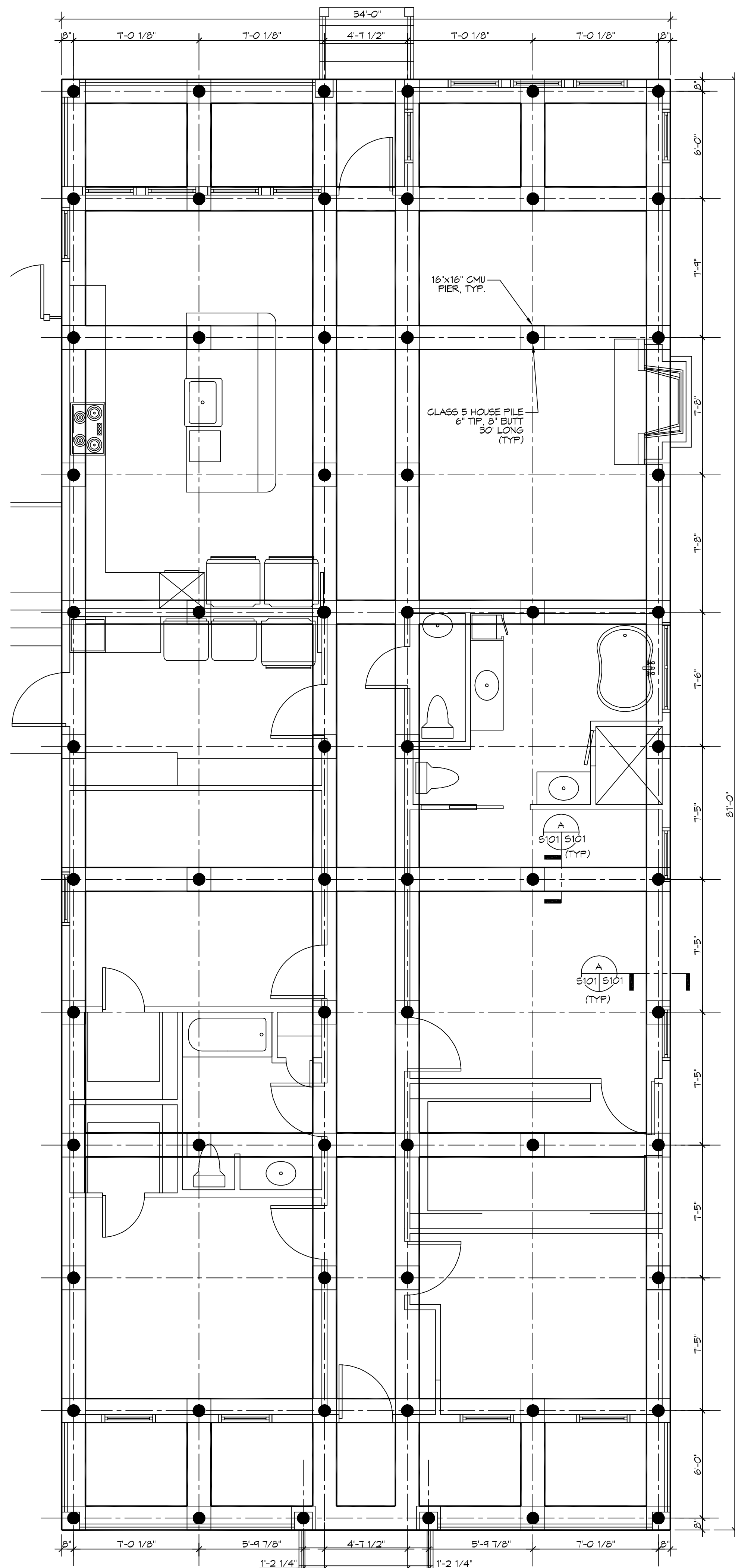
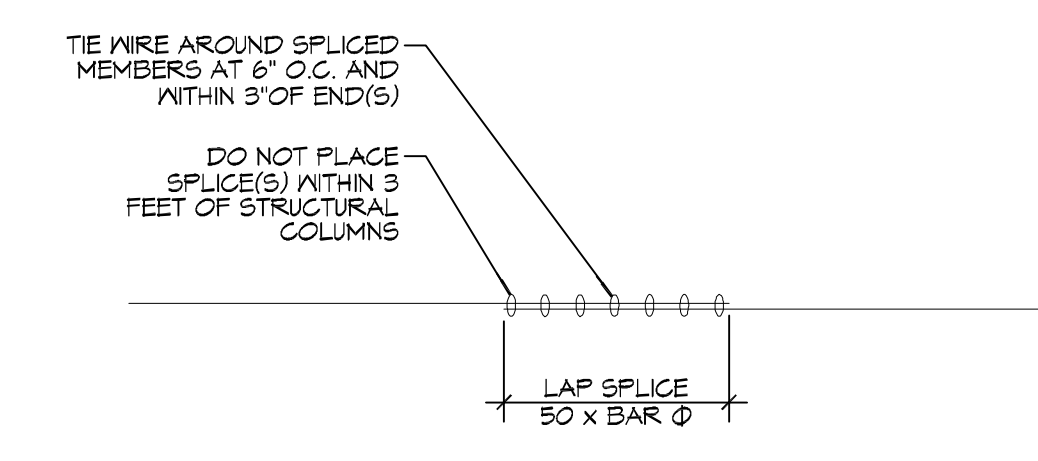
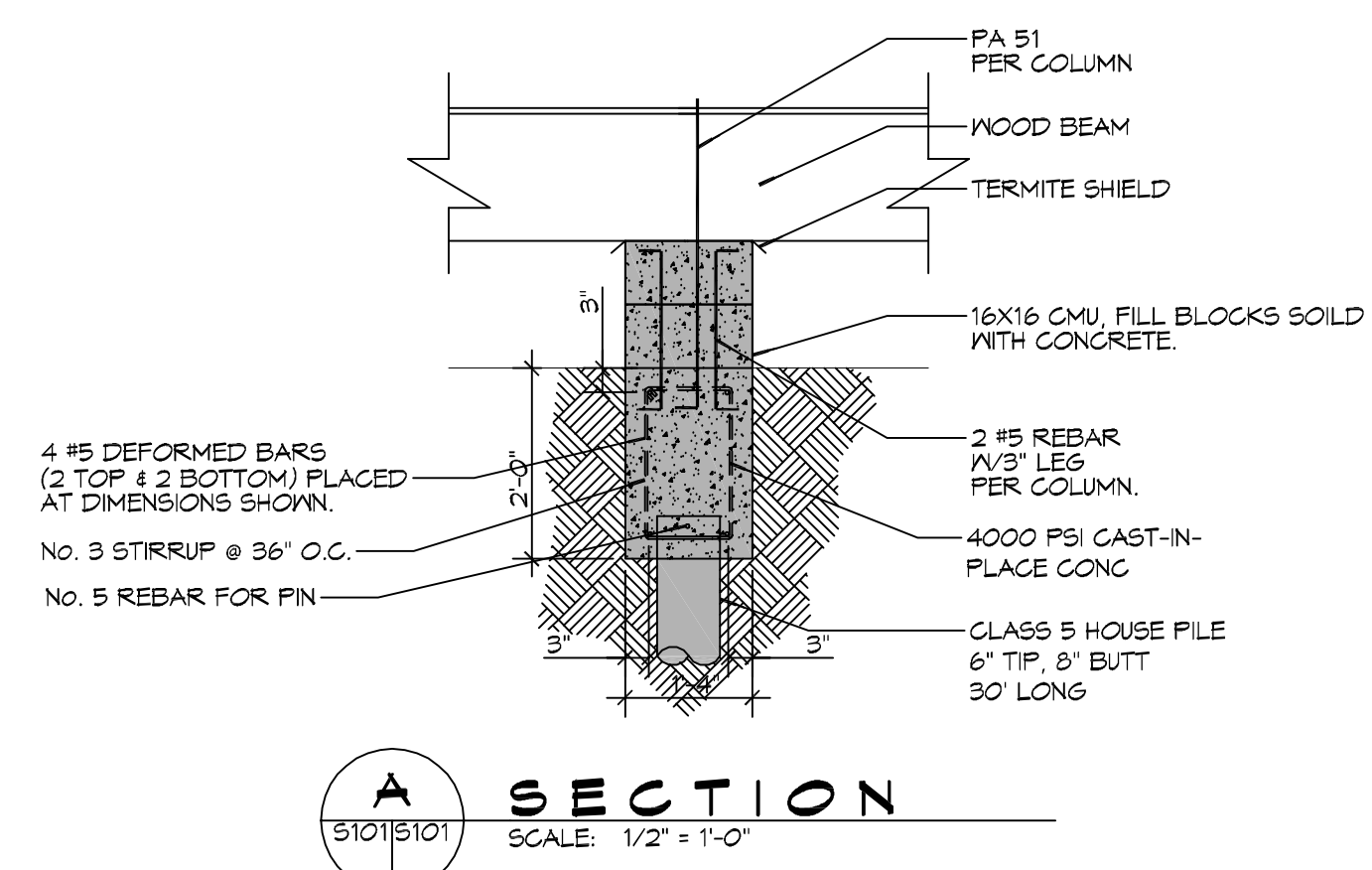


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**1 HOUSE PILING/FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"  
FOUNDATION



**PILING NOTES**

1. PILES ARE TO BE CLASS 5 MODIFIED AND ALL PILES ARE TO BE 30 FT. IN LENGTH WITH A 6 INCH TIP AND 8" BUTT.
2. ALL PILES TO BE EMBEDDED 30 FT. MINIMUM INTO SOIL.
3. DESIGN LOAD = 6 TONS PER PILE. CONTRACTOR SHALL DRIVE TEST PILE. NO FIELD SUPERVISION OR INSPECTION PROVIDED UNDER THIS SEAL UNLESS OTHERWISE NOTED.
4. PILE LAYOUT MAY BE MODIFIED DUE TO ACTUAL DRIVING CONDITIONS. ENGINEER TO BE NOTIFIED ON ANY MODIFICATION.
5. THIS PILE SUPPORTED FOUNDATION IS DESIGNED TO MEET THE GENERAL SOIL CONDITIONS OF THE AREA OF WORK. THE CONTRACTOR OR OWNER IS ADVISED THAT A SOIL ANALYSIS SHOULD BE MADE TO CONFIRM THE DESIGN.
6. A PILE BLOW COUNT LOG OF ALL PILES IS TO BE SUBMITTED TO THE ENGINEER OF RECORD. FAILURE TO SUBMIT SAID LOG WILL RELEASE THE ENGINEER OF ALL RESPONSIBILITY AFTER 5 DAYS OF INSTALLING.
7. CONTRACTOR IS RESPONSIBLE FOR THE COMPARISON & VERIFICATION OF PILE LAYOUT DIMENSIONS WITH MOST RECENT ARCHITECTURAL DRAWINGS, ASSURING THAT PILES DO FALL WITHIN LIMITS OF THE DESIGN.
8. FILL, AS A MINIMUM QUALITY, SHALL BE 40% CLAY AND 60% SANDY MIXTURE, PLACED IN 6" LIFTS AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR.

**FOUNDATION NOTES**

1. ALL DIMENSIONS ARE EDGE OF CONCRETE (EOC) TO EDGE OF CONCRETE (EOC) UNLESS NOTED OTHERWISE.
2. VERIFY ALL PLUMBING ROUGH-IN LOCATIONS ON ARCHITECTURAL DWGS.
3. CONCRETE MIX SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE MIX SHALL BE IN ACCORDANCE WITH ACI-318.
4. ALL CONVENTIONAL REINFORCING STEEL SHALL MEET ASTM-A615 (GRADE 60).
5. ALL REINFORCING STEEL AND MESH SHALL BE SECURELY SUPPORTED TO PREVENT BOTH VERTICAL AND HORIZONTAL MOVEMENT DURING CONCRETE PLACEMENT.
6. THE CONTRACTOR SHALL VERIFY ALL DROPS, OFFSETS, BRICK LEDGES, DIMENSIONS AND CONFIGURATIONS. CONTRACTOR MUST BE RESPONSIBLE FOR SAME.
7. GRADE BEAM DIMENSIONS MAY VARY BY -5%, +20%.
8. ALL SOIL BELOW SLAB SHALL RECEIVE TERMITE TREATMENT.

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REVISIONS	DATE	DESCRIPTION

SEAL:

**CARRISON & JENNIFER ENGINEER**

#32 SEAWARD CT  
NO. LA., LOUISIANA 70131  
JOB No: 2311 DATE: 05-15-11  
DRAWN BY: CCKD CHECKED BY: BANK

SHEET TITLE:  
**HOUSE PILING AND FOUNDATION PLAN**

DRAWING NUMBER:  
**S101**

SHEET No: 1 of 3



**TABLE S601.7 - UPLIFT CONNECTIONS - 130 MPH WINDS EXP "C"**  
WFCM 2015 TABLE 3.2

CONNECTION	FRAMING SPACING (INCHES)	ROOF SPAN (FEET)	UPLIFT	LATERAL	SHEAR	NUMBER OF 8d COMMON NAILS OR 10d BOX NAILS IN EACH END OF 1-1/4"x20 GAGE STRAP
ROOF ASSEMBLY TO WALL ASSEMBLY	16" OC	16	407	292	152R	4
WALL ASSEMBLY TO FOUNDATION	16" OC	16	224	219	436	4

**TABLE S601.8 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING UPLIFT LOADS - 130 MPH WIND EXP "C"**  
WFCM 2015 TABLE 3.2C

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING UPLIFT LOADS	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)	
		8" END ZONES	INTERIOR ZONES
UPLIFT LOADS	1 - 3 STORIES	25 INCHES ON CENTER	30 INCHES ON CENTER

NOTE: A MINIMUM OF ONE ANCHOR BOLT SHALL BE PROVIDED WITHIN 6 TO 12 INCHES OF EACH END OF EACH PLATE

**TABLE S601.9 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING SHEAR LOADS - 130 MPH WIND EXP "C"**  
WFCM 2015 TABLE 3.2B

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING UPLIFT LOADS	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)	
		1/2" Ø ANCHOR BOLTS	5/8" Ø ANCHOR BOLTS
UPLIFT LOADS	1 STORY	30 INCHES ON CENTER	48 INCHES ON CENTER

**TABLE S601.10 - FULL HEIGHT STUD REQUIREMENT FOR HEADERS OR WINDOW SILL PLATES IN EXTERIOR WALLS EXPOSURE "C"**  
WFCM 2015 TABLE 3.23C

HEADER SPAN (FEET)	WALL SPACING (INCHES)		
	12" O.C.	16" O.C.	24" O.C.
2	1	1	1
4	2	2	2
6	3	3	3
8	4	4	4

**TABLE S601.5 - JACK STUD REQ - INT LOADBEARING WALLS**  
WFCM 2015 TABLE 3.22F

HEADER SUPPORTING	HEADER SPAN (FT)	ROOF SPAN (FEET)													
		12 FEET				24 FEET				36 FEET					
		3'	4.5'	5'	6.5'	3'	4.5'	5'	6.5'	3'	4.5'	5'	6'		
ONE FLOOR ONLY (CENTER BEARING)	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	1	1	1	1	1	1	1	1	2	1	1	1	1	1
	8	1	1	1	1	2	1	1	1	2	2	2	1	1	1
	10	1	1	1	1	2	2	1	1	3	2	2	2	2	2
	12	1	1	1	1	2	2	2	1	3	2	2	2	2	2
	14	2	1	1	1	3	2	2	2	4	3	3	2	2	2
TWO FLOORS (CENTER BEARING)	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1
	4	1	1	1	1	2	1	1	1	3	2	2	2	2	2
	6	2	1	1	1	3	2	2	2	4	3	2	2	2	2
	8	2	2	1	1	3	2	2	2	5	3	3	3	3	3
	10	2	2	2	1	4	3	3	2	6	4	4	4	4	4
	12	3	2	2	2	5	3	3	3	7	5	4	4	4	4
	14	3	2	2	2	6	4	4	3	8	5	5	4	4	4
16	4	3	2	2	6	4	4	3	9	6	6	5	5	5	

HEADER WIDTH - 3" (2-2X), 4.5" (3-2X), 5" (4-2X) EACH W/ 1/2" FLYWOOD SPACER BETWEEN

**TABLE S601.6 - JACK STUD REQ - EXTERIOR LOADBEARING WALLS**  
WFCM 2015 TABLE 3.22F

	ROOF LIVE LOAD 20 PSF	ROOF LIVE LOAD 30 PSF							
		NUMBER OF JACK STUDS REQUIRED							
		3'	4.5'	5'	6.5'	3'	4.5'	5'	6.5'
ROOF AND CEILING	2	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1
	6	2	1	1	1	2	1	1	1
	8	2	2	2	1	2	2	2	1
	10	3	2	2	2	3	2	2	2
	12	3	2	2	2	3	2	2	2
	14	4	3	2	2	4	3	2	2
ROOF, CEILING, AND ONE CENTER BEARING FLOOR	2	1	1	1	1	1	1	1	1
	4	2	1	1	1	2	1	1	1
	6	2	2	2	1	3	2	2	2
	8	3	2	2	2	3	2	2	2
	10	4	3	2	2	4	3	3	2
	12	4	3	3	2	5	3	3	3
	14	5	4	3	3	5	4	3	3
16	6	4	4	3	6	4	4	3	

HEADER WIDTH - 3" (2-2X), 4.5" (3-2X), 5" (4-2X) EACH W/ 1/2" FLYWOOD SPACER BETWEEN

**TABLE S601.2 - WALL SHEATHING OR CLADDING REQUIREMENT - WIND LOAD EXP "C"**

SHEATHING LOCATION	STUD SPACING	E F	
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	6
PERIMETER EDGE ZONE	12" OC	6	12
	16" OC	6	6
	24" OC	6	6

135 MPH WIND - EXPOSURE "C" TYPICAL  
E = NAIL SPACING AT PANEL EDGES, INCHES.  
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.

**TABLE S601.3 - NAILING SCHEDULE**  
WFCM 2015 TABLE 3.1

DESCRIPTION	NUMBER OF COMMON NAILS	NUMBER OF BOX NAILS	SPACING
HEADER TO HEADER (FACE NAILED)	16d	16d	16" OC EDGES

**TABLE S601.4 - BUILDING ENVELOPE REQUIREMENTS**

ROOFS	OPAQUE ELEMENTS	ASSEMBLY MAXIMUM	INSULATION MIN. R-VALUE
ROOFS	INSULATION ENTIRELY ABOVE DECK	U-0.048	R-20.0 c.i.
	METAL BUILDING	U-0.065	R-19
	ATTIC AND OTHER	U-0.027	R-38
WALLS, ABOVE GRADE	MASS	U-0.151	R-5.7 c.i.
	METAL BUILDING	U-0.119	R-19.0
	STEEL-FRAMED	U-0.124	R-19.0
FLOORS	WOOD-FRAMED AND OTHER	U-0.084	R-19.0
	MASS	U-0.107	R-6.3 c.i.
	STEEL JOIST	U-0.052	R-19.0
SLAB-ON-GRADE	UN-HEATED	F-0.730	NR
	HEATED	F-0.051	R-19.0
OPAQUE DOORS	SWINGING	U-0.100	NR
	NON-SWINGING	U-1.450	NR

**ROOF UNDERLAYMENT NOTES**

- FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (17-PERCENT SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33-PERCENT SLOPE), UNDERLAYMENT SHALL BE TWO LAYERS APPLIED IN THE FOLLOWING MANNER:
  - APPLY A 1/4 INCH STRIP OF UNDERLAYMENT FELT PARALLEL WITH AND STARTING AT THE EAVES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. STARTING AT THE EAVE, APPLY 36 INCH WIDE SHEETS OF UNDERLAYMENT, OVERLAPPING SUCCESSIVE SHEETS 14 INCHES, AND FASTENED SUFFICIENTLY TO HOLD IN PLACE.
- FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33-PERCENT SLOPE) OR GREATER, UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:
  - UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.

**SHINGLE APPLICATION & FASTENING NOTES**

- ASPHALT STRIP SHINGLES SHALL HAVE A MINIMUM OF SIX FASTENERS PER SHINGLE WHERE THE ROOF IS IN ONE OF THE FOLLOWING CATEGORIES:
  - THE BASIC WIND SPEED IS 110 MPH OR GREATER AND THE EAVE IS 20 FEET OR HIGHER ABOVE GRADE.
  - THE BASIC WIND SPEED IS 120 MPH OR GREATER.
  - SPECIAL WIND ZONES.

**GENERAL UPLIFT CONNECTION NOTES**

**ROOF ASSEMBLY TO WALL ASSEMBLY:**  
UPLIFT CONNECTIONS SHALL BE FROM RAFTER OR TRUSS TO WALL STUD. WHEN RAFTERS OR TRUSSES ARE NOT LOCATED DIRECTLY ABOVE STUDS, RAFTERS SHALL BE ATTACHED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.10.

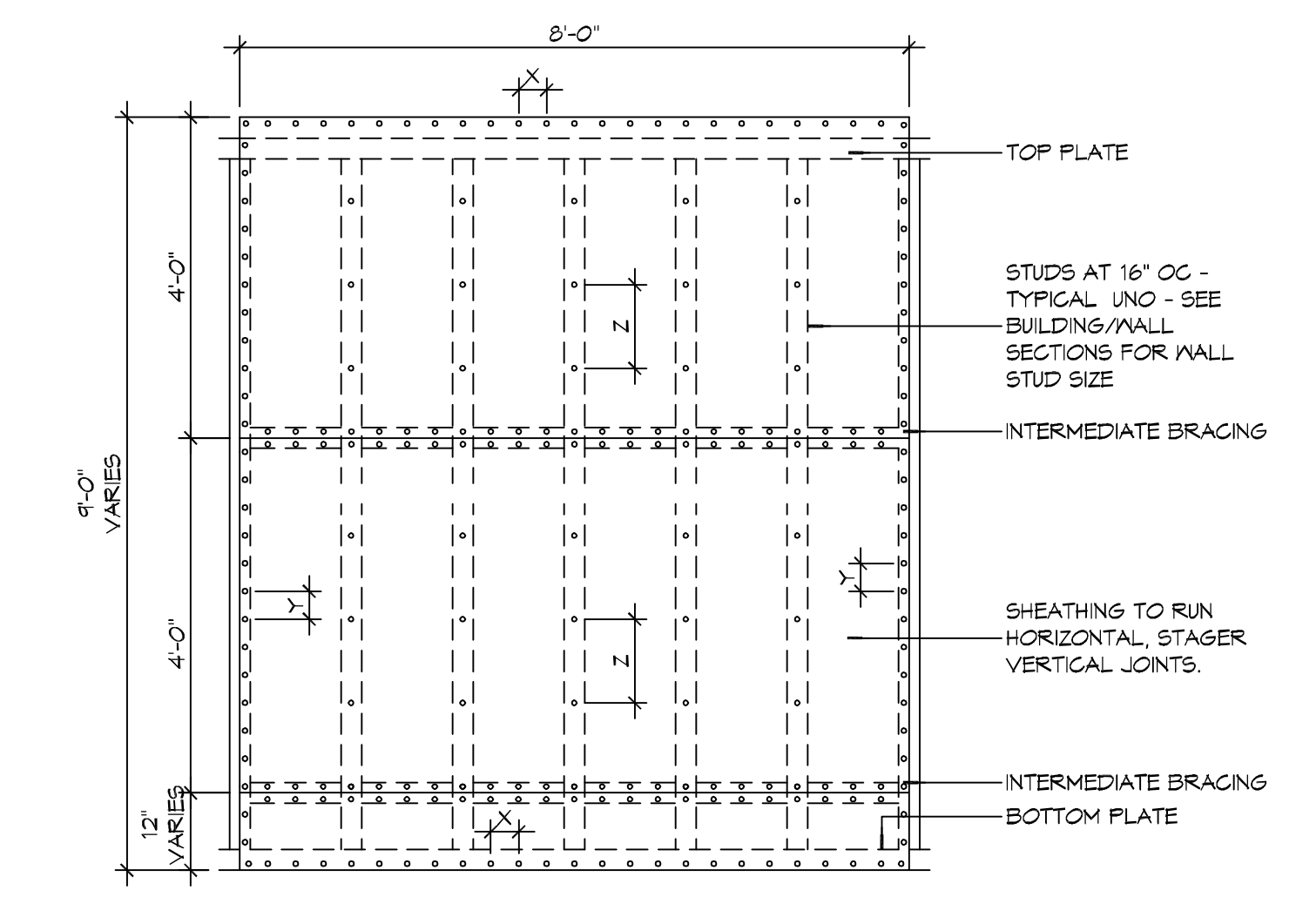
**WALL ASSEMBLY TO WALL ASSEMBLY:**  
STORY TO STORY UPLIFT CONNECTIONS FROM UPPER STORY WALL STUD TO LOWER STORY WALL STUD. WHEN UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS, THE STUDS SHALL BE ATTACHED TO A COMMON MEMBER IN THE FLOOR ASSEMBLY BY UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.11.

**WALL ASSEMBLY TO FOUNDATION:**  
FIRST FLOOR WALL STUDS SHALL BE CONNECTED TO THE FOUNDATION SILL, PLATE, OR BOTTOM PLATE. A MINIMUM OF A 1-1/4" x 20 GA. ASTM A653 GRADE 33 STEEL STRAP SHALL BE NAILED TO THE WALL STUDS AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE FOUNDATIONS AND SLABS-ON-GRADE, 15 INCHES IN MASONRY BLOCK FOUNDATIONS, OR BE LAPPED UNDER THE BOTTOM PLATE. 3 INCH SQUARE WASHERS SHALL BE USED ON THE ANCHOR BOLTS AND ANCHOR BOLT SPACINGS SHALL NOT EXCEED THE REQUIREMENTS. STEEL STRAPS EMBEDDED IN OR IN CONTACT WITH SLAB-ON-GRADE OR MASONRY BLOCK FOUNDATIONS SHALL BE HOT-DIPPED GALV. AFTER FABRICATION, OR MANUF. FROM G185 OR Z450 GALV. STL. CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.12.

**TABLE S601.1 - ROOF SHEATHING OR CLADDING REQUIREMENT - WIND LOAD EXP "C"**

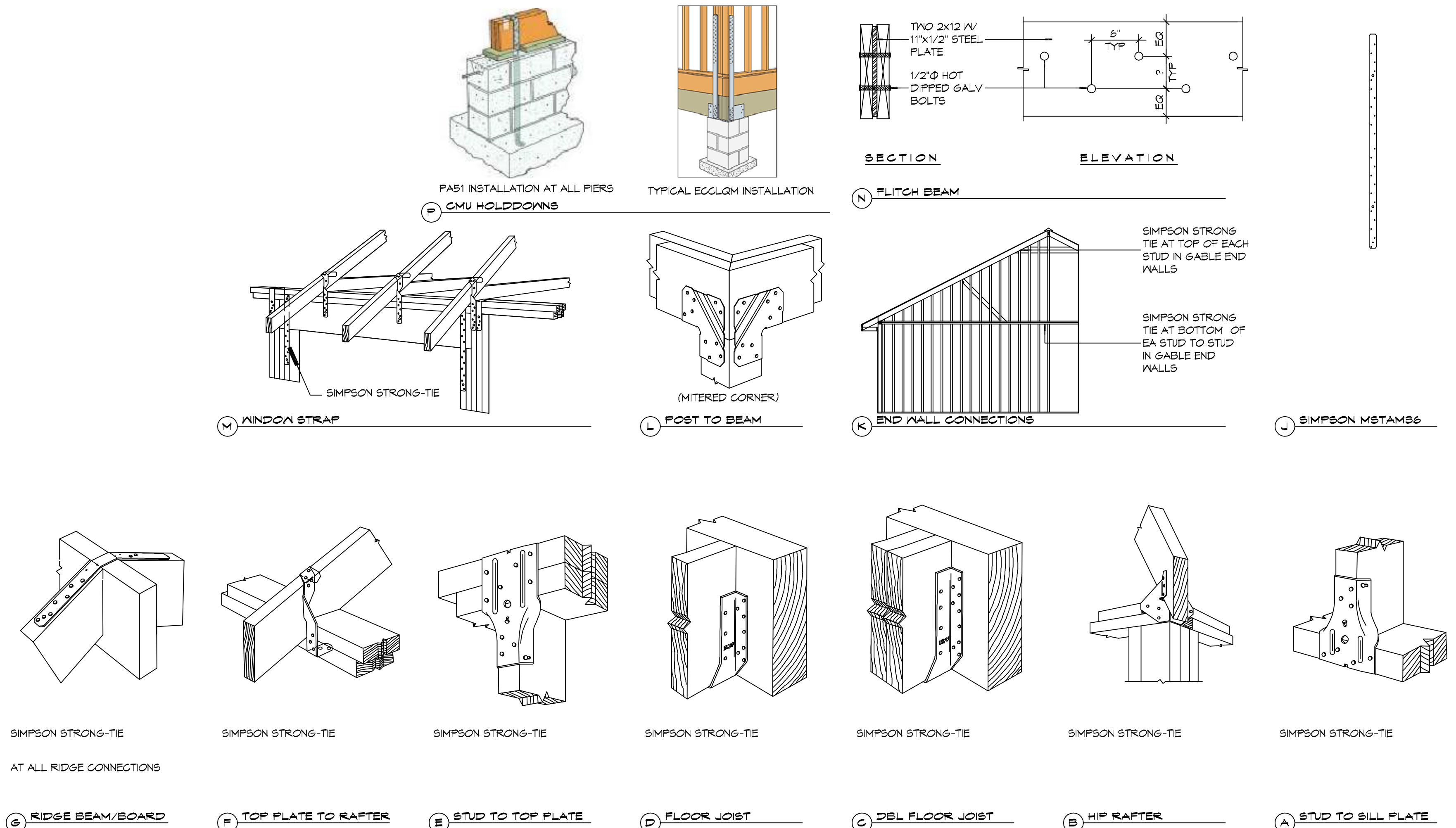
SHEATHING LOCATION	RAFTER / TRUSS SPACING	E F	
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	6
PERIMETER EDGE ZONE	12" OC	6	6
	16" OC	4	4
	24" OC	3	3

130 MPH WIND - EXPOSURE "C" TYPICAL  
E = NAIL SPACING AT PANEL EDGES, INCHES.  
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.



**NAIL SPACING**  
X = 4" OC  
Y = 4" OC  
Z = 12" OC

X = PLATE EDGE NAIL SPACING  
Y = LONG EDGE NAIL SPACING  
Z = FIELD NAIL SPACING



**1 TYPICAL CONNECTION DETAILS (130 MPH WIND EXP "C")**  
SCALE: NTS

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REVISIONS: \_\_\_\_\_  
# DESCRIPTION: \_\_\_\_\_  
SEAL: \_\_\_\_\_

**REGISTERED PROFESSIONAL ENGINEER**  
#52 SEWARD CT.  
NOLA, LOUISIANA 70131  
JOB No: 2311 DATE: 05-15-17  
DRAWN BY: CKD CHECKED BY: BAW

SHEET TITLE: TYPICAL CONNECTION DETAILS, SCHEDULES, AND NOTES  
DRAWING NUMBER: **S103**  
SHEET No: 3 of 3