July 3, 2024

CHOCTAW COUNTY JAIL
BUTLER, ALABAMA

This Addendum No. 7, to the plans and specifications, dated May 30, 2024, consists of Twenty (20) Pages.

Item No. 1: Refer to Advertisement for Bids:

A. **BID DATE CHANGE:** Sealed proposals will be received by Choctaw County Commission at the Choctaw County Courthouse Meeting Room, 117 S. Mulberry Avenue, Butler, Alabama 36904 until **2:00 PM**, **July 11, 2024,** and thereafter opened publicly.

Item No. 2: Refer to Plans, Sheet A3.1-Door Schedule and Specifications Section 08 71 00:

A. Door #101, 122 and 129 shall be controlled from CC #156 and Admin #108. See the revised plans for the additional power and controls for these doors.

Item No. 3: Refer to Plans, Sheet A3.1-Door Schedule and Specifications, Section 08 33 10 Overhead Coiling Doors:

A. The Overhead Coiling Door at the Sallyport is to be an electric operation.

Item No. 4: Refer to Plans, Sheet A3.1-Door Schedule:

A. Note Fire shutters shall be as specified unless a shutter is provided that the gauge meets the fire rating requirement but is tested and approved for less than a 16 ga. Shutter.

Item No. 5: Refer to Plans Sheet A8.1 - Ceiling Plan:

A. All lighting, acoustical panels, and other ceiling mounted elements are mounted to the bottom of the core floor panels at 10’-0” AFF. There are no recessed systems elements in the core floor other than those requiring penetration through holes as required by the documents.

Item No. 6: Refer to Plans, Sheet A11.1 Signage Plan:

A. Clarification: Sign Type E painted stencil letters are keyed on the signage plan. These shall be painted, stencil letter Arial text 3” in size typical or as space allows. Coordinate the proper size at all locations.

B. There is no post and panel signage in this project.

C. Clarification: The 20 x 30 aluminum plaque is a part of this project and will be located by the Owner.

Item No. 7: Refer to Plans, Roof Plans, all Sections and Details:

A., Please note the only locations where TPO roofing is installed are at low slope roof locations as shown on drawings, details and the fully adhered TPO membrane installed over all modules by this contractor. This TPO will remain in place.

Item No. 8: Refer to Drawings, All Plans, Sections, Reflected Ceiling Plans and Details:

A. Pursuant to a specific question asked, the following is offered: Hollow Core Installation will be as shown on the contract documents and there is no flexibility for modification of lighting layouts, acoustical ceiling panel locations, etc. The design shall be maintained as required by the documents.

Item No. 9: Refer to All Building Sections, Details, and Vertical Metal Panel locations:

A. Clarification: Damp proofing at all vertical metal wall panel locations shall be the building wrap as specified.

Item No. 10: Refer to Plans, Sheet SO.1 Helical Pile Note 3:

A. Design capacities listed are compression only.

Item No. 11: Refer to Plans, Sheet SO.1 Helical Pile Note 4:

A. Load tests need to be performed for compression only.

Item No. 12: Refer to Plans, Sheet S0.1-General Structure Notes:

A. Per Helical pile notes shown on sheet S0.1, Helical pile vendor and his delegated engineer shall use the information contained in the project geotechnical report to design the helical pile system to obtain an allowable service load capacity as indicated in the drawings. The project bid shall include the pile design and the required length of the design pile to achieve this design capacity. Contractor shall also include as a part of the bid, an additional 25% of length of helical to be used as needed for vary. soil conditions that may be discovered during the pile load test. This 25% length shall be quantified as a length and a price per foot. The pile load test shall be performed after the award of the project, but before the commencement of other work on the project. The length of pile required to achieve the design pile capacity, as determined by the pile load test, shall be used to determine the final length of helical required by the project. The unit price of helical determined above shall be used to determine final helical pile cost. The actual length of pile paid for by the project shall be the pile unit price multiplied by the pile length required by the load test.

Item No. 13: Refer to Plans, Sheet SO.2 - Details, Detail 21:

A. Fasteners can penetrate as needed into hollow core. Fasteners cannot exceed the depth of hollow core.

Item No. 14: Refer to Plans, Sheet SO.3- Sections, Detail 11:

A. The General Contractor is required to coordinate for four (4) pin locations per module with the module manufacturer and is responsible for coring of those four locations for module pins. The PCMC will set pins and grout in the setting process.

Item No. 15: Refer to Plans, Sheet D/S1.1 Foundation Plan:

A. Contractor shall use galvanized pile cap plates.

Item No. 16: Refer to Plans, Sheet S1.2 – Roof Framing Plans:

A. Clear span cold formed joints are required over Room 201 as shown on S1.2.

Item No. 17: Refer to Plans, SP1.1 Typical Soffit Detail:

A. It is the intent for all fire protection piping to be run in the ceiling space afforded in the under-roof plenum as shown in drawings. The only place the typical soffit detail is authorized is at any location where this design intent is unachievable. There is no exposed piping allowed below the core floor level for any trade.

Item No. 18: Refer to Plans, Sheet ES1.1- Electronic Security Site Plan:

A. The pedestal camera is indicated on Sheet ES1.1 on the site plan and is identified as C1-68 and is on the CCTV Camera Schedule on Sheet ES1.3.

Item No. 19: Refer to Plans, Sheet ES1.2 First Level and Attic Electronic Security CCTV Plan:

A. "WG" indicated that a wireguard was required for the device. However, please remove all wireguards from the project.

B. Room #169 (Medical) and Room #176 (Processing): The 'D' symbol is for a Duress Alarm. The Contractor shall provide and install a ¾" conduit with a West Penn #357 cable and an emergency pushbutton for the alarm.

Item No. 20: Reference Sheet E2.1:

A. Replace sheet with the revised sheet that is attached. All changes have been clouded.

Item No. 21: Reference Sheet E3.1:

A. Replace sheet with the revised sheet that is attached. All changes have been clouded.

Item No. 22: Reference Sheet E3.2:

A. Replace sheet with the revised sheet that is attached. All changes have been clouded.

Item No. 23: Reference Sheet E3.3:

A. Replace sheet with the revised sheet that is attached. All changes have been clouded.

Item No. 24: Refer to Specifications, Section 02 36 21 Helical Piles:

A. Helical Piles by Cantsink Manufacturing is hereby afforded prior approval subject to strict conformance with the plans and specifications.

Item No. 25: Refer to Specifications, Section 03 30 00-2, Section 1.5 QA/QC Subsection F:

A. The Owner will employ the testing services for all materials testing as specified in these documents. The Contractor is responsible to provide and coordinate samples for testing agency.

Item No. 26: Refer to Specifications, Section 03 30 00 Cast in Place Concrete (Applicable to Civil Work Only):

A. Section 2.4A – Vapor retarder is not required unless stated in the construction detail.

B. Section 2.4C – Fiber required only for concrete pavement. Lbs / CY should be per manufacturer's recommendations.

C. Section 2.4G – Not required unless stated in the construction details.

D. Section 2.4H – Color not required unless stated in the construction details.

Item No. 27: Refer to Specifications, Section 03 41 01, 2.3, G:

A. Korolath Bearing Pads can be used on the project at locations where they are prior approved by the engineer of record.

B. Korolath Engineered Multipolymer Plastic Strips can be used on the project at locations where they are prior approved by the engineer of record.

Item No. 28: Refer to Specifications, Section 07 31 00 Sheet Membrane Roofing:

A Basis of design, WR Meadows MEL ROL or prior approved equivalent.

Item No. 29: Refer to Specifications, Section 07 42 10 Metal Soffit Panels:

A. Petersen Flush Soffit Panel is hereby afforded prior approval subject to strict conformance with the plans and specifications.

Item No. 30: Refer to Specifications, Section 07 92 00, 2.1, G.1 Joint Sealants:

A. Revise sentence 3 to read: Security caulk shall be used in all security areas in all joints, below 8' above floor; in all areas within reach of inmates, including, but not limited to balconies, stairs and other areas. Security caulk shall be utilized at all exposed joints, between load bearing and non load bearing hollow core, top of masonry walls, furnishings, and building surfaces to include, but not limited to, interior slab joints, interior control joints, FFE, etc.

Item No. 31: Refer to Specifications, Section 11 19 00 Detention Surface Padding System:

A. Marathon Engineering Corporation is hereby afforded prior approval subject to strict conformance with the plans and specifications.

B. Remove requirement for any ceiling mounted padding.

Item No. 32: Refer to Plans and Specifications:

A. Jackson Security Services is hereby afforded prior approval subject to strict conformance with the plans and specifications.

Item No. 33: Refer to Specifications, Section 28 40 00-1, B-1 and Section 28 51 23, pages 4 and 5:

A. Clarification: All paging head-end equipment and speakers shall be provided and installed as part of the Division 28 contract.

Item No. 34: Refer to Specifications, Section 03 30 00 – Cast in Place Concrete, 2A, Accessories:

A. Items A – are included as a reference and may or may not be required in this project. Please refer to plan details and sections for specific components in each application / assembly for required items.

Item No. 35: Refer to Plans and Specifications Section 13 42 63.13 Equipped Precast Detention Modules: 1.02/A/1:

A. Detention cell modules are fabricated with floor slab included. No slab on grade under modules is required.

Item No. 36: Refer to Addendum No. 3, Item No. 11, Specifications Section 08 33 10, Overhead Coiling Doors:

A. Clarification: Overhead Coiling Door is specified to be electric motor operation. See Section 08 33 10 for full requirements.

Item No. 37: Refer to Addendum No. 3. Item No. 11, Specifications 08 33 44, Overhead Coiling Counter Fire Shutters: B1.2, B1.

A. Clarification: Manually operated steel rolling fire shutter is specified.

B. Finish: Galvanized Steel.

Item No. 38: Refer to Specifications, Section 07 21 00, Building Insulation, 2.4:

A. Provide 6” roll insulation with WMP.VR. R plus facing, R-19.

Item No. 39: Refer to Specifications, Section 07.43.13.19:

A. Delete Section 07 42 13.19 in its entirety.

Item No. 40: Refer to Specifications:

A. Add attached Section 07 20 00 Thermal Insulation.

B. Add attached Section 07 53 30 TPO Roofing.

Item No. 41: Refer to Plans, Sheet A4.1, Schedule:

A. MP-1 – PAC Clad 1” deep flush wall panel.

Item No. 42: Refer to Plans and Addendum No. 3, Item No. 4:

A. It is the contractor’s option to provide temporary roof covering over the concrete deck.

B. Temporary roofing over concrete deck may consist of Vapair Seal 725TR Air and Vapor Barrier by Versico or Equivalent.

Item No. 43: Refer to Plans, Sheet A6.2 and Sheet A9.1:

A. Roofing substrate is hollow core concrete plank.

Item No. 44: Refer to Plans, Sheet A9.1 and Addendum No. 4, Item No. 4:

A. The contractor’s option for the wall assembly at roof top mechanical is indicated in Item No. 4, Addendum No. 4.

Item No. 45: Refer to Specifications, Section 07 71 13:

A. There is not a requirement for sheet metal coping. Delete this section in its entirety.

Item No. 46: Refer to Specifications, Section 07 71 00:

A. LM curbs is afforded prior approval.

B. Roof curb systems is afforded prior approval.

C. A roof hatch is not a requirement in this project.

D. All accessories needed for integration for roof curbs / equipment supports into the LOC seam retrofit roofing system shall be included per the manufacturer's recommendations for warranty compliant installation.

Item No. 47: Refer to Specifications, Section 01 21 00, 2:

A. Add unit price No.2 as follows:
Each bidder shall include with their proposal a unit cost including labor, materials, taxes overhead, profit, etc. to add or subtract the cost of the length of helical piles required to achieve the design pile capacity.

$_____ / LF

Item No. 48: Refer to Plans, Sheet A5.2, detail E5.2:

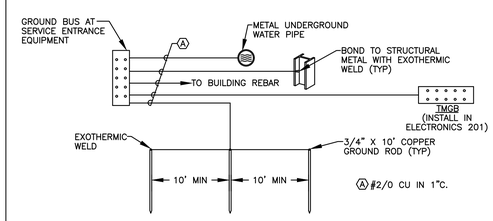
A. Sally Port Slab is 4" thick as shown – A5.2 / E5.2

PANELBOARD SCHEDULE

MARK	TYPE	MAINS			BRANCHES					LUG LOCATION	TYPE MOUNTING	MINIMUM AIC RATING	REMARKS
		TYPE	AMPS	SERVICE	1 POLE	2 POLE	3 POLE	SPARES	SPACES				
MPA	I-LINE (HCW)	MB	600	277/480V 3ø, 4W			1-15 2-45 1-100 1-175 1-350	1-100/3 1-225/3	5-100/3PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTES 1, 2, 3, 4 & 6
DPLSHA	NF	MLO	100	277/480V 3ø, 4W	9-20			6-20/1	15-1PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTE 3
DPEMH	I-LINE (HCM)	MLO	350	277/480V 3ø, 4W	2-20		1-15 1-20 3-25 1-70 1-225	1-100/3	5-50/3PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTES 3 & 4
PPEMH1	NF	MLO	225	277/480V 3ø, 4W			10-15 2-25 2-45	6-20/1	12-1PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTE 3 (TWO SECTION PANEL)
DPEML	NQOD	MB	175	120/208V 3ø, 4W	4-15 1-20	2-15 1-25	2-100	6-20/1	19-1PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTE 3
RPEM	NQOD	MLO	100	120/208V 3ø, 4W	14-20	2-20		6-20/1	6-1PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTE 3
KPEM	NQOD	MLO	100	120/208V 3ø, 4W	1-15 2-15GF 1-15* 2-20	2-15 1-20		6-20/1	11-1PS	BOTTOM	RECESSED	VERIFY WITH UTILITY	SEE NOTE 3
DPLA	I-LINE (HCW)	MB	400	120/208V 3ø, 4W	1-20		1-150 1-225	6-20/1	5-50/3PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTES 3 & 4
RPA	NQOD	MLO	150	120/208V 3ø, 4W	12-20 2-20GF	9-20 1-30GF	1-20	6-20/1	17-1PS	BOTTOM	SURFACE	VERIFY WITH UTILITY	SEE NOTE 3 (TWO SECTION PANEL)
KPA	NQOD	MLO	225	120/208V 3ø, 4W	3-15 3-15* 4-20	1-20 1-20GF 1-30 1-30*	1-20 1-40 1-60	6-20/1	5-1PS	BOTTOM	RECESSED	VERIFY WITH UTILITY	SEE NOTE 3

NOTES:
1. PANEL SHALL BE RATED FOR SERVICE ENTRANCE EQUIPMENT.
2. PANEL SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS.
3. PANEL SHALL BE FULLY RATED AND SHALL HAVE A HINGED FRONT TRIM.
4. I-LINE PANELBOARDS SHALL HAVE MICARTA LABELS BESIDE EACH BREAKER, INDICATING LOAD SERVED.
5. NOT USED.
6. FIELD MARK ELECTRIC SERVICE EQUIPMENT WITH A CONSPICUOUS & PERMANENT LABEL THAT INDICATES THE AVAILABLE FAULT CURRENT PER NEC 110.24.

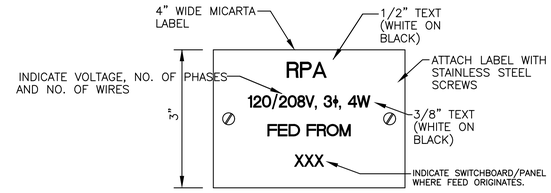
GF INDICATES GROUND FAULT BREAKER.
* INDICATES SHUNT TRIP BREAKER TIED INTO FIRE ALARM SYSTEM.



GROUNDING DETAIL

N.T.S.

NOTES:
1. ALL GROUNDING CONDUCTORS SHALL BE TERMINATED TO THE BUS BARS BY USING IRREVERSIBLE HIGH COMPRESSION OR PERMANENT EXOTHERMIC CONNECTIONS. HIGH COMPRESSION LUGS SHALL BE TWO HOLE TYPE.
2. ALL GROUNDING CONDUCTORS SHALL BE PERMANENTLY LABELED AT EACH END INDICATING WHERE GROUND GOES TO.
3. ALL RACKS AND METAL EQUIPMENT IN THE ES ROOM BE BONDED TO THE BUS BAR IN EACH SPACE BY TELCOMM CONTRACTOR.
4. GROUNDING SYSTEM SHALL MEET ANSI J-STD-607-A.
5. GROUND ALL FENCING PER SPECIFICATIONS AND BOND TO GROUNDING SYSTEM.
6. PROVIDE AND INSTALL A COMMUNICATIONS SURGE PROTECTOR AT TMGB.



PANEL LABEL DETAIL

N.T.S. (TYPICAL)

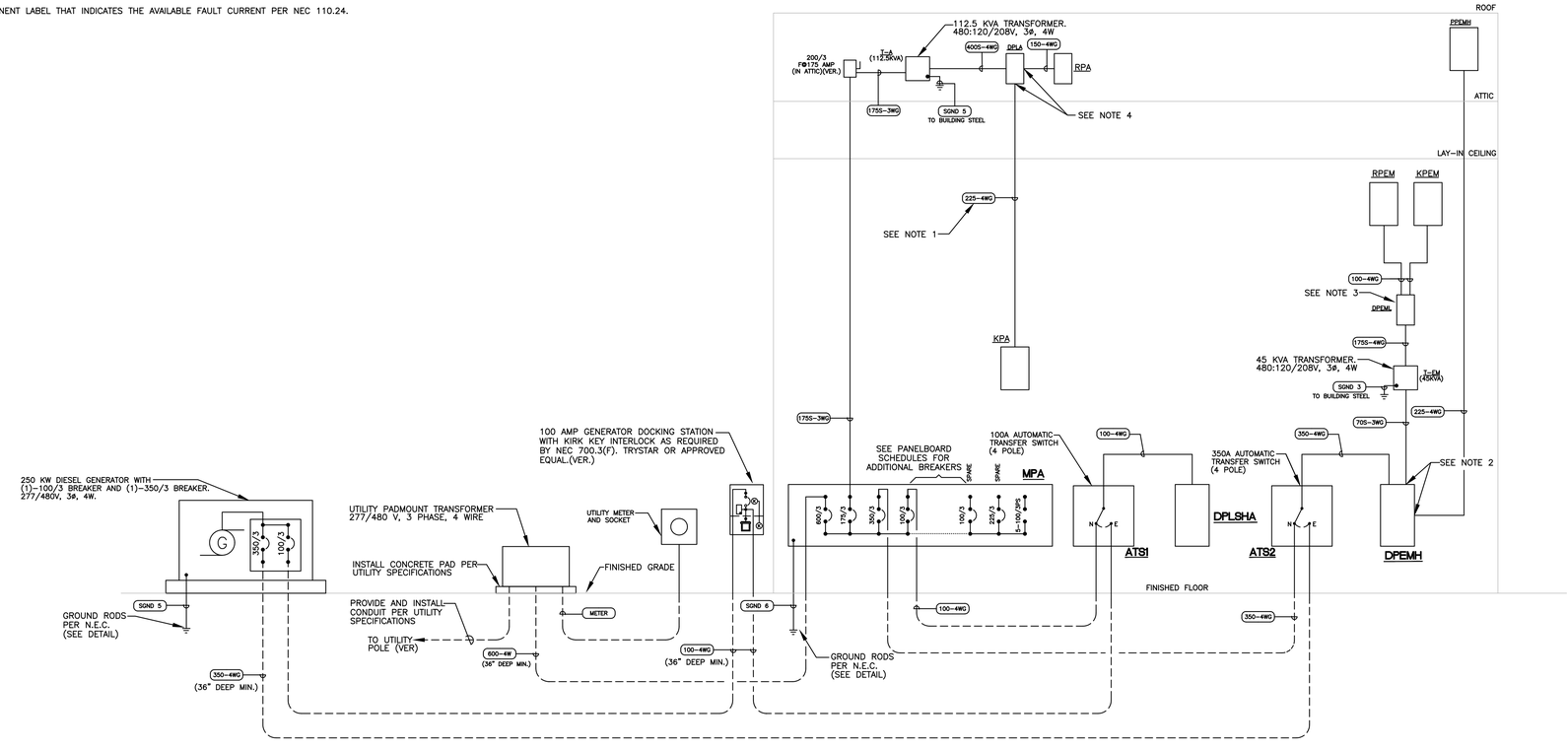
TRANSFORMER SCHEDULE

MARK	SIZE	PRIMARY	SECONDARY	MANUFACTURER	CATALOG NUMBER	REMARKS
T-A	112.5 KVA	480V 3ø DELTA	120/208V 3ø, 4W, WYE	SQUARE D	EX112T3H	SEE NOTE 1
T-EM	45 KVA	480V 3ø DELTA	120/208V 3ø, 4W, WYE	SQUARE D	EX45T3H	SEE NOTE 1

NOTES:
1. BOND TRANSFORMER LOWSIDE NEUTRAL TO THE TRANSFORMER CASE, TO THE "INCOMING" AND "OUTGOING" GROUND WIRES, AND TO GROUNDING ELECTRODE (AS PER NEC 250-30) AT EACH TRANSFORMER AS INDICATED ON THE SINGLE LINE DIAGRAM.

FEEDER/GROUND CONDUCTOR SCHEDULE

AMPS	3 ø WIRE TAG	THREE PHASE FEEDER/EQUIPMENT
70 W/ GND	70S-3WG	3 #4 & 1 #8(G) IN 1" C.
100 W/ GND	100-4WG	4 #3 & 1 #8(G) IN 1-1/4" C.
150 W/ GND	150-4WG	4 #1/0 & 1 #6(G) IN 2" C.
175 W/ GND	175S-3WG	3 #2/0 & 1 #6(G) IN 1-1/2" C.
175 W/ GND	175S-4WG	4 #2/0 & 1 #4(G) IN 2" C.
225 W/ GND	225-4WG	4 #4/0 & 1 #4(G) IN 2-1/2" C.
350 W/ GND	350-4WG	4 #500 MCM & 1 #3(G) IN 3-1/2" C.
400 W/ GND	400S-4WG	4 #500 MCM & 1 #1/0(G) IN 3-1/2" C.
600 W/O GND	600-4W	2 RUNS OF 4 #350 MCM IN (2)-3" C.
MISCELLANEOUS TAGS		
	METER	EMPTY 1-1/4" C. (30" DEEP MIN.)
	SGND 3	1 #4 CU IN 1/2" C.
	SGND 5	1 #1/0 CU IN 3/4" C.
	SGND 6	1 #2/0 CU IN 3/4" C.



ELECTRICAL SINGLE LINE DIAGRAM

N.T.S.

NOTES:
1. SEE SCHEDULE ON THIS SHEET FOR WIRE SIZE.(TYP)
2. FEED TRANSFORMER T-EM WITH A 70/3 BREAKER IN PANEL DPEMH. FEED PANEL PPEMH1 WITH A 225/3 BREAKER IN PANEL DPEMH.
3. FEED PANEL RPEM WITH A 100/3 BREAKER AND KPEM WITH A 100/3 BREAKER IN PANEL DPEML.
4. FEED PANEL RPA WITH A 150/3 BREAKER AND KPA WITH A 225/3 BREAKER IN PANEL DPLA.

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STATE OF ALABAMA — J. MICHAEL RUTLAND 2149 — TIMOTHY R. HOLMES 3188 — REGISTERED ARCHITECT

CHOCTAW COUNTY JAIL
BUTLER, ALABAMA

CONSTRUCTION DOCUMENTS

Project Number: 22-1189
Date: 30 MAY 2024
Revisions:
ADDENDUM 7-03-24

Sheet Description

SINGLE LINE DIAGRAMS, DETAIL AND SCHEDULES

Sheet Number

E2.1

OF

STATE OF ALABAMA — REGISTERED PROFESSIONAL — No. 22753 — ENGINEER — STANLEY J. MCCARTER
7-03-24

McCARTER ENGINEERING
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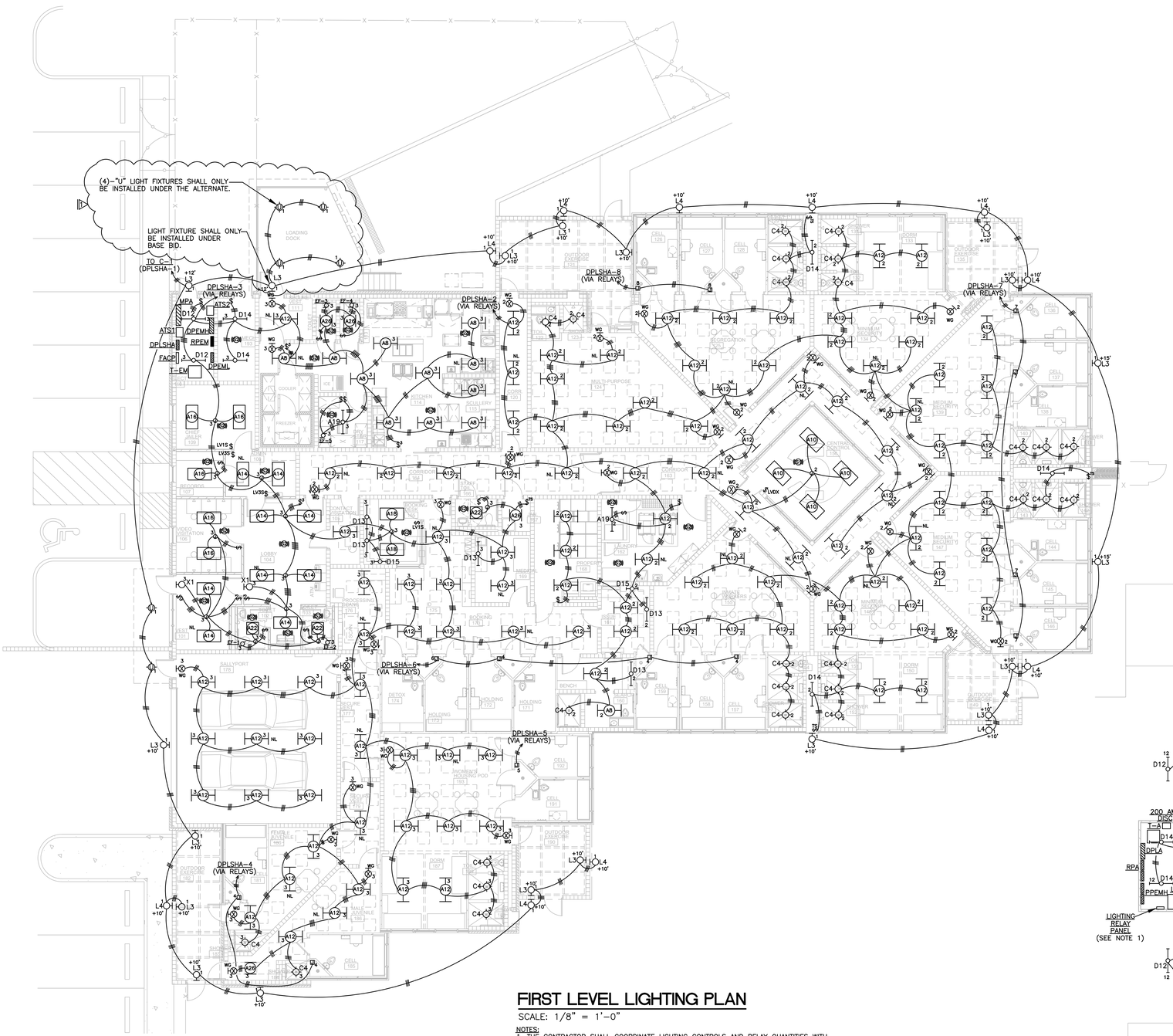
M.E. JOB #2328

OCCUPANCY SENSOR LOCATIONS AND TYPES SHOWN ARE THE BASIS OF DESIGN FOR ONE MANUFACTURER AND ARE SCHEMATIC AND SHOULD BE VERIFIED WITH MANUFACTURER PRIOR TO BIDDING. OCCUPANCY SENSOR MANUFACTURER SHALL SUBMIT A LAYOUT OF RECOMMENDED SENSOR TYPES AND LOCATIONS PRIOR TO INSTALLATION. THE MANUFACTURER SHALL PROVIDE ALL EQUIPMENT NECESSARY TO PROVIDE COVERAGE FOR ALL ROOMS AND THE MANUFACTURER SHALL PROVIDE ON-SITE START-UP AND SENSOR ADJUSTMENTS AS NECESSARY TO ENSURE PROPER FUNCTION AND COVERAGE IN ALL ROOMS. THE TIME DELAYS FOR THE SENSORS SHALL BE COORDINATED WITH THE OWNER. THE MANUFACTURER SHALL INSTALL EITHER SLAVE RELAY POWER PACKS OR TWO RELAY POWER PACKS TO ENSURE THAT MULTILEVEL SWITCHING FUNCTIONS CORRECTLY IN EACH SPACE.

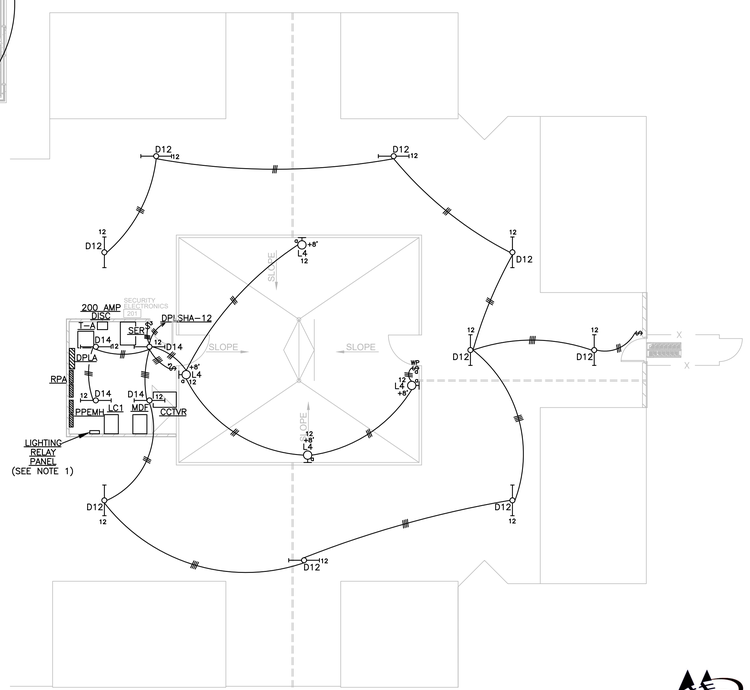
NOTES:
1. ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
   LESS THAN 75 FEET.....#12 AWG
   BETWEEN 76' AND 125'.....#10 AWG
   BETWEEN 126' AND 190'....#8 AWG
2. ALL 277 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
   LESS THAN 135 FEET.....#12 AWG
   BETWEEN 135' AND 230'.....#10 AWG
   BETWEEN 231' AND 355'....#8 AWG



FIRST LEVEL LIGHTING PLAN

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

NOTES:
1. THE CONTRACTOR SHALL COORDINATE LIGHTING CONTROLS AND RELAY QUANTITIES WITH THE ELECTRONIC SECURITY CONTRACTOR.



ATTIC LIGHTING PLAN

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

NOTES:
1. LIGHTING CONTROL RELAY CABINET. PROVIDED BY AND INSTALLED BY ELECTRICAL. CONTRACTOR SHALL NOTE THAT ALL INDIVIDUAL ROOMS THAT DO NOT HAVE MANUAL LIGHTING CONTROLS SHALL BE CONTROLLED WITH THE ELECTRONIC SECURITY SYSTEM AND EACH ROOM SHALL BE CONTROLLED WITH A SEPARATE RELAY. SEE SPEC.

STATE OF ALABAMA — REGISTERED PROFESSIONAL ENGINEER — STANLEY J. MCCARTER — No. 22753 — 7-03-24

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CHOCTAW COUNTY JAIL
BUTLER, ALABAMA

CONSTRUCTION DOCUMENTS

Project Number: 22-1189
Date: 30 MAY 2024
Revisions:
ADDENDUM 7-03-24

Sheet Description

FIRST LEVEL AND ATTIC LIGHTING PLANS

Sheet Number

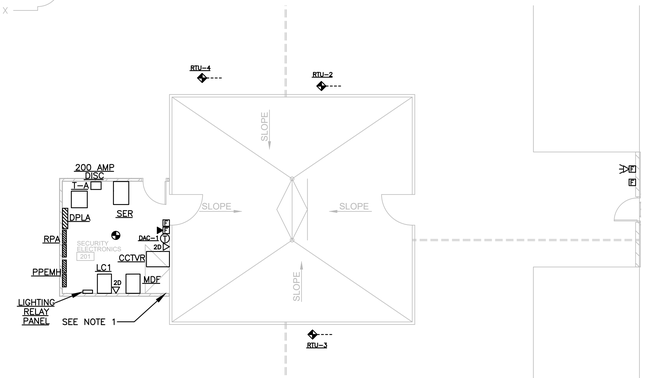
E3.1

OF

FIRST LEVEL AUXILIARIES PLAN

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

NOTES:
1. LOW FLOW SWITCH SHALL BE TIED INTO FACP AND SHALL REPORT TO CONTROL 156 PC CONTROLLER.
2. SMOKE EVAC. DAMPER SHALL BE INTERLOCKED WITH FIRE ALARM.(TYP OF 18)



ATTIC AUXILIARIES PLAN

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

NOTES:
1. PROVIDE AND INSTALL 8' BY 8' TBB ON ALL WALLS OF SECURITY ELECTRONICS 201. PAINT ANSI 61 GRAY

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CONSTRUCTION DOCUMENTS

Project Number: 22-1189
Date: 30 MAY 2024
Revisions:

1	ADDENDUM 7-03-24

Sheet Description

FIRST LEVEL AND ATTIC AUXILIARIES PLANS

Sheet Number

E3.3

OF

STATE OF ALABAMA
STANLEY J. MCCARTER
REGISTERED PROFESSIONAL ENGINEER
7-03-24

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MECHANICAL EQUIPMENT CIRCUIT SCHEDULE

UNIT ID	CIRCUIT NUMBER	BREAKER SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	DISCONNECT TYPE
RTU-1	DPEMH-19,20,21	20/3	3 #12	#12	1/2"	30/3, F, RT
RTU-2	PPEMH1-1,2,3	45/3	3 #6	#10	3/4"	60/3, F, RT
RTU-3	PPEMH1-4,5,6	45/3	3 #6	#10	3/4"	60/3, F, RT
RTU-4	PPEMH1-7,8,9	25/3	3 #10	#10	3/4"	30/3, F, RT
HRU-1	DPEMH-22,23,24	25/3	3 #10	#10	3/4"	30/3, F, RT
GPU-1	DPEMH-25,26,27	25/3	3 #10	#10	3/4"	30/3, F, RT
GPU-2	DPEMH-28,29,30	25/3	3 #10	#10	3/4"	30/3, F, RT
SEF-1	PPEMH1-10,11,12	15/3	3 #12	#12	1/2"	30/3, F, RT
SEF-2	PPEMH1-13,14,15	15/3	3 #12	#12	1/2"	30/3, F, RT
SEF-3	PPEMH1-16,17,18	15/3	3 #12	#12	1/2"	30/3, F, RT
SEF-4	PPEMH1-19,20,21	15/3	3 #12	#12	1/2"	30/3, F, RT
SEF-5	PPEMH1-22,23,24	15/3	3 #12	#12	1/2"	30/3, F, RT
SF-1	PPEMH1-25,26,27	15/3	3 #12	#12	1/2"	30/3, F, RT
SF-2	PPEMH1-28,29,30	15/3	3 #12	#12	1/2"	30/3, F, RT
SF-3	PPEMH1-37,38,39	15/3	3 #12	#12	1/2"	30/3, F, RT
SF-4	PPEMH1-31,32,33	15/3	3 #12	#12	1/2"	30/3, F, RT
SF-5	PPEMH1-34,35,36	25/3	3 #10	#10	3/4"	30/3, F, RT
EF-6	DPEMH-5	20/1	2 #12	#12	1/2"	30/2, NF
EF-7	PPEMH1-40,41,42	15/3	3 #12	#12	1/2"	30/3, F, RT
DPLA-1	DPLA-1	20/1	2 #12	#12	1/2"	HR(WR)
DHP-1(OD)(ID)*	DPEML-3,4	15/2	2 #12	#12	1/2"	30/2, NF
DAC-1(OD)(ID)**	DPEML-5,6	25/2	2 #10	#10	1/2"	30/2, NF
WDH-1	DPEML-10	15/1	2 #12	#12	1/2"	TS
GIR-1,2	DPEML-11	15/1	2 #12	#12	1/2"	TS(EACH)
OSA-1-1,CS-1-1-5, WA-1-1,2 & BC-1-1	DPEML-12,13	15/2	2 #12	#12	1/2"	DPTS(EACH)
KEF-1	KPA-20,21	30/2	2 #10	#10	1/2"	30/2, NF, RT
KEF-2	KPA-25	20/1	2 #12	#12	1/2"	TS(WP)
KSF-1	KPA-26,27	30/2(S/T)	2 #10	#10	1/2"	30/2, NF, RT
SPRINKLER VALVE (SVH-1,2)(SEE NOTE 1)	DPEML-17	20/1	2 #12	#12	1/2"	TS
	DPEML-1	15/1	2 #12	#12	1/2"	TS(EACH)
SR-1	DPEML-2	15/1	2 #12	#12	1/2"	TS

NF - NONFUSED
F - FUSED (FUSE PER MANUFACTURERS RECOMMENDATIONS)
RT - RAINTIGHT
TS - TOGGLE SWITCH ("WP" INDICATES WEATHERPROOF)
DPTS- DOUBLE POLE TOGGLE SWITCH
MRS - MOTOR RATED SWITCH
S/T - SHUNT TRIP BREAKER
NOTE: MAINTAIN CODE REQUIRED CLEARANCES FOR DISCONNECTS.

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR REGARDING THE E-STOP REQUIREMENT ON GAS WATER HEATERS.
* CIRCUIT DHP(OD) FROM DHP(SO). PROVIDE A 20A DPTS DISCONNECT FOR DHP(ID). CIRCUIT INDOOR UNIT WITH 2 #12 & 1 #12(G) THHN IN 1/2"C.
** CIRCUIT DAC(ID) FROM DAC(OD). PROVIDE A 20A DPTS DISCONNECT FOR DAC(ID). CIRCUIT INDOOR UNIT WITH 2 #12 & 1 #12(G) THHN IN 1/2"C.

KITCHEN EQUIPMENT CIRCUIT SCHEDULE

ITEM NUMBER	UNIT ID	LOAD (W)	VOLTAGE	PHASE	CIRCUIT NUMBER	BREAKER SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE	OUTLET LOCATION	DISCONNECT TYPE
1	WALK-IN COOLER LTS AND HEATER	1800	120	1	KPEM-1	20/1	2 #12	#12	1/2"	WALL	TS
1.1	WALK-IN COOLER EVAPORATOR FAN	120	120	1	KPEM-2	15/1	2 #12	#12	1/2"	WALL	TS(WP)
1.2	WALK-IN COOLER CONDENSER FAN	1124	208	1	KPEM-3,4	15/2	2 #12	#12	1/2"	WALL	30/2, F, RT
2	WALK-IN FREEZER LTS AND HEATER	1800	120	1	KPEM-5	20/1	2 #12	#12	1/2"	WALL	TS
2.1	WALK-IN FREEZER EVAPORATOR FAN	250	208	1	KPEM-6,7	15/2	2 #12	#12	1/2"	WALL	30/2, NF, RT
2.2	WALK-IN FREEZER CONDENSER FAN	3100	208	1	KPEM-8,9	20/2	2 #12	#12	1/2"	WALL	30/2, F, RT
4	ICE MACHINE	1320	120	1	KPEM-12	15/1(GF)	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE RECEPTACLE
8	HOOD LIGHTS & FIRE SUPPRESSION	1500	120	1	KPA-4	20/1	2 #12	#12	1/2"	WALL	TS
9	CONVECTION OVEN	948	120	1	KPA-5	15/1(S/T)	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
9.1	CONVECTION OVEN	948	120	1	KPA-6	15/1(S/T)	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
13	FRYER	84	120	1	KPA-7	15/1(S/T)	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
14	TRAY MAKE-UP TABLE	3000	208	1	KPA-8,9	20/2(GF)	2 #12	#12	1/2"	FLOOR STUB-UP	20 AMP, 3 WIRE RECEPTACLE
18	MOBILE HEATED CABINET	1440	120	1	KPA-10	15/1	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
19	REACH-IN REFRIGERATOR	456	120	1	KPEM-11	15/1(GF)	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE RECEPTACLE
24	MIXER	720	120	1	KPA-11	15/1	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
34	TEA BREWER	1680	120	1	KPA-12	20/1	2 #12	#12	1/2"	WALL	20 AMP, 3 WIRE GFCI RECEPTACLE
35	COFFEE BREWER	2912	120/208	1	KPA-13,14	20/2	3 #12	#12	1/2"	WALL	20 AMP, 4 GFCI WIRE RECEPTACLE
39	DISHWASHER HOOD LIGHTS	1500	120	1	KPA-15	20/1	2 #12	#12	1/2"	WALL	TS
40	DISHWASHER	16572	208	3	KPA-16,17,18	60/3	3 #4	#10	1"	WALL	60/3, F, RT
48	AIR CURTAIN	900	120	1	KPA-19	15/1	2 #12	#12	1/2"	WALL	TS
49	SINK HEATER	9006	208	3	KPA-22,23,24	40/3	3 #8	#10	3/4"	WALL	60/3, F, RT
55	GAS VALVE	100	120	1	KPEM-12	15/1(S/T)	2 #12	#12	1/2"	WALL	HARDWIRED

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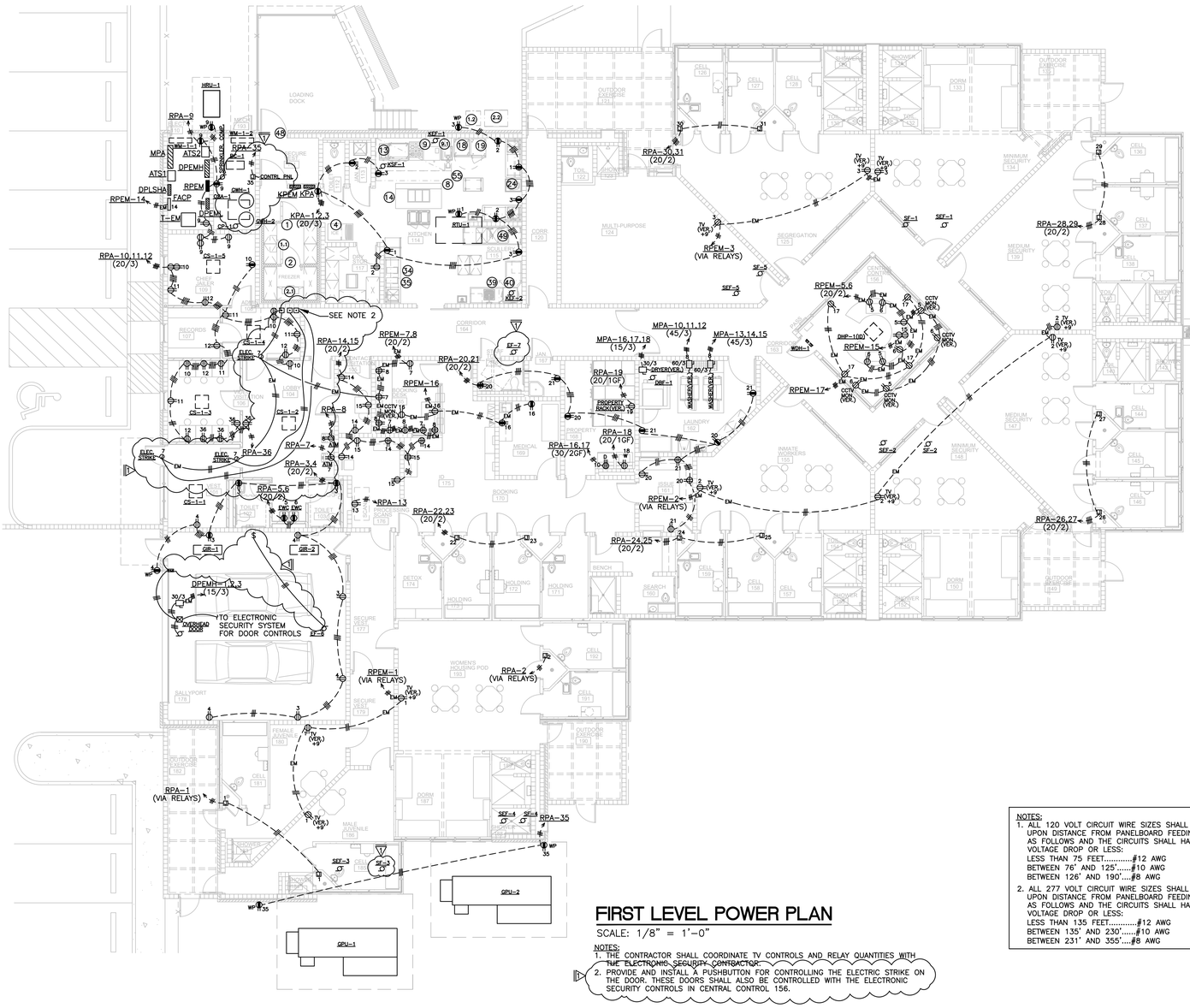
F - FUSED (FUSE PER MANUFACTURERS RECOMMENDATIONS)
TS - TOGGLE SWITCH ("WP" INDICATES WEATHERPROOF)
MRS - MOTOR RATED SWITCH
DPTS - DOUBLE POLE TOGGLE SWITCH
S/T - SHUNT TRIP BREAKER
NOTE: MAINTAIN CODE REQUIRED CLEARANCES FOR DISCONNECTS.

NOTES:
1. CONTRACTOR SHALL VERIFY ALL RECEPTACLE AND DISCONNECT TYPES AND LOCATIONS FOR ALL EQUIPMENT WITH THE KITCHEN EQUIPMENT SUPPLIER.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ANY SO CORDS AND PLUGS REQUIRED TO CONNECT THE EQUIPMENT.

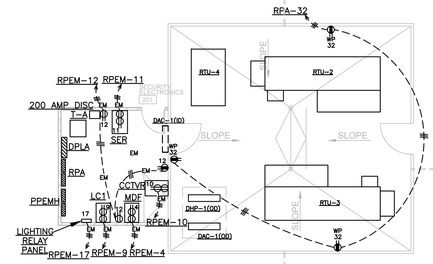


FIRST LEVEL POWER PLAN

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

NOTES:
1. THE CONTRACTOR SHALL COORDINATE TV CONTROLS AND RELAY QUANTITIES WITH THE ELECTRONIC SECURITY CONTRACTOR.
2. PROVIDE AND INSTALL A PUSHBUTTON FOR CONTROLLING THE ELECTRIC STRIKE ON THE DOOR. THESE DOORS SHALL ALSO BE CONTROLLED WITH THE ELECTRONIC SECURITY CONTROLS IN CENTRAL CONTROL 156.

NOTES:
1. ALL 120 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
   LESS THAN 75 FEET.....#12 AWG
   BETWEEN 76' AND 125'.....#10 AWG
   BETWEEN 126' AND 190'....#8 AWG
2. ALL 277 VOLT CIRCUIT WIRE SIZES SHALL BE BASED UPON DISTANCE FROM PANELBOARD FEEDING THE CIRCUITS AS FOLLOWS AND THE CIRCUITS SHALL HAVE A 3% VOLTAGE DROP OR LESS:
   LESS THAN 135 FEET.....#12 AWG
   BETWEEN 135' AND 230'.....#10 AWG
   BETWEEN 231' AND 355'....#8 AWG



ATTIC POWER PLAN

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

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REGISTERED ARCHITECT

CHOCTAW COUNTY JAIL
BUTLER, ALABAMA

CONSTRUCTION DOCUMENTS

Project Number: 22-1189
Date: 30 MAY 2024
Revisions:
ADDENDUM 7-03-24

Sheet Description

FIRST LEVEL AND ATTIC POWER PLANS

Sheet Number

E3.2

OF

STATE OF ALABAMA
No. 22753
PROFESSIONAL ENGINEER
STANLEY J. MCCARTER
7-03-24

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CHOCTAW COUNTY JAIL
BUTLER, ALABAMA

DIVISION 7: THERMAL AND MOISTURE PROTECTION
Section 07 20 00: Thermal Roof Insulation

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions apply to this Section.

1.2 SUMMARY

A. Provide all material, labor, equipment, tools and supervision to install thermal roof insulation.

B. Work Included:
1. Cleaning concrete deck for installation of new roof insulation.
2. Priming existing concrete deck and Installing new Vapair Seal 725TR Air and Vapor Barrier/ Temporary Roof by Versico or approved equivalent.
3. Installing new 3.5 inch start thickness base layer Polyisocyanurate roof insulation equivalent to Carlisle HP-H Polyisocyanurate with a fiber reinforced paper facer sheet adhered into manufacturer's recommended low rise foam adhesive.
4. Installing new Polyisocyanurate ¼" per foot tapered roof insulation over new Polyiso base layer roof insulation adhered into manufacturer's recommended low rise foam adhesive.
5. Installing new ½" HD polyiso insulation cover board or approved equivalent.

PART 2 – GENERAL

A. Submit data and samples to include:
1. Most recent copy of manufacturer's literature applicable to products and specifications to be used.
2. One sample, approximately 8" x 10", of each type of roof insulation material.

PART 3 – REFERENCE PUBLICATIONS, CODES AND STANDARDS

A. The editions in effect as of the date of this agreement of the following publications, codes, and standards shall be deemed part of this specification as applicable:

B. American Society for Testing and Materials (ASTM)
1. C728 Standard Specification for Perlite Thermal Insulation Board.
2. D41 Specification for Asphalt Primer Used in Roofing, Dampproofing and Waterproofing.
3. D1970 Specification for permeability of Vapor Barriers.

C. International Building Code.

D. Factory Mutual System
1. Data Sheets 1-7 Wind Forces on Buildings
2. Data Sheets 1-28 Wind Loads to Roof Systems and Roof Deck Securement
3. Data Sheets 1-28R/1-29R Roof Systems
4. Data Sheets 1-29 Above Deck Roof Components
5. Data Sheets 1-49 Perimeter Flashing

E. All applicable federal, state, local and owner regulations.

F. National Roofing Contractors Association (NRCA)
   1. The NRCA Roofing and Waterproofing Manual
   2. The NRCA Energy Manual

PART 4 – MATERIALS

A. All products shall be manufactured or approved for use in their system by the manufacturer of the Single Ply TPO Roofing system.

   1. Vapair Seal 725TR Air and Vapor Barrier / Temporary Roof over CAV-Grip Primer or approved equivalent..

   2. Insulation Adhesive: Low rise foam adhesive as recommended by the manufacturer including, OlyBond 500 or equivalent.

   3. Polyisocyanurate insulation with a minimum density of 20lb per square foot. Board size as recommended by system manufacturer. Board will have a fiber reinforced paper facer sheet. Carlisle HP-H or approved equivalent.

   4. Coverboard: HD polyisocyanurate coverboard acceptable to the manufacturer of the accepted roofing system and the Architect. The thickness shown on the plans is 1/2 inch thick. Size of the boards will be standard size.

B. Related Materials:
   1. LOW RISE FOAM ADHESIVE: OlyBond 500 or approved equivalent.
   2. Vapair Seal 725TR Air and Vapor Barrier / Temporary Roof over CAV-Grip Primer or approved equivalent.

PART 5 – DELIVERY AND STORAGE

A. All materials shall be delivered to the site in their original, undamaged packaging.

B. The Contractor shall verify all items delivered comply with this specification.

C. The Contractor shall inspect each item for damage and replace any deficiencies, errors, or damaged items in a timely fashion so as not to delay construction.

D. Store insulation materials in dry, protected areas. Provide tarpaulins for weather protection. Provide ventilation to avoid condensation.

PART 6 – PERFORMANCE REQUIREMENTS AND QUALITY ASSURANCE

A. Follow local, state, federal and owner regulations, safety standards and codes. When a conflict exists use the stricter document.

B. No operations shall be conducted when water in any form is present on deck, such as rain, dew, ice, frost or snow.

C. Ensure roof deck is structurally sound to support the live and dead load requirements of roofing system and sufficiently rigid to support construction traffic.

D. Remove trash, debris, grease, oil, water, moisture and contaminants from the roof surface.

E. Prepare other surfaces according to respective manufacturer's published instructions.

F. Use cleaning materials necessary to render an acceptable surface.

G. Protect adjacent areas from damage with tarpaulin or other durable materials.

PART 7 – APPLICATION/INSTALLATION

A. The polyisocyanurate roof insulation will be installed over the Air and Vapor Barrier set in low rise foam adhesive. All insulation shall be installed with joints staggered.

B. Set adjacent units of prefabricated insulation with the tightest possible joints. Trim or discard units with broken corners or similar defects. Joints between insulation units exceeding 1/8" are not acceptable.

C. No more insulation shall be installed than can be covered with completed roof the same day.

PART 8 – FIELD QUALITY CONTROL

A. Finished roof insulation must be solid and tight. Inspect insulation surface and make necessary corrections/repairs to ensure a surface acceptable for the application of finished roofing.

B. Cleaning
   1. Remove trash and debris from jobsite.
   2. Repair damage and remove stains caused by work of this section.

PART 9 – INSPECTIONS, TESTING AND GUARANTEE

A. Visual observation of all items of the work will be performed by the Architects representative. Any item deemed unacceptable or unsatisfactory shall be repaired or replaced at the contractor's expense.

B. All items will be protected from damage through final acceptance by the Owner. If the work becomes damaged, the Contractor will repair or replace same as directed by the Architect or their representative.

C. Any roof insulation that becomes wet either before or after installation is not acceptable and must be removed from the project site.

END OF SECTION 07 20 00

DIVISION 7 THERMAL AND MOISTURE PROTECTION
Section 07 53 30 Thermoplastic Single-Ply Membrane Roofing

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Adhered sheet roofing.
2. Roof insulation as specified in Section 07 20 00.

B. Related Sections include the following:

1. Division 6 Section "Miscellaneous Carpentry" for wood nailers, curbs, and blocking; and wood-based, structural-use roof deck panels.
2. Division 7 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings and counterflashings.
3. Division 7 Section "Joint Sealants."

1.3 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D 1079 for definition of terms related to roofing work not otherwise defined in this Section.

1.4 PERFORMANCE REQUIREMENTS

A. General: Install sheet membrane roofing and base flashing that are watertight; will not permit the passage of liquid water; and will withstand wind loads, thermally induced movement, and exposure to weather without failure.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.

C. FM Listing: Provide sheet membrane, base flashings, and component materials that meet requirements of FM 4450 and FM 4470 as part of a roofing system and that are listed in FM's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FM markings.

Roofing system shall comply with the following:

a. Fire/Windstorm Classification: Class 1-90
b. UL Class- A

1.5 SUBMITTALS

A. Product Data: For each type of roofing product specified. Include data substantiating that materials comply with requirements.

B. Shop Drawings: Include plans, sections, and details of the following:

1. Base flashings and membrane terminations.

C. Samples for Verification: Of the following products:

1. 12-by-12-inch square of sheet roofing, of color specified, including T-shaped side and end lap seam.
2. 12-by-12-inch square of roof insulation.
3. 6 insulation fasteners of each type, length, and finish.

D. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install specified roofing system.

E. Manufacturer Certificates: Signed by roofing manufacturer certifying that the roofing system complies with requirements specified in the "Performance Requirements" Article. Upon request, submit evidence of meeting requirements.

F. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

G. Product Test Reports: Based on evaluation of tests performed by manufacturer and witnessed by a qualified independent testing agency, indicate compliance of components of roofing system with requirements based on comprehensive testing of current product compositions.

H. Maintenance Data: For roofing system to include in the maintenance manuals specified in Division 1.

I. Warranty: Sample copy of standard roofing system manufacturer's warranty stating obligations, remedies, limitations, and exclusions of warranty.

J. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer to perform work of this Section who has specialized in installing roofing similar to that required for this Project and who is approved, authorized, or licensed by the roofing system manufacturer to install manufacturer's product.

B. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method indicated below by UL, FM, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.

1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and slopes indicated.
2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing materials are a part.

C. “PRE-ROOFING CONFERENCE”

A pre-roofing conference is required before any roofing materials are installed. This conference shall be conducted by a representative of the Architect and attended by representatives of the Owner, General Contractor, Roofing Contractor, Sheet Metal Contractor and the Roofing Materials Manufacturer.

The pre-roofing conference is intended to clarify and application requirements for work to be completed before roofing operations can begin. This would include a detailed review of the specifications, roof plans, roof deck information, flashing details, and approved shop drawings, submittal data, and samples. If conflict exists between the specifications and the Manufacturer’s requirements, this shall be resolved. If this pre-roofing conference cannot be satisfactorily concluded without further inspection and investigation by any of the parties present, it shall be reconvened at the earliest possible time to avoid delay of the work. In no case should the work proceed without inspection of all roof deck areas and substantial agreement on all points.

The following are to be accomplished during the conference:

1. Review all Factory Mutual and Underwriters Laboratories requirements listed in the specifications and resolve any questions or conflicts that may arise.
2. Establish trade-related job schedules, including the installation of roof-mounted mechanical equipment.
3. Establish roofing schedule and work methods that will prevent roof damage.
4. Require that all roof penetrations and walls be in place prior to installing the roof.
5. Establish those areas on the job site that will be designated as work and storage areas for roofing operations.
6. Establish weather and working temperature conditions to which all parties must agree.
7. Establish acceptable methods of protecting the finished roof if any trades must travel across or work on or above any areas of the finished roof.

The Architect shall prepare a written report indicating actions taken and decisions made at this pre-roofing conference. This report shall be made a part of the project record and copies furnished to the General Contractor, and the Owner.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid materials from direct sunlight.

C. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

D. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

E. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with roofing work only when existing and forecasted weather conditions permit roofing to be installed according to manufacturers' written instructions and warranty requirements.

1.9 WARRANTY

A. General Warranty: The warranties specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. **Roofing Contractor's Warranty:** Submit a written warranty, without monetary limitation, signed by roofing system contractor agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:

1. Warranty Period: 5 years.

C. **Standard Roofing Manufacturer's Warranty:** Submit a written warranty, without monetary limitation (NDL), signed by roofing system manufacturer agreeing to promptly repair leaks resulting from defects in materials or workmanship for the following warranty period:

1. Warranty Period: **20 years**.
2. **Standard manufacturer’s roofing guarantees which contain language regarding the governing of the guarantee by any state other than the State of Alabama, must be amended to exclude such language and substituting the requirement that the laws of the State of Alabama shall govern all such guarantees.**

D. Roofing manufacturer shall be required to provide documentation certifying that the roof design provided complies with the performance requirements, for that particular system, as set forth in IBC Chapter 15 in Section 1504. The documentation shall be attached to the roof warranty provided at the close out of the project.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:

B. Manufacturers: Subject to strict compliance with performance requirements and warranty requirements, provide products by one of the following:

1. Reinforced TPO Thermoplastic Sheet - Carlisle 60 Mil TPO– Basis of Design or prior approved equivalent.
   a. Carlisle SynTec Inc.
   b. Carlisle Versico Roofing Systems, Inc.
   c. Firestone
   d. GAF
   e. Versico Roofing Systems

2. Polyisocyanurate Board Insulation:
   a. Atlas Roofing Corporation.
   b. Firestone
   c. Carlisle
   Additional manufacturers will be considered provided they meet the required criteria.

C. TPO SHEET

TPO Sheet: Flexible Thermoplastic Polyolefin roofing membrane produced with polyester weft inserted reinforcement with physical properties complying with ASTM Test standards for reinforced TPO sheets of the following type, grade, thickness, and exposed face color.

1. Thickness: 60 mils, nominal.
2. Exposed Face Color: White

2.2 INSULATION MATERIALS

A. General: Provide preformed roof insulation boards that comply with requirements, selected from manufacturer's standard sizes and of thicknesses indicated.

   a. As indicated on Drawings.

2.3 INSULATION AND VAPOR BARRIER ACCESSORIES

A. General: Furnish roof insulation accessories recommended by insulation manufacturer for intended use and compatible with sheet roofing material.

B. Vapor Barrier: Furnish Vapair Seal 725TR Air and Vapor Barrier or approved equivalent.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions under which roofing will be applied, with Installer present, for compliance with requirements.

B. Verify that wood nailers are in place and secured and match thicknesses of insulation required.

3.2 PREPARATION

A. Clean substrate of dust, debris, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.

C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of the roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.3 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system manufacturer's written instructions for installing roof insulation.

C. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/8 inch with insulation.

1. Cut and fit insulation within 1/8 inch of nailers, projections, and penetrations.

3.4 ADHERED SHEET INSTALLATION

A. Install thermoplastic sheet over area to receive roofing according to roofing system manufacturer's written instructions. Unroll sheet and allow to relax for a minimum of 30 minutes.

1. Install sheet according to ASTM D 5036.

B. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

C. Apply bonding adhesive to substrate and underside of sheet at rate required by manufacturer and allow to partially dry. Do not apply bonding adhesive to seam area of sheet.

D. Mechanically fasten sheet securely at terminations and perimeter of roofing.

E. Apply roofing sheet with side laps shingled with slope of roof deck where possible.

F. Clean seam areas, overlap sheets, and weld side and end laps of sheets and flashings according to manufacturer's written instructions to ensure a watertight seam installation. Weld seam as follows:

1. Weld Method: Hot air as standard with roofing system manufacturer.

G. Test lap edges with probe to verify seam weld continuity. Apply seam calk to seal cut edges of sheet membrane.

H. Repair tears, voids, and lapped seams in roofing that does not meet requirements.

3.5 FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories and adhere to substrate according to roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of flashing sheet at required rate and allow to partially dry. Do not apply bonding adhesive to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with sheet flashing as recommended by manufacturer.

D. Clean seam areas, overlap sheets, and firmly roll flashings into the adhesive. Weld side and end laps to ensure a watertight seam installation.

E. Test lap edges with probe to verify seam weld continuity. Apply lap sealant and seal exposed edges of sheet flashing terminations.

F. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.6 WALKWAY INSTALLATION

A. Walkways: Manufacturers 3’X3’ walkway pads if indicated on drawings.

3.7 FIELD QUALITY CONTROL

A. Final Roof Inspection: Contractor is to request the roofing system manufacturer's technical personnel inspect the roofing installation on completion and submit report to Architect.

1. Notify Architect and Owner one week in advance of the date and time of inspection.

3.8 PROTECTING AND CLEANING

A. Protect sheet membrane roofing from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Consultant and Owner.

B. Correct deficiencies in or remove roofing that does not comply with requirements, repair substrates, reinstall roofing, and repair sheet flashings to a condition free of damage and deterioration at the time of Final Acceptance and according to warranty requirements.

END OF SECTION 07 53 30