

New Connector for

Micro Elementary School

Johnston County Schools
NCDSP Unit 510 - School 343

301 E Main St / Micro / North Carolina 27555

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, N.C. 27834 / tel 252-757-0333

AFF	ABOVE FINISH FLOOR	INV	INVERT
L	ANGLE	JT	JOINT
AB	ANCHOR BOLT	LAV	LAVATORY
R	AT	MAS	MASONRY
B/B	BACK TO BACK (CURB)	MAX	MAXIMUM
BRG	BEARING	WB	WALKER BOARD
BD	BOARD	MET	METAL
BC	BRICK COURSE	MC	MECHANICAL CONTRACTOR
BLDG	BUILDING	MT	METAL THRESHOLD
CI	CAST IRON	WN	MINIMUM
CP	CARPET	WSC	MISCELLANEOUS
CB	CATCH BASIN	NOM	NOMINAL
CLG	CEILING	N	NORTH
CT	CEILING TILE	NIC	NOT IN CONTRACT
CC	CHALKBOARD	NTS	NOT TO SCALE
CJ	CONSTRUCTION JOINT	OC	ON CENTER
CONC	CONCRETE	OP	OPENING
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CG	CORNER GUARD	PC	PLUMBING CONTRACTOR
CM	CORRUGATED METAL PIPE	PLAS	PLASTER
CONT.	CONTINUOUS	PL	PLATE
C & R	CURTAIN & ROD	PT	PRESSURE TREATED
C & T	CURTAIN & TRACK	R	RADIUS
DIA	DIAMETER	REF	REFERENCE
DM	DIMENSION	RENIF	REINFORCED
DS	DOWNSPOUT	RCP	REINFORCE CONCRETE PIPE
DWR	DRAWER	REQ'D	REQUIRED
EA	EACH	RTS	RUBBER FASTENING STRIP
EC	ELECTRICAL CONTRACT	RI	RIGID INSULATION
EFS	EXTERIOR INSULATION & FIN SYSTEM	RW	RIGHT OF WAY
ELECT	ELECTRICAL	RD	ROOF DRAIN
EWC	ELECTRIC WATER COOLER	RDL	ROOF DRAIN LEADER
ELEV	ELEVATION	RGH	ROUGH
EQ	EQUAL	SCHED	SCHEDULED
ETR	EXISTING TO REMAIN	SH	SHELF
EXST	EXISTING	SHG	SHEATHING
EXP	EXPOSED, EXPANSION	SW	SIMILAR
EJ	EXPANSION JOINT	SPEC	SPECIFIED
F/F	FACE TO FACE (CURB)	SPECS	SPECIFICATIONS
FIN	FINISH	STD	STANDARD
FE	FIRE EXTINGUISHER	SUSP	SUSPENDED
FEF	FIRE EXTINGUISHER CABINET	TB	TACKBOARD
FHC	FIRE HOSE CABINET	TYP	TYPICAL
FTG	FOOTING	TJC	TYPICAL CORNER JOINT
FD	FLOOR DRAIN	UON	UNLESS OTHERWISE NOTED
FL	FLOOR	UR	URNAL
FSR	FLEXIBLE SHEET ROOFING	VB	VEHICLE BARRIER
CPWS	CYPRESS WALLBOARD	VERT	VERTICAL
GC	GENERAL CONTRACTOR	VCT	VINYL COMPOSITION TILE
HM	HOLLOW METAL	WC	WATER CLOSET
HOR	HORIZONTAL	WWF	WELDED WIRE FABRIC
INSUL	INSULATION	W/	WITH

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DRAWING IDENTIFICATION MARKERS

 DRAWING NUMBER
 SHEET NUMBER

! SECTION MARKER

ELEVATION (DRAWINGS)

DOOR MARKER/NUMBER

----- HIDDEN LINE OR ABSTRACT LINE

----- LINE ABOVE

----- CENTERLINE

	EARTH
	SAND
	MORTAR OR GROUT
	CONCRETE
	BRICK
	CONCRETE MASONRY UNIT
	STEEL
	ROUGH WOOD (CONTINUOUS)
	ROUGH WOOD (INTERMITTENT)
	FINISH WOOD
	PLYWOOD
	BATT OR BLOWN INSULATION
	RIGID INSULATION
	METAL STUD / GYPBOARD WALL

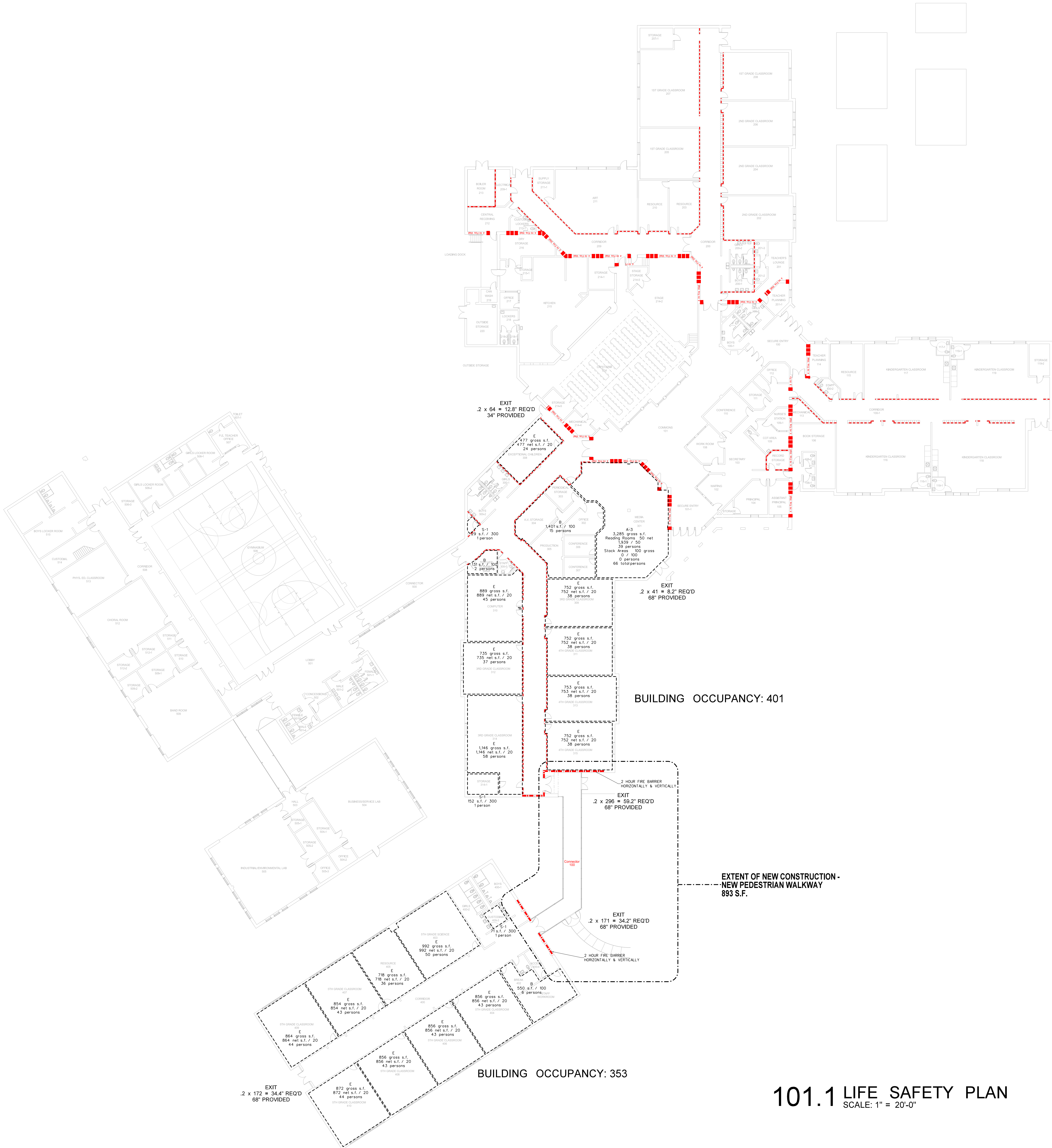
New Connector for
Micro Elementary School
Johnston County Schools

Project No. 22423

Date: September 2024

Drawing no.

T1



101.1 LIFE SAFETY PLAN
SCALE: 1" = 20'-0"

Revision		No.	Date:

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REGISTERED ARCHITECT
3/15/34
GREENVILLE, NC

REGISTERED ARCHITECT
5/15/34
GREENVILLE, NC

REGISTERED ARCHITECT
4/18
GREENVILLE, NC

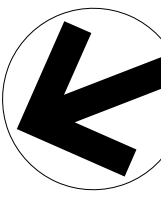
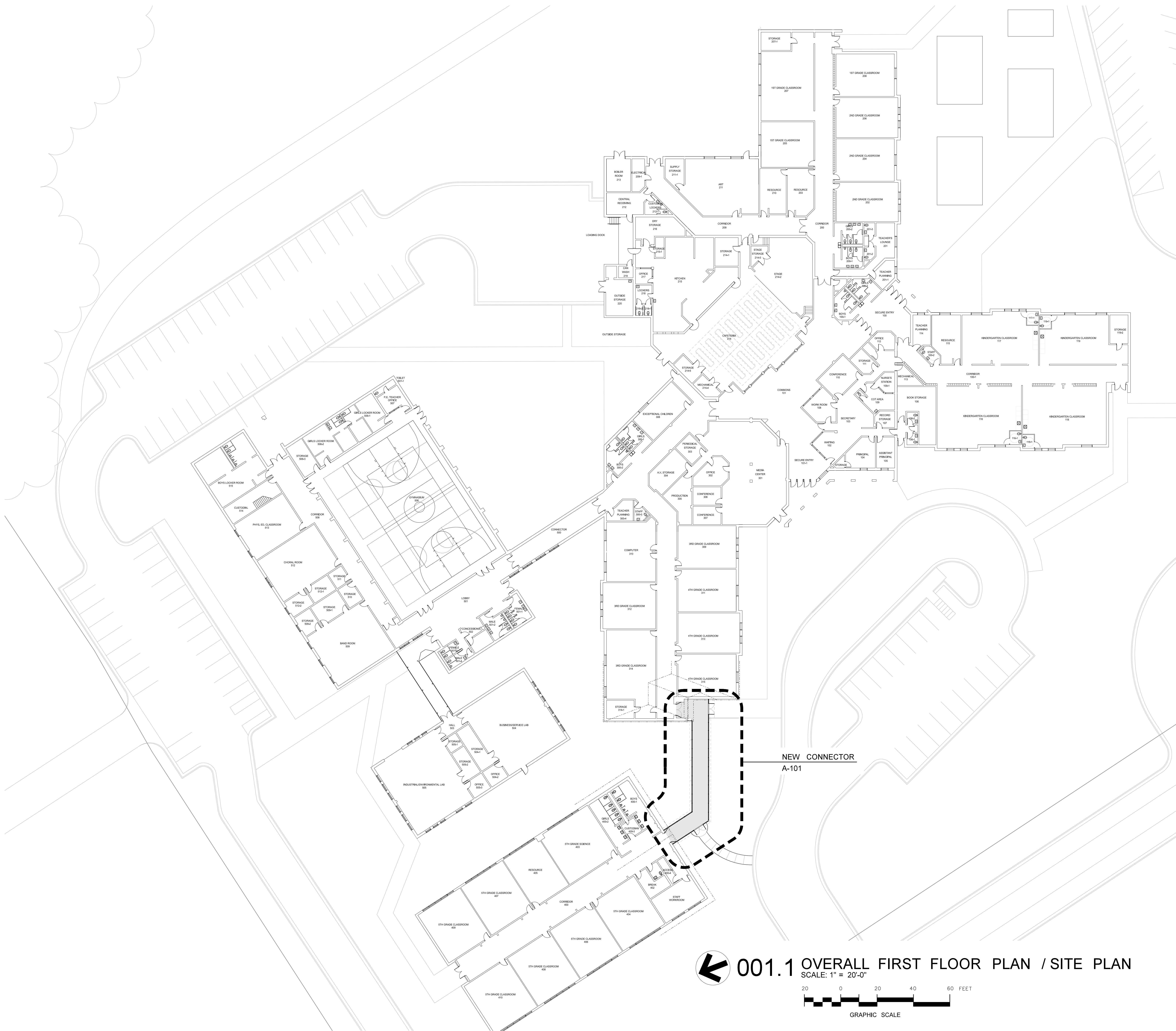
REGISTERED ARCHITECT
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GREENVILLE, NC

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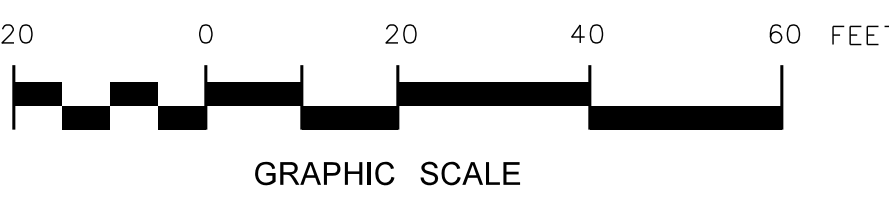
Date:
September 2024

Drawing no.
**LS
101**



001.1 OVERALL FIRST FLOOR PLAN / SITE PLAN

SCALE: 1" = 20'-0"



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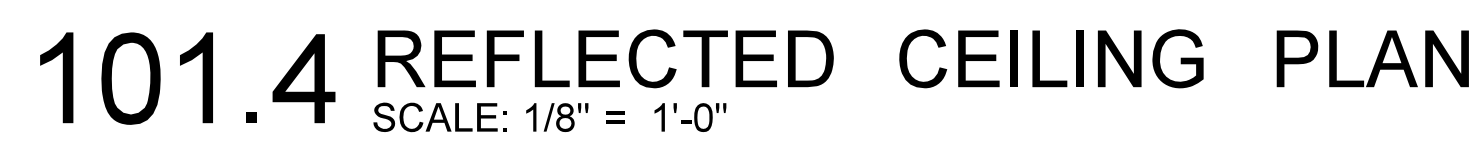
DRAWING NO. A 001

REGISTERED ARCHITECT
JAMES GRAY HITE
3/15/34
GREENVILLE, NC

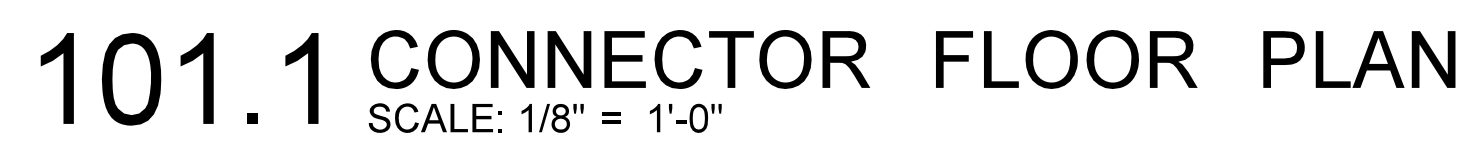
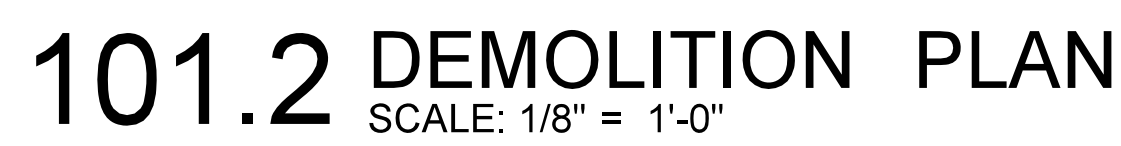
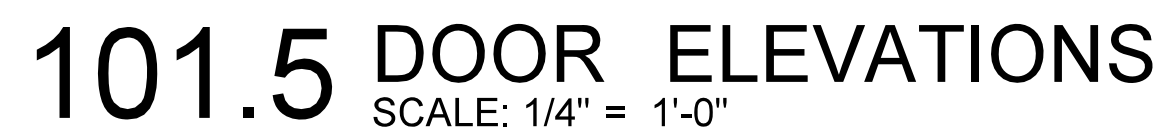
REGISTERED PROFESSIONAL ENGINEER
HITE ASSOCIATES, P.C.
418
GREENVILLE, NC

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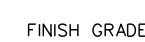
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- | MARK | AREA | FLOOR | BASE | WALLS | CEILING | CLG HEIGHT | REMARKS |
|------|-----------|----------------------|-----------|-----------------|-------------|------------|---------|
| 100 | CONNECTOR | VCT - MATCH 400 BLDG | 4" RUBBER | PAINTED DRYWALL | ACOUST TILE | 10'-0" | |



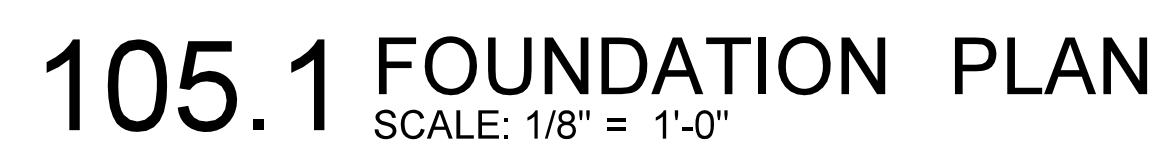
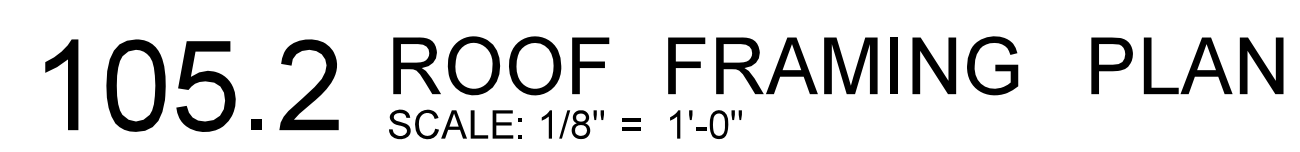


SCALE: 1/4" = 1'-0"



SCALE: 1/4" = 1'-0"





FOUNDATIONS

5. SOLID PENE TRAIL BEARING VALUE - 2000 PSF TO BE FIELD VERIFIED BY GEOTECHNICAL LABORATORY.
6. SITE PREPARATION AND PLACEMENT OF ENGINEERED COMPACTED FILL SHALL BE MONITORED BY GEOTECHNICAL LABORATORY. ALL INCLUDING STRUTTING, BRACING, ROLLING, AND FILLING OPERATIONS SHALL BE SO MONITORED.
7. ALL FILL INSIDE THE BUILDING AND TO OUTSIDE THE BUILDING SHALL BE PLACED IN LIFTED LAYERS. ALL LAYERS SHALL BE SELECT MATERIAL OF DELETERIOUS MATERIALS SUCH AS WOOD, ROCKS, TRASH OR OTHER MATERIALS. ALL LAYERS SHALL BE PLACED IN LIFTED LAYERS AND COMPACT EACH LIFT TO MINIMUM 95% MAXIMUM DENSITY AT 4 INCHES OR LESS DEPTH. ALL MATERIAL SHALL BE MONITORED BY GEOTECHNICAL LABORATORY.
8. ALL FOOTING EXCAVATIONS SHALL BE APPROVED BY THE GEOTECHNICAL LABORATORY. ALL EXCAVATIONS SHALL BE MONITORED BY GEOTECHNICAL LABORATORY.
9. FOOTING EXCAVATIONS SHALL NOT BE RAISED OR LOWERED UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT
10. FOOTINGS MAY CARRY LOWER LEVELS WHEREAS DIRECTED BY THE ARCHITECT.
11. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL LOCATIONS OF MASONRY PARTITIONS THAT REQUIRE THICKENED SILL FOR SUPPORT.
12. CONSTRUCTION JOINTS IN CONTINUOUS WALL FOOTING SHALL BE MADE WITH A MINIMUM OF 4' SPACING AT LEAST 4' FROM THE INTERSECTION OF ANOTHER WALL FOOTING.
13. COLUMN FOOTINGS IN LINE OF WALL FOOTINGS SHALL BE FIRST POURED INTO THE WALL FOOTING. WALL FOOTING SHALL BE FIRST POURED CONTINUOUS OVER THE COLUMN FOOTING.
14. FOUNDATIONS SHALL BE PLACED ONLY ON APPROVED NATURAL OR ENGINEERED SOILS. ALL FOUNDATIONS SHALL BE MONITORED BY GEOTECHNICAL LABORATORY. ALL FOUNDATIONS SHALL BE PLACED ON A CONTROLLED COMPACTED FILL UNDER THE SUPERVISION OF THE GEOTECHNICAL LABORATORY.

CONCRETE

- CONCRETE SHALL DEVELOP THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS.
- | | |
|---------------------------|----------|
| A. FIDESTALS | 5000 PSI |
| B. FOOTINGS | 5000 PSI |
| C. WALLS | 5000 PSI |
| D. COLUMNS | 5000 PSI |
| E. SLABS ON GRADE | 5000 PSI |
| F. SUSPENDED SLABS | 4000 PSI |
| G. FILL FOR MASONRY UNITS | 5000 PSI |
| H. ALL OTHER CONCRETES | 4000 PSI |
2. CONCRETE FOR FOOTINGS, SLABS ON GRADE, WALLS, PEDESTALS, COLUMNS SHALL BE REINFORCED WITH STEEL REINFORCEMENT.
3. CONCRETE FOR SUSPENDED SLABS ON CONCRETE MASONRY DECK SHALL BE LIGHTWEIGHT STRUCTURAL CONCRETE.
4. CONCRETE FOR FILL IN CONCRETE MASONRY BLOCK CELLS, BOND BEAMS, LINTEL BLOCKS, AND CANTYLL WALL FILL BELOW FLOOR IN EXTERIOR WALLS SHALL BE MASONRY UNITS WITH HIGH STRENGTH SAND GRAVEL CONCRETE. MORTAR MIX WILL NOT BE ALLOWED FOR ANY BLOCK MASONRY FILL REQUIREMENTS.
5. CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL HAVE 5% AIR ENTRAINMENT. CONCRETE NOT EXPOSED TO WEATHER SHALL NOT HAVE AIR ADDED BY ADMIXTURES.
6. ALL CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," A-3138.
7. OBSERVE ALL AND STRICTLY FOLLOW ALL A-3100S AND 306 REQUIREMENTS FOR PROTECTION OF CONCRETE IN HOT AND COLD WEATHER.
8. ALL CONCRETE WORK SHALL BE PROPERLY CURED IN CONFORMANCE WITH THE FOLLOWING: CONCRETE SHALL BE COVERED WITH PLYWOOD OR SCALING MATERIALS METHOD BE USED PROVIDED THAT THE METHOD CHOSEN HAS NO DETRIMENTAL EFFECT ON THE FINAL FINISH SPECIFIED FOR THE RESPECTIVE AREAS.
9. BUILDING SLABS ON GRADE SHALL BE 4" MINIMUM THICKNESS.
10. SUSPENDED SLAB ON COMPRESSED METAL DECK SHALL BE 6" MINIMUM THICKNESS MEASURED FROM THE TOP OF DECK FLEETS.
11. PLACE 1/2" PRE-FORMED, IMPREGATED EXPANSION JOINT FILLER FILL DEPTH OF SLAB ON GRADE AT ABUTTING WALL SURFACES ON OTHER SIDE THEREOF.
12. PROVIDE PROTECTION OF CONTROL JOINTS IN SLABS ON GRADE IN LOCATIONS AS SHOWN ON FOUNDATION PLANS OR AT OTHER LOCATIONS APPROVED BY ARCHITECT TO PREVENT SPALLING OF JOINTS THAT NOT EXCEED 50% IN ANY DIRECTION.
13. CHAMFER EXPOSED EDGES AND CORNERS ON CONCRETE 1/4" UNLESS OTHERWISE NOTED.
14. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED FLOOR FINISHES AND SLAB FINISHES. PROVIDE NECESSARY SLAB RECESSES, DEPRESSIONS, AND SLAB FINISHES AS REQUIRED TO ACCEPT FINISHES.

REINFORCING STEEL

3. BARS SHALL BE ROLLED FROM ONE SINGLE-STEP CONFORMING TO ASTM A618, GRADE 60, 100% YIELD STRENGTH STEEL BARS FOR CONCRETE REINFORCEMENT; ASTM A618, GRADE 60.
2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A95 AND SHALL BE FURNISHED IN FLAT SHEETS.
3. DETAIL AND FABRICATE REINFORCING STEEL IN ACCORDANCE WITH THE FOLLOWING STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES; AC308.
4. REINFORCING SHALL BE IN PLACE AND REVIEWED BY THE ARCHITECT PRIOR TO PLACING CONCRETE.
5. PLACE ONE LAYER OF 6" x 6" - W14 x W14 WFT AT MIDDLE OF EACH WALL, CHAIRS, 18" ON SPACES, TWO FULL LENGTHS AND ALL SIDE LAPS ONE FULL LENGTH AND THE OTHER WITH STANDARD TIE WRES.
6. PLACE ONE LAYER OF 6" x 6" - W14 x W14 WFT 1/2" CLEAR FROM EACH END OF WALLS, CHAIRS, 18" ON SPACES, TWO FULL LENGTHS AND ALL SIDE LAPS ONE FULL LENGTH FROM EACH END OF WALLS, CHAIRS, 18" ON SPACES.
7. PROVIDE PROPER HOOK CHAIRS AND BOLSTERS TO SUPPORT REINFORCING BARS AND WFT FINAL IN PLACE, WHILE PLACING CONCRETE.
8. FABRICATE BARS IN CONTINUOUS FOOTINGS, WALLS, BOND BEAMS AND TURNED DOWN SLABS TO LONGEST PRACTICAL LENGTHS.
9. LAP REBAR SPLICES A MINIMUM OF 40 BAR DIAMETERS BUT A MINIMUM OF 34" IN REBAR SPLICES, CONFORM TO ALL DETAILS AT JOINTS OF MINIMUM STRESS UNLESS OTHERWISE SHOWN.
10. TERMINATE CONTINUOUS BARS IN WALLS, FOOTINGS, BOND BEAMS AND TURNED DOWN SLABS, WITH STANDARD 90 DEGREE HOOK AT ALL WALLS, FOOTINGS, BOND BEAMS AND INTERIOR CORNERS.
11. AT ALL LOCATIONS REQUIRING VERTICAL DOWELS INTO FOOTINGS, THE PLACEMENT OF THE DOWEL SHALL MATCH THE SIZE AND CLOSELY MATCH THE SPACING OF THE DOWEL, SHALL CONFORM TO REBAR SCHEDULE OR A MINIMUM OR 24".
12. ALL DOWELS SHALL TERMINATE IN THE FOOTING WITH A STANDARD 90 DEGREE HOOK UNLESS SPECIFICALLY SHOWN OTHERWISE. DOWELS SHALL MATCH THE MATCHING VERTICAL REBAR 40 BAR DIAMETERS OR A MINIMUM OR 24".
13. UNLESS OTHERWISE NOTED ON THE DRAWINGS REBAR SHALL HAVE THE FOLLOWING MINIMUM CLEARANCES FROM THE FACE OF THE CONCRETE:
 - A) FOOTINGS - 3" WITH EARTH FORMS, 2" WITH REMOVABLE FORMS.
 - B) WALLS - 1" WITH EARTH FORMS, 2" WITH REMOVABLE FORMS.
 - C) WALLS - 2"
 - D) COLUMN - 2"
 - E) BEAMS - 1 1/2"
 - F) SLAB - 1 1/2"
 - G) SLAB TOP SURFACE - 3/4"
14. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.

CONCRETE MASONRY

- CONCRETE MASONRY UNITS (CMU) SHALL BE LIGHTWEIGHT OR BLENDED LIGHTWEIGHT CONCRETE CONFORMING TO ASTM C90 WITH A PRISM STRENGTH OF 1600 PSI.
- MORTAR SHALL BE TYPE "S" THROUGHOUT.
- WALLS SHALL BE ACCURATELY Laid OUT AND CONSTRUCTED SO THAT NO WALL VARIANCES MORE THAN 1/4" FROM ITS DESIGNATED LOCATION, THIS SHALL BE THE ONLY SHALL APPLY TO WALL PLACEMENT AND WALL STRAIGHTNESS.
- ALL BED AND HEAD JOINTS SHALL BE FULLY MORTARED.
- REINFORCING FOR ALL MASONRY WALLS SHALL BE NO. 9 GALVANIZED STEEL TYPE HORIZONTAL JOINT REINFORCEMENT SPACING AT NO. 4'S.
- REINFORCING FOR ALL CORNER PIECES SHALL BE NO. 4'S.
- ALL REINFORCEMENT JOINTS A MINIMUM OF 12" REFER TO ARCHITECTURAL DRAWINGS FOR HORIZONTAL CLOTH REQUIREMENT AT TIERS AND CORNERS.
- REINFORCING SHALL BE EPOXY BOND TO ALL EXISTING REINFORCEMENT, REBAR, REELS AND COLUMNS WITH SUITABLE ADJUSTABLE TRIANGULAR WIRE 1/4" X 3/4" DIAMETER PROVIDE ADJUSTABLE FORMED STEEL PLATE.
- REINFORCING SHALL BE EPOXY BOND TO ALL EXISTING REINFORCEMENT, REBAR, REELS AND COLUMNS WITH SUITABLE ADJUSTABLE TRIANGULAR WIRE 1/4" X 3/4" DIAMETER PROVIDE ADJUSTABLE FORMED STEEL PLATE.
- WIRE TYPE, BENT STRIPS, OR CORRUGATED METAL TYPE ANCHORS SHALL BE USED TO SECURE THE WIRE TO THE MASONRY.
- ANCHORS FOR BRICK VENEER WITH METAL STUD BACK UP SHALL BE THE SAME TYPE AND SHALL BE SECURED TO THE METAL STUDS WITH MINIMUM TWO SCREWS SO THAT NO EXCEEDING ANCHOR ASSEMBLY SHALL BE USED.
- EXISTING TRIBUTARY AREA OF MASONRY EXCEEDING 2 1/2' X 3' SQUARE FEET.
- UNLESS OTHERWISE NOTED PROVIDE FOR OPENINGS IN CONCRETE WALLS TO BE 12" MINIMUM CLEARANCE FROM ALL OTHER TYPES OF OPENING LENGTH TO PROVIDE NO BEARING EACH END.

STEEL JOIST, JOIST GIRDER

- STEEL JOISTS SHALL CONFORM TO STEEL JOIST INSTITUTE (SJI) "N" SERIES JOISTS AND ACCESSORIES.
- JOIST GRIDDERS SHALL BE STANDARD "Q" SERIES JOIST GRIDDERS AND ACCESSORIES.
- BEARING BEDDING OF SLOPING "N" SERIES JOIST SHALL BE 5" UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- BEARING BEDDING OF JOIST GRIDDERS SHALL BE 6" EXCEPT THE 860 SERIES JOIST GRIDDERS WHICH REQUIRE THICKER BEDDING SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
- JOISTS SHALL BEAR A MINIMUM OF 2 1/2" ON STEEL SUPPORTS ON 4" ON MASONRY SUPPORTS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- JOIST GRIDDERS SHALL BEAR A MINIMUM OF 4" ON STEEL SUPPORTS AND 6" ON MASONRY SUPPORTS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- JOISTS BEARING ONLY ON ONE SIDE OF A STEEL SUPPORT SHALL BEAR A MINIMUM OF 2" PAST THE CENTERLINE OF THAT SUPPORT UNLESS OTHERWISE SHOWN.
- JOIST GRIDDERS BEARING ONLY ON ONE SIDE OF A STEEL SUPPORT SHALL BEAR A MINIMUM OF 2" PAST THE END OF THAT SUPPORT UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- THE BOTTOM CHORD STRUTS OF JOISTS AND JOIST GRIDDERS SHALL NOT BE ATTACHED TO INTERFERING STRUCTURAL WALLS UNLESS SPECIFICALLY SHOWN TO DO SO ON THE DRAWINGS.
- BOTTOM CHORD STRUTS OF JOISTS SHALL RIGIDLY ATTACHED TO STEEL SUPPORTS DURING THE STEEL ERECTION PROCESS. BOTTOM CHORD STRUTS OF JOIST GRIDDERS SHALL BE RIGIDLY ATTACHED TO STEEL SUPPORTS ONLY AFTER THE FULL DEAD LOADS BEING SUPPORTED ARE IN PLACE.
- STEEL JOISTS AT OR ADJACENT TO A COLUMN LINE SHALL BE BOLTED TO THE COLUMN OR BRASS TRUSS WITH (2) 3/4" DIAMETER A325 BOLTS. BOTTOM CHORDS OF THESE JOISTS SHALL HAVE THEIR TOP FLANGES WELDING TO THE TOP FLANGE OF THE COLUMN OR BRASS TRUSS BY FIELD WELDING SUFFICIENT TO DEVELOP 6 KIPS FORCE PER ANCHOR BOLT.
- PROVIDE CONTINUOUS HORIZONTAL BRIDGING IN SPACES ACROSSING ALL JOIST GRIDDERS INCLUDING INTERFERING WALLS UNLESS SPECIFICALLY SHOWN OTHERWISE. BRIDGING REQUIRED FOR UPLIFT. ALL BRIDGING SHALL BE WELDED TO BOTH TOP AND BOTTOM FLANGES OF JOIST GRIDDERS AS WELL AS WELDS OF SUFFICIENT SIZE AND CONFIGURATION TO DEVELOP 2 KIPS FORCE. BRIDGING LINES SHALL TERMINATE AND BE WELDED TO THE TOP AND BOTTOM FLANGES OF JOIST GRIDDERS AT EACH END AT MASONRY WALL. AT ALL BRIDGING RUNS WHERE A JOIST IS PRESENT BRIDGING SHALL BE WELDED TO THE TOP AND BOTTOM FLANGES OF JOIST BEING DIAGONAL "X" BRIDGING IN ADDITION TO THE HORIZONTAL BRIDGING. BRIDGING MEDIAN LENGTH SHALL BE MAXIMUM 15'-6" WITH ANGLE SHAPE UNLESS OTHERWISE NOTED.
- ALL JOISTS NOT REQUIRING BOLTED ENDS SHALL BEAR A MINIMUM OF 2 1/2" ON STEEL AND BE WELDED TO THE STEEL SLAT AT EACH END WITH A FIELD WELD OF SUFFICIENT SIZE AND CONFIGURATION TO DEVELOP 2 KIPS FORCE.
- ALL JOIST CHORD MEMBERS SHALL BE ANGLES.
- BRIDGING SHALL BE IN PLACE AND WELDED FOR REVIEW BY THE ARCHITECT PRIOR TO INSTALLING THE METAL DECK SYSTEM.
- JOISTS, JOIST GRIDDERS, AND ACCESSORIES EXPOSED VIEW SHALL RECEIVE ONE SHOP DIP COAT OF STANSTADY GRYO OIL PRIMER. AT THE ARCHITECT'S OPTION JOISTS, JOIST GRIDDERS, AND ACCESSORIES NOT EXPOSED TO VIEW MAY BE LEFT UNPRIMED.
- STEEL JOISTS, JOIST GRIDDERS SHALL BE DESIGNED BY THE ARCHITECT FOR A LIVE LOAD OF 70 PSF AND A DEAD LOAD OF 15 PSF. ALLOWABLE STRESSING MAY BE APPROVED 3/3 FOR THIS CASE.
- PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.

LIGHT GAGE METAL FRAMING

1. LIGHT GATE METAL STUDS SHALL BE AS NOTED ON THE DRAWINGS.
2. LIGHT GATE STUDS FOR EXTERIOR WALLS SHALL BE 8" X 36" STYLE STEEL STUDS WITH 16 GAUGE METAL SHEET PILING APPROVED EQUIV. FOR UNSUPPORTED HEIGHTS AS SCHEDULED BELOW
- STUDS UP TO 10'-0" : 16 GA. UP TO 16'-0" O.C.
- STUDS 10'-1" - 12'-0" : 16 GA. UP TO 16'-0" O.C.
- STUDS 12'-1" - 22'-0" : 16 GA. UP TO 16'-0" O.C.
- STUDS 22'-1" - 22'-0" : 16 GA. AT 12" O.C.
- REFER TO PLANS FOR DOUBLE 3/8" ST. DEEP END WALLS AT VERTICAL BRACINGS
3. FLOOR AND HEAD TRACK SHALL BE STAINLESS STEEL SAGE GAGE AS STUDS.
4. ALL MATERIALS SHALL BE GALVANIZED AND ALL SCREWS SHALL BE STAINLESS STEEL OR ZINC PLATED AND ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
5. LIGHT GATE HEADERS OVER DOOR AND WINDOW OPENINGS IN EXTERIOR WALLS SHALL BE COMPOSED OF MULTIPLE MEMBERS AS NOTED ON THE DRAWINGS. ALL WELDS SHALL BE INTERCONNECTED BY SCREWS OR WELDS BOTH SIDES TO MAKE MULTIPLE UNITS ACT AS A SINGLE MEMBER.
6. ALL CONNECTIONS SHALL BE SCREWED OR WELDED TOGETHER WITH SUFFICIENT WELDS OR SCREWS TO SAFELY SUPPORT THE LOADS IMPOSED BY THE TRACKS. ALL WELDS SHALL BE ACCOMPANIED WITH STANDARD ACCESSORY COMPONENTS SUPPLIED FOR THAT PURPOSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.
7. REFER TO ARCHITECTURAL DRAWINGS FOR MEMBER METAL STUD

LIGHT GAGE METAL FRAMING

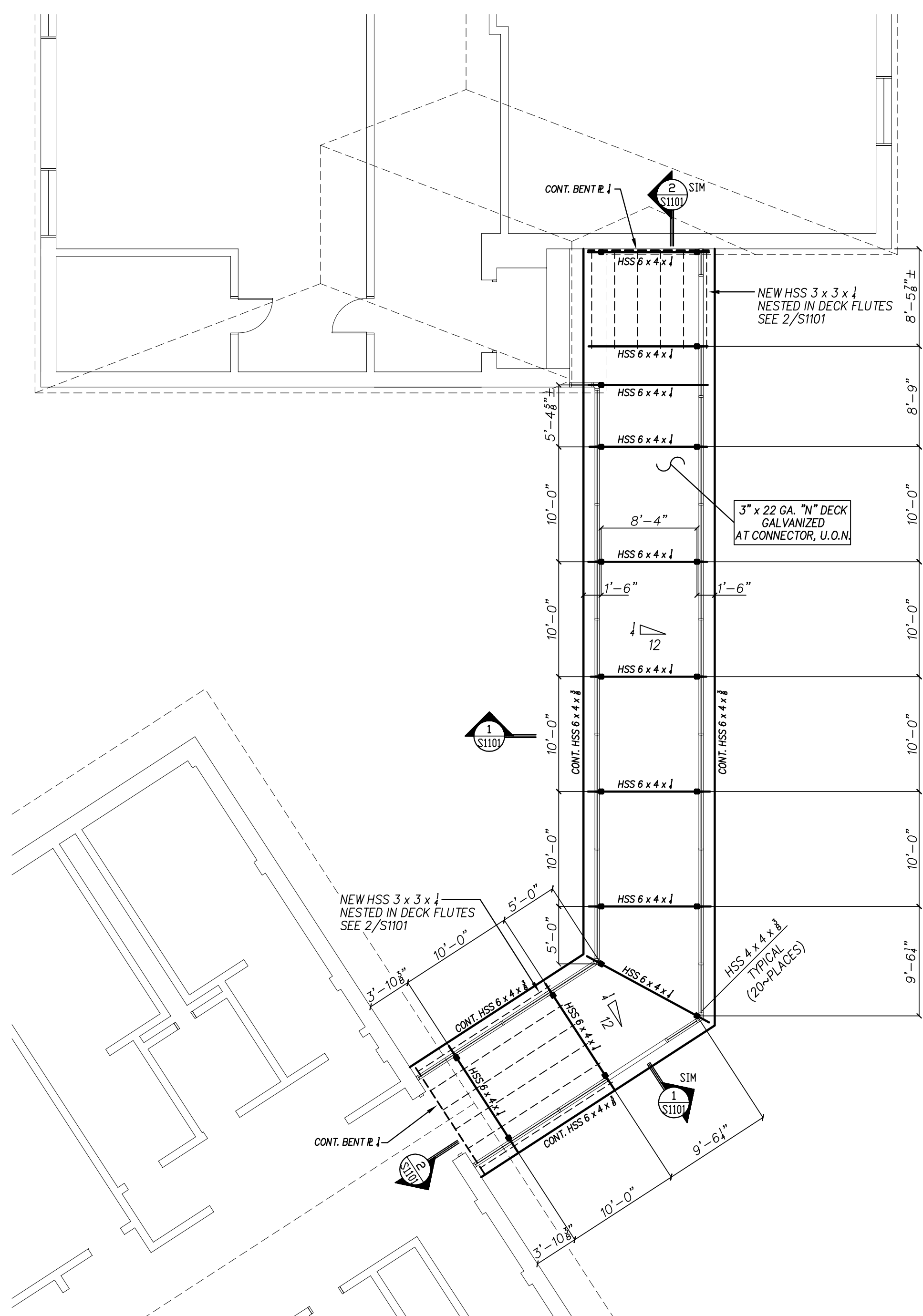
1. LOAD BEARING INTERIOR AND EXTERIOR WALL STUDS SHALL BE TYPE LSI 3.5 x 8 x 16 GAGE AS MANUFACTURED BY CLARK STEEL TRADING COMPANY APPROVED EDITION PLATE WITH 13% + 1/2" STIFFENING RETURN LIP).
2. NON-LOAD BEARING INTERIOR PARTITION WALL STUDS FOR ALL FLOORS SHALL BE TYPE LSI 3.5 x 8 x 16 GAGE AS MANUFACTURED BY CLARK STEEL TRADING SYSTEM OR APPROVED EQUIV. PLATE WITH 13% + 1/2" STIFFENING RETURN LIP).
3. ALL HEAD AND FLOOR TRACK FOR LOAD BEARING INTERIOR AND ALL EXTERIOR WALLS SHALL BE 16 GAGE DEEP TRACK. TRACK SHALL BE FURNISHED WITHOUT PUNCHOUTS.
4. ALL NON-LOAD BEARING INTERIOR PARTITION HEAD AND FLOOR TRACK SHALL BE 20 GAGE DEEP TRACK.
5. HORIZONTAL STRAP BRIDGING SHALL BE 16 GAGE 4" x 1/2".
6. DIAGONAL STRAP BRIDGING SHALL BE 16 GAGE 4" x 1".
7. ALL STUD MATERIAL SHALL BE PRE-PUNCHED WITH 1 1/2" x 4" WEB PUNCH OUTS SPACED ON 24" CENTERS WITH PUNCHOUTS A MINIMUM OF 12" FROM ENDS OF STUD.
8. ALL HEADER AND TRACK MATERIAL SHALL BE UNPUNCHED.
9. SPACING FOR EXTERIOR WALL STUDS AND INTERIOR LOAD BEARING WALL STUDS SHALL EXCEED 24" O.C.
10. SPACING OF INTERIOR NON-LOAD BEARING WALL STUDS SHALL NOT EXCEED 24" O.C.
11. HORIZONTAL STRAP BRIDGING SHALL BE SPACED AT THIRD POINTS OF EACH SPAN.
12. ALL EXTERIOR WALL STUDS SHALL BE 16 GAGE AS MANUFACTURED BY CLARK STEEL TRADING SYSTEM OR APPROVED EQUIV. PLATE WITH 13% + 1/2" STIFFENING RETURN LIP. STUDS SHALL BE PLACED ON BOTH FACES OF METAL STUDS. STUDS SHALL BE SCREWED TO TRACKS ON BOTH SIDES OF STUDS. STUDS SHALL BE INSTALLED PRIOR TO PLACING ANY LOADING ON THE STUD WALLS.
13. HORIZONTAL BRIDGING IS REQUIRED FOR ALL EXTERIOR WALLS AND ALL INTERIOR LOAD BEARING WALLS.
14. INTERIOR BRIDGING SHALL BE ATTACHED TO JAMBS OF WALL OPENINGS WITH 20 SCREWS PER JAMB.
15. EXTERIOR BRIDGING SHALL BE ATTACHED TO SCREW BRIDGES OF TRACK MATERIAL IN THE STUD SPACE AT EACH END OF EACH OPENING. BRIDGING SHALL BE ATTACHED TO STUDS WITH 20 SCREWS PER STUD.
16. BRIDGING SHALL BE INSTALLED IN A TIGHT CONDITION.
17. CUTTING INTERIOR AND ALL EXTERIOR WALL STUDS SHALL BE SAW CUT (NOT GAGE CUT) TO FIT SQUARELY AND EVENLY AGAINST THE TOP AND BOTTOM TRACK.
18. PROVIDE 22" x 10" x 5/8" HEX WASHED HEAD SCREWS EACH FLANGE OF STUD ATTACHED TO TOP AND BOTTOM TRACK.
19. INSTALL DIAGONAL STRAP BRACING N APPROXIMATELY 45 DEGREE PLANES IN ALL EXTERIOR STUD WALLS. PROVIDE SEPARATE BRACING LIP ATTACHED TO THE STUD TOP AND BOTTOM TRACKS.
20. LIFTING "Y" STRAP BRACING SHALL BE 4" x 8" GAGE STRAPPING. STRAPPING SHALL BE "X" ON EACH SIDE OF EXTERIOR WALLS FROM THE TOP CORNER TO THE BOTTOM CORNER OF THE WALL EXTERIOR OR INTERIOR OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
21. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
22. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
23. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
24. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
25. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
26. FASTEN STRAP BRACING TO DOUBLE STUDS AND TRACK AT EACH END OF EACH OPENING. PROVIDE MINIMUM DOUBLE STUD AT EACH EXTREME END OF WALLS FOR FASTENING STRAP BRACING.
27. STRAP BRACING SHALL BE INSTALLED IN A TIGHT CONDITION. LAP LENGTH SHALL BE 12".
28. PLATE SCREWS MINIMUM 1" APART AND MINIMUM 1/2" FROM EDGES.
29. HEADERS OVER OPENINGS IN LOAD BEARING STUD WALLS SHALL BE DOUBLE 9/16" x 16 GAGE PCS (15% PLATE WITH 1/2" STIFFENING RETURN LIP) OR 16 GAGE 4" x 1/2" x 16 GAGE 4" x 1/2" STUDS OR APPROVED EQUIV. WITH GAGE TRACK TOP AND BOTTOM UNLESS OTHERWISE NOTED.
30. ALL MATERIALS SHALL BE GALVANIZED. ALL SCREWS SHALL BE ZINC

METAL ROOF DECK

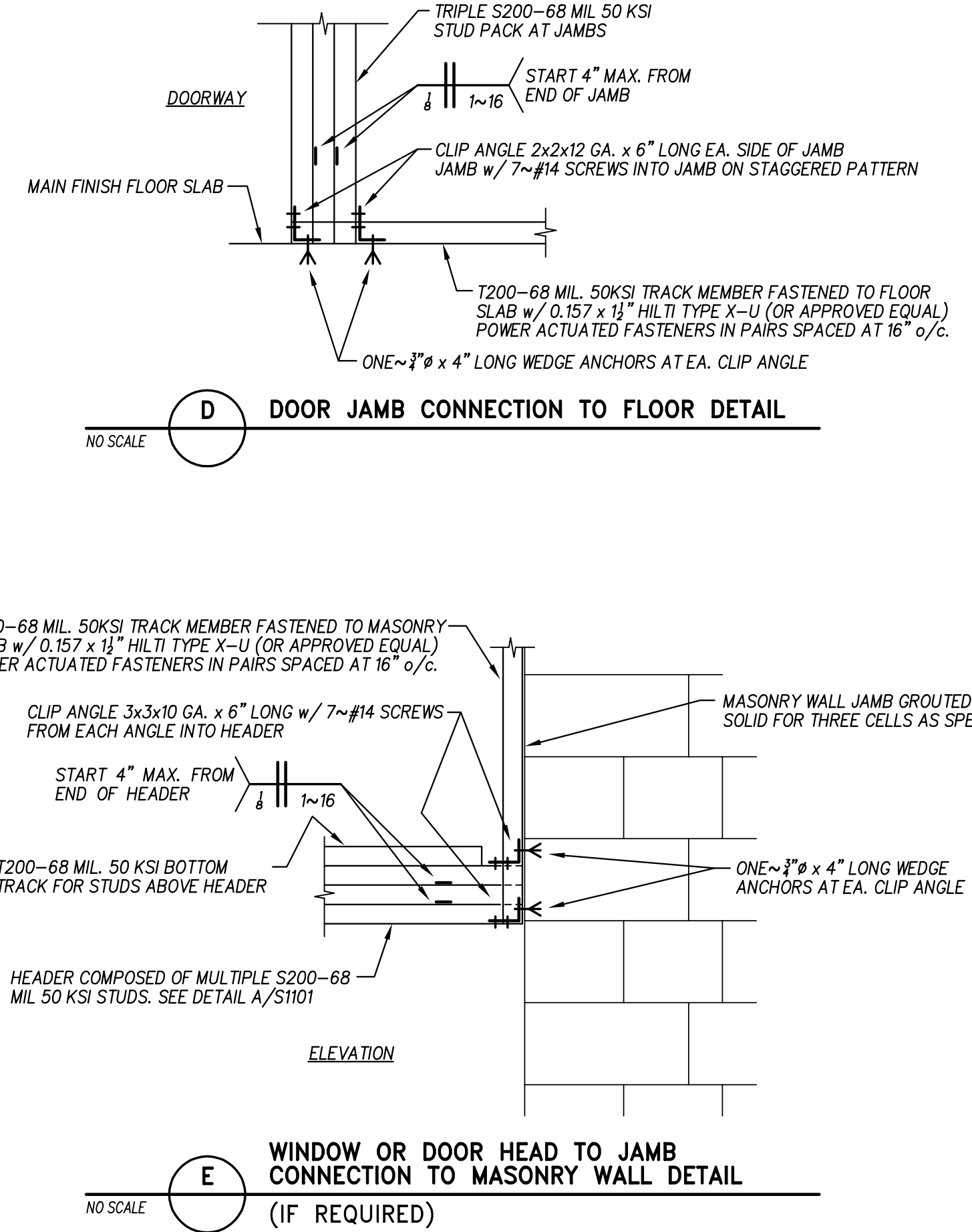
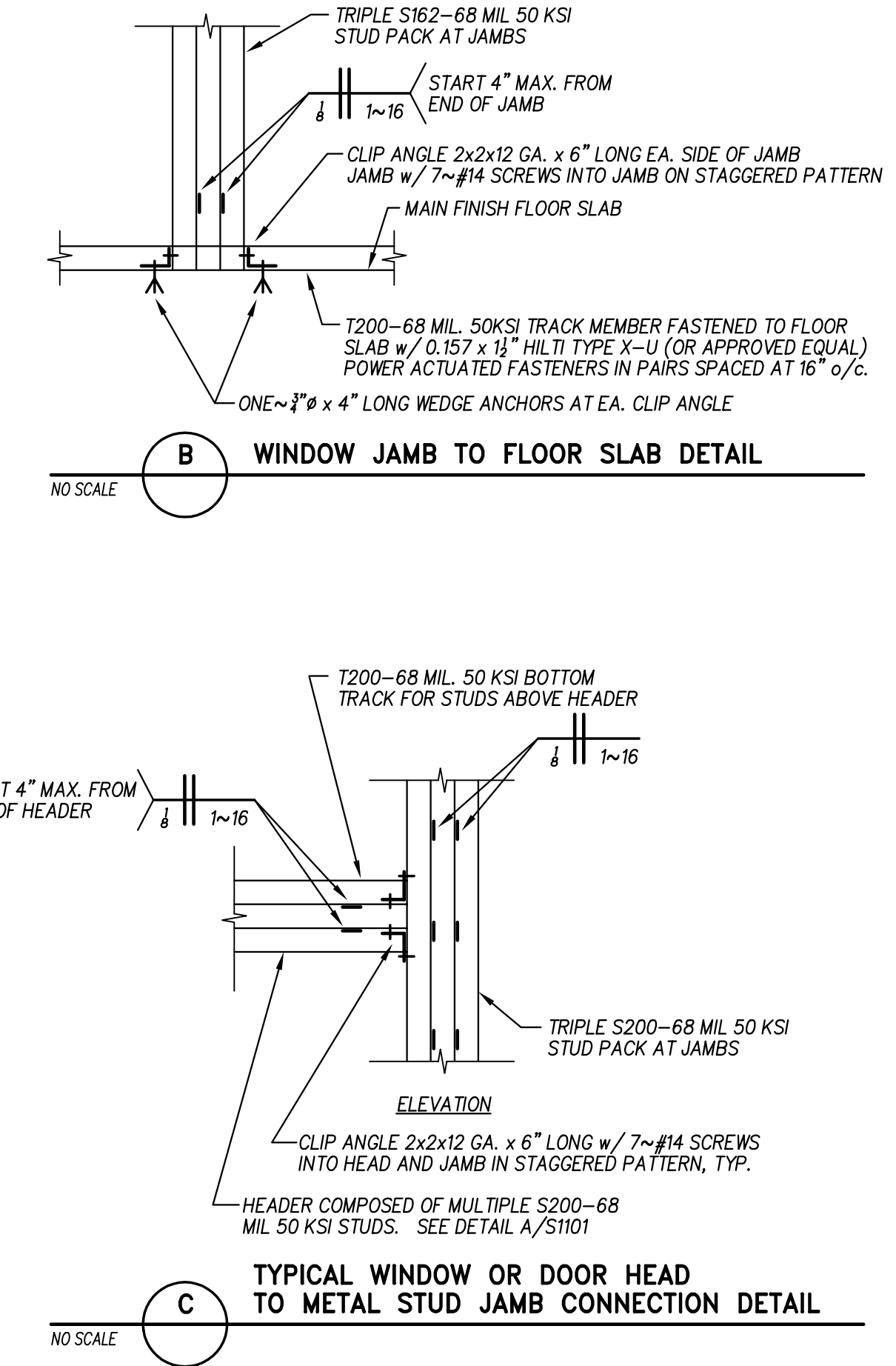
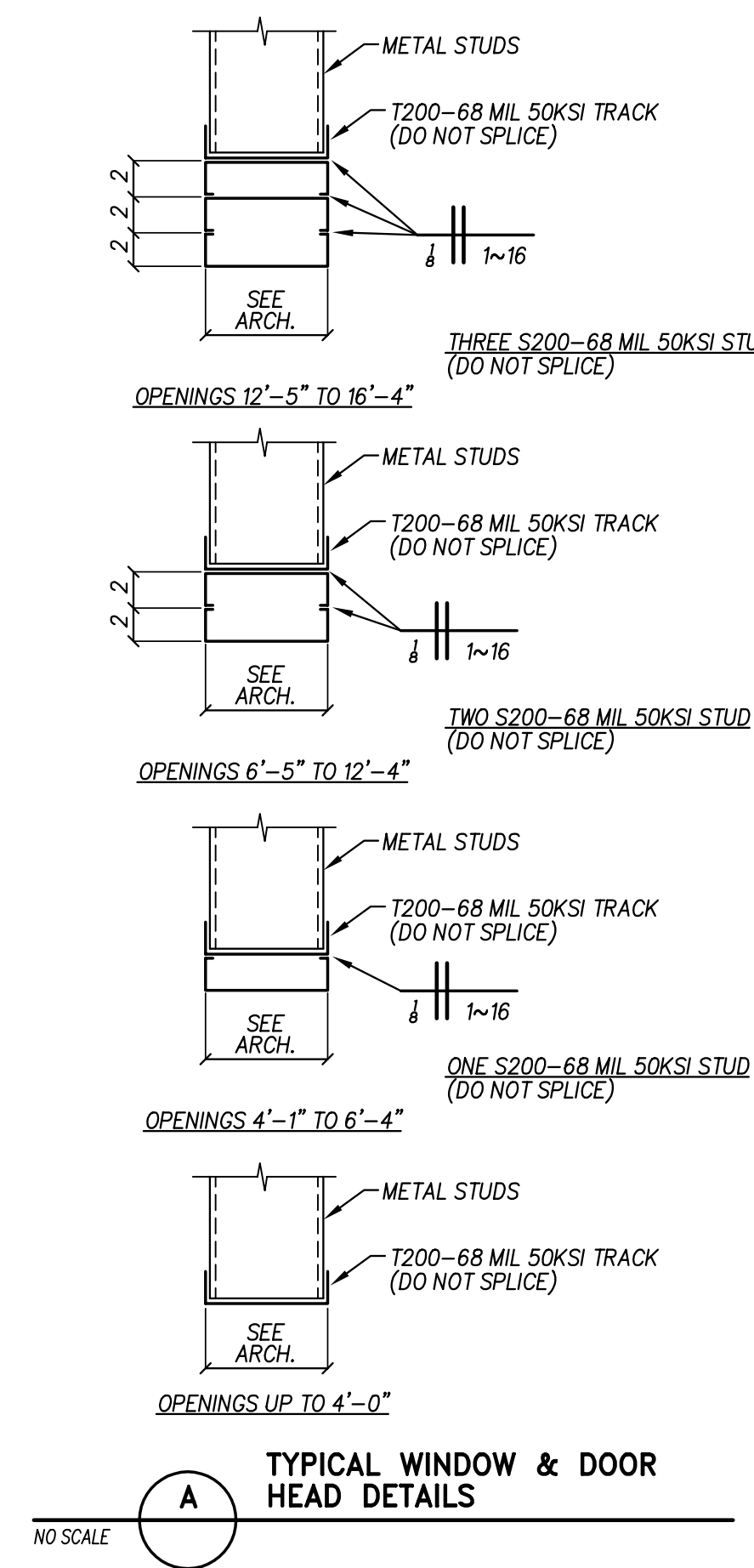
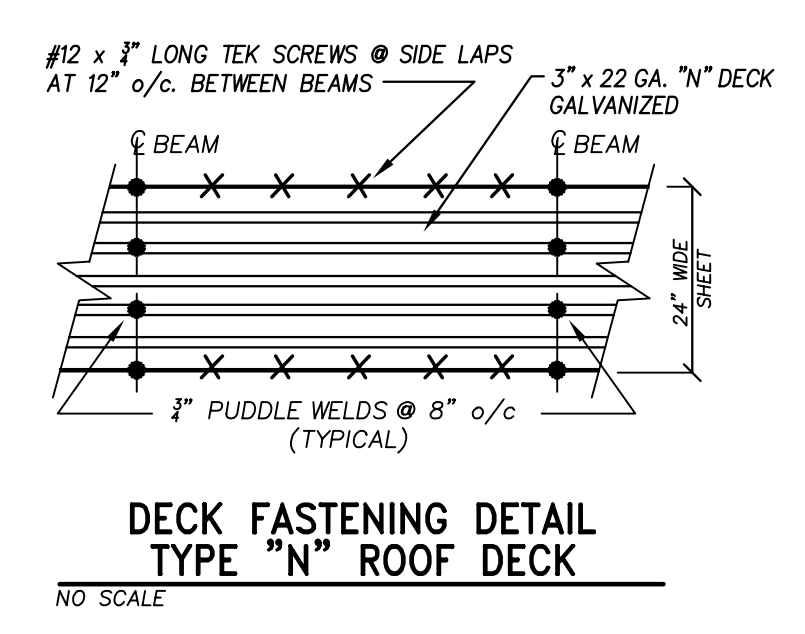
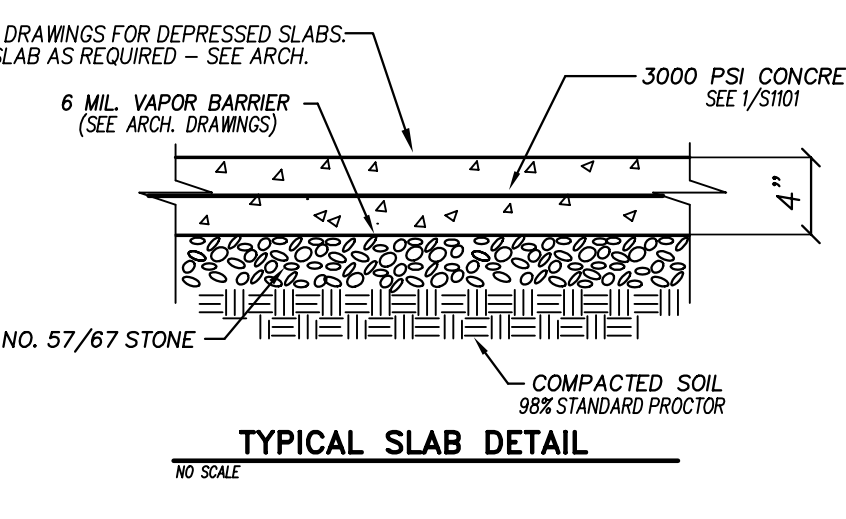
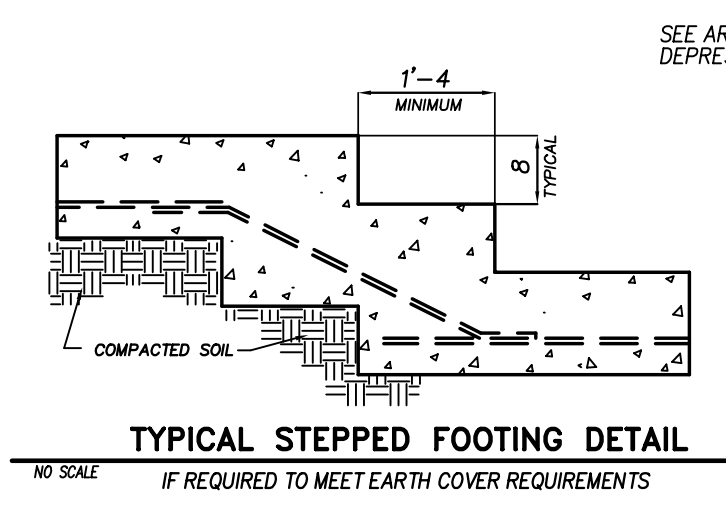
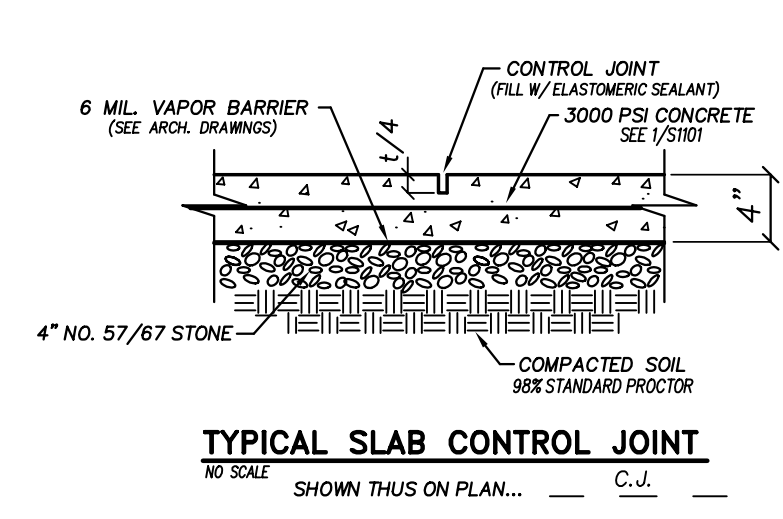
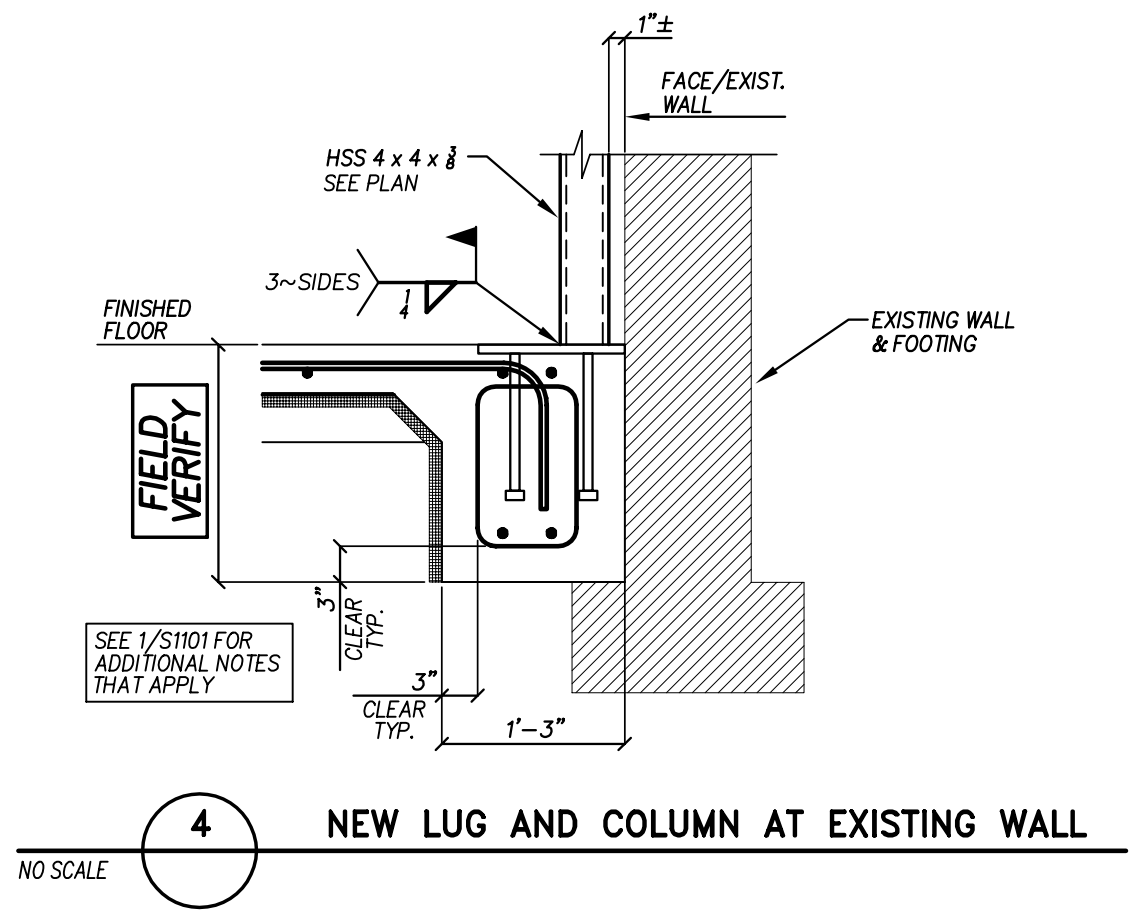
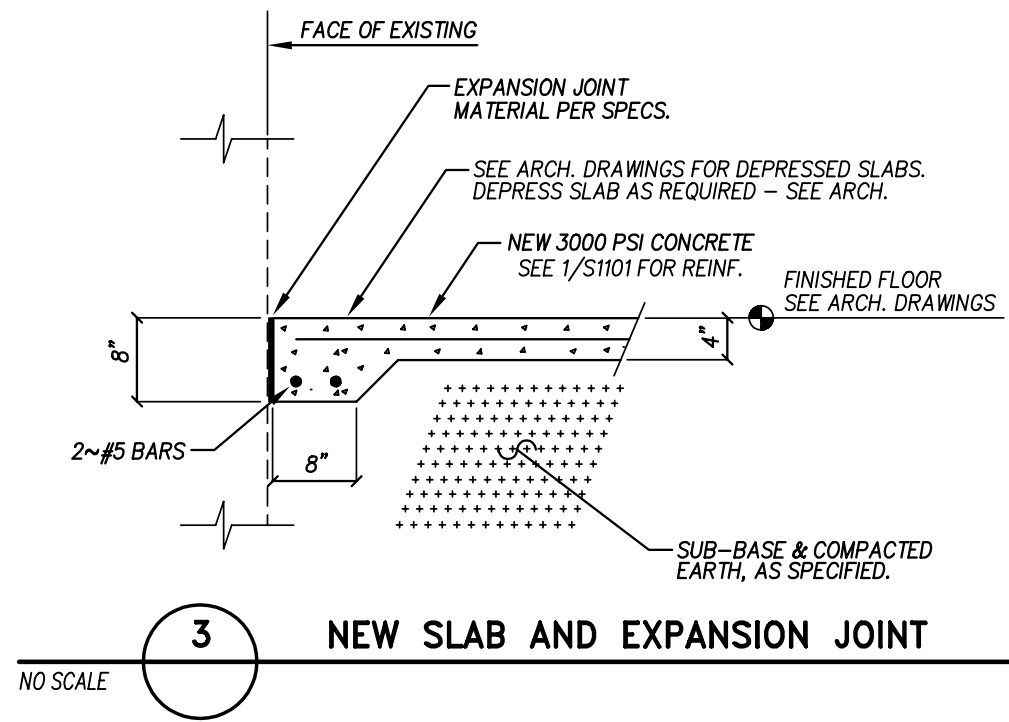
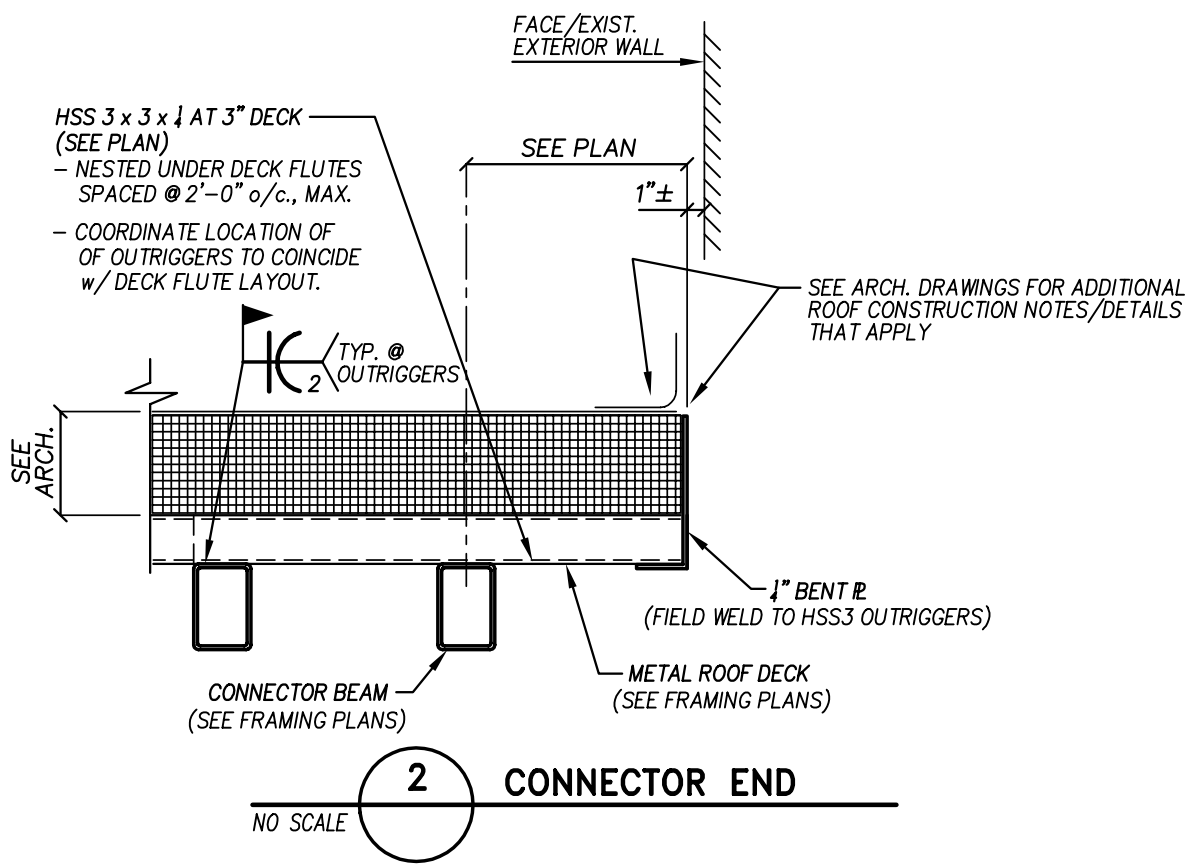
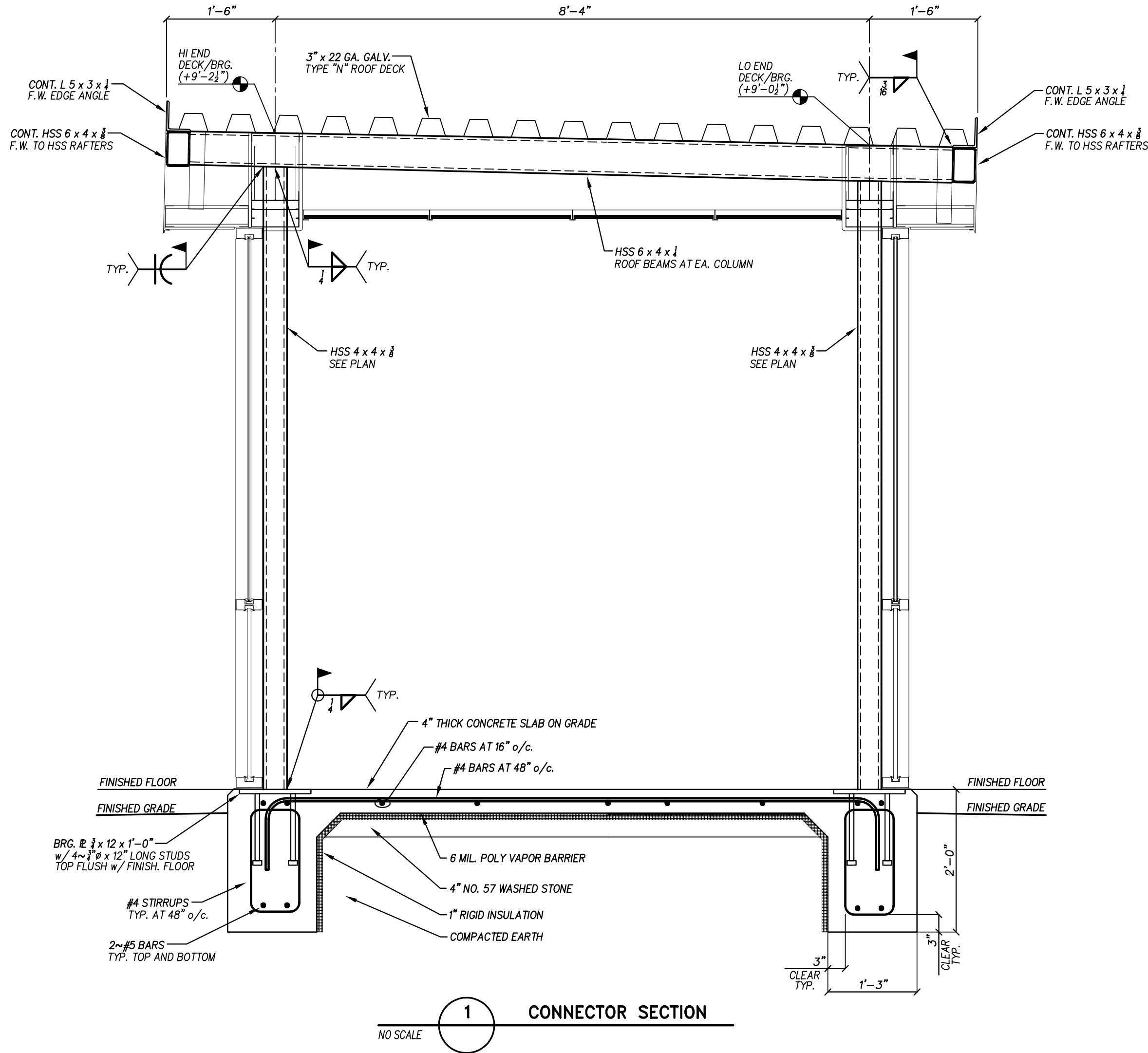
1. METAL ROOF DECK OVER STEEL JOISTS IN N/A/N BUILDING ROADS SHALL BE 1/2" DEEP, 22 GAUGE, W/ 18" SPACING.
2. METAL ROOF DECK OVER STEEL JOISTS AT EXPOSED ENDS OF THE CYM AREA SHALL BE 1/2" DEEP, 22 GA. WIDE RIBS.
3. METAL ROOF DECK OVER STEEL JOISTS WITH INSULATION FILLED FLUTES CONFORMING TO STEEL DECK INSTITUTE ISO STANDARDS.
4. METAL ROOF DECK OVER STEEL BEAMS AT CONNECTOR AND CANOPY ROADS SHALL BE 1/2" DEEP, 22 GA. W/ 18" SPACING.
5. METAL ROOF DECKING SHALL BE WELDED TO STEEL SUPPORTING MEMBERS WITH "N" DIMENSION PIGTAIL WELDS AT 30" ON C/A END LAYS AND 24" ON S/A END LAYS. 22 GA. SPACING SHALL BE DECREASED TO 18" WELDS AT 12" OVERLAP PERMITTER OF JOIST SPACING.
6. METAL ROOF DECKING SHALL BE MECHANICALLY FASTENED WITH 1/4" SELF DRILLING TSC SCREWS.
7. DECKING UNITS SHALL BE LAID OUT BY THE SUPPLIER TO A PATTERN THAT PROVIDES FOR A MINIMUM THREE SPAN CONDITION AND SHALL BE FASTENED TO THE SUBSTRATE.
8. DECK UNITS SHALL BE SECURELY FASTENED IN STRAIGHT LINES AND TO TRUE PLANES TO ACCEPT THE SPECIFIED ROOFING SYSTEMS. UNLESS OTHERWISE SPECIFIED, THE DECKING SHALL BE REPLACED AT NO ADDITIONAL COST IF SO DIRECTED BY THE ARCHITECT.
9. PROVIDE ALL NECESSARY ACCESSORIES, SUCH AS CONTINUOUS RIDGE, EAVE AND LEAKAGE AND EAVE RAKE, GLOSURE PLATES OF PROPER SIZE AND SHAPES TO PROVIDE A FIRST CLASS WEATHERTIGHT JOINT. MINIMUM 22 GA. METAL DECKING SHALL BE USED FOR ALL EAVE AND RAKE. SAME 22 GA. METAL AS DECK SHALL BE, FASTENED IN PLACE AT 6" O.C.
10. METAL DECKING SHALL BE INSPECTED, REJECTED OR REWORK SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST.
11. SUBMIT WELDS AND ABRASIONS WITH ZINC RICH PAINT.
12. TEND UP SHEET DRAWINGS FOR APPROVAL, PRIOR TO FABRICATION.

COMPOSITE STEEL FLOOR DECK

- COMPOSITE MATERIAL DECK FOR SUSPENDED FLOOR SLABS SHALL BE 3" MINIMUM THICK. GAVELING SHALL BE 1/2" MINIMUM THICK AND SHALL BE MANUFACTURED BY VULCANIT OR AN APPROVED EQUIV.
- DECK SHALL BE LAID OUT SO AS TO PROVIDE FOR SINGLE OR CONTINUOUS SPANS AS APPLICABLE.
3. TEMPORARY SHORING IS NOT REQUIRED FOR SPANS LESS THAN 10'-6". SPANS GREATER THAN 10'-6" WILL REQUIRE CONTINUOUS SHORING AT INTERMEDIATE SUPPORTS.
4. PROVIDE FOR MINIMUM 3" DECK BEARING AT SUPPORTS.
5. FASTEN DECK TO STEEL SUPPORTS WITH 3/8" DIAMETER PIVOT WELD EVERY OTHER FLUTE. FASTEN TO MASONRY SUPPORTS WITH POWER ACTUATED FASTENERS SPACED AT EVERY OTHER FLUTE.
6. WELD DECK FASTEN TO STEEL SUPPORTS PARALLEL TO DECK FLUTES AT 27" ON CENTER.
7. FASTEN DECK LAPS AT 24" ON CENTER WITH BUTTION PUNCHING OR 1/4" IN. TEX SCREWS.
8. MINIMIZE FRESH CONCRETE LEAKAGE AT DECK LAPS. PLACE CONCRETE IN PLACEMENT SEQUENCE SO THAT THE WEIGHT OF THE FRESH CONCRETE IS PLACED ON THE TOP MOST SHEET OF DECK FIRST.
9. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.


$$f' = f - 0$$

- 1) METAL ROOF DECK IS 3" x 22 GA TYPE "N" GALVANIZED M.R.D., TYP. U.O.N. FOR ATTACHMENT. SEE TYPICAL M.R.D. FASTENING DETAIL ON S101.
- 2) ELEV NOTED(+)) ARE ABOVE REFERENCED FINISHED FLOOR.
- 3) NO FABRICATION OR ERECTION SHALL COMMENCE PRIOR TO THE APPROVAL OF ALL STRUCTURAL STEEL SHOP DRAWINGS BY THE ENGINEER OF RECORD.
- 4) COORDINATE AND VERIFY ALL DECK EDGE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS.



CONNECTION SCHEDULE	
CONNECTION	TYPE
BOTTOM TRACK TO FLOOR	2 ~ POWDER DRIVEN FASTENERS @ 24" o/c
STUD TO BOTTOM TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
STUD TO TOP TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
PLYWOOD TO STUDS	SCREW @ 6" o/c ALONG EA. STUD
TOP PL. TO TRACK	#10 TEK AT 12" o/c
FC TO STUD	4 ~ #10 TEK
FC TO SLAB	1/8" EXP. ANCH.
JOIST TO TOP TRACK (BEARING)	(2) SCREWS IN FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
TREAD TO VERTICAL STUD	(4) #10 TEK SCREWS IN WEB
WOOD SHEATHING	8d, 12" o/c AT SUPPORTS, 6" o/c. AT EDGES
HEADER TO HEADER	#10 TEK AT 12" o/c. STAGGERED (WEB TO WEB)
HEADER TO CRIPPLE	SA18 GA. w/ 4#8 TEK PER LEG
CRIPPLE TO LOWER TRACK	2 ~ #8 TEK EA. FL.
HEADER TO BEARING STUD	SA 18 GA. w/ 4 ~ #8 TEK PER LEG
BEARING STUD TO CRC BRACE	BRIDGE CLIP
BEARING STUD TO BRIDGE CLIP	4 ~ #10 TEK
BRIDGE CLIP TO CRC	4 ~ #10 TEK
STUD TO WALL	2 SCREWS IN EA. WEB @ 16" o/c
JOIST TO JOIST INTERFACE	ONE SCREW IN EA. FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS

- METAL STUD GENERAL NOTES**
- ALL METAL STUD MATERIAL SHALL BE MANUFACTURED BY DIETRICH INDUSTRIES OR APPROVED EQUAL.
 - CONTRACTOR SHALL INSTALL ALL COMPONENTS IN STRICT COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS PRIOR TO CONSTRUCTION.
 - ALL METAL STUD MEMBERS SHALL HAVE $F_y = 33$ KSI, MINIMUM.

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QED

QUEEN ENGINEERING & DESIGN

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GREENVILLE, NC 27858

PHONE 252-757-0333

10/27/25

New Connector for

Micro Elementary School

Johnston County Schools

301 E Main St / North Carolina 27555

Project No.

22423

Date:

XX XXX XXXX

Drawing no.

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QUALITY ASSURANCE WIND AND SEISMIC SUBMITTALS

- 1) ALL TEST REPORTS FOR ALL STRUCTURAL STEEL MATERIAL SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
- 2) ALL TEST REPORTS FOR ALL METAL DECK AND STRUCTURAL MEMBERS OF ALL PANELS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS FOR APPROVAL.
- 3) ALL METAL ROOF SHEET SHALL BE ROLL FORMED IN A STEEL DECK INSTITUTE (ISO) CERTIFIED SHOP.
- 4) ALL WELDING JOINTS FOR ALL BOLTS AND STRUT STUDS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
- 5) ALL FIELD WELDING SHALL BE PERFORMED BY WELDING PERSONNEL HOLDING CURRENT CERTIFICATION BY AWS FOR THE TYPES OF WELDING REQUIRED. THE WELDING JOINTS AND WELDING LAYERS SHALL BE EXAMINED AND APPROVED BY THE TESTING AGENCY.
- 6) TEST REPORTS FOR ALL CONCRETE MASONRY UNITS SHALL BE SUBMITTED PRIOR TO CONSTRUCTION.
- 7) TEST REPORTS FOR ALL MORTARS AND GROUTS SHALL BE SUBMITTED PRIOR TO CONSTRUCTION.
- 8) ALL TEST REPORTS FOR ALL REINFORCING STEEL SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
- 9) TEST REPORTS FOR ALL CONCRETE SHALL BE SUBMITTED PRIOR TO CONSTRUCTION.

CONSTRUCTION SAFETY

1. THESE DRAWINGS DO NOT CONTAIN THE REQUIREMENTS FOR JOB SAFETY. ALL PROVISIONS FOR SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

ITEM	OBSERVATION FREQUENCY	REFERENCE STANDARD	WIND OR SEISMIC
STEEL			
BOLTING			
ID MARKING	PERIODIC	AISC 360	WIND AND SEISMIC
MILL CERTS	PERIODIC		WIND AND SEISMIC
SWIG TIGHT	PERIODIC	AISC 360	WIND AND SEISMIC
CALIBRATED TURN OF NUT	PERIODIC	AISC 360	WIND AND SEISMIC
UNCALIBRATED TURN OF NUT	NOT PERMITTED		WIND AND SEISMIC
ERECTOR			
PIECE ID MARKS	PERIODIC	AISC 360	WIND AND SEISMIC
OTHER STEEL ID MARKS	PERIODIC	ASTM	WIND AND SEISMIC
MILL CERTS	PERIODIC		WIND AND SEISMIC
FRAME BRACING	PERIODIC		WIND AND SEISMIC
MEMBER LOCATIONS	PERIODIC		WIND AND SEISMIC
JOINT DETAILS AT EACH CONNECTION	PERIODIC		WIND AND SEISMIC
WELDFMENTS			
WELDFILLER ID MARKINGS	PERIODIC	AWS	WIND AND SEISMIC
MANUFACTURER'S CERTIFICATION	PERIODIC		WIND AND SEISMIC
MULTIPASS FILLET	CONTINUOUS	AWS	WIND AND SEISMIC
SINGLE PASS FILLET $\geq \frac{1}{2}$	CONTINUOUS	AWS	WIND AND SEISMIC
SINGLE PASS FILLET ($< \frac{1}{2}$)	PERIODIC	AWS	WIND AND SEISMIC
FLOOR AND ROOF DECK WELDS AND SCREWS	PERIODIC	AWS	WIND AND SEISMIC
MASONRY			
MATERIALS			
VERIFY f_m	PERIODIC	TMS 602	WIND AND SEISMIC
VERIFY f_{moe}	PERIODIC	TMS 602	WIND AND SEISMIC
PROPORTIONS OF MATERIALS			
MORTAR	PERIODIC	TMS 602	WIND AND SEISMIC
GROUT	PERIODIC	TMS 602	WIND AND SEISMIC
SLOMP OF GROUT	PERIODIC	TMS 602	WIND AND SEISMIC
PLACEMENT OF			
MASONRY UNITS	PERIODIC	TMS 602	WIND AND SEISMIC
MORTAR JOINTS	PERIODIC	TMS 602	WIND AND SEISMIC
REINFORCEMENT	PERIODIC	TMS 602	WIND AND SEISMIC
VERIFY GROUT SPACE PRIOR TO GROUT	CONTINUOUS	TMS 602	WIND AND SEISMIC
PLACEMENT OF GROUT	CONTINUOUS	TMS 602	WIND AND SEISMIC
SIZE OF MASONRY UNITS	PERIODIC	TMS 602	WIND AND SEISMIC
LOCATIONS OF MASONRY UNITS	PERIODIC	TMS 602	WIND AND SEISMIC
PREPARE GROUT PRISMS	CONTINUOUS	TMS 602	WIND AND SEISMIC
GRADE AND TYPE OF ANCHORS	CONTINUOUS	TMS 602	WIND AND SEISMIC
SIZE OF ANCHORS	CONTINUOUS	TMS 602	WIND AND SEISMIC
CONTINUOUS OF ANCHORS	CONTINUOUS	TMS 602	WIND AND SEISMIC
GRADE AND TYPE OF REINFORCEMENT	PERIODIC		WIND AND SEISMIC
SIZE OF REINFORCEMENT	PERIODIC		WIND AND SEISMIC
LOADING OF REINFORCEMENT	NOT PERMITTED		WIND AND SEISMIC
VERIFY VERTICAL REINFORCEMENT	CONTINUOUS		WIND AND SEISMIC
VERIFY CONNECTION TO FOUNDATION	CONTINUOUS		WIND AND SEISMIC
COLD WEATHER PROCEDURES ($< 40^{\circ} F$)	PERIODIC	TMS 602	WIND AND SEISMIC
HOT WEATHER PROCEDURES ($> 90^{\circ} F$)	PERIODIC	TMS 602	WIND AND SEISMIC
SEISMIC			
DESIGNATED SEISMIC SYSTEMS			
EXTERIOR WALL PANELS AND ANCHORAGE*	PERIODIC		SEISMIC
SUSPENDED CEILINGS SYSTEMS AND ANCHORAGE*	PERIODIC		SEISMIC
ANCHORAGE OF EMERGENCY ELECTRICAL EQUIPMENT*	PERIODIC		SEISMIC
SPRINKLER PIPE CONNECTIONS*	PERIODIC		SEISMIC
DUCTWORK SUPPORTS*	PERIODIC		SEISMIC
MECHANICAL EQUIPMENT SUPPORTS*	PERIODIC		SEISMIC
*VERIFY THAT THE LABEL, ANCHORAGE, OR MOUNTING CONFORMS TO THE MANUFACTURER'S CERTIFICATE OF COMPLIANCE.			

1. INSPECTION OF REINFORCING STEEL, AND PLACEMENT.	PERIODIC	ACI 318: 3.5, 7.1-7.7
2. REINFORCING STEEL WELDING.	NOT PERMITTED	AWG D14, ACI 318: 3.5.2
3. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.	CONTINUOUS	ACI 318: 8.1.3, 21.2.8
4. INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE.	PERIODIC	ACI 318: 3.8.6, 8.1.3, 21.2.8
5. VERIFYING USE OF REQUIRED DESIGN MIX.	PERIODIC	ACI 318: CH.4, 5.2-5.4
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE APPLICATION.	CONTINUOUS	ASTM C 172 ASTM C 311 ACI 318: 5.6, 5.8
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS	ACI 318: 5.9, 5, 10
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	ACI 318: 5.11-5.13
9. N/A		
10. N/A		
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC	ACI 318: 6.2
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND	PERIODIC	ACI 318: 6.1.1

1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.

SPRAYED FIRE-RESISTANT MATERIALS

1. VERIFY SURFACE PREPARATION (NO PAINT) ADEQUATE FOR SPRAY-ON FIRE PROOFING.
2. VERIFY DEPTH AND EXTENT OF SPRAY-ON FIRE PROOFING

[illegible]

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NORTH CAROLINA
REGISTERED
SEAL
189971

ENGINEER
BRUCE L. QUEEN

10 27 25

Micro Elementary School
New Connector for
Johnston County Schools
301 E Main St / North Carolina 27555

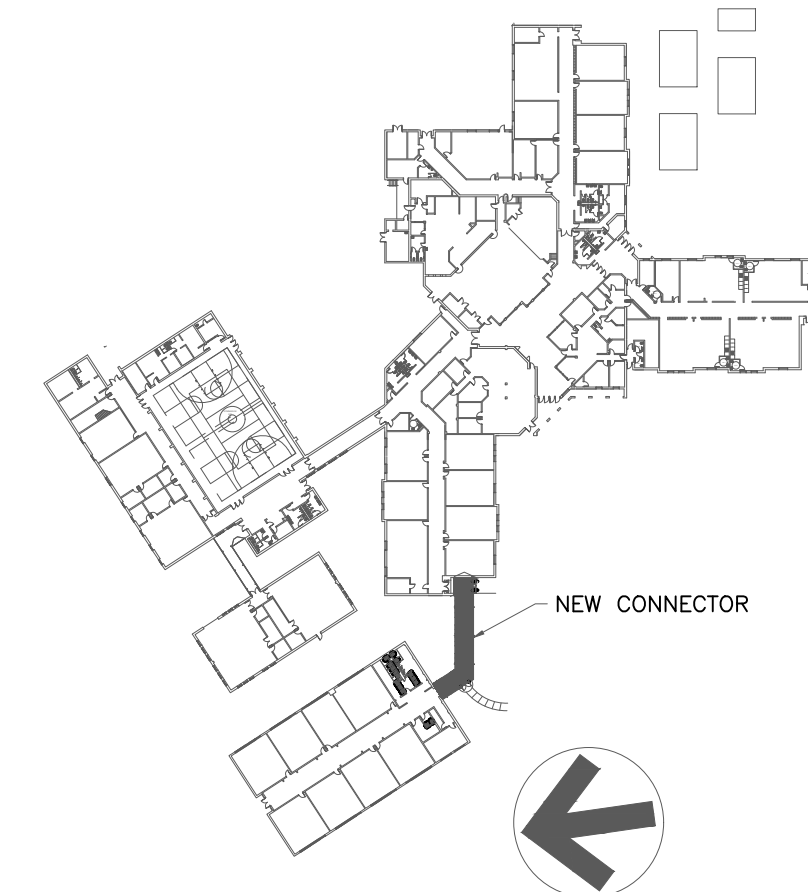
Project No. 22423

Date: 23 JAN 2025

Drawing no.

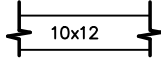
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101.1 KEYPLAN
SCALE: N.T.S

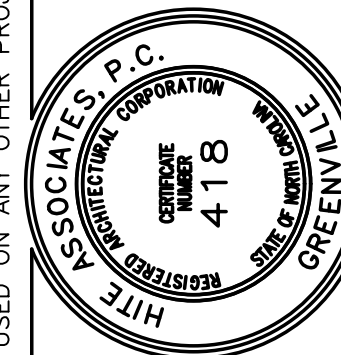
HVAC SYMBOL LEGEND

	DUCT, HORIZ x VERT INSIDE CLEAR		CHILLED WATER SUPPLY PIPING
	DUCT, INSULATED ROUND		CHILLED WATER RETURN PIPING
	DUCT BELOW UTILITY PLATFORM		HOT WATER RETURN PIPING
	SUPPLY DUCT SECTION, POSITIVE PRESSURE		HOT WATER SUPPLY PIPING
	RETURN DUCT SECTION, NEGATIVE PRESSURE		CHILLED WATER SUPPLY PIPING, GLYCOL
	THERMOSTAT		CHILLED WATER RETURN PIPING, GLYCOL
	TEMPERATURE SENSOR		ICE WATER RETURN PIPING
	HUMIDISTAT		ICE WATER SUPPLY PIPING
	DUCT SMOKE DETECTOR		UNDERGROUND PIPING AS SPECIFIED
	DUCT MOUNTED CO ₂		TEMPERATURE GAUGE AS SPECIFIED
	FLEXIBLE CONNECTION		PRESSURE GAUGE AS SPECIFIED
	FLEXIBLE DUCT		ELBOW, TURNED UP
	TURNING VANES (DOUBLE THICKNESS)		ELBOW, TURNED DOWN
	EXHAUST FAN		TEE CONNECTION, BOTTOM
	ROOF VENTILATOR, EXHAUST		TEE CONNECTION, TOP
	ZONE CONTROL DAMPER AS SPECIFIED		BALL VALVE AS SPECIFIED
	MANUAL VOLUME DAMPER		CHECK, SWING GATE VALVE
	SPLITTER DAMPER		CONTROL VALVE, ELECTRONIC/ELECTRIC
	FIRE DAMPER		TRIPLE DUTY VALVE
	SMOKE DAMPER		STRAINER AS SPECIFIED
	CONDENSATE PIPING		COMB. VALVE/STRAINER w/ P-T PORTS
	GAS PIPING AS SPECIFIED		FLOW CONTROL VALVE w/ P-T PORTS
	LP GAS PIPING AS SPECIFIED		BUTTERFLY VALVE
	REFRIGERATION PIPING AS SPECIFIED		UNION, FLANGED
	PRESSURE REDUCING VALVE, 1st STAGE		FLOW SWITCH
	PRESSURE REDUCING VALVE, 2nd STAGE		MANUAL AIR VENT
	PUMP OR CIRCULATOR AS SCHEDULED		AIR/SEDIMENT SEPARATOR
	CONTROL SWITCH AS SCHEDULED		TEMPERATURE WELL
	EMERGENCY MUSHROOM HEAD EXHAUST SWITCH		CONTROL DAMPER
	MOTOR STARTER		

ABBREVIATIONS:

OC	GENERAL CONTRACTOR	AI	ANALOG INPUT	MA	MIXED AIR	AF1	ABOVE FINISH FLOOR
PC	PLUMBING CONTRACTOR	AO	ANALOG OUTPUT	OA	OUTSIDE AIR	AF2	ABOVE FINISH GRADE
MC	MECHANICAL CONTRACTOR	DI	DIGITAL INPUT	OD	OUTSIDE GRADE DAMPER	AW	WALKS OTHERWISE NOTED
EC	ELECTRICAL CONTRACTOR	DO	DIGITAL OUTPUT	RA	RETURN AIR	NO	NORMALLY OPEN
AD	ACCESS DOOR	BI	BINARY INPUT	SA	SUPPLY AIR	NC	NORMALLY CLOSED
H-D-A	HAND-OFF-AUTO	BO	BINARY OUTPUT	FD	FIRE DAMPER	P-T	PRESSURE-TEMPERATURE

NOTE: LEGEND IS FOR REFERENCE ONLY - SYMBOLS/ABBREVIATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT.
SEE ALSO SHEET T-1.

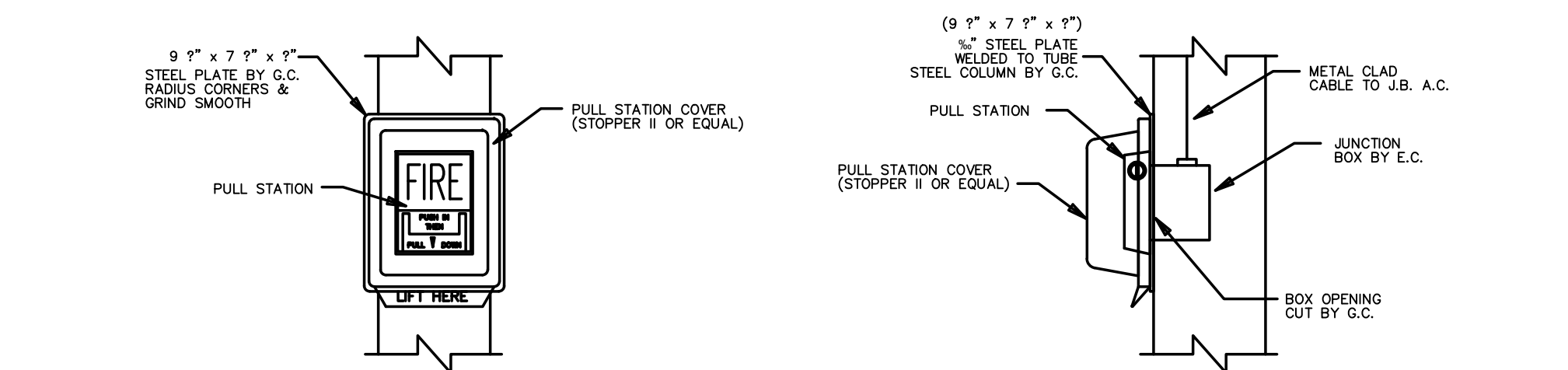


New Connector for
Micro Elementary School
Johnston County Schools
301 E Main St / Micro / North Carolina 27555

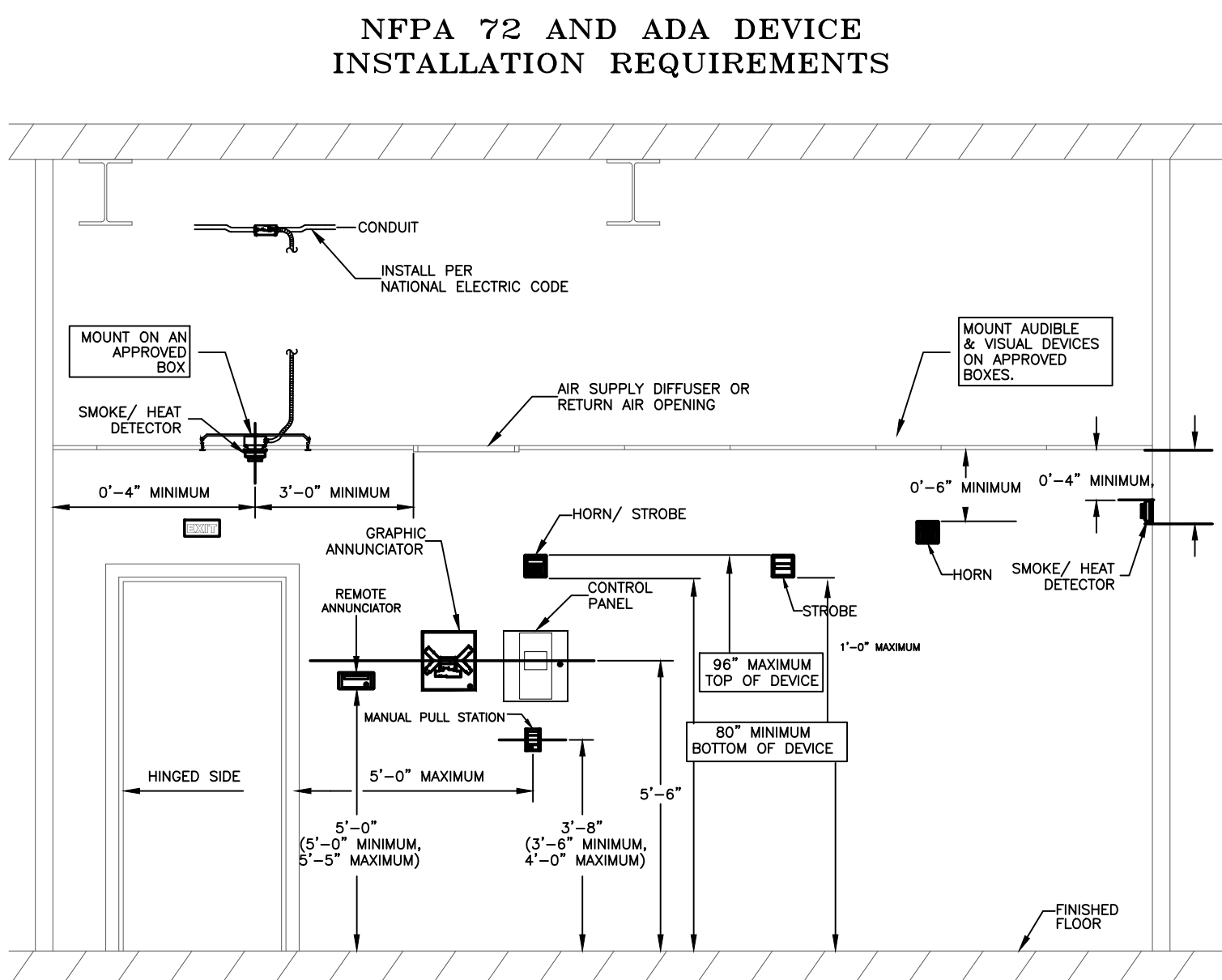
ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	DUPLEX CONVENIENCE-OUTLETS FOR GENERAL USE SHALL BE RATED 20 AMPERES, 125 VOLTS, DUPLEX, FOR STANDARD PARALLEL BLADE THREE-WIRE GROUNDING TYPE CAPS, HUBBELL NO. 5362 (BROWN) OR 5362-1 (VIOLET), OR EQUAL.
	QUADRUPLEX OUTLET AS SPECIFIED
	240V OUTLET – AMPERAGE PER CIRCUIT BREAKER FED FROM
	DUPLEX OUTLET – GFI AS SPECIFIED
	DUPLEX OUTLET – GFI – EXTERIOR WATERPROOF AS SPECIFIED
	DUPLEX OUTLET – INSTALL HORIZONTALLY
	TAMPER PROOF DUPLEX OUTLET EQUAL TO HUBBELL No. S062
	DUPLEX w/ TRANSIENT VOLTAGE SURGE SUPPRESSION w/ LIGHT (NEMA 5-15), EQUAL TO HUBBELL No. 5260
	NEMA 5-20R ISOLATED GROUND RECEPTACLE
	WATERTIGHT TWISTLOCK RECEPTACLE IN KITCHEN UTILITY DISTRIBUTION WALL
	DUAL COMPARTMENT ALUMINUM RACEWAY SYSTEM, WIREMOLD No. AL4800 w/ TWIN COVER; COLOR SELECTED BY ARCHITECT (SEE PLANS FOR RECEPTACLE & DATA OUTLET QUANTITIES & LOCATIONS)
	RECEPTACLES MOUNTED IN STEEL CITY GAS SERIES AFM PRE SET FLOOR BOX. EACH BOX CONTAINS (6) DUPLEX RECEPTS (TYPICAL). SECURE SQUARE OF CARPET TO MATCH IN LID OF BOX. (BY ELECT. CONTR., TYP)
	DATA OUTLETS MOUNTED IN STEEL CITY GAS SERIES AFM PRE SET FLOOR BOX. EACH BOX CONTAINS (4) DUAL DATA OUTLETS (TYPICAL). ROUTE (2) 1" C FROM EACH BOX BACK TO MDF ROOM. SECURE SQUARE OF CARPET TO MATCH IN LID OF BOX. (BY ELECT. CONTR., TYP)
	FIRE ALARM INITIATING DEVICES; SEE LEGEND SHEET E-004
	FIRE ALARM NOTIFICATION DEVICES; SEE LEGEND SHEET E-004
	VOICE/DATA DEVICES, SEE ICS LEGEND SHEET C-101. E.C. RESPONSIBLE FOR ROUGH-IN AS INDICATED ON ELECTRICAL DRAWINGS
	SECURITY DEVICES; SEE LEGEND THESE DWGS. E.C. RESPONSIBLE FOR ROUGH-IN AS INDICATED ON ELECTRICAL DRAWINGS
	SINGLE POLE SWITCH – 48" A.F.F. U.O.N., 20 AMP, 120/277 VOLT, SPECIFICATION GRADE
	3 OR 4-WAY SWITCH – 48" A.F.F. U.O.N., SPECIFICATION GRADE, SEE SPECIFICATION SECTION 16140
	KEY-OPERATED SWITCH – 48" A.F.F. U.O.N.
	DIMMER SWITCH RATED FOR LOAD – 48" A.F.F., LUTRON No. MAR OR APPROVED EQUAL
	DOUBLE POLE SINGLE THROW SWITCH – 48" A.F.F.
	MASTER / SATELLITE OR SPLIT BALLAST WIRING – SEE DETAILS THESE DRAWINGS
	ELECTRONIC LIGHTING CONTROLLER AS SPECIFIED
	MOTOR STARTER SWITCH w/ PILOT LIGHT, HUBBELL No. HBL3031PL OR EQUAL BY SQUARE D
	VERTICAL J-BOX FOR THERMOSTATS & SENSORS – 54" AFF U.O.N 9" E.C. TO UTILITY PLATFORM; COORDINATE w/ M.C.
	FUSED EQUIPMENT DISCONNECT U.O.N. – SEE SPECIFICATION SECTION 16400
	COMBINATION MOTOR STARTER DISCONNECT
	COMBINATION START/STOP BUTTON MOTOR STARTER– SQUARE D No. MBG2 FOR WELDING (EF-60) & SQUARE D No. MCG3 FOR CARPENTRY (EF-60)
	EMERGENCY STOP BUTTON – STI No. 040 OR APPROVED EQUAL WITH STOPPER II WARNING ALARM COVER, INDICATOR LIGHT, KEY RESET, YELLOW COLOR, & "EMERGENCY" GRAPHIC MESSAGE
	JUNCTION BOX, FLUSH MOUNTED IN ALL FINISHED SPACES
	ELECTRICAL PANEL AS SPECIFIED – SEE SPECIFICATION SECTION 16400
	GROUNDING ELECTRODE CONDUCTOR INSTALLED IN ACCORDANCE WITH 1999 NEC ARTICLES 250-26 &/or 250-81
	REFER TO KEY NOTE No. 2
	CEILING MOUNT SPEAKER BY TECHNOLOGY CONTRACTOR UNDER DIVISION 17
	RECESSED WALL MOUNT SPEAKER BY TECHNOLOGY CONTRACTOR, FURNISH & INSTALL BACKBOX & RACEWAY TO UTILITY PLATFORM
	CEILING MOUNTED SPACE OCCUPANCY SENSOR FOR LIGHTING CONTROL (SEE OC SENSOR LEGEND FOR TYPE DESCRIPTIONS.)
	WALL MOUNTED SPACE OCCUPANCY SENSOR FOR LIGHTING CONTROL (SEE OC SENSOR LEGEND FOR TYPE DESCRIPTIONS.)
	EMERGENCY LIGHTS AS SPECIFIED – SEE LIGHT FIXTURE SCHEDULE
	FUTURE CCTV CAMERA BY OWNER UNDER SEPARATE CONTRACT – PROVIDE 1" C FROM BELOW UTILITY PLATFORM TO CABLE MANAGEMENT HOOK ABOVE; CABLE UNDER DIVISION 17
	VIDEO STUDIO CAMERA BY OWNER
	EXIT SIGN w/ DIRECTIONAL ARROW(S) & BATTERY BACK-UP – SEE LIGHT FIXTURE SCHEDULE
	EXIT SIGN w/ BATTERY BACK-UP & EM LIGHTS – SEE LIGHT FIXTURE SCHEDULE
	DRY-TYPE TRANSFORMER AS SPECIFIED – SEE RISER DIAGRAMS, INSTALLATION DETAILS, & SPECIFICATION SECTION 16460
	SLEEVE ROUGH-INS UNDER PAVING/CONCRETE; 3" FOR FUTURE USE, & 2" FOR SITE LIGHTING BY CP&L
	UNDERGROUND PRIMARY ELECTRICAL FEEDERS BY ELECTRICAL UTILITY
	UNDERGROUND SECONDARY ELECTRICAL FEEDERS BY ELECTRICAL CONTRACTOR
	TO FUTURE GROUND MOUNTED SATELLITE BY OTHERS
	BLENDER-TONGUE BIDA SERIES CATV AMPLIFIER INSIDE No. RM-1924 OR EQUIVALENT NEMA 1 LOCKABLE CABT AUSTIN CO. OR EQUAL
	TELECOMMUNICATIONS CABLING BY OTHERS
	FIBER OPTIC CABLE BY TECHNOLOGY CONTRACTOR; WIRE MANAGEMENT BY E.C.
	RACEWAY AS SPECIFIED CONCEALED ABOVE CEILING
	RACEWAY AS SPECIFIED CONCEALED U.G.
	HOME-RUN TO PANEL w/ CONDUCTORS, NEUTRAL, & GROUND
	CABLE TRAY (CENTER SPLINE & LADDER TYPES), SEE DETAILS THESE DRAWINGS
ABBREVIATIONS:	
A.C.	ABOVE CEILING
A.F.F.	ABOVE FINISH FLOOR
A.H.J.	AUTHORITY HAVING JURISDICTION
EF	EXHAUST FAN
EW	ELECTRIC WATER COOLER
EW	ELECTRIC WATER HEATER
G	GROUND CONDUCTOR
G.C.	GENERAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR OR EMPTY CONDUIT
B-2	TYPICAL CIRCUIT DESIGNATION: PANEL 'B', BREAKER #2
NOTE: LEGEND IS FOR REFERENCE ONLY – SYMBOLS/ABBREVIATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT	
A.C.	CONDUIT AS SPECIFIED
NL	24 HOUR NIGHT LIGHT
NTS	NOT TO SCALE
P.B.	PUSH BUTTON
T.C.	TECHNOLOGY CONTRACTOR
TP	TAMPER-PROOF
U.O.N	UNLESS OTHERWISE NOTED
U.G.	UNDERGROUND
MP	WEATHERPROOF ENCLOSURE
U.P.	UTILITY PLATFORM

GENERAL ELECTRICAL NOTES:

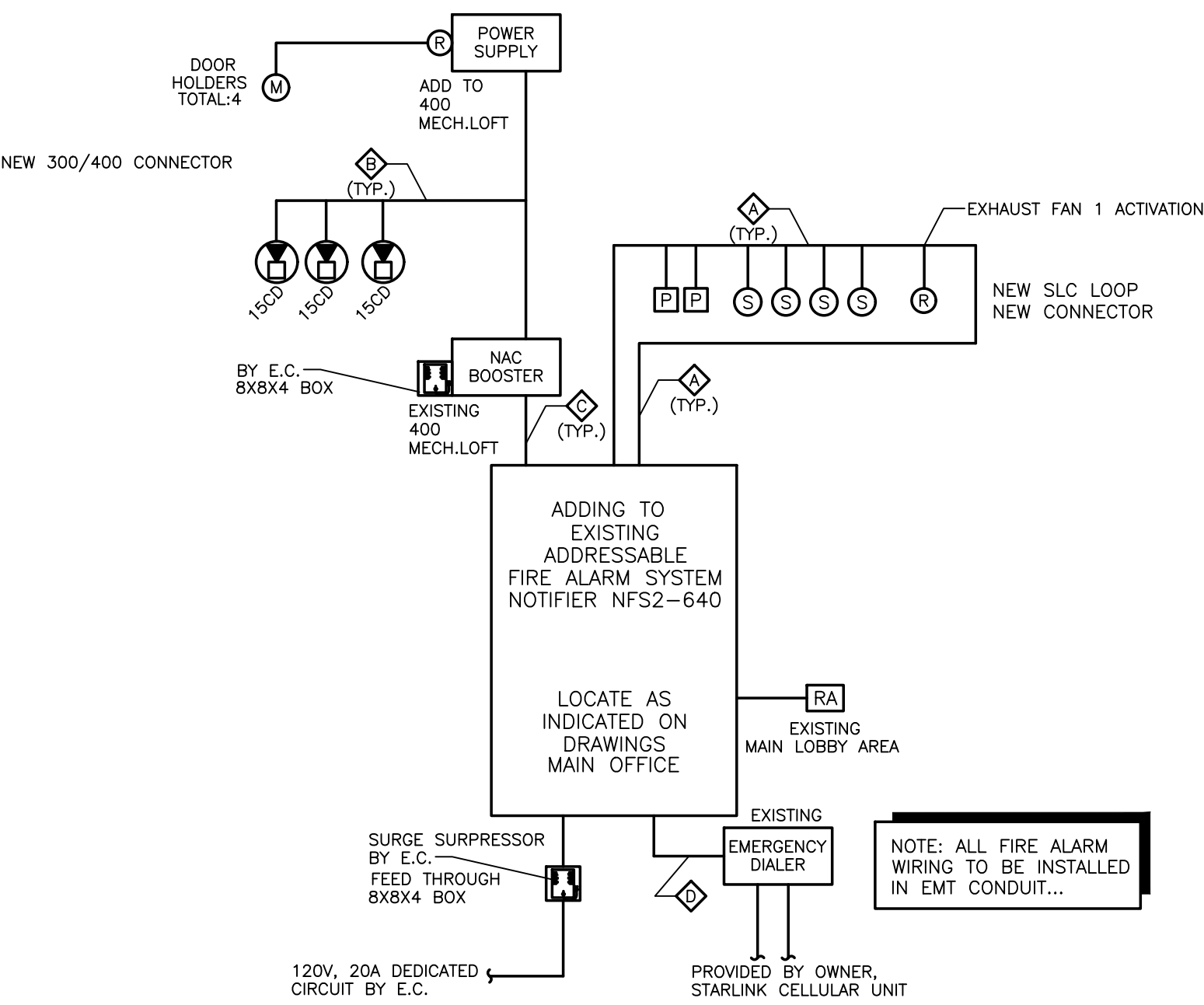
- * "NEC" IS DEFINED AS BEING THE CURRENT NFPA-70 THAT HAS BEEN ADOPTED BY THE NC CODE COUNCIL AND THE NC DEPT OF INSURANCE.
- DO NOT SCALE THESE DRAWINGS; REFER TO LARGEST SCALE ARCHITECTURAL PLANS.
 - THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE NOT INTENDED TO SHOW MINOR DETAILS AND EXACT LOCATIONS. DESIGN ADJUSTMENTS SHALL BE ANTICIPATED BY THE CONTRACTOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
 - REFERENCE SPECIFICATIONS AND ARCHITECTURAL, STRUCTURAL, PLUMBING, & HVAC DRAWINGS PRIOR TO CONSTRUCTION.
 - ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NEC/NFPA 70. CONTRACTOR SHALL NOTIFY ENGINEER REGARDING ANY CODE DISCREPANCIES SHOWN ON PLANS. ANY PERMIT OR INSPECTION FEES ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 - CONTRACTOR SHALL INSTALL, GROUND AND BOND SYSTEM PER THE NEC WITH ALL NC MODIFICATIONS.
 - THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE METHOD & HAVE NOT BEEN VERIFIED; CONTRACTOR SHALL DETERMINE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK & IS RESPONSIBLE FOR ANY DAMAGE INCURRED BY FAILURE TO DO SO. EACH PRIME CONTRACTOR PERFORMING EXCAVATIONS OR UNDERGROUND WORK SHALL BE RESPONSIBLE FOR THE LOCATION OF ANY EXISTING UTILITIES IN THE AREA OF THEIR WORK. NOTIFY THE UTILITY LOCATOR SERVICE (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION IN ORDER THAT EXISTING UTILITIES IN THE AREA MAY BE FLAGGED AND CONTRACTOR SHALL USE ALL CARE NECESSARY WHEN WORKING IN AREAS KNOWN OR SUSPECTED TO CONTAIN UNDERGROUND UTILITIES, INCLUDING HAND DIGGING.
 - THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL FIXTURES AND EQUIPMENT WITH OTHER PRIME CONTRACTORS PRIOR TO INSTALLATION TO AVOID CONFLICTS. CONTRACT ARCHITECT IF ALTERNATE INSTALLATION METHOD IS REQUIRED.
 - CONTRACTOR SHALL NOT PUT MORE THAN SIX (6) DUPLEX RECEPTACLES ON ANY GIVEN 1P-20A CIRCUIT UNLESS SHOWN OTHERWISE.
 - MINIMUM WIRE SIZE SHALL BE #12 AWG., MINIMUM CONDUIT SIZE SHALL BE 3/4".
 - CONTRACTOR SHALL COORDINATE TELEPHONE AND DATA OUTLETS REQUIRED WITH OWNER PRIOR TO GYP. BOARD BEING INSTALLED.
 - HALLWAY AND MAINTENANCE RECEPTACLES SHALL NOT BE CIRCUITED WITH OFFICE OR OTHER GENERAL PURPOSE RECEPTACLES.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE HACR RATED CIRCUIT BREAKERS ON ALL HVAC EQUIPMENT.
 - CONDUCTORS SHALL BE TYPE THWN OR THW. BRANCH CIRCUIT CONDUCTOR SHALL NOT BE SMALLER THAN No. 12 AWG., EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. HOME RUNS ORIGINATING MORE THAN 80' AT 120V FROM PANEL LOCATION SHALL BE No. 10 AWG MINIMUM SIZE. WIRES No. 10 AWG AND SMALLER SHALL BE SOLID; WIRES No. 8 AWG AND LARGER SHALL BE STRANDED. PROVISIONS OF NEC SECTION 210-5 COLOR CODE SHALL BE STRICTLY COMPLIED WITH AND BE CONSISTENT THROUGHOUT ENTIRE SYSTEM.
 - ALL CIRCUITS SHALL BE PROVIDED WITH AN INSULATED EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250-122. HASHMARK FOR GROUNDING CONDUCTOR IS NOT INDICATED ON THESE DRAWINGS. RACEWAY SHALL NOT BE USED AS EQUIPMENT GROUND.
 - IN ADDITION TO MECHANICAL FASTENING TO CEILING TRACK, SUPPORT LIGHT FIXTURES AT EACH CORNER INDEPENDENTLY OF SUSPENDED CEILING WITH 12 GAUGE WIRE. CONNECT TO STRUCTURAL SYSTEM OF BUILDING PRIOR TO FIRE-PROOFING APPLICATION.
 - ALL CONDUIT SHALL BE CONCEALED UNLESS OTHERWISE NOTED. ALL EMPTY CONDUIT SHALL HAVE A PULL WIRE.
 - ALL CONDUIT SHALL BE ELECTRICAL METALLIC TUBING. EMT SHALL NOT BE INSTALLED WHERE IT MAY BE SUBJECT TO PHYSICAL DAMAGE, WHERE IT WILL BE SUBJECT TO SEVERE CORROSIVE INFLUENCE, WHERE THE SIZE IS LARGER THAN 2", OR WHERE TUBING, ELBOWS, COUPLINGS, AND FITTINGS WOULD BE IN DIRECT CONTACT WITH THE EARTH. SCHEDULE 40 PVC CONDUIT SHALL BE USED IN ALL CONCRETE FLOOR SLABS AND WHEN IN DIRECT CONTACT WITH THE EARTH. PVC CONDUIT SHALL BE USED FOR ALL CONDUIT INSTALLED IN MASONRY WALLS AND SHALL TRANSITION BACK TO EMT OR RIGID CONDUIT AT THE TOP OF THE MASONRY WALL. PVC CONDUIT IS NOT ALLOWED IN STUD WALLS.
 - ALL CONDUIT ON THE EXTERIOR OF THE BUILDING SHALL BE EMT OR SHALL BE RIGID CONDUIT WHERE IT WILL BE EXPOSED TO PHYSICAL DAMAGE. PVC CONDUIT IS NOT ACCEPTABLE TO BE USED ON THE EXTERIOR OF THE BUILDING UNLESS IT IS IN DIRECT CONTACT WITH THE EARTH.
 - CONDUIT SHALL NOT BE RUN EXPOSED IN FINISHED AREAS UNLESS APPROVED BY ARCHITECT / OWNER. CONDUIT SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALL & FLOOR CONSTRUCTION IN FIRST CLASS WORKMANSHIP MANNER. CONDUIT SHALL BE BENT IN ACCORDANCE WITH NEC MINIMUM RADIUS REQUIREMENTS. WHERE SCHED 40 PVC IS INSTALLED UNDER FLOOR SLABS, THE ELBOWS REQUIRED TO TURN THE RACEWAY UP INTO CABINETS, EQUIPMENT, ETC., WHERE SUBJECT TO DAMAGE, SHALL BE OF RIGID STEEL.
 - ALL CONDUIT FITTINGS SHALL BE COMPRESSION TYPE WITH INSULATED THROATS. ALL EXTERIOR CONDUIT FITTINGS SHALL BE LISTED FOR USE IN WET LOCATIONS PER NEC ARTICLE 314.
 - PROVIDE 3" WIDE RED MAGNETIC WARNING TAPE MARKED "BURIED ELECTRIC LINE BELOW" SIX INCHES BELOW FINISH GRADE FOR ALL U.G. CONDUIT. ENCASE ALL U.G. CONDUITS NOT UNDER BLDG SLAB IN 3" OF CONCRETE.
 - SERVICE ENTRANCE CONDUCTORS SHALL BE IN CONDUIT (RIGID OR PVC). EXTERIOR CONDUIT EXPOSED ABOVE SLAB SHALL BE RIGID. INTERIOR CONDUIT EXPOSED SHALL BE EMT. EMT SHALL BE COLD-ROLLED STEEL TUBING WITH A COATING ON THE OUTSIDE AND PROTECTED ON THE INSIDE BY A ZINC ENAMEL OR EQUIVALENT CORROSION RESISTANT COATING AND CONFORMING TO THE REQUIREMENTS OF ANSI C 80.3-1996 OR LATER EDITION. ALL UNDERGROUND CONDUIT SHALL BE UL LISTED SCHED 40 PVC CONFORMING TO ARTICLES 352 & 300 OF THE NEC. WHERE SCHED 40 PVC IS INSTALLED BELOW GRADE OR UNDER FLOOR SLABS, THE ELBOWS REQUIRED TO TURN THE RACEWAY UP INTO CABINETS, EQUIPMENT, ETC., SHALL BE OF RIGID STEEL AND SHALL CONTINUE AS RIGID STEEL TO THE CABINET, EQUIPMENT, ETC. FEEDER CIRCUITS SHALL BE IN CONDUIT.
 - ALL JUNCTION OR DEVICE BOXES SHALL HAVE A COVER; PROVIDE COVER PLATES AS SPECIFIED IN SECTION 16140.
 - ALL 1P-20A CIRCUITS SHALL BE 2-#12 & 1-#12G IN 3/4" C WITH NO SHARED NEUTRALS U.N.O.
 - WHERE DISTANCE TO FIRST OUTLET ON A 20 AMP CIRCUIT EXCEEDS 50 FEET, MINIMUM SIZE OF CONDUCTOR TO BE #10 AWG TO FIRST OUTLET
 - ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ALL VOLUMES OF THE NCSBC, INSPECTORS HAVING JURISDICTION, AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
 - EACH PIECE OF ELECTRICAL GEAR, EQUIPMENT, ETC., SHALL BEAR A "UL" LABEL.
 - ALL HOLES CUT IN FLOOR, CEILING AND WALLS SHALL BE CORE-DRILLED OR SAWED.
 - ROOF DECKING SHALL NOT BE PENETRATED TO SUPPORT ELECTRICAL ITEMS.
 - ALL EMERGENCY AND EXIT LIGHTS SHALL BE CONNECTED TO THE UNINTERRUPTED SIDE OF THE LOCAL LIGHTING CIRCUIT.
 - PROVIDE AND INSTALL ENGRAVED PHENOLIC LABELS ON ALL ELECTRICAL GEAR, DISCONNECTS, ETC. FASTEN WITH SCREW FASTENERS.
 - WHERE PROVIDED BY E.C., DISCONNECTS SHALL BE HEAVY DUTY NEMA-1 RATED AT ALL INTERIOR LOCATIONS INDICATED AND HEAVY DUTY NEMA-3R RATED AT ALL EXTERIOR LOCATIONS INDICATED ON THESE DRAWINGS.
 - VERIFY WITH OWNER LOCATION/TYPE OF ALL FIXTURES, PANEL BOXES, OUTLET PLACEMENT, ETC. BY HOLDING AN ELECTRICAL WALKTHROUGH ON THE BUILDING SITE ONCE FRAMING IS COMPLETED.
 - ELECTRICAL BOXES INSTALLED IN U.L. RATED WALLS SHALL BE LOCATED A MINIMUM OF 2'-0" FROM ANY OTHER ELECTRICAL BOX IN THAT WALL.
 - LIGHTING SWITCHES, RECEPTACLES AND/OR DATA OUTLETS SHALL NOT BE MOUNTED BACK TO BACK IN ANY WALL.
 - CABLE LOCATED IN PLENUMS SHALL BE PLENUM-RATED. ALL CABLE INSTALLED IN AREAS WITH EXPOSED STRUCTURE SHALL BE IN CONDUIT.
 - E.C. SHALL INSTALL COMPLY WITH ANSI A117.1 FOR OUTLET AND CONTROL SWITCH MOUNTING HEIGHTS FOR ADA ACCESSIBILITY.
 - E.C. SHALL BE RESPONSIBLE FOR ALL LINE SIDE AND LOAD SIDE WIRING ON ALL EQUIPMENT REQUIRING ELECTRICAL POWER, INCLUDING EQUIPMENT PROVIDED BY OTHERS. E.C. SHALL BE RESPONSIBLE FOR LINE SIDE WIRING AND INSTALLING DISCONNECT SWITCHES FOR EQUIPMENT PROVIDED BY OTHERS. DISCONNECT SWITCHES FOR EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE RESPECTIVE CONTRACTORS. LOAD SIDE WIRING FROM DISCONNECT SWITCH SHALL BE BY E.C. AND ALL FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHERS SHALL BE BY THE RESPECTIVE CONTRACTOR. FUSING FOR EQUIPMENT PROVIDED BY OTHERS SHALL BE PROVIDED BY THE RESPECTIVE CONTRACTOR. SEE "ELECTRICAL CONNECTION DETAIL".
 - "PROVIDE" IS DEFINED AS FURNISH AND INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
 - THE TERM "VERIFY" RELATIVE TO THESE DRAWINGS SHALL BE DEFINED AS OBTAINING EQUIPMENT INSTALLATION INSTRUCTIONS FROM EQUIPMENT SUPPLIER OR OBTAINED OWNER'S REPRESENTATIVE'S APPROVAL.
 - E.C. IS RESPONSIBLE FOR DEMOLITION OF EXISTING LIGHTS FIXTURES THAT ARE INDICATED TO BE REPLACED. E.C. SHALL FIELD VERIFY EXISTING SWITCH CIRCUITING AND REWORK SWITCH WIRING TO PROVIDE CONTROL OF LIGHTS AS INDICATED ON PLANS.
 - ALL 15 AND 20 AMP, 125V AND 250V NON-LOCKING-TYPE RECEPTACLES SHALL BE TAMPER-RESISTANT IN THE FOLLOWING AREAS: (1) EDUCATION FACILITIES, (2) GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS AND THEIR COMMON AREAS, (3) BUSINESS OFFICES, CORRIDORS, WAITING ROOMS, EXAM ROOMS, AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES, AND OUTPATIENT FACILITIES, (4) ALL ASSEMBLY OCCUPANCIES, (5) ALL OTHER AREAS LISTED IN THE RECEPTACLES ARTICLE OF THE NEC THE REQUIRE TAMPER-RESISTANT RECEPTACLES.
 - ALL RECEPTACLES IN KITCHENS AND FOOD PREPARATION AREAS SHALL BE GFCI PROTECTED.
 - ALL RECEPTACLES WITHIN 6 FEET OF A SINK, BATHTUB, SHOWER, OR THE LIKE SHALL BE GFCI PROTECTED REGARDLESS OF WHETHER THEY ARE INDICATED ON THESE PLANS. E.C. SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXACT DISTANCES AND PROVIDING THE GFCI PROTECTION AS REQUIRED.
 - ALL CLOTHES WASHING MACHINES AND CLOTHES DRYER ELECTRICAL CIRCUITS SHALL BE FED FROM A GFI BREAKER OR SHALL HAVE A GFI OUTLET INSTALLED, GAS FIRED DRYERS THAT BEAR A MANUFACTURER'S LABEL STATING THAT THEIR EQUIPMENT MUST NOT BE FED BY A GFI NOT REQUIRE GFI PROTECTION AND SHALL BE FED FROM A STANDARD CIRCUIT BREAKER.
 - ALL OUTLETS OR JUNCTION BOXES THAT ARE FED FROM A GFI BREAKER SHALL BEAR A LABEL THAT SHOWS THE CIRCUIT NUMBER AND PANEL IT IS BEING FED FROM AND SHALL READ "PROTECTED BY GFI BREAKER".
 - ALL CIRCUITS SHOWN ON THESE PLANS ARE INTENDED TO BE IN THEIR OWN RACEWAY. E.C. MAY ROUTE MULTIPLE CIRCUITS IN A SINGLE RACEWAY BUT SHALL DERATE ALL CONDUCTORS IN ACCORDANCE WITH NEC TABLE 310.15(C)(1).
 - ALL SERVICE ENTRANCE MAIN BREAKERS 1000 AMPS OR LARGER SHALL BE GFI MAIN BREAKERS.



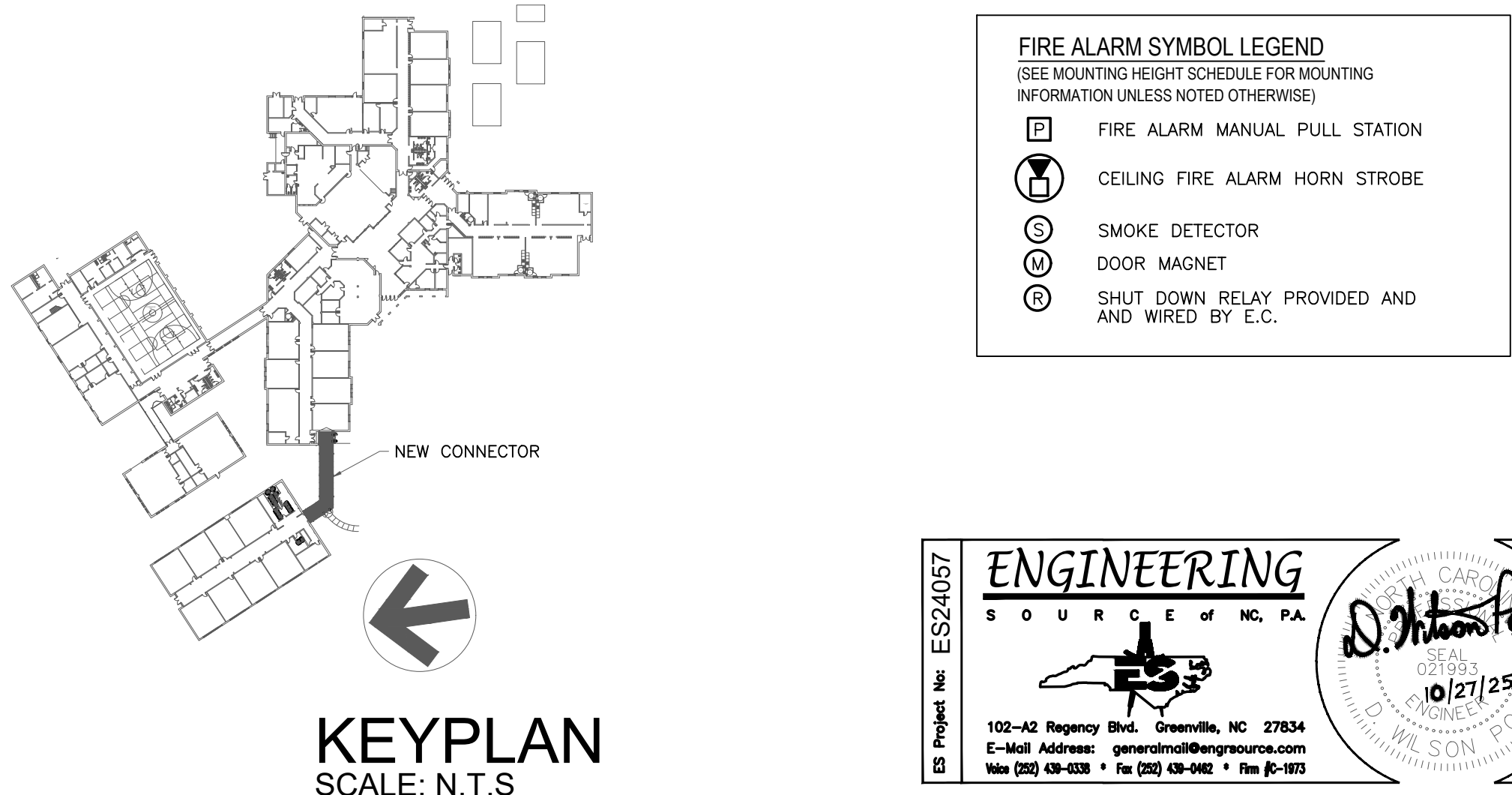
001.3 CONNECTOR PULL STATION DETAIL
SCALE: N.T.S



001.2 FIRE ALARM DEVICE DETAILS
SCALE: N.T.S



001.1 FIRE ALARM RISER
SCALE: N.T.S



KEYPLAN
SCALE: N.T.S

Revision	
No.	Date

Hite associates
ARCHITECTURE / PLANNING / TECHNOLOGY
2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333

HITE ASSOCIATES, P.C.
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA
EXPIRATION DATE 4/18
LICENSE NO. 10000

New Connector for
Micro Elementary School
Johnston County Schools
301 E Main St / Micro / North Carolina 27555

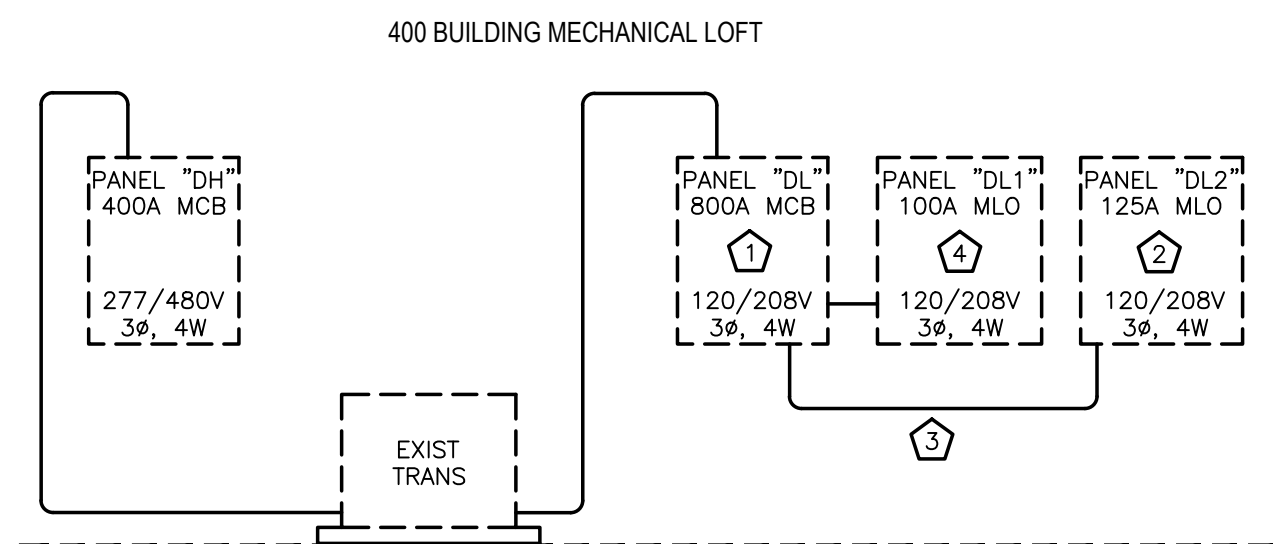
Project No. 22423
Date: OCTOBER 2025
Drawing no.
E 001

ES24057
Project No.
ENGINEERING
SOURCE OF NC, P.A.
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E-Mail Address: general@engsource.com
Tel (252) 438-0328 • Fax (252) 438-0462 • TOLL FREE 1-877-438-0328
10/27/25
D. McLeod
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA
EXPIRATION DATE 10/27/25
LICENSE NO. 10000

DL2 DEMAND CALCS				
LIGHTING	0.00	KVA X	125 %	= 0.0 KVA
RECEPTAC TOTAL	16.70	KVA		
1ST	10.00	KVA X	100 %	= 10.0 KVA
REMAIN	8.70	KVA X	50 %	= 3.4 KVA
MOTORS	0.00	KVA X	100 %	= 0.0 KVA
A/C	18.40	KVA X	100 %	= 18.4 KVA
HEATING	10.20	KVA X	100 %	= 10.2 KVA
FUTURE	_____	KVA X	100 %	= 0.0 KVA
KITCHEN	0.00	KVA X	65 %	= 0.0 KVA
MISCELLANEOUS	1.50	KVA X	100 %	= 1.5 KVA
TOTAL	= 120.6	amps	=	43.5 KVA

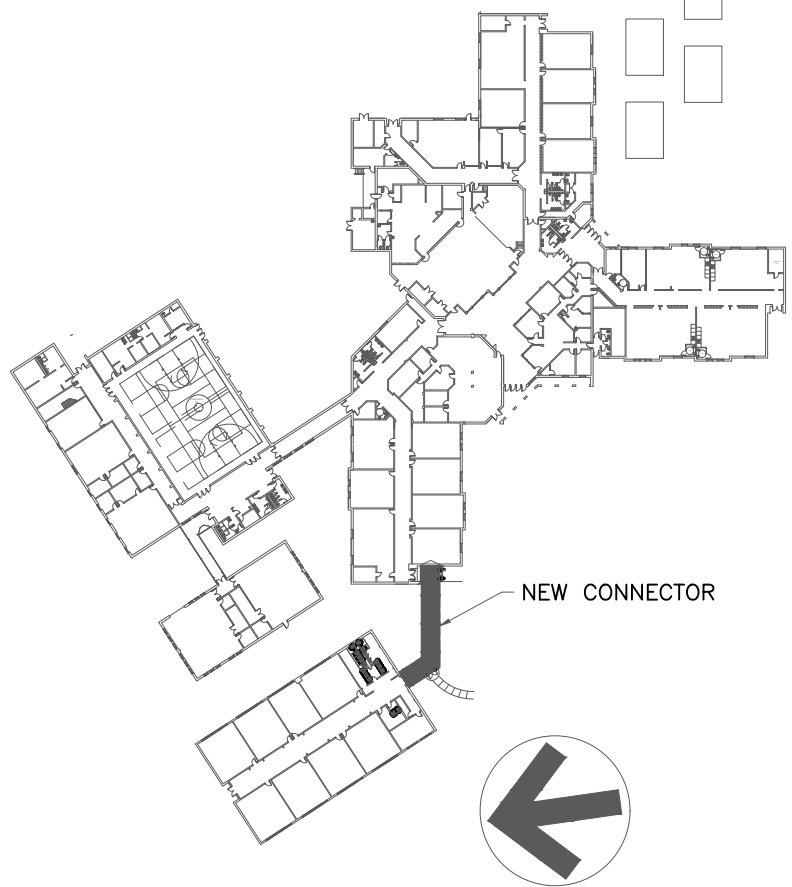
EXISTING PANELBOARD SCHEDULE - "DL2"																														
MAIN 100		VOLTAGE: 208/120					PHASE 3					WIRE 4					MOUNTING SURFACE					A/C 22,000		BUS BARS: COPPER		CON/WIRE SIZE		POLE/BKR		Q#
Q#	TRIP	POLE	WIRE SIZE	COND. SIZE	DESCRIPTION	LTG	REC	MTM	A/C	HTG	KIT	MISC	A/C	HTG	KIT	MISC	DESCRIPTION	CON/WIRE SIZE	SIZE	POLE	BKR	TRIP	Q#							
1	20	1	12	3/4"	RECEPTACLES - D118		0.6										RECEPTACLES	3/4"	12	1	20	2								
3	20	1	12	3/4"	RECEPTACLES - D118		0.6										RECEPTACLES	3/4"	12	1	20	4								
5	20	1	12	3/4"	RECEPTACLES - D118		0.6										RECEPTACLES	3/4"	12	1	20	6								
7	20	1	12	3/4"	RECEPTACLES - D118		0.6										RECEPTACLES	3/4"	12	1	20	8								
9	20	1	12	3/4"	RECEPTACLES - D118		0.6										RECEPTACLES	3/4"	12	1	20	10								
11	20	1	12	3/4"	RECEPTACLES - D120		0.6										0.3 PROJECTOR - D122	3/4"	12	1	20	12								
13	20	1	12	3/4"	RECEPTACLES - D120		0.6										0.3 PROJECTOR - D120	3/4"	12	1	20	14								
15	20	1	12	3/4"	RECEPTACLES - D120		0.6										0.3 PROJECTOR - D118	3/4"	12	1	20	16								
17	20	1	12	3/4"	RECEPTACLES - D120		0.6										0.3 PROJECTOR	3/4"	12	1	20	18								
19	20	1	12	3/4"	RECEPTACLES - D120		0.6										RECEPTACLES - D114	3/4"	12	1	20	20								
21	20	1	12	3/4"	RECEPTACLES - D122		0.6										RECEPTACLES - D114	3/4"	12	1	20	22								
23	20	1	12	3/4"	RECEPTACLES - D122		0.6										RECEPTACLES - D114	3/4"	12	1	20	24								
25	20	1	12	3/4"	RECEPTACLES - D122		0.6										0.3 PROJECTOR - D114	3/4"	12	1	20	26								
27	20	1	12	3/4"	RECEPTACLES - D122		0.6										SPARE	3/4"	12	2	20	28								
29	20	1	12	3/4"	RECEPTACLES - D122		0.6												3/4"	12	2	20	30							
31	20	1	12	3/4"	RECEPTACLES - D114		0.6									0.6	RECEPTACLES - D114	3/4"	10	1	25	32								
33	20	1	12	3/4"	COPIER		0.5									0.6	RECEPTACLES - D116	3/4"	10	1	25	34								
35	30	2	10	3/4"	"H" PTAC-1 - CONNECTOR				3.0							0.6	RECEPTACLES - D116	3/4"	10	1	30	36								
37	30	2	10	3/4"					3.0							3.0							38							
39	30	2	10	3/4"	"H" PTAC-2 - CONNECTOR				3.0							3.0	"H" PTAC-3 - CONNECTOR	3/4"	10	2	30	40								
41	30	2	10	3/4"					3.0							0.4	"H" EXTERIOR RECEPT	3/4"	12	1	20	42								
LIGHTING (KVA)						0.0							0.0	6.6	0.0	0.0	1.5	CONNECTED LOAD (KVA)					43.5							
RECEPTACLES (KVA)						16.7								0.0	10.1	0.0	12.0	0.0	0.0					43.5						
MOTORS (KVA)						0.0											PHASE A	13	105.0											
A/C (KVA)						18.4											PHASE B	12	101.7											
HEATING (KVA)						10.2											PHASE C	12	98.3											
KITCHEN (KVA)						0.0											KVA	AMPS												
MISCELLANEOUS (KVA)						1.5																								
NOTES: "H" INDICATES NEW CIRCUIT BREAKERS IN EXISTING SPACE. "M" INDICATES NEW BREAKER IN PLACE OF EXISTING SPARE BREAKERS. TURN REMOVED BREAKERS OVER TO OWNER FOR SURPLUS																														

TYPE	DESCRIPTION	LAMPS	VOLTS	WATTS	B.F.
A2 /NL	2'-4' LAY-IN LED FLAT PANEL WITH ACRYLIC LENS. PROVIDE WITH MEDIUM LUMEN PACKAGE (4,600-5,600 LUMENS) AND DIMMING DRIVER. PROVIDE: DAI-BRITE®: ZPZ24B-840-4-DS-UNV-DIM LITHONIA®: EPLAN-254-800LM-80CRI-40K-MN10-DIM-MVOLT OR WILLIAMS®: BP24-LS-8CS-DIM-UNV * /NL INDICATES FIXTURE TO BE USED AS NIGHT LIGHT AND SHALL HAVE POWER 24/7.	LED	UNV	45W	-
	RECESSED CEIL. MOUNTED AUTOMATIC, SELF-CONTAINED, SELF DIAGNOSTIC, MAINTENANCE FREE 2-HEAD EMERGENCY LIGHT. UL 924 LISTED AND NFPA 101 COMPLIANT, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS. SELF DIAGNOSTICS SHALL INCLUDE CONTINUOUS SELF CHECKS AND 30 MINUTE FULL LOAD TEST WITH CHARGER OFF EVERY 30 DAYS. PROVIDE: EXITRONIX ®: FRM DUAL LIGHT ®: EVAR	2-10W	277/ 6V	20W	N/A
	CEILING OR WALL MOUNTED LED EXIT & 2-HEAD EMERGENCY LIGHT CONFORMING TO NFPA 101 STANDARDS, w/ BATTERY & SOLID STATE CHARGER, SELF DIAGNOSTICS, w/ A TEST CYCLE EVERY 30 DAYS MINIMUM. SELF CONTAINED, SELF-CONTAINED, DOUBLE OR SINGLE WHITE FACE/BODY, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS, TEST SWITCH, & 90 MIN. EMERGENCY RUN TIME. EXIT LIGHT SHALL CONTINUE TO OPERATE FOR 24 HOURS FOLLOWING POWER OUTAGE. EXIT SIGN SHALL HAVE 5 YEAR WARRANTY & POWER FOR REMOTE HEADS PROVIDE HUBBELL ®: CCSDS OR LITHONIA ®: LHQM-LED-R-HIO-SD OR EXITRONIX ®: ILXC-RG	2-10W HALOGEN	277/ 6V	20	N/A
	CEILING/SOFFIT MOUNTED 2 HEAD EGRESS LIGHT WITH MARINE GRADE DIE-CAST ALUMINUM HOUSING AND POLYCARBONATE GASKETED LENS TO WITHSTAND EXTREME WEATHER, DAMP LOC. RATED. MOUNT ABOVE EXTERIOR DOOR. EMERGENCY LIGHT SHALL CONFORM WITH NFPA 101 STANDARDS AND NEC-700.16. PROVIDE HUBBELL ®: EVODW-PC PC OR EXITRONIX ®: RL52 LITHONIA ®: ELMRE-DB-EXT	2-6W	277/6VDC	12W	-



ELECTRICAL RISER NOTES:

- 1 REMOVE EXISTING 3P-100A BREAKER AND FEEDER SERVING "DL2" AND INSTALL NEW 3P-125A BREAKER.
- 2 EXISTING PANEL IS A GE "A SERIES" WITH 125A RATED LUGS. FED WITH A NEW 125A FEEDER.
- 3 4-#1 & 1-#6G IN EXIST 2" C
- 4 EXISTING PANEL IS A GE "A SERIES" WITH 125A RATED LUGS. FED BY AN EXIST. 100A FEEDER TO REMAIN.



KEYPLAN
SCALE: N.T.S

ES Project No: E524057

ENGINEERING
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Project No.	22423
Date:	OCTOBER 2025
Drawing no.	E 102