

PENSACOLA STATE COLLEGE **BUILDING 2 MAIN GEAR** REPLACEMENT

1000 COLLEGE BLVD, PENSACOLA, FL 32504

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Pensacola Interstate Fair PROJECT LOCATION Pensacola Myrtle Grove

PROJECT LOCATION MAP

OWNER REPRESENTATIVES

DIRECTOR OF FACILITIES, PLANNING, AND CONSTRUCTION

GREG OLIVER MAINTENANCE MANAGER, FACILITIES, PLANNING, AND CONSTRUCTION.

PENSACOLA STATE COLLEGE 1000 COLLEGE BLVD. PENSACOLA, FL 32504

DESIGN TEAM

CALEB LEONARD, P.E. HG ENGINEERS

4286 WOODBINE RD., SUITE D PACE, FL 32571

COLLIN McDEVITT **HG ENGINEERS** 4286 WOODBINE RD., SUITE D PACE, FL 32571

CODES AND STANDARDS

APPLICATION STANDARDS AND CODES SHALL INCLUDE ALL LOCAL ORDINANCES, ALL STATE LAWS, AND THE APPLICABLE REQUIREMENTS OF THE FOLLOWING:

- AMERICAN NATIONAL STANDARDS INSTITUTE ANSI
- NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION -
- UNDERWRITERS' LABORATORIES, INC. UL
- THE NATIONAL ELECTRIC CODE NEC NFPA 70, 2020
- FLORIDA BUILDING CODE, 2023 EDITION

E-mail: office@hgengineers.com Ph:850.243.6723 **ACEMENT** COLLEGE EAR REPLA

Thomas A. Alexander; FL. PE No.73172 Daniel J. White; FL. PE No.73790 Caleb W. Leonard: FL. PE No.91782

PENSACOLA 8 BUILDING 2 M

DATE: DESCRIPTION:

DRAWN BY: DESIGNED BY: CHECKED BY: 2024-06-28 JOB NUMBER: 23011

COVER SHEET

G001

ELECTRICAL GENERAL NOTES

- A. ALL PANELBOARDS, BACKBOARDS, TERMINAL CABINETS, ETC SHALL HAVE CUSTOM ENGRAVED MICARTA NAMEPLATE MECHANICALLY AFFIXED IDENTIFYING SYSTEM.
- B. PROVIDE GREEN GROUND CONDUCTOR IN ALL CIRCUITS SIZE PER N.E.C.
- C. GENERAL CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED.
- D. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FAULT CURRENT CALCULATIONS FOR THE SERVICE EQUIPMENT AND SHALL MARK THE EQUIPMENT WITH THE AVAILABLE FAULT CURRENT AND DATE OF THE CALCULATION PER NEC 110.24. REFER TO TYPICAL SERVICE EQUIPMENT FAULT CURRENT LABEL DETAIL.
- E. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ARC FAULT LABELS PER NFPA 70E ARTICLE 110.16 FOR NEW EQUIPMENT. REFER TO TYPICAL ARC FLASH HAZARD LABEL DETAIL.
- F. PROVIDE NEUTRAL AT ALL LINE VOLTAGE SWITCH LOCATIONS PER N.E.C. 404.2(C).
- G. PROVIDE BUSHINGS ON ALL CONDUIT.

ELECTRICAL DEMOLITION NOTES

- PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED WITH THE FACILITY PERONNEL IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE.
- 2. ALL DEMOLITION WORK REQUIRED SHALL BE PERFORMED WITH CARE SO AS NOT TO INTERRUPT OTHER EXISTING SERVICES (WATER, GAS, ELECTRICAL, SEWER, SPRINKLERS, ETC.). IF ACCIDENTAL UTILITY INTERRUPTION, DAMAGE, ETC., RESULTS FROM WORK PERFORMED BY THE CONTRACTOR, THE AFFECTED UTILITY OR SERVICE SHALL BE RETURNED TO ITS ORIGINAL CONDITION WITHOUT DELAY, BY AND AT THE EXPENSE OF THE CONTRACTOR, USING SKILLED WORKMEN OF THE TRADE INVOLVED.
- REMOVE ALL OUTLETS, PULL BOXES, JUNCTION BOXES, ETC., AS REQUIRED TO COMPLETELY REMOVE THE ELECTRICAL ITEMS SHOWN FOR DEMOLITION UNLESS NOTED TO REMAIN. DISCONNECT AND REMOVE ALL ELECTRICAL PROVISIONS TO EQUIPMENT BEING REMOVED.
- 4. REMOVE ALL WIRING, CONDUIT, RACEWAYS, OUTLET BOXES, SUPPORTING APPARATUS ETC., AS REQUIRED.
- SYMBOLS SHOWN ARE TYPICAL AND LOCATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO LIMIT THE AMOUNT OF DEMOLITION. COORDINATE WITH EXISTING CONDITIONS AND THESE NOTES AND REMOVE ALL APPLICABLE SYSTEMS AND COMPONENTS CONFLICTING WITH FINISHED DESIGN INTENT.
- 6. EXISTING BRANCH WIRING SHOWN IS DIAGRAMMATICAL ONLY AND IS BASED UPON EXISTING AS-BUILT DRAWINGS AND SURVEYS. COORDINATE WITH ACTUAL EXISTING CONDITIONS FOR NUMBER OF CONDUCTORS PER CONDUIT AND EXACT LOCATIONS OF CONDUIT RUNS AND EQUIPMENT.
- 7. ALL FEEDERS, SYSTEMS, CONTROL WIRING, MISCELLANEOUS AUXILIARY SYSTEMS, ETC., PASSING THROUGH THE AREA OF WORK SHALL BE MAINTAINED AT ALL TIMES, REMAIN IN SERVICE, CONTINUOUS AND UNINTERRUPTED. ANY DAMAGE, DISRUPTION OR DISCONNECTION SHALL BE IMMEDIATELY REPAIRED, REPLACED AND/OR REPOUTED AS REQUIRED TO MAINTAIN CONTINUITY OF SYSTEMS. ANY EXISTING SERVICE OR OPERATING SYSTEM WHICH MUST BE INTERRUPTED SHALL BE SUPPLIED WITH A TEMPORARY SERVICE FOR CONTINUATION OF THE NORMAL OPERATIONS OF THE FACILITY.
- ANY EQUIPMENT THAT REQUIRES REMOVAL FROM EXISTING LOCATION FOR RE-USE OR TO BE RETURNED TO OWNER SHALL BE INSPECTED AND TESTED TO CONFIRM EQUIPMENT OPERATES AS INTENDED. OWNER SHALL BE NOTIFIED OF ANY EQUIPMENT THAT DOES NOT OPERATE AS INTENDED BEFORE REMOVAL.
- 9. CONCEALED CONDUIT THAT CANNOT BE REMOVED DUE TO INACCESSIBILITY MAY BE ABANDONED. CONDUCTORS SHALL BE REMOVED AND CONDUIT CUT FLUSH WITH SURFACE.
- 10. OUTLET BOXES THAT CANNOT BE REMOVED DUE TO FLUSH MOUNTING IN PARTITIONS SHALL BE FILLED WITH GROUT, PATCHED AND FINISHED FLUSH TO MATCH EXISTING WALL CONDITIONS.
- 11. IN GENERAL, THE WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
 - a. Provide all demolition as required of existing systems removing all items that conflict with finished design intent as indicated above.
 - b. MODIFY, REPLACE, REPAIR, REVISE ETC., EXISTING SYSTEMS AND/OR EQUIPMENT.
 - c. EXTEND EXISTING SYSTEMS AS REQUIRED TO FUNCTION AS SPECIFIED AND IN ACCORDANCE WITH SYSTEM REQUIREMENTS.
 - d. NEW SYSTEM COMPONENTS SHALL MATCH EXISTING SYSTEMS PROVISIONS AND BE COMPLETELY COMPATIBLE AND IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. WHEN REQUIRED, APPROVAL FROM A SYSTEM MANUFACTURER SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO INSTALLING ANY NEW EQUIPMENT OR DEVICES TO AN
 - EXISTING SYSTEM. e. ALL EQUIPMENT, DEVICES, OUTLETS, COMPONENTS, ETC., TO BE REUSED SHALL BE CLEANED, REPAIRED AND PLACED IN OPERATING CONDITION. LUMINARIES NOTED TO BE
 - REUSED SHALL BE CLEANED, REPAIRED, PROVIDED WITH NEW LAMPS AND PLACED IN OPERATING CONDITION. f. EXISTING OUTLET BOXES MAY BE USED AS NOTED IF OF THE PROPER CONFIGURATION AND SIZE REQUIRED. MODIFICATIONS SHALL BE MADE WHEN REQUIRED SUCH AS
 - PROVIDING EXTENSION RINGS, LOCKNUTS, BUSHINGS, ETC. g. EXISTING PANELBOARDS SHALL BE UTILIZED TO THE EXTENT SHOWN ON THE DRAWINGS AND MODIFIED AS REQUIRED TO FACILITATE THE NEW REQUIREMENTS AS INDICATED HEREIN OR SHOWN ON THE DRAWINGS. NEW CIRCUIT BREAKERS SHALL BE OF THE SAME MANUFACTURER, FRAME SIZE, SHORT CIRCUIT RATING AND TYPE AS EXISTING, WHERE
 - APPLICABLE, THE CONTRACTOR SHALL BE REQUIRED TO FURNISH AND INSTALL ADDITIONAL MOUNTING HARDWARE AS REQUIRED BY THE MANUFACTURER. h. WHEN EXISTING DEVICES, SWITCHES, EQUIPMENT ETC., ARE NOTED TO BE REMOVED AND THE CIRCUIT(S) SERVING SUCH ITEMS SERVES OTHER ITEMS OR DEVICES WHICH ARE TO BE MAINTAINED, THE CONTRACTOR SHALL REROUTE, EXTEND, MODIFY, ETC., EXISTING CIRCUITS AS REQUIRED TO MAINTAIN COMPLETE AND OPERATING SYSTEMS.

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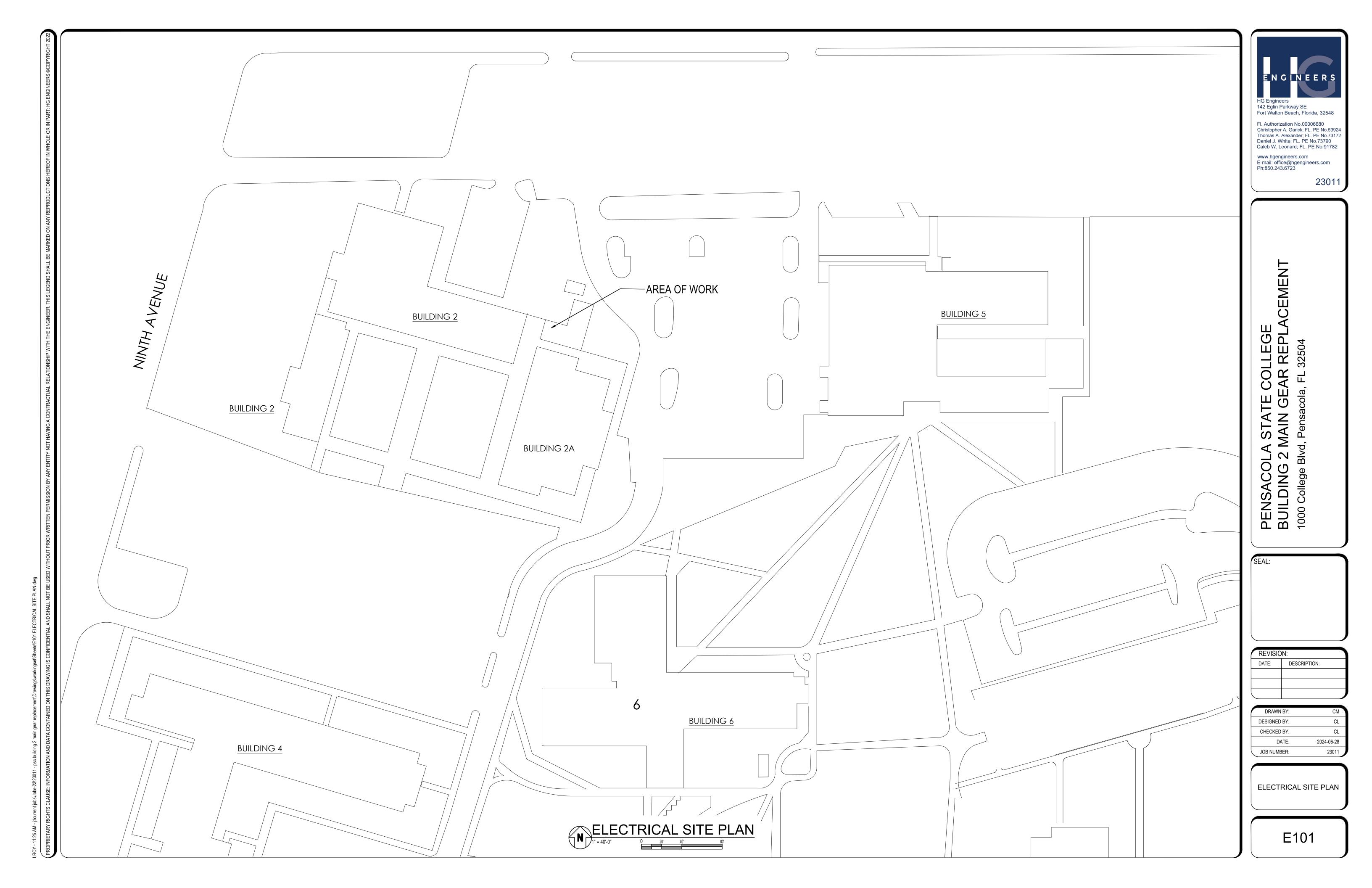
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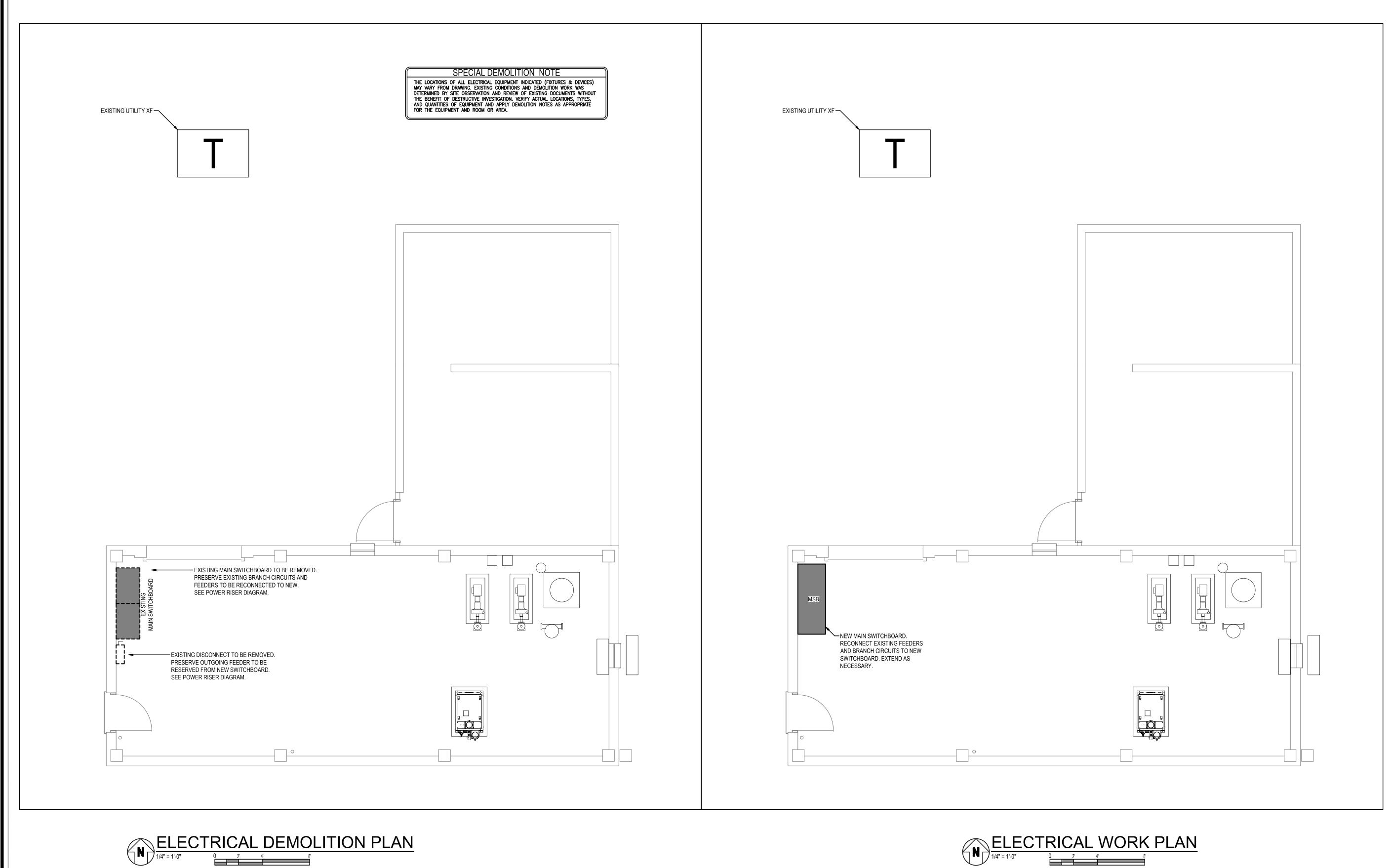
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DESIGNED BY:	CL
CHECKED BY:	CL
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LEGEND AND NOTES

E001





COLLEGE EAR REPLA PENSACOLA STATE C BUILDING 2 MAIN GEA 1000 College Blvd, Pensacola, F

142 Eglin Parkway SE

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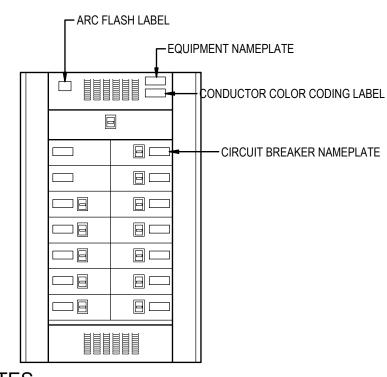
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DESIGNED BY: CHECKED BY: 2024-06-28 JOB NUMBER: 23011

ELECTRICAL WORK PLAN

E201



NOTES

NOTES

- 1. PROVIDE SWITCHBOARD NAMEPLATE FOR NEW SWITCHGEAR AND SWITCHBOARDS INSTALLED.
- 2. PROVIDE ARC FLASH LABEL FOR NEW SWITCHGEAR AND SWITCHBOARDS INSTALLED.
- 3. IF SYSTEM HAS HAS MORE THAN ONE NOMINAL VOLTAGE SYSTEM INSTALL COLOR CODING LABEL. LABEL MAY BE INSTALLED ON INSIDE OF SWITCHBOARD DOOR IF NEEDED.

SWITCHBOARD LABELING

1. PROVIDE NAMEPLATE ON SERVICE EQUIPMENT AS REQUIRED BY NEC

AVAILABLE FAULT CURRENT

XXXXXX AMPS

DATE:DD/MM/YYYY

110.24(A). SEE ARC FLASH LABEL DETAIL

2. 1/4" WHITE LETTERS ON BLACK PANEL.

NOTES

- 1. PROVIDE LABEL FOR ALL SWITCHBOARDS FEED FROM A FEEDER
- 2. SEE EQUIPMENT NAMEPLATES DETAIL FOR TEXT/PANEL HEIGHT AND COLOR

SWBD XXXX	
208Y/120V 	SYSTEM VOLTAGE
FED FROM: XFMR XXX	SOURCE EQUIPMENT
LOCATED: ROOM XXX	LOCATION OF
	I SUIBCE

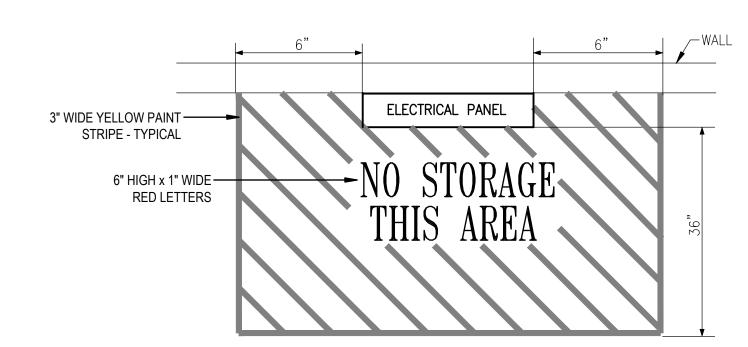
SWITCHBOARD NAMEPLATES

NOTES

- PROVIDE LABEL FOR CIRCUIT BREAKERS IN SWITCHBOARDS AND SWITCHGEAR
- 2. 1/4" BLACK LETTERS ON WHITE PANEL

PANEL/EQUIPMENT XXXX LOCATED RM XXX	
LOCATED TIWI XXX	TANLL/LQOII MLNT LOOATIO

CIRCUIT BREAKER NAMEPLATES

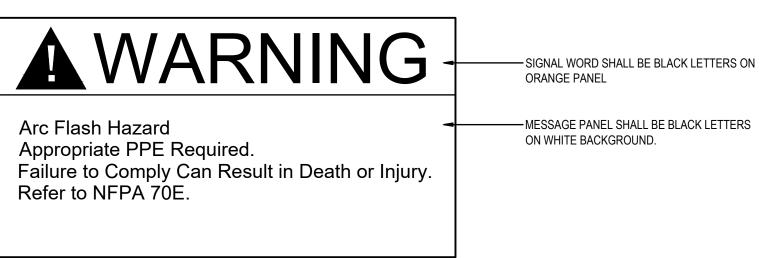


TYPICAL FLOOR MARKING AT ELECTRICAL PANELS

1. PROVIDE LABEL IF NOT PROVIDED BY MANUFACTURER.

NOTES

- 2. PROVIDE ARC FLASH LABEL FOR EACH PIECE OF NEW EQUIPMENT AS REQUIRED BY 110.16(A)
- 3. SIGNAL WORD LETTER HEIGHT MUST BE 50% TALLER THAN MESSAGE PANEL TEXT
- 4. SIGNAL WORD LETTERS MUST BE UPPERCASE AND USE SANS SERIF FONT.



AVAILABLE FAULT CURRENT

ARC FLASH LABELS

REVISION:

DATE: DESCRIPTION:

DRAWN BY: CM

DESIGNED BY: CL

CHECKED BY: CL

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ELECTRICAL DETAILS

E301

PENSACOLA STATE COLLEGE
BUILDING 2 MAIN GEAR REPLACEMENT
1000 College Blvd, Pensacola, FL 32504

142 Eglin Parkway SE

Fort Walton Beach, Florida, 32548

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SPECIAL NOTE

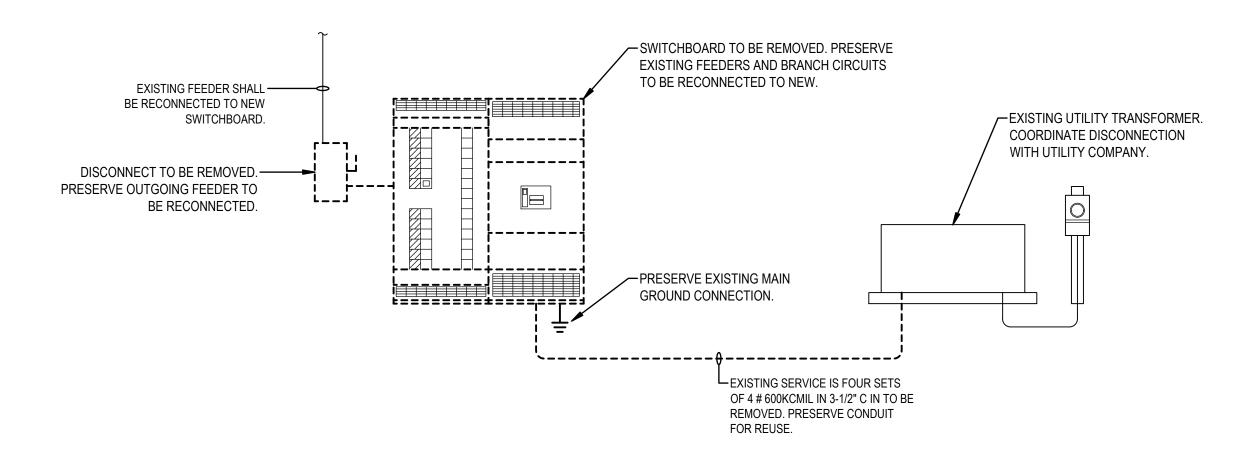
ALL CONTRACTORS SHALL CONDUCT A PREBID WALK THROUGH OF THE PROJECT AREA.

NEW MAIN SWITCHBOARD - OWNER PROVIDED AND CONTRACTOR INSTALLED SYSTEM 208/120V 3Φ 4W RATING 1600A M.C.B. 42,000 AIC MINIMUM **MSB ENCLOSURE** NEMA 1 FREE STANDING OPTIONS BOLT ON BREAKERS; SERVICE RATED

CKT #	SERVING	CKT BKR			
OIL II		UNIT	TRIP	POLE	
1	UNIT 2 LECTURE ROOMS	LSI	400	3	
2	PANEL MP	LSI	600	3	
3	HWP-2-1		35	3	
4	HWP-2-2		35	3	
5	EXIT LIGHTS		20	3	
6	BOILER ROOM LIGHTS		20	1	
7	BOILER B-2-1		20	1	
8	TRANE CONTROLS		20	1	
	MINI SPLIT DAC-2-1		30	2	
10	UNKNOWN		20	1	
11	UNKNOWN		20	1	
12	UNKNOWN		20	1	
13	UNKNOWN		20	1	
14	UNKNOWN		20	1	
15	SPARE	LSI	400	3	
16	SPARE	LSI	250	3	
17	SPARE	LSI	250	3	
18	SURGE PROTECTION		60	3	

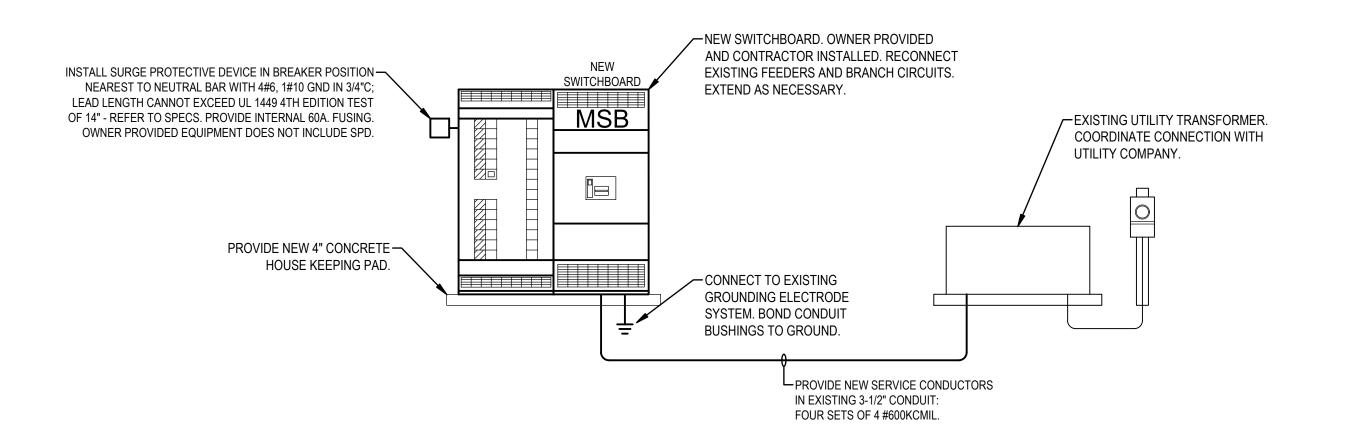
MAIN BREAKER SHALL HAVE LSI TRIP UNITS. COORDINATE FINAL SETTINGS WITH ENGINEER OF RECORD.

- TRACE AND VERIFY ALL EXISTING UNKNOWN CKTS. PROVIDE APPROPRIATE NAMEPLATE ON SWITCHBOARD NEXT TO SERVING BREAKER.
- PROVIDE ALL BREAKERS 400A AND GREATER WITH BACNET CAPABILITY OR BACNET CAPABLE METER FOR SUCH BREAKERS.
- SWITCHBOARD SHALL HAVE DIGITAL METER ON THE MAIN BREAKER BUILT INTO THE GEAR.
- CONTRACTOR SHALL ENGAGE MANUFACTURER TO COMPLETE STARTUP SERVICES. STARTUP SERVICES ARE INCLUDED WITH THE SWITCHBOARD PROVIDED BY



PARTIAL POWER RISER - DEMO

PARTIAL POWER RISER - NEW



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SINGLE LINE POWER RISER & PANEL SCHEDULE

E401