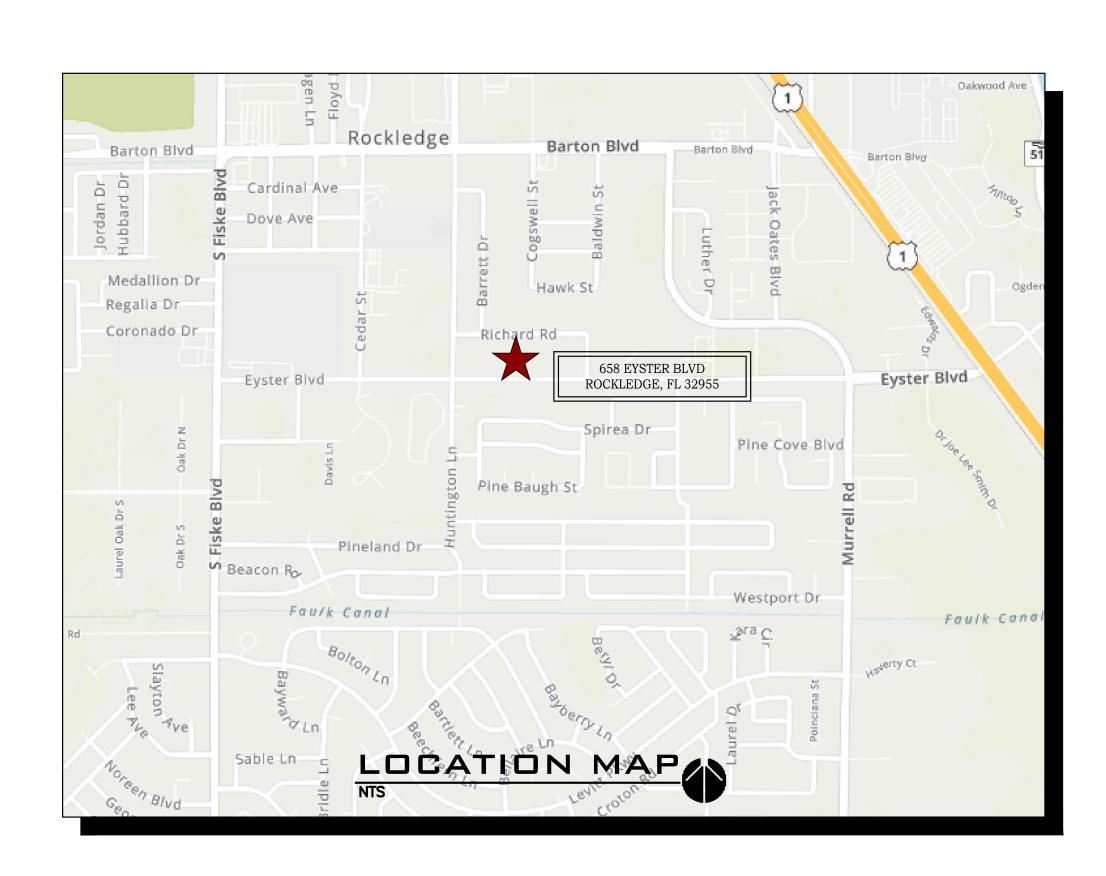
# TENANT BUILD-OUT EYSTER INDUSTRIAL



## DRAWINGS INDEX:

SHT NO	TITLE
G-1	COVER SHEET
A-1	ARCHITECTURAL PLAN
M - 1	MECHANICAL LEGEND AND SPECIFICATIONS
M-2	MECHANICAL PLAN
P-1	PLUMBING SPECIFICATIONS AND PLAN
E-1	ELECTRICAL SPECIFICATIONS AND PLAN
E-2	ELECTRICAL SCHEDULES AND RISER

# MECHANICAL AND ELECTRICAL



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#### STATEMENT OF COMPLIANCE

PROJECT LOCATION/GOVERNING AGENCY JURISDICTION:

CITY OF ROCKLEDGE, FLORIDA

7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - MECHANICAL (FBCM)

NFPA 70 - 2014 NATIONAL ELECTRICAL CODE (NEC)

#### BUILDING DATA

THE EXISTING BUILDING IS COMPRISED FULLY OF NON-COMBUSTIBLE CONSTRUCTION AND IS NON-SPRINKLED, NON-PROTECTED. TYPE IIB. OCCUPANCY TYPE - (B) BUSINESS THE GSF OF EXISTING BUILDING IS 5,600 GSF

TOTAL GROSS FLOOR AREA FOR BUILDOUT (1,867 GSF)

# **ENGINEERS**

ALL WORK SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES, BUT NOT LIMITED TO:

7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ACCESSIBILITY (FBCA) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ENERGY CONSERVATION (FBCEC)

7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - PLUMBING (FBCP) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - FUEL GAS (FBCFG) 7TH EDITION OF THE 2020 FLORIDA FIRE PREVENTION CODE (FFPC)

Rockledge, Florida 32955

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C.O.A.: 25988

REVIEW SET PERMIT SET BID SET

AS BUILT

DDC PROJECT NO.:

dasilva.david@ddc-engineers.com

MARCH 1, 2022

REVISIONS

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APPROVED: David A. DaSilva

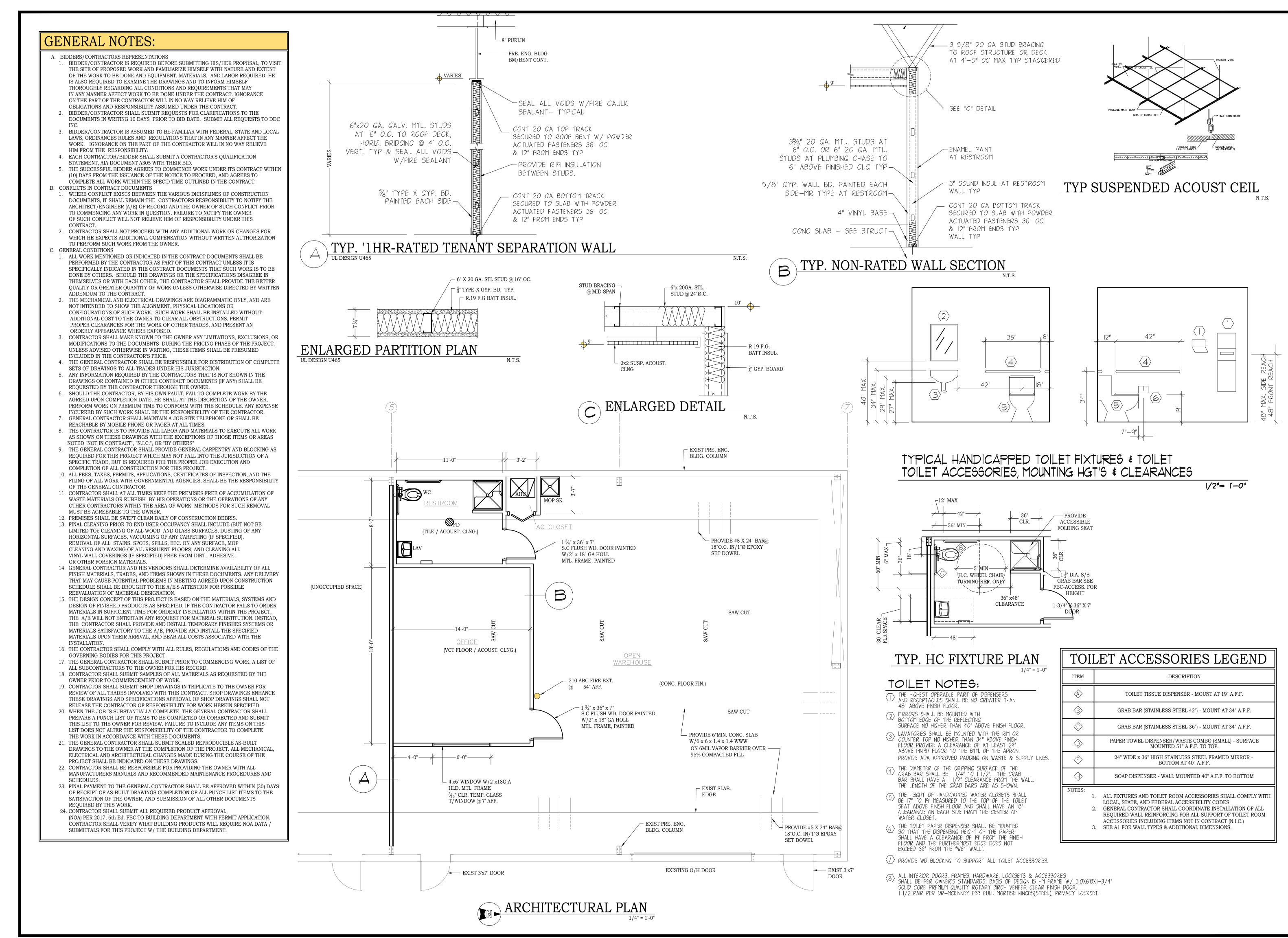
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#### LIFE SAFETY REVIEW

#### BUILDING CLASSIFICATIONS: CONSTRUCTION TYPE - TYPE IIB, NON-COMBUSTIBLE, NON-SPRINKLERED, NON-PROTECTED ALLOWABLE SQUARE FOOTAGE, 23,000 NON-SPRINKLERED PER T506.2 FBC 2017, 7TH ED. OCCUPANCY TYPE - (B) BUSINESS OCCUPANCY REQ'S: 1. (B) BUSINESS OCCUPANCY AREA OF BUSINESS SPACE SUITE: 1,867 GSF / 100 GSF PER OCC [T.1004.1.2] = 19 OCC. 22 OCC X .2 [FBC1005.3.2]= 3.8" EXIT WIDTH REQUIRED. 140" EXIT WIDTH PROVIDED FOR PROPOSED BUSINESS TENANT EXIT ACCESS TRAVEL DISTANCE WITHOUT SPRINKLER SYSTEM IN 'B' BUSINESS OCCUPANCY [FBC 2017, 7TH ED. T.1017.2] = 200' 100' COMMON PATH TRAVEL (FBC 2017, 7TH ED. T1006.2.1)

TENANT SPACE (FBC-P T403.1) PER FBC 2020, 7TH ED. (T508.4). NO RATED TENANT SEPARATION REQUIRED BETWEEN 'B' BUSINESS OCCUPANCIES.

19 TOTAL OCCUPANTS FOR PROPOSED TENANT SPACE 'B' OCCUPANCY, ONE RESTROOMS REQUIRED FOR PROPOSED



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CONSULTANTS:

MARCH 1, 2022 REVIEW SET PERMIT SET BID SET CONSTRUCTION SET AS BUILT

REVISIONS

INDUSTRIAL

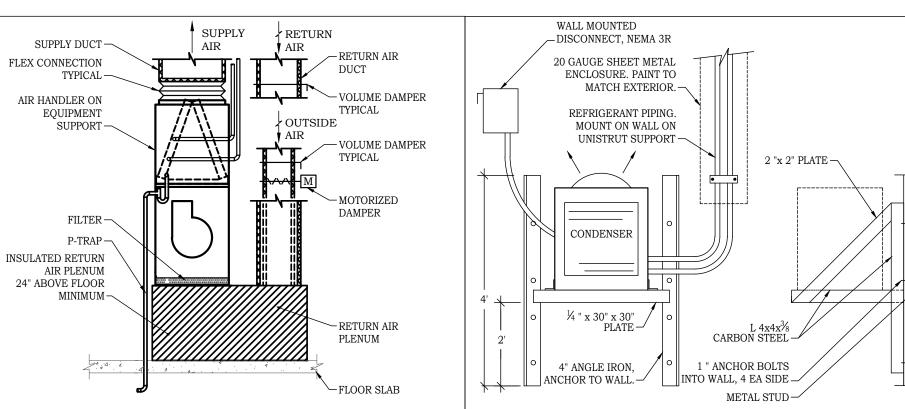
F BUILD-OUT
EYSTER BLVD.
EDGE FL, 32955

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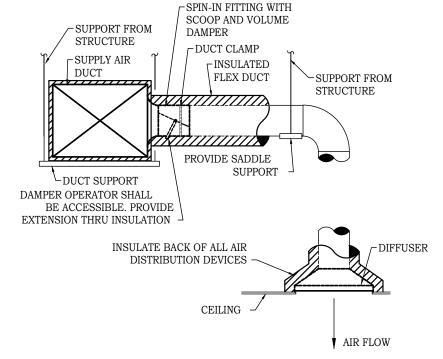
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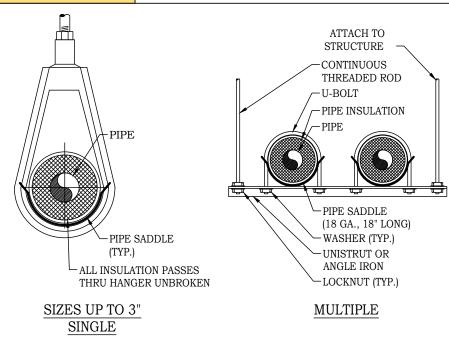
David A. DaSilva

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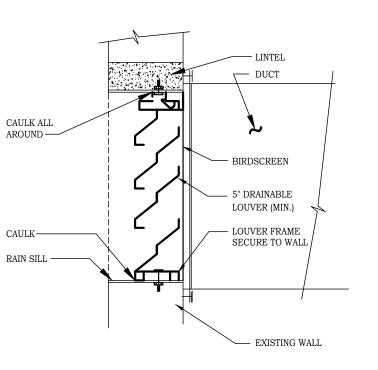


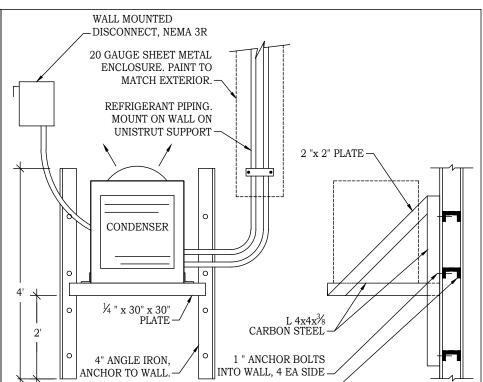
TYPICAL AC INSTALLATION WITH OUTSIDE AIR



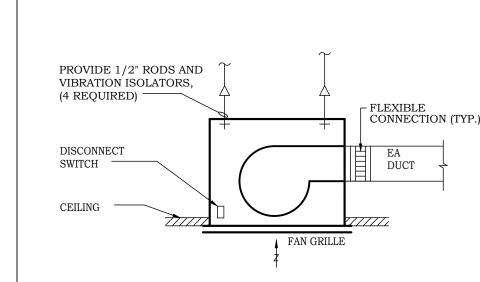


INSULATED M-D009

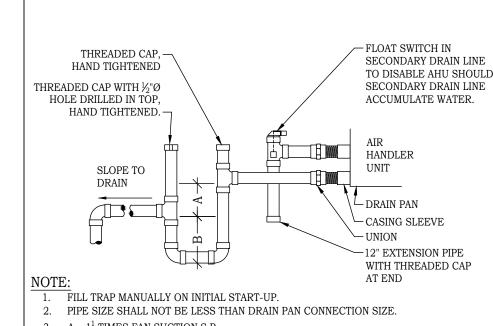




CONDENSING UNIT

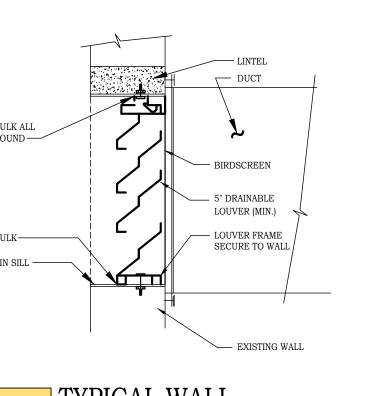


EXHAUST FAN DETAIL



3. A =  $1\frac{1}{2}$  TIMES FAN SUCTION S.P. B = ½" PLUS FAN DISCHARGE S.P. ALL CONDENSATE PIPING TO BE COPPER.

. INSULATE ALL DRAIN LINES WITH  $\frac{3}{4}$ " ARMAFLEX CONDENSATE DRAIN P-TRAP DETAIL



	AC SPLIT SYSTEM SCHEDULE																					
MARK	NOMINAL	O.A.	ESP	AMD.		ING CAP		mom.	NO			DATA (OUTD	1		MOA			DATA (IND		_	NOMINAL	MANITEACTUDED
INDOOR/ OUTDOOR	CFM	CFM	ESP	AMB. TEMP	ENT DB	ENT WB	SENS MBH	TOT MBH	NO COMP	COMP RLA(EA)	NO FAN	FAN FLA(EA)	FAN HP	VOLT/ PHASE	MCA/ MOCP	FAN HP	KW HEAT	STAGE	VOLT/ PHASE	MCA/ MOCP	TONS	MANUFACTURER
AC-1/CU-1	600	80	.5	95	80	67	13.2	18.2	1	7.2	1	0.6	1/15	208/1	15/20	1/8	7.5	1	208/1	54/60	1.5	TRANE/CARRIER/YORK

PROVIDE MOTORIZED OUTSIDE AIR INTAKE 4. COORDINATE INSTALLATION OF SMOKE DETECTORS WITH DIV. 16 (NOT REQ'D IF 2000 DAMPER FOR THE OA DUCT.

INSTALL AND ANCHOR CONDENSER UNIT TO CFM OR LESS. PROVIDE VIBRATION ISOLATIONS. STRUCTURE (SLAB). 3. MIN. SEER OF 16.0 6. PROVIDE 410A REFRIGERANT.

7. PROVIDE SINGLE POINT ELECTRICAL CONNECTION 11. PROVIDE PROGRAMMABLE THERMOSTAT

8. PROVIDE 1" PLEATED FILTERS. 9. PROVIDE 5 YEAR WARRANTY.

10. PROVIDE CONDENSER COIL GUARDS.

WITH DISCONNECT.

12. BALANCE UNITS BASED ON AIRFLOW RATES SHOWN ON DRAWINGS.

13. PROVIDE VARIABLE SPEED AIRHANDLER WITH HUMIDISTAT 14. PROVIDE UNLOADING COMPRESSOR. (MIN. 2 STAGES) 15. PROVIDE 30" WIDE AND 30" DEEP CLEAR SPACE ON SERVICE SIDE

EXHAUST FAN SCHEDULE MAX VOLT / SONES PHASE DRIVE TYPE FAN SERVICE CONTROL MANUFACTURER / MODEL

OF EQUIPMENT.

PROVIDE THE FOLLOWING: DISCONNECT SWITCH, VIBRATION ISOLATORS, BACKDRAFT DAMPER, SPEED CONTROL

OUTDOOR AIR SCHEDULE														
UNIT TAG	ZONE USE		OCCUPANCY DENSITY (PEOPLE/1000 SQ.FT.)	FBC-MECHANICAL TABLE 40 ZONE MAX OCCUPANCY (# OF PEOPLE)	03.3.1.1 CFM/ PERSON	CFM/ AREA	TOTAL REQUIRED O.A. CFM	OA CFM PER SEC. 403.2 *	OA CFM PROVIDED					
AC-1	OFFICE	337	5	2	5	0.06	30	////	50					

EF-1 CEILING 70 0.25 20 - - DIRECT RESTROOMS 5 115/1 SWITCH GREENHECK/SP SERIES SEE BELOW

	AIR DI	STRIE	BUT	ION I	)EVIC	E SCHEDULE	C	
MARK	TYPE	CFM RANGE	MAX NC	NECK SIZE (IN.)	FLEX DIAM. (IN.)	MANUFACTURER / MODEL	REMARKS	
12x12		0-100	25	6"Ø	6			
図		101-200	25	8"Ø	8			
	SUPPLY	201-300	25	10"Ø	10	WWW IO		
	DIFFUSERS	301-400	25	12"Ø	12	TITUS TDC-AA	1,2,3	
	DIFFUSERS	401-600	25	14"Ø	14	IDC-AA		
×		601-1000	25	16"Ø	16			
24x24		1001-1500	25	18"Ø	18			
	RETURN	0-800	25	20x20	ı	TITUS 350-FLF1	1,2,3	
8	GRILLE	801-3000	25	48x24	ı	11105 330-FEF1	1,2,3	
SWD	SIDEWALL DIFFUSER	-	25	SEE DWGS	ı	TITUS 272-FS	1,2,3	
SWR	SIDEWALL RETURN	-	25	SEE DWGS	ı	TITUS 4FL	1,2,3	
DG	DOOR	0-400	25	12x12	-	TITUS	2	
DG	GRILLE	401-750	25	18x18	-	11105	3	
REMARKS	S: 1. PROVIDE	OPPOSED BLAI	DE VOLU	ME DAMPERS				

2. CONTRACTOR SHALL COORDINATE GRILLES, DIFFUSERS AND REGISTER'S BORDER TYPES WITH CEILING

WALLS, EQUIPMENT ETC.

3. PROVIDE ALL ALUMINUM CONSTRUCTION. ALL GRILLES SHALL BE FULL FACE OF MODULE. ALL LAY-IN CEILING RETURN MODULES SHALL BE 24"x24"

WITH 20"x20"x1" FILTER

INSULATE THE BACK OF ALL SUPPLY AND RETURN AIR DEVICES.

PROVIDE BORDER TYPE 1 FOR LAY-IN CEILINGS, AND BORDER TYPE 3 FOR GYPSUM BOARD CEILINGS.

PROVIDE 1" PLEATED FILTER.

5. THE NUMBER ADJACENT TO THE FIXTURE INDICATES AIR FLOW (CFM).

FLEX DUCT SCHEDULE													
CFM	DUCT SIZE	TRANSFER DUCT SIZE											
0-100	6"Ø	9"Ø											
101-200	8"Ø	12"Ø											
201-300	10"Ø	16"Ø											
301-400	12"Ø	18"Ø											
401-600	14"Ø	22"Ø											
601-1000	16"Ø	24"Ø											
1001-1500	18"Ø	28"Ø											

1501-2000

28"Ø

LOUVER SIZE CFM0-300 SIZE BOTH SUPPLY AND RETURN BASED UPON AIRFLOWS ABOVE 301-500 501-1000 1001-1500 1501-2000 NOTE: PROVIDE REMOVABLE INSECT SCREEN ON BACK OF LOUVER.

AIR BA	LANCE
OUTSIDE AIR AC-1 TOTAL OUTSIDE AIR	= 80 CFM = 80 CFM
EXHAUST AIR EF-1 TOTAL EXHAUST AIR	= 70 CFM = 70 CFM
BUILDING IS POSITIVE	= 10 CFM

LOUVER

SCHEDULE

PROVIDE LOUVERS AS MANUFACTURED BY GREENHECK

MODEL EVH-501D. LOUVER SHALL BE 5" DRAINABLE ALL ALUMINUM. PAINT TO MATCH EXISTING FINISH. ALL

LOUVERS TO MEET CURRENT MIAMI-DADE HURRICANE STANDARDS AND FLORIDA BUILDING CODE. SIZE LOUVER AS SHOWN BELOW (IF NOT SPECIFIED ON DRAWINGS).

24"X16"

24"X16"

36"X16"

48"X16"

72"X16"

	LEGEND
SYMBOL	DESCRIPTION
T	THERMOSTAT CONTROL
$^{\textcircled{H}}$	HUMIDISTAT
<u>\$</u>	TEMPERATURE SENSOR
***************************************	ROUND INSULATED FLEXIBLE DUCT
	FIRE DAMPER
—CD—	CONDENSATE
U <u>C</u>	UNDERCUT DOOR
	SUPPLY DIFFUSER
Ø	RETURN AIR GRILLE
<u> </u>	OA SOFFIT LOUVER
TG	TRANSFER GRILLE (ABOVE DOOR)
	INLINE FAN
EF-	EXHAUST FAN WITH DESIGNATION
<b>-</b> /-	EA SOFFIT LOUVER
Ä	DUCT TRANSITION
OR	RECTANGULAR OR ROUND SUPPLY OR RETURN DUCT (AS NOTED)
OR	MANUAL VOLUME DAMPER
	ELBOW WITH TURNING VANES
DIFFUSER TYPE 450CFM	DIFFUSER OR GRILLE DESIGNATION
	DUCTSOX
SD- RS	PHOTOELECTRIC DUCT SMOKE DETECTOR R=RETURN S=SUPPLY
	MOMODIAND STREET

MOTORIZED DAMPER

CD CONDENSATE DRAIN

DB/WB DRY BULB/WET BULB

CFM CUBIC FEET PER MINUTE

CONDENSER

MBH THOUSAND BTU PER HOUR MCA MINIMUM CIRCUIT AMPS

PTAC PACKAGE TERMINAL AIR CONDITIONER

LIGHT DASHED INDICATES EXISTING

DARK DASHED INDICATES EXISTING

HATCHED ITEMS INDICATES EQUIPMEN TO BE REMOVED AND RELOCATED

EQUIPMENT RELOCATED DARK SOLID INDICATES NEW

NOT IN CONTRACT (N.I.C.)

AHU AIR HANDLER

EA EXHAUST AIR

EF EXHAUST FAN

OA OUTSIDE AIR

RA RETURN AIR SA SUPPLY AIR SENS SENSIBLE

///////

SD SMOKE DETECTOR ROOF TOP UNIT

EOUIPMENT

EQUIPMENT

DEMO

KW KILOWATT

AIR CONDITIONER

### MECHANICAL SPECIFICATIONS

PROVIDE THE FOLLOWING:

SCOPE OF WORK CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL HVAC SYSTEM AS INDICATED ON THE DRAWINGS. CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH ALL OTHER TRADES. CHANGES TO THE DESIGN BY THE CONTRACTOR WILL RESULT IN ADDITIONAL DESIGN COST AT CONTRACTORS EXPENSE.

SPECIAL PROVISIONS
ALL WORK SHALL BE IN COMPLIANCE WITH THE 2020 FLORIDA BUILDING CODE (7TH EDITION), 2020 FLORIDA BUILDING CODE - MECHANICAL (7TH EDITION), 2020 FLÒRIDA BUILDING CODE - PLUMBING (7TH EDITION), 2020 FLORIDA FIRE PREVENTION CODE (7TH EDITION), 2020 FLORIDA BUILDING CODE - ENERGY CONSERVATION (7TH EDITION) FOR BUILDING CONSTRUCTION, 2017 NATIONAL ELECTRIC CODE (NEC), UNITED LABORATORIES (UL), AND THE ORDINANCES AND REGULATIONS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

BEFORE PURCHASE OR FABRICATION OF EQUIPMENT AND WITHIN 30 DAYS OF AWARD OF GENERAL CONTRACT, CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER FOR APPROVAL, 3 COPIES OF SHOP DRAWINGS FOR ALL DUCTWORK AND HVAC EQUIPMENT AND MATERIALS. SHOP DRAWINGS SHALL INDICATE WORKING AND EŘECTION DIMENSIONS, ELECTRICAL CHARACTERISTICS (VOLTS, PHASE AND AMPS) LOCATION AT WHICH MÁTERIALS AND EQUIPMENT ARE TO BE INSTALLED AND OTHÉR ESSENTIAL DATA. PARTIAL OR INCOMPLETE SUBMITTALS WILL NOT BE ACCEPTED. ANY MATERIAL USED WITHOUT APPROVAL WILL BE REJECTED. PROVIDE SUBMITTALS ON ALL ITEMS EXCEPT PIPING. SUBMIT SHOP DRAWINGS TO ELECTRICAL CONTRACTOR FOR APPROVAL AND COORDINATION. A COMPLETE HVAC DUCT LAYOUT INCLUDING AIR DISTRIBUTION DEVICES SHALL BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO

MATERIALS, UNLESS OTHERWISE NOTED, SHALL BE NEW, FREE OF DEFECTS AND IN ACCORD WITH FOLLOWING SCHEDULES AND PARAGRAPHS. THE APPROVAL OF ANY MATERIALS WILL NOT BE CONSIDERED AS ACCEPTANCE OF WORK WHERE INSTALLED IS SUCH MATERIALS PROVE DEFECTIVE. WHERE NO SPECIFIC WEIGHTS OR GRADES ARE SPECIFIED, MATERIALS SHALL BE OF THE GENERALLY ACCEPTED STANDARD WEIGHT

OUCTWORK (FIBERGLASS)
THE HEATING AND AIR CONDITIONING DUCTWORK SHALL BE OWENS CORNING TYPE 475-FR, 1-1/2" THICK FIBERGLASS DUCT (MIN R-VALUE OF 6) OR APPROVED EQUAL. THE DUCT SYSTEM, INCLUDING BOARD, VAPOR BARRIER, TAPES AND ADHESIVES, ŠHALL BE UL LISTED AND LABELED CLASS 1 AIR DUCT. DUCT SHALL BE INSTALLED PER THE STANDARD OF SMACNA-10 IN CHAPTER 15 OF FBCM. EXHAUST DUCT SHALL BE

THE HEATING AND AIR CONDITIONING DUCTWORK SHALL BE G-90 GALVANIZED STEEL PAINTED, w/ BLANKET INSULATION (MIN. R-6). EXHAUST DUCT SHALL BE GALVANIZED. PROVIDE FLEX DUCT TO AIR DEVICE WHERE SHOWN (NO MORE THAN 6'-0" LONG). ALL DUCTWORK PENETRATING FIRE-RATED WALLS SHALL HAVE A FIRE DAMPER. THE USE OF R-6 DUCTBOARD MAY BE USED AS AN ALTERNATE (OWNER OPTION).

AIR DISTRIBUTION OUTLETS

GRILLES, REGISTERS, AND DIFFUSERS SHALL REQUIRE ADC, ARI, AND AMCA COMPLIANCE. BORDER STYLES AND FINISHES SHALL BE COMPATIBLE WITH ADJACENT CEILING SYSTEMS, AND CONSTRUCTED OF MATERIALS AND COMPONENTS AS REQUIRED FOR A COMPLETE INSTALLATION. SUPPLIER/MANUFACTURER SHALL VERIFY EACH DEVICE FOR A MAXIMUM NECK VELOCITY OF 500 FPM AND NC-30.

#### PIPE SCHEDULE

REFRIGERANT PIPING SHALL BE ACR COPPER TUBING, WITH WROUGHT COPPER

FITTINGS IN CONFORMANCE WITH ASTM B280. A. JOINTS IN COPPER TUBE (REFRIGERANT SERVICE) - CUT SQUARE, BURR, CLEAN FITTING AND TUBE TO CUP DEPTH OF FITTING APPLY THIN FILM OF BRAZING FLUX TO TUBE END AND FITTING. USE SILVER SOLDER AND OXYGEN-ACETYLENE

EQUIPMENT ONLY IN MAKING JOINTS. PURGE WITH NITROGEN WHEN HEATING. PIPING SHALL BE SIZED AND INSTALL PER THE HEAT PUMP EQUIPMENT MANUFACTURER'S WRITTEN INSTRUCTION.

C. SUCTION LINES SHALL BE INSULATED CONTINUOUSLY WITH EXTERIOR EXPOSED SURFACES TREATED PER MANUFACTURER'S RECOMMENDATIONS. INSULATION SHALL BE ARMAFLEX OR EQUAL.

CONDENSATE DRAIN LINE:
CONDENSATE DRAIN LINES SHALL BE PROVIDED FOR AIR HANDLING UNITS. DRAIN LINES SHALL BE SCHEDULE 40 PVC.

A. DRAIN LINES SHALL BE GRADED IN THE DIRECTION OF FLOW WITH A SLOPE OF ¼" B. WATER SEALS SHALL BE PROVIDED IN THE CONDENSATE DRAIN FROM UNIT. THE DEPTH OF SEAL SHALL BE EQUAL TO THE TOTAL STATIC PRESSURE RATING OF THE UNIT TO WHICH THE SEAL IS CONNECTED. WATER SEALS SHALL BE CONSTRUCTED TO TWO TEES AND AN APPROPRIATE U-BED WITH THE OPEN END TO EACH TEE

PLUGGED, HANDTIGHT. C. ROUTE DRAIN LINE INTO OUTSIDE FRENCH DRAIN OR SPLASH BLOCK.

TEST AND BALANCE

PROVIDE A COMPLETE TEST AND BALANCE REPORT AND SUBMIT TO ENGINEER FOR REVIEW. T&B FIRM MUST BE NEBB OR AABC CERTIFIED. READINGS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING: SUPPLY AIR CFM

 RETURN AIR CFM STATIC PRESSURE

EXHAUST AIR CFM

ANY CHANGES TO THESE DOCUMENTS BASED ON CONTRACTOR REQUESTED REVISIONS SHALL BE CONSIDERED ADDITIONAL SERVICES.

## CODE COMPLIANCE REQUIREMENTS

ALL WORK SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES, BUT NOT LIMITED TO: 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - BUILDING (FBCB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - EXISTING BUILDING (FBCEB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ACCESSIBILITY (FBCA) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ENERGY CONSERVATION (FBCEC) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - MECHANICAL (FBCM) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - PLUMBING (FBCP) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - FUEL GAS (FBCFG) 7TH EDITION OF THE 2020 FLORIDA FIRE PREVENTION CODE (FFPC) NFPA 70 - 2017 NATIONAL ELECTRICAL CODE (NEC)

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CONSULTANTS:

MARCH 1, 2022 REVIEW SET PERMIT SET BID SET CONSTRUCTION SET

REVISIONS

AS BUILT

INDUSTRIAL FYSTER BLVD.

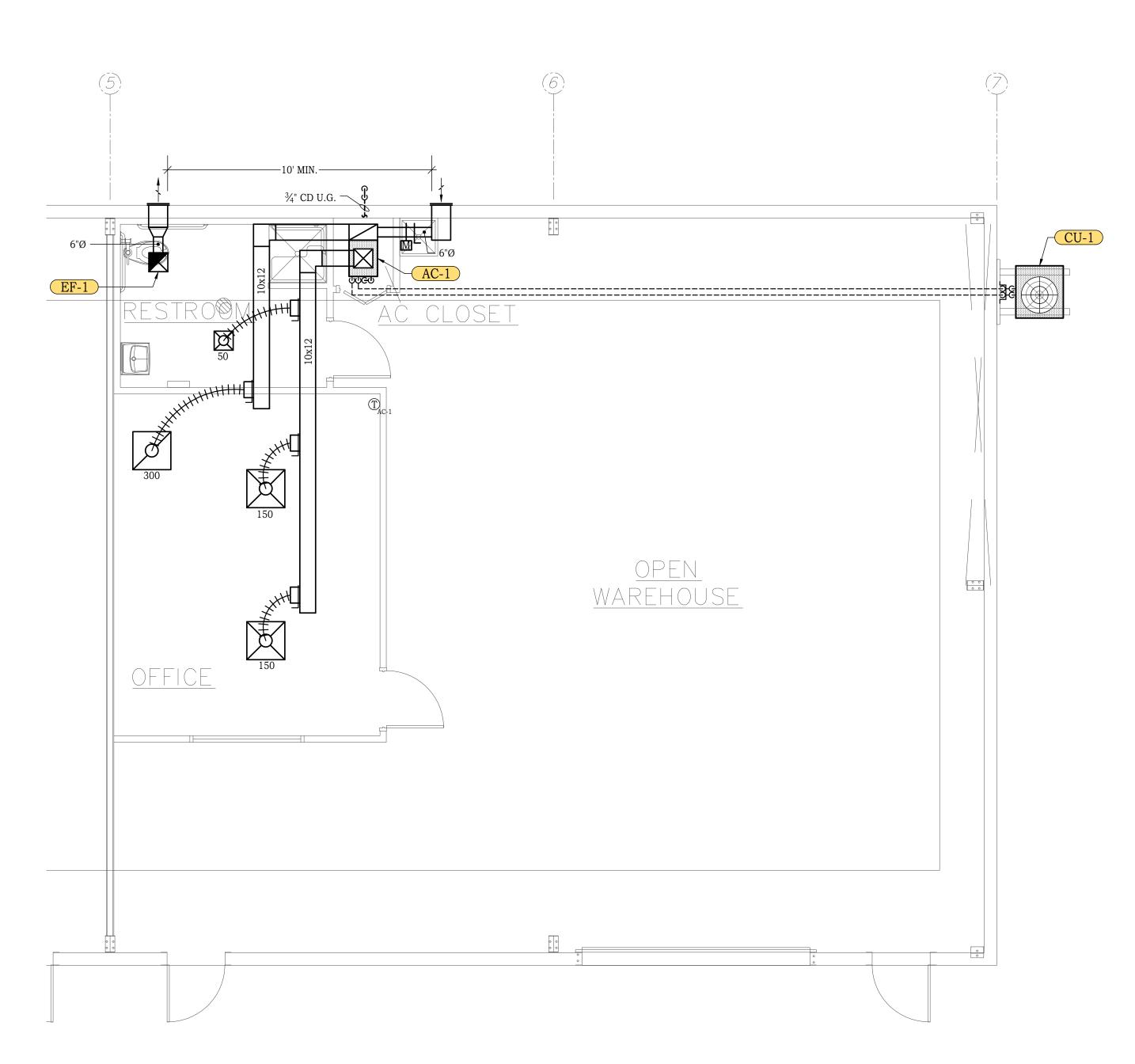
SPECIFICATIONS

AND

LEGEND

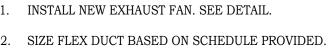
CHECKED: APPROVED:

David A. DaSilva 54739





## PLAN NOTES



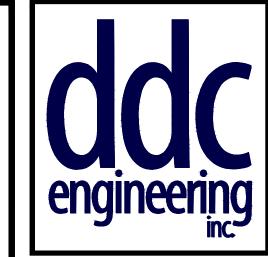
- 3. INSULATE BACK OF ALL DIFFUSERS.
- 4. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR.
- 5. MOUNT AC UNIT ON PLATFORM. SEE DETAIL.
- 6. PROVIDE 12"x12" E.A. WALL OUTLET OR SOFFIT OUTLET.
- 7. PROVIDE E.A. LOUVER. SEE SCHEDULE FOR SIZE.

8. PROVIDE O.A. LOUVER. SEE SCHEDULE FOR SIZE.

- ROVIDE E.A. LOUVER. SEE SCHEDOLE FOR SIZE.
- 9. PROVIDE MOTORIZED AND MANUAL DAMPER IN O.A. DUCT.
- 10. ROUTE REFRIGERANT PIPING UNDERGROUND TO CONDENSER UNIT.

11. ROUTE ¾" CONDENSATE DRAIN UNDERGROUND TO EXTERIOR GREEN AREA OR DRYWELL.

12. MOUNT CONDENSER UNIT ON 4" PAD AND ANCHOR TO PAD.



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DDC PROJECT NO.: 22024

CONSULTANTS:

DATE
MARCH 1, 2022

REVIEW SET
PERMIT SET
BID SET
CONSTRUCTION SET
AS BUILT

REVISIONS

NO. DATE DESCRIPTION

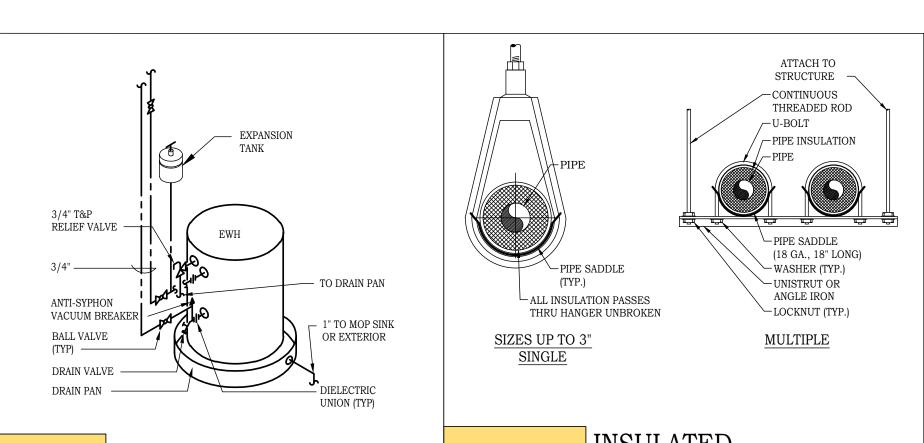
CSTER INDUSTRIAL ENANT BUILD-OUT 658 EYSTER BLVD. ROCKLEDGE FL, 32955

MECHANCIAL PLAN

DRAWN: CHECKED: APPROVED:

David A. DaSilva 54739

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WATER HEATER DETAIL

½ " x 30" x 30"

TOP OF FLOOR DRAIN

THAN FINISH FLOOR

GRATE TO BE 1" LOWER

DRAIN SUPPORT STRAP

- DIMENSION WILL VARY

WATER HEATER

FLOOR DRAIN

FD-1 DETAIL
N.T.S.

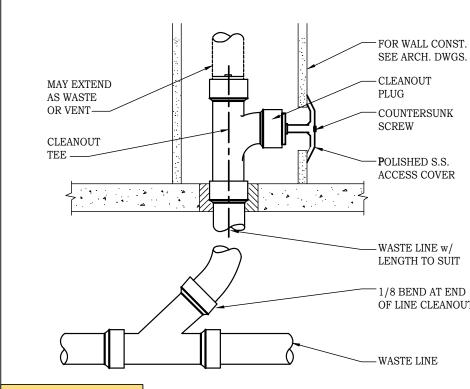
PLATE

INTO WALL 4 EA SIDE

-METAL STUD

← GYP. BOARD

SLOPES)



WALL CLEANOUT DETAIL

- TRAP PRIMER CONNECTION - TYPE K SOFT COPPER TUBING

SLEEVE AND SEAL PIPING THRU SLAB

- COLD WATER SUPPLY LINE TO FIXTURE TILE FLOOR (SEE WALL STUD ARCHITECTURAL WALL MOUNTED BRACKET FOR FLOOR ADJUSTABLE DRAIN HEAD CHROME PLATED WALL TRAP FILLER ATTACHED TO DRAIN DRAIN BODY ADJUSTABLE STRAINER

> LAVATORY SUPPORT **P6** TRAP PRIMER DETAIL
>
> N.T.S.

#### ELECTRIC WATER HEATER STORAGE KW PER NUMBER TOTAL VOLTAGE/ RECOVERY NOTE MANUFACTURE / MODEL KW (GPH) @ 100°F EFFICIENCY ELEMENT ELEMENTS PHASE A.O. SMITH DEL-30 SEE BELOW EWH-1 30 110°F 3.0 2 3.0 208-240/1 94%

NOTES: PROVIDE THE FOLLOWING: EXPANSION TANK PRESSURE RELIEF VALVE

AUXILIARY DRAIN PAN

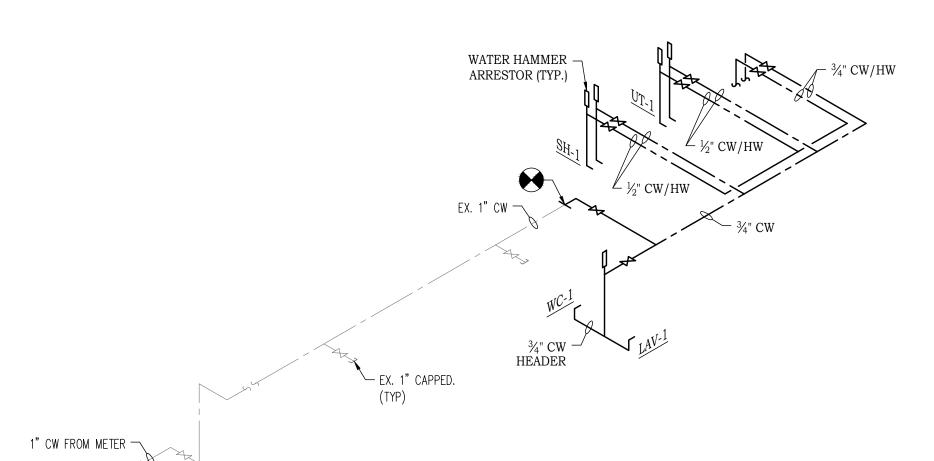
	P.	LUMBING FI	XTU	RE	SCH	EDU	JLE	
TAG	EQUIPMENT	DESCRIPTION / ACCESSORIES	CW	PIPE HW	SIZE WASTE	VENT	MANUFACTURE / MODEL	NOTES
FD-1	FLOOR DRAIN	POLISHED BRONZE TOP W/ TRAP PRIMER	-	-	3"	1-1/2"	ZURN Z-400 SERIES	SEE BELOW
LAV-1	LAVATORY WALL HUNG ADA	VITREOUS CHINA SINGLE LEVER FAUCET ADA TYPE	1/2"	1/2"	2"	1-1/2"	KOHLER/AMERICAN STANDARD OR EQUAL	SEE BELOW
UT-1	UTILITY SINK	FIBERGLASS SINK WITH WITH GOOSENECK FAUCET	1/2"	1/2"	2"	1-1/2"	FIAT OR EQUAL	SEE BELOW
SH-1	SHOWER	SEE BELOW FOR VALVE	1/2"	1/2"	2"	1-1/2"	KOHLER/AMERICAN STANDARD OR EQUAL	SEE BELOW
	WATER CLOSET	PLASTIC ELONGATED SEAT,					KOHLER/AMERICAN STANDARD	SEE

PROVIDE SHUT OFF VALVES AND P-TRAPS AT ALL PLUMBING FIXTURES. PROVIDE HANDICAP FIXTURES IN ALL HANDICAP DESIGNATED

(17" HIGH)

- SHOWERS AND TUBS. RESTROOMS. 5. COORDINATE SINK SIZE WITH CABINET INSTALLER. 6. PROVIDE ULTRA-COMPACT THERMOSTATIC MIXING VALVE, WITH . ROUTE  $\frac{5}{8}$ " DRAIN,  $\frac{3}{8}$ " HW TO ALL DISHWASHERS FROM NEAREST SINK. TEMPERATURE GAUGE, FOR ALL LAVATORIES AND HAND SINKS, AS MANUFACTURED BY WEBSONE.
  - CONTRACTOR TO PROVIDE A SEPERATE COST FOR ALL PLUMBING FIXTURES IN BID PACKAGE. OWNER TO MAKE FINAL SELECTION OF FIXTURES. (CONTRACTOR TO COORDINATE WITH OWNER).

4. PROVIDE PRESSURE BALANCING VALVE AND ANTI SCALD DEVICE FOR ALL





DRAWING	LEGEND
DETAIL	DESCRIPTION
ss	SANITARY WASTE PIPING
CW	COLD WATER PIPING
HW	HOT WATER PIPING
140°	HI-TEMP HOT WATER PIPING
HWR	(TEMPERED) HOT WATER RECIRCULATION PIPING
CD	CONDENSATE DRAIN PIPING
	VENT PIPING
SD	STORM DRAIN
<del></del>	CHECK VALVE
	MIXING VALVE
— – — Ø FCO/ECO	FLOOR CLEANOUT & EXTERIOR CLEANOUT
— - — и WCO.	WALL CLEANOUT
8 \$	FLOOR DRAIN
	FLOOR SINK
•	CONNECT TO EXISTING
<del></del>	GATE VALVE OR BALL VALVE
RD	ROOF DRAIN
RWL	RAIN WATER LEADER
VTR	VENT THROUGH ROOF

SANITARY SEWER

GREASE WASTE

GAS SERVICE

DEMO

COMPRESSED AIR

NOT IN CONTRACT (N.I.C.)

GAS WATER HEATER

THERMOSTATIC MIXING VALVE

SS

GWH

TMX

-GW----

## PLUMBING SPECIFICATIONS

PROVIDE THE FOLLOWING:

SCOPE OF WORK CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS AS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS.

CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH ALL OTHER TRADES.

PECIAL PROVISIONS
ALL WORK SHALL BE IN COMPLIANCE WITH THE 2020 FLORIDA BUILDING CODE (7TH EDITION), 2020 FLORIDA BUILDING CODE - PLUMBING (7TH EDITION), 2020 FLORIDA ENERGY CONSERVATION CODE (7TH EDITION), ORDINANCES AND REGULATIONS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

BEFORE PURCHASE OR FABRICATION OF EQUIPMENT AND WITHIN 30 DAYS OF AWARD OF GENERAL CONTRACT, CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER FOR APPROVAL, 3 COPIES OF SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS. SHOP DRAWINGS SHALL INDICATE WORKING AND ERECTION DIMENSIONS, ELECTRICAL CHARACTERISTICS (VOLTS, PHASE AND AMPS), LOCATION AT WHICH MATERIALS AND EQUIPMENT ARE TO BE INSTALLED AND OTHÉR ESSENTIAL DATA. PARTIAL OR INCOMPLETE SUBMITTALS WILL NOT BE ACCEPTED. ANY MATERIAL USED WITHOUT APPROVAL WILL BE REJECTED. PROVIDE SUBMITTALS ON ALL ITEMS EXCEPT PIPING. SUBMIT SHOP DRAWINGS TO ELECTRICAL CONTRACTOR FOR APPROVAL AND

MATERIALS, UNLESS OTHERWISE NOTED, SHALL BE NEW, FREE OF DEFECTS AND IN ACCORD WITH FOLLOWING SCHEDULES AND PARAGRAPHS. THE APPROVAL OF ANY MATERIALS WILL NOT BE CONSIDERED AS ACCEPTANCE OF WORK WHERE INSTALLED IF SUCH MATERIALS PROVE DEFECTIVE. WHERE NO SPECIFIC WEIGHTS OR GRADES ARE SPECIFIED, MATERIALS SHALL BE OF THE GENERALLY ACCEPTED STANDARD WEIGHT

DRAIN, WASTE AND VENT PIPING
SANITARY PIPING SHALL BE SCHEDULE 40 PVC IN CONFORMANCE WITH ASTM F1488.

- WATER SYSTEM (DOMESTIC PIPING)
  ABOVE GROUND WATER PIPING SHALL BE TYPE "L" COPPER WITH SWEATED CONNECTIONS. BELOW GROUND PIPING SHALL BE TYPE "K" COPPER WITH SWEATED CONNECTIONS. PIPING SHALL BE IN CONFORMANCE WITH ASTM B88 A. SOLDER JOINTS WITH FREE FLOWING SOFT LEAD FREE SOLDER ( $^{95}$ ) PER ASTM B32 B. PIPING SHALL BE TESTED HYDROSTATICALLY AT A PRESSURE OF 150 PSIG.
- C. AFTER COMPLETION OF WORK, THE PIPING SHALL BE FLUSHED AND STERILIZED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE. D. CPVC MAY BE USED.

INSTALLATION PIPE SHALL BE CUT ACCURATELY TO MEASUREMENTS ESTABLISHED AT THE JOB SITE AND WORKED INTO PLACE WITHOUT FORCING, PROPERLY CLEARING ALL WINDOWS, DOORS, AND OTHER OPENINGS. PIPES SHALL HAVE BURRS REMOVED BY REAMING AND SHALL BE SO INSTALLED AS TO PERMIT FREE EXPANSION AND CONTRACTION WITHOUT DAMAGE TO JOINTS OR HANGERS.

OPERATION AND MAINTENANCE INSTRUCTION
COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS MANUALS FOR EACH PIECE

OF EQUIPMENT, BOUND IN BOOK FORM, SHALL BE PREPARED. OPERATING INSTRUCTIONS EXPLAINING PREVENTIVE MAINTENANCE PROCEDURES, METHODS OF CHECKING THE SYSTEM FOR NORMAL SAFE OPERATION, AND PROCEDURE FOR SAFELY STARTING AND STOPPING THE SYSTEM SHALL BE PREPARED AND INCLUDED WITH THE

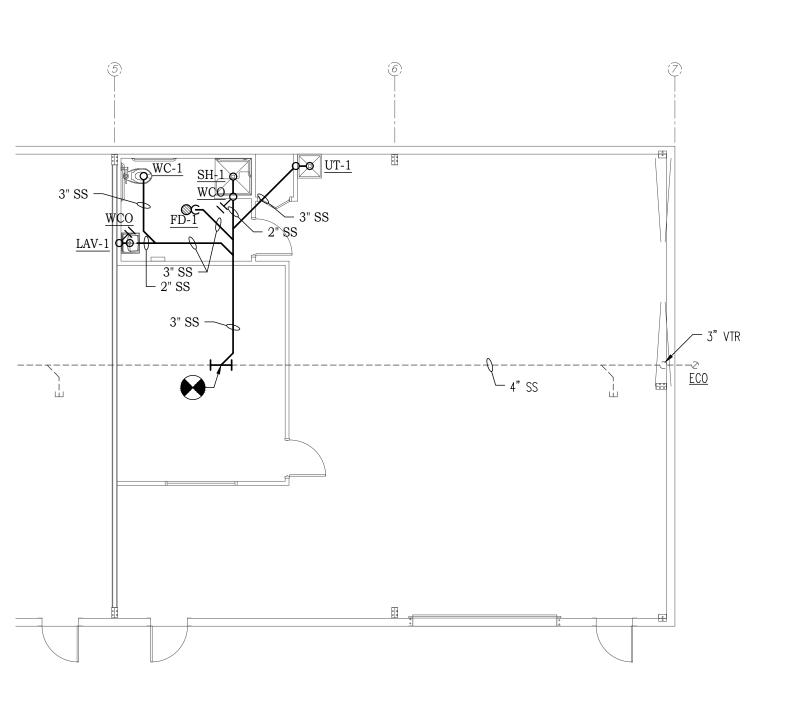
- GUARANTEE AND WARRANTIES

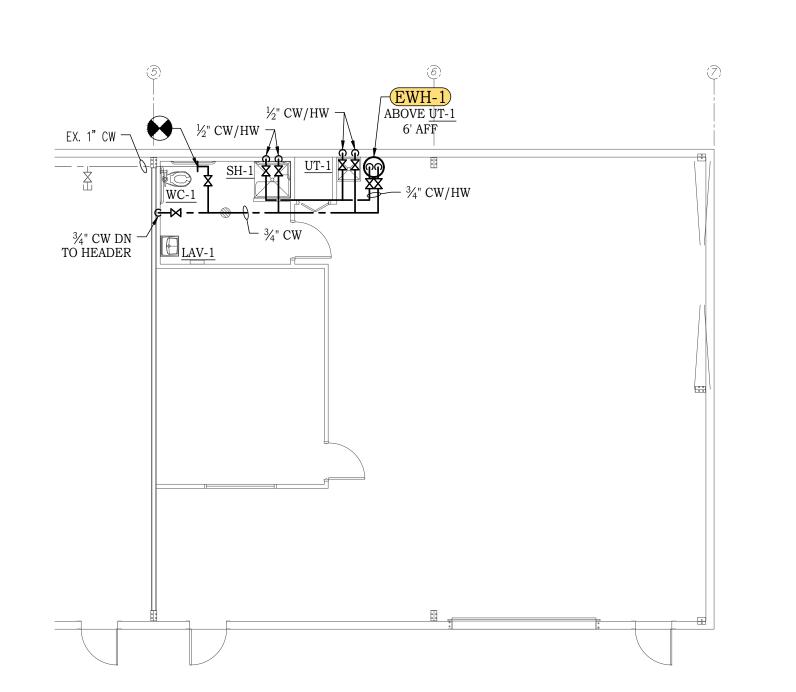
  A. FURNISH OWNER WITH A WRITTEN GUARANTEE PROTECTING THE OWNER FROM COSTS DUE TO POOR WORKMANSHIP AND FAULTY MATERIALS OR EQUIPMENT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. B. FURNISH OWNER WITH ORIGINAL EQUIPMENT FACTORY WARRANTIES.
- ANY CHANGES TO THESE DOCUMENTS BASED ON CONTRACTOR REQUESTED REVISIONS

## CODE COMPLIANCE REQUIREMENTS

ALL WORK SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES, BUT NOT LIMITED TO: 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - BUILDING (FBCB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - EXISTING BUILDING (FBCEB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ACCESSIBILITY (FBCA) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ENERGY CONSERVATION (FBCEC) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - MECHANICAL (FBCM) 7TH EDITION OF THE 2020 FLORIDA FIRE PREVENTION CODE (FFPC) NFPA 70 - 2017 NATIONAL ELECTRICAL CODE (NEC)

SEWER RISER





PLUMBING SEWER PLAN

1/8" = 1'-0



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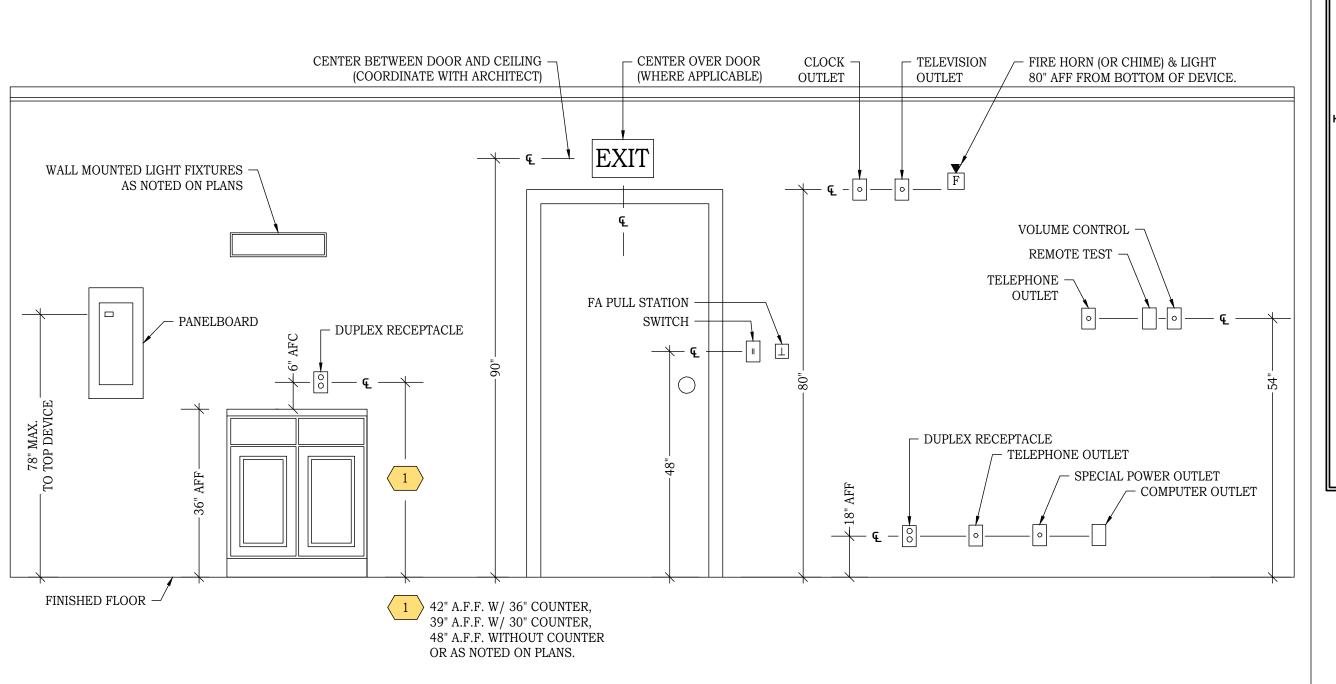
CONSULTANTS:

MARCH 1, 2022 REVIEW SET PERMIT SET BID SET CONSTRUCTION SET AS BUILT REVISIONS

SPECIFICATIONS AND PLAN PLUMBING DAD

CHECKED:

APPROVED: David A. DaSilva 54739



E-D102

LEGEND VANITY LIGHT. 40W LED. OWNER SELECTED DUPLEX RECEPTACLE, 18" AFF COMBINATION EXIT / EMERGENCY LIGHT WITH BATTERY BACKUP - BEGHELLI PCH-R-SA OR EQUAL HOME RUN SHOWER RATED DOWNLIGHT. 20W LED. OWNER SELECTED. 2x2 DIMMABLE FLAT PANEL. 50W LED. OWNER SELECTED 8' STRIP FIXTURE. 80W LED. OWNER SELECTED.  $\longrightarrow$ SINGLE POLE SWITCH - TOGGLE TYPE - MOUNT 48" AFF SUBSCRIPT INDICATES AS FOLLOWS: MOTOR RATED SWITCH - 1 OR 2 POLE 30 AMP WITH INTEGRAL THERMAL OVERLOADS WALL MOUNTED OCCUPANCY SENSOR SWITCH DUPLEX GFI RECEPTACLE DUPLEX GFI RECEPTACLE MOUNTED ABOVE COUNTER EXHAUST FAN MOTOR NEW COMM/DATA OUTLET WITH FLUSH MOUNTED 4" SQUARE SINGLE GANG JUNCTION BOX 18"AFF UNLESS NOTED OTHERWISE. EXTEND 1" CONCEALED CONDUIT TO ABOVE ACCESSIBLE CEILING AND STUB-OUT WITH PLASTIC BUSHING OR AS NOTED. INSTALL PULL WIRE. FUSED DISCONNECT SWITCH BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED

## CODE COMPLIANCE REQUIREMENTS

ALL WORK SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES, BUT NOT LIMITED TO: 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - BUILDING (FBCB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - EXISTING BUILDING (FBCEB) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ACCESSIBILITY (FBCA) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - ENERGY CONSERVATION (FBCEC) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - MECHANICAL (FBCM) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - PLUMBING (FBCP) 7TH EDITION OF THE 2020 FLORIDA BUILDING CODE - FUEL GAS (FBCFG)

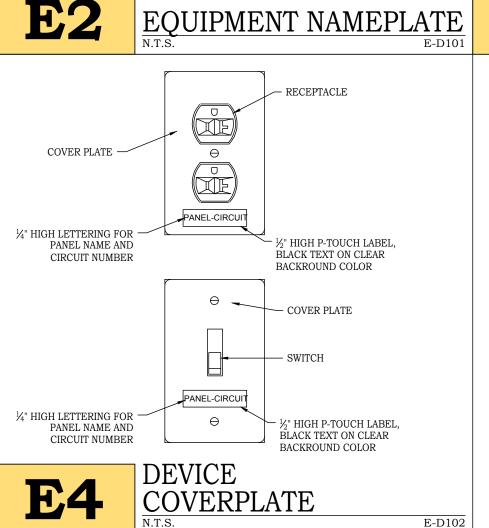
7TH EDITION OF THE 2020 FLORIDA FIRE PREVENTION CODE (FFPC)

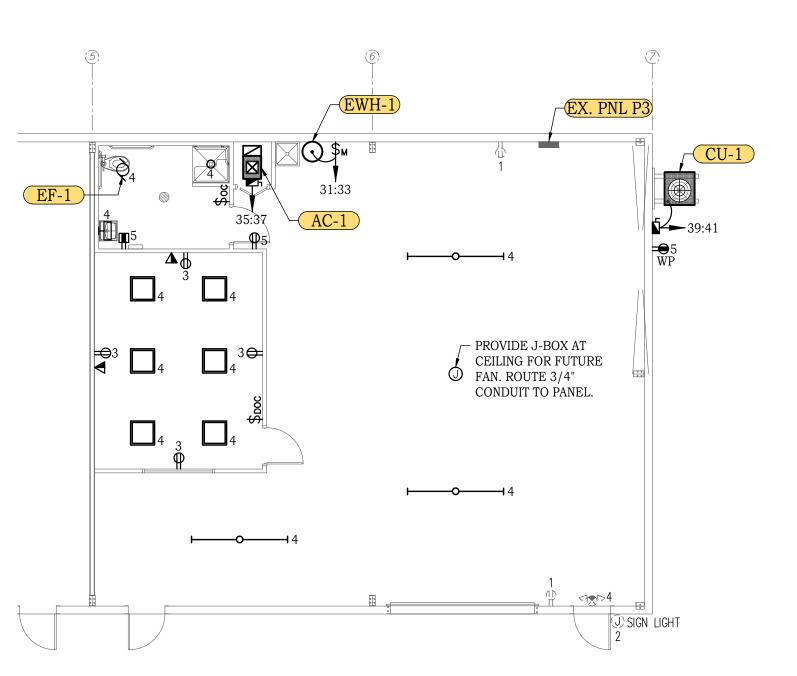
NFPA 70 - 2017 NATIONAL ELECTRICAL CODE (NEC)

E-D100

16" THICK WHITE PLASTIC 6" THICK WHITE PLASTIC WITH COLORED FACE PER WITH COLORED FACE PER SPECIFICATIONS. SPECIFICATIONS 6" HIGH LETTERING FOR ½" HIGH LETTERING PANELBOARD NAME. PANEL "XXXX" FOR PANELBOARD - ¼" HIGH LETTERING FOR 480V, 3Ø -120/208V, 3Ø, 4W FED FROM "NDH1-4" REMAINING TEXT. FED FROM PANEL "XXXX" ½" HIGH LETTERING - ADHESIVE BACKING WHEN VIA T-XXX FOR REMAINING TEXT SPACES. —2.5" MIN.— - EQUIPMENT NAME - FASTEN WITH BRASS TYPICAL 120/208V PANELBOARD SCREWS WHEN LOCATED IN NON-CONDITIONED OR EXTERIOR SPACES 480V, 3Ø 🚤 - PANELBOARD NAME FED FROM "NDH1-4" PANEL "XXX" - EQUIPMENT VOLTAGE AND PHASE. PANELBOARD VOLTAGE 277/408V, 3Ø, 4W EQUIPMENT SOURCE FED FROM PANEL "XXXX" -(PANEL & CIRCUIT) - PANELBOARD SOURCE TYPICAL EQUIPMENT TYPICAL 120/208V PANELBOARD PANELBOARD **E3** NAMEPLATE N.T.S.

MOUNTING HEIGHT DETAIL







#### ELECTRICAL SPECIFICATIONS

#### GENERAL

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (N.E.C.), 2020 FLORIDA ENERGY CONSERVATION CODE (7TH EDITION), ALL LOCAL CODES, ORDINANCES, REGULATIONS AND UTILITY POWER AND TÉLEPHONE COMPANY STANDARDS. ALL WIRE SHÂLL BE COPPER TYPE "THHN" FOR SIZES UP TO #8 AND TYPE "THW FOR #6 AND LARGER (UNLESS OTHERWISE NOTED). MINIMUM
- WIRE SIZE SHALL BE #12 AWG. ALL BRANCH AND FEEDER CIRCUITS SHALL CONTAIN A SEPARATE GROUNDING CONDUCTOR AND SHALL BE SIZED AND BONDED IN
- ACCORDANCE WITH ARTICLE 250 OF THE N.E.C. ALL CONDUIT INSTALLED IN INTERIOR LOCATIONS SHALL BE TYP E.M.T. WITH STEEL SET SCREW CONNECTORS AND COUPLINGS. ALL CONDUIT INSTALLED IN EXTERIOR LOCATIONS, ABOVE GRADE, SHALL BE GALVANIZED RIGID CONDUIT. ALL CONDUIT BELOW GRADE SHALL BE
  - SCHEDULE 40 PVC. ALL CONDUITS SHALL BE CONCEALED. CONTRACTOR TO COORDINATE THE LOCATION OF RECEPTACLES, CONTROL CIRCUITS, COMMUNICATIONS AND DATA OUTLETS, LIGHTING FIXTURES AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
  - DRAWINGS ARE DIAGRAMMATIC CONTRACTOR SHALL REFER TO ARCHITECTURAL. CIVIL AND STRUCTURAL DRAWINGS AND FIELD CONDITIONS FOR ALL DIMENSIONS CONTRACTOR SHALL OBTAIN AND FURNISH ALL PERMITS REQUIRED. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND TOOLS O PERFORM ALL WORK NECESSARY FOR THE COMPLETE EXECUTION OF THE ELECTRICAL WORK AS SHOWN ON THE DRAWINGS. PROVIDE
  - WORK NOT SPECIFICALLY SHOWN OR SPECIFIED, YET REQUIRED TO INSURE PROPER AND COMPLETE OPERATION OF ALL SYSTEMS AND TO SATISFY THE DESIGN INTENT IN THE WORK AND TO COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF CIRCUITS AND OUTLETS, LOCATIONS OF SWITCHES PANEL BOARDS, CONDUITS
  - AND OTHER WORK. PRIOR FIELD VERIFICATION OF ALL DIMENSION IS REQUIRED. CONDUIT RUNS AND GROUNDING ARE SHOWN DIAGRAMMATICALLY ONLY. FIELD VERIFY ACTUAL ROUTING OF CONDUITS. ANY PENETRATIONS MADE THROUGH A FIRE RATED ASSEMBLY SHALL BE PROPERLY SEALED TO MAINTAIN THE FIRE RATING OF THE
  - THE WORK SHALL INCLUDE REVISIONS, DEMOLITION, MODIFICATIONS AND REWORK OF THE EXISTING FACILITY AND SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW WORK, AND FOR CONNECTIONS BETWEEN EXISTING WORK AND NEW WORK WHERE REQUIRED. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ELECTRICAL POWER AND CONTROL CIRCUITS, FOR DEVICES AND EQUIPMENT THAT ARE TO REMAIN IN SERVICE, IF THE CIRCUITS ARE BROKEN BY DEMOLITION WORK, OR BY THE REMOVAL OR CUTTING OF EXISTING BUILDING CONSTRUCTION,
- EXISTING DEVICES OR EQUIPMENT. EXISTING CONDUIT WIRING SHALL BE REROUTED AND CONNECTED WHERE NECESSARY EACH BIDDER SHALL INSPECT THE SITE AS REQUIRED FOR KNOWLEDGE OF EXISTING CONDITIONS PRIOR TO BIDDING AND FAILURE TO OBTAIN SUCH KNOWLEDGE SHALL NOT RELIEVE THE SUCCESSFUL BIDDER OF THE RESPONSIBILITY TO MEET EXISTING CONDITIONS IN
- PERFORMING THE WORK UNDER THIS CONTRACT. WHERE NEW WORK CANNOT BE INSTALLED WITHOUT CHANGES IN EXISTING FACILITY OR SYSTEMS OR WHERE IT IS INDICATED ON DRAWINGS TO REWORK AN EXISTING INSTALLATION, THIS CONTRACT SHALL INCLUDE ALTERATIONS TO EXISTING WORK AS REQUIRED TO INSTALL NEW WORK. ADDITIONS TO THE CONTRACT COST WILL NOT BE ALLOWED BECAUSE OF THIS CONTRACTORS FAILURE TO INSPECT EXISTING
- CONDITIONS AT THE SITE OF THE WORK. PROVIDE HACR RATED CIRCUIT BREAKERS FOR ALL HVAC EQUIPMENT.

- <u>THE RESPONSIBILITY FOR ANY</u> CUTTING OF CONSTRUCTION WHICH IS REQUIRED FOR THE INSTALLATION OF DIVISION 16 WORK, SHALL BE BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND THE OWNER BEFORE ANY CUTTING AND OBTAIN APPROVAL FROM THE ARCHITECT/ENGINEER PRIOR TO ANY CUTTING. ALL PATCHING, PAINTING AND FINISH SHALL BE BY THE CONTRACTOR CUTTING SHALL BE DONE WITH EXTREME CARE AND IN SUCH A MANNER THAT THE STRENGTH OF THE STRUCTURE WILL NOT BE ENDANGERED. WHEREVER POSSIBLE, OPENINGS IN CONCRETE OR MASONRY CONSTRUCTION SHALL BE BY CONCRETE SAW OR ROTARY CORE DRILL. OPENINGS IN ANY CONSTRUCTION SHALL BE CUT THE MINIMUM SIZE REQUIRED FOR THE INSTALLATION OF THE WORK. ADEQUATE PROTECTION SHALL BE PROVIDED TO PREVENT DAMAGE TO ADJACENT AREAS AND TO PREVENT DUST FROM SPREADING TO ADJACENT
- WHERE OPENINGS OR HOLES ARE CUT IN CONSTRUCTION AND THE CUTTING BREAKS ELECTRICAL CIRCUITRY OR CONTROL CIRCUITRY CONDUIT AND WIRING. THEN IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REROUTE THE CIRCUITRY CONDUIT AND REWIRING AND TO COMPLETE THE CIRCUITRY AS REQUIRED AND AS APPROVED BY THE ARCHITECT/ENGINEER. TEMPORARY COMPLETION SHALL BE PROVIDED WHERE NECESSARY BEFORE THE PERMANENT REROUTING AND COMPLETION WORK IS FINISHED BEFORE ANY CUTTING, PATCHING, OR FINISHING WORK IS STARTED, DUST AND MOISTURE PROTECTION SHALL FIRST BE INSTALLED AS
- REQUIRED AND AS SPECIFIED IN THESE SPECIFICATIONS. OPÈNINGS CUT IN FLOOR SHALL BE CUT BY CORE DRILLING WHERE POSSIBLE. AFTER WORK IS INSTALLED THROUGH ANY OPENING IN FLOOR. THE OPENING AROUND THE WORK SHALL BE PATCHED AND SEALED WATERTIGHT AND EPOXY OR SILICONE BASED, NON-CRACKING ELASTOMERIC SEALANT

CONTRACTOR SHALL BE RESPONSIBLE FOR REPAINTING AREAS OF CONSTRUCTION THAT ARE SCRATCHED, MARRED, OR DAMAGED BY THE NEW CONSTRUCTION. CONTRACTOR SHALL MATCH THE COLOR, TYPE AND THICKNESS OF PAINT AS PREVIOUS.

#### ACCEPTANCE TESTING

UPON COMPLETION OF WORK, THE ENTIRE WIRING SYSTEM SHALL BE TESTED, AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH INTENT OF SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEMS READY FOR OPERATION AND TO HAVE AN ELECTRICIAN AVAILABLE TO OPERATE SAME IN ACCORDANCE WITH AND UNDER THE SUPERVISION OF THE INSPECTION REPRESENTATIVE OF THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL BE AVAILABLE TO ASSIST IN REMOVAL OF PANEL FRONTS, ETC., TO PERMIT INSPECTION AS REQUIRED.

THE CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE RECORD SET OF CONSTRUCTION "AS-BUILTS" BLUE LINE PRINTS WHICH SHALL BE CORRECTED DAILY, AND SHALL SHOW EVERY CHANGE FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING ADDENDA AND CHANGE ORDERS IN ACCORDANCE WITH GENERAL REQUIREMENTS AND SPECIAL CONDITIONS. THIS SET OF PRINTS SHALL BE KEPT ON THE JOB SITE, AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTORS TO MAKE CHANGÉS IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE.

THE CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE CLEAN OF ALL WASTE MATERIALS AND RUBBISH CAUSED BY HIS WORK OR EMPLOYEES. UPON COMPLETION OF THE WORK AND AT TIMES DURING PROGRESS OF THE WORK WHEN REQUESTED BY THE ARCHITECT/ENGINEER, THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS, RUBBISH, AND DEBRIS RESULTING FROM THE OPERATION, AND SHALL LEAVE THE ENTIRE BUILDING AND INVOLVED PORTIONS OF THE SITE, INSOFAR AS THE WORK OF THE CONTRACT IS CONCERNED, IN A NEAT, CLEAN, AND ACCEPTABLE CONDITION AS APPROVED BY THE ARCHITECT/ENGINEER. EQUIPMENT, LIGHTING FIXTURES, MATERIALS AND ACCESSORIES SHALL BE THOROUGHLY CLEANED OF CEMENT, PLASTER, AND OTHER MATERIALS THE CONTRACTOR SHALL PROVIDE ADEOUATE PROTECTION. WHEREVER WORK IS TO BE PERFORMED IN FINISHED/OCCUPIED SPACES. TO PREVENT DAMAGE TO ADJACENT AREAS, EQUIPMENT, OR FÚRNISHINGS; TO PREVENT ACCIDENTAL INJURY TO BUILDING OCCUPANTS AND THE PUBLIC; TO PREVENT THE SPREADING OF DUST, DIRT, DEBRIS, AND MOISTURE FROM THE AREA WHERE WORK IS BEING PERFORMED; AND TO PREVENT DUST, DIRT, DEBRIS, AND MOISTURE FROM GETTING ON OR IN THE BUILDING OCCUPANTS FURNISHINGS OR EQUIPMENT. THE CONTRACTOR SHALL REPAIR, AT NO COST TO THE OWNER, ANY DAMAGE DONE BY HIMSELF OR HIS EMPLOYEES. HE SHALL ALSO BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED TO PROPERLY INSTALL HIS WORK. THIS SHALL ALSO INCLUDE THE PATCHING OF EXISTING ROADWAYS (PAVED OR IMPROVED), PARKING AREAS, SIDEWALKS, CURBS, GUTTERS, ETC., CUT TO INSTALL WORK PROVIDED BY THE CONTRACTOR. PATCH WORK SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THESE SPECIFICATIONS AND SHALL MATCH THE EXISTING

#### GENERAL NOTES

- ALL ELECTRICAL CONDUITS SHALL CARRY A SEPARATE GREEN INSULATED COPPER WIRE SIZED PER NEC UNLESS OTHERWISE INDICATED IN
- COORDINATE ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT TO BE INSTALLED BY OTHER TRADES.

  MULTIWIRE BRANCH CIRCUITS IN A SINGLE CONDUIT RUN SHALL BE ALLOWED. WIRE SIZES MIGHT REQUIRE UPSIZING FOR CONDUITS
  CONTAINING MORE THAN 3 CURRENT CARRYING CONDUCTORS, AS REQUIRED BY THE DERATING GUIDELINES OF ARTICLE 310.15 IN THE 2017
- BRANCH CIRCUIT FEEDER WIRE AND CONDUIT SIZES ARE INDICATED ON PANEL SCHEDULES. RESTROOM EXHAUST FANS SHALL BE CONTROLLED BY RESTROOM LIGHT SWITCH.
- REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS AND REQUIREMENTS OF MECHANICAL EQUIPMENT.
- EMERGENCY LIGHTING CONTROLLED AHEAD OF LOCAL SWITCH. OWNER SHALL HAVE FINAL APPROVAL OF LIGHT FIXTURE SELECTION.
- FIRE ALARM DESIGN BY OTHERS. CONTRACTOR SHALL PROVIDE AND SUBMIT FULL SET OF FIRE ALARM DRAWINGS, DESIGNED, SIGNED AND SEALED BY A FLORIDA LICENSED ENGINEER.
- COORDINATE SIGN LIGHT LOCATION WITH OWNER/ARCHITECT. EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTOCELL
- CONTRACTOR SHALL ENGAGE THE MANUFACTURERS FACTORY-AUTHORIZED SERVICE REPRESENTATIVE TO INSPECT COMPONENTS AND FUNCTION OF LIGHTING CONTROL SYSTEM INSTALLED. REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE FUNCTIONAL TESTING AND SHALL PROVIDE DOCUMENTATION TO THE CODE OFFICIAL CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE PROVISIONS OF THE 7TH EDITION OF THE FLORIDA BUILDING CODE ENERGY CONSERVATION SECTION C405 AND C408.3.1. REPRESENTATIVE SHALL BE INDEPENDENT FROM DESIGN OR CONSTRUCTION TEAM. APPROVED MANUFACTURERS ARE WATT STOPPER OR CRESTRON.
- WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, RECORD DRAWINGS OF THE ACTUAL INSTALLATION SHALL BE PROVIDED TO THE BUILDING OWNER, INCLUDING A SINGLE LINE DIAGRAM OF THE BUILDING'S ELECTRICAL DISTRIBUTION, AS REQUIRED PER THE 7TH EDITION OF THE FLORIDA BUILDING CODE - ENERGY CONSERVATION C405.5.4.1.
- AN OPERATING MANUAL AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OWNER, PER 7TH EDITION OF THE FLORIDA BUILDING CODE - ENERGY CONSERVATION C405.5.4.2.
- INCLUDE AT A MINIMUM THE FOLLOWING a) SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
  b) OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
- c) NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY. PROVIDE FAULT CURRENT MARKER PER NEC 110.24 AND ARC-FLASH DECALS PER NEC 110.16 ALL LIGHTING SHALL BE CONTROLLED BY OCCUPANCY SENSORS, AS MANUFACTURED BY WATT STOPPER DLM SERIES OR EQUAL BY CRESTRON, UNLESS NOTED OTHERWISE. RESTROOMS SWITCHES SHALL BE 2-POLE (SINGLE BUTTON), EXHAUST FANS SHALL CONTINUE TO RUN 5 MIN (ADJUSTABLE) AFTER LIGHT SHUTS OFF. OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY UNLESS NOTED OTHERWISE. CONTRACTOR SHALL
- CONSULT REPRESENTATIVE FOR TYPE AND PLACEMENT OF OCCUPANCY SENSORS AND PROVIDE SHOP DRAWINGS. THIS PROJECT IS IN COMPLIANCE WITH 7TH EDITION FBC-EC C405.5.3 & NEC 210.19 WITH REGARDS TO VOLTAGE DROP FOR BOTH
- DISTRIBUTION PANEL & DOWNSTREAM BRANCH CIRCUITS. RECEPTACLE AND LIGHTING BRANCH CIRCUITS CONDUCTORS SHALL BE SIZED FOR A 3% MAXIMUM VOLTAGE DROP FROM THE SERVICE PANEL TO THE LOAD. CONDUCTOR SIZES SHALL BE UPGRADED BASED ON RUN LENGTH AS FOLLOWS: FEEDER LENGTH BELOW 56' #12 AWG

#### FEEDER LENGTH BELOW 93' #10 AWG FEEDER LENGTH BELOW 144' #8 AWG

FEEDER LENGTH BELOW 229' #6 AWG (20 AMP FEEDERS UPGRADED ABOVE #10AWG, SHALL BE DOWN SIZED TO #10AWG IN A JUNCTION BOX LOCATED WITHIN 8' OF DEVICE)

ÌNCREASE CONDUIT PER NEC AS REQUIRED. EQUIPMENT FEEDERS HAVE BEEN SÌZED FOR A MAXIMUM 2% VOLTAGE DROP FROM MAIN SERVICE TO THE PANELS

AFTER WALLS ARE FRAMED, MARK ALL OUTLET, DATA, SWITCH, ETC. LOCATIONS ON THE GROUND AND CONFIRM LOCATION AND MOUNTING HEIGHTS WITH OWNER PRIOR TO ANY CONDUIT, ETC. IS INSTALLED.

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CONSULTANTS

MARCH 1, 2022 REVIEW SET PERMIT SET BID SET CONSTRUCTION SET AS BUILT REVISIONS

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INDUSTRIAL F BUILD-OUT

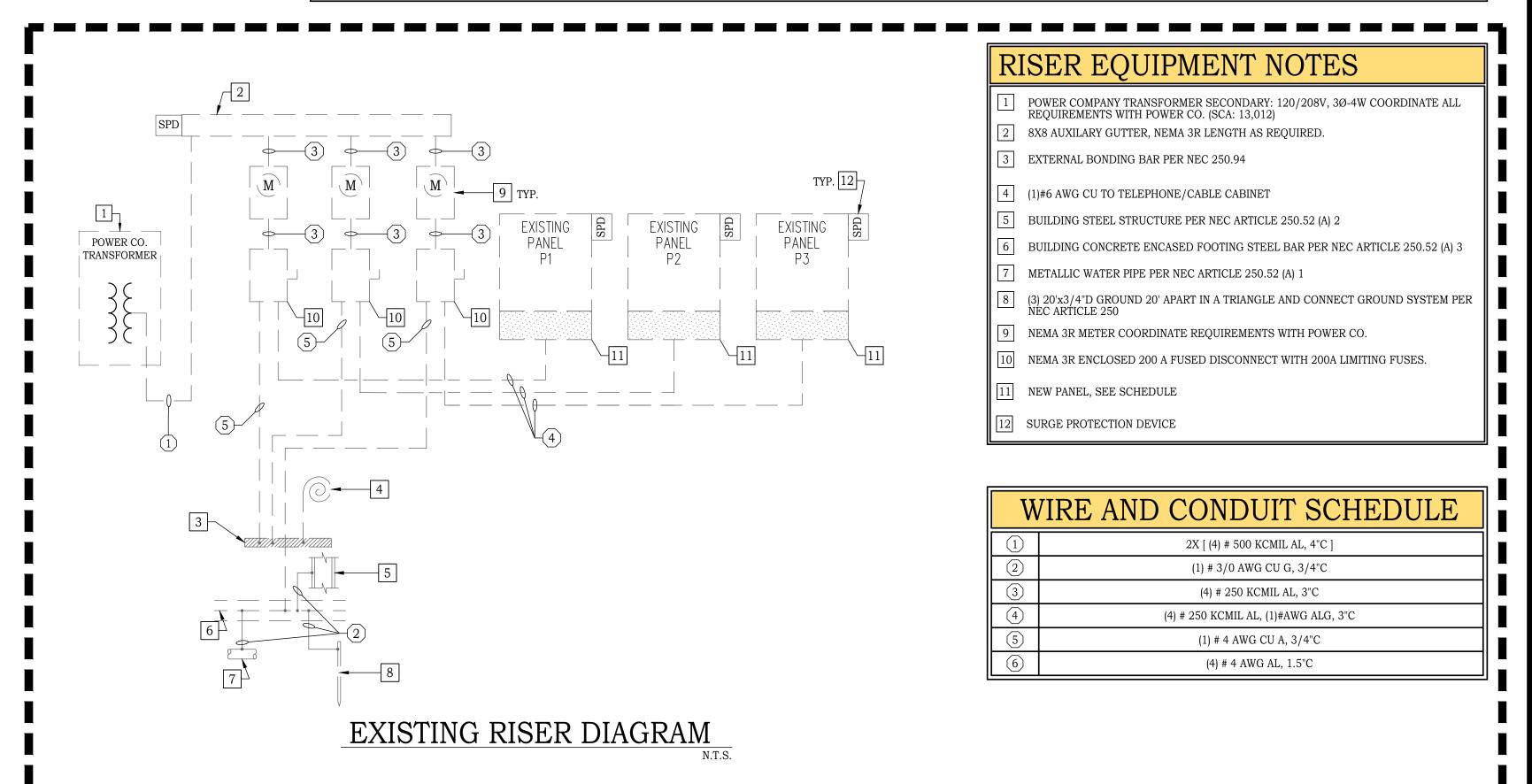
AND

SPECIFICATIONS

CHECKED: APPROVED:

54739

	EL TYPE EL LOC <i>i</i>			D OR EQUAL EAR WALL			AMP RA N AMP R				5 A 0 A			_	VOLTA PHAS	_		120/208 3		LOCATIO NTING:	N:		TOP O	R BO JRFAC			
FED	FROM S	SOURCE	: MAIN	DISCONNECT		MAIN	N TYPE:			M	LO			- -	WIRE:			4	AIC R	ATING:			2	22,000	)		
CKT NO.	EQUIP NO.	TYPE	EQUIPM	IENT SERVED			NOTES	KVA	CKT. BKR. POLE/TR	Ø		CH CK GND			Ø CKT EQUID NO. NO.		TYPE	EQUIPMENT SERVED		NOTES	KVA		BKR. E/TR	Ø	RANC N	CH CK' GND	
1		R	ENTRY DOOR					.360	1/20	12	12	12	1/2"	I A I	2		<u> </u>	SIGN LIGHT			1.20	+	<sup>'</sup> 20	12	12	12	1/2"
3		R	OFFICE					1.08	1/20	12	12	12	1/2"	В	4		ī	GENERAL/EMERGENCY			.600		<sup>20</sup> /20	12	12	12	1/2"
5		R	RR/SERVICE					.540	1/20	12	12	12	1/2"	_	6		ī	EXTERIOR			.300		′20	12	12	12	1/2"
7			144,02111102					10.0	-/				-/-	A	8		_	Z// Z// C//			1000	<del>  '</del>				<u> </u>	1.72
9														В	10												┢
11														C	12						<u> </u>						$\vdash$
13														A	14												$\vdash$
15														В	16												┢
17														c	18						<u> </u>						$\vdash$
19														A	20												<b>†</b>
21														В	22												<b>†</b>
23														С	24												<b>†</b>
25														Α	26												$\vdash$
27														В	28												<b>†</b>
29														С	30												1
31		Н	EWH-1					3.00	2/30	10	-	10	3/4"	Α	32												1
33										10				В	34												
35		Н	AC-1					10.0	2/60	6	-	10	3/4"	С	36												
37			丄							6				Α	38			SPD			*	3/	<sup>/</sup> 30	10	10	10	3/4"
39		Н	CU-1					5.00	2/40	8	-	10	3/4"	В	40									10			
41			上							8				С	42							_		10			
	EOUIP	MENT S	SERVED	CONN. LOAD	LF	DF	DESI	GN LOA	AD NOTE	`S·							CONNE	CTION TYPE	REMARKS:		-	•				•	<u> </u>
DEGI					1 21	_			TC		/IRE T	HROU	JGH C	CONT	CACTO			- RECEPTACLE	- PROVIDE C	OPPER G	ROUNI	D BUS	& NEU	TRAL	BUS.		
		,	T 10 KVA)	1.44	-	1.00		1.44	НАСЕ								L	- LIGHTING	- PROVIDE TY								
	RECEPTACLES (REMAINING KVA)         0         0.50         0           JIGHTING         2.10         1.25         2.6					LO			UT BR						- HVAC/EWH	- CONTRACTO						T BRI	EAKEF	Σ.			
				2.10	1.25	-		2.63	GFCI									- KITCHEN EQUIPMENT	REQUIREM						HOI	M.	
nvA(	C/EWH			13.0	+	1.00	-	13.0	IG			RUPT ( ED GI			KLAF	LLK	M	- MISC.	- HEAT/COO	LING LU	ADS AK	L MUI	UALLY	LAC.	LUSIV	/ 丘.	
					+				WIF			N FRE															
				<u> </u>	TO 2	<u> </u>	-	7.07	WIC			N COO															
						TAL		7.07																			
					A۱	MPS	4	17.4	II II																		



EXISTING. INSTALLED UNDER SEPARATE PERMIT

4083 South U.S. Highway 1, Ste. 101 Rockledge, Florida 32955 Phone 321.633.4522 Fax 321.633.4528 www.ddc-engineers.com dasilva.david@ddc-engineers.com C.O.A.: 25988 DDC PROJECT NO.:

DATE **MARCH 1, 2022** REVIEW SET PERMIT SET BID SET CONSTRUCTION SET AS BUILT

ELECTRICAL SCHEDULES AND RISER

DRAWN: CHECKED: APPROVED:

David A. DaSilva 54739