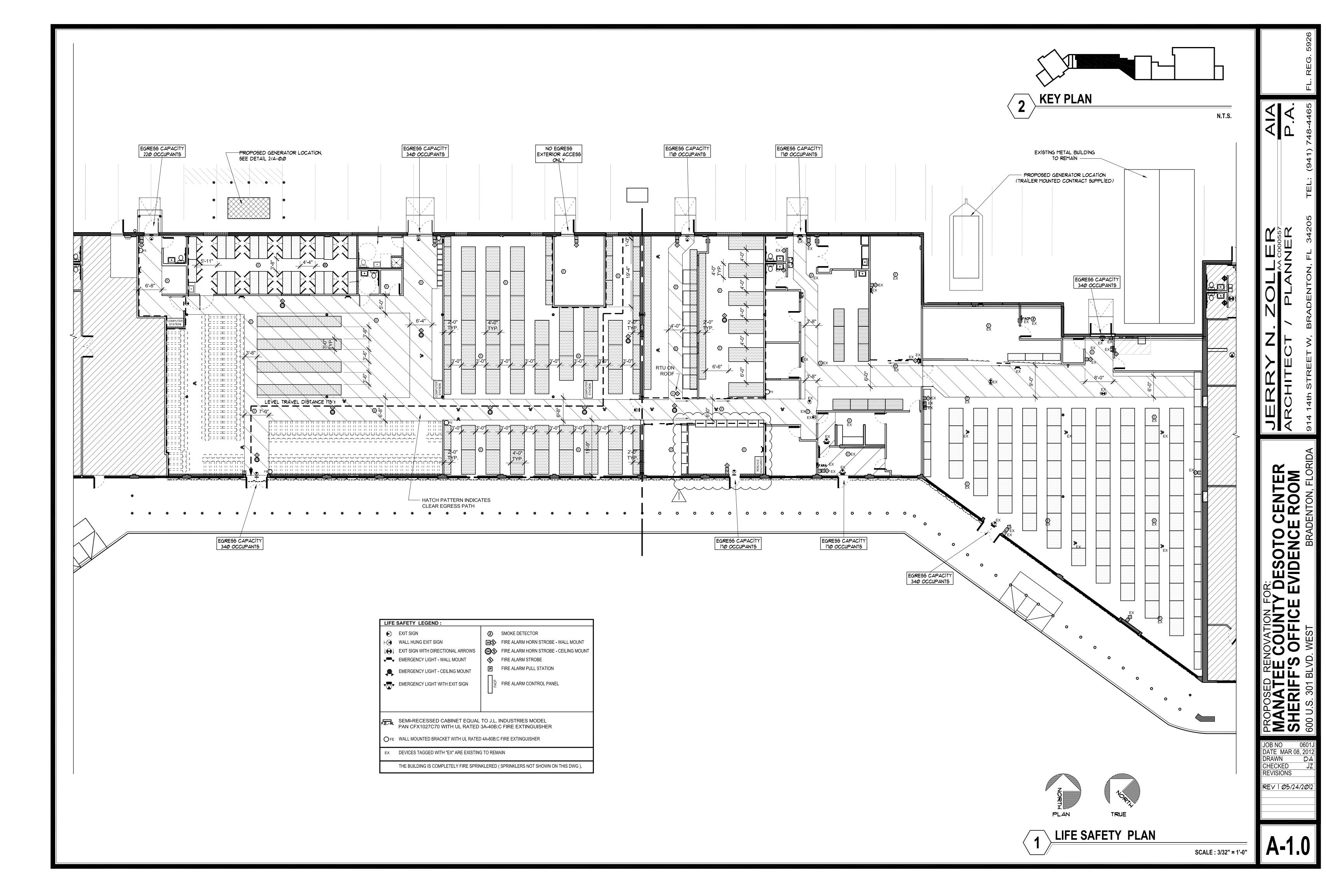


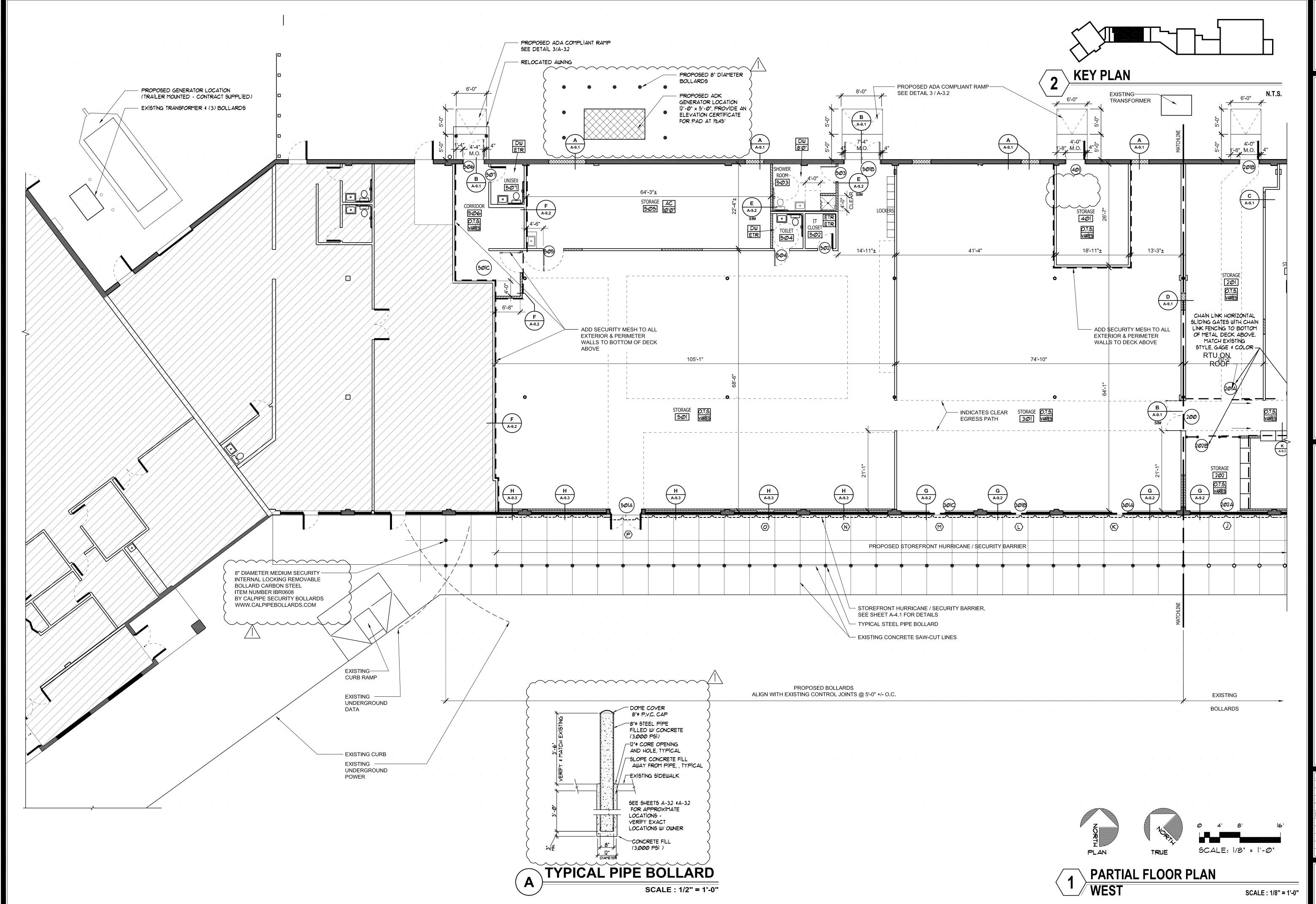
— EXISTING UNITS

PROVIDE SHOP DRAWINGS WITH FLORIDA ENGINEER'S SEAL ON N.O.A. RATED CURBS WITH TIE

DOWN DETAILS

PROPOSED RTU'S ON NEW CURBS





JERRY N. ZOLLER

TY DESOTO CENTER

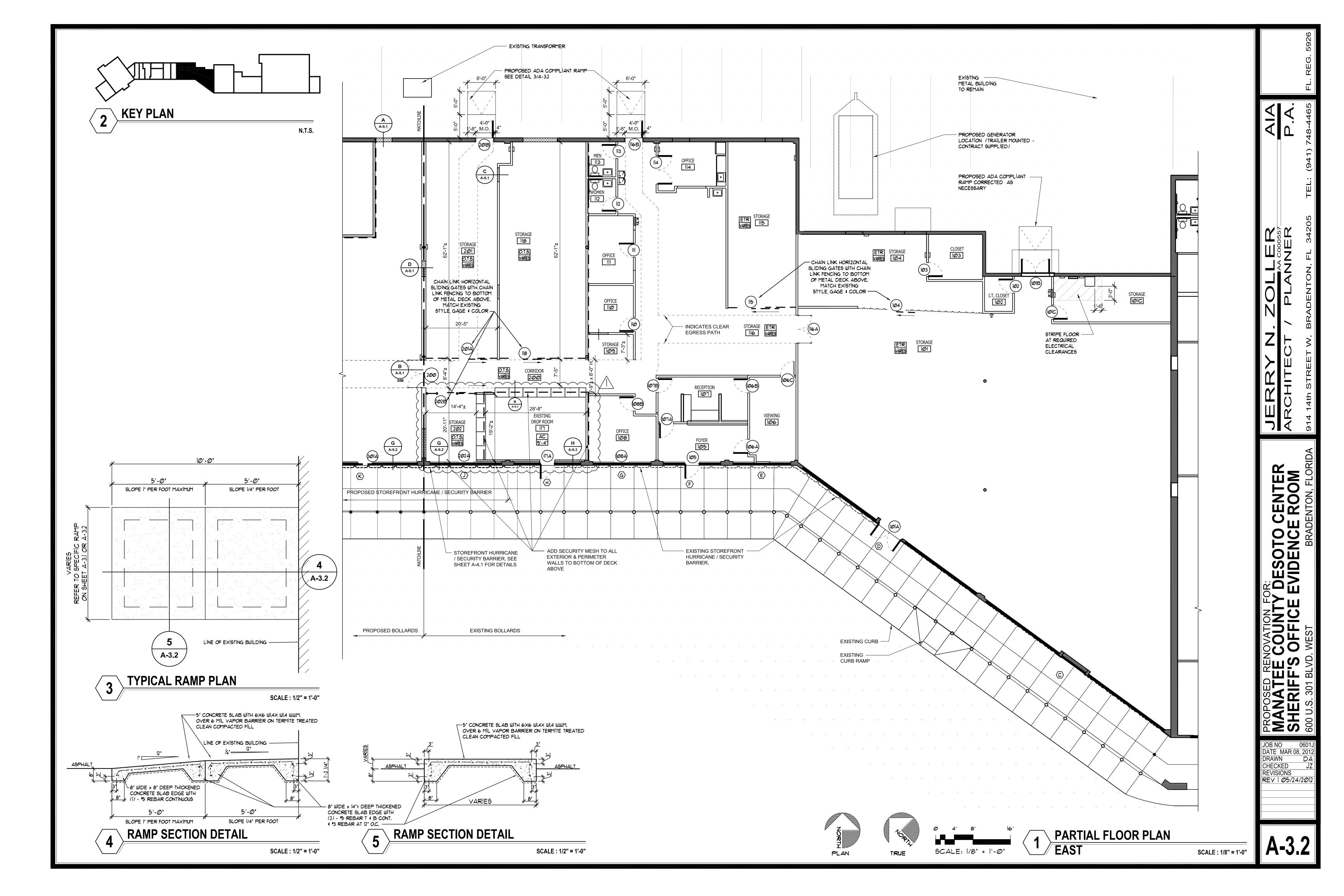
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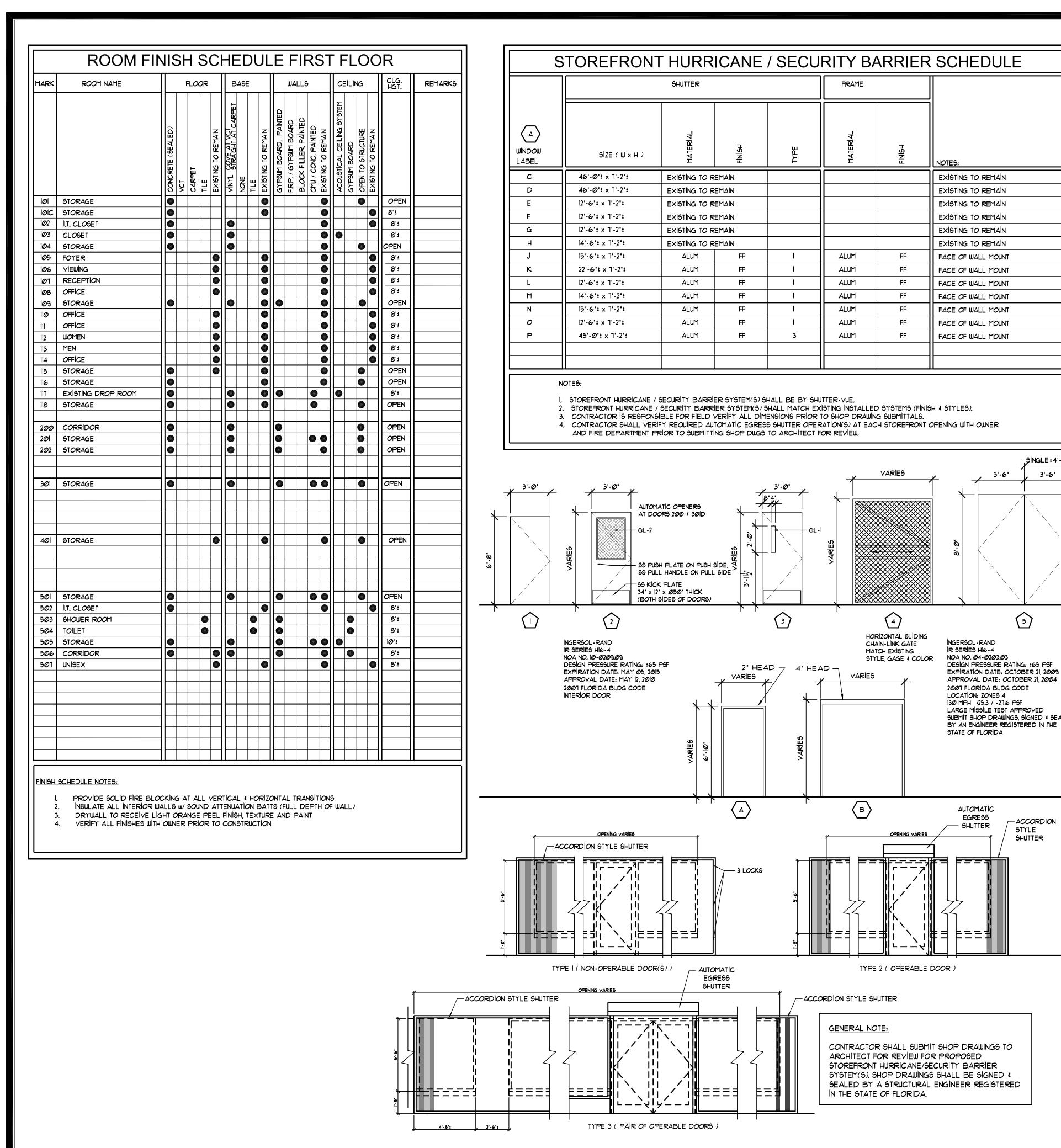
BRADENTON, FLORIDA

MANATEE COUNTY DESOTO
SHERIFF'S OFFICE EVIDENCE
600 U.S. 301 BLVD. WEST

JOB NO 0601J
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107A 107B			ING TO RI												EXISTING TO REI
108A 108B			ING TO PI												EXISTING TO REI
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II1A II1B	OMITTED	EXIST	ING TO RI	EMAIN -					·			<del></del>		~~~ <u>~</u>	EXISTING TO REI
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501A 501B	PR 3'-6" x 8'-0"	5 EXIST	ING TO RI	EMAÎN PT					YES	В	HМ		FP		EXISTING TO REI
501C 502	4'-0" × 8'-0"	2	SCW ING TO RI	PT =MAIN	GL-2				YES	А	HM		FP		EXISTING TO REI
5Ø3	3'-0" × 6'-8"	1	SCW	PT					YES	А	НМ		FP		LAISTING TO REF
5 <i>0</i> 4	3'-0" x 6'-8" 4'-0" x 8'-0"	3	SCW SCW	PT PT	GL-1				YES YES	<u>А</u>	I I		£ £		
506 501	4'-0' × 8'-0'	3	HM ING TO RI	PT	GL-1				YES	В	HM		FP		EXISTING TO REP
2. REU	NOTES:  DOORS AND WINDOWS SE EXISTING INTERIOR  K EXISTING DOOR IN I	DOORS T	HAT WER	E REMO	VED DUF			GLAZI GL-1 GL-2	GRAY	TINTED I		ED GLASS GLASS	HM SCI	W SOLÌ	 LOW METAL D CORE WOOD
4. ALL COF 5. EXT PRIN 6. HINC 1. CLC	HOLLOW METAL DOOR IN THE HOLLOW METAL DOOR IN THE PREPARENCE AND BE PREPARENCE AND BE FIELD PAGES WILL BE BALL-BE PAGES WILL BE RECTANDERS WILL BE W	R FRAMES  RED FOR  DOORS  AINTED, EX  ARING AT  NGULAR C	WILL BE HARDWA FRAMES XTERIOR EXTERIOR ASE SUR	16 GAUG RE, SHALL FRAMES R & OIL FACE MG	GE FORMI HAVE FA SHALL BEARING DUNTED.	ED STEEL W ACTORY GAL BE GROUTEI G AT INTERIO	TH WELDED VANIZING 4 D SOLID,		1/4 <b>'</b> CL				CL PT FF P	PAIN FAC	IN LÍNK IT FORY FÍNÍSH FORY PRÍMED

STOREFRONT HURRICANE / SECURITY BARRIER TYPES

REFER TO PROPOSED PARTIAL FLOOR PLANS ON SHEET A-3,1 4 A-3,2 FOR LOCATIONS

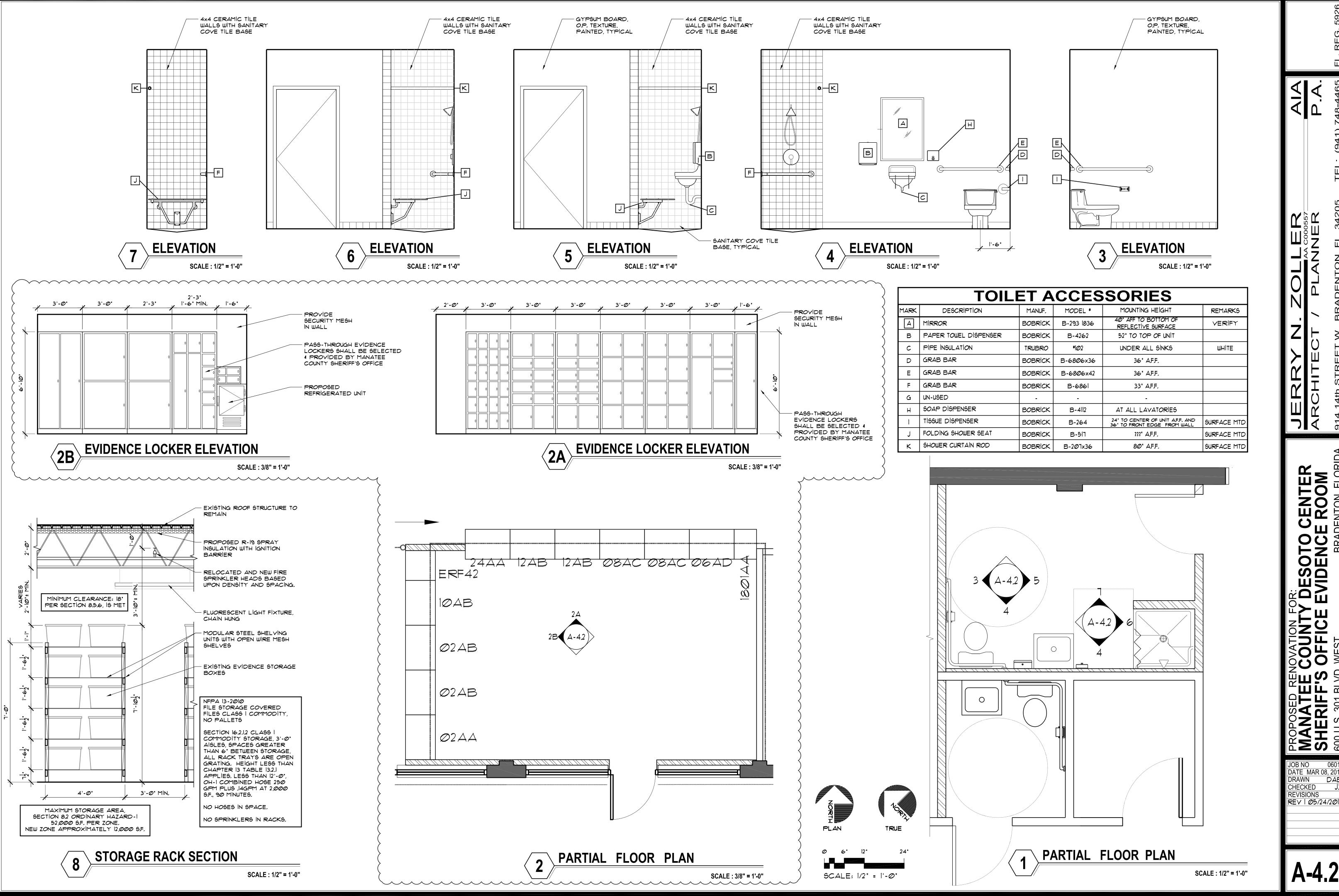
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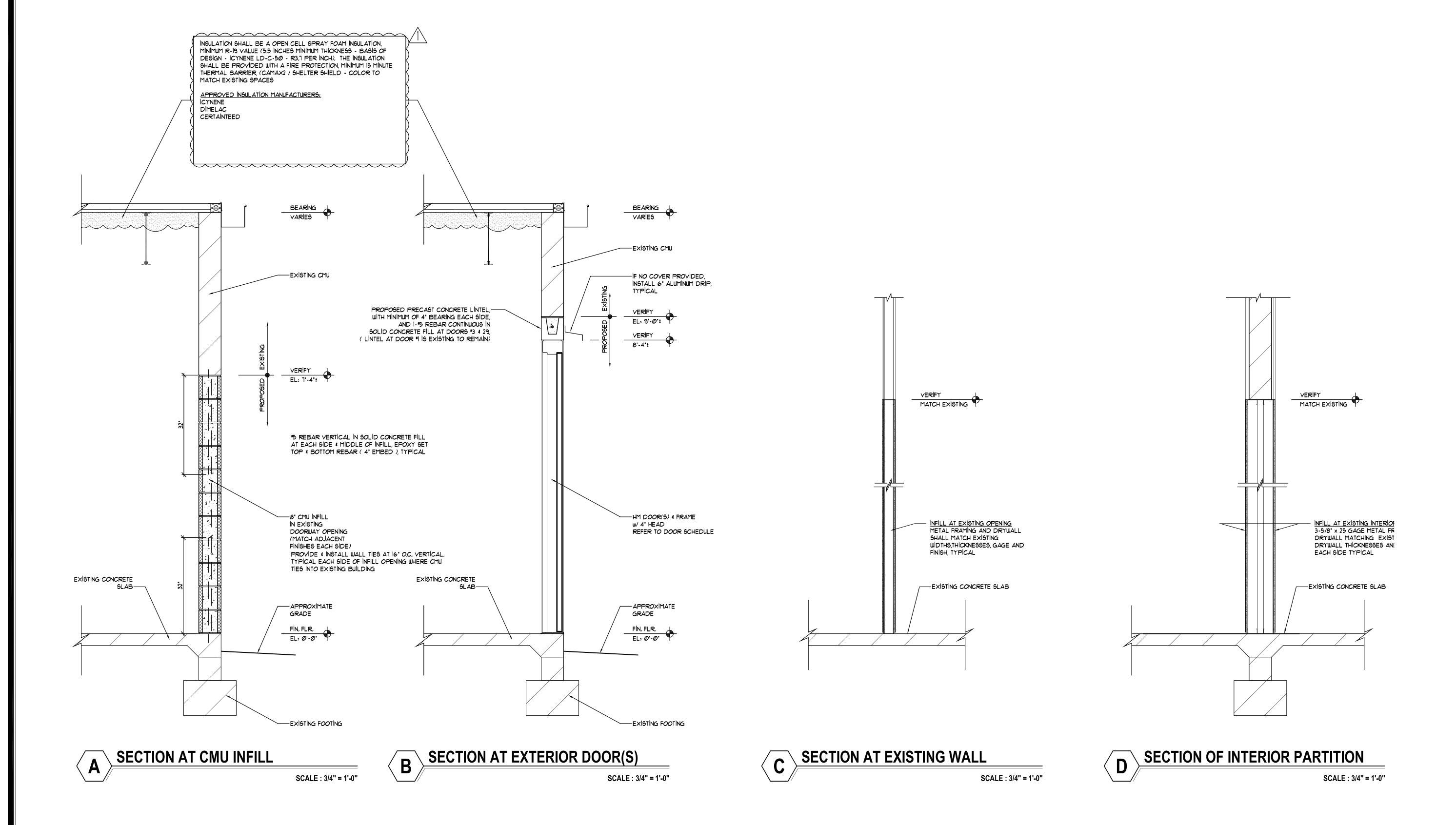
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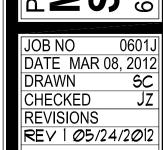
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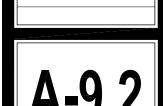
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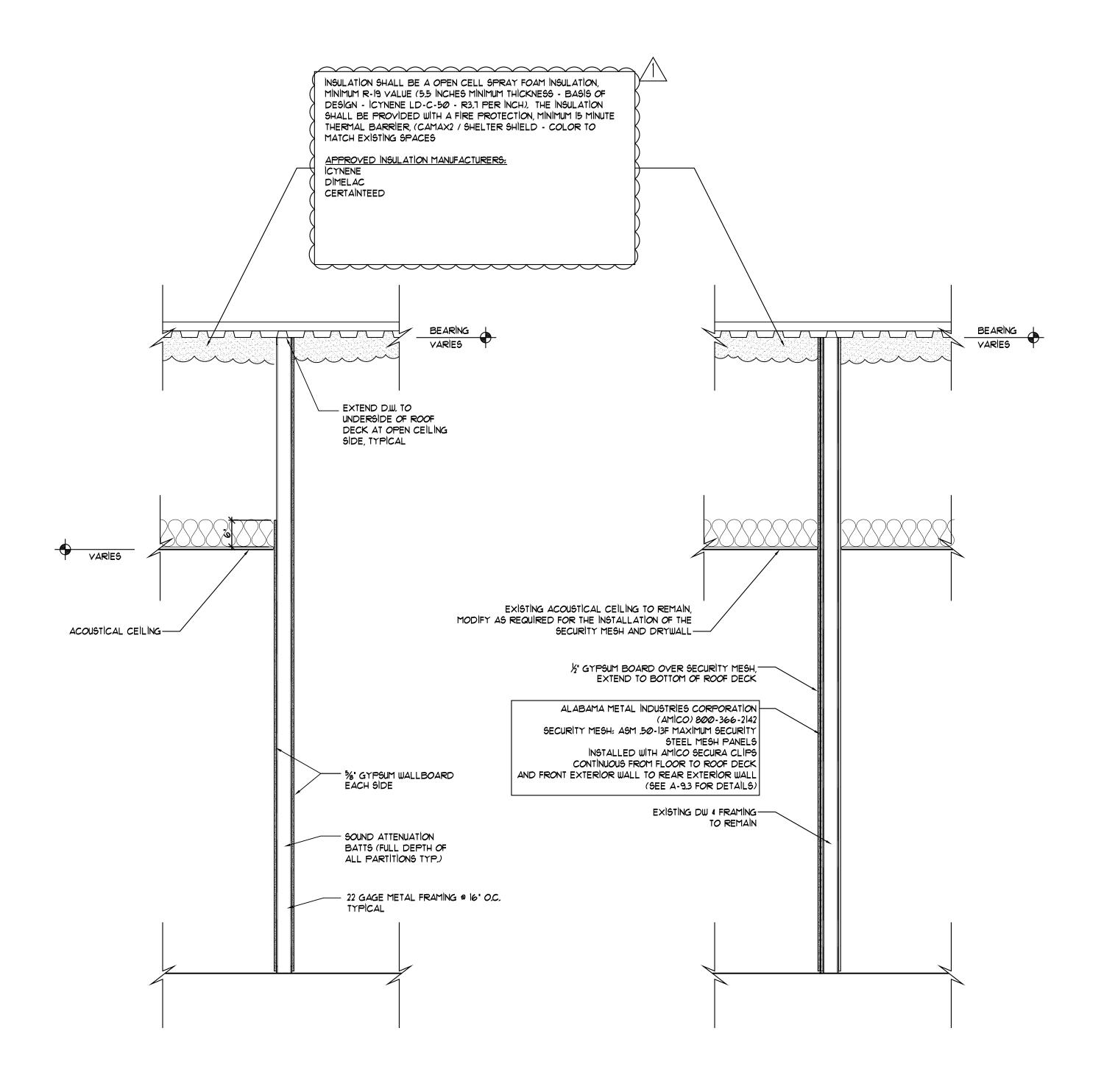


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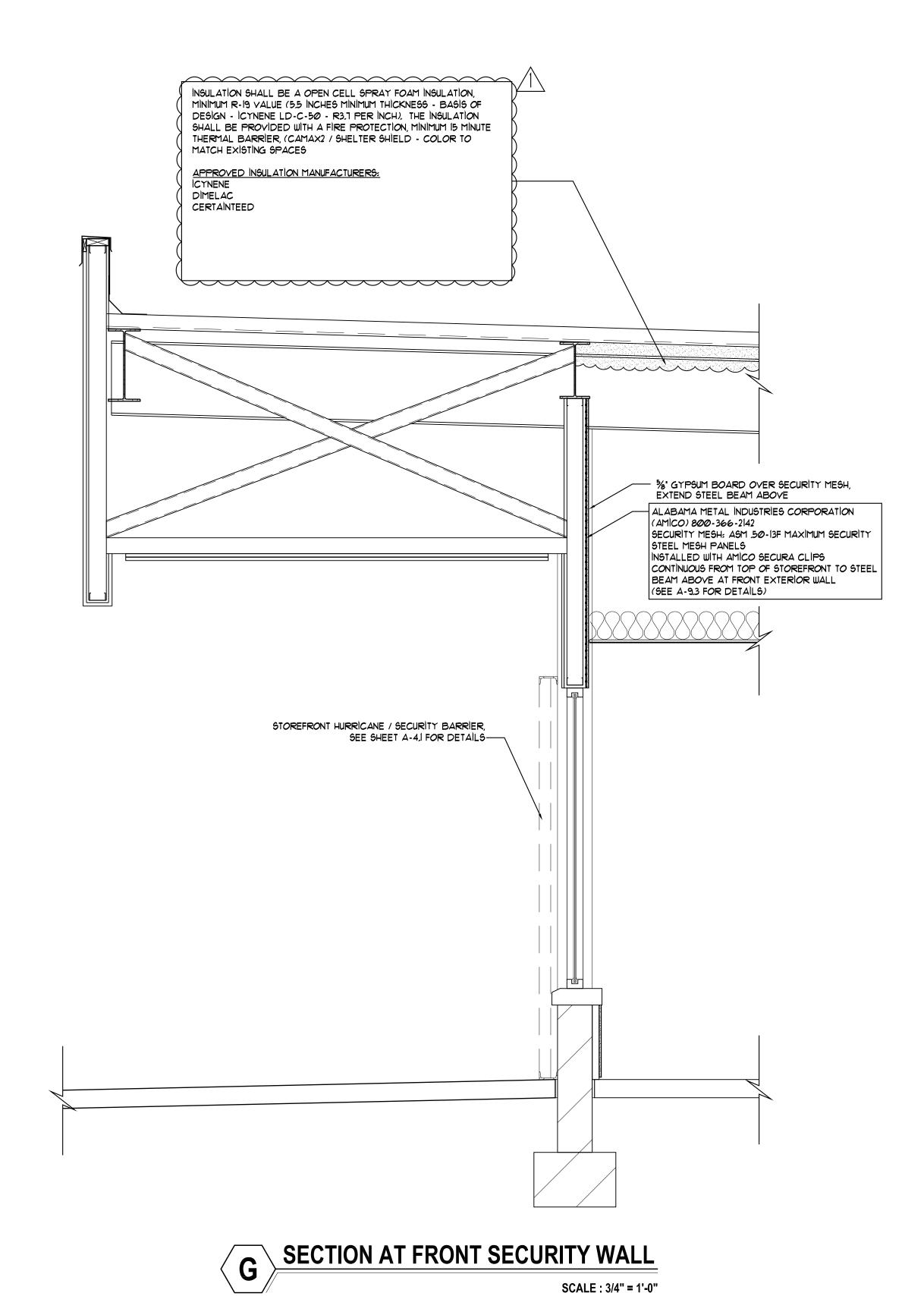


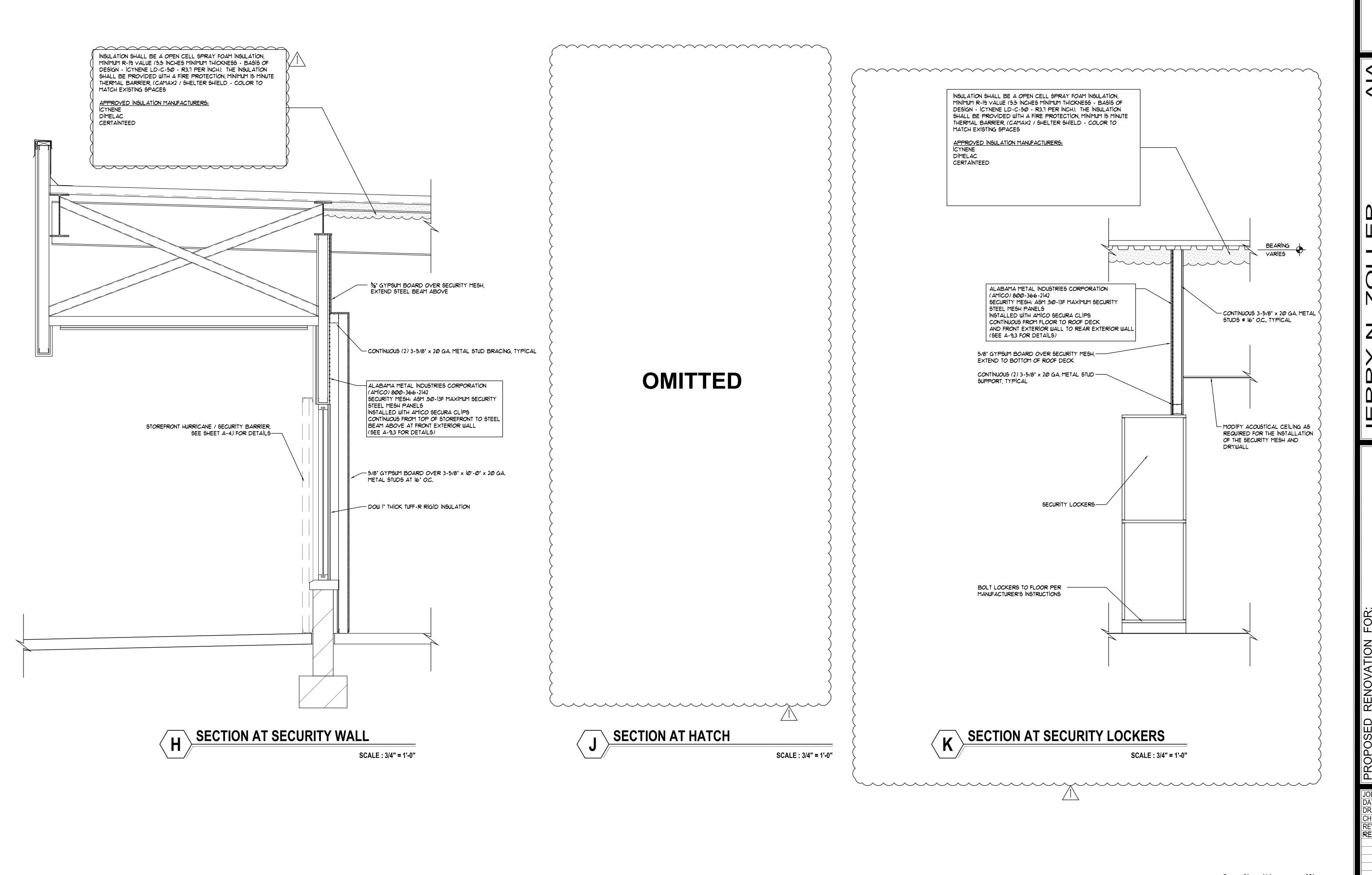
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SCALE: 3/4" = 1'-0"

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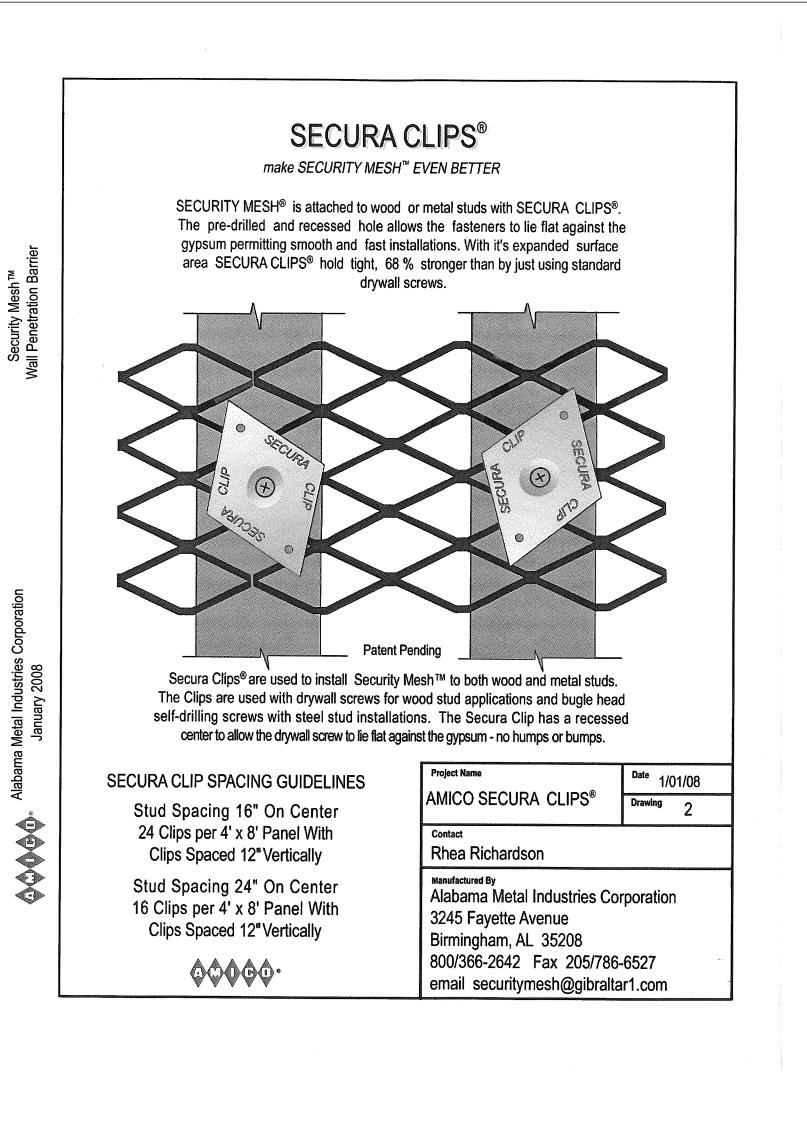
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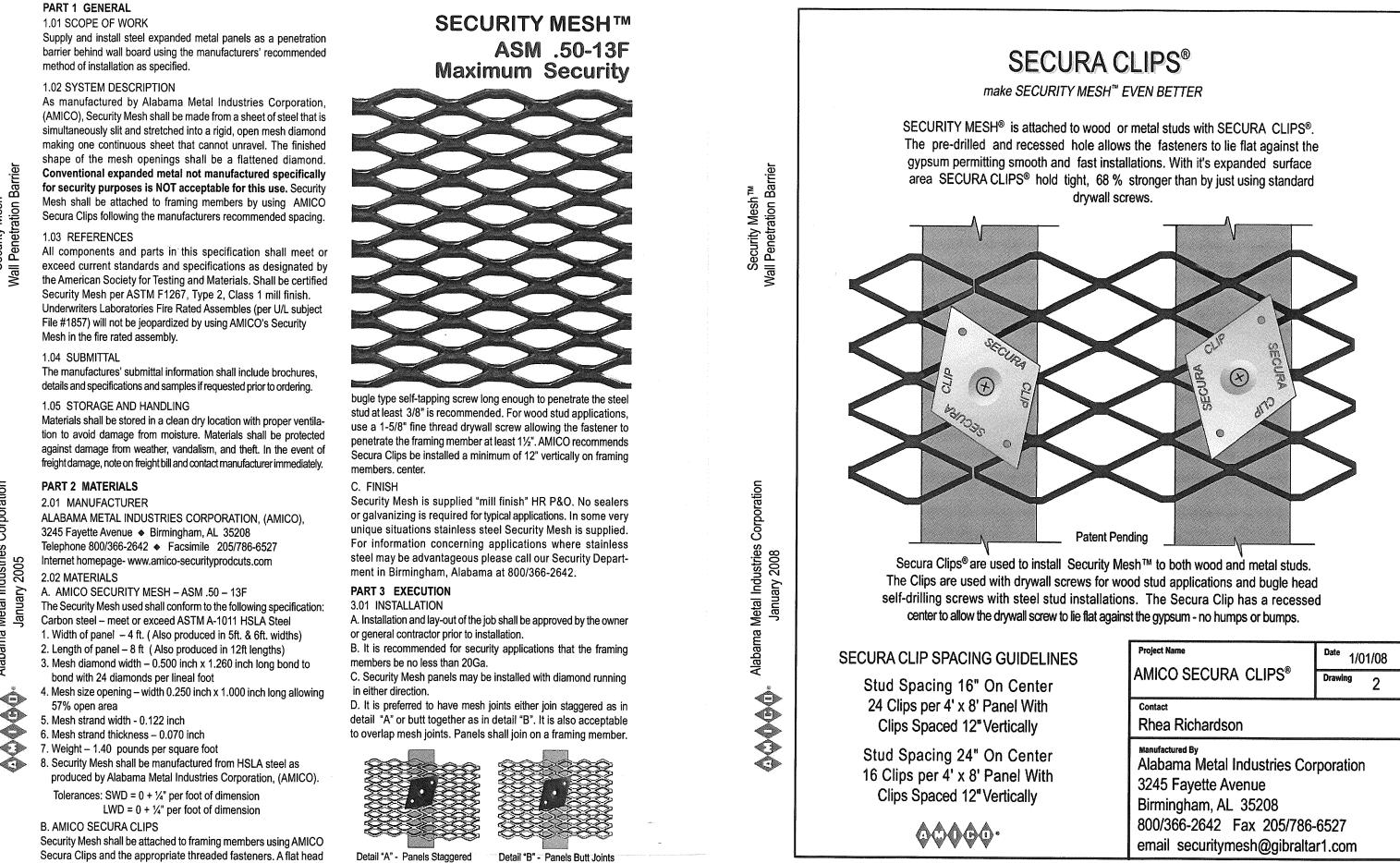
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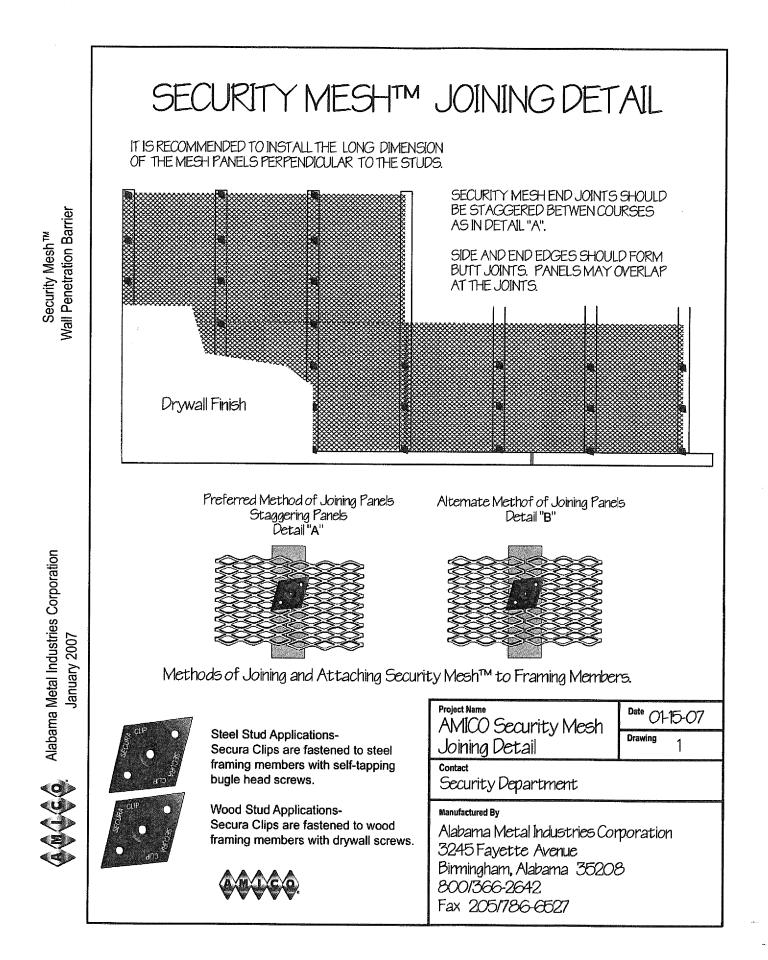
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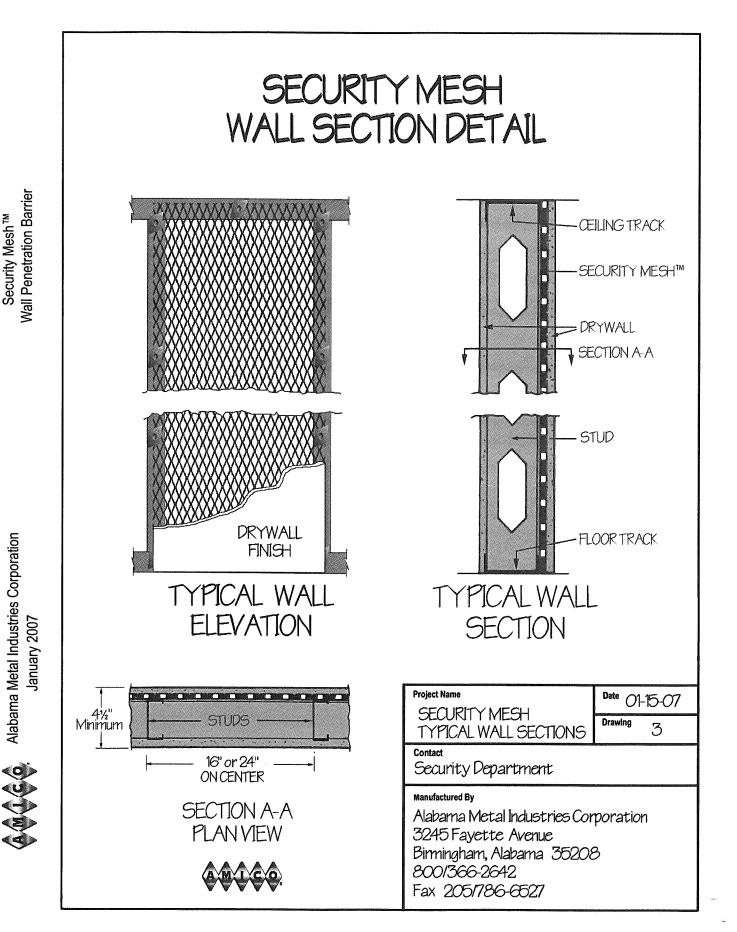
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## LEGENDS, GENERAL NOTES AND ABBREVIATIONS

## **ABBREVIATIONS**

AIR CONDITIONING ACCESS DOOR ABOVE FINISHED FLOOR AIR HANDLING UNIT ANALOG INPUT ANALOG OUTPUT ACCESS PANEL BELOW FINISHED FLOOR BRAKE HORSE POWER COOLING COIL CD CONDENSATE DRAIN CFM CUBIC FEET PER MINUTE CHILLED WATER RETURN CHWR CHWS CHILLED WATER SUPPLY CEILING CLEANOUT COOLING TOWER CU CONDENSING UNIT CW COLD WATER CONDENSER WATER RETURN CWS CONDENSER WATER SUPPLY DRY BULB DIRECT DIGITAL CONTROL DOOR GRILLE DIGITAL INPUT DO DIGITAL OUTPUT DEW POINT DX DIRECT EXPANSION EXHAUST AIR ENTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR **ENERGY CONTROL CENTER** EER **ENERGY EFFICIENCY RATIO** EXHAUST FAN **EXPANSION TANK ELEVATION** EQUIP **EQUIPMENT** ELECTRIC WATER COOLER ENTERING WATER TEMPERATURE **EXIST EXISTING** FDPR FIRE DAMPER FCU FAN COIL UNIT FLOOR DRAIN FLOOR FINS PER INCH FINS PER FOOT FEET PER MINUTE GENERAL CONTRACTOR GPH GALLONS PER HOUR GPM GALLONS PER MINUTE HUMIDITY HOSE BIBB **HEATING COIL** HEAT EXCHANGER HORSE POWER HOT WATER HWR HOT WATER RETURN HWS HOT WATER SUPPLY KILOWATT LEAVING AIR TEMPERATURE LEAVING WATER TEMPERATURE MECHANICAL CONTRACTOR MOTORIZED DAMPER MAXIMUM MINIMUM NORMALLY CLOSED NORMALLY OPENED OUTSIDE AIR OS&Y **OUTSIDE SCREW & YOKE** PLUMBING CONTRACTOR PRESSURE DROP PERF PERFORATED **PRESS** PRESSURE RETURN AIR ROOF DRAIN RAIN LEADER ROOF TOP UNIT SANITARY SDPR SMOKE DAMPER SUPPLY AIR SPIR SPIRAL SURF SURFACE SP STATIC PRESSURE TEMPERATURE CONTROL CONTRACTOR **TEMPERATURE** TYPICAL **UNDERCUT** UNDERGROUND UON UNLESS OTHERWISE NOTED UV UNIT VENTILATOR VACUUM

VARIABLE AIR VOLUME

VARIABLE SPEED DRIVE

VARIABLE FREQUENCY DRIVE

VOLUME DAMPER

VENT THRU ROOF

WALL CLEANOUT

WASTE

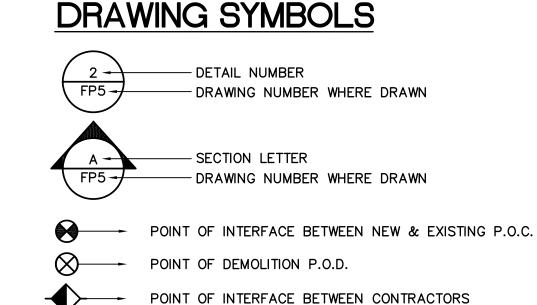
WET BULB

VSD

VTR

**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 7 ----(SINGLE LINE) DUCT SIZE TRANSITION (CONCENTRIC) **→** (SINGLE LINE) DUCT SIZE TRANSITION (ECCENTRIC) . ] (SINGLE LINE) DUCT TRANSITION (RECTANGULAR TO ROUND) **₩** (SINGLE LINE) ACOUSTICALLY LINED DUCT - | | <u>R</u> 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

PIPING	
cws	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
— CHWS —	CHILLED WATER SUPPLY
— CHWR —	CHILLED WATER RETURN
—— CD——	CONDENSATE LINE
	REFRIGERANT LIQUID
—— RS ——	REFRIGERANT SUCTION
	REFRIGERANT HOT GAS
—— HWS ——	HOT WATER SUPPLY
—— HWR ——	HOT WATER RETURN
	DOMESTIC WATER
<b>─</b> ⋈─	GATE VALVE
$\longrightarrow \bowtie \longrightarrow$	GLOBE VALVE
$\overline{}$	CHECK VALVE
—ф—	BALL VALVE
	PLUG VALVE
——————————————————————————————————————	PRESSURE REDUCING VALVE
<b>───</b>	2-WAY CONTROL VALVE
——————————————————————————————————————	3-WAY MODULATING CONTROL VALVE
<b>☆</b> ⊢	SAFETY OR PRESSURE RELIEF VALVE
4	MANUAL AIR VENT
——[——	BUTTERFLY VALVE
·	HOSE BIBB
<b>Ā</b> -	ANGLE GLOBE VALVE
<b>—</b> □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	MOTOR OPERATED GATE VALVE
<b>—</b> ₩	MOTOR OPERATED GLOBE VALVE
<u> </u>	TEST PLUG (PRESSURE / TEMPERATURE)
<b>—</b> Φ—	OUTSIDE SCREW & YOKE (O S & Y)
	DIRECTION OF FLOW
<del></del>	ANCHOR
<b>──</b>	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45 OR 90 DEG.
<del></del>	BOTTOM CONNECTION, 45 OR 90 DEG.
	SIDE CONNECTION
<u> </u>	CAPPED OUTLET
<u>——</u> с—	RISE OR DROP IN PIPE
——  ——	UNION
<del></del>	STRAINER
Ę	THERMOMETER
<b>Q</b>	PRESSURE GAGE
	WATER FLOW MEASURING DEVICE
	EXISTING PIPE TO BE REMOVED



## **GENERAL NOTES**

- 1. 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
- 2. 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
- 3. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE AIR PASSAGE DIMENSIONS.
- 4. PROVIDE SPIN-IN FITTINGS AT ALL FLEXIBLE DUCT RUNOUTS TO DIFFUSERS WITH AIR EXTRACTOR AND DAMPER.
- 5. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0".
- 6. 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.
- 7. 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
- 8. ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
- 9. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND
- 10. CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
- 11. 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.
- 12. 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.
- 13. MOUNT ALL SPACE THERMOSTATS / HUMIDISTATS AND /OR SENSORS 4 FEET ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
- 14. 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.
- 15. 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.
- 16. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL AIR DEVICES LOCATED IN THE CEILING.
- 17. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT.
- 18. 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.
- 19. PROVIDE MOTORIZED DAMPERS IN ALL OUTSIDE AIR DUCTS.
- 20. PROVIDE DRAIN P-TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
- 21. 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.
- 22. 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.
- 23. 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.
- 24. 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.
- 25. 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.
- 26. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- 27. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- 28. PROVIDE BALANCING DAMPER IN EACH BRANCH CONNECTION.
- 29. 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.
- 30. 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.
- 31. CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.
- 32. PROVIDE AND INSTALL BURGLAR BARS ON ALL ROOF AND WALL PENETRATIONS AS PER THE DETAILS.
- 33. 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 LIGHTÈR THAN 24 GAUGE STEEL.

#### NOTE:

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6"ø

UNDERCUT (1" U.O.N.)

AIR DEVICE TYPE

4-WAY AIR FLOW

3-WAY AIR FLOW

2-WAY AIR FLOW

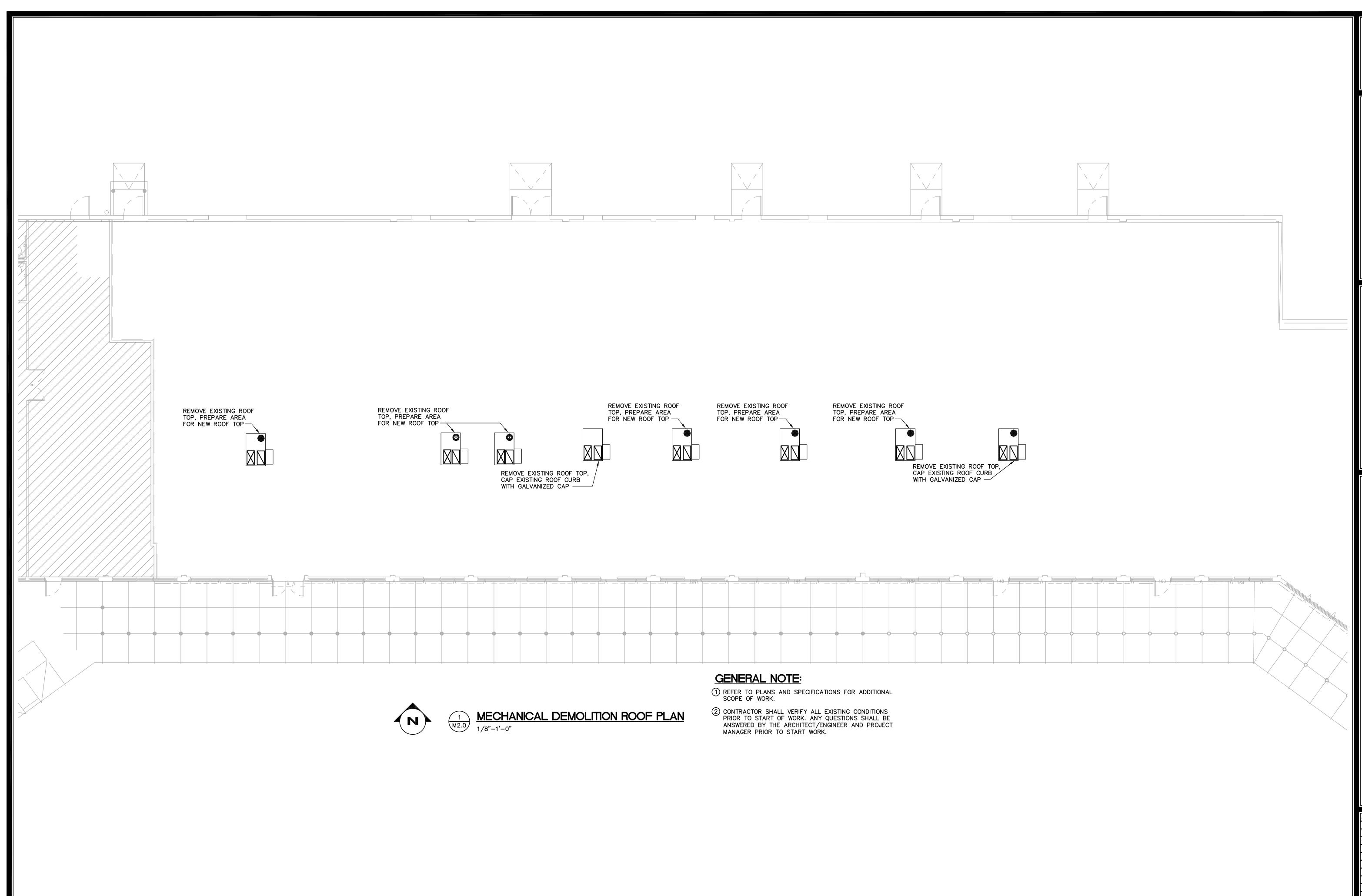
1-WAY AIR FLOW

AIR FLOW CFM

NECK SIZE

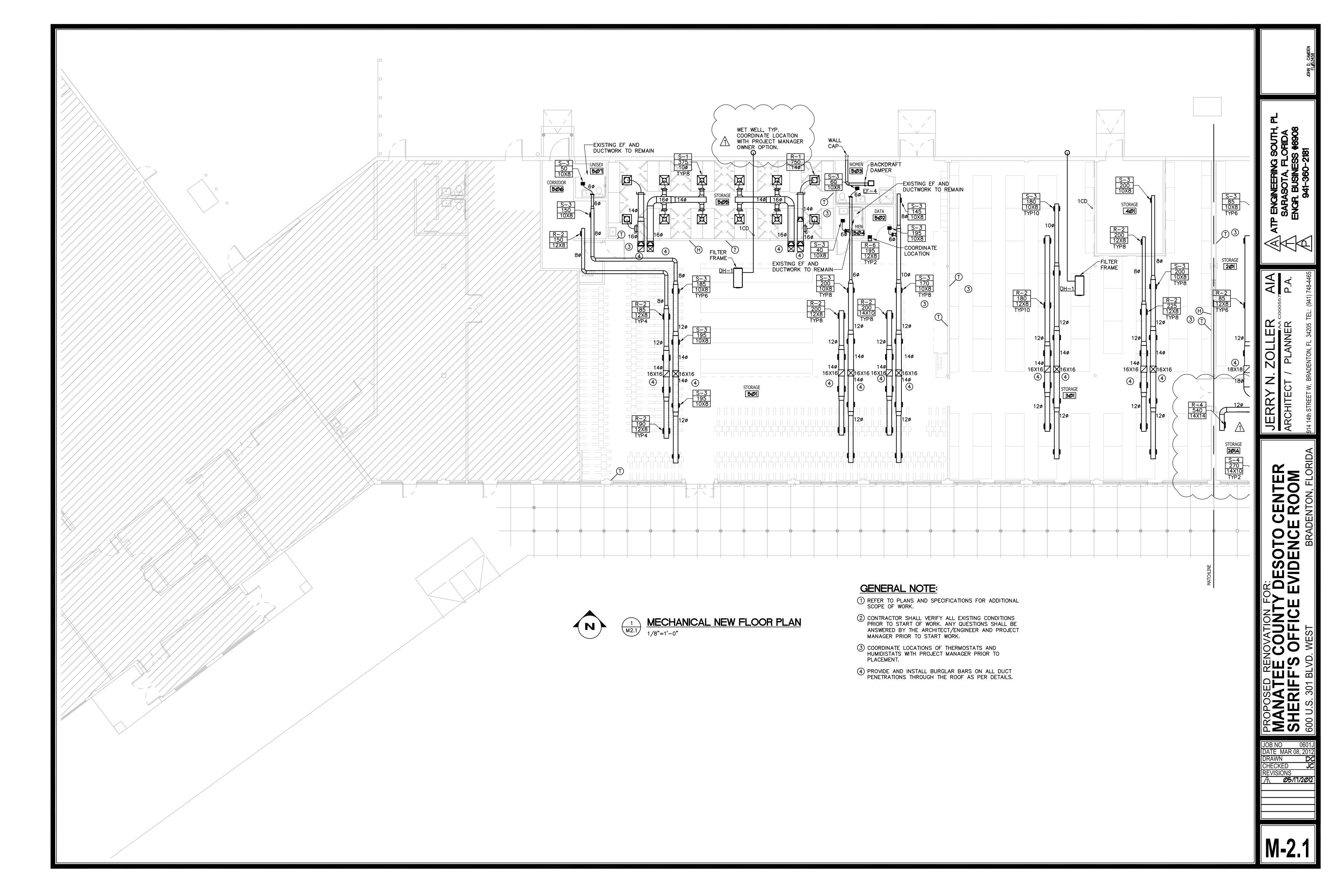
DOOR GRILLE (18"X12" U.O.N.)

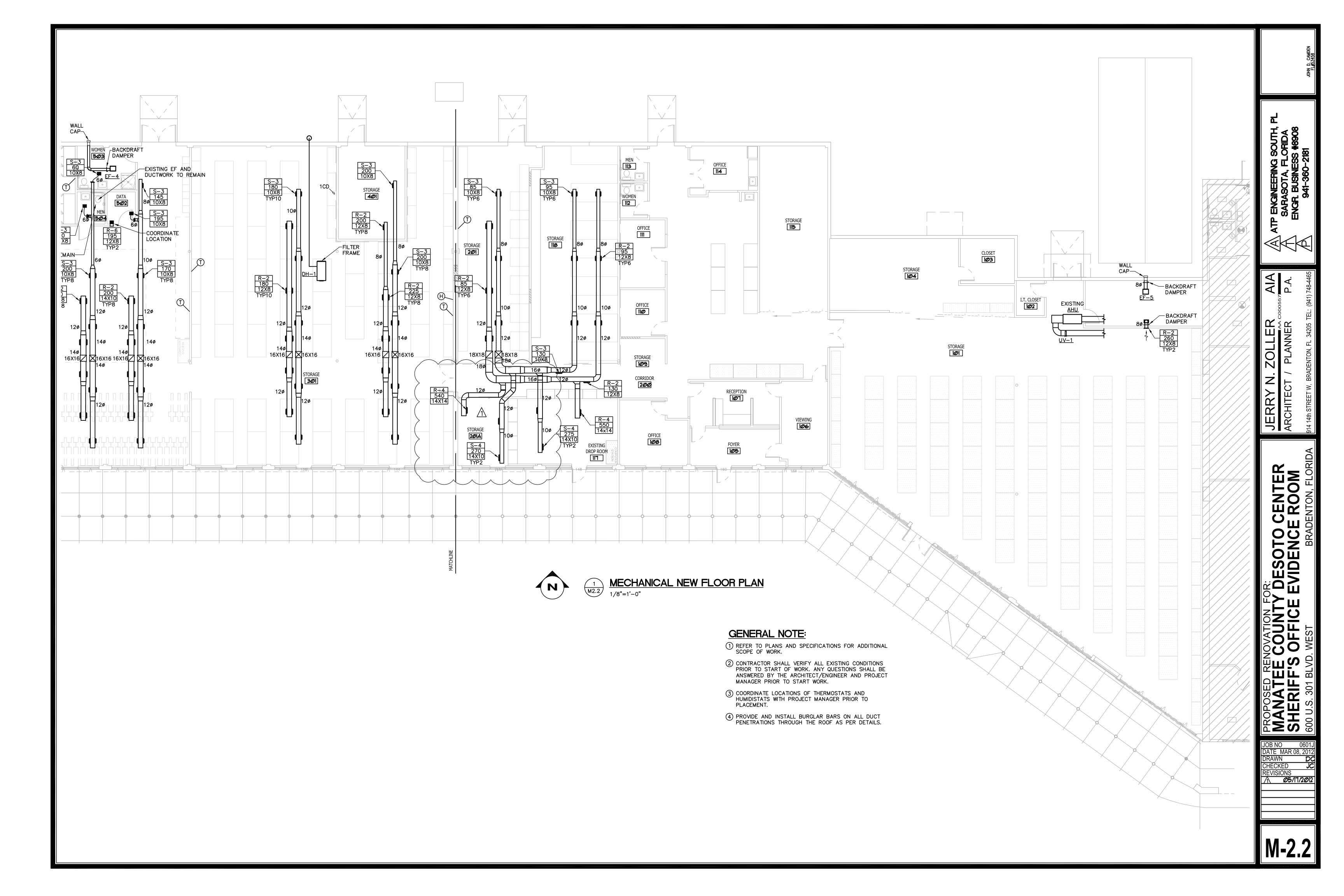
THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

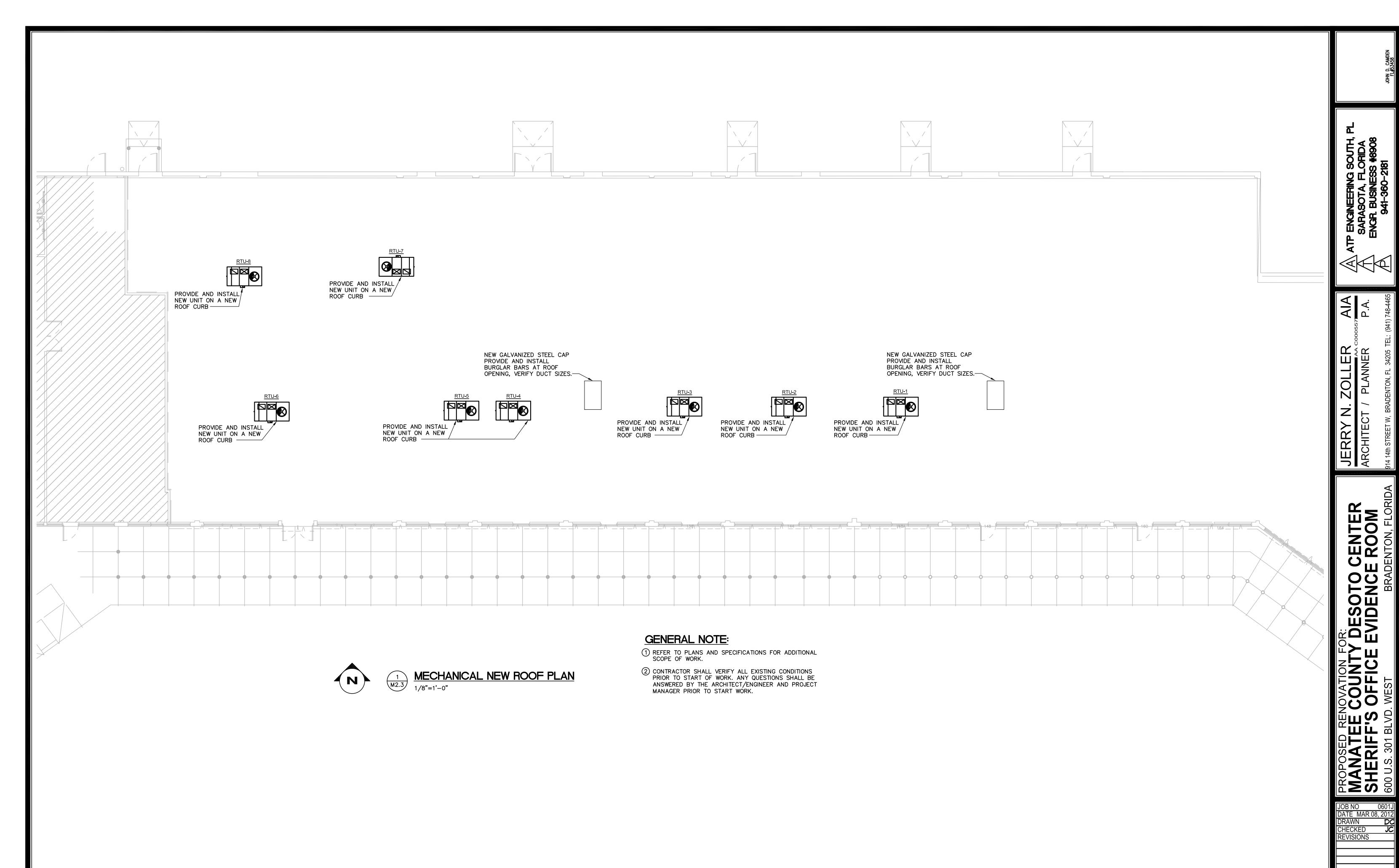


MANATEE COUNTY DESOTO CENTER SHERIFF'S OFFICE EVIDENCE ROOM BRADENTON, FLORIDA BRADENTON, FLORIDA

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RTU	$\rightarrow$						PAG	CKA	\GE	D F	${}^{2}$	PTC	P HVA	CI	UN	IT S	CH	<del> </del> E	DULI	Е(	ELE	ECT		) TV	VO	MAI	NUF	AC	T. SI	NWOH	FOR CO	DMP.BI	D.
TAG	AREA	NOMINAL	EVAF	ORATOR DA	ATA	REFRIGERANT				EVAPO	RATOR	COIL DATA	4			CONDEN	SER	С	OMPRESSO	OR		HEATI	NG DATA		FILTER	DATA	ELEC	TRICAL		AANU IE A OTU DED	MODEL	WEIGHT	DEMARKS
NO.	SERVED	TONS	CFM	EXT. S.P. IN. WG.	HP		E.D.B.	E.W.B. F	L.D.B. *F	L.W.B. F	TOTAL MBH	SENSIBLE MBH	COIL FACE RC	WS FII	NS/ A	AMBIENT TEMP *F	FAN HP	QTY.	STAGES	LRA	MBH OUTPUT	- KW	STAGES	TEMP. RISE	TYPE	EFF %	VOLTS	PHASE	HERTZ	IANUFACTURER	NO.	WEIGHT	REMARKS
1	118/201	5	2300	.5	1.0	r410a	76	65	58	57	61.17	40.70	7.71	1 ·	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	1 .	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	1 .	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
).TEO																															_		

- 2. 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.
- 3. 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.
- 4. COLOR OF UNIT SHALL BE AS SELECTED BY ARCHITECT. 5. ASSURE PROTECTION OF EXISTING ROOF WARRANTY STAYS IN AFFECT. COORDINATE WITH ARCHITECT.

RTI							PAG	CKA	AGE	D F	<b>ROC</b>	FTC	P HV	'AC	: UN	NT S	CHE	D	ULE	<b>E</b> (E	ELE	CT	RIC)	)									
TAG	AREA	NOMINAL	EVA	PORATOR D	ATA	REFRIGERANT	Г			EVAPO	DRATOR	COIL DATA	4			CONDEN	ISER	СОМР	PRESSOF	R	Н	IEATIN	G DATA		FILTER	DATA	ELEC	TRICAL			MODEL	MEIOLIT	DELLABIA
NO.	AREA SERVED	TONS	CFM	EXT. S.P. IN. WG.	HP	TYPE		E.W.B.	L.D.B. *F	L.W.B. *F	TOTAL MBH	SENSIBLE MBH	COIL FACE AREA	ROWS	FINS/ INCH	AMBIENT TEMP *F	FAN QT	Y. STA	AGES	LRA OI	MBH JTPUT	KW :	STAGES	TEMP. RISE	TYPE	EFF %	VOLTS	PHASE	HERTZ	MANUFACTURER	MODEL NO.	WEIGHT	REMARKS
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	sc	croll	123 5	54.25 1	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	sc	croll	120 4	10.62 1	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	sc	croll	120 4	10.62 1	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	sc	croll	95 1	13.46	4.2	2	20.9	2 "TA	8	208	3	60	York	ZR048	644	1-6

- 1. 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
- 2. 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. 3. 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.
- 4. COLOR OF UNIT SHALL BE AS SELECTED BY ARCHITECT. 5. ASSURE PROTECTION OF EXISTING ROOF WARRANTY STAYS IN AFFECT. COORDINATE WITH ARCHITECT AND PROJECT MANAGER.

<b>OD5</b>	<u> </u>										
SRE	<del>)</del>	GRILL	E, REC	GISTEF	R AND	DIFFL	JSER SC	CHEDU	_E		
TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS
S-1	4 WAY	10ø	24X24	TBAR	ALUM	WHITE	150-385	OBD	TITUS	PAS-AA	1,2,3,5
S-2	4 WAY	12ø	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	14ø	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	WHITE	0-285	OBD	TITUS	23RL	2,5

- NOTES:

  1. COORDINATE CEILING FRAMES WITH CEILING TYPE ON ARCHITECTURAL PLANS.

  AD INSTABLE FROM LINIT FRONT. VOLUME DAMPERS 2. OPPOSED BLADE DAMPER, ADJUSTABLE FROM UNIT FRONT. VOLUME DAMPERS ON ALL DROPS
- 3. REVIEW REFLECTED CEILING PLAN FROM ARCHITECTURAL PLANS, AND ELEVATIONS FOR FINAL LOCATIONS
- 4. SIDE WALL GRILLES AIR THROW PROJECTED AT 14-18 FEET MEDIAN RANGE- 22.5 DEGREES. 5. PROVIDE AND INSTALL INSULATED RECTANGULAR TO ROUND TRANSITION BOX FOR GRILLE.

<b>U</b> ∇							Į	JLTRAVIOL	_ET UNIT	SCHEDU	JLE						
				нс	DUSING DIM. (I	N.)					UNIT						
MARK (UV)	SERVES	CFM	TYPE ACCESS		LENGTH	DIAMETER	PERCENT EFF				UNIT VOLTAGE		FILTER		MANUFACTURER	MODEL	REMARKS
					LENGTH	DIAMETER	EFF					NO.	WIDTH	HEIGHT			
UV-1	STORAGE	3-1200	SIDE		12	4	99.9%				12-24VDC				 GUARDIAN	RGF-PHI	1,2

- NOTES:

  1. UNIT IS SUPPLIED AND INSTALLED BY OTHERS COUNTY MAINTENANCE, UNIT IS UL LISTED. VERIFY EXISTING SUPPLY DUCT
- 2. 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	мвн	12.0								
TOTAL REHEATING CAPACITY	мвн	15.5								
MANUFACTURER		AIR ENERGY								
MODEL NO.		DVA400HSC								
NOTES:  1. UNIT SUPPLIED WITH VIBRATION ISOL	_ATION, MERV 11	I −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°FWB, 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 CUT 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 $3 \text{ WC } \times 50 = 150 \text{ CFM}$ 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

	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
OTAL 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
OTAL 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

HVAC LOAD CALCULATIONS SUMMARY

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:
1. PROVIDE FAN WITH BACKDRAFT DAMPER, WALL CAP STYLE OUTLET, MOTION SENSOR, TIMER, AND VIBRATION ISOLATION, AND CEILING GRILLE, UNIT DISCONNECT, FLEXIBLE

CONNECTION, STEEL FAN. 2. PROVIDE FAN WITH BACKDRAFT DAMPER, WALL CAP STYLE OUTLET, 10,30,60 MINUTE TIMER WITH PUSH BUTTON, VIBRATION ISOLATION, CEILING GRILLE, UNIT

DISCONNECT, FLEXIBLE CONNCETION, STEEL FAN.

OB NO 060 DATE MAR 08, 2 5/17/2012

RELIEF (2) RETURN FILTER, TYP.-T) ROOM TEMPERATURE FAN SEQUENCE OF OPERATION FOR EACH CONSTANT VOLUME ROOFTOP UNIT, THE DX EXPANSION VALVE AND REFRIGERANT SYSTEM SHALL OPERATE TO

MAINTAIN THE COOLING ROOM TEMPERATURE SETPOINT. PROVIDE A SPACE TEMPERATURE INPUT TO THE DDC. MAINTAIN THE SPACE COOLING TEMPERATURE SET POINT (75°F). PROVIDE A THERMOSTAT.

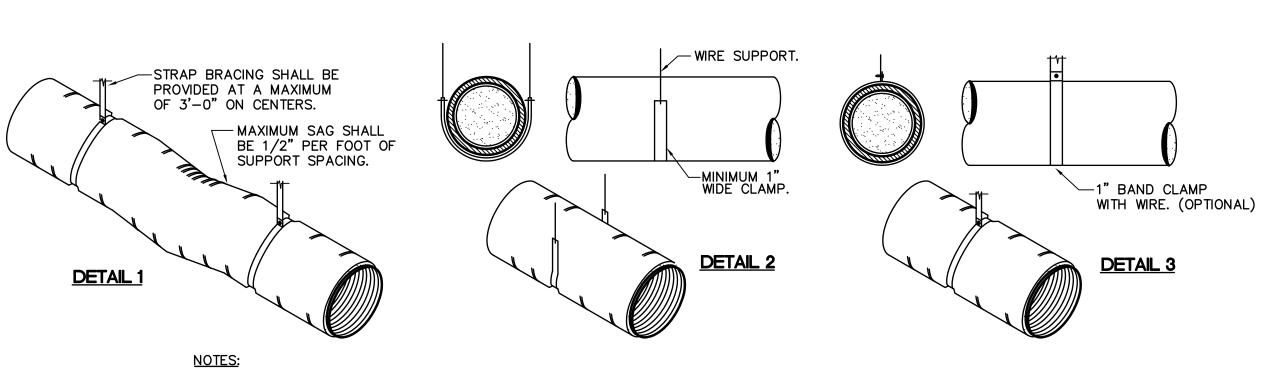
UPON A DROP IN THE ROOM SPACE TEMPERATURE BELOW THE HEATING SET POINT (70°F SOFTWARE ADJUSTABLE) THE ELECTRIC HEATING SHALL BE ENERGIZED AND STAGED TO MAINTAIN THE ROOM HEATING SET POINT ± .5°F.

THE UNIT OUTSIDE AIR DAMPER SHALL OPEN WHEN THE UNIT IS ON TO A PRESET VOLUME, THE DAMPER SHALL CLOSE WHEN THE UNIT IS OFF.

EC SHALL SUPPLY SMOKE DETECTOR SHUTDOWN FOR SUPPLY DUCT OFF OF UNIT IF UNIT AIRFLOW IS GREATER THAN 2000

TYPICAL CONSTANT VOLUME ROOF TOP UNIT

THE UNIT'S FAN SHALL OPERATE AS PER THE USER PROGRAMMABLE SCHEDULE.



ROOF TOP A/C UNIT DETAIL

ROOFTOP A/C UNIT

-FACTORY WELDED

- ROOFING

ROOF CURB

- FLASHING

—— RETURN DUCT

SMOKE DETECTOR

(TYP. FOR SUPPLY)

REFER TO FIRE ALARM

REFER TO MFR WIND CERTIFIED DETAILS,

MIN.

SPIN-IN FITTING WITH SCOOP & DAMPER

SUPPLY DUCT

ROUND RIGID DUCT

NOT TO SCALE

SEE ARCHITECT'S PLANS FOR RE-ROOF INSTALLATION

FIBERGLASS OR FOAM INSULATION

BELOW ENTIRE UNIT IN CURB SPACE-

VERIFY CEILING WITH

ARCHITECT'S PLANS

6" THICK ACOUSTICAL

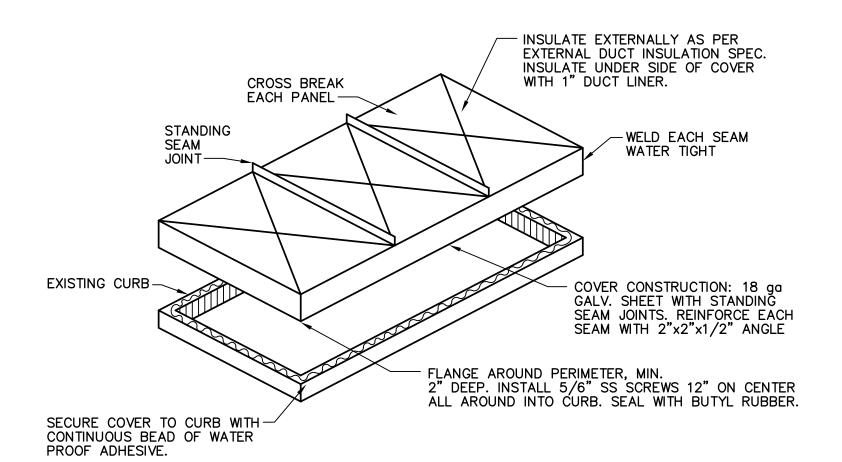
ROOF DECK-

FLEX DUCT-

- 1. METALLIC FLEXIBLE DUCTWORK SHALL BE ATTACHED USING A MINIMUM OF THREE (3) #8 SHEET METAL SCREWS EQUALLY SPACED AROUND THE DUCTWORK CIRCUMFERENCE. DUCTWORK LARGER THAN 12" SHALL HAVE A MINIMUM OF FIVE (5) #8
- SHEET METAL SCREWS. SCREWS SHALL BE LOCATED AT LEAST 1/2" FROM THE DUCTWORK END. 2. NONMETALLIC FLEXIBLE DUCTWORK SHALL BE SECURED TO THE SLEEVE OR COLLAR USING A DRAW BAND. IF THE DUCTWORK COLLAR EXCEEDS 12", THE DRAW BAND MUST BE POSITIONED BEHIND A BEAD ON THE METAL COLLAR. 3. INSULATION AND VAPOR BARRIERS PRESENT ON FACTORY-FABRICATED DUCTWORK SHALL BE FITTED OVER THE CORE
- CONNECTION AND SHALL BE SUPPLEMENTARY SECURED WITH A DRAW BAND. 4. FLEXIBLE DUCTWORK SEALING SHALL BE A CLASS "B" SEAL FOR LOW PRESSURE DUCTWORK.

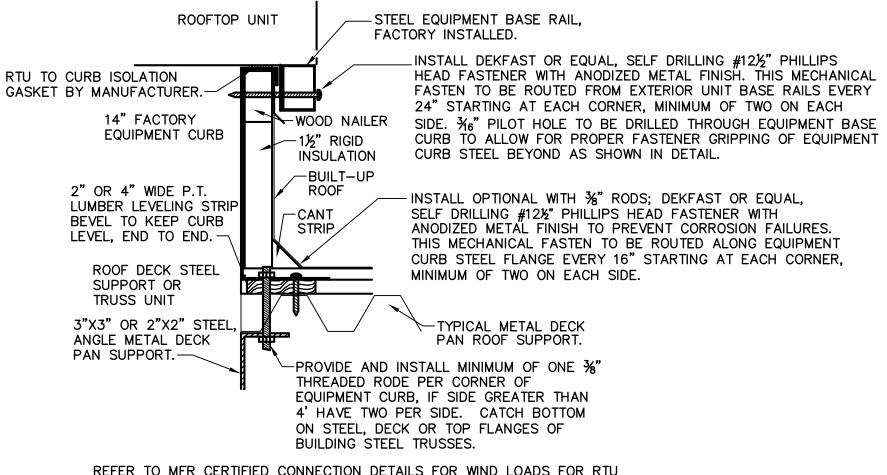
5. SUPPORT SYSTEM SHALL NOT DAMAGE OR CAUSE OUT-OF-ROUND SHAPE.

#### INSULATED FLEXIBLE DUCTWORK DETAIL NOT TO SCALE



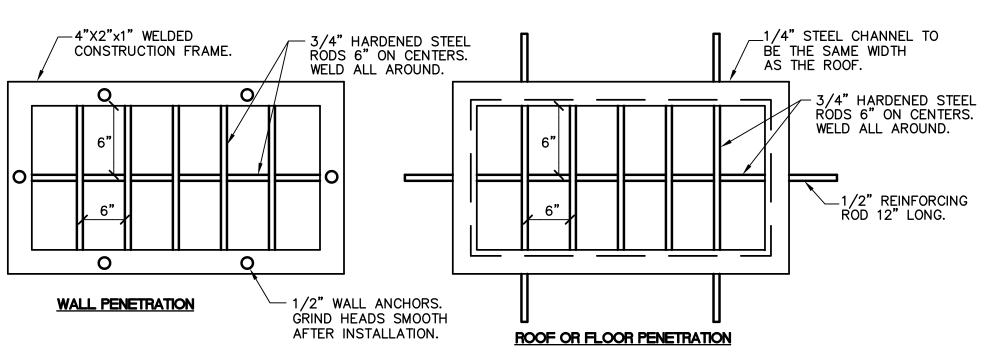
REFER TO SECURITY DUCT PENETRATION DETAIL FOR BURGLAR BARS INSTALLATION ON ALL EXISTING OLD UNREUSED ROOF OPENINGS.

CAP FOR ABANDONED ROOF CURB DETAIL NOT TO SCALE

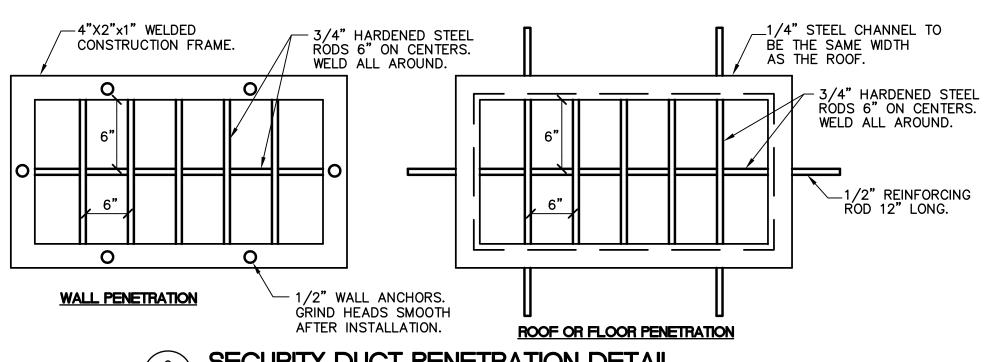


REFER TO MFR CERTIFIED CONNECTION DETAILS FOR WIND LOADS FOR RTU



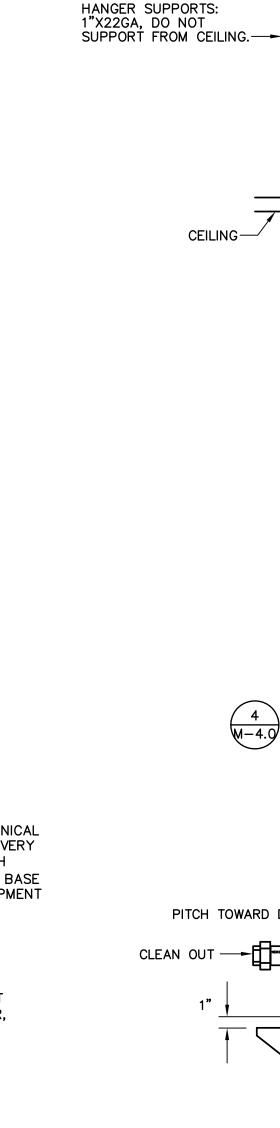


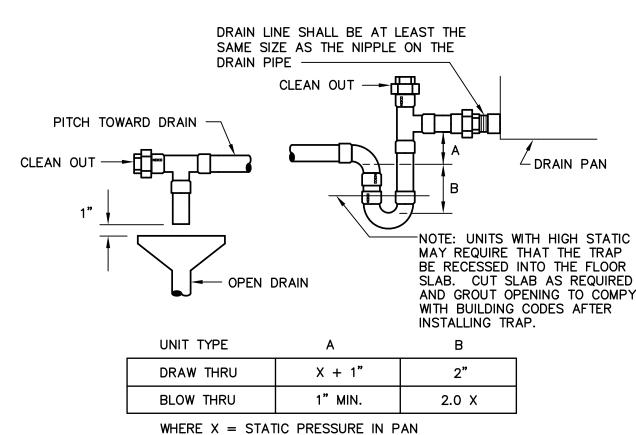
SECURITY DUCT PENETRATION DETAIL NOT TO SCALE



1. DEPTH OF DRY WELL TO SUIT INVERT ELEVATION OF DRAIN PIPE. PROVIDE FOOTERS AS REQUIRED TO PREVENT DRY WELL FROM SINKING.







--INTEGRAL BACKDRAFT

- VARIABLE SPEED CONTROLLER
MARK WITH THE "AS BALANCED
POSITION" (DIRECT DRIVE UNITS)

- DISCONNECT SWITCH: FURNISHED

BY MECHANICAL CONTRACTOR OR

FAN MANUFACTURER

DAMPER

CEILING FAN DETAIL

-DOUBLE WALI

GRILLES CAN BE CUT INTO ROUND

EXPOSED ROUND DUCT DETAIL

DUCT IF TYPE IS APPROVED BY MFR FOR ROUND INSTALLATION IE: S300FL TITUS

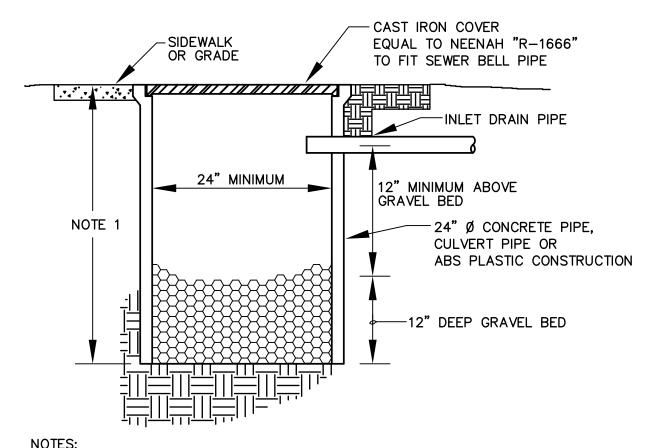
NOT TO SCALE
PROVIDE AND INSTALL BURGLAR BARS ON ALL EXHAUST
OPENINGS ABOVE 100 SQUARE INCHES.

FAN

M - 4.0

NOT TO SCALE





JAI

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. RELATED WORK SPECIFIED ELSEWHERE and Addendums are part of this specification. Should any questions or conflicts arise,

All Bidding Documents, including Contract Conditions, Instructions to Bidders, Supplements, 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

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 Inspections, 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

ACCESS TO EQUIPMENT

NFPA Pamphlets

Florida Trench Act

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

8. COORDINATION

The Drawings show the general arrangement of the work, piping, equipment, and appurtenances. Follow the Drawings as closely as possible but make necessary offsets, ransitions, 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.

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 contactor 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.

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V 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

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 acceptance 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 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 workmanship like 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.

All work shall comply with the US Department Of Labor — Occupational Safety and Health Administration, entitles 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 and 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, ½" above floor on topside. 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 Transming dissertibiles.

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

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 bearings, conduit connection boxes, cast iron yoke, integral supporting feet, grease lubricated bearings, accessible grease inlet and outlet plug and inner bearing dust

Voltage: Motors ½ HP and larger shall be the voltage and phase shown on the plans. Motors smaller than ½ 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.

type, lever operated, memory stop, 125 psig.

Control Johnson, Penn, Delta, Belimo, Fischer, Fisher

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 pipe or conduit will be allowed only if the Architect approves. Install hangers so as not to interfere with expansion and contraction of the piping. Space hanger installations in accordance with MSS SP-69 and the Florida Buildina

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. Cut 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

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 ½" 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 ½" 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 deading 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 jackets. 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.

Cover and insulate all valve extensions. 34. PLUMBING PIPING AND SPECIALTIES

flashing assemblies.

Use a semicircular shield at all piping hangers and supports.

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: CISPI 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.

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.

PVC Plastic DWV Pipe: ASTM D 2665, Schedule 40, plain ends.

PVC Plastic Water Pipe: ASTM D 1785; Schedules 40, 80, and 120; plain ends.

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 Owner. 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

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 Fittinas 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. - (Teco 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.

EVISIONS

**₹**₩

## ABBREVIATIONS, LEGENDS AND GENERAL NOTES

## **ABBREVIATIONS**

ABOVE FINISHED FLOOR ANALOG INPUT ANALOG OUTPUT ACCESS PANEL BELOW FINISHED FLOOR BRAKE HORSE POWER BOTTOM CO CLEANOUT CW COLD WATER DIGITAL INPUT DN DIGITAL OUTPUT EXPANSION TANK ELEVATION EQUIP EQUIPMENT ELECTRIC WATER COOLER EWC EWT ENTERING WATER TEMPERATURE **EXIST EXISTING** FD FLOOR DRAIN FLOOR 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 HOT WATER HW HOT WATER RETURN HWR HWS HOT WATER SUPPLY KW KILOWATT MAX MAXIMUM MIN MINIMUM PDPRESSURE DROP **PRESS** PRESSURE ROOF DRAIN RAIN LEADER SANITARY TYPICAL UNDERCUT UNDERGROUND UON UNLESS OTHERWISE NOTED VAC

VACUUM

WASTE

VENT THRU ROOF

WALL CLEANOUT

VTR

WCO

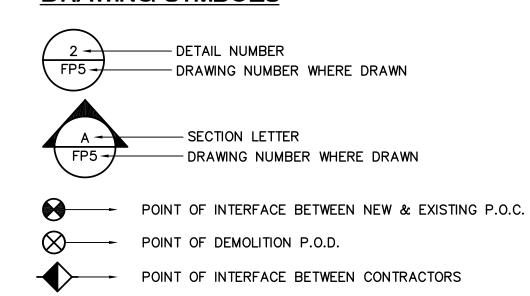
#### SYMBOLS

VALVE - SEE SPECIFICATIONS FOR TYPE,  $\longrightarrow \bigvee \longrightarrow$ GATE VALVE WHEN NOT SPECIFIED. **─────** GATE VALVE **─**₩— PRESSURE REDUCING VALVE OS&Y VALVE -N-CHECK VALVE BACK WATER VALVE BACK FLOW PREVENTER BUTTERFLY VALVE BALL VALVE GAS COCK STRAINER EXPANSION JOINT GRADE CLEANOUT IN-LINE CONCENTRIC REDUCER **─** ECENTRIC 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 ——₩E  $---\infty$ **─** HOSE BIBB W/ VACUUM BREAKER WALL HYDRANT W/ VACUUM BREAKER FLOOR DRAIN

## 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 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

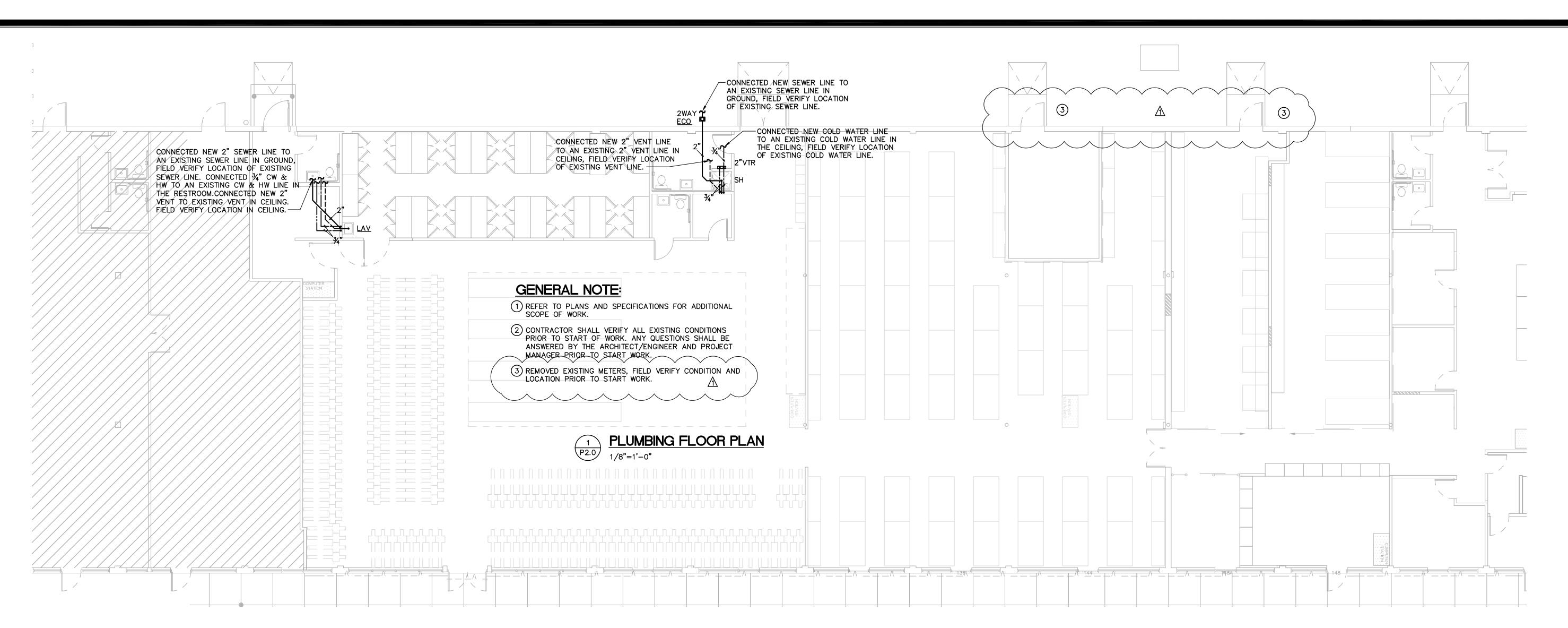


ROOF DRAIN

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

#### **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
- 2. ALL PLUMBING WORK SHALL BE DESIGNED, INSTALLED, TESTED, AND CLEANED IN ACCORDANCE WITH FLORIDA PLUMBING CODE REQUIREMENTS.
- 3. 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.
- 4. MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- 5. WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. PANELS SHALL MATCH EXISTING.
- 6. 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.
- 7. 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.
- 8. PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING UTILITIES IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- 9. EXACT LOCATION NUMBER AND TYPE OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS. VERIFY SUCH LOCATIONS BEFORE PROCEEDING ROUGH-IN.
- 10. INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE ARCHITECT.
- 11. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
- 12. FIELD VERIFY ALL EXISTING PIPE SIZES PRIOR TO INSTALLATION.
- 13. NO VENT THRU ROOF SHALL TERMINATE CLOSER THAN 10 FT. TO ANY OUTSIDE AIR INTAKE.
- 14. ALL SANITARY AND WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 18" BELOW GRADE OR FINISHED FLOOR UNLESS NOTED OTHERWISE.
- 15. PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
- 16. 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.
- 17. 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.
- 18. 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.
- 19. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- 20. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID
- 21. CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.



	PLUMBING FIXTURE SCHEDULE									
lacksquare		COMPONENTS	FIXTURE		FIXTURE RUNOUT SIZE					
MARK	DESCRIPTION	PROVIDED BY P.C.	BASIC FIXTURE	TRIM AND ACCESSORIES	DRAIN WASTE	VENT	C.W.	H.W.	OTHER	REMARKS
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: CONCEALED FL. MTD. WATTS TCA411 CW & HW SHUTOFF VALVES @ WALL. PROVIDE .5 GPM ROSETTE SPRAY WITH FAUCET	1¼"	1½"	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		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.	WITH ALL TRIM	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: AMERIICAN 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 BAR1.5 GPM		1½"	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	"HYDROTROL" MODEL# 5005-5020.	A ¾ 1-11 100 75 B 1" 12-32 200 75	SAM J. 001 002 003	R. SMITI 5005 5010 5020	H.			SIZES TO MATCH MAINS. INSTALL PER MANUFATURER'S RECOMMENDATIONS. SEE WATER DISTRIBUTION DIAGRAM FOR LOCATION.

SCHEDULES NOTES:

1. 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.

2. ALL ADA FIXTURES (LAVS) SHALL HAVE PROVIDED PLUMBEREX PTRAP COVERS AND VALVE SUPPLY COVERS.

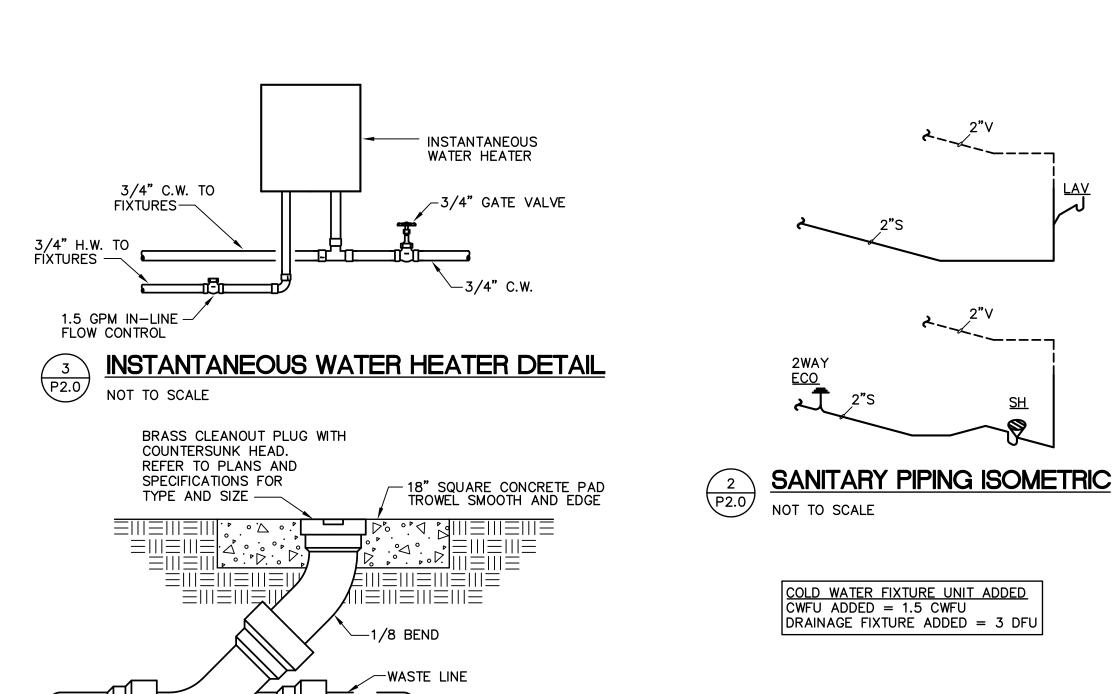
3. PROVIDE DIELECTRIC COUPLINGS ON ALL COPPER TO STEEL, COPPER TO CAST IORN FITTINGS.

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

NOTES 1. T & P RELIEF VALVE, COMMERCIAL INSTANTANEOUS WATER HEATER WITH BOX, UNIT CONTROL PANEL INTEGRAL.

2. WALL BRACKET, EXTERIOR CABINET, STAINLESS STEEL FLEX FOR WATER CONNECTIONS. PROVIDE BALL VALVES ON WATER.

3. SET AT 105 DEGREES F FOR SHOWER AND SINKS, PROVIDE FLOW RESTRICTOR FOR LAV FAUCETS AND SHOWER.
4. UNIT— PROVIDE PROGRAMMABLE TIME CLOCK, AND THERMOSTAT WITH UNIT FOR OPERATIONAL ENERGY SAVINGS.



-1/8 BEND IF CLEANOUT OCCURS AT END OF LINE

EXTERIOR CLEANOUT DETAIL

P2.0

NOT TO SCALE

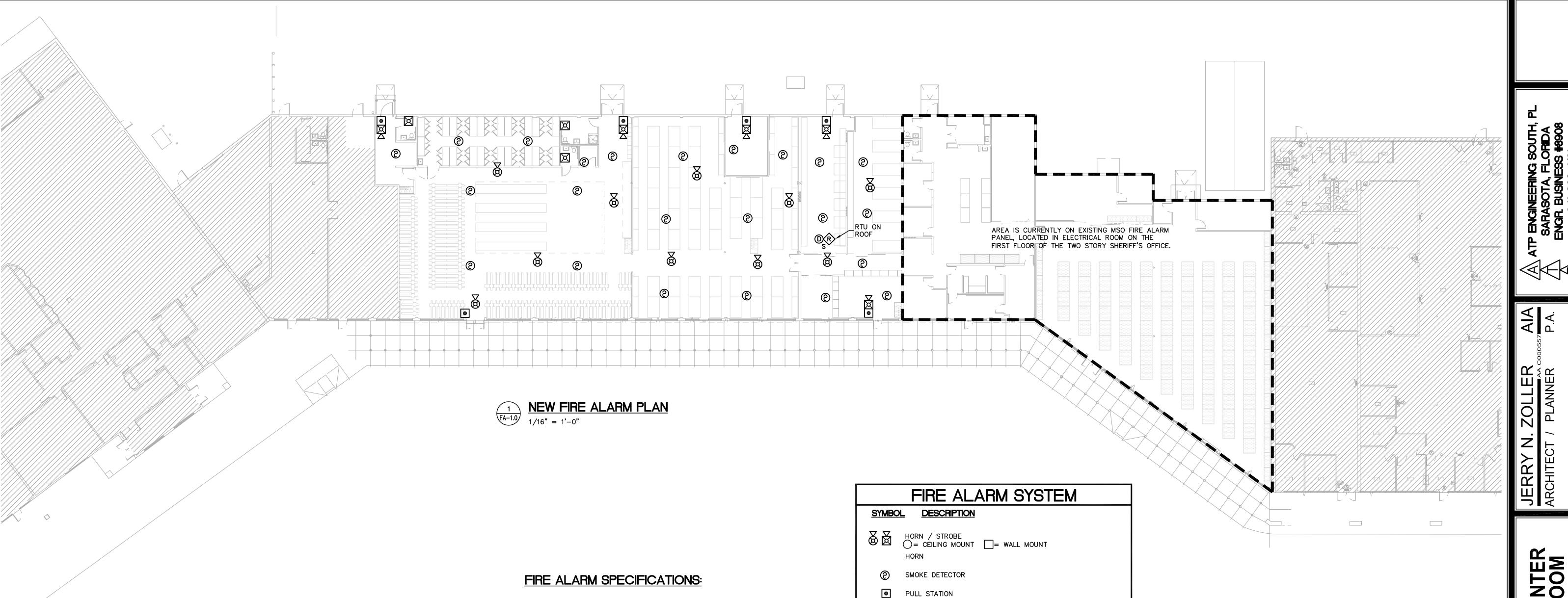
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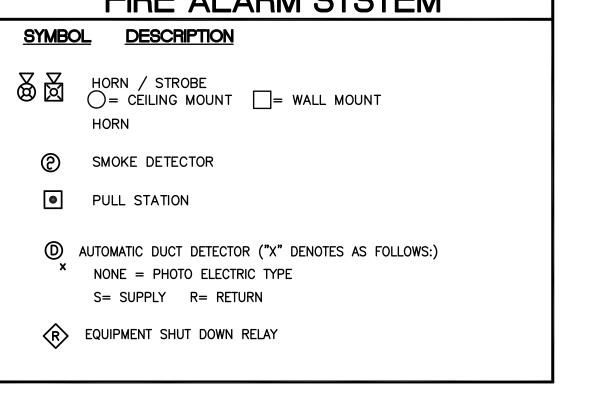
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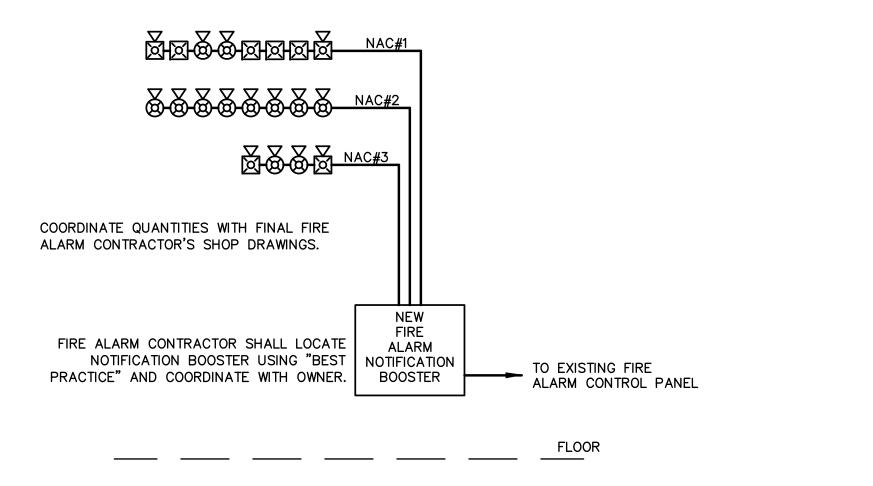


## GENERAL NOTES (APPLY TO ALL DRAWINGS):

- 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.

- 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
- 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
- 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 MANUFACTURES SYSTEM.
- 17. ALL SYSTEM TESTING AND REVIEW SHALL INCLUDE THE CEDAR HAMMOCK FIRE DEPARTMENT.
- 18. PROVIDE SUBMITTALS TO THE CEDAR HAMMOCK FIRE DEPARTMENT.





ADDITION TO EXISTING ADDRESSABLE FIRE ALARM SYSTEM NOT TO SCALE

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## ABBREVIATIONS, LEGENDS AND GENERAL NOTES

#### **ABBREVIATIONS**

ACCESS DOOR ABOVE FINISHED FLOOR ACCESS PANEL BFF BELOW FINISHED FLOOR BOT BOTTOM CEILING CLG CLEANOUT CO COLD WATER DUCTILE IRON PIPE CW ELEVATION **EQUIPMENT EQUIP** EXISTING **EXIST** FIRE SERVICE FLOOR DRAIN FD FIRE DEPARTMENT FDC CONNECTIONS FDV FIRE DEPARTMENT VALVE FΗ FIRE HYDRANT FIRE STANDPIPE RISER FSP HOSE BIBB OS&Y OUTSIDE SCREW & YOKE SPK SPRINKLER TYP TYPICAL UG UNDERGROUND

UNLESS OTHERWISE NOTED

WITH TAMPER SWITCH

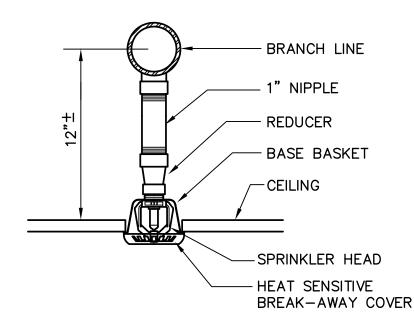
### FIRE PROTECTION SYSTEM SERVES

UON

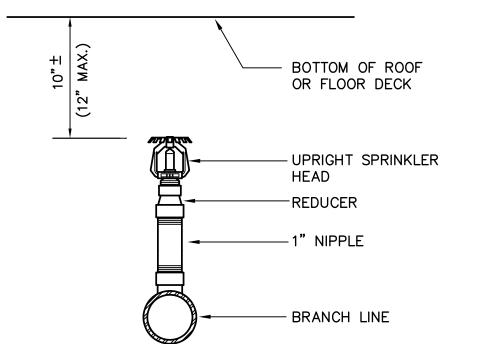
REQUIRED PRESSURE - 49.8 PSI

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 QR 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" ORFICE = 630 GPM DEMAND FLOW - 280 GPM + 250 HOSE STREAM = 530 GPM



#### RECESSED PENDENT SPRINKLER HEAD NOT TO SCALE



## UPRIGHT SPRINKLER HEAD DETAIL

#### FIRE PROTECTION

------|------

TURN COLLAR UNTIL TIGHT

3/4" ADJUSTMENT

AGAINST SPRINKLER

NOT TO SCALE

WRENCH BOSS ---

RISE OR DROP IN PIPE

UNION

STRAINER

GATE VALVE

GLOBE VALVE

CHECK VALVE

**BUTTERFLY VALVE** 

ANGLE GLOBE VALVE

OUTSIDE SCREW & YOKE (O S & Y)

2 1/4" HOLE DIA. ———

|**-** 1 15/16" DIA. --

— 2 7/8" DIA. –

**RECESSED** 

WHITE SPRINKLER, AND ESCUTCHEON MATCHING EXISTING

DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

SPRINKLER HEAD PENETRATION DETAIL

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

VERIFY ALL CEILING LOCATIONS, AND SURFACES WITH ARCHITECTURAL PLANS.

THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS: HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT

BALL VALVE

ORIFICE UNION

PRESSURE GAGE

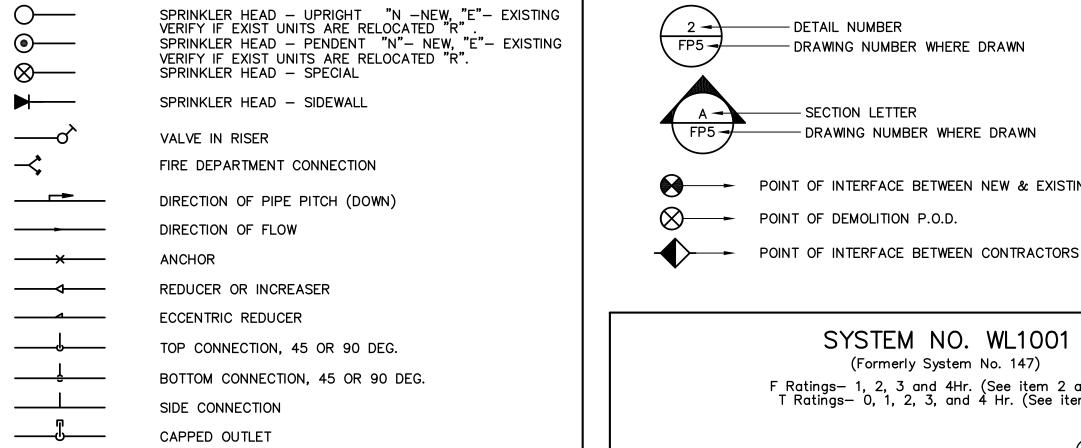
EXISTING PIPE TO BE REMOVED

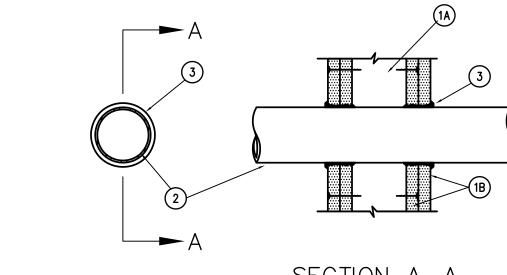
GATE VALVE W/ ADAPTER TO 3/4" HOSE THREAD

REDUCÉR OR HEX

1/2"-1/4"

1/8"\_\_\_\_1/2-1-3/4"





. 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

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

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.

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

AND W/ A MIN. 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR 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 TABULATED BELOW:

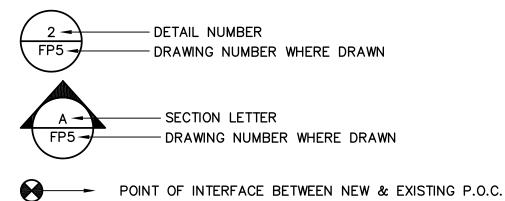
MAX. PIPE OR CONDUIT DIAM. in.	ANNULAR SPACE	F RATING	T RATING
1 in. 1 in. 4 in. 6 in. 12 in.	0 to 3/16 in. 1/4 to 1/2 0 to 1 1/2 1/4 to 1/2 3/16 to 3/8	1 or 2 3 or 4 1 or 2 3 or 4 1 or 2	0+, 1 or 2 3 or 4 0 0

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

\*BEARING THE UL CLASSIFICATION MARKING

#### **UL PENETRATION DETAILS**

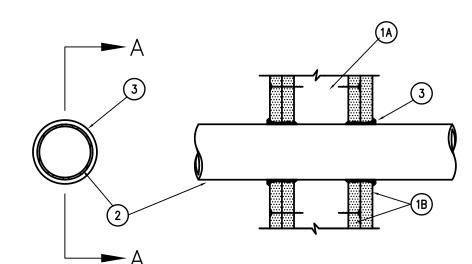
## DRAWING SYMBOLS



POINT OF DEMOLITION P.O.D.

SYSTEM NO. WL1001

(Formerly System No. 147) F Ratings— 1, 2, 3 and 4Hr. (See item 2 and 3) T Ratings— 0, 1, 2, 3, and 4 Hr. (See item 3)



#### SECTION A-A

# FEATURES:

# SPACED MAX. 24 IN. OC.

3. FILL, VOID OR CAVITY MATERIAL\* — CAULK — CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS

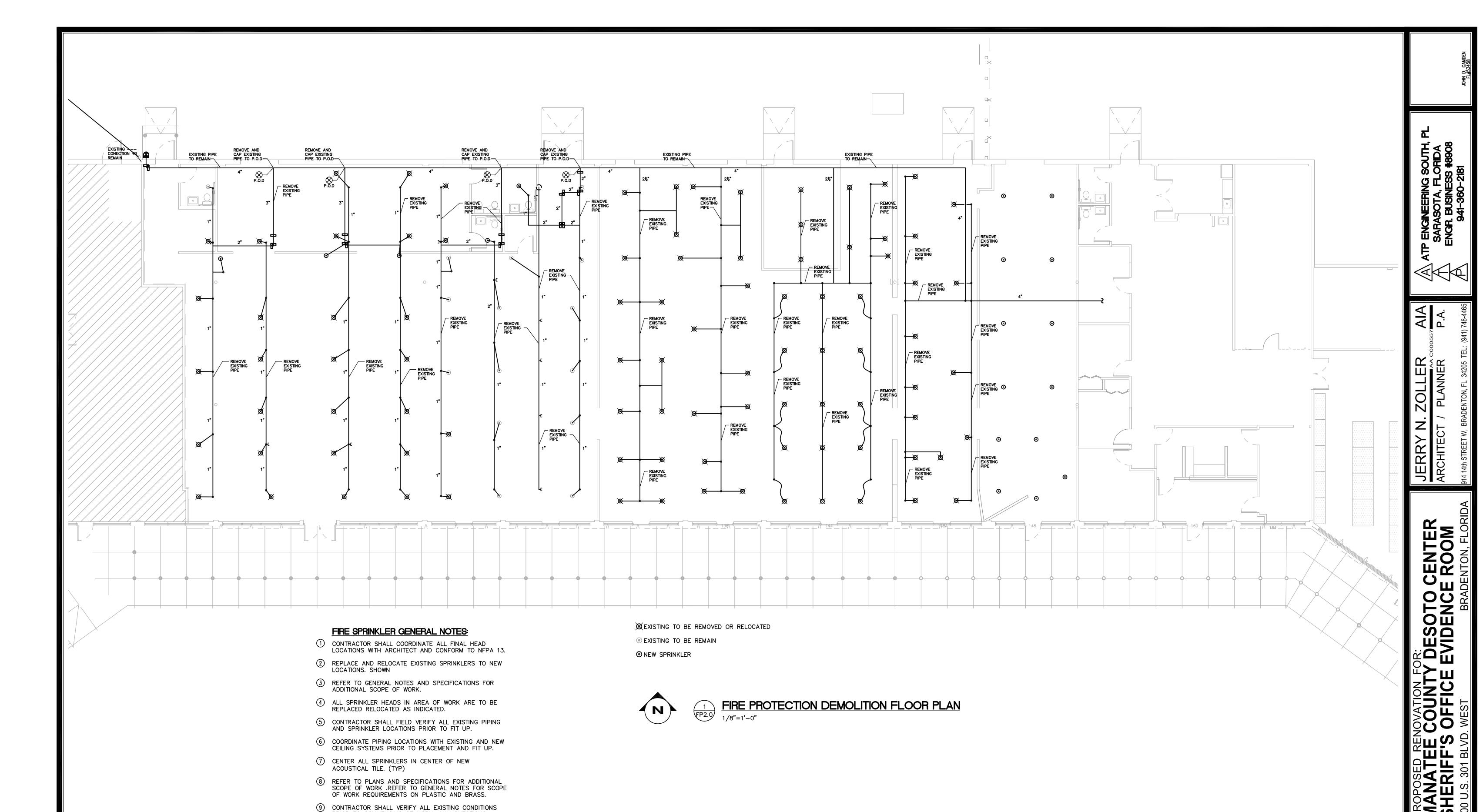
MAX. PIPE OR CONDUIT DIAM. in.	ANNULAR SPACE	F RATING	T RATING
1 in. 1 in. 4 in. 6 in.	0 to 3/16 in. 1/4 to 1/2 0 to 1 1/2 1/4 to 1/2	1 or 2 3 or 4 1 or 2 3 or 4	0+, 1 or 2 3 or 4 0 0
12 in	3/16 to 3/8	1 or 2	Λ

## +WHEN COPPER PIPE IS USED, T RATING IS O H.

CP-25 WB, CP-25 WB+

#### **GENERAL NOTES**

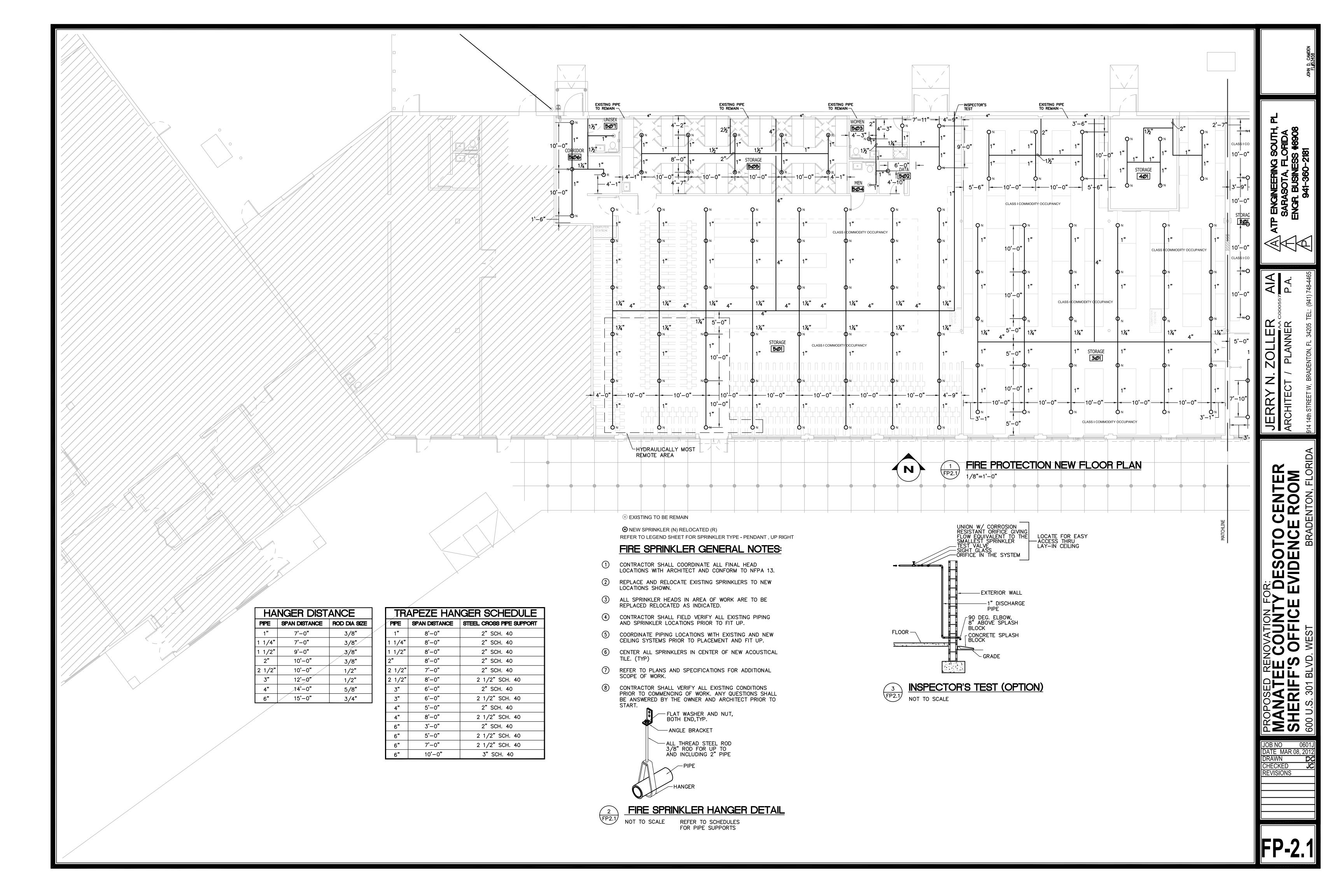
- 1. FIRE PROTECTION WORK SHALL BE DESIGNED, INSTALLED, AND TESTED IN ACCORDANCE WITH NFPA 13 NFPA 14 AND 25 LATEST EDITION OR AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- 2. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS 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.
- 4. 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.
- 6. 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.
- 8. 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.
- 9. CONTRACTOR SHALL ARRANGE FOR, OBTAIN AND BEAR THE COST OF NECESSARY PERMITS, BONDS, AND FEES.
- 10. ALL MATERIALS SHALL BE U.L. LISTED AND BEAR THE U.L. LABEL.
- 11. 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.
- 12. 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.
- 13. 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.
- 14. WHERE ELECTRICAL PANELS EXIST, PROVIDE DEFLECTORS ON ELECTRICAL EQUIPMENT TO PREVENT WETTING PANELS. SPRINKLER PIPING SHALL NOT BE INSTALLED DIRECTLY ABOVE ELECTRIC PANELS.
- 15. 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.
- 16. 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.
- 17. PROVIDE AND MAINTAIN TEMPORARY CONNECTIONS TO KEEP EXISTING FIRE PROTECTION SYSTEM IN SERVICE. ANY SHUT DOWNS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE.
- 18. NEW SPRINKLER HEADS IN RENOVATION AREA SHALL MATCH EXISTING TYPE SPRINKLER HEADS.
- 19. 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.
- 20. 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.
- 21. 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.
- 22. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- 23. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- 24. CONTRACTOR SHALL PROVIDE TO LOCAL AHJ OR PERMITTING AGENCY A COPY OF ALL MAJOR EQUIPMENT CUTS SHEETS AT TIME OF APPLICATION.

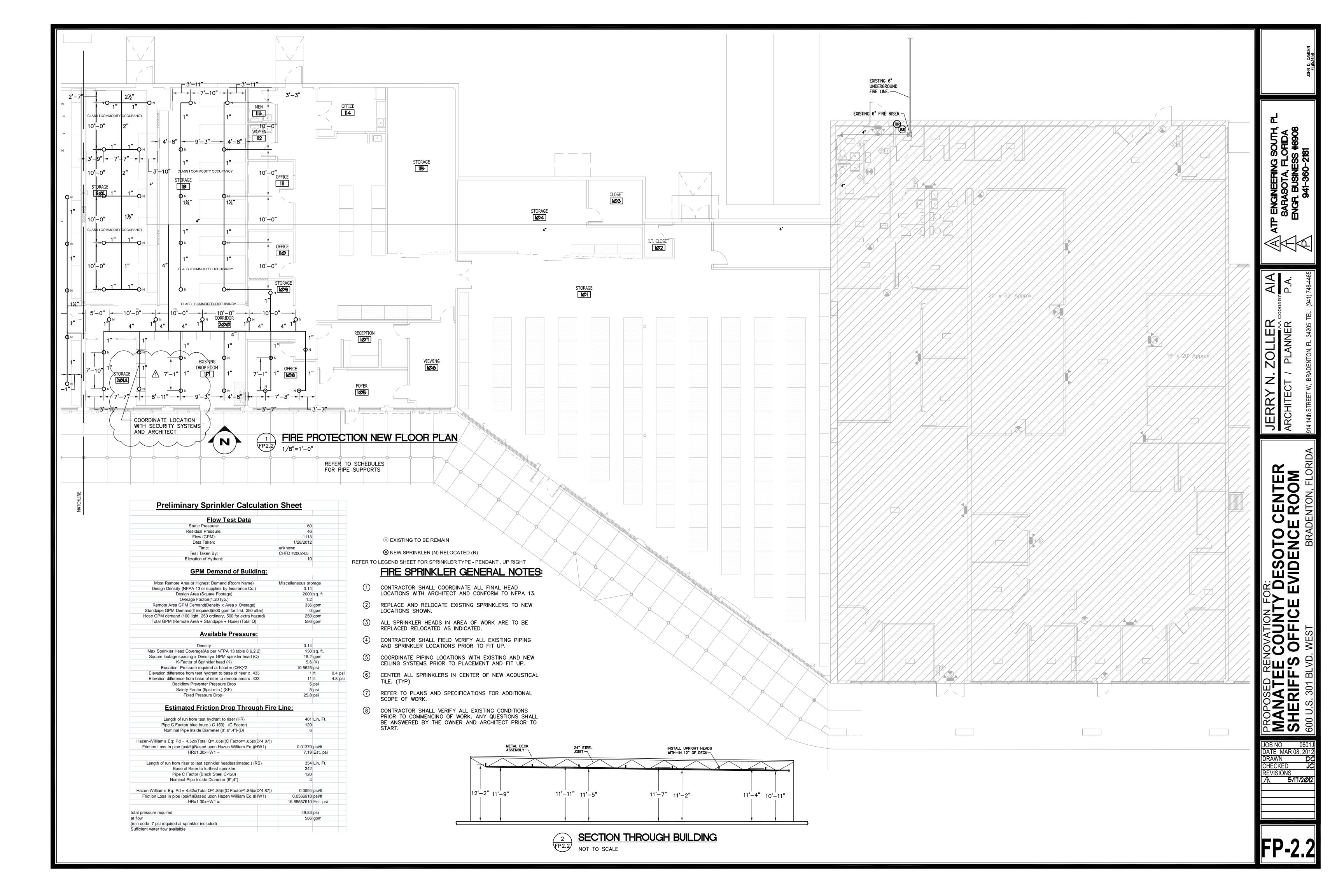


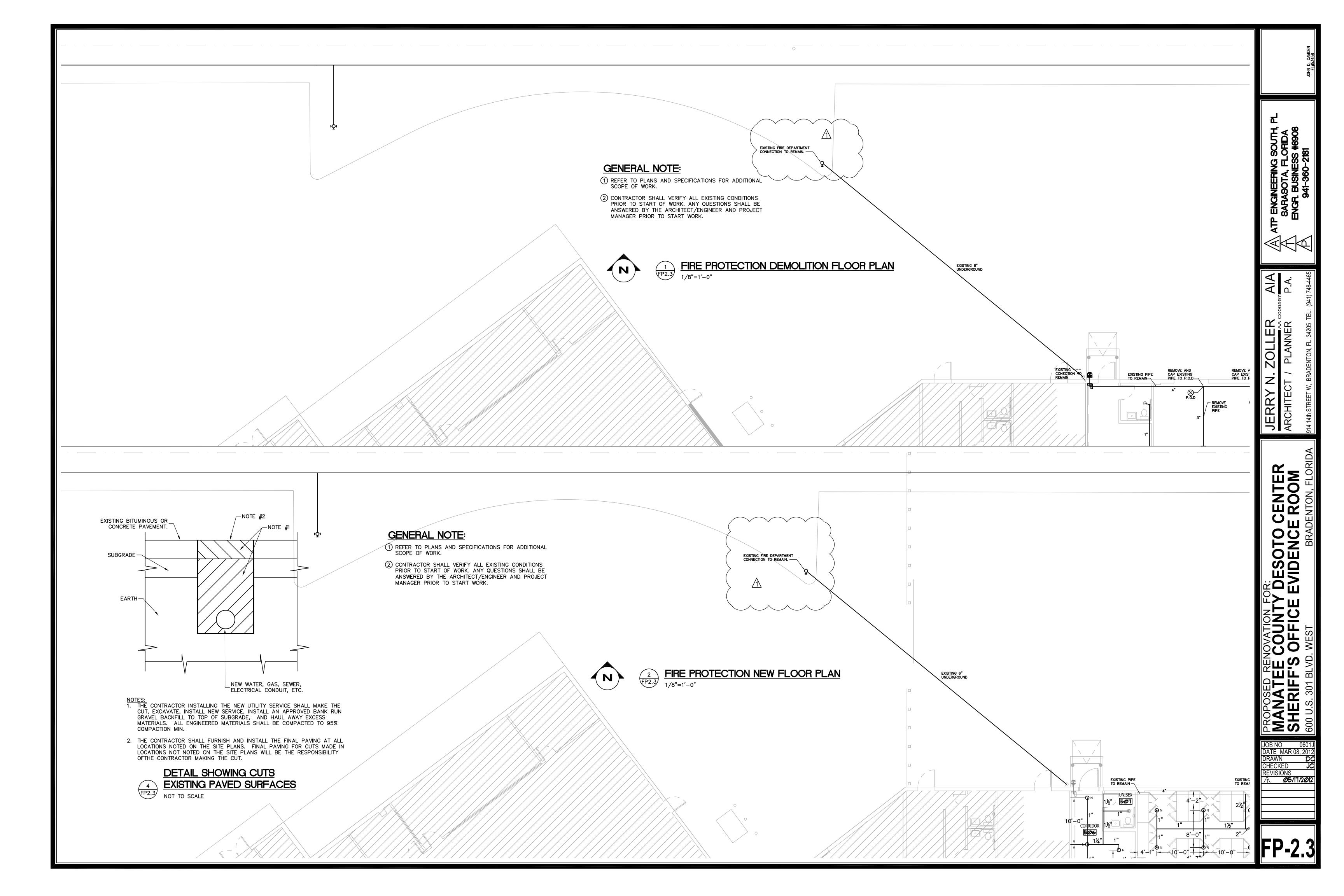
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PRIOR TO COMMENCING OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE PROJECT MANAGER AND

ARCHITECT PRIOR TO START.







ELECTRICAL SYMBOLS AND ABBREVIATIONS

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.

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.

SYMBOL

#### **EQUIPMENT** SYMBOL **DESCRIPTION** MOP DISTRIBUTION PANELBOARD AND CABINET - RECESSED MOUNT MOP 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 lackDENOTES PANEL/PANELBOARD DESIGNATION MOTOR "X" INDICATES HORSEPOWER "Y" INDICATES PHASE CAPACITOR "X" INDICATES KVAR ¥AT ☑¬ 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 ATS = AUTOMATIC TRANSFER SWITCH MTS = MANUAL TRANSFER SWITCH ATS/MTS N = NORMAL POWERE = EMERGENCY POWERL = LOADGROUND 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 "Y" INDICATES AS FOLLOWS "X" 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

#### RACEWAY SYSTEM <u>SYMBOL</u> **DESCRIPTION** CONCEALED CONDUIT 4" CONDUIT SLEEVE WITH BUSHINGS THRU WALL ABOVE CEILING LETTER DESIGNATION REFERS TO SYSTEM (SEE ABBREVIATIONS) A-XX \_\_\_\_ PHASE CONDUCTORS QUANTITY OF CONDUCTORS OR CABLES IN CONDUIT F50 "F50" DENOTES THE FEEDER SIZE SWITCH LEG "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

———— DRAW OUT MOTOR STARTER ASSEMBLY

— FUSE

#### LIGHTING SYMBOL **DESCRIPTION** X-2-C X = FIXTURE TYPE, 2 = CIRCUIT NUMBER, C = SWITCH LEGF - FLUORESCENT K - INCANDESCENT 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
YMBOL	DESCRIPTION
⊕x	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
<del>•</del>	WP = 20 AMP, 125VAC, WEATHERPROOF TYPE  DOUBLE DUPLEX RECEPTACLE
<u></u>	DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
± <b>⊕</b>	DOUBLE DUPLEX RECEPTACLE - ABOVE COUNTER. 44" AFF
Φ	SINGLE RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
<b>P</b> ^	SPECIAL RECEPTACLE - SEE DRAWINGS AND SPECIFICATIONS.
<del>•</del>	SINGLE RECEPTACLE — FLOOR, SEE DRAWINGS AND SPECIFICATIONS.  DUPLEX RECEPTACLE — FLOOR, SEE DRAWINGS AND SPECIFICATIONS.
© HEIGH	T CLOCK RECEPTACLE — 120VAC
S	TOGGLE SWITCH - SINGLE POLE
S2 S3	TOGGLE SWITCH - DOUBLE POLE TOGGLE SWITCH - 3-WAY
\$ <sup>W</sup>	WALL MOUNTED OCCUPANCY SENSOR
(CSx)	CEILING MOUNTED OCCUPANCY SENSOR  x = TYPE, SEE PLANS
JB	JUNCTION BOX
T	HVAC THERMOSTAT

## FURNITURE CABLE MANAGEMENT POLE. MUSHROOM HEAD RED PUSH BUTTON DRAWING SYMBOLS - DETAIL NUMBER E X→ - DRAWING NUMBER WHERE DRAWN - SECTION LETTER - DRAWING NUMBER WHERE DRAWN (1) REFER TO LIKE NUMBER NOTES. 1 REFER TO LIKE NUMBER NOTES.

HVAC HUMIDISTAT

FURNITURE POWER POLE

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

INTERCOMMUNICATION SYSTEM

INTERCOM SYSTEM ROUGH-IN - SINGLE GANG BACKBOX

**DESCRIPTION** 

MOUNTED AT +46"

SYMBOL

	○= CEILING MOUNT	<u>/C\</u>	PROXIMITY CARD READER ROUGH-IN
	HORN  C = CEILING MOUNT  WALL MOUNT	<b>-©</b>	CCTV ROUGH-IN
S  S  S  S  S  S  S  S  S  S  S  S	SPEAKER/STROBE		CAMERA ROUGH-IN
	= CEILING MOUNT = WALL MOUNT STROBE		
	= CEILING MOUNT = WALL MOUNT		
_	BELL  CEILING MOUNT  WALL MOUNT	CO	MMUNICATION SYSTEMS
ව	SMOKE DETECTOR	SYMBOL	DESCRIPTION
<b>]</b>	HEAT DETECTOR	<b>—</b>	WALL MOUNTED VOICE OUTLET
•	PULL STATION	N	WALL MOUNTED DATA OUTLET
	ELEVATOR WARNING	×	WALL MOUNTED COMBINATION VOICE / DATA OUTLET
更	LIGHT		FLOOR MOUNTED VOICE OUTLET.
$\triangleleft_{F}$	FIREFIGHTER PHONE JACK	<b>⊘</b> <sub>F</sub>	FLOOR MOUNTED DATA OUTLET.
<u> </u>	TAMPER SWITCH		FLOOR MOUNTED COMBINATION VOICE / DATA OUTLET.
<u>.</u>	TAMPER SWITCH	тс	TELEPHONE CABINET
$\bigcirc$	FLOW SWITCH	CC	COMMUNICATIONS CABINET
A A D	DEMOTE		
A.A.P	REMOTE ANNUNCIATOR		•
	ANNUNCIATOR	PA	AGING / AUDIO SYSTEM
		P/ SYMBOL	AGING / AUDIO SYSTEM DESCRIPTION
	ANNUNCIATOR		DESCRIPTION  LOUDSPEAKER — CEILING MOUNTED CONTROLLED BY VOLUME
FACP	ANNUNCIATOR  FIRE ALARM CONTROL PANEL	SYMBOL \$\bar{\text{\$}}_1	DESCRIPTION  LOUDSPEAKER — CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"
FACP M S	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED	<u>SYMBOL</u> S 1	DESCRIPTION  LOUDSPEAKER — CEILING MOUNTED CONTROLLED BY VOLUME
FACP M S	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED  SPEAKER - FIRE ALARM AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS:)  NONE = PHOTO ELECTRIC TYPE	<b>SYMBOL</b> (\$) <sub>1</sub> (\$)   -\(\forall^1\) (\$)	DESCRIPTION  LOUDSPEAKER — CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"  VOLUME CONTROL — CONTROLS SPEAKERS "1"
FACP  M  S  A	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED  SPEAKER - FIRE ALARM AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS:)	<u>SYMBOL</u> S 1	DESCRIPTION  LOUDSPEAKER — CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"  VOLUME CONTROL — CONTROLS SPEAKERS "1"  PAGING ROUGH—IN
FACP M S O x	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED  SPEAKER - FIRE ALARM AUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS:)  NONE = PHOTO ELECTRIC TYPE	<u>SYMBOL</u> S 1  -(V) 1  S    -(A)	DESCRIPTION  LOUDSPEAKER - CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"  VOLUME CONTROL - CONTROLS SPEAKERS "1"  PAGING ROUGH-IN  AUDIO JACK ROUGH-IN
FACP M S O x	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE — FIRE ALARM ACTIVATED  SPEAKER — FIRE ALARM  JUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS:)  NONE = PHOTO ELECTRIC TYPE  S= SUPPLY R= RETURN  EQUIPMENT SHUT DOWN RELAY  REMOTE DUCT DETECTOR INDICATOR LIGHT	SYMBOL  S 1  - √ 1  S √ - A - M	DESCRIPTION  LOUDSPEAKER - CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"  VOLUME CONTROL - CONTROLS SPEAKERS "1"  PAGING ROUGH-IN  AUDIO JACK ROUGH-IN  MICROPHONE ROUGH-IN
FACP SO O X R R X	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE — FIRE ALARM ACTIVATED  SPEAKER — FIRE ALARM  UTOMATIC 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	SYMBOL  S 1  - √ 1  S √ - A - M	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
FACP SO O X R R X	FIRE ALARM CONTROL PANEL  DOOR RELEASE DEVICE — FIRE ALARM ACTIVATED  SPEAKER — FIRE ALARM  JUTOMATIC DUCT DETECTOR ("X" DENOTES AS FOLLOWS:)  NONE = PHOTO ELECTRIC TYPE  S= SUPPLY R= RETURN  EQUIPMENT SHUT DOWN RELAY  REMOTE DUCT DETECTOR INDICATOR LIGHT	SYMBOL  S 1  - √ 1  S √ - A - M	DESCRIPTION  LOUDSPEAKER - CEILING MOUNTED CONTROLLED BY VOLUME CONTROL "1"  VOLUME CONTROL - CONTROLS SPEAKERS "1"  PAGING ROUGH-IN  AUDIO JACK ROUGH-IN  MICROPHONE ROUGH-IN

(M) (P)	MICROPHONE ROUGH—IN PROJECTOR ROUGH—IN	
	TELEVIOLONI OVOTENI	
	TELEVISION SYSTEM	

TELEVISION ROUGH-IN

# **ABBREVIATIONS**

THESE DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS.

SECURITY SYSTEM

**DESCRIPTION** 

DOOR CONTACT ROUGH-IN

PROXIMITY CARD READER ROUGH-IN

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

## GENERAL NOTES (APPLY TO ALL DRAWINGS):

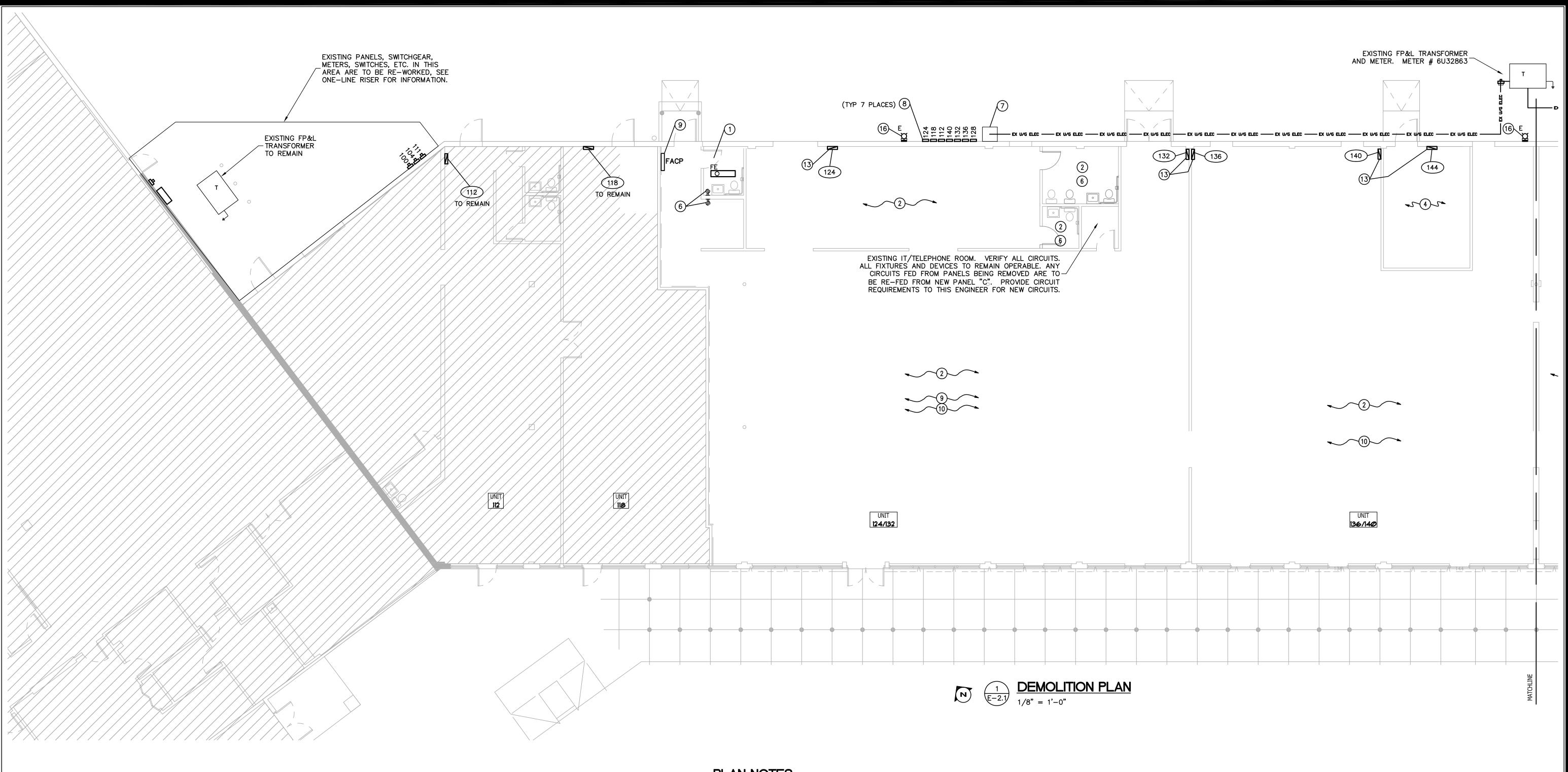
- 1. THE WORK INDICATED ON THESE DRAWINGS IS DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES FOR A COMPLETE SYSTEM IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE. MATERIALS AND 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 ELÉCTRICAL 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.
- 3. 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.
- 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.

WEATHER PROOF

- POWERED PRIOR TO ANY WORK IN THE CURRENTLY OCCUPIED SPACES.

#### **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.
- 3. THE UN-OCCUPIED AREA OF THE JOB SHALL BE CONFIGURED AND
- 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.



#### **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.
- 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.

- 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.
- (1) 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.
- 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.
- EXISTING ELECTRICAL PANELS AND ELECTRICAL EQUIPMENT TO STAY PER THE OWNER.
- (15) EXISITING 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.

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

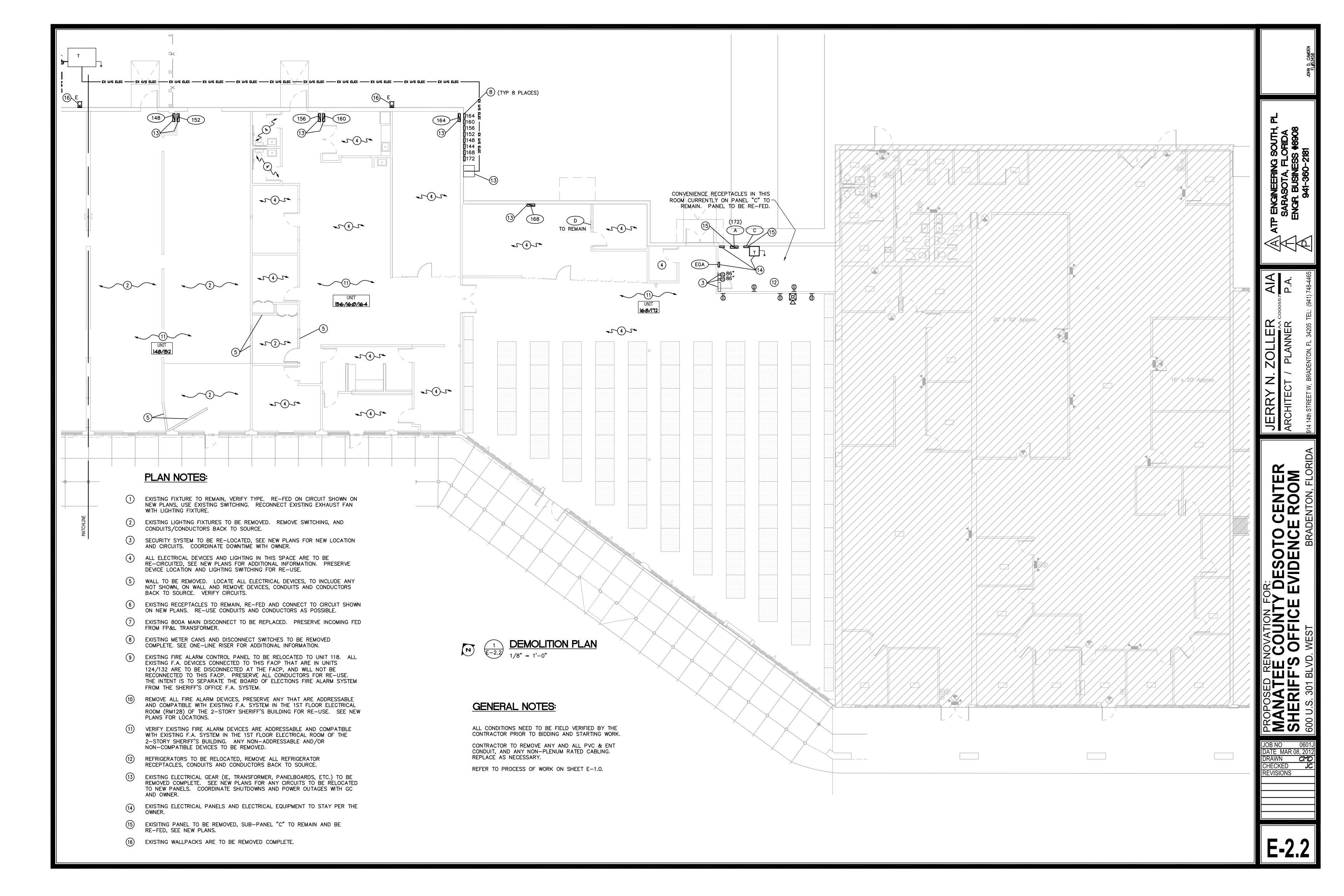
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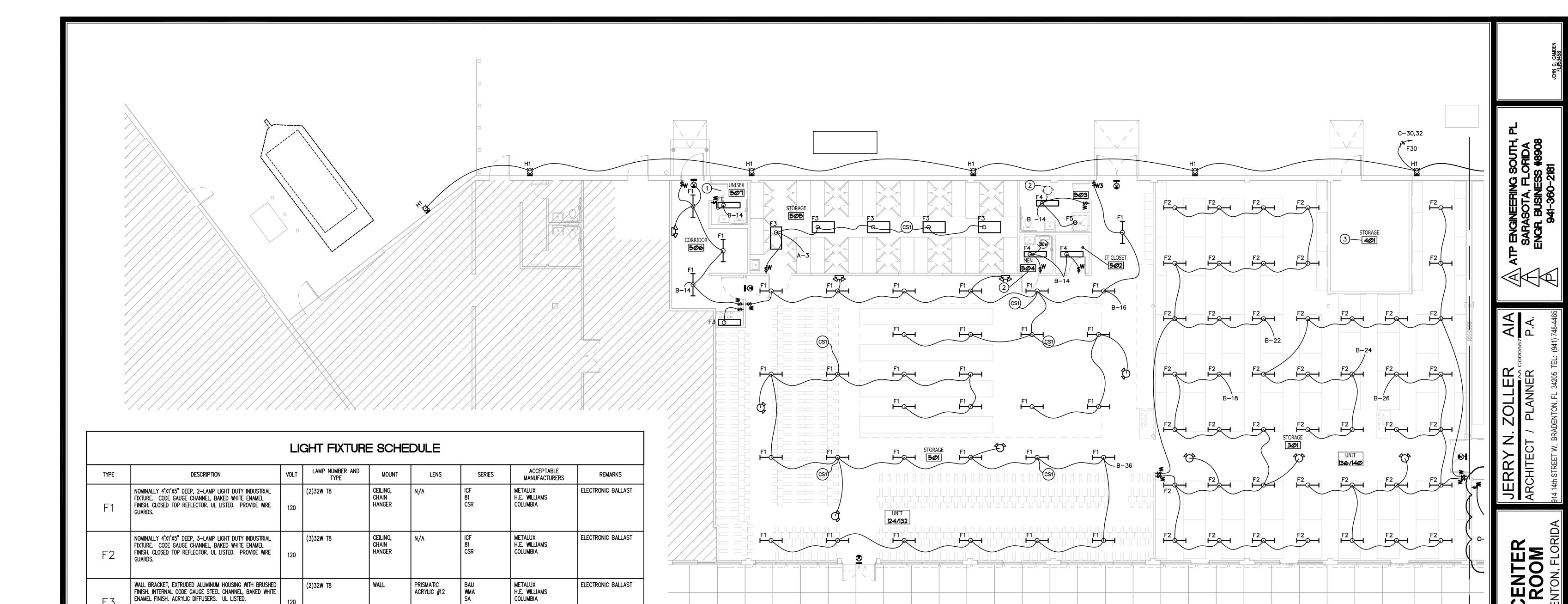
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DES

COUNT

E-2.1





PLAN NOTES:

- EXISTING FIXTURE TO REMAIN, VERIFY TYPE. RE-FED ON CIRCUIT SHOWN. PRIVIDE NEW OCCUPANCY SENSOR SWITCH AS SHOW 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
- 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

WALL SWITCHES (\$\fomathbf{Y}\) TO BE LEVITON OCCUPANCY SENSORS IPP15-1LI, SINGLE-POLE & 3-WAY, 180 DEGREE, 900 SQ. FT. COVERAGE, PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR, COMMERCIAL GRADE - IVORY, OR APPROVED EQUAL.

CEILING MOUNT (CSI) TO BE LEVITON OCCUPANCY SENSORS OSCO5-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.

. ALL F1 FIXTURES ARE EITHER EXISTING AND INSTALLED OR EXISTING AND IN STORAGE.

NOMINALLY 4' LONG X 10" WIDE SURFACE MOUNT, WRAP

AROUND FIXTURE. DIE FORMED CODE GAUGE STEEL

6" NOMINAL APERTURE, VERTICAL LAMP, ONE PIECE

ALZAK REFLECTOR W/ SPUN PARABOLIC CONTURE.

MEDIUM TRAPEZOID IMPACT RESISTANT WALLPACK,

DIE-CAST ALUMINUM HOUSING WITH REMOVABLE HINGED

DOOR, UL LISTED WET. FIXTURE SHALL COME WITH

EMERGENCY BATTERY PACK WITH THERMOPLASTIC

INDICATED ON DRAWINGS. UNIVERSAL SURFACE

MOUNTING CANOPY, END, BACK OR TOP MOUNT,

SWITCH FRONT MOUNTED HEADS. UL LISTED FOR DAMP

LOCATIONS. CONTRACTOR GRADE.

BATTERY. PUSH TO TEST FEATURE.

HOUSING, SEALED LEAD-CALCIUM BATTERY AND TEST

LED ELECTRONIC EXIT LIGHT, SINGLE OR DOUBLE FACE AS

DIRECTIONAL ARROW PANEL, STROKE STENCIL FACE RED

LETTERS "EXIT". BATTERY BACKUP W/ NICKEA-CADMIUM

BLACK BAFFLE W/ FRESNEL LENS. UL LISTED FOR WET

CONSTRUCTION WITH BAKED WHITE ENAMEL FINISH.

ACRYLIC PRISMATIC DIFFUSER.

EXISTING FIXTURE, VERIFY TYPE

FACTORY INSTALLED PHOTOCELL

LOCATION.

2. CLEAN AND RELAMP ALL EXISTING REUSE FIXTURES. PROVIDE UNIT COST TO REPLACE BALLASTS AS NEEDED.

SURFACE

SURFACE

RECESS

VERIFY

CEILING

(2)32W T8

(1)26W TTT

VERIFY

250W PMH

5.4W KRYPTON

MATCH EXISTING

120

ACRYLIC

FRESNEL

GLASS

WALL/CEILING N/A

SURFACE/

CEILING

TEMPERED FLAT IMTR3A

CC2

METALUX

COLUMBIA

OMEGA

PRESCOLITE

McGRAW-EDISON

GARDCO

HUBBELL

SURE-LITES

MCPHILBEN

MCPHILBEN

SURE-LITES

DUALLITE

LITHONIA

DUALLITE

MATCH EXISTING LITHONIA

H.E. WILLIAMS

ELECTRONIC BALLAST

ELECTRONIC BALLAST

CLEAN & RELAMP

FORWARD THROW

OPTICS (TYPE IV

MOUNT AT 13' AFG

FIVE YEAR WARRANTEE.

WHITE IN COLOR

OPTICS)

UL LISTED

3. ALL LIGHT FIXTURES TO BE SUPPLIED WITH LAMPS. LAMPS SHALL BE GE, PHILLIPS, OR OSRAM/SLYVANIA, NO EXCEPTIONS. 4. FLUORESCENT LAMP COLOR SHALL BE 3500 DEGREES K.

DES

COUL

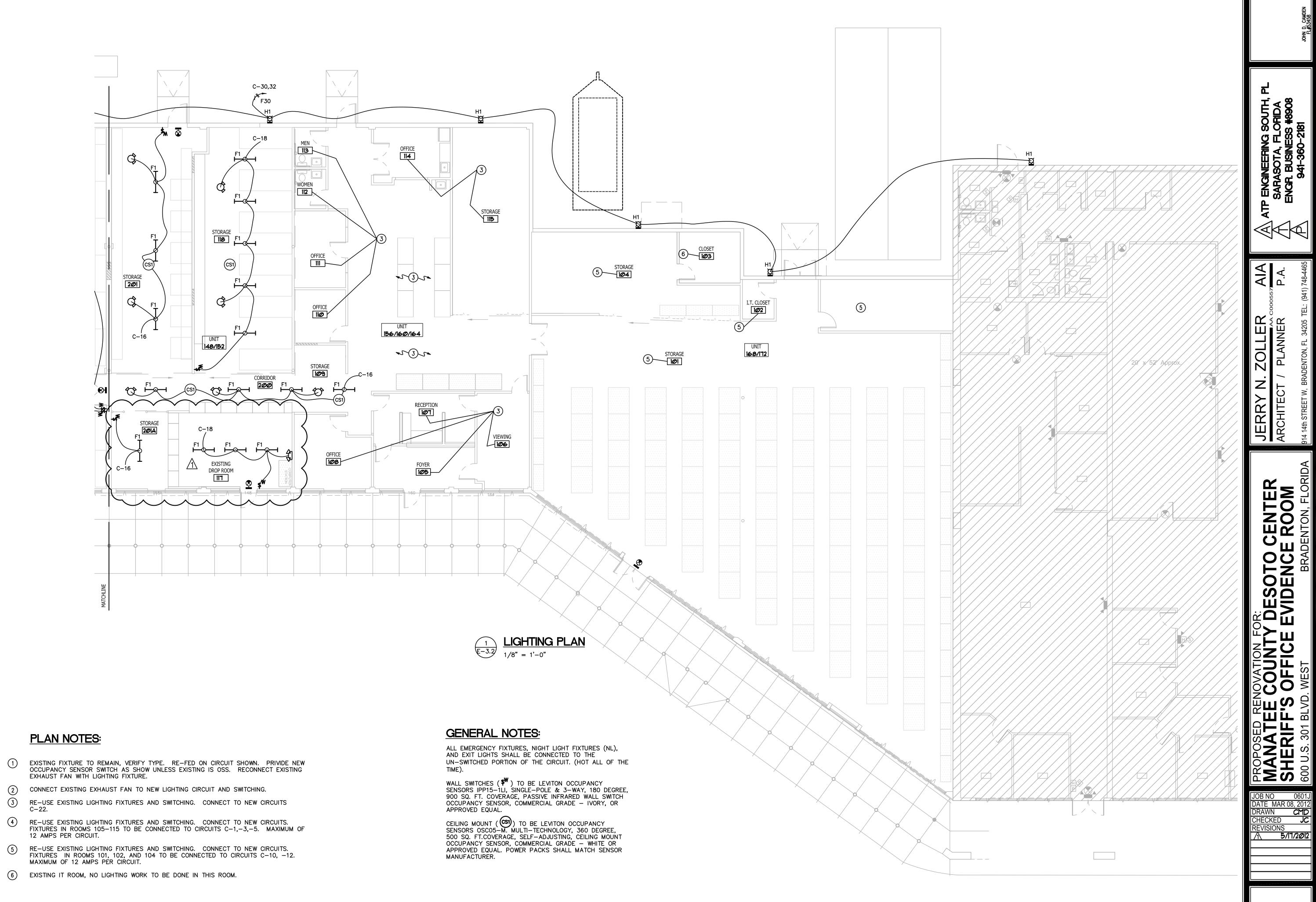
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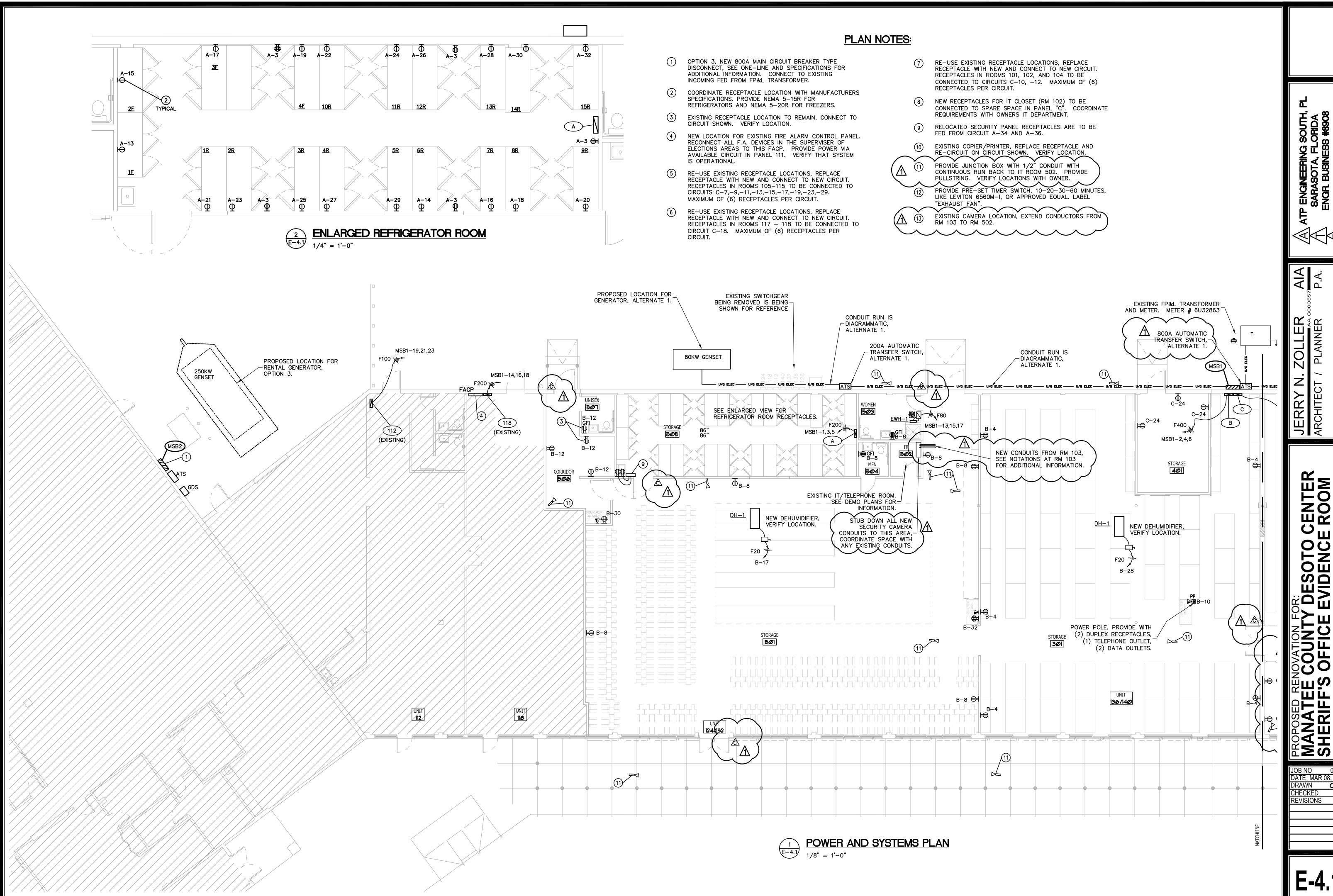
DATE MAR 08, 20

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EVISIONS



5/17/2012

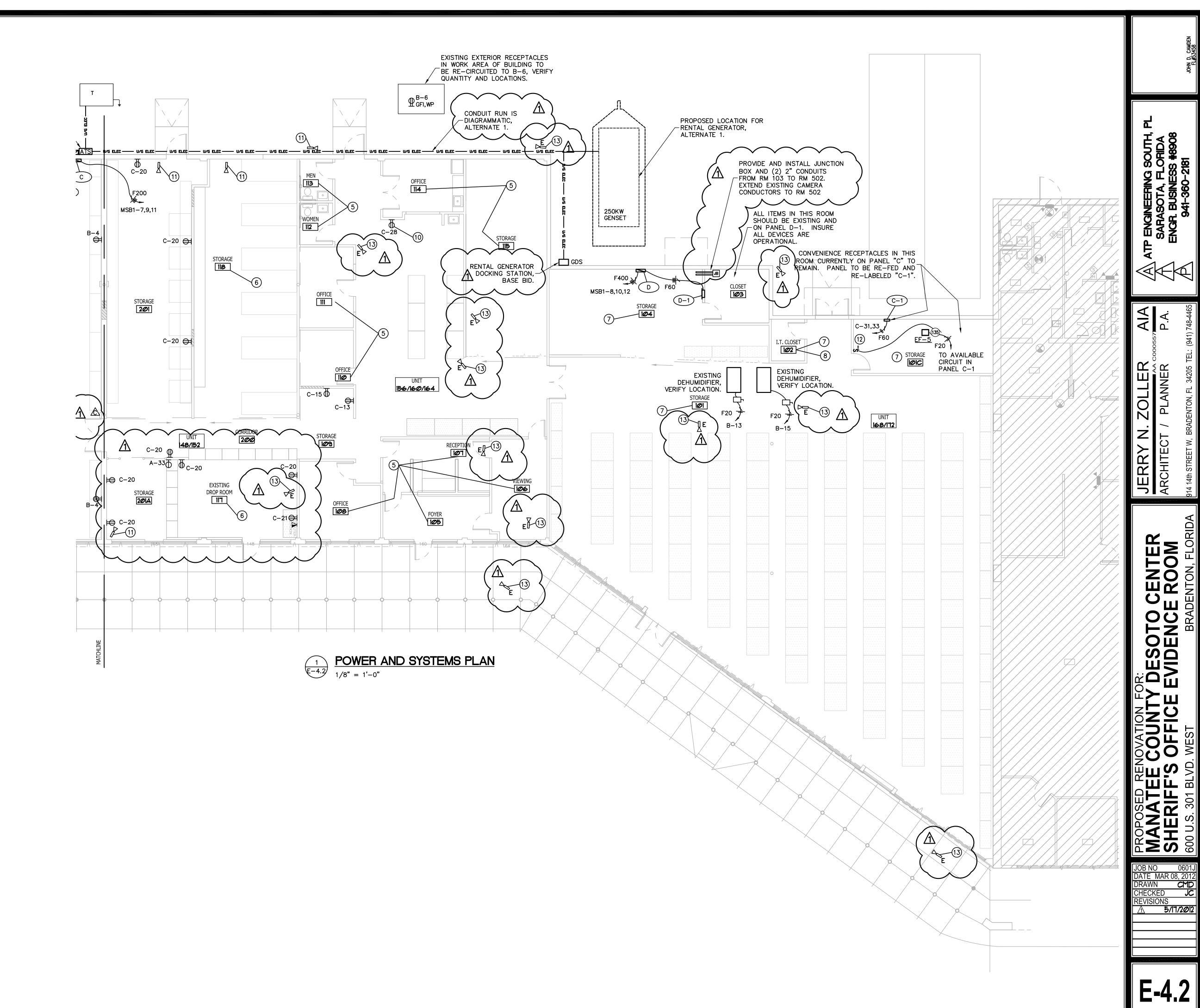


DESOTO



- 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.
- COORDINATE RECEPTACLE LOCATION WITH MANUFACTURERS SPECIFICATIONS. PROVIDE NEMA 5-15R FOR REFRIGERATORS AND NEMA 5-20R FOR FREEZERS.
- EXISTING RECEPTACLE LOCATION TO REMAIN, CONNECT TO CIRCUIT SHOWN. VERIFY LOCATION.
- NEW LOCATION FOR EXISTING FIRE ALARM CONTROL PANEL. RECONNECT ALL F.A. DEVICES IN THE SUPERVISER OF ELECTIONS AREAS TO THIS FACP. PROVIDE POWER VIA AVAILABLE CIRCUIT IN PANEL 111. VERIFY THAT SYSTEM IS OPERATIONAL.
- 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.
- 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.
- 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.
- NEW RECEPTACLES FOR IT CLOSET (RM 102) TO BE CONNECTED TO SPARE SPACE IN PANEL "C". COORDINATE REQUIREMENTS WITH OWNERS IT DEPARTMENT.
- RELOCATED SECURITY PANEL RECEPTACLES ARE TO BE FED FROM CIRCUIT A-34 AND A-36.
- EXISTING COPIER/PRINTER, REPLACE RECEPTACLE AND RE-CIRCUIT ON CIRCUIT SHOWN. VERIFY LOCATION.

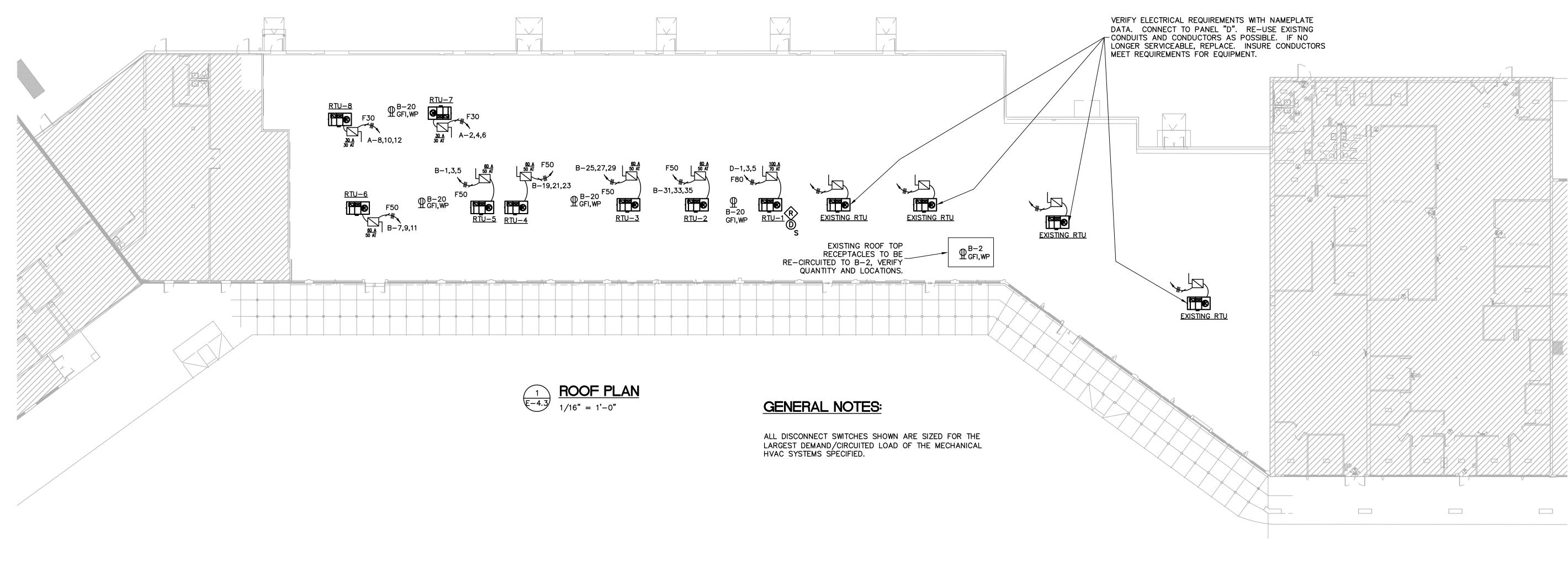
  PROVIDE JUNCTION BOX WITH 1/2" CONDUIT WITH CONTINUOUS RUN BACK TO IT ROOM 502. PROVIDE
- PROVIDE PRE-SET TIMER SWITCH, 10-20-30-60 MINUTES, LIKE LEVITON 6560M-I, OR APPROVED EQUAL. LABEL "EXHAUST FAN".
- EXISTING CAMERA LOCATION, EXTEND CONDUCTORS FROM RM 103 TO RM 502.

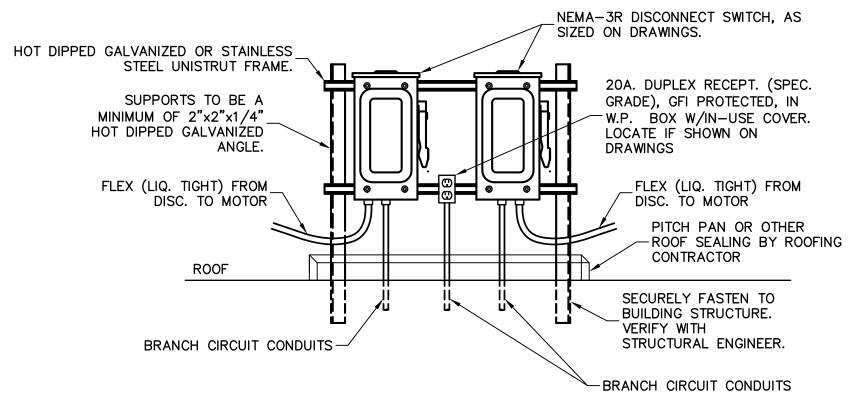




CENTER E ROOM ADENTON, FLOR DESOTO

COUNTY



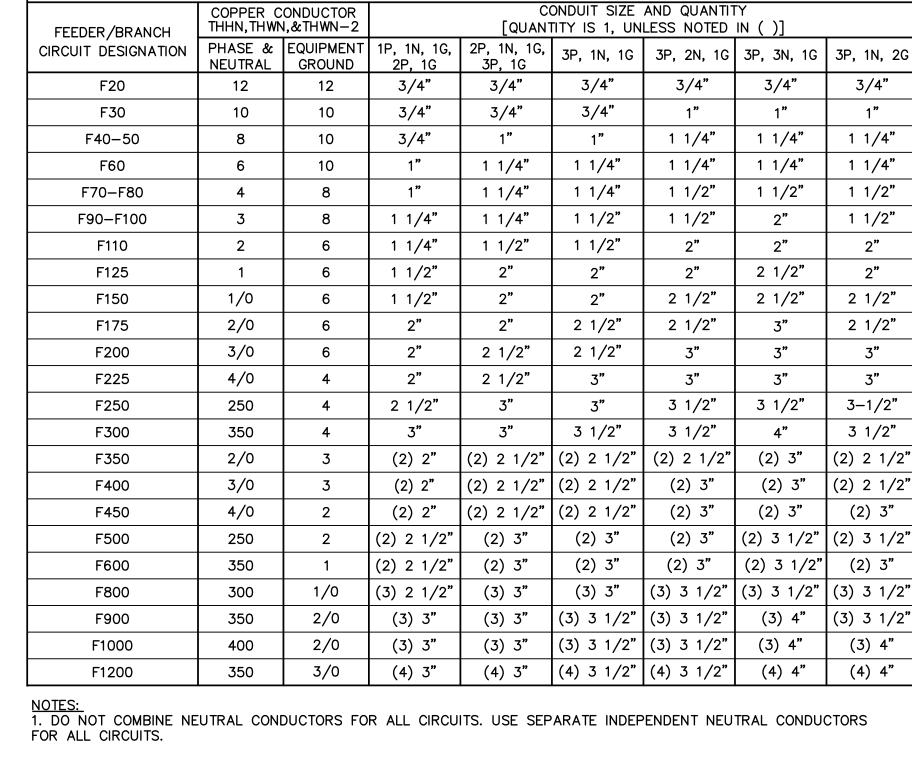


ROOF TOP DISCONNECT SWITCH MOUNTING DETAIL NOT TO SCALE

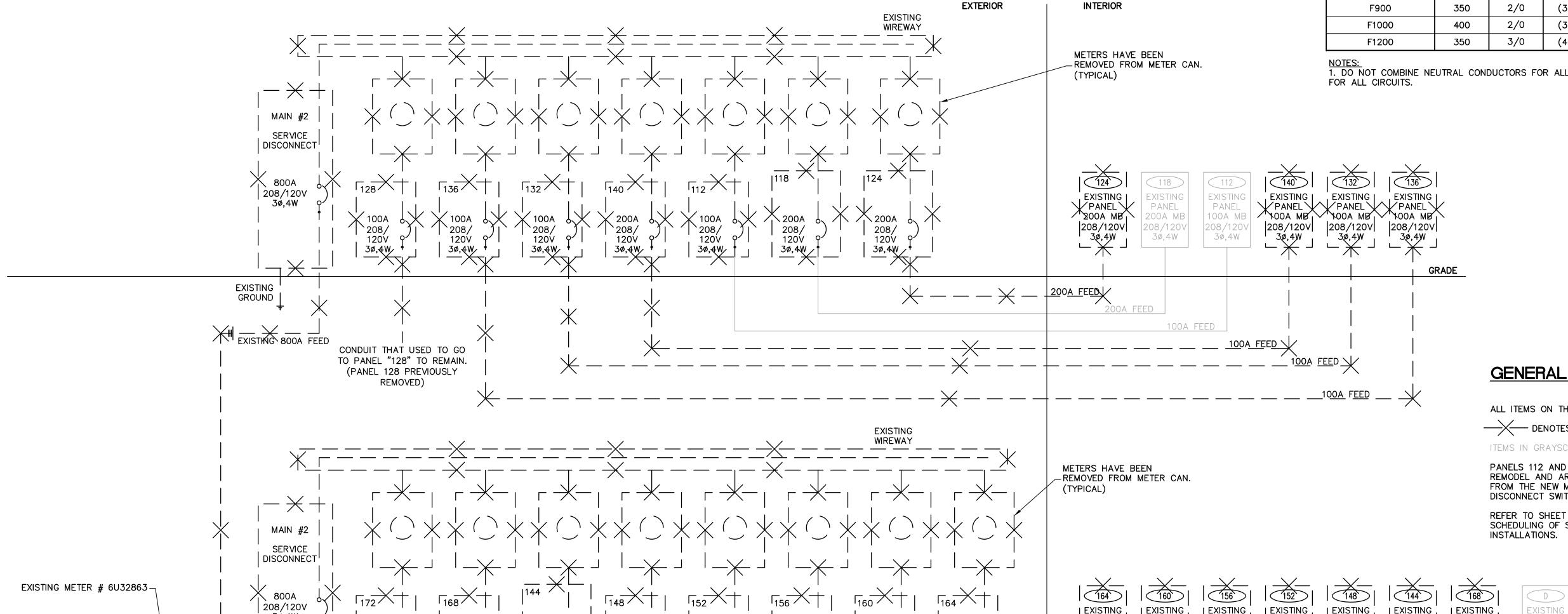
<u>A</u> 5-17-2012

VOLTAGE DROP FOR 1φ, 20A BRANCH CIRCUITS DISTANCE ALLOWED FEEDER SIZE TO USE 277V 120V F20 0 - 165 FEET 0 - 70 FEET 0 - 125 FEET F30 70 - 115 FEET | 125 - 200 FEET | 165 - 265 FEET 115 - 185 FEET | 200 - 320 FEET | 265 - 425 FEET F40-50 F60 185 - 290 FEET | 320 - 510 FEET | 425 - 675 FEET | 290 - 460 FEET | 510 - 810 FEET | 675 - 1075 FEET

- 1. 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.
- 2. 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



#### **GENERAL NOTES:**

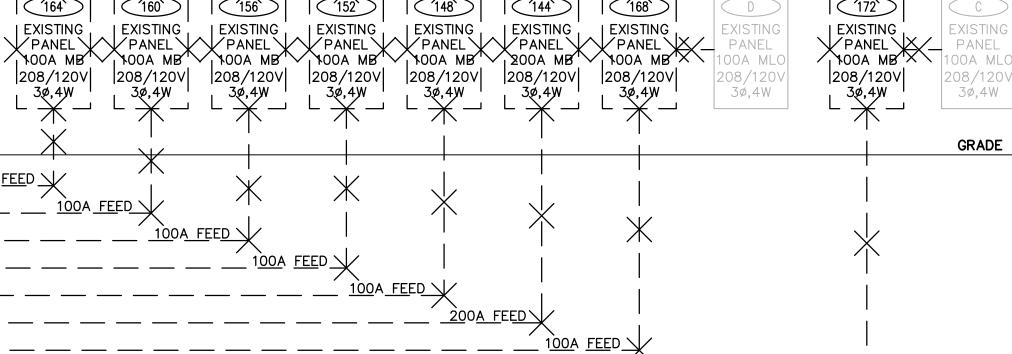
ALL ITEMS ON THIS PLAN ARE EXISTING.

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-FED 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.



EXISTING ONE-LINE RISER DIAGRAM E-5.1

208/ 120V 3ø,4W

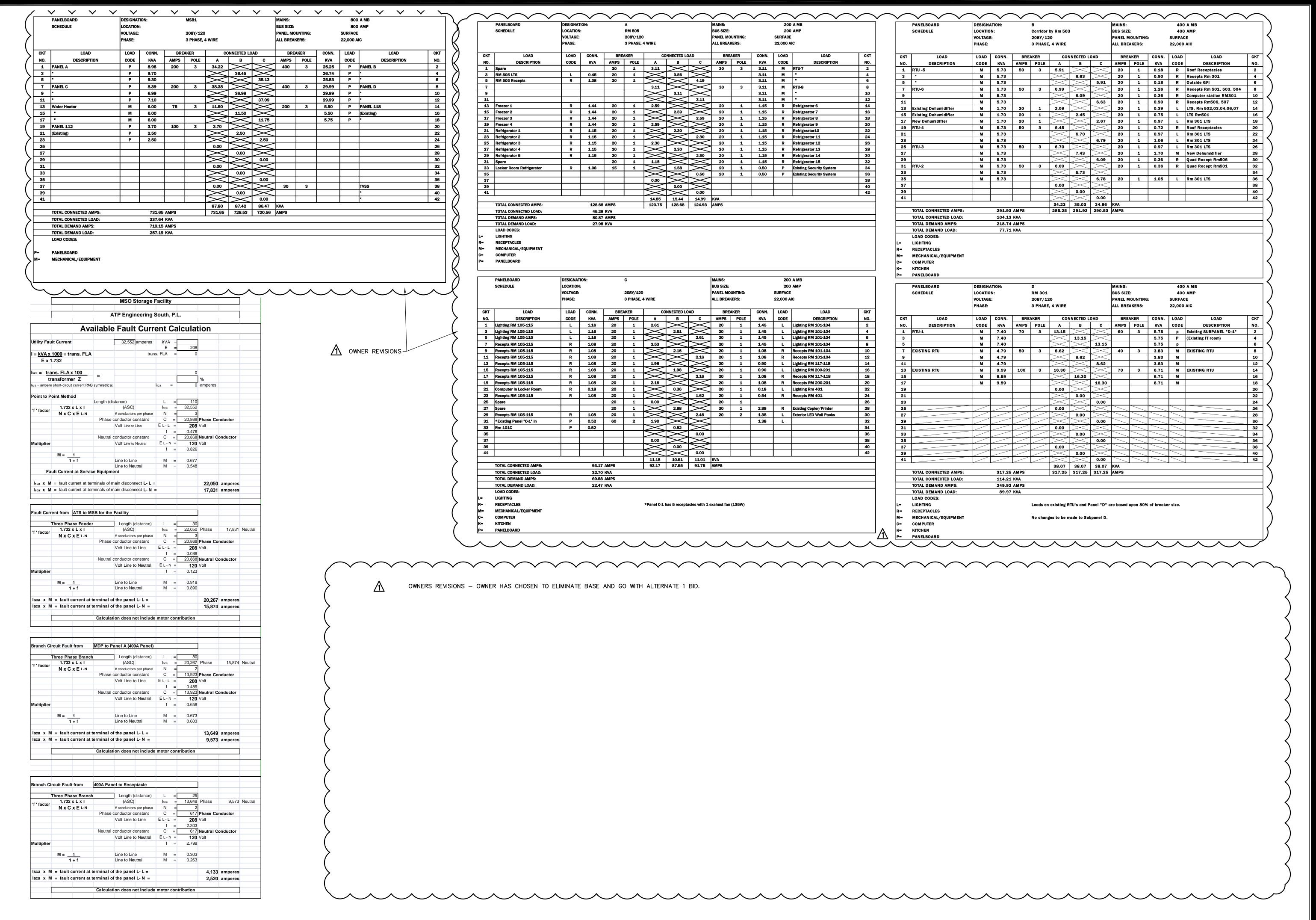
EXISTING 800A FEED

EXISTING FP&L TRANSFORMER

> EXISTING PRIMARY

208/ 120V 3ø,4W

208/ 120V 3ø,4W



HN D. CAMDE FL#53458

ATP ENGINEERING SOUTH SARASOTA, FLORIDA ENGR. BUSINESS #8908

ER AIA ER P.A.

JERRY N. ZOLLER
ARCHITECT / PLANNER

DESOTO CENTER

PUDENCE ROOM

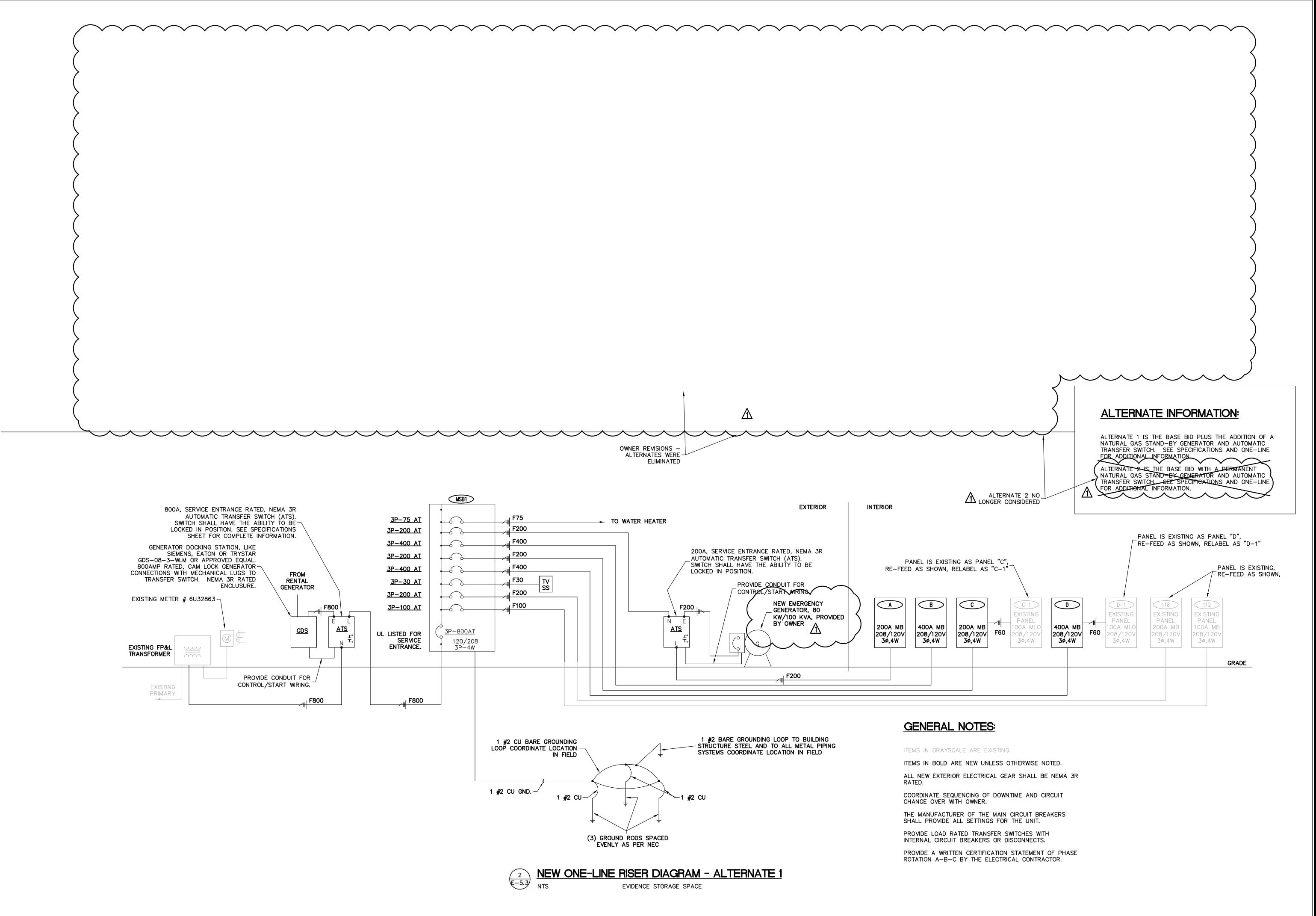
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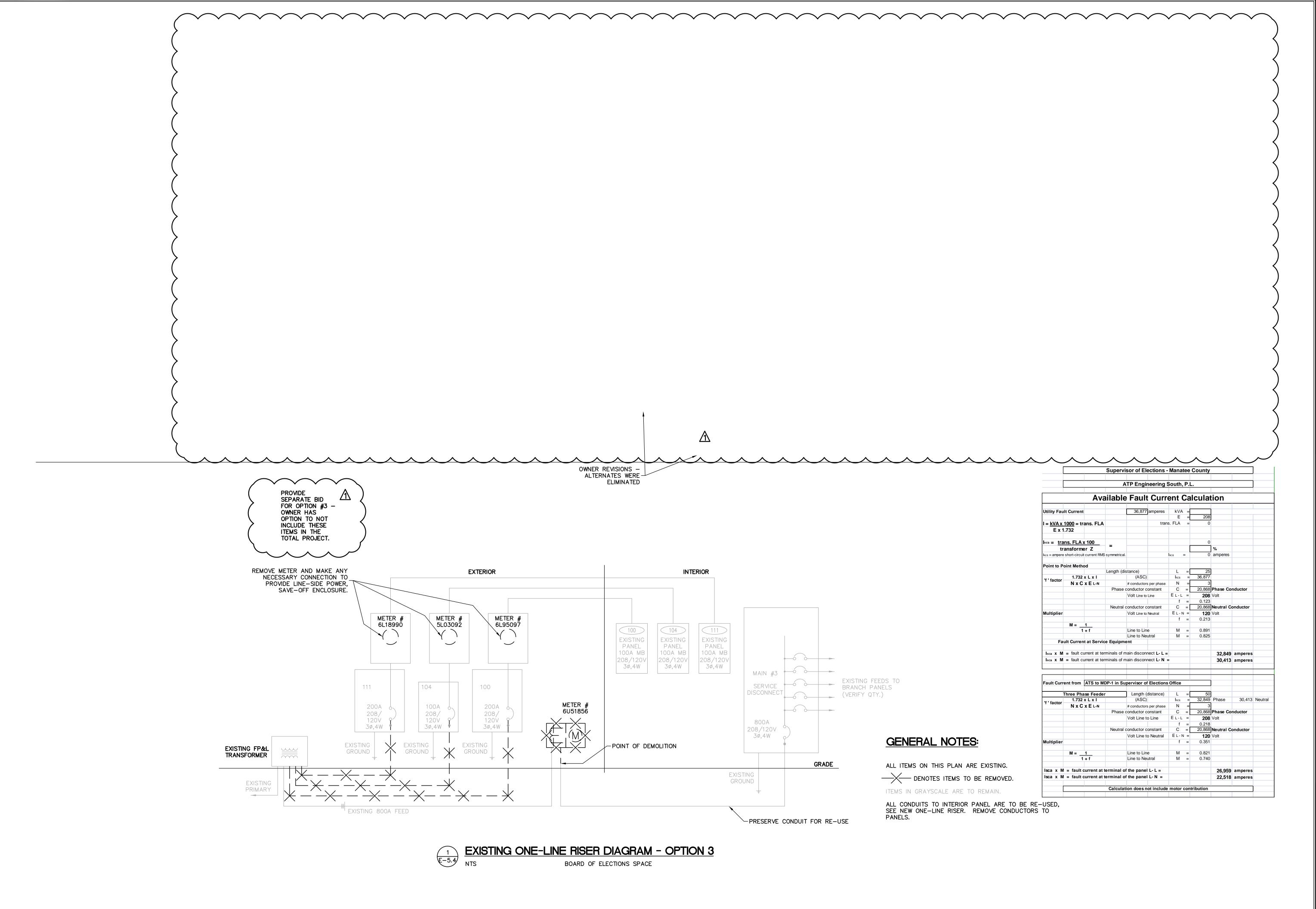
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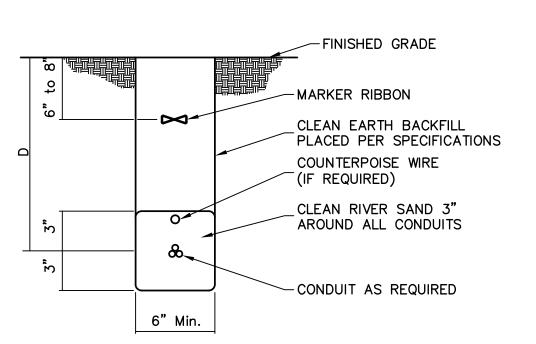
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**GENERAL NOTES:** 

(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 SAFEING 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. FIRESAFEING) 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.
- 13. 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 TYPEWRITTEN 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.



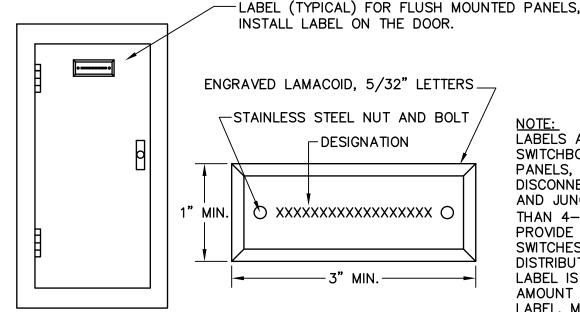
BURIAL DEPTH	
SERVICE	<b>"</b> D"
CCTV cable	1'-6"
Telephone	2'-0"
Power under 600V	3'-0"
Medium voltage power	3'-0"

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.



CONDUIT BURIAL DETAIL

NOT TO SCALE



LABELS ARE REQUIRED ON ALL SWITCHBOARDS, DISTRIBUTION PANELS, PANEL BOARDS, STARTERS, DISCONNECT SWITCHES, RELAYS, AND JUNCTION BOXES GREATER THAN 4-11/16" SQUARE. ALSO PROVIDE LABELS ON BRANCH SWITCHES OF SWITCHBOARDS AND DISTRIBUTION PANELS. SIZE OF THE LABEL IS DEPENDENT UPON THE AMOUNT OF INFORMATION ON THE LABEL. MINIMUM DIMENSIONS ARE

STANDARD COLORS: . 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

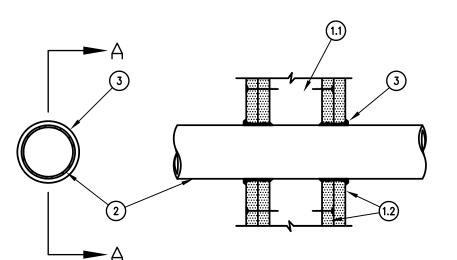


EQUIPMENT LABELING DETAIL

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)



#### SECTION A-A

- 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 U.300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
- 1.1. 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.
- 1.2. 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:

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

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

\* BEARING THE UL CLASSIFICATION MARKING

ALL ROUGH-IN'S.



**U.L. PENETRATION DETAIL** 

## (1) 3/4" CONDUIT FROM BOX TO ABOVE ACCESSIBLE CEILING. LONG SWEEP 90-TERMINATE WITH A BUSHING

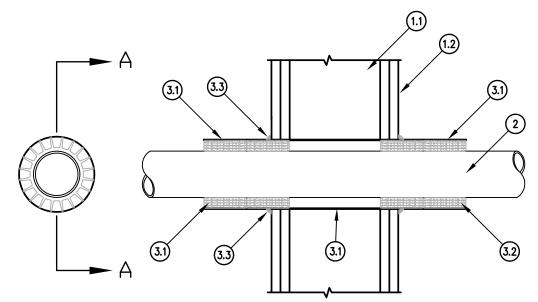
NOTE: TERMINATE CONDUIT ABOVE ACCESSIBLE CEILING. DEVICES LOCATED IN AREAS THAT DO NOT HAVE CEILING OR HAVE HARD CEILINGS SHALL HAVE CONDUIT INSTALLED FROM DEVICE TO ABOVE THE NEAREST CORRIDOR ACCESSIBLE CEILING OR AS NOTED ON THE DRAWINGS. THE INTENT OF THE CONDUI SYSTEM IS THAT THERE SHALL BE NO EXPOSED SYSTEMS CABLING OR CABLING ABOVE HARD CEILINGS.

2-1/8" DEEP, 4" SQUARE BOX-WITH (1) 1 GANG PLASTER RING

> TYPICAL TELEVISION, TELEPHONE, DATA AND CCTV ROUGH-IN

#### SYSTEM NO. WL2154

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



## **SECTION A-A**

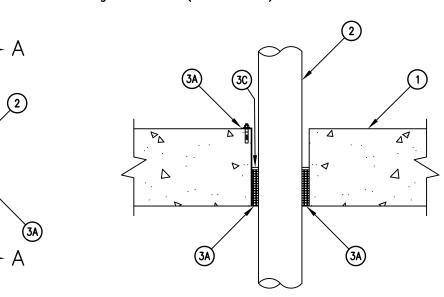
- WALL ASSEMBLY THE 1 OR 2 HR FIRE RATED GYPSUM WALLBOARD / STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
- 1.1. STUDS WALL FRAMING MAY CONSIST OF FITHER 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.
- 2. 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
- 2.1. 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).
- 2.3. 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.
- 3. FIRESTOP SYSTEM THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:
- STEEL SLEEVE MINIMUM 26 GAUGE GALVANIZED STEEL CUT 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.
- 3.2. 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 MINNESOTA MINING & MFG. CO. -EACH END OF SLEEVE. ULTRA GS
- 3.3. 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



#### 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)



#### **SECTION A-A**

1. 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).

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

2. 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.

3. FIRESTOP SYSTEM - THE HOURLY T RATINGS FOR THE FIRESTOP SYSTEM ARE DEPENDENT UPON THE FIRESTOP ORIENTATION (WALL OR FLOOR), THE SIZE OF THE NONMETALLIC PIPE OR CONDUIT, AND THE FLOOR THICKNESS, AS TABULATED BELOW:

ORIENTATION	NOMINAL PIPE	ANNULAR	F RATING	T RATING
(a)	DIAMETER In. (mm)	SPACE In. (mm)	HR	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 AN 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 LÁYER 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 AND102 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

(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

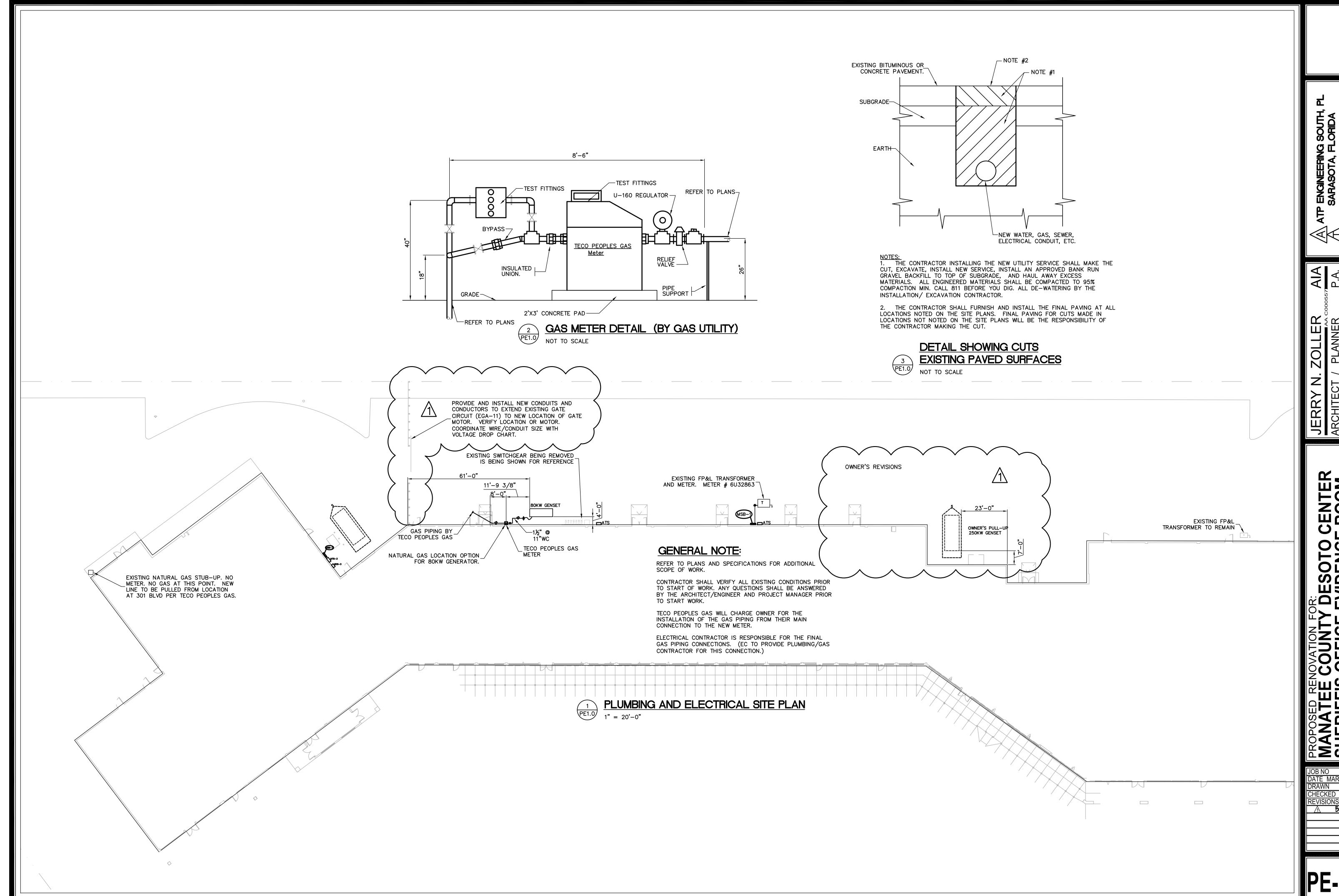


++BEARING UL LISTING MARK

CONCRETE WALL OR FLOOR PENETRATION DETAIL

NOT TO SCALE

NOT TO SCALE



CENTER E ROOM ADENTON, FLOR

DESOTO COUNT

<u>/\ 5/17/2@12</u>