

STRUCTURAL NOTES

GENERAL

1. THESE DRAWINGS ARE TO BE COORDINATED WITH THE PRE-ENGINEERED METAL BUILDING PLANS.
2. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE NC BUILDING CODE AND ANY LOCAL LAWS WHERE THE STRUCTURE IS TO BE CONSTRUCTED.

MISCELLANEOUS

1. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING, SHORING, AND GUYING OF FRAMING AND WALLS AGAINST WIND, CONSTRUCTION LOADS, AND OTHER TEMPORARY FORCES UNTIL SUCH PROTECTION IS NO LONGER REQUIRED FOR THE SAFE SUPPORT OF THE FRAMING.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE DIMENSIONS OF THE STRUCTURAL DRAWINGS AND ADVISING THE ENGINEER OF ANY DIFFERENCES IN DIMENSIONS BETWEEN THE METAL BUILDING PLANS AND SECTIONS PRIOR TO COMMENCING CONSTRUCTION.
3. CONSTRUCTION SAFETY: THESE STRUCTURAL DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS FOR SAFETY DURING CONSTRUCTION.

FOUNDATIONS

1. THE STRUCTURAL ENGINEER HAS NOT PERFORMED A SUBSURFACE INVESTIGATION. THE FOUNDATION IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2000 PSF NET BEARING. VERIFICATION OF THIS ASSUMED VALUE IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR. SHOULD ANY ADVERSE SOIL CONDITION BE ENCOUNTERED, THE STRUCTURAL ENGINEER MUST BE CONTACTED BEFORE PROCEEDING.
2. ANY FILL SHALL BE PLACED UNDER THE DIRECTION OR RECOMMENDATION OF A LICENSED PROFESSIONAL ENGINEER. THE RESULTING SOIL SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY.

CONCRETE

1. REINFORCED CONCRETE WORK SHALL COMPLY WITH BOTH "SPECIFICATIONS FOR STRUCTURAL BUILDINGS" ACI 301 AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318.
2. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 304R.
3. DURING HOT WEATHER THE CONTROL OF CONCRETE PLACEMENT, PROTECTION AND CURING SHALL COMPLY WITH ACI 305R.
4. WHEN THE MEAN DAILY TEMPERATURE IS BELOW 40 DEGREES F THE CONTROL OF PLACEMENT, PROTECTION AND CURING SHALL COMPLY WITH ACI 306R.
5. CONCRETE SHALL HAVE NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (F_c) AT 28 DAYS AS LISTED BELOW.

5.1 FOOTINGS	3000 PSI
5.2 SLABS-ON-GRADE	3000 PSI
6. ENTRAINED AIR MUST BE USED IN ALL CONCRETE THAT WILL BE EXPOSED TO FREEZING AND THAWING AND DEICING CHEMICALS. AMOUNT OF AIR ENTRAINMENT (PERCENT) SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE WITH A RANGE OF -1 TO +2 PERCENTAGE POINTS OF THE TARGET VALUE:

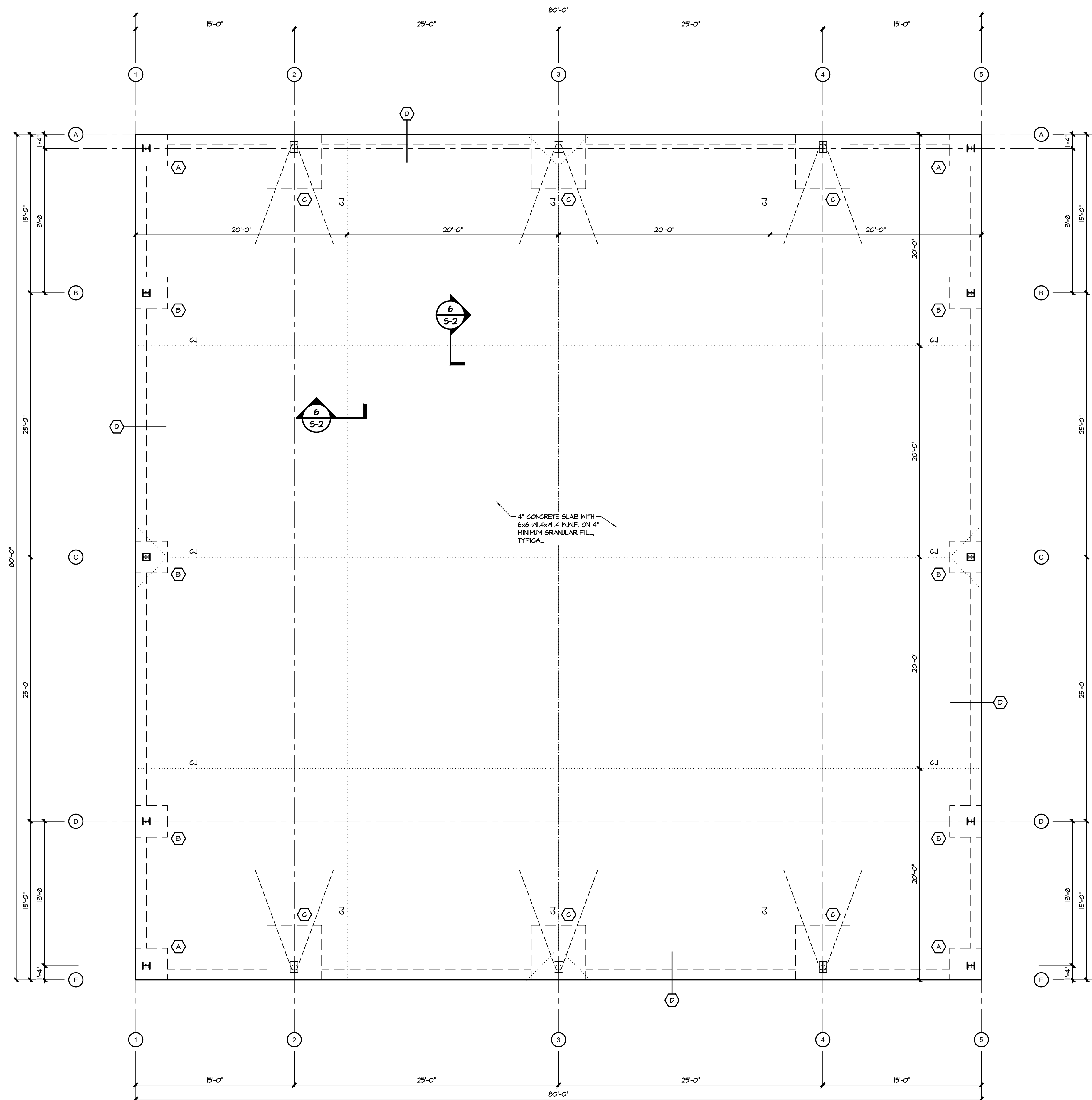
6.1 FOOTINGS	5%
6.2 INTERIOR SLABS	0%, SEE NOTE BELOW
6.3 EXTERIOR SLABS	5%

NOTE: IT IS RECOMMENDED THAT INTERIOR SLABS TO BE GIVEN A SMOOTH, DENSE, HARD-TROWELED FINISH NOT TO CONTAIN ENTRAINED AIR SINCE BLISTERING OR DELAMINATION MAY OCCUR. IF SLAB WILL BE EXPOSED TO DEICING OR OTHER AGGRESSIVE CHEMICALS, CONTACT STRUCTURAL ENGINEER FOR PROPER AIR ENTRAINMENT REQUIREMENTS.

7. CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R-96 "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION".
8. CONTROL JOINTS SHALL BE SPACED IN SLABS ON GRADE AT A MAXIMUM OF 15'-0" O.C. UNLESS OTHERWISE NOTED.

REINFORCING STEEL

1. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A185. WELDABLE REINFORCING BARS SHALL COMPLY WITH ASTM A706, GRADE 60.
2. CLEAR CONCRETE COVER ON REINFORCING STEEL: BOTTOM OF FOOTINGS = 3", SIDE AND TOP SURFACE OF FOOTINGS = 2", BOTTOM OF SLAB ON GRADE = 2 1/2", WALL SURFACE = 2", TOP OR BOTTOM SURFACE OF FLOOR SLABS = 3/4".
3. PROVIDE CLASS 3 BAR AND MESH SUPPORTS.
4. DETAILING, FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 315 (LATEST EDITION) MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES.
5. HORIZONTAL FOOTING SHALL BE CONTINUOUS AND SHALL HAVE 90° BENDS OR CORNER BARS SHALL BE INSTALLED. THE CORNER BAR SHALL HAVE THE SAME SIZE AND SPACING AS THE HORIZONTAL REINFORCEMENT WITH A CLASS B TENSION SPLICE.
6. LAP REINFORCEMENT AS REQUIRED A MINIMUM OF 40 BAR DIAMETERS FOR TENSION OR COMPRESSION UNLESS NOTED OTHERWISE. SPLICES IN MASONRY SHALL BE A MINIMUM OF 48 BAR DIAMETERS.

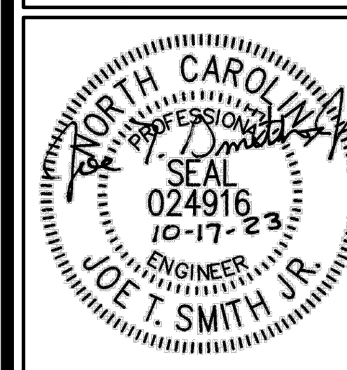


FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

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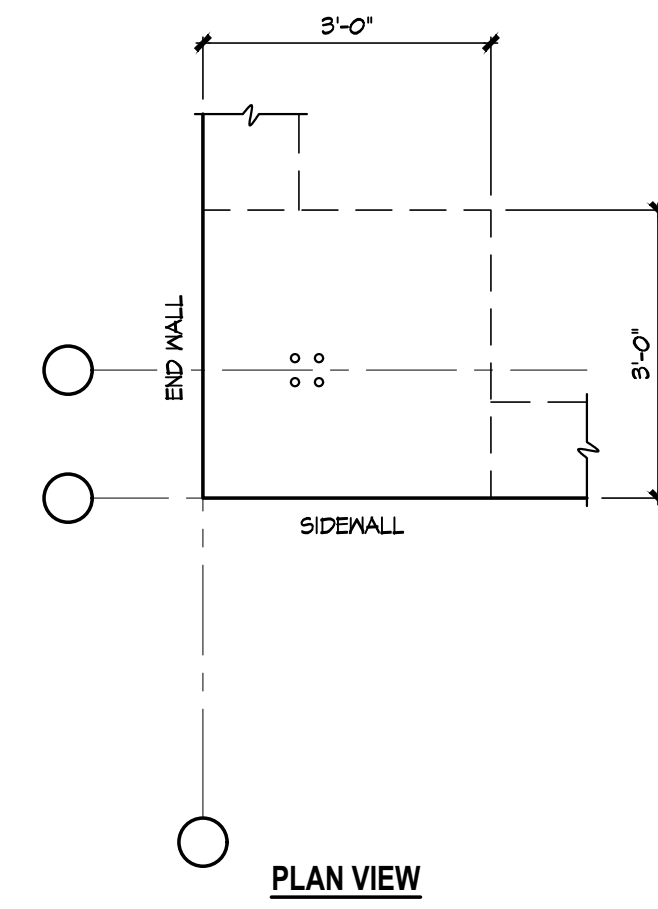


REV.	DATE	DESCRIPTION

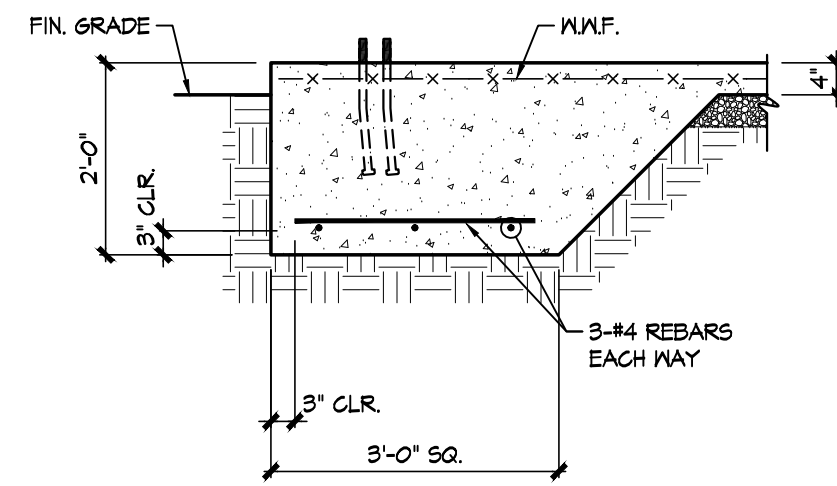
New Facility for:
Campbell University
Baseball Open Shelter
 Buies Creek, NC

DATE: 17 October 2023
 DRAWN BY: T.B.
 SCALE: 3/16" = 1'-0"

S-1

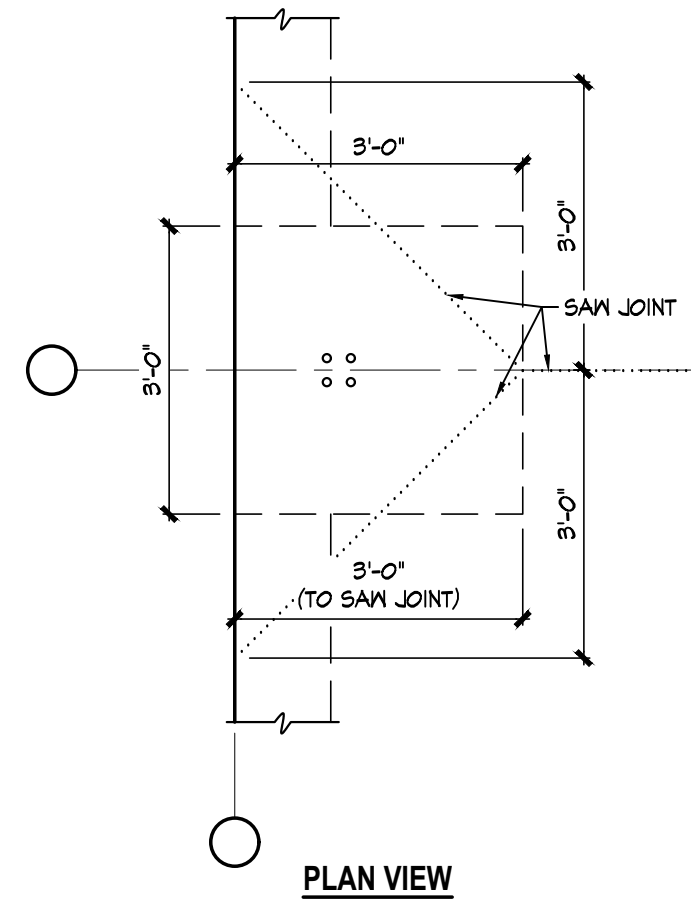


PLAN VIEW

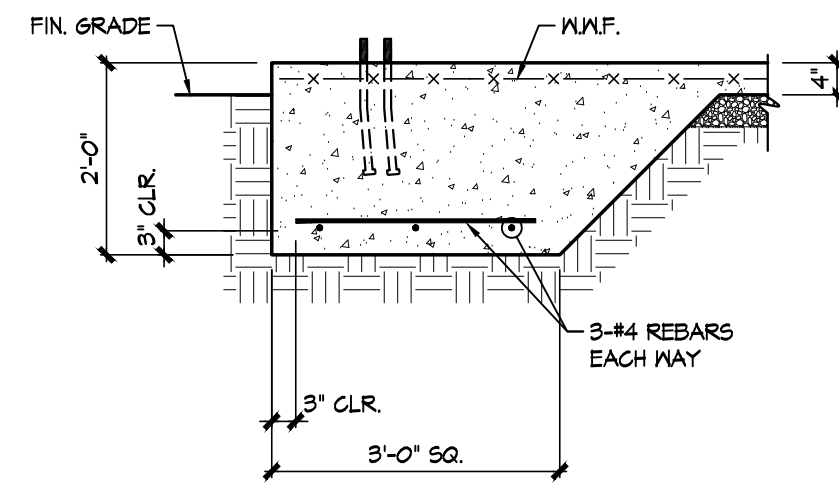


SECTION VIEW

1
S-2 COLUMN FOOTING "A" SCALE: 1/2" = 1'-0"

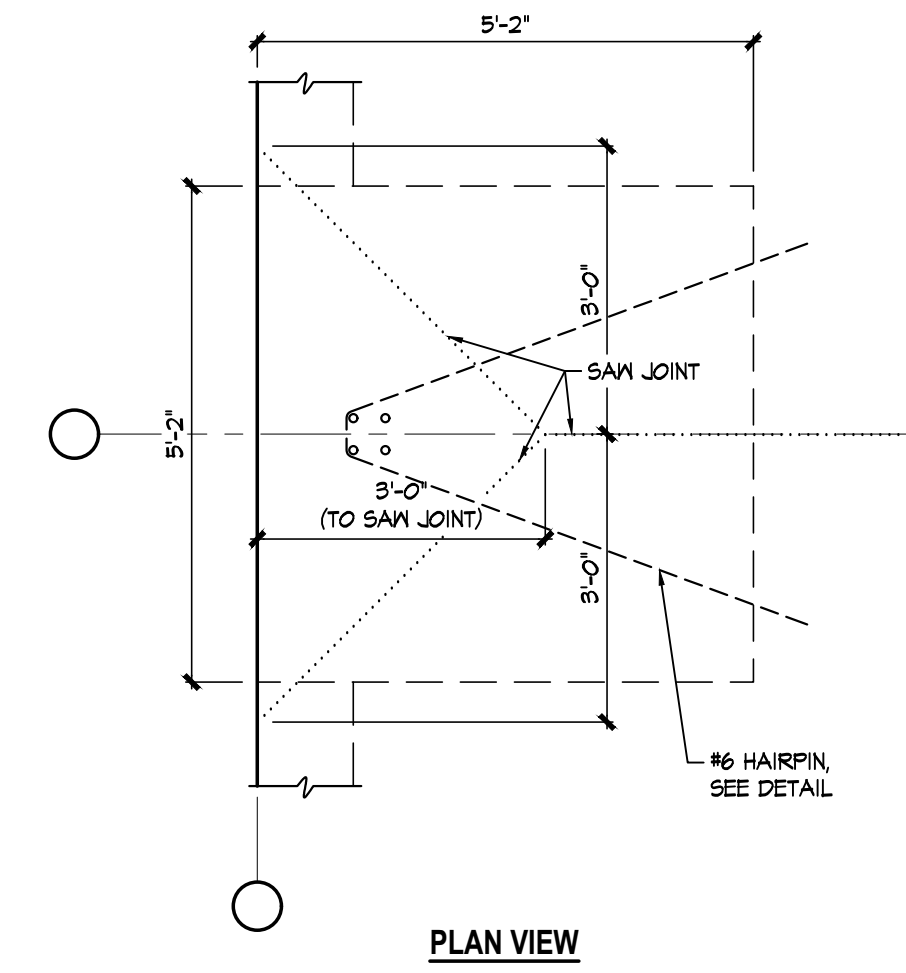


PLAN VIEW

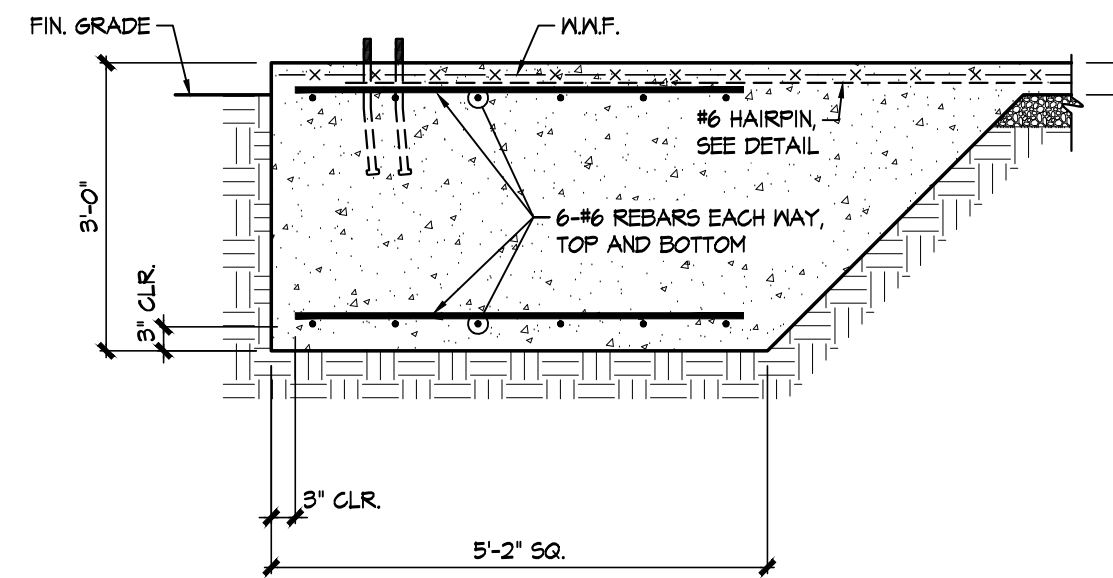


SECTION VIEW

2
S-2 COLUMN FOOTING "B" SCALE: 1/2" = 1'-0"



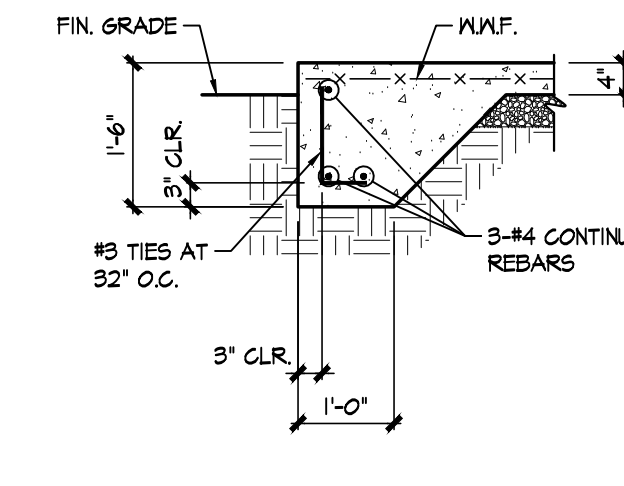
PLAN VIEW



3
S-2 COLUMN FOOTING "C" SCALE: 1/2" = 1'-0"

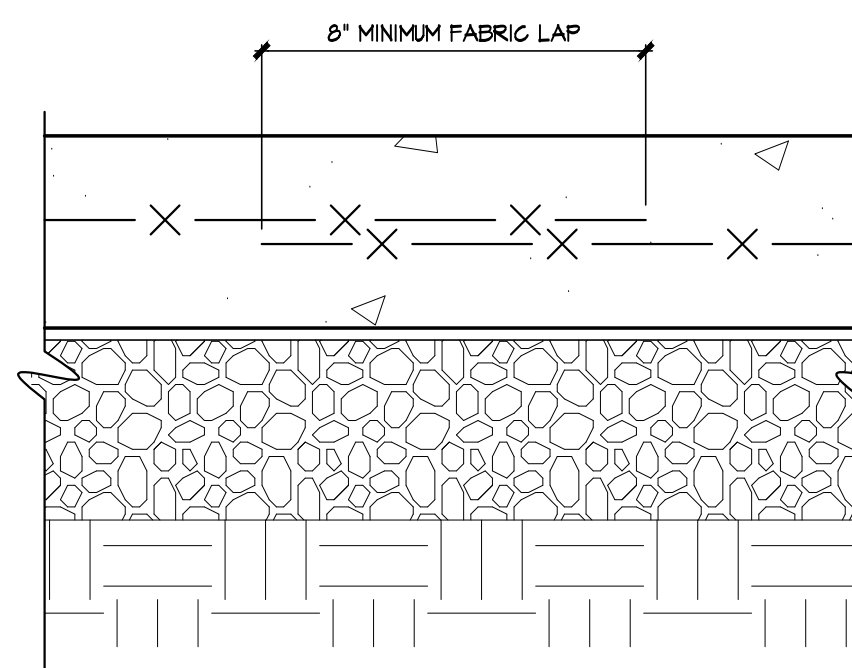


PLAN VIEW

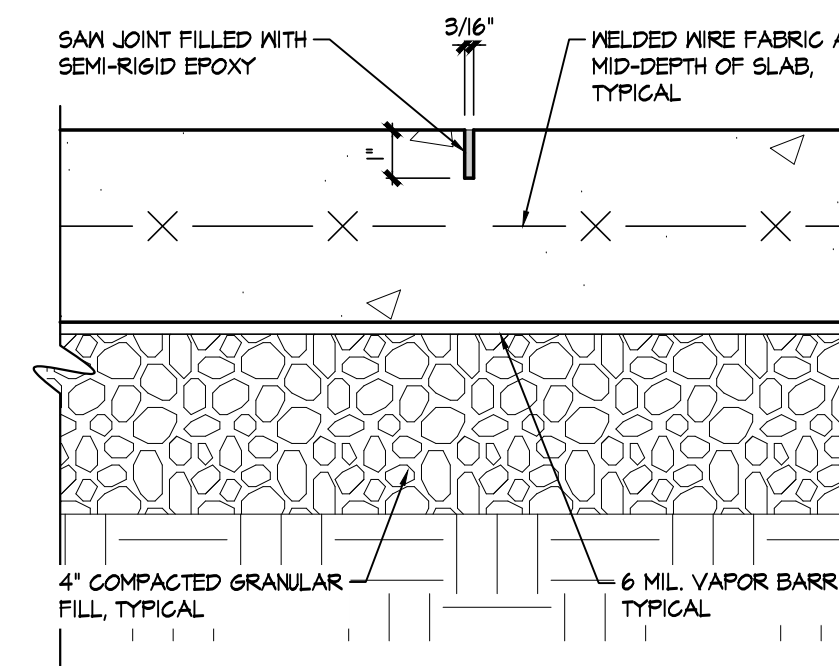


4
S-2 PERIMETER FOOTING "D" SCALE: 1/2" = 1'-0"
TYPICAL SLAB EDGE FOOTING

NOTE:
FABRIC SPLICES ARE NOT TO BE LOCATED
NEAR CONSTRUCTION OR CONTROL JOINTS

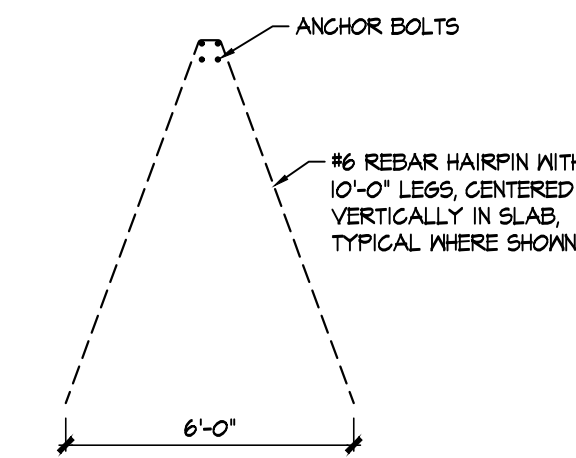


5
S-2 DETAIL SCALE: 3" = 1'-0"
TYPICAL WIRE FABRIC SPLICE

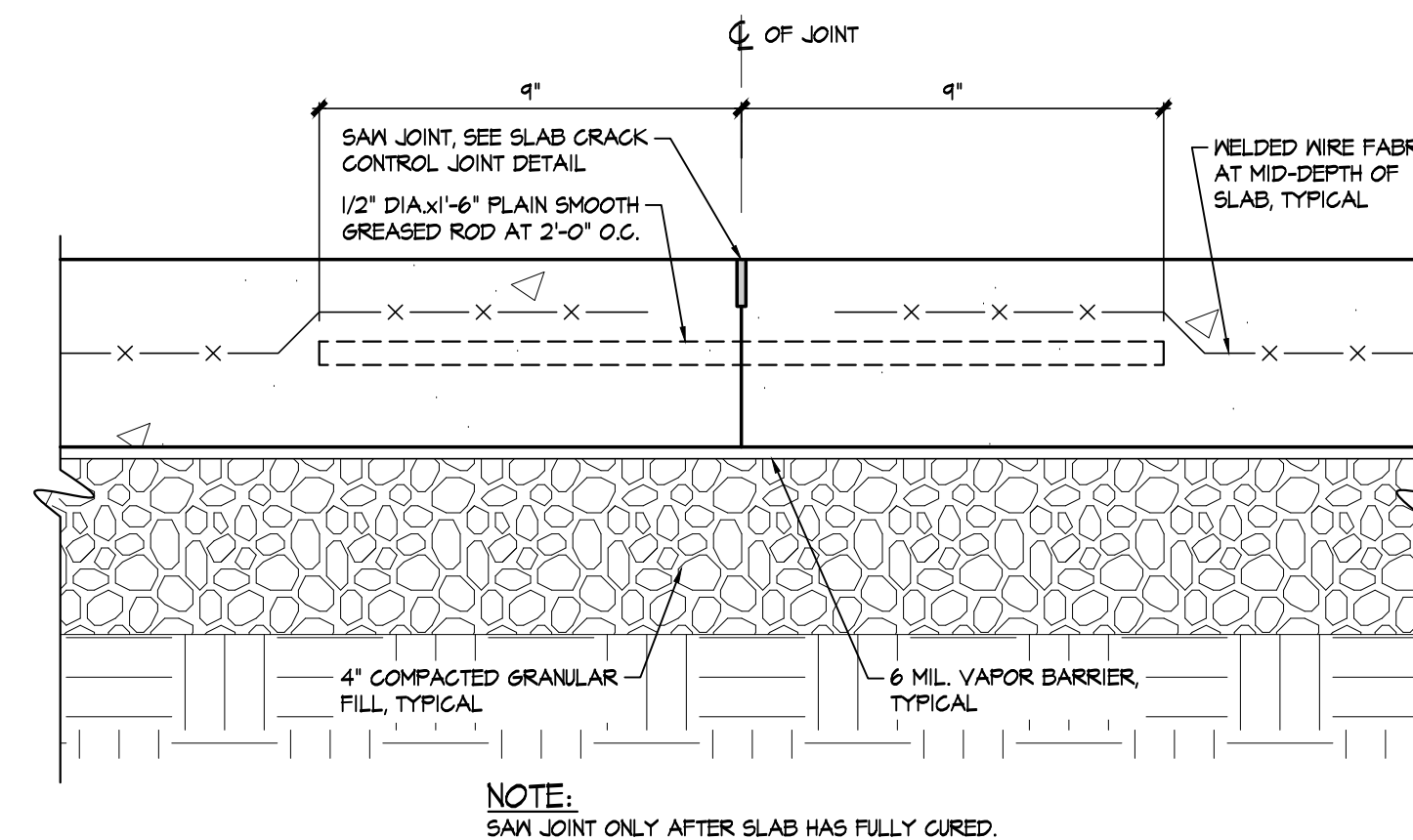


NOTE:
SAW JOINT SHALL BE MADE AS SOON AS
CONCRETE HAS GAINED SUFFICIENT STRENGTH TO
RETAIN AGGREGATE AGAINST THE SAWING ACTION
OR AT 8 HOURS MAXIMUM AFTER PLACEMENT.

6
S-2 DETAIL SCALE: 3" = 1'-0"
TYPICAL SLAB CRACK CONTROL JOINT

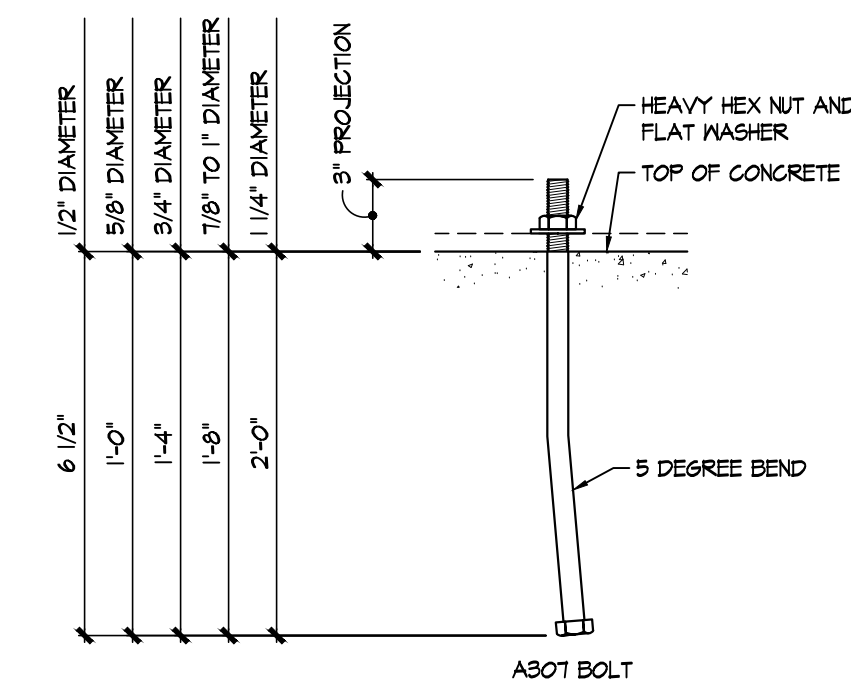


7
S-2 DETAIL SCALE: 1/4" = 1'-0"
REBAR HAIRPIN CONSTRUCTION



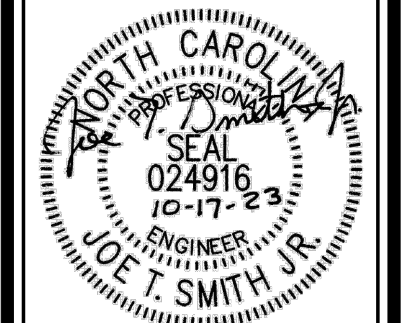
NOTE:
SAW JOINT ONLY AFTER SLAB HAS FULLY CURED.

8
S-2 DETAIL SCALE: 3" = 1'-0"
TYPICAL SLAB CONSTRUCTION JOINT



NOTE:
STANDARD HOOKED ANCHOR BOLTS MAY BE USED AT CONTRACTOR'S
DISCRETION. PROVIDE MINIMUM EMBEDMENT INDICATED AND PROVIDE
MINIMUM 3" END HOOK.

9
S-2 DETAIL SCALE: 1 1/2" = 1'-0"
ANCHOR BOLT INSTALLATION



REV#	DATE	DESCRIPTION

New Facility for:
Campbell University
Baseball Open Shelter
Butes Creek, NC

LIGHT FIXTURE SCHEDULE										
MARK	DESCRIPTION	LAMP			BALLAST		FIXTURE INPUT WATTS	VOLTS	LUMENS	NOTES
		TYPE	NO.	WATTS	TYPE	NO.				
H1	HIGH BAY LED	LED	-	112	-	-	112	120	12000	

- NOTES:
- PROVIDE ALL FIXTURES WITH LAMPS OF MODERATE TONE (3500K) AND GOOD CRI (COLOR RENDERING INDEX).
 - PROVIDE FIXTURES BY LITHONIA, COLUMBIA, HUBBLE, OR EQUAL PRODUCT.

ELECTRICAL LEGEND		
SYM.	DESCRIPTION	REMARKS
Ⓜ	JUNCTION BOX	DOUBLE GANG UNO
Ⓛ	NON-FUSED DISCONNECT	-
Ⓞ	OCCUPANCY SENSOR	-
Ⓢ	SWITCH	MOUNT 48" TOD AFF
Ⓢ ₃	3 WAY SWITCH	MOUNT 48" TOD AFF
Ⓡ	RECEPTACLE	MOUNT 16" BOD AFF
Ⓡ _{GFI}	GROUND FAULT RECEPTACLE	MOUNT 6" ABV. COUNTER
Ⓡ _{WP GFI}	GROUND FAULT, WEATHERPROOF RECEPT.	MOUNT 24" BOD AFG
Ⓢ	240V RECEPTACLE	-
Ⓢ	DOUBLE DUPLEX RECEPTACLE	-
Ⓢ	CIRCUIT IDENTIFIER	-
Ⓢ	DATA OUTLET	NUM. OF PORTS AS INDICATED

NOTES:

- STANDARD MOUNTING HEIGHTS OF DEVICES SHALL BE AS LISTED IN LEGEND. SPECIFIC MOUNTING HEIGHT OF A DEVICE MAY VARY AS NOTED ON PLANS.
- E.C. SHALL COORDINATE COLOR SELECTION OF DEVICES AND COVERPLATES WITH ENGINEER, OWNER AND/OR G.C.
- PROVIDE EQUIPMENT SHOWN BY HUBBELL, PASS & SEYMOUR, COOPER WIRING DEVICES, OR EQUAL PRODUCT.
- OPERATING DEVICES AND OPERABLE PARTS OF OPERATING DEVICES SUCH AS LIGHT SWITCHES, RECEPTACLES, THERMOSTATS, ALARMS, ETC., SHALL BE LOCATED WITHIN REACH RANGES AS SPECIFIED PER ANSI A117.1-2009.

ABBREVIATIONS:

G.C.	GENERAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
UNO	UNLESS NOTED OTHERWISE
Ⓢ	CENTERLINE OF DEVICE
BOD	BOTTOM OF DEVICE
TOD	TOP OF DEVICE

ELECTRICAL NOTES:

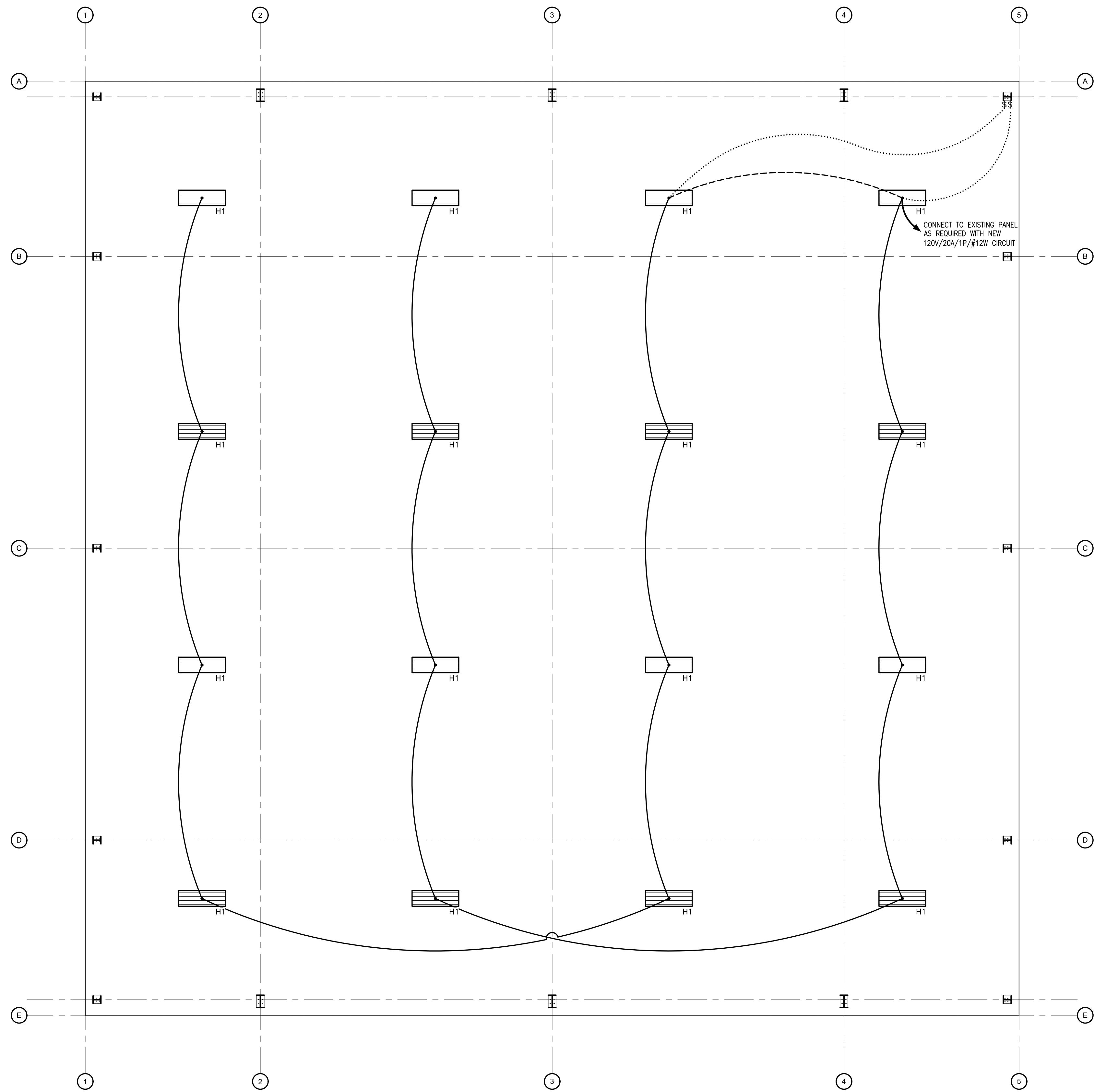
- ELECTRICAL PLANS ARE INTENDED TO PROVIDE INFORMATION FOR INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM. PROVIDE ALL ESSENTIAL LABOR, MATERIALS & DEVICES REQUIRED TO PRODUCE A QUALITY END PRODUCT.
- CONTRACTOR SHALL REVIEW & BECOME FAMILIAR WITH THE WORK OF ALL TRADES FOR PURPOSES OF COORDINATION AND ROUTING. CONTRACTOR SHALL PROVIDE REQUIRED PLANNING, COORDINATION AND SEQUENCING OF ELECTRICAL INSTALLATION WITH BUILDING COMPONENTS AND OTHER TRADES.
- ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC). WORKMANSHIP SHALL MEET OR EXCEED INDUSTRY STANDARDS.
- PROTECT ALL NEW MATERIALS FROM THE WEATHER IN STORAGE TRAILERS OR PROVIDE SUITABLE COVERING.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS, STARTERS, DEVICES AND ELECTRICAL COMPONENTS UNLESS SPECIFICALLY NOTED AS PROVIDED BY OTHERS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LINE AND LOAD SIDE WIRING INCLUDING ALL TERMINATIONS TO EQUIPMENT PROVIDED UNDER OTHER TRADES. POWER WIRING TO CONTROL DEVICES SHALL BE PROVIDED BY E.C..
- ALL WIRING, DEVICES AND OTHER LIKE MATERIALS SHALL BE UL LISTED & LABELED. ALL MATERIALS SHALL MEET THE NEC FOR THE INTENDED USE AND INSTALLED IN ACCORDANCE WITH THE NEC.
- PROVIDE THHN/THWN COPPER WIRE. PROVIDE A MINIMUM WIRE SIZE OF #12. CONDUCTORS AND CONDUIT ON PLANS AND SCHEDULES REFLECT AMPACITIES PER NEC 310-16 75C RATING. CONTRACTOR SHALL VERIFY ALL TERMINATIONS, LUGS, ETC. ARE RATED FOR USE PER NEC 110-4C. OTHERWISE PROVIDE CONDUCTOR AND CONDUIT SIZED PER LOWEST TEMPERATURE RATING OF ANY TERMINATION WITHIN A CIRCUIT. A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR ALL CIRCUITS.
- PROVIDE MC CABLE FOR ALL SINGLE PHASE BRANCH CIRCUITS 30 AMPS AND SMALLER.
- PROVIDE TYPE WRITTEN PANEL SCHEDULES IN EACH PANEL INDICATING THE LOAD DESCRIPTION FOR EACH BREAKER. LABEL PANELS ON PANEL FACE WITH PHENOLIC LABELS INDICATING PANEL NUMBER OR LETTER DESIGNATION, VOLTAGE AND PHASE.
- PROVIDE LIGHTING AS SCHEDULED IN THE FIXTURE SCHEDULE OR OTHERWISE NOTED ON PLANS.
- WALL SWITCHES SHALL BE SINGLE POLE, 20 AMP, 120/277V.
- PROVIDE STANDARD SIZE WALL PLATES FOR ALL DEVICES AND BLANK WALL PLATES FOR JUNCTION BOXES. WALL PLATES SHALL BE HIGH IMPACT, SMOOTH NYLON, COLOR TO MATCH DEVICE.
- GUARANTEE ALL EQUIPMENT, MATERIALS AND INSTALLATION FREE OF DEFECTS FOR A PERIOD OF 1-YEAR AFTER DATE OF ACCEPTANCE.

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:
 PRESCRIPTIVE PERFORMANCE TRADE-OFF

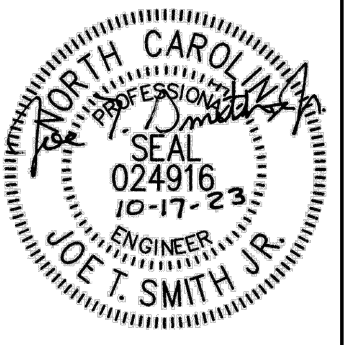
LIGHTING SCHEDULE
 LAMP TYPE REQUIRED IN FIXTURE: SEE LIGHTING SCHEDULE ON PLANS
 NUMBER OF LAMPS IN FIXTURE: _____
 BALLAST TYPE USED IN THE FIXTURE: _____
 NUMBER OF BALLASTS IN THE FIXTURE: _____
 TOTAL WATTAGE PER FIXTURE: _____

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)
 MOTOR HORSEPOWER: N/A - NO MOTORS LARGER THAN 1 HP SPECIFIED ON THESE PLANS
 NUMBER OF PHASES: OTHER THAN AS LISTED IN MECHANICAL SCHEDULES
 MINIMUM EFFICIENCY: _____
 MOTOR TYPE: _____
 # OF POLES: _____



ELECTRICAL LIGHTING PLAN

SCALE: 3/16" = 1'-0"



REV.	DATE	DESCRIPTION

New Facility for:
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