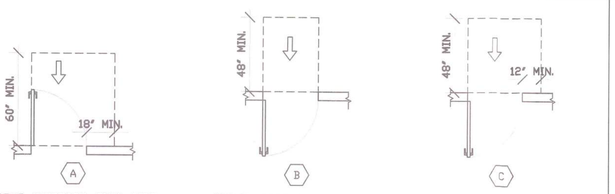
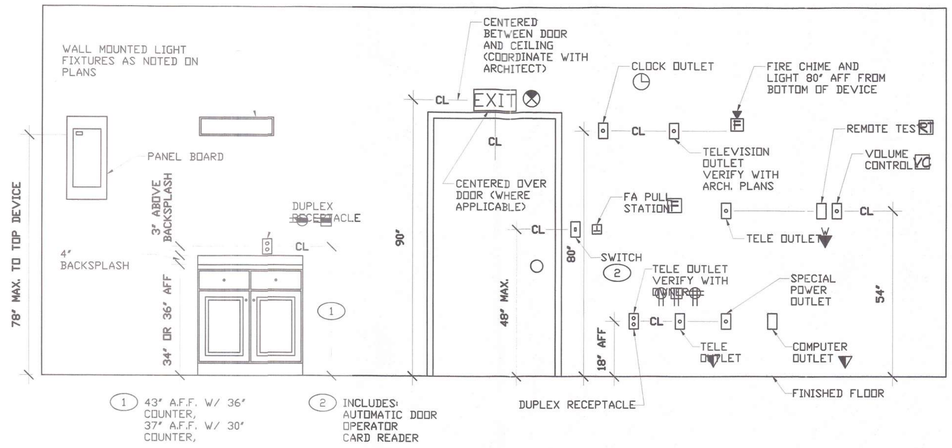
ADA MANEUVERING CLEARANCES



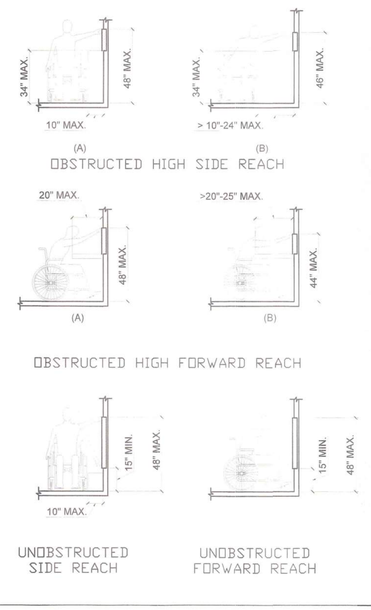
FRONT APPROACH, PULL SIDE
FRONT APPROACH, PUSH SIDE
FRONT APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH
HINGE APPROACH, PULL SIDE
HINGE APPROACH, PULL SIDE
HINGE APPROACH, PUSH SIDE
HINGE SIDE APPROACH, PUSH SIDE DOOR PROVIDED WITH BOTH CLOSER AND LATCH
LATCH APPROACH, PULL SIDE
LATCH APPROACH, PULL SIDE DOOR PROVIDED WITH CLOSER
LATCH APPROACH, PUSH SIDE
LATCH APPROACH, PUSH SIDE DOOR PROVIDED WITH CLOSER
INDICATES 60" TURN AROUND
INDICATES 60"X60" ACCESS SPACE
INDICATES 30"X48" ACCESS SPACE
INDICATES 30"X48" ACCESS SPACE
PERMANENT SEAT BATHTUB ACCESS SPACE
TRANSFER SHOWER ACCESS SPACE
ROLL-IN SHOWER ACCESS SPACE

ELECTRICAL MOUNTING HEIGHTS



(1) 43" A.F.F. W/ 36" COUNTER, 37" A.F.F. W/ 30" COUNTER,
(2) INCLUDES: AUTOMATIC DOOR OPERATOR CARD READER

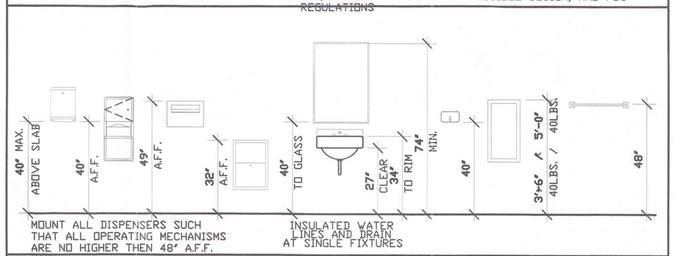
ADA REACH RANGES



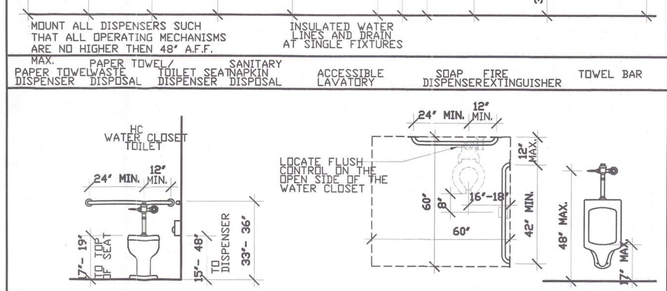
KNEE AND TOE CLEARANCE

FIXTURE HEIGHTS AND CLEARANCES

ALL FIXTURES WILL COMPLY WITH THIS CHART, ADA STANDARDS FOR ACCESSIBLE DESIGN, AND FBC REGULATIONS



PAPER TOWEL DISPENSER | PAPER TOWEL/WASTE DISPOSAL | SANITARY NAPKIN DISPOSAL | TOILET SEAT DISPENSER | ACCESSIBLE LAVATORY | SOAP DISPENSER | FIRE EXTINGUISHER | TOWEL BAR



TYPICAL TOILET | GRAB BAR CLEAR DIMENSIONS TYP. | URINAL

TYPICAL ROOM IDENTIFICATION SIGNAGE

NOTES:
1. TYPICAL SIGN SIZE IS 7.5"X7.5".
2. FONT: HELVETICA (RAISED LETTERS)
3. BRAILLE SYMBOLS TO BE ON EVERY ROOM SIGN.
4. SEE DIVISION 10 IN THE SPECIFICATIONS FOR ADDITIONAL

LIFE SAFETY / CODE COMPLIANCE NOTES PROCESSING

APPLICABLE CODES

FBC	2020 FLORIDA BUILDING CODE, 7TH EDITION
FBC-A	FBC ACCESSIBILITY CODE 7TH EDITION
FBC-M	FBC MECHANICAL CODE 7TH EDITION
FBC-E	FBC ELECTRICAL CODE 7TH EDITION
FBC-EC	FBC ENERGY CONSERVATION CODE 7TH EDITION
FBC-P	FBC PLUMBING CODE 7TH EDITION
FBC-F	FBC FUEL GAS CODE 7TH EDITION
FFPC	FLORIDA FIRE PREVENTION CODE 7TH EDITION (W /FLA. ED.-NFPA 101)

OCCUPANCY CLASSIFICATION

FBC 311.2: MODERATE HAZARD STORAGE: STORAGE (S-1)

FFPC: SPECIAL INDUSTRIAL AND STORAGE (ORDINARY HAZARD)

CONSTRUCTION TYPE

FBC TABLE 601: TYPE IIB (WITHOUT FIRE SPRINKLER SYSTEM)

ACTUAL & ALLOWABLE AREA

FBC 503, BUILDING HEIGHT, STORY & AREA
ACTUAL AREA = FACTORY (F-1) 1 STORY: 5,600 SF ##
FBC TABLE 504.3
ALLOWABLE BUILDING HEIGHT (CLASS. "S", TYPE IIB): 55 FEET (NOT SPRINKLED)
FBC TABLE 504.4
ALLOWABLE NUMBER OF STORIES: 2 (NONE SPRINKLED)
FBC TABLE 506.2
ALLOWABLE AREA = STORAGE (S-1): 17,500 S.F.

OCCUPANT LOAD

TABLE FBC 1004.1.2:
BASED ON THE ENTIRE BUILDING BEING USED AS A SINGLE USER
THE ENTIRE BUILDING AREA = 6,400 S.F.
AS STORAGE (S-1) = 6,400 SF / 300 PERSON / SF = 22 OCCUPANT
AS WAREHOUSE (S-1) = 6,400 SF / 500 PERSON / SF = 13 OCCUPANT

BASED ON BUILDING BEING DIVIDED INTO THREE USER
AREA OF BUILDING FOR EACH USER = 2,133 S.F.
AS STORAGE (S-1) = 2,133 / 300 = 8 OCCUPANT
AS WAREHOUSE (S-1) = 2,133 / 500 = 5 OCCUPANT

PLUMBING FIXTURE COUNT (FBC-P TABLE 403.1)

BASED ON THE ENTIRE BUILDING BEING USED AS A SINGLE TENANT.

	REQUIRED	PROVIDED
WATER CLOSETS:		
FACTORY (S-1): 22 OCCUPANTS		
MEN: 1 PER 100 OCC. / 2 = 11 / 100 =	0.11	
WOMEN: 1 PER 100 OCC. / 2 =11 / 100 =	0.11	
TOTALS:	0.22 (1.00)	T.B.D., MIN. 1
LAVATORIES:		
FACTORY (S-1): 22 OCCUPANTS		
MEN: 1 PER 100 OCC. / 2 = 11 / 100 =	0.11	
WOMEN: 1 PER 100 OCC. / 2 =11 / 100 =	0.11	
TOTALS:	0.22 (1.00)	T.B.D., MIN. 1
DRINKING FOUNTAINS:		
FACTORY (S-1): 22 OCCUPANTS		
1 DRINKING FOUNTAIN PER 400 OCCUPANTS = 1		
# - BOTTLED WATER WILL BE ACCEPTABLE AS A SUBSTITUTE FOR A DRINKING FOUNTAIN.		T.B.D., MIN. 1

FOR EACH USER BASED ON THE BUILDING BEING USED BY THREE (3) SEPERATE USERS

	REQUIRED	PROVIDED
WATER CLOSETS:		
FACTORY (S-1): 8 OCCUPANTS		
MEN: 1 PER 100 OCC. / 2 = 4 / 100 =	0.04	
WOMEN: 1 PER 100 OCC. / 2= 4 / 100 =	0.04	
TOTALS:	0.08 (1.00)	T.B.D., MIN. 1
LAVATORIES:		
FACTORY (S-1): 8 OCCUPANTS		
MEN: 1 PER 100 OCC. / 2 = 4 / 100 =	0.04	
WOMEN: 1 PER 100 OCC. / 2 =4 / 100 =	0.04	
TOTALS:	0.08 (1.00)	T.B.D., MIN. 1
DRINKING FOUNTAINS:		
FACTORY (S-1): 8 OCCUPANTS		
1 DRINKING FOUNTAIN PER 400 OCCUPANTS = 1		
# - BOTTLED WATER WILL BE ACCEPTABLE AS A SUBSTITUTE FOR A DRINKING FOUNTAIN.		T.B.D., MIN. 1

TRAVEL DISTANCE & COMMON PATH OF TRAVEL

FBC TABLE 1017.2- MAXIMUM TRAVEL DISTANCE = 200 FT (S-1, NONE SPRINKLED)

NUMBER OF EXITS REQUIREMENTS

FBC TABLE 1006.2.1 FOR NONE SPRINKLED BUILDING, OCCUPANCY CLASSIFICATION S-1 WITH OCCUPANT LOAD OF LESS THAN OR EQUAL TO 30, MAXIMUM PATH OF EGRESS TRAVEL DISTANCE 100 FEET

DEAD END CORRIDORS

FBC 1020.4: 20 FT MAX.

SEPARATION OF OCCUPANCIES

FBC 508.4: OCCUPANCIES. NO SEPARATION REQUIRED BETWEEN MAIN MIXED

BUILDING SEPARATION

FBC 508.2: NO SEPARATION IS REQUIRED BETWEEN MAIN AND ACCESSORY OCCUPANCIES EXCEPT AS REQUIRED PER FBC TABLE 508.2.5.

Shell Only

FIELD

CITY OF ROCKLEDGE
BUILDING DEPARTMENT
APPROVED
DATE: 11/16/21 # 59743
SIGNATURE
TITLE: BU-1559

PLAN REVIEWED FOR CODE COMPLIANCE. ISSUANCE OF A PERMIT DOES NOT RELIEVE THE OWNER AND CONTRACTOR OF COMPLIANCE WITH APPLICABLE FLORIDA BUILDING CODES

BEFORE FINAL INSPECTION CAN BE SCHEDULED A COMPLETE COPY OF APPROVED/STAMPED PLANS MUST BE SUBMITTED ON A CD (PDF) AND APPROVED

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REVISIONS

DRAWN:	ND
DESIGNED:	ND
CHECKED:	ND
APPROVED:	ND
DATE:	9 / 21 /2021
JOB No:	2021-10

PROJECT INFO:

EYSTER INDUSTERIAL

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

LIFE SAFETY NOTES & DETAILS

SHEET:

A - 0

SHEET 1 OF 6

ENGINEER OF RECORD:

NOEL DROOR LICENSE No 37259 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE 10/7/2021

DAI
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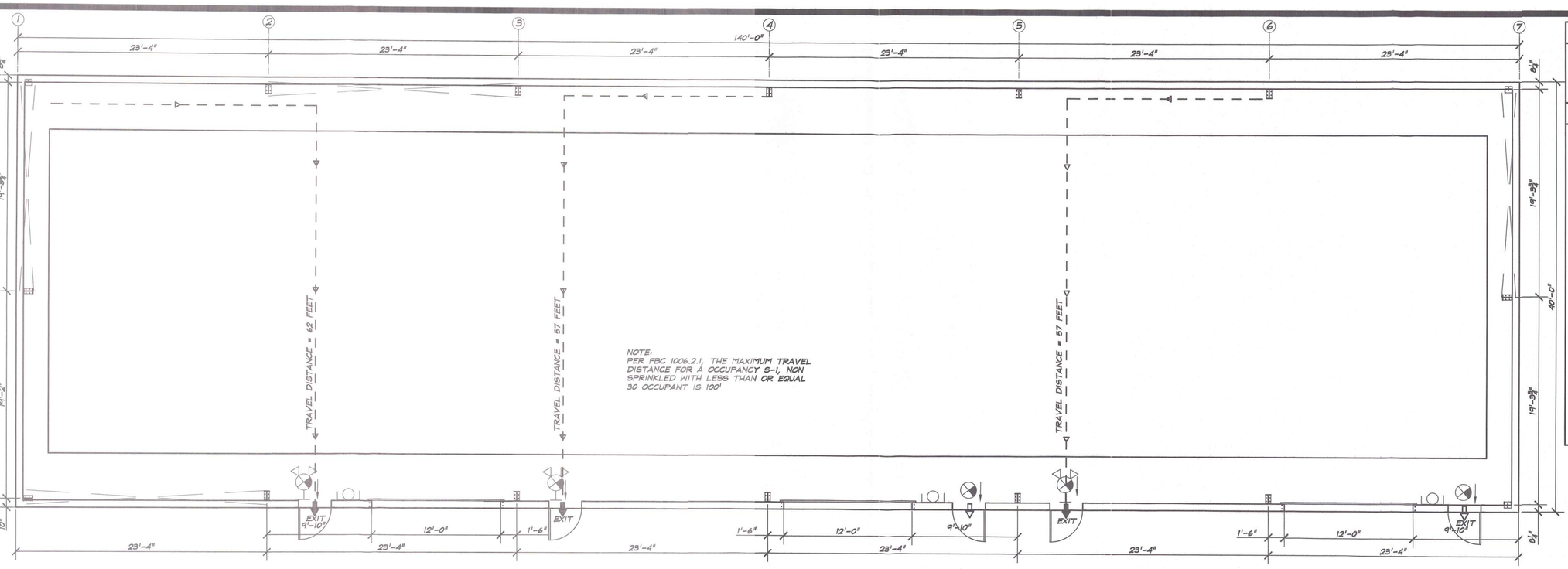
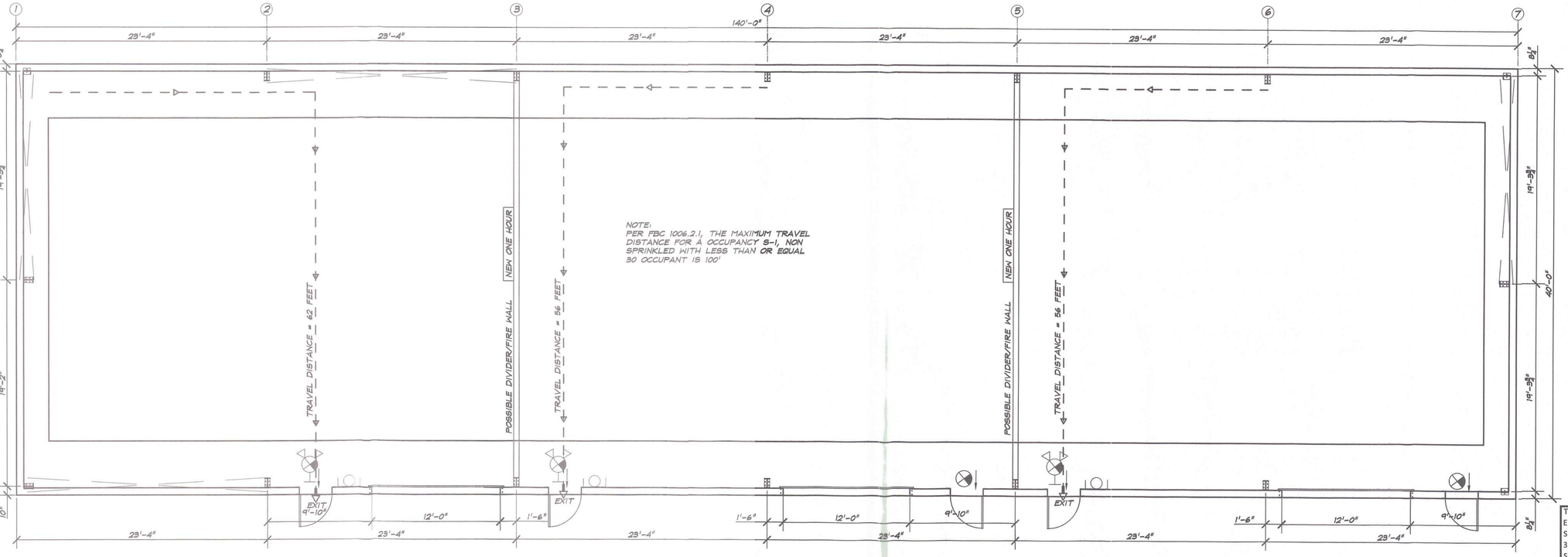
MELBOURNE, FL 32935
PHONE: 321-253-8233 FAX: 321-253-8232
ENGINEERING LICENSE No. 0007218
WWW.DROORASSOCIATES.com



TRAVEL DISTANCE AS A SINGLE TENANT (SHELL ONLY)

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



TRAVEL DISTANCE AS A MULTI TENANT BUILDING (SHELL ONLY)

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

GENERAL NOTES

1. FINAL LOCATION OF ALL FIRE EXTINGUISHERS TO BE COORDINATED WITH FIRE OFFICAL. DISTANCE NOT TO EXCEED 75'
2. ALL TRAVEL DISTANCES ARE TO OUTSIDE OF BUILDING OR AN EXIT ENCLOSURE.
3. ALL EXIT LIGHTS IN WAREHOUSE TO BE MOUNTED OR SUSPENDED AT 9'-0" A.F.F.

LIFE SAFETY SYMBOL LEGEND

- INDICATES PRIMARY EXIT OR EXIT ACCESS
- INDICATES SECONDARY EXIT ACCESS
- INDICATES COMMON PATH OF EGRESS TRAVEL (FEET)
- INDICATES PRIMARY EXIT ACCESS TRAVEL DISTANCE (FEET)
- INDICATES SECONDARY EXIT ACCESS TRAVEL DISTANCE (FEET)
- 60 / 20 — INDICATES DOOR WITH FIRE RATING LABEL (IE: 90, 60, 45, OR 20 MINUTE)
- (X) — INDICATES MAXIMUM DOOR EXIT CAPACITY (PERSONS)
- EXIST — INDICATES EXISTING WALL
- NEW — INDICATES NEW WALL
- NEW 1HR — INDICATES 1 HR FIRE RATED WALL/PARTITION (SMOKE TIGHT)
- F.E.B. / F.E.C. — INDICATES FIRE EXTINGUISHER ON BRACKET OR IN CABINET
- INDICATES EMERGENCY LIGHTS (SEE ELEC. DRAWINGS)
- F — INDICATES FIRE ALARM STROBE AND HORN (SEE ELEC. DRAWINGS)
- F — INDICATES FIRE BELL (SEE ELEC. DRAWINGS)
- F — FIRE ALARM PULL STATION (SEE ELEC. DRAWINGS)
- INDICATES EXIT SIGN, (SEE ELEC. DWGS.)

NOTE:
INTERIOR LAYOUT AND NUMBER OF TENANT ARE NOT KNOW AT THIS TIME. THE PROPOSED DESIGN IS FOR BUILDING SHELL ONLY. TENANT IMPROVEMENT PLANS/PLANS WILL BE SUBMITTED WHEN AVAILABLE FOR PERMITTING PRIOR TO CONSTRUCTION.

REVISIONS

DRAWN:	ND
DESIGNED:	ND
CHECKED:	ND
APPROVED:	ND
DATE:	9 / 21 /2021
JOB No:	2021-10

PROJECT INFO:

EYSTER INDUSTERIAL

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

LIFE SAFETY PLAN (SHELL ONLY)

SHEET:

A – 01

SHEET 2 OF 6

ENGINEER OF RECORD:

NOEL DROOR LICENSED No 37259 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE 10/7/2021

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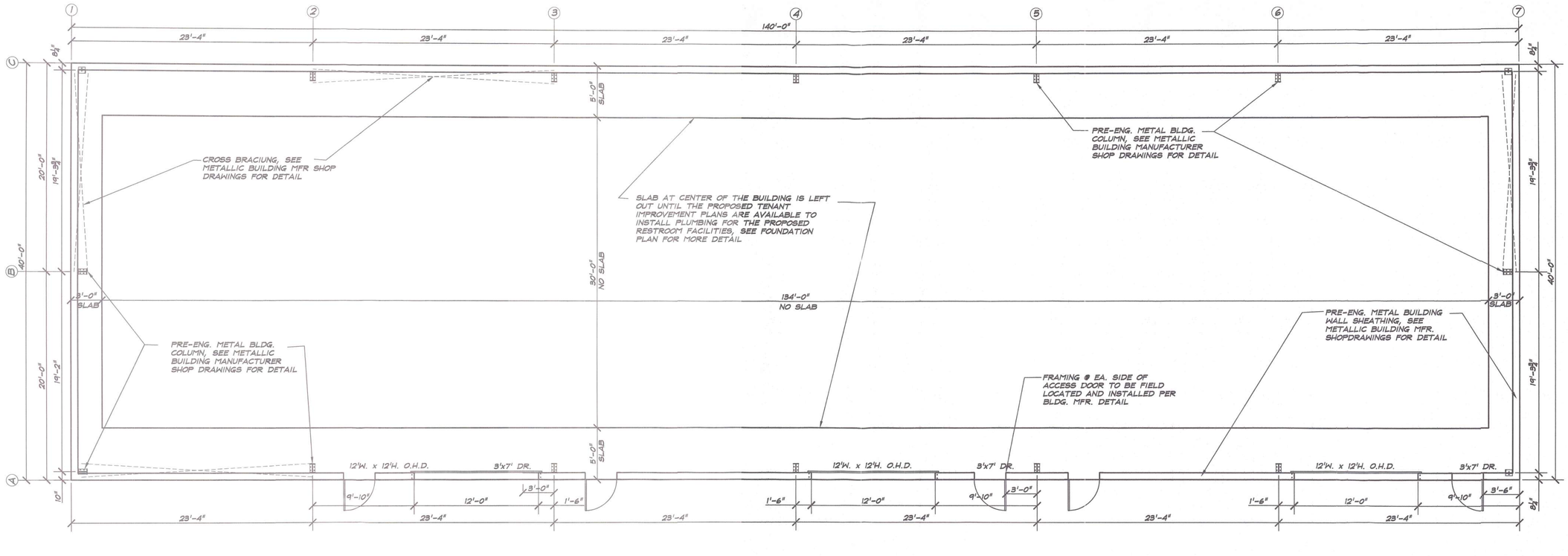

N

OVERALL BUILDING FLOOR PLAN (SHELL ONLY)

SCALE : ¼" = 1'-0"

REVISIONS

DRAWN:	ND
DESIGNED:	ND
CHECKED:	ND
APPROVED:	ND
DATE:	9 / 21 /2021
JOB No:	2021-10

PROJECT INFO:

EYSTER INDUSTERIAL

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

FLOOR PLAN (SHELL ONLY)

SHEET:

A - 1

SHEET 3 OF 6

ENGINEER OF RECORD:

NOEL DROOR LICENSE No. 37259 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE 10/7/2021

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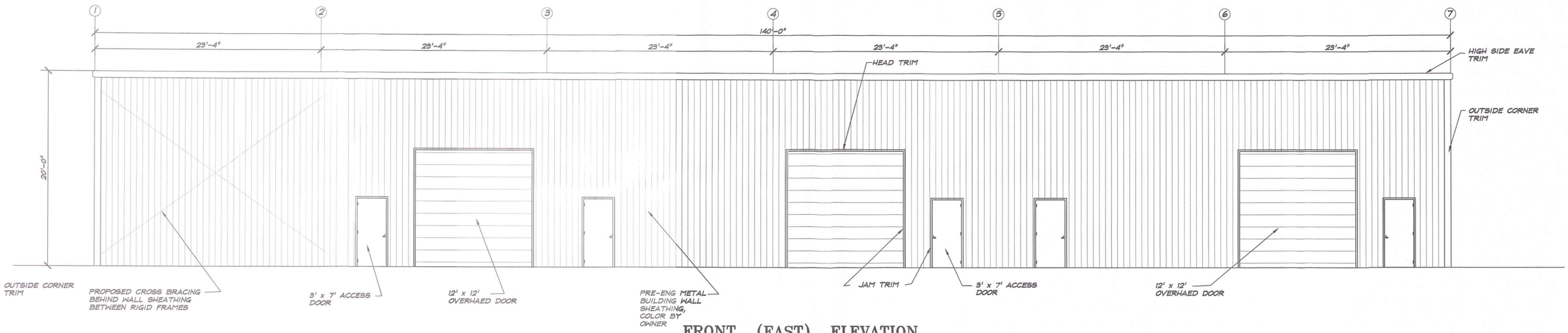
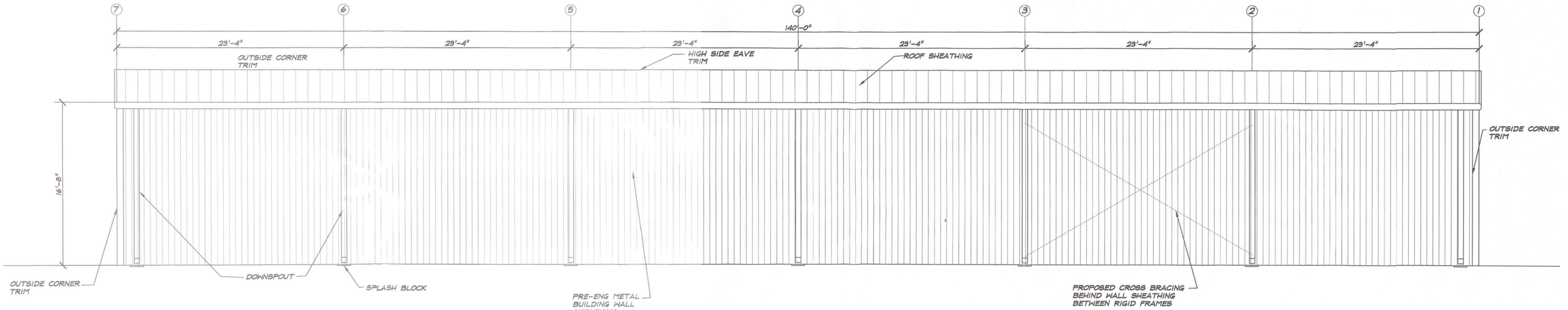


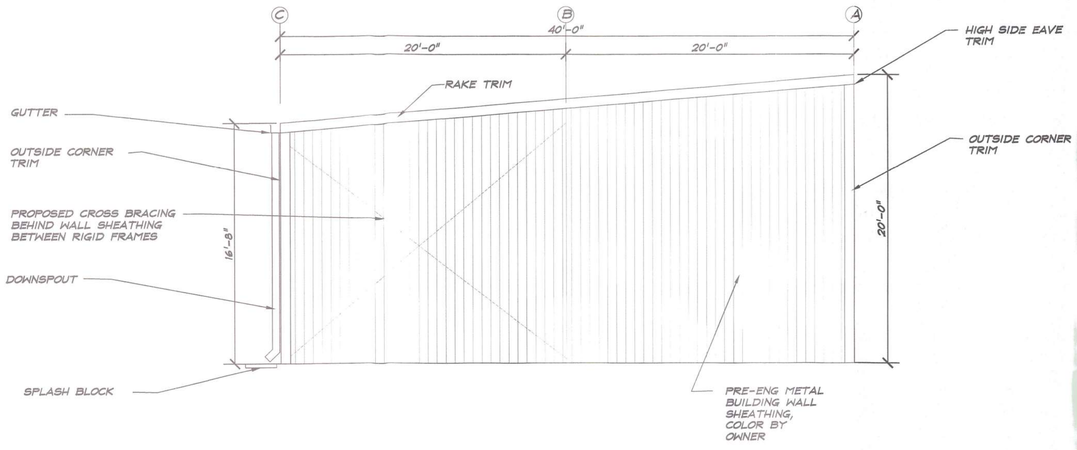
FRONT (EAST) ELEVATION

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



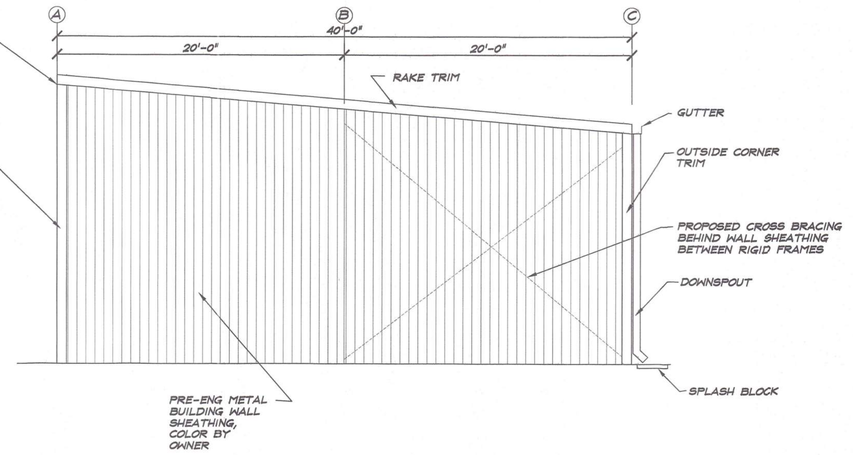
REAR (WEST) ELEVATION

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



LEFT SIDE (SOUTH) ELEVATION

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



RIGHT SIDE (NORTH) ELEVATION

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

REVISIONS

DRAWN:	ND
DESIGNED:	ND
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APPROVED:	ND
DATE:	9 / 21 /2021
JOB No:	2021-10

PROJECT INFO:

EYSTER INDUSTERIAL

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

BUILDING ELEVATIONS

SHEET:

A - 2

SHEET 4 OF 6

ENGINEER OF RECORD:

NOEL DROOR LICENSE No 37259 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE 10/7/2021

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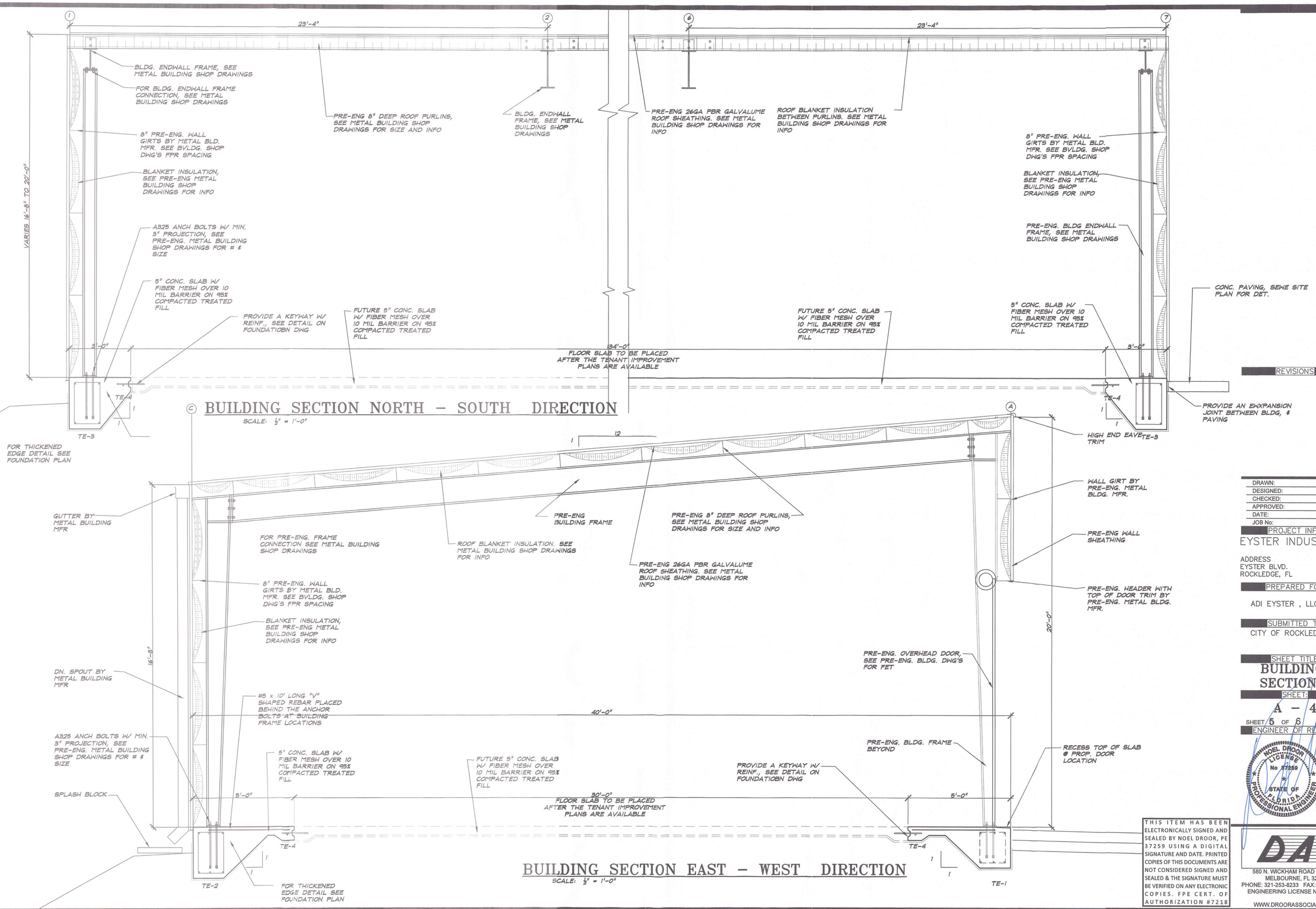

REVISIONS

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DESIGNED:	ND
CHECKED:	ND
APPROVED:	ND
DATE:	9 / 21 /2021
JOB No:	2021-10

PROJECT INFO:

EYSTER INDUSTERIAL

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

BUILDING SECTIONS

SHEET:

A - 4

SHEET 5 OF 6

ENGINEER OF RECORD:

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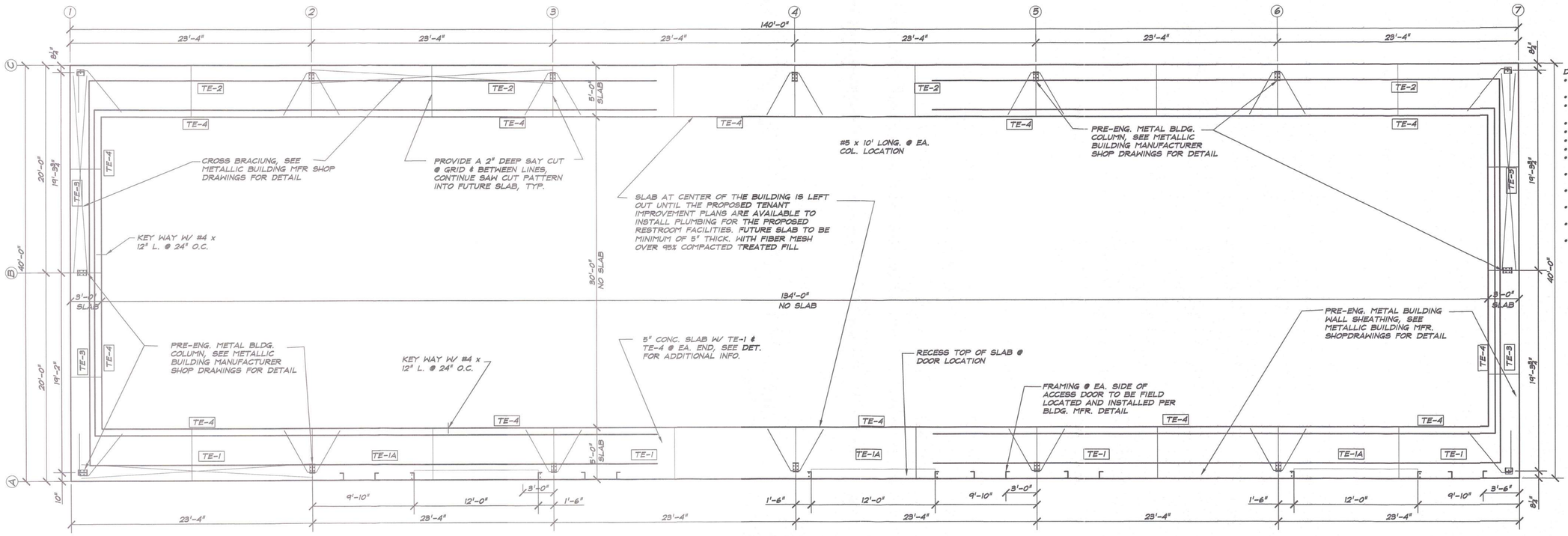
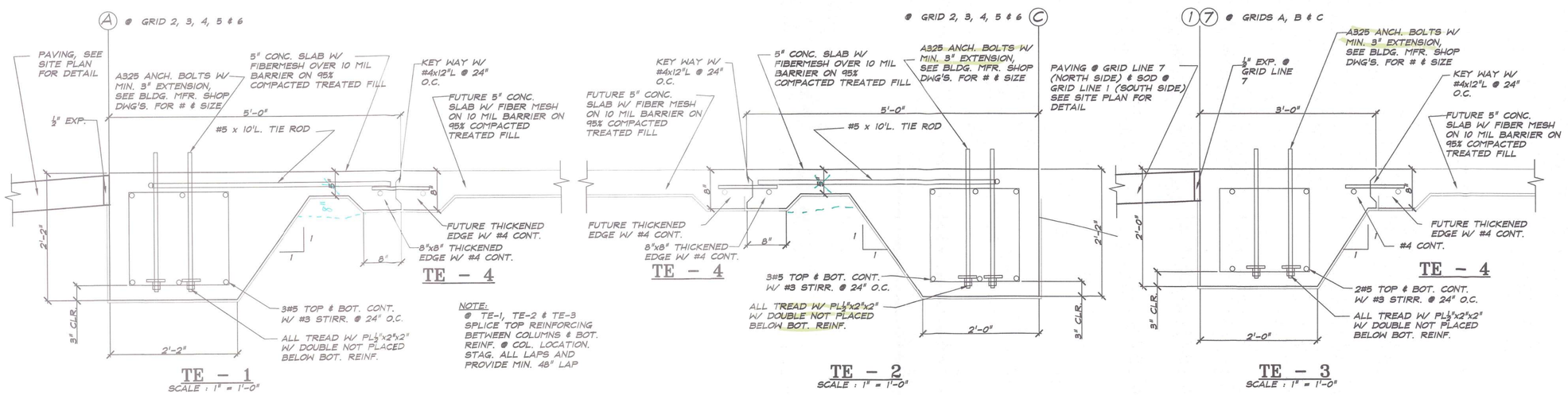


DESIGN SPECS:

- DESIGN ACCORDING TO CHAPTER 16 OF FBC 2020, 7 EDITION
- ROOF LIVE LOAD = 20 P.S.F.
- WIND LOAD = 150 MPH (ULTIMATE), 116 MPH (AVERA WORKING)
- EXPOSURE "C"
- ENCLOSED BUILDING
- CONCRETE (F'c) = 3,000 PSI (4" TO 6" SLUMP)
- REINFORCING (fy) = 60,000 PSI
- STEEL = PER PRE-ENGINEERED METAL BUILDING MANUFACTURER
- SOIL REPORT PREPARED BY UNIVERSAL TESTING PI #0330.2000161.0000, DATED DECEMBER 28,2020
- AVAILABLE SOIL PRESSURE BASED ON THE UNIVERS TESTING REPORT = 2,500 PSF
- STRIP THE FOOTPRINT OF BUILDING PLUS A MINIMU 10' BEYOND FOUNDATION.
- REMOVE ALL VEGETATION, ROOTS, ORGANIC TOP SO DEBRIES RUBBLE, MUCK, ETC.
- COMPACT SOIL BELOW FOUNDATION AND SLAB TO A LEAST 98% OF THE MODIFIED PROCTOR TEST MAXI DRY DENSITY.

FOUNDATION PLAN

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



TE - 4

REVISIONS

DRAWN:	
DESIGNED:	
CHECKED:	
APPROVED:	
DATE:	9/21
JOB No:	20

PROJECT INFO:

EYSTER INDUSTE

ADDRESS
EYSTER BLVD.
ROCKLEDGE, FL

PREPARED FOR:

ADI EYSTER , LLC

SUBMITTED TO:

CITY OF ROCKLEDGE

SHEET TITLE:

FOUNDATION PL

SHEET:

S - 1

SHEET 6 OF 6

ENGINEER OF RECOR

NOEL DROOR LICENSE No. 37259 STATE OF FLORIDA PROFESSIONAL ENGINEER

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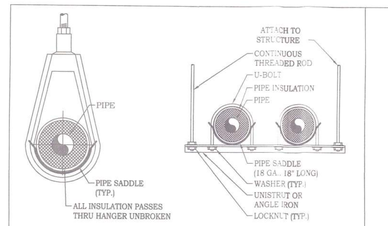
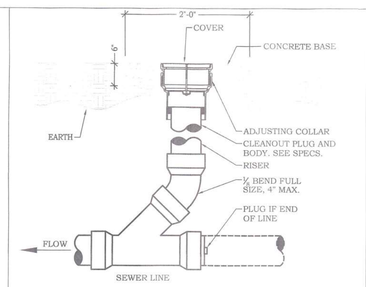
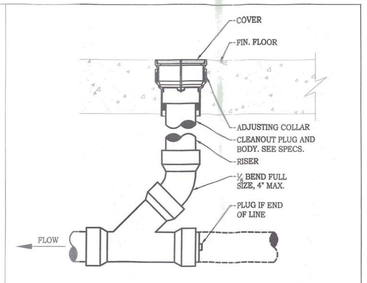


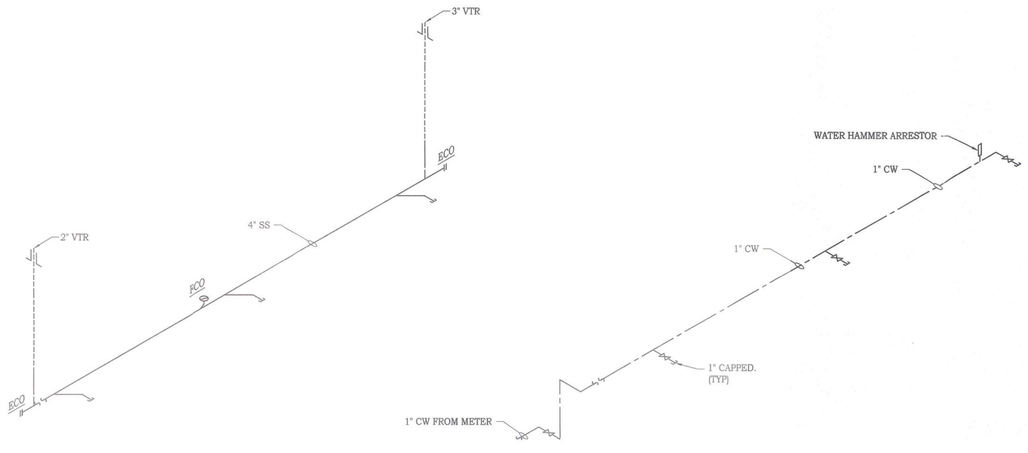
P1 INSULATED PIPE HANGER DETAIL
N.T.S. M-D009



P2 EXTERIOR CLEANOUT DETAIL
N.T.S. P-D006

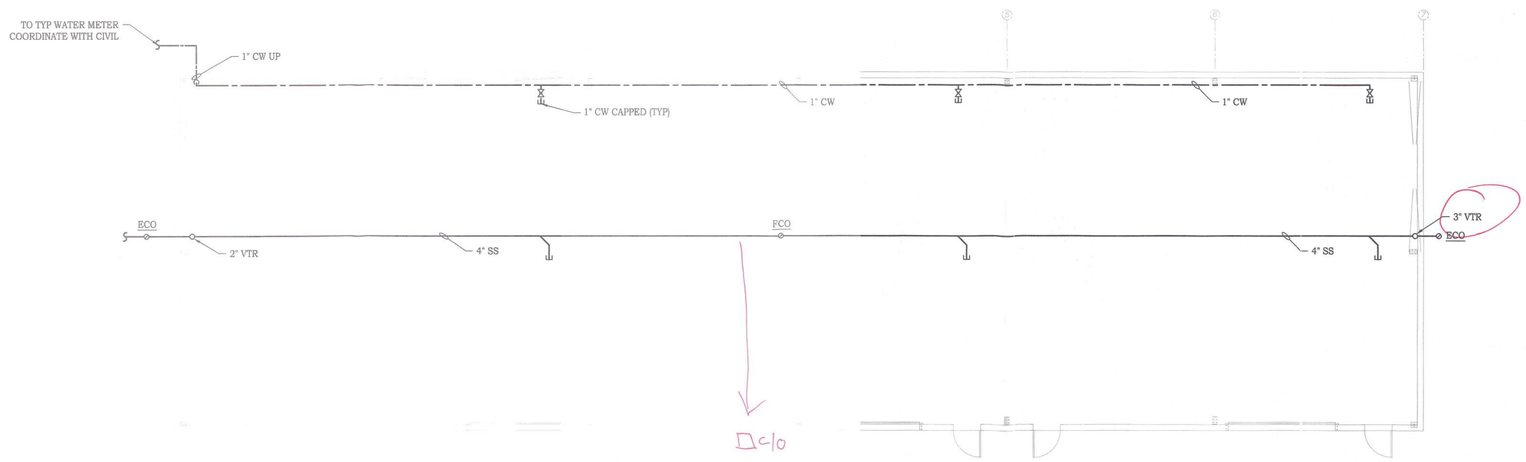


P3 FLOOR CLEANOUT DETAIL
N.T.S. P-D006



S# - SEWER RISER
N.T.S.

W# - WATER RISER
N.T.S.



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

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
	CHECK VALVE
	MIXING VALVE
FCO/ECO	FLOOR CLEANOUT & EXTERIOR CLEANOUT
WCO.	WALL CLEANOUT
	FLOOR DRAIN
	FLOOR SINK
	CONNECT TO EXISTING
	GATE VALVE OR BALL VALVE
RD	ROOF DRAIN
RWL	RAIN WATER LEADER
VTR	VENT THROUGH ROOF
SS	SANITARY SEWER
GWH	GAS WATER HEATER
TMX	THERMOSTATIC MIXING VALVE
GW	GREASE WASTE
A A A	COMPRESSED AIR
GAS GAS GAS	GAS SERVICE
	DEMO
	NOT IN CONTRACT (N.I.C.)

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.

SPECIAL 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.

SHOP DRAWINGS
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 OTHER 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.

MATERIALS
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 AND GRADE.

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 MANUALS.

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 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)

#59743

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C.O.A.: 25988
DDC PROJECT NO.: 21133

CONSULTANTS:

DATE
SEPTEMBER 29, 2021

REVIEW SET	☐
PERMIT SET	☒
BID SET	☐
CONSTRUCTION SET	☐
AS BUILT	☐

REVISIONS

NO.	DATE	DESCRIPTION

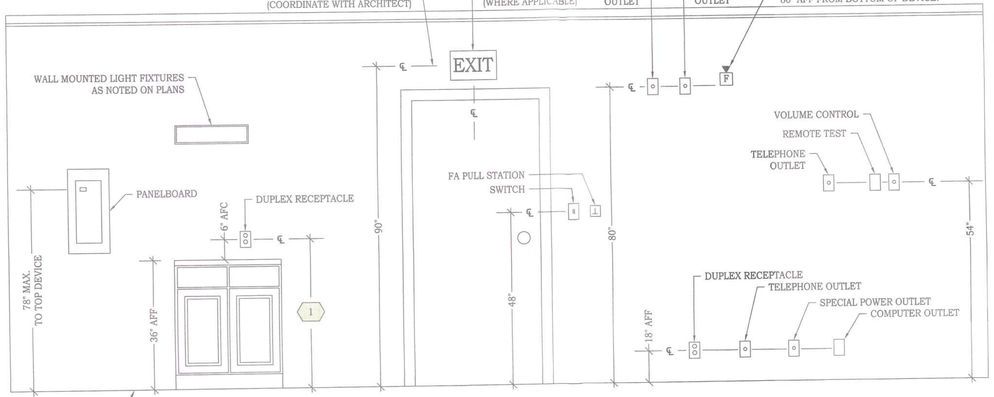
EYSTER INDUSTRIAL
EYSTER BLVD., ROCKLEDGE FL, 32955

PLUMBING SPECIFICATIONS AND PLAN

SHEET NO.:
P-1

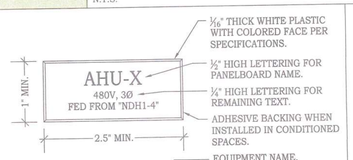
DRAWN:	DJR
CHECKED:	JMF
APPROVED:	DAD

David A. DaSilva
LICENSED
STATE OF FLORIDA
DAVID ANTHONY DASILVA
LICENSE
No. 54799
STATE OF FLORIDA
PROFESSIONAL ENGINEER
10/05/2021



E1 MOUNTING HEIGHT DETAIL

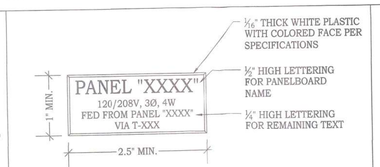
N.T.S. E-D100



TYPICAL EQUIPMENT

E2 EQUIPMENT NAMEPLATE

N.T.S. E-D101

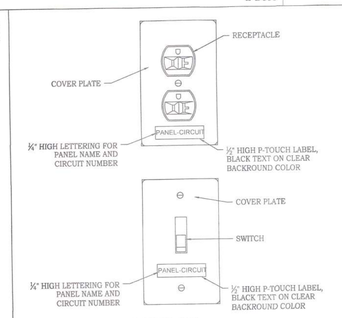


TYPICAL 120/208V PANELBOARD

TYPICAL 120/208V PANELBOARD

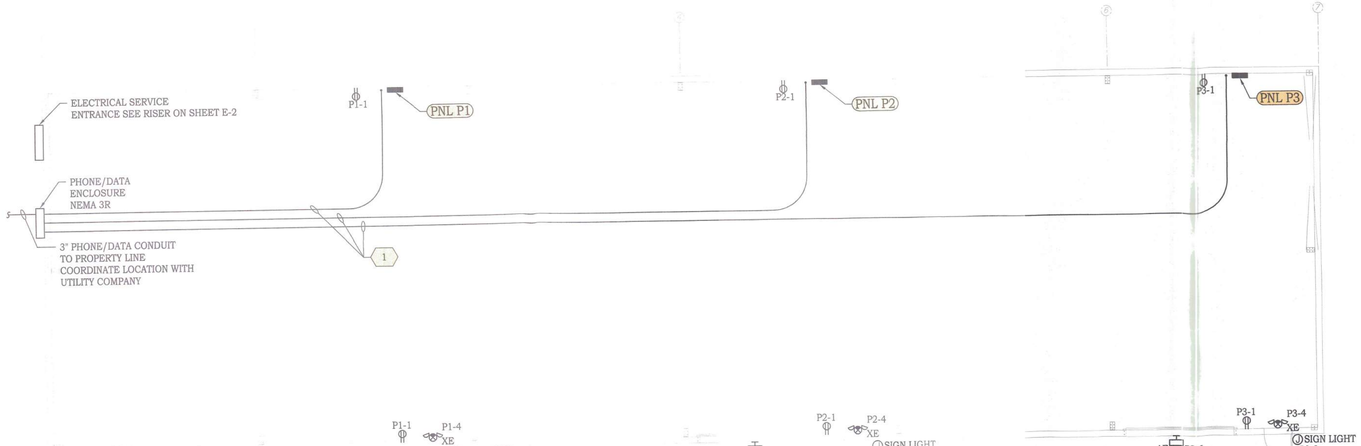
E3 PANELBOARD NAMEPLATE

N.T.S. E-D102



E4 DEVICE COVERPLATE

N.T.S. E-D102



ELECTRICAL PLAN

1/8" = 1'-0"

LEGEND

AE	EXTERIOR WALL MOUNTED FIXTURE - WILLIAMS VWPV-L60/740-T3-BLK-SDGL-EM-PC-DIM-UNV OR EQUAL
	DUPLEX RECEPTACLE, 18" AFF
J	J-BOX
XE	COMBINATION EXIT / EMERGENCY LIGHT WITH BATTERY BACKUP - BEGHELLI PCH-R-SA OR EQUAL
	HOME RUN

PLAN NOTES

1. ROUTE 1" CONDUIT UNDERGROUND AND STUB UP ADJACENT TO PANEL. PROVIDE PULL WIRE AND LABEL ORIGINS.

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)

ELECTRICAL SPECIFICATIONS

GENERAL

1. 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 TELEPHONE COMPANY STANDARDS.
2. ALL WIRE SHALL 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.
3. 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.
4. 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.
5. 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.
6. DRAWINGS ARE DIAGRAMMATIC - CONTRACTOR SHALL REFER TO ARCHITECTURAL, CIVIL AND STRUCTURAL DRAWINGS AND FIELD CONDITIONS FOR ALL DIMENSIONS.
7. CONTRACTOR SHALL OBTAIN AND FURNISH ALL PERMITS REQUIRED. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, APPLIANCES AND TOOLS TO 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.
8. 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.
9. ANY PENETRATIONS MADE THROUGH A FIRE RATED ASSEMBLY SHALL BE PROPERLY SEALED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY PER U.L. AND NFPA.
10. 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.
11. 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.
12. 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.
13. PROVIDE HACR RATED CIRCUIT BREAKERS FOR ALL HVAC EQUIPMENT.

CUTTING AND PATCHING

1. THE RESPONSIBILITY FOR ANY 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.
2. 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 AREAS.
3. 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.
4. 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.
5. OPENINGS 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.

PAINTING

1. 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

1. 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.

AS-BUILT DRAWINGS

1. 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 CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE.

PROTECTION

1. 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.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION, WHEREVER WORK IS TO BE PERFORMED IN FINISHED/OCCUPIED SPACES, TO PREVENT DAMAGE TO ADJACENT AREAS, EQUIPMENT, OR FURNISHINGS; 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.
3. 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 FINISHES.

GENERAL NOTES

1. ALL ELECTRICAL CONDUITS SHALL CARRY A SEPARATE GREEN INSULATED COPPER WIRE SIZED PER NEC UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
2. COORDINATE ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT TO BE INSTALLED BY OTHER TRADES.
3. 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 NEC.
4. BRANCH CIRCUIT FEEDER WIRE AND CONDUIT SIZES ARE INDICATED ON PANEL SCHEDULES.
5. RESTROOM EXHAUST FANS SHALL BE CONTROLLED BY RESTROOM LIGHT SWITCH.
6. REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS AND REQUIREMENTS OF MECHANICAL EQUIPMENT.
7. EMERGENCY LIGHTING CONTROLLED AHEAD OF LOCAL SWITCH.
8. OWNER SHALL HAVE FINAL APPROVAL OF LIGHT FIXTURE SELECTION.
9. 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.
10. COORDINATE SIGN LIGHT LOCATION WITH OWNER/ARCHITECT.
11. EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTOCELL.
12. 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.
13. 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.
14. 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.
15. PROVIDE FAULT CURRENT MARKER PER NEC 110.24 AND ARC-FLASH DECALS PER NEC 110.16.
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.
17. 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.
18. 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)
    INCREASE CONDUIT PER NEC AS REQUIRED.
    EQUIPMENT FEEDERS HAVE BEEN SIZED FOR A MAXIMUM 2% VOLTAGE DROP FROM MAIN SERVICE TO THE PANELS.
19. 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.

#59747

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DDC PROJECT NO.: 21133

CONSULTANTS:

DATE
SEPTEMBER 29, 2021

REVIEW SET	☐
PERMIT SET	☒
BID SET	☐
CONSTRUCTION SET	☐
AS BUILT	☐

REVISIONS

NO.	DATE	DESCRIPTION

EYSTER INDUSTRIAL
EYSTER BLVD., ROCKLEDGE FL, 32955

SHEET NO.:
E-1

DRAWN: DJR
CHECKED: JMF
APPROVED: RAR

David A. DaSilva
54739
DAVID ANTHONY DASILVA LICENSE No. 54739 STATE OF FLORIDA PROFESSIONAL ENGINEER
10/1/2021

FEEDER VOLTAGE DROP CALCULATIONS

FEEDERS FROM	FEEDERS TO	VOLTAGE	PHASES	KVA DEM.	DEMAND AMPERES	FEEDER SIZE	CONDUIT TYPE	FEEDER LENGTH FT	# OF SETS	Z/1000 FT	VOLTAGE DROP L-N	VOLTAGE DROP L-L	% VOLTAGE DROP	TOTAL % VOLTAGE DROP
FPL XFMER	AUX. GUTTER	208	3	172.80	479.64	#500	PVC	75	2	0.05700	1.03	1.78	0.85	0.85
AUX. GUTTER	DISC. P1	208	3	57.60	159.88	#250	PVC	5	1	0.09400	0.08	0.13	0.06	0.92
DISC. P1	PANEL P1	208	3	57.60	159.88	#250	PVC	55.00	1	0.09400	0.83	1.43	0.69	1.60
AUX. GUTTER	DISC. P2	208	3	57.60	159.88	#250	PVC	5.00	1	0.09400	0.08	0.13	0.06	0.92
DISC. P2	PANEL P2	208	3	57.60	159.88	#250	PVC	100.00	1	0.09400	1.50	2.60	1.25	2.17
AUX. GUTTER	DISC. P3	208	3	57.60	159.88	#250	PVC	5.00	1	0.09400	0.08	0.13	0.06	0.92
DISC. P3	PANEL P3	208	3	57.60	159.88	#250	PVC	150.00	1	0.09400	2.25	3.90	1.88	2.79
PANEL P3	FARTHEST REC.	120	1	0.36	3.00	#12	STEEL	71.00	1	1.70000	0.36	0.72	0.60	3.40

NOTE:

1. LOCATION OF TRANSFOMER IS ASSUMED. CONTRACTOR SHALL PROVIDE ENGINEER WITH LOCATION OF TRANSFORMER PER POWER COMPANY.
2. VOLTAGE DROP BASED ON FULL DEMAND OF PANEL.
2. LENGTH OF FEEDERS ARE APPROXIMATE. CONTRACTOR SHALL PROVIDE EXACT LENGTHS TO ENGINEER FOR UPDATED VOLTAGE DROP CALCULATIONS.

SHORTCIRCUIT CALCULATION

Available SC at XFMER Primary Side (MVA) =	1000	Z XFMER =	2
Service XFMER Capacity in kVA =	75	Z SYS =	0.000075
XFMER L-L Voltage at Sec side Volts	208	ZT (PU) =	0.02
System Shortcircuit Bases KVA =	75	VB KV =	208
Current Base =	0.21	Z Base =	0.5769

LOCATION	CABLE SIZE	# OF SETS	FDR (FT)	RL	XL	RL PU	XL PU	RS	XS	I (SC) PU	SHORT CIRCUIT (A)
XFMER SECONDARY SIDE								**0.000000**	**0.020075**	**49.81**	10,370
XRMFER TO AUX. GUTTER	#500 KCM AL	2	75	0.043	0.039	0.002795	0.002535	0.002795	0.022610	**43.89**	9,138
AUX. GUTTER TO DISC. P1	#250 KCM AL	1	5	0.085	0.041	0.000737	0.000355	0.003532	0.022966	**43.04**	8,959
DISC. P1 TO PANEL P1	#250 KCM AL	1	55	0.085	0.041	0.008104	0.003909	0.011636	0.026875	**34.15**	7,109
AUX. GUTTER TO DISC. P2	#250 KCM AL	1	5	0.085	0.041	0.000737	0.000355	0.012373	0.027230	**33.43**	6,960
DISC. P2 TO PANEL P2	#250 KCM AL	1	100	0.085	0.041	0.014735	0.007108	0.027108	0.034338	**22.86**	4,759
AUX. GUTTER TO DISC. P3	#250 KCM AL	1	5	0.085	0.041	0.000737	0.000355	0.003532	0.022966	**43.04**	8,959
DISC. P3 TO PANEL P3	#250 KCM AL	1	150	0.085	0.041	0.022103	0.010661	0.025635	0.033627	**23.65**	4,923

NOTE:

1. IMPEDANCE OF POWER COMPNAY TRANSFORMER IS ASSUMED. CONTRACTOR SHALL PROVIDE FAULT CURRENT LETTER FROM POWRE COMPNAY INDICATING THE IMPEDENCE OF THE TRANSFORMER, THE AVAILABLE SCA ON THE SECONDARY OR THE PRIMER SIDE OF THE TRANSFORMER AND THE SIZE OF THE TRANSFORMER.
2. LENGTH OF FEEDERS ARE APPROXIMATE. CONTRACTOR SHALL PROVIDE EXACT LENGTHS TO ENGINEER FOR UPDATED SHORTCIRCUIT CALCULATOINS.

PANEL: P1 (P2 & P3 SIMILAR)

PANEL TYPE:	SQ-D OR EQUAL	BUS AMP RATING:	225 A	VOLTAGE:	120/208
PANEL LOCATION:	REAR WALL	MAIN AMP RATING:	200 A	PHASE:	3
FED FROM SOURCE:	MAIN DISCONNECT	MAIN TYPE:	MLO	WIRE:	4

LUG LOCATION:	TOP OR BOTTOM
MOUNTING:	SURFACE
AIC RATING:	22,000

CKT NO.	EQUIP NO.	TYPE	EQUIPMENT SERVED	NOTES	KVA	CKT. BKR. POLE/TR	BRANCH CKT Ø	N	GND	C	Ø	CKT NO.	EQUIP NO.	TYPE	EQUIPMENT SERVED	NOTES	KVA	CKT. BKR. POLE/TR	BRANCH CKT Ø	N	GND	C
1		R	ENTRY DOOR		.360	1/20	12	12	12	1/2"	A	2		L	SIGN LIGHT		1.20	1/20	12	12	12	1/2"
3											B	4		L	EMERGENCY		.005	1/20	12	12	12	1/2"
5											C	6		L	EXTERIOR **		.300	1/20	12	12	12	1/2"
7											A	8										
9											B	10										
11											C	12										
13											A	14										
15											B	16										
17											C	18										
19											A	20										
21											B	22										
23											C	24										
25											A	26										
27											B	28										
29											C	30										
31											A	32										
33											B	34										
35											C	36										
37											A	38			SPD		*	3/30	10	10	10	3/4"
39											B	40			⊥			⊥	10			
41											C	42							10			

EQUIPMENT SERVED	CONN. LOAD	LF	DF	DESIGN LOAD
RECEPTACLES (FIRST 10 KVA)	.360		1.00	.360
RECEPTACLES (REMAINING KVA)	0		0.50	0
LIGHTING	1.51	1.25		1.88
		TOTAL		2.24
		AMPS		6

NOTES:
- TC - WIRE THROUGH CONTACTOR
- HACR - HACR TYPE BREAKER
- LO - LOCKOUT BREAKER
- GFCI - GND FAULT CURRENT INTERRUPT CIRCUIT BREAKER
- IG - ISOLATED GROUND
- WIF - WALK IN FREEZER
- WIC - WALK IN COOLER

CONNECTION TYPE
- R - RECEPTACLE
- L - LIGHTING
- H - HVAC/EWH
- K - KITCHEN EQUIPMENT
- M - MISC.

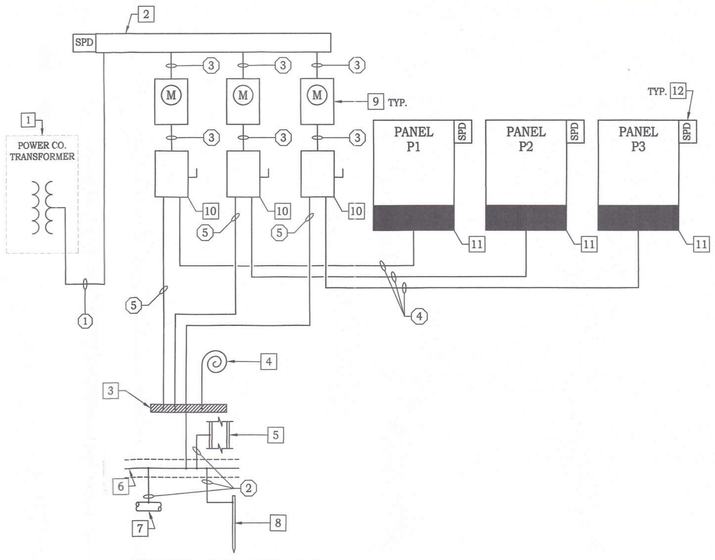
REMARKS:
- PROVIDE COPPER GROUND BUS & NEUTRAL BUS.
- PROVIDE TYPE WRITTEN DIRECTORY.
- CONTRACTOR SHALL CONFIRM HVAC CIRCUIT BREAKER REQUIREMENTS BEFORE PURCHASING.
- HEAT/COOLING LOADS ARE MUTUALLY EXCLUSIVE.

** PANEL P3 ONLY

SERVICE LOAD CALCULATION

LIGHTING	5300 SQ. FEET x 3 VA =	15,500 VA
RECEPTACLES	5300 SQ. FEET x 3 VA =	15,500 VA
HVAC	3 @10,000 VA =	30,000 VA
EWH	3 @4,500 VA =	13,500 VA
MISC		15,900 VA
TOTAL :		91,200 VA
AMPS	@ 208V, 3-PHASE	253 A

SERVICE SIZED FOR 600A AT 120/208V, 3-PH



RISER DIAGRAM
N.T.S.

RISER DIAGRAM NOTES

SCA: AVAILABLE FAULT CURRENT
VD: VOLTAGE DROP

THE FOLLOWING ASSUMPTIONS WERE MADE
1. TRANSFORMER: PRIMARY VOLTAGE 13200, 75 KVA, 2.00% Z
2. 75 LINEAR FEET FROM TRANSFORMER TO AUX. GUTTER

AIC RATING AND VOLTAGE DROP BASED ON PRELIMINARY CALCULATIONS. CONTRACTOR SHALL SUBMIT TO ENGINEER POWER COMPANY FAULT CURRENT LETTER, PRIOR TO PURCHASING EQUIPMENT AND SUBMITTING CUT SHEETS, FOR UPDATED AIC VALUES. EQUIPMENT WITH UPDATED AIC VALUES SHALL BE PROVIDED AT NO ADDITIONAL COST.

VOLTAGE DROP HAS BEEN SIZED FOR A MAXIMUM OF 5% FOR FEEDERS AND BRANCH CIRCUITS COMBINED AS PER FBC-EC C405.5.3

120V RECEPTACLE AND LIGHTING BRANCH FEEDER CONDUCTORS SHALL BE SIZED FOR A 3% MAXIMUM VOLTAGE DROP FROM DISTRIBUTION 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)
INCREASE CONDUIT PER NEC AS REQUIRED.
EQUIPMENT FEEDERS HAVE BEEN SIZED FOR A MAXIMUM 3% VOLTAGE DROP

RISER EQUIPMENT NOTES

1. POWER COMPANY TRANSFORMER SECONDARY: 120/208V, 3Ø-4W COORDINATE ALL REQUIREMENTS WITH POWER CO. (SCA: 13,012)
2. 8X8 AUXILARY GUTTER, NEMA 3R LENGTH AS REQUIRED.
3. EXTERNAL BONDING BAR PER NEC 250.94
4. (1)#6 AWG CU TO TELEPHONE/CABLE CABINET
5. BUILDING STEEL STRUCTURE PER NEC ARTICLE 250.52 (A) 2
6. BUILDING CONCRETE ENCASED FOOTING STEEL BAR PER NEC ARTICLE 250.52 (A) 3
7. METALLIC WATER PIPE PER NEC ARTICLE 250.52 (A) 1
8. (3) 20'x3/4"D GROUND 20' APART IN A TRIANGLE AND CONNECT GROUND SYSTEM PER NEC ARTICLE 250
9. NEMA 3R METER COORDINATE REQUIREMENTS WITH POWER CO.
10. NEMA 3R ENCLOSED 200 A FUSED DISCONNECT WITH 200A LIMITING FUSES.
11. NEW PANEL, SEE SCHEDULE
12. SURGE PROTECTION DEVICE

WIRE AND CONDUIT SCHEDULE

1	2X [(4) # 500 KCMIL AL, 4"C]
2	(1) # 3/0 AWG CU G, 3/4"C
3	(4) # 250 KCMIL AL, 3"C
4	(4) # 250 KCMIL AL, (1)#AWG ALG, 3"C
5	(1) # 4 AWG CU A, 3/4"C
6	(4) # 4 AWG AL, 1.5"C

#59743

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C.O.A.: 25988
DDC PROJECT NO.:
CONSULTANTS:

DATE
SEPTEMBER 29, 20

REVIEW SET
PERMIT SET
BID SET
CONSTRUCTION SET
AS BUILT

REVISIONS

NO.	DATE	DESCRIPTION

EYSTER INDUSTRIAL
EYSTER BLVD., ROCKLEDGE FL, 32955

SHEET NO.:
E-2

DRAWN: DJR
CHECKED:
APPROVED:

David A. DaSilva
59743
DAVID ANTHONY DASILVA
LICENSE
No. 59743
STATE OF FLORIDA
PROFESSIONAL ENGINEER
10/05/2021