GENERAL STRUCTURAL NOTES:

1. THE GOVERNING BUILDING CODE IS THE MINNESOTA STATE BUILDING CODE (MSBC), 2015 EDITION AS APPROVED AND AMENDED BY THE CITY OF RED WING, MN.
2. CONTRACT DOCUMENTS INCLUDE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS, BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR OTHER SUBMITTALS BY THE CONTRACTOR.
3. CONTRACTOR SHALL CROSS VERIFY ALL CONTRACT DOCUMENTS, ELEVATIONS, DIMENSIONS, AND EXISTING CONDITIONS PRIOR TO STARTING WORK. DISCREPANCIES OR CONFLICTS SHALL BE NOTED TO THE EOR IMMEDIATELY FOR REMEDIATION. SPECIFIC NOTES AND DETAILS SHALL PRESIDE OVER GENERAL NOTES AND SPECIFICATIONS.
4. THE DIMENSIONS, LOCATIONS, AND DETAILS SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE DRAWINGS BEING ISSUED. DEVIATIONS WHICH ARE NECESSARY OR WHICH CONFLICT SHALL BE REPORTED TO THE EOR. CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR DEVIATIONS NOT APPROVED BY THE EOR.
5. COSTS OF ADDITIONAL DESIGN WORK DUE TO THE SELECTION OF AN OPTION OR DUE TO ERRORS OR OMISSION IN CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. THE STRUCTURAL DRAWINGS REFLECT THE COMPLETED STRUCTURE. BRACING, SHORING, AND PROTECTION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURE SHALL NOT BE LOADED WITH CONSTRUCTION MATERIALS AND EQUIPMENT THAT EXCEEDS THE DESIGN LOADS.
7. PENETRATIONS NOT SHOWN ON THE DRAWINGS MUST BE APPROVED BY THE EOR BEFORE PLACING THROUGH STRUCTURAL ELEMENTS. CONTRACTOR SHALL PROVIDE A CAST-IN SLEEVE FOR ALL HORIZONTAL ELEMENTS THAT EXTEND THROUGH FOOTING AND FOUNDATION WALL, SUCH AS DRAIN TILE, CONDUIT, PIPING, ETC. COORDINATE SLEEVES WITH EOR. SEE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS FOR ALL PENETRATIONS AND EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
8. CONTRACTOR TO VERIFY ALL WEIGHTS, LOCATIONS & DIMENSIONS OF MECH. EQUIPMENT SHOWN AND NOTIFY THE EOR OF ANY DISCREPANCIES. COORDINATE THIS INFORMATION W/ ALL NECESSARY INDIVIDUALS.
9. PERIODIC SITE OBSERVATION BY REPRESENTATIVES OF SANDMAN STRUCTURAL ENGINEERS IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DRAWINGS. A LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE REVIEW OF THE EOR.

	FLOOR LOADS			
FLOOR	DESCRIPTION	DEAD LOAD	LIVE LOAD	NOTES
1ST	TYP RESIDENTIAL	80/ 116 PSF*	40 PSF	–
1ST	LOBBY/COMM. ROOM/FITNESS/CORRIDORS	80 / 116 PSF*	100 PSF	–
1ST	STAIRS/LANDINGS	23 PSF	100 PSF	DL TC = 15 / DL BC = 8
1ST	BALCONIES	10 PSF	60 PSF	–
2ND/3RD/4TH	TYP RESIDENTIAL	23 PSF	40 PSF	DL TC = 15 / DL BC = 8
2ND/3RD/4TH	CORRIDORS	23 PSF	40 PSF	DL TC = 15 / DL BC = 8
2ND/3RD/4TH	STAIRS/LANDINGS	23 PSF	100 PSF	DL TC = 15 / DL BC = 8
2ND/3RD/4TH	BALCONIES	10 PSF	60 PSF	4TH BALCONIES: DESIGN FOR SL = 113 PSF
* DL BREAKDOWN (8" H.C.) = 60 PSF H.C. + 10 PSF TOPPING + 10 PSF S.I.				
* DL BREAKDOWN (12" H.C.) = 96 PSF H.C. + 10 PSF TOPPING + 10 PSF S.I.				

ROOF LOADS			
GROUND SNOW LOAD	Pg	50 PSF	
FLAT ROOF SNOW LOAD	Pf	38.5 PSF	TYPICAL
FLAT ROOF SNOW LOAD	Pf	42 PSF	CANOPY
SNOW IMPORTANCE FACTOR	Is	1.0	–
EXPOSURE FACTOR	Ce	1.0	–
SLOPE FACTOR	Cs	1.0	–
THERMAL FACTOR	Ct	1.1	TYPICAL
THERMAL FACTOR	Ct	1.2	CANOPY
NOTES: SEE PLAN FOR SNOW DRIFT LOADS			
ROOF DEAD LOAD	DL	20 PSF	DL TC = 12 / DL BC = 8

WIND LOADS			
ULT. DESIGN WIND SPEED	V–Ult	115 MPH	–
NOMINAL DESIGN WIND SPEED	V–asd	90 PMH	–
RISK CATEGORY	–	II	–
EXPOSURE CATEGORY	–	C	–
INTERNAL PRESSURE COEFFICIENT	GCpi	+/– 0.18	–
C & C BASE PRESSURE	qh–Ult	31.6 PSF	–

EQUIVALENT LATERAL EARTH PRESSURES USED:			
SOIL	TYPE	PRESSURE	NOTES
POORLY GRADED SANDS	AT REST	53 PCF	USED FOR BASEMENT WALL DESIGN
POORLY GRADED SANDS	ACTIVE	34 PCF	USED FOR CANTILEVER STEM RETAINING WALL DESIGN
REFER TO GEOTECHNICAL REPORT FOR BACKFILLING REQUIREMENTS. SOIL RETAINING/BASEMENT WALLS ON PROJECT HAVE NOT BEEN DESIGNED TO WITHSTAND HYDROSTATIC PRESSURE.			

FOUNDATION NOTES:

1. FOOTINGS ARE DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 3000 psf FOR STRIP FOOTINGS AND 3000 psf FOR PAD FOOTINGS. THESE VALUES ARE PER THE GEOTECHNICAL REPORT BY CVT ISSUED ON SEPTEMBER 6, 2018, REPORT #12910.18.MNR.
2. PROTECT FOOTING EXCAVATIONS FROM WATER, MOISTURE, OR FROST INFILTRATION. PRIOR TO PLACEMENT OF FOOTING CONCRETE, CLEAN FOOTING EXCAVATIONS OF SNOW, WATER, MUD, DIRT, AND DEBRIS. DO NOT PLACE FOOTINGS OR BACKFILL ON FROZEN SUB GRADE.
3. FROST COVER FOR FOOTINGS SHALL BE PER RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. SEE PLAN FOR TOP OF FOOTING ELEVATIONS AND DETAILS FOR FOOTING STEP REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE EOR IMMEDIATELY OF ANY SPECIAL SOIL OR WATER CONDITIONS THAT EXIST ON SITE.
5. BACKFILL & COMPACTION SHALL BE INSPECTED AND TESTED BY A LICENSED GEOTECHNICAL ENGINEER OR QUALIFIED FIELD TECH. THE SUBMITTAL OF TESTING REPORTS SHALL BE PER SPECIAL INSPECTION REQUIREMENTS.
6. BACKFILL SHALL BE COMPACTED BY MECHANICAL MEANS. WATER INFILTRATION SHALL NOT BE ALLOWED. BACKFILL SHALL BE PLACED IN ALTERNATIVE LIFTS ON EA SIDE OF THE FDN WALLS FOR STABILITY.
7. UNLESS SPECIFICALLY PRESCRIBED IN A GEOTECHNICAL REPORT, BACKFILL SHALL BE PLACED AND COMPACTED IN LOOSE LIFT THICKNESSES OF 6" OR LESS. MOISTURE CONTENT AT THE TIME OF COMPACTION SHOULD BE +/– 3% OF OPTIMUM MOISTURE AND IT IS RECOMMENDED ALL ENGINEERED FILL BELOW FOOTINGS BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAX DENSITY (ASTM D698–00a).
8. WALL FOOTINGS ARE TO BE CENTERED ON WALLS U.N.O. PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS U.N.O.

CONCRETE AND STEEL REINFORCEMENT NOTES:

1. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO AMERICAN CONCRETE INSTITUTION (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.

   ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
   ACI 315 "DETAILS & DETAILING OF CONCRETE REINFORCEMENT"
   ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
   ACI 306R "COLD WEATHER CONCRETING"

2. CAST–IN–PLACE CONCRETE STRENGTHS (f'c) REQUIRED (28 DAY):

FOOTINGS	3000 PSI	PIERS / COLUMNS	3000 PSI
FOUNDATION WALLS	3000 PSI	INTERIOR SLABS	3000 PSI
ABOVE GRADE WALLS	3000 PSI	EXTERIOR SLABS	4500 PSI
		(AIR ENTRAINED 5%–7% / SEE SPECS)	

3. SUBMIT CONCRETE MIX DESIGN & STRENGTH DATA TO E.O.R. FOR APPROVAL. ALL ADMIXTURES ARE THE RESPONSIBILITY OF THE CONCRETE SUPPLIER'S ENGINEER.
4. CAST–IN–PLACE CONCRETE SHALL BE SUBJECT TO TESTING BY AN INDEPENDENT TESTING LABORATORY, SEE SPECS AND SPECIAL INSPECTION REQUIREMENTS.
5. ALL CONCRETE SHALL BE PLACED PER ACI & THOROUGHLY CONSOLIDATED BY MEANS OF A VIBRATOR, PARTICULARLY AROUND REINFORCEMENT STEEL AND CORNERS OF FORM WORK.
6. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED, BILLET–STEEL, ASTM A615, U.N.O.
7. WELDED REINFORCING STEEL SHALL BE GRADE 60, LOW CARBON, ASTM A706, WHICH IS SPECIALLY MANUFACTURED TO BE WELDABLE.
8. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185 STANDARDS AND SHALL BE PLACED IN THE CENTER OF THE SLAB, U.N.O. LAP JOINTS A MINIMUM OF 6". EXTEND FABRIC TO BE WITHIN 1" OF SLAB EDGES.
9. PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC TO MAINTAIN THE SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING STEEL AND WELDED WIRE FABRIC.
10. PROVIDE EXTRA REINFORCEMENT AROUND ALL OPENINGS GREATER THAN 8" SQUARE OR ROUND. PROVIDE (2) #5 BARS @ 3" O.C. FOR EACH MAT OF BARS, AT EACH SIDE AND CORNER OF OPENING EXTENDING MINIMUM 18" PAST CORNER OF THE OPENING. PLACE 2" CLEAR FROM OPENING.
11. SEE DETAILS FOR REINFORCING LAP SPLICE SCHEDULE, UNLESS OTHERWISE NOTED ON PLAN OR DETAILS.
12. CAST DOWELS, WITH STD 90 DEG HOOK, IN FOOTINGS FOR CONCRETE PIERS AND WALLS ABOVE. DOWELS SHALL BE THE SAME SIZE AND QTY AS THE VERTICAL REINFORCING (U.N.O.)
13. SUPPLY 60 FEET EXTRA OF #5 REBAR FOR MISC. PLACEMENT AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL INCLUDE LABOR ALLOWANCE FOR PLACEMENT.
14. EXTERIOR SLABS SHALL DRAIN FREELY AWAY FROM THE BUILDING. SEE CIVIL AND ARCH. DRAWINGS FOR ELEVATIONS AND SLOPES.
15. CONTROL SAWCUT JOINTS ARE TO BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO TO SHRINKAGE STRESS CRACKING. SEE DETAIL 1/S301 FOR SLAB CONSTRUCTION JOINTS (CCJ) AND FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCH/ENG FOR APPROVAL PRIOR TO SLAB PLACEMENT.
    A. CONTROL JOINTS SHALL BE ON COLUMN LINES AND @ RE–ENTRANT CORNERS TO THE GREATEST EXTEND POSSIBLE W/ SPACING LESS THAN 12'–0" O.C. BETWEEN.
    B. CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4000sf UNLESS ALTERNATE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.
    C. PROVIDE CJ OR CCJ JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.
16. SYNTHETIC FIBER REINFORCEMENT, WHERE SPECIFIED ON PLAN FOR SLABS–ON–GRADE, TOPPINGS, AND/OR SLABS ON DECK, SHOULD BE MACROSYNTHETIC AND SHALL CONFORM TO ASTM C 1116/C (TYPE III) AND ACI 544 DOCUMENTS. DOSAGE RATE TO BE SPECIFIED BY THE CONCRETE MIX DESIGNER TO COMPLY WITH THE FOLLOWING REQUIREMENTS: FIBER DOSAGE TO BE EQUIVALENT TO THE DISTRIBUTED STEEL REINFORCEMENT OF ACI 318 FOR MINIMUM SHRINKAGE AND TEMPERATURE REINFORCEMENT RATIO OF 0.0018 (U.N.O). RESIDUAL STRENGTH AFTER FIRST CRACK SHALL BE BETWEEN 20% AND 25%. DOSAGE OF FIBER FOR SLABS ON COMPOSITE STEEL DECKING SHALL NOT BE LESS THAN 4 LB/CUBIC YARD, AS RECOMMENDED IN ANSI/SDI C – 2011. MIX DESIGN SUBMITTAL TO INCLUDE DOSAGE RATES, ENGINEERING DATA, AND HISTORICAL PERFORMANCE DATA FROM THE FIBER MANUFACTURER/SUPPLIER.
17. SEE ARCH DRAWINGS FOR DIMENSIONS OF STOOPS, FOUNDATION WALL HOLDOUTS, SLAB RECESSES. SLOPED SLABS & FOUNDATION WALL INSULATION.

POST INSTALLED ANCHORS:

1. POST INSTALLED ANCHORS NOTED ON PLAN AND/OR DETAILS NOTED SHALL BE AS FOLLOWS (U.O.N.). IF ALTERNATIVE ANCHORS ARE DESIRED, CONTRACTOR MUST SUBMIT PRODUCT DATA FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING OF MATERIALS. ANCHORS USED TO TRANSFER STRUCTURAL LOADS MUST HAVE BEEN APPROVED BY METHODS OF ACI 318 APPENDIX D FOR MECHANICAL ANCHORS AND ICC–ES AC308 FOR ADHESIVE AND TORQUE–CONTROLLED ANCHORS. ADHESIVES USED IN COLD WEATHER MUST MEET ALL WEATHER REQUIREMENTS AND CODE REQUIREMENTS STATED ABOVE.

   INJECTION ADHESIVE ANCHORS: SIMPSON SET–XP ADHESIVE. THREADED RODS TO BE A193 GRADE B7 WITH EMBEDDED END CUT @ 45° ANGLE.

   EXPANSION ANCHORS: SIMPSON STRONG BOLT 2

   SCREW ANCHORS: SIMPSON TITEN HD

   POWDER ACTUATED FASTENERS (P.A.F.): 0.157"ø STEEL–TO–STEEL, THRU BASE METAL, ½" MIN. EDGE DISTANCE. 0.157"øx1¼" STEEL TO CONCRETE & MASONRY. 3" MIN. CONCRETE EDGE DISTANCE (U.N.O.).

2. POST INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO USING POST INSTALLED ANCHORS FOR MISSING OR MISPLACED C.I.P. ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS. ANCHORS AND ADHESIVE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

SHOP DRAWING & DEFERRED DESIGN SUBMITTAL NOTES:

1. CONTRACTOR TO FURNISH COMPLETE AND DETAILED SHOP DRAWING & SUBMITTALS FOR REVIEW AND APPROVAL BY THE EOR. THE FOLLOWING ARE REQUIRED FOR THIS PROJECT.

SHOP DRAWING OR SUBMITTAL	NOTES/COMMENTS
CONCRETE MIX DESIGNS	BY 3RD PARTY TESTING AGENCY
CONCRETE REINFORCEMENT	–
STRUCTURAL & MISC. STEEL	–
PRECAST / PRESTRESSED CONCRETE	DEFERRED SUBMITTAL: SEE NOTE #4
LUMBER MATERIAL GRADE & DOWEL TYPE FASTENERS	–
METAL–PLATE CONNECTED WOOD TRUSSES	DEFERRED SUBMITTAL: SEE NOTE #4
PREFABRICATED BALCONY FRAMING	DEFERRED SUBMITTAL: SEE NOTE #4
ELEVATOR	PROVIDE LOADS @ STRUCTURAL SYSTEM
SIMPSON STRONG–TIE ANCHOR TIEDOWN SYSTEM	–

2. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS. ALL SHOP DRAWINGS MUST BEAR THE REVIEW STAMP OF THE CONTRACTOR BEFORE THEY ARE REVIEWED BY THE EOR.
3. SHOP DRAWINGS SHALL SHOW ALL FIELD DETAILS AND ADDITIONAL INFORMATION NEEDED FOR THE CONTRACTOR TO CONSTRUCT THE BUILDING PER THE CONTRACT DOCUMENTS.
4. STRUCTURAL COMPONENTS/SYSTEMS DESIGNATED AS A "DEFERRED SUBMITTAL" OR AS "DELEGATED DESIGN", "DESIGNED BY OTHERS", OR "PRE–ENGINEERED" MUST INCLUDE A CALCULATION PACKAGE THAT IS STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE THE PROJECT WILL BE CONSTRUCTED, PRIOR TO SUBMITTAL FOR APPROVAL TO THE E.O.R.
5. SHOP DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING TIMES OF INSPECTION AND SHALL BE CLEARLY INDICATED THEY HAVE BEEN REVIEWED AND APPROVED BY THE EOR.
6. REVIEW OF SUBMITTALS AND SHOP DRAWINGS BY THE EOR DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR THE ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

PREFABRICATED / ALUMINUM BALCONY / CANOPY NOTES:

1. THE DEFERRED ALUMINUM DESIGN SHALL CONFORM TO THE ALUMINUM DESIGN MANUAL (LATEST ADDITION). THIS DESIGN SHALL BE DONE UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
2. THE ALUMINUM ASSEMBLIES SHALL BE DESIGNED FOR THE LIVE LOAD AND DRIFT LOADING LISTED UNDER THE DESIGN CRITERIA.
3. CONNECTIONS TO THE PRIMARY STRUCTURE SHALL BE FULLY DETAILED IN THE ALUMINUM APPROVAL SUBMITTAL AND CALCULATIONS SHALL BE PROVIDED. THE REACTIONS FROM THESE CONNECTIONS SHALL BE PROVIDED TO THE EOR TO CONFIRM THE CAPACITY OF THE SUPPORTING STRUCTURE.
4. A SEPARATION MATERIAL SHALL BE USED BETWEEN THE ALUMINUM ASSEMBLIES AND ANY DISSIMILAR METAL TO PREVENT GALVANIC CORROSION. THIS MATERIAL SHALL BE SHOWN ON THE SHOP DRAWINGS.
5. SUBMITTAL DRAWINGS & CALCULATIONS SHALL BE STAMPED & SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.

ROOF / FLOOR WOOD SHEATHING DIAPHRAGM NOTES:

1. ALL PANELS SHALL HAVE A GRADE STAMP BY AN AMERICAN PLYWOOD ASSOCIATION (APA) APPROVED AGENCY MEETING THE PROJECT REQUIREMENTS. ALL PANELS SHALL BE EXPOSURE 1, MINIMUM. IF PANELS ARE EXPOSED TO WEATHER FOR EXTENDED PERIOD OF TIME, EXTERIOR GRADE PANEL ARE RECOMMENDED. OSB PANELS TO BE PROTECTED FROM EXCESSIVE MOISTURE IF USED HORIZONTAL SURFACES SUCH AS ROOF AND FLOOR PANELS.
2. ROOF PANEL: NOMINAL THICKNESS = ½", SPAN RATING 32/16.
   FLOOR PANEL: NOMINAL THICKNESS = ¾", SPAN RATING 48/24.
   PATIO ROOF PANEL: NOMINAL THICKNESS = ¾", SPAN RATING 48/24
3. MINIMUM FASTENER REQUIREMENTS SHALL BE: 8d COMMON NAILS FOR ½" AND 10d COMMON NAILS FOR ¾", LOCATED 3/8" FROM PANEL EDGE, WITH A MINIMUM 1 ⅜" PENETRATION, FLUSH DRIVEN. FASTEN @ 6" O.C. @ SUPPORTED PANEL EDGES, AND 12" O.C. IN THE FIELD OF THE PANEL, UNLESS OTHERWISE NOTED ON THE DRAWINGS. IF 8d COOLER, DEFORMED, AND SMOOTH NAILS ARE USED AND INSTALLED WITH NAIL–GUN; MINIMUM FASTENING SPACING IS 4" O.C. AT SUPPORTED PANEL EDGES AND 8" O.C. IN THE FIELD OF THE PANEL.
4. AT ROOF OVERHANGS MINIMUM FASTENING TO BE: 8d COMMON, 6" O.C. IN FIELD & @ PANEL EDGES. IF INSTALLED WITH NAIL GUN USE 8d COOLER, DEFORMED, SMOOTH @ 4" O.C. IN FIELD AND @ PANEL EDGES.
5. PANEL JOINTS SHALL BE AT FRAMING CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANELS. PANELS SHOULD SPAN 2 OR MORE SPANS, WITH STRONG AXIS OF PANEL PERPENDICULAR TO FRAMING MEMBERS.
6. UNSUPPORTED EDGES SHALL HAVE A MINIMUM ONE PANEL EDGE CLIP, TONGUE AND GROOVE, OR BLOCKING. APA RECOMMENDS TONGUE AND GROOVE EDGES TO BE GLUED TOGETHER.
7. PANELS SHALL BE CONTINUOUS OVER 2 SPANS MINIMUM, AND SHALL HAVE THE FACE OF GRAIN PERPENDICULAR TO THE FRAMING DIRECTION.
8. MINIMUM SPACING OF NAILS TO BE 3" O.C. FOR 2X LUMBER.
9. ALL FASTENING MUST BE DRIVEN FLUSH WITH SHEATHING. IF MORE THAN 20% OF FASTENERS ARE OVERDRIVEN BY ⅛" – CONTACT ENGINEER FOR CORRECTIVE ACTION.
10. IF SHEATHING IS BEING USED WITH WOOD I–JOIST FRAMING; SHEATHING MUST BE GLUED TO I–JOIST FRAMING IN ADDITION TO TYPICAL FASTENING. GLUE SHOULD MEET AFG–01 OR ASTM D3498 SPECIFICATIONS.
11. ALL PANELS SHOULD BE LAYED OUT TO ACCOUNT FOR THERMAL EXPANSION OF THE PANELS AFTER INSTALLED. APA RECOMMENDS PROVIDING A ⅛" GAP @ ALL EDGES TO PREVENT BUCKLING CAUSED BY THERMAL STRESSES. COORDINATE SPACING WITH WITH LOCATION OF FRAMING MEMBERS BELOW.
12. ADDITIONAL PANEL CLIPS ARE REQUIRED @ UNSUPPORTED EDGES FOR PANEL WIDTHS LESS THAN OR EQUAL TO 24".

16"–24"	2 PANEL CLIPS OR 2x4 BLOCKING
<16"	2x4 BLOCKING EA EDGE

PRECAST / PRESTRESSED CONCRETE NOTES:

1. PRECAST/PRESTRESSED CONCRETE UNITS SHALL BE DESIGNED TO SUPPORT THE LOADS AND SPAN CONDITIONS PROVIDED ON THE CONTRACT DOCUMENTS. MEMBER DESIGN SHALL BE PERFORMED ACCORDING TO THE ACI 318 AND PCI LATEST EDITIONS AND UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
2. PRECAST TO PRECAST CONNECTIONS ARE THE RESPONSIBILITY OF PRECAST SUPPLIER. SHOW FIELD WELDS AND CONNECTION MATERIAL REQUIREMENTS ON SHOP DRAWING SUBMITTALS.
3. PRECAST/PRESTRESSED MEMBERS HAVE BEEN INDICATED ON THE DRAWINGS BY GENERAL SIZE AND DEPTH. THE STRUCTURAL DESIGN OF THESE MEMBERS AND THEIR LIFTING ACCESSORIES SHALL BE BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT DELEGATED BY THE PRECAST MANUFACTURER.
   A. DESIGN DEVIATIONS MUST BE SUBMITTED TO THE ARCHITECT & EOR FOR REVIEW AND APPROVAL PRIOR TO THE SUBMISSION OF STAMPED APPROVAL DRAWINGS AND CALCULATIONS..
   B. DESIGN DEVIATIONS MUST PRODUCE AN INSTALLATION EQUIVALENT TO THE BASIC INTENT WITHOUT INCURRING ADDED COSTS.
4. SUBMITTAL DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
5. HEADERS AT OPENINGS THROUGH PRECAST MEMBERS SHALL BE SUPPLIED BY THE PRECAST SUPPLIER. ADJACENT PRECAST UNITS SHALL BE DESIGNED FOR THE LOADS AT EACH BEARING LOCATION.
6. PRECAST SUPPLIER SHALL BE RESPONSIBLE FOR OPENINGS 8" AND LARGER IN SIZE THROUGH PRECAST MEMBERS. HOLES LESS THAT 8" SHALL BE CUT BY THE TRADE WITH PRIOR APPROVAL OF THE PRECAST SUPPLIER.
7. PRECAST MEMBERS SHALL BE ERECTED ALTERNATELY ON EACH SIDE OF SUPPORTING WALLS AND BEAMS TO MAINTAIN STABILITY.
8. PRECAST SUPPLIER SHALL PROVIDE AND SHOP INSTALL EMBEDDED ITEMS IN PRECAST UNITS TO THE GREATEST EXTENT POSSIBLE. COORDINATE WITH APPROPRIATE TRADES.
9. CONTRACTOR IS RESPONSIBLE TO CONTACT THE PRECAST SUPPLIER TO DEVELOP AN APPROPRIATE FIELD CORRECTION WHEN FABRICATION OR FIELD INSTALLATION ERRORS RESULT IN MISALIGNMENT OF EMBEDS OR OTHER DEVIATIONS FROM THE APPROVED SHOP DRAWINGS. PROPOSED CORRECTION DETAILS WITH SUPPORTING CALCULATIONS MUST BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO PERFORMING THE REPAIR.
10. PRECAST SUPPLIER SHALL VERIFY SIZE, QUANTITY, AND LOCATION OF OPENINGS WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS PRIOR TO FABRICATION OF THE PRECAST UNITS.

METAL PLATE CONNECTED WOOD TRUSS NOTES:

1. METAL PLATE CONNECTED WOOD TRUSSES SHALL BE ENGINEERED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT. A SEALED COVER SHEET SHALL BE SUBMITTED WITH THE SHOP DRAWINGS AT THE TIME OF SUBMITTAL. SHOP DRAWING DESIGN SUBMITTAL TO COMPLY WITH IBC SECTION 2303.4.
2. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AFPA, AND "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION."
3. TRUSSES TO BE DESIGNED TO SATISFY THE FOLLOWING DEFLECTION REQUIREMENTS. TRUSS SUPPLIER TO PROVIDE CAMBER AS NECESSARY TO COUNTER DL DEFLECTIONS.
   ROOF TL = L/360 FLOOR TL = L/360
   ROOF LL = L/480 FLOOR LL = L/480

   DEFLECTION TOTAL LOAD (TL) = K*DL+LL.
   [NOTE: "LL" TO BE EITHER SNOW, RAIN, WIND, OR LIVE]
   CREEP FACTOR (K) TO BE 1.0 (NON–WOOD FRAMING), 1.5 (SOLID SAWN OR SCL WOOD, DRY USE), OR 2.0 (METAL PLATE CONNECTED WOOD TRUSSES, DRY USE). PARTITION WALLS BELOW TRUSSES TO BE FRAMED TO ALLOW FOR THIS EXPECTED DEFLECTION.
4. TRUSS SUPPLIER TO MAKE EVERY EFFORT TO FOLLOW FRAMING SCHEME AS THE LOADS HAVE BEEN DISTRIBUTED TO THE FOUNDATION ACCORDINGLY. IF REVISED FRAMING DIRECTIONS ARE DESIRED BY SUPPLIER, PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO FOUNDATION CONSTRUCTION.
5. UNLESS OTHERWISE NOTED ON DRAWINGS, EOR HAS NOT PROVIDED STRUCTURAL SHEATHING BENEATH THE BOTTOM CHORD OF ROOF OR FLOOR TRUSSES FOR BRACING.
6. ALL HARDWARE (BOLTS, HANGERS, STRAPS, ETC) REQUIRED FOR CONNECTIONS BETWEEN TRUSSES SHALL BE DESIGNED AND SUPPLIED BY THE TRUSS ENGINEER AND SUPPLIER.
7. UNLESS NOTED OTHERWISE, ROOF TRUSSES SHALL BE ATTACHED TO THE TOP PLATE AT ALL BEARING CONDITIONS W/ SIMPSON H2.5T CLIPS INSTALLED PER MANUFACTURER'S INSTRUCTIONS. GIRDERS AND ROOF BEAMS SHOULD BE ATTACHED TO BEARING SUPPORTS WITH (2) H2.5T CLIPS.
8. DO NOT CUT OR REMOVE TRUSS MEMBERS OR MAKE FIELD ALTERATIONS TO THE TRUSSES.
9. LAYOUT AND SPACING GUIDELINES ON PLAN ARE FOR REFERENCE ONLY UNLESS SPECIFICALLY DIMENSIONED OR DETAILED.
10. GIRDER TRUSSES SHALL BE SUPPORTED BY SAME NUMBER OF STUDS AS TRUSS PLIES (MIN OF 2 STUDS) WITH CONTINUOUS SOLID BEARING TO THE FOUNDATION. AVOID BEARING GIRDER TRUSSES OVER WALL OPENINGS, UNLESS OTHERWISE DIMENSIONED ON PLAN.
11. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE (TPI) & SCBA PUBLICATION BSCI "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE FOLLOWED BY THE TRUSS INSTALLER.
12. THE METAL PLATE CONNECTED WOOD TRUSS SUPPLIER SHALL SUPPLY THE CURRENT BCSI B–SERIES SUMMARY SHEETS WITH THE TRUSS ERECTION DRAWINGS OUTLINING THE PROPER HANDLING, ERECTING, AND BRACING OF TRUSSES.
13. ERECTION BRACING OF WOOD TRUSSES IS THE RESPONSIBILITY OF THE TRUSS INSTALLER. THE TRUSS INSTALLER SHALL PROVIDE TEMPORARY DIAGONAL, LATERAL, & CROSS BRACING (PER BSCI GUIDE) UNTIL ROOF SHEATHING, CEILING & PERMANENT BRACING CAN BE APPLIED & SHEAR WALLS COMPLETED.
14. PERMANENT BRACING OF WOOD TRUSSES SHALL BE INSTALLED BY THE TRUSS INSTALLER, WHERE INDICATED BY THE TRUSS ERECTION DRAWINGS. MINIMUM BRACING REQUIREMENTS FOR TOP CHORD, BOTTOM CHORD, & WEB MEMBER PLANES SHALL BE IN ACCORDANCE W/ BSCI GUIDE UNLESS REQUIREMENTS NOTED ON THE PLAN ARE MORE STRICT.
15. SEE METAL PLATE CONNECTED WOOD TRUSS SHOP DRAWINGS FOR PERMANENT WEB AND CHORD BRACING LOCATIONS AND REQUIREMENTS.

WOOD STRUCTURAL PANEL WALL SHEATHING (WOOD FRAMING):

1. ALL PANELS SHALL HAVE A GRADE STAMP BY AN AMERICAN PLYWOOD ASSOCIATION (APA APPROVED AGENCY MEETING THE PROJECT REQUIREMENTS. ALL PANELS SHALL BE EXPOSURE 1, MINIMUM.
2. TYPICAL EXTERIOR WALL SHEATHING, U.N.O. : NOMINAL THICKNESS = 7/16", SPAN RATING 24/16.
3. PANEL JOINTS SHALL BE AT STUD CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANELS. EDGES TO BE BUTT TIGHT @ JOINTS. PANELS LESS THAN 12" WIDE SHALL NOT BE USED.
4. FASTENERS SHALL BE SPACED @ 6" O.C. ALONG ALL PANEL EDGES & @ 12" O.C. IN THE FIELD OF THE PANELS. FASTENERS TO BE LOCATED NOT LESS THAN ⅜" IN FROM THE EDGE OF THE PANEL
5. MINIMUM FASTENERS SHALL BE: 8d COMMON NAILS, WITH A MINIMUM 1⅜" PENETRATION, FLUSH DRIVEN, U.N.O.
6. IN SHEARWALL APPLICATIONS, IF PRE–FABRICATED PANELS ARE USED, WALL SHEATHING MUST SPLICE @ STUD CENTERLINE AND NOT AT A JOINT BETWEEN WALL PANELS. IF SPLICE DOES HAPPEN BETWEEN WALL PANELS, AN ALTERNATE CONNECTION OF PANELS IS TO FASTEN END STUDS OF PANELS TOGETHER W/ 16d NAILS @ 6" O.C. STAGGERED FROM BOTH SIDES. IN BOTH CASES, FIELD INSTALL UPPER TOP PLATE FOR WALL CONTINUITY PER STANDARD DETAILS.
7. IN SHEARWALL APPLICATIONS: PANEL EDGES TO BE UNBLOCKED, U.N.O. PANELS SHALL NOT BE LESS THAN 4'x8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. WALL OPENINGS, SUCH AS WINDOWS AND DOORS, DO NOT CONSTITUTE CHANGES IN FRAMING.
8. FASTENING REQUIREMENTS SHALL APPLY TO ALL STUDS, TOP & BOTTOM PLATES, & BLOCKING.
9. MINIMUM SPACING OF NAILS TO BE 3" O.C. FOR 2X LUMBER.
10. PROPOSED PENETRATIONS THROUGH SHEARWALL SHEATHING NEEDS TO BE SUBMITTED TO E.O.R. FOR APPROVAL PRIOR TO CUTTING IN THE FIELD.

WOOD FRAMING NOTES:

1. WOOD AND TIMBER CONSTRUCTION SHALL COMPLY WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) STANDARD SPECIFICATIONS.
2. WOOD CONSTRUCTION SHALL CONFORM TO CHAPTER 23 (SECTIONS 2301, 2302, 2303, 2304, 2305, & 2306) OF THE 2012 IBC FOR MINIMUM REQUIREMENTS UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. FOR MINIMUM FASTENING REFER TO TABLE IBC 2304.9.1. PER SECTION 2301.2, THE STRUCTURAL DESIGN OF THIS STRUCTURE HAS BEEN IN ACCORDANCE WITH THE "ALLOWABLE STRESS DESIGN" METHOD. PROVISIONS WITHIN SECTION 2308 "CONVENTIONAL LIGHT–FRAME CONSTRUCTION" DO NOT APPLY TO THIS STRUCTURE.
3. ALL FRAMING LUMBER SHALL BE INSTALLED WITH MOISTURE CONTENT OF 19% OR LESS INDICATING "S–DRY" ON THE GRADE STAMP.
4. ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED WITH WATERPROOFING TREATMENT, 28% MAX. MOISTURE CONTENT.
5. ALL SIMPSON STRONG–TIE CONNECTORS USED WITH PRESSURE TREATED LUMBER SHALL BE "Z–MAX" COATED AS A MINIMUM OR REQUIRED COATING TO PROTECT CONNECTORS FROM SURFACE CHEMICALS. PROVIDE A PRESERVATIVE–TREATED BARRIER BETWEEN TREATED PLATES AND HOLD–DOWNS.
6. LUMBER SHALL COMPLY WITH NATIONAL DESIGN SPECIFICATION (NDS), LATEST EDITION SUPPLEMENT FOR MINIMUM ALLOWABLE DESIGN STRESS VALUES FOR LUMBER GRADES SHOWN BELOW. ALL LUMBER FRAMING SHALL BE MARKED WITH A GRADE STAMP.

MINIMUM LUMBER DESIGN VALUES, U.N.O. ON PLAN OR DETAILS (PSI). DESIGN VALUES TAKEN FROM NDS SUPPLEMENT: TABLES 4A, 4B, & 4D						
SPECIES & GRADE	Fb	Ft	Fv	FcP	Fc	E
LOAD BEARING WALL STUDS						
SPF #1/#2	875	450	135	425	1150	1,400,000
HEADER/BEAMS/JOISTS						
HEM FIR #2	850	525	150	405	1300	1,300,000
TREATED BEAMS/JOISTS						
SOUTHERN PINE #1	1000	650	175	565	1400	1,600,000
TOP ℙ/HEADER ℙ/ABOVE GROUND SILL ℙ						
SPF #1/#2	875	450	135	425	1150	1,400,000
TREATED SILL ℙ						
SOUTHERN PINE #1	1000	600	175	565	1400	1,400,000
TREATED POSTS						
SOUTHERN PINE #2	850	550	165	375	525	1,200,000
NON–TREATED POSTS						
DOUG FIR #2	750	475	170	625	700	1,300,000
FLOOR TRUSS END RIBBONS						
MSR 2400–2.0E	2400	1925	135	425	1975	2,000,000

IF ALTERNATIVE GRADE OR SPECIES OF LUMBER IS DESIRED THAT IS EQUAL OR GREATER THAN THE ABOVE REQUIREMENTS; CONTRACTOR TO SUBMIT REQUEST TO ENGINEER FOR APPROVAL PRIOR TO ORDERING OF MATERIAL. SPF–S #2 IS SPRUCE–PINE–FIR SOUTH & IS NOT EQUIVALENT TO SPF #1/#2

7. ANCHOR TREATED SILL PLATES TO CONCRETE/MASONRY WITH ½"ø GALV A.R.'S 4'–0" O.C. MINIMUM, U.N.O. ON PLAN. HOOKED ROD W/ MINIMUM EMBED = 7"; SEE STANDARD DETAILS. THERE SHALL BE A MINIMUM OF (2) ANCHORS PER PIECE OF SILL PLATE W/ (1) BOLT LOCATED NO MORE THAN 12" OR LESS THAN 4" FROM END OF EACH SILL PLATE PIECE.
8. DIMENSIONAL LUMBER USED FOR HEADERS SHALL HAVE NO SPLITS OR CHECKS.
9. PROVIDE WASHERS PER STRUCTURAL DETAILS FOR ALL BOLTS IN WOOD MEMBERS. RE–TORQUE NUTS 48 HOURS AFTER FIRST TIGHTENING.
10. NOTCHING OR CUTTING OF STRUCTURAL WOOD MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM ENGINEER. HOLES BORED IN WALL STUDS OR JOISTS SHOULD BE IN THE CENTER HALF OF THE MEMBER AND SHALL NOT BE LARGER THAN ¼ OF THE DEPTH OF THE MEMBER. ALLOWABLE CUTTING, NOTCHING, AND BORED HOLE PROVISIONS OF IBC SECTION 2308 DO NOT APPLY TO THIS STRUCTURE.
11. LOAD BEARING STUD WALLS TO BE 2x6 @ 1'–4" O.C. U.N.O. SEE TABLE ABOVE FOR SPECIES & GRADE.
12. EXTERIOR WALLS AND LOAD BEARING WALLS SHALL BE CAPPED WITH DOUBLE TOP PLATES. THE PLATES SHALL OVERLAP AT CORNERS AND AT INTERSECTIONS WITH OTHER LOAD BEARING WALLS. SEE STANDARD DETAILS.
13. POSTS AND BEARING STUDS (JACKS/KINGS) FOR BEAMS AND HEADERS SHALL BE CONTINUOUS TO THE FOUNDATION LEVEL. PROVIDE SQUASH BLOCKING BETWEEN FLOOR LEVELS TO MATCH THE WIDTH OF THE POST/STUD ASSEMBLY FROM ABOVE.
14. TOP FLANGE OF ALL RAFTERS, JOISTS AND BEAMS TO BE LATERALLY SUPPORTED @ 24" O.C. MIN. PROVIDE BRIDGING FOR TOP FLANGE AS REQUIRED TO NEAREST FRAMING MEMBER OR PROVIDE ADEQUATELY SUPPORTED PLYWOOD DECKING.
15. PROVIDE SOLID BLOCKING AT BEARING POINTS OF ALL 2x JOISTS.
16. METAL FRAMING ANCHORS AND HARDWARE SHOULD BE AS NOTED IN DETAILS. ALTERNATIVE HARDWARE THAT IS EQUAL OR GREATER IN CAPACITY MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
17. FASTENERS IN CONTACT WITH PRESERVATIVE–TREATED WOOD SHALL BE OF HOT–DIPPED ZINC–COATED GALVANIZED STEEL OR STAINLESS STEEL. THIS INCLUDES NAILS, TIMBER RIVETS, WOOD SCREWS, THRU BOLTS, AND LAG SCREWS.
18. STRUCTURAL LOAD BEARING OR LATERAL LOAD RESISTING WALLS ARE SHOWN ON THE PLAN. SEE ARCH DRAWINGS FOR PARTITION WALLS, PROVIDE NECESSARY CONNECTION/ALLOWANCE OF PARTITION WALLS TO UNDERSIDE OF FLOOR AND ROOF FRAMING TO ACCOUNT FOR FRAMING DEFLECTION.
19. DRILL BOLT/ANCHOR HOLES IN WOOD 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE BOLT. REPAIR OVERSIZED HOLES WITH BEARING PLATE WASHERS.
20. ALL JOISTS, TRUSSES, HEADERS, AND BEAMS SHALL HAVE FULL BEARING UNLESS NOTED OTHERWISE NOTED ON THE DETAILS.
21.

MINIMUM DESIGN VALUES FOR ENGINEERED WOOD MATERIALS. U.N.O. ON PLAN OR DETAILS (PSI)			
MATERIAL & FUNCTION	Fb	Fcll	E
LVL BEAMS	3100	N/A	2,000,000
LSL BEAMS	2325	N/A	1,550,000
PSL BEAMS	2900	N/A	1,200,000
PSL COLUMNS	N/A	2500	1,800,000

22.

MINIMUM DIMENSIONS OF FASTENERS, U.N.O. [NDS APPENDIX L] UNITS = INCHES								
FASTENER TYPE	L	D	H		FASTENER TYPE	L	D	H
NAIL: 6d	2	0.113	0.266		NAIL: 16d	3½	0.162	0.344
NAIL: 8d	2½	0.131	0.281		NAIL: 30d	4½	0.207	0.438
NAIL: 10d	3	0.148	0.312		#6 TYPE S OR W DRYWALL SCREW	1⅞"	N/A	N/A

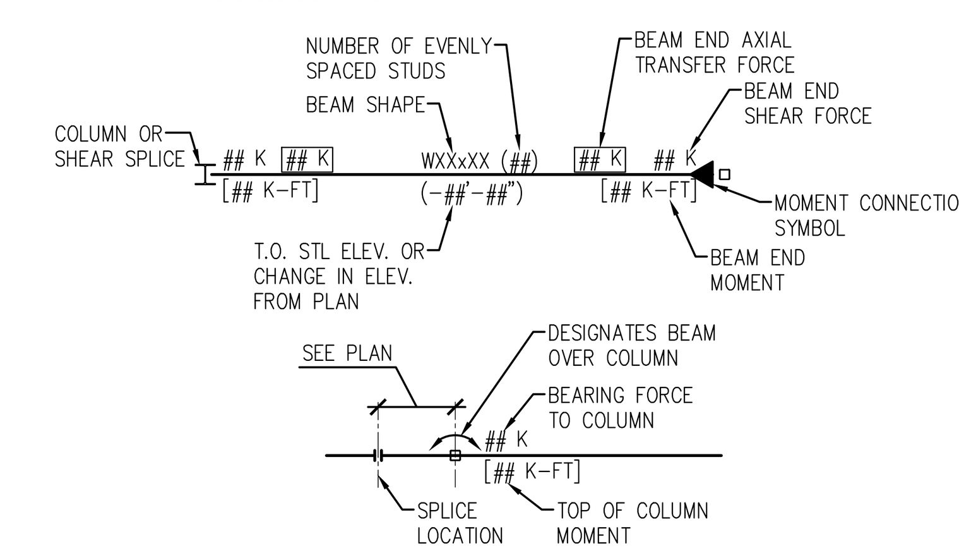
L = LENGTH
D = DIAMETER
H = HEAD DIAMETER

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED PER AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) REQUIREMENTS (AISC 360–10, 14TH ED.)
2.

MATERIAL QUALIFICATIONS, U.N.O. ON DRAWINGS:				
SHAPE	Fy	Fu	ASTM STD	NOTES
W, S, & M SHAPES	50 KSI	–	A992	–
STANDARD PIPES	35 KSI	–	A53 GRADE B	–
HSS ROUND	42 KSI	–	A500 GRADE B	–
HSS SQ. & RECTANGULAR	46 KSI	–	A500 GRADE B	–
C, MC, PLATE, & ANGLES	36 KSI	–	A36	–
ANCHOR RODS *	55 KSI	–	F1554	A563 HEAVY HEX NUT
THREADED RODS **	–	125 KSI	A193 GRADE B7	A563 HEAVY HEX NUT
SHEAR STUD CONNECTORS	–	65 KSI	A108	–
HIGH STRENGTH BOLTS	–	120 KSI	A325	A563 HEAVY HEX NUT
WASHERS	–	–	F436	–
* GRADE IS 55 MUST HAVE S1 CERTIFICATION FOR BEING WELDABLE. GRADE 105 CANNOT BE WELDED.				
** THREADED ROD APPLICATIONS INCLUDE POST–INSTALLED ADHESIVE ANCHORS				

3. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY (AWS) AND AISC. ELECTRODES TO BE E70XX.
4. UNSPECIFIED WELDS SHALL BE CONTINUOUS FILLETS WITH A MINIMUM SIZE PER MATERIAL THICKNESS PER AISC MANUAL.
5. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS EXPERIENCED IN THE TYPE CONSTRUCTION INVOLVED. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.
6. STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL FIELD AND SHOP WELDING REQUIREMENTS USING AWS SYMBOLS.
7. STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL FIELD ERECTION DETAILS FOR THE CONTRACTOR TO ERECT THE STRUCTURE ACCORDING TO THE CONTRACT DRAWINGS.
8. COVER STEEL SURFACES WITH ASPHALTIC BASED ROOFING COMPOUND PRIOR TO CASTING CONCRETE AROUND COLUMN BASES. ALL STEEL MEMBERS SHALL RECEIVE A PRIME COAT OF PAINT EXCEPT STEEL SCHEDULED TO BE FIREPROOFED.
9. BOLTED CONNECTIONS SHALL BE MADE USING ¾"ø A325 BOLTS AND WASHERS (UNLESS OTHERWISE REQUIRED BY DESIGN). BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED. ALL HOLES MUST BE DRILLED OR PUNCHED. FLAME CUTTING OF HOLES IS NOT PERMITTED.
10. FIELD NOTCHING OR COPING OF STRUCTURAL STEEL MEMBERS IS NOT ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER. ADDITIONAL WELDING, OUTSIDE OF WHAT IS SHOWN ON SPECIFIC DETAIL, IS NOT ALLOWED W/O PRIOR APPROVAL FROM ENGINEER.
11. ROOF PERIMETER STEEL ELEMENTS SUCH AS ANGLES OR BENT PL's, NOTED TO BE CONTINUOUS, SHALL BE FIELD SPLICED WITH A FULL LENGTH SQUARE GROOVE FULL PENETRATION WELD UTILIZING A MINIMUM ⅛" ROOT OPENING.
12. KEEP STEEL FREE OF PAINT AND PRIMER THAT IS TO BE FIELD WELDED.
13. BEAM CONNECTIONS SHALL CONFORM TO AISC MANUAL OF STEEL CONSTRUCTION (ASD), LATEST EDITION. UNLESS NOTED ON PLAN, CONNECTIONS SHALL BE SIZED TO SUPPORT ½ UNIFORM LOAD CAPACITY LISTED IN PART 10 OF THE ASD. UNLESS SPECIFICALLY AND FULLY DETAILED HEREIN, CONNECTION DESIGN IS PER OPTION 3B OF AISC CODE OF STANDARD PRACTICE.
14. PROVIDE SHRINKAGE RESISTANT GROUT CONFORMING TO ASTM C1107 UNDER ALL COLUMN BASE PLATES. GROUT STRENGTH TO HAVE A MINIMUM DESIGN COMPRESSIVE STRENGTH AT LEAST TWICE THE STRENGTH OF THE FOUNDATION CONCRETE.
15. DO NOT MODIFY ANY ANCHOR BOLT SETTINGS OR BASE PLATE HOLES WITHOUT PRIOR APPROVAL FROM STRUCTURAL ENGINEER.
16. STRUCTURAL STEEL BEAM KEY:



STEEL LINTELS

17. LINTELS NOT SHOWN ON PLAN SHALL BE THE FOLLOWING, PROVIDE 8" MIN BEARING LENGTH. EACH ANGLE SHALL BE PROVIDED PER 4" OF WALL THICKNESS.

SPAN	SIZE
< 4'–0"	∠3½x3½x¼
4'–0" < 6'–0"	∠4x3½x¼ (LLV)
6'–0" < 8'–0"	∠5x3½x5⁄16 (LLV)
>/= 8'–0"	CONTACT STRUCTURAL ENGINEER

STRUCTURAL SHEET INDEX		
SHEET #	SHEET NAME	COMMENTS
S001	STRUCTURAL NOTES	–
S002	SPECIAL INSPECTIONS	–
S101A	FOUNDATION PLAN	–
S101B	FOUNDATION PLAN	–
S201A	FIRST FLOOR FRAMING PLAN	–
S201B	FIRST FLOOR FRAMING PLAN	–
S202A	SECOND FLOOR FRAMING PLAN	–
S202B	SECOND FLOOR FRAMING PLAN	–
S203A	THIRD FLOOR FRAMING PLAN	–
S203B	THIRD FLOOR FRAMING PLAN	–
S204A	FOURTH FLOOR FRAMING PLAN	–
S204B	FOURTH FLOOR FRAMING PLAN	–
S205A	ROOF FRAMING PLAN	–
S205B	ROOF FRAMING PLAN	–
S206	SHEARWALL PLAN	–
S207	SHEARWALL DETAILS	–
S301	FOUNDATION DETAILS	–
S302	FOUNDATION DETAILS	–
S401	FRAMING DETAILS	–
S402	FRAMING DETAILS	–
S403	FRAMING DETAILS	–
S404	FRAMING DETAILS	–
S405	FRAMING DETAILS	–

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 - www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
STRUCTURAL NOTES

SHEET NO.
S001

Proj. #18124-4

SPECIAL INSPECTIONS AND TESTING:

THIS PROJECT REQUIRES SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION. THESE NOTES AND THE STATEMENT OF SPECIAL INSPECTIONS PREPARED FOR THE PROJECT OWNER ARE INTENDED TO INFORM THE CONTRACTOR OF THE QUALITY ASSURANCE PROGRAM AND THE EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES. CONTRACTOR SHALL REFERENCE PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE TESTING AND INSPECTION SERVICES SECTION WILL CLARIFY WHO SHALL EMPLOY AND PAY FOR SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM ALL INSPECTIONS, SPECIAL INSPECTIONS, AND TESTING FOR PROJECT.

GENERAL NOTES:

1. THE SPECIAL INSPECTION AND TESTING PROGRAM IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITY TO COMPLY WITH THE OFFICIAL CONTRACT DOCUMENTS. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR ANY DEVIATIONS FROM THE OFFICIAL CONTRACT DRAWINGS. THE SPECIAL INSPECTOR DOES NOT REPLACE THE DUTIES OF THE BUILDING OFFICIAL NOR THE QUALITY CONTROL RESPONSIBILITIES AND PERSONNEL OF THE CONTRACTOR. JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
3. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE IBC SECTION 110 AND SPECIFIC STRUCTURAL OBSERVATION AS MAY BE REQUIRED BY THE CODE.
4. THOUGH NOT REQUIRED BY CODE, SPECIAL INSPECTORS AND/OR INSPECTION AGENCIES CAN DOCUMENT ACCEPTANCE OF THEIR RESPONSIBILITIES AND SCOPE OF WORK FOR A PROJECT BY SIGNING AN AGREEMENT THAT INCLUDES A DETAILED SCHEDULE OF SERVICES, COMMONLY KNOWN AS THE SPECIAL INSPECTION AND TESTING AGREEMENT AND THE SPECIAL INSPECTION AND TESTING SCHEDULE. THIS DOCUMENT MAY REFERENCE THIS SHEET AS THE "STATEMENT OF SPECIAL INSPECTIONS," (SSI).
5. THE STRUCTURAL DESIGN METHODS AND/OR ASSUMPTIONS UTILIZED ARE BASED UPON THE SPECIAL INSPECTIONS REQUIRED WITHIN THE CONTRACT DOCUMENTS.

CONTRACTOR RESPONSIBILITIES AND DUTIES:

1. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PROVIDING ADEQUATE NOTICE TO THE SPECIAL INSPECTORS FOR ALL INSPECTIONS. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE REQUIRED ITEMS PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF WORK.
2. THE CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO THE APPROVED CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER. THIS CURRENT SET OF DOCUMENTS SHALL BE AVAILABLE AT THE JOB SITE.
3. THE CONTRACTOR IS TO CORRECT DISCREPANCIES AND DEVIATIONS AS DETERMINED BY SPECIAL INSPECTOR. ALL DISCREPANCIES AND DEVIATIONS OBSERVED SHALL BE RE-INSPECTED UNTIL THE SPECIAL INSPECTOR DEEMS CONSTRUCTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR IS TO RETAIN SPECIAL INSPECTION RECORDS COMPLETED BY THE SPECIAL INSPECTORS AT THE JOB SITE.

SPECIAL INSPECTOR QUALIFICATIONS AND RESPONSIBILITIES:

1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
2. SPECIAL INSPECTORS SHALL NOTIFY CONTRACTOR PERSONNEL OF THEIR PRESENCE AND RESPONSIBILITIES AT THE JOBSITE.
3. THE SPECIAL INSPECTOR/TESTING AGENCY SHALL BE INDEPENDENT OF THE CONTRACTOR TO AVOID CONFLICT OF INTEREST.
4. THE SPECIAL INSPECTOR IS OBLIGATED TO BOTH THE OWNER AND THE BUILDING OFFICIAL FOR OBSERVING THAT THE WORK IS EXECUTED IN ACCORDANCE WITH THE OFFICIAL CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER.
5. SPECIAL INSPECTORS SHALL KEEP ORGANIZED RECORDS OF INSPECTIONS AND SUBMIT INSPECTION REPORTS WITH A MINIMUM WEEKLY FREQUENCY TO THE CONTRACTOR, BUILDING OFFICIAL, ENGINEERS, AND ARCHITECTS INDIVIDUALLY. REPORTS SHOULD INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION TO THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THEY SHOULD BE REPORTED TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD.
6. A FINAL SIGNED REPORT IS TO BE SUBMITTED AT THE END OF THE PROJECT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES. THIS REPORT SHOULD STATE THAT ALL ITEMS REQUIRING SPECIAL INSPECTION AND TESTING WERE FULFILLED AND REPORTED TO THE BEST OF THEIR KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS, AND THE APPLICABLE PROVISIONS OF THE IBC. ITEMS NOT IN CONFORMANCE, UNRESOLVED ITEMS, OR ANY DISCREPANCIES IN INSPECTION COVERAGE SHOULD BE SPECIFICALLY ITEMIZED.
7. THE FOLLOWING ARE THE QUALIFICATIONS FOR FOR INDIVIDUALS PERFORMING SPECIFIC INSPECTIONS OR TESTS INCLUDING IN THIS PROJECT'S SSI.

   A. AMERICAN CONCRETE INSTITUTE (ACI):
      - CONCRETE FIELD TESTING TECHNICIAN – GRADE 1 (ACI-CFTT)
      - CONCRETE CONSTRUCTION INSPECTOR (ACI-CCI)
      - LABORATORY TESTING TECHNICIAN – GRADE 1 OR 2 (ACI-LTT)
      - STRENGTH TESTING TECHNICIAN (ACI-STT)

   B. AMERICAN WELDING SOCIETY (AWS):
      - CERTIFIED WELDING INSPECTOR (AWS-CWI)
      - CERTIFIED STRUCTURAL STEEL INSPECTION (AWS/AISC-SSI)

   C. AMERICAN SOCIETY OF NON-DESTRUCTIVE TESTING (ASNT)
      - NON-DESTRUCTIVE TESTING TECHNICIAN – LEVEL II OR III (ASNT)

   D. INTERNATIONAL CODE COUNCIL (ICC):
      - STRUCTURAL MASONRY SPECIAL INSPECTOR (ICC-SMSI)
      - STRUCTURAL STEEL AND BOLTING SPECIAL INSPECTOR (ICC-SSSI)
      - STRUCTURAL WELDING SPECIAL INSPECTOR (ICC-SWI)
      - PRESTRESSED CONCRETE SPECIAL INSPECTOR (ICC-PCSI)
      - REINFORCED CONCRETE SPECIAL INSPECTOR (ICC-RCSI)
      - SOILS SPECIAL INSPECTOR (ICC-SSI)

   E. PROFESSIONAL STATE LICENSING:
      - PROFESSIONAL ENGINEER (PE)

STATEMENT OF SPECIAL INSPECTIONS (SSI):

1. THE FOLLOWING TABLES INDICATE THE MINIMUM SPECIFIC SPECIAL INSPECTION AND TESTING TO BE PERFORMED ON THIS PROJECT AND THE QUALIFICATIONS OF THE INDIVIDUAL INSPECTORS AND TESTING TECHNICIANS.

DEFINITIONS:

1. CONTINUOUS SPECIAL INSPECTION: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. 100% OF THE WORK MUST BE INSPECTED AND IT MUST BE INSPECTED AS THE WORK IS BEING PERFORMED.
2. PERIODIC SPECIAL INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN, OR IS BEING, PERFORMED AND AT THE COMPLETION OF WORK.
3. YES: THIS INSPECTION AND/OR TESTING IS REQUIRED BY THE BUILDING CODE AND MUST BE PERFORMED.
4. NO: THIS INSPECTION AND/OR TESTING IS NOT APPLICABLE TO THE PROJECT, AND NEED NOT BE PERFORMED.
5. SUGGESTED: THIS INSPECTION AND/OR TESTING IS NOT REQUIRED BY THE BUILDING CODE. HOWEVER, THE ENGINEER OF RECORD RECOMMENDS IMPLEMENTING THEM FOR QUALITY ASSURANCE. A POTENTIAL EXISTS FOR THESE MEASURES TO BE A VALUE ADDED SERVICE FOR THE OWNER TO ENSURE PROPER PROJECT COMPLETION.

SPECIAL INSPECTIONS – SOILS AND FOUNDATIONS

VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Shallow Foundations	ICC-SSI PE-GEOTECH.	Inspect Soils below footings for adequate bearing capacity and consistency with geotechnical report	N/A	Periodic testing to verify compliance with project specifications & geotechnical report	YES
2. Controlled Structural Fill	ICC-SSI PE-GEOTECH.	Perform applicable sieve tests and modified Proctor tests of each source of fill. Inspect placement, lift thickness, and compaction. Test density of each lift. Verify extent and slope of fill placement.	Applicable ASTM Specs	Periodic testing to verify compliance with project specifications & geotechnical report	YES
3. Deep Foundation: Driven Piles	PE-GEOTECH.	Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria. Inspect piles for damage from driving and plumbness. Verify pile size, length and accessories.		Continuous	NO
4. Deep Foundation: Drilled Pier Foundations	PE-GEOTECH.	Inspect installation and maintain complete records for each pier. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata		Continuous	NO

SPECIAL INSPECTIONS – CAST-IN-PLACE CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Mix Design	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added on site does not exceed that allowed by the mix design.	ACI 318	Prior to start of concrete construction on project, Periodic	YES
2. Material Certification	STRUCTURAL ENGINEER OF RECORD	Verify that concrete supplier's concrete components meet requirements set forth by applicable ASTM standards.	Applicable ASTM & ACI Specs	Prior to start of concrete construction on project	SUGGESTED
3. Reinforcement Installation	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters	Applicable ACI Specs	Prior to each casting	SUGGESTED
4. Welding of Reinforcing	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required	Applicable ASTM & AWS Specs	Continuous	SUGGESTED
5. Anchor Rods	ACI-CCI ICC-RCSI	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors	Applicable AISC & ACI Specs	Prior to each casting	SUGGESTED
6. Concrete Placement	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.	Applicable ACI Specs	Periodic	SUGGESTED
7. Sampling and Testing of Concrete	ACI-CFTT ACI-LTT ACI-STT	Test Concrete compressive strength, slump, air content and temperature	Applicable ACI and ASTM Specs	Not less than once a day, nor less than once for every 150 cubic yard, nor less than once for every 5000 SF of surface area for slabs or walls	YES
8. Curing and Protection	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures	Applicable ACI Specs	Monitor on site after each casting	SUGGESTED
9. Post-Installed Anchors	ACI-CCI ICC-RCSI	Inspect installation for type of anchor, embedment, edge distances & adhesive required	ACI & Supplier's Specs	Continuous	YES
Exceptions per section 1705.3: Special Inspections are not required for the following unless otherwise required by the Building Official or Structural Engineer of the Record.					
1. Nonstructural concrete slabs supported directly on the ground.					
2. Concrete patios, driveways and sidewalks, on grade.					

SPECIAL INSPECTIONS – WOOD CONSTRUCTION

VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Fabricator Certification/Quality Control Procedures	–	Fabricated to be enrolled in a nationally accepted inspection program acceptable to the Structural drawings and specifications. The approved fabricator to submit a certification of compliance to the building official.		N/A	YES
2. Material Grading		Review sheathing, framing members, wall studs, plates for proper species and grade	Applicable APA & ATC Specs	Prior to Construction & Periodic during construction	YES
3. Connections		Inspect connection of framing members. Including nail and bolts for size and spacing. Verify metal hardware connectors for type and proper installation	ANSI/AF&PA & Supplier's Specs	Periodic	SUGGESTED
4. Framing and Details		Inspect framing for plumbness, spacing, bearing length, and size. Verify bracing is installed as required.	ANSI/AF&PA	Periodic	SUGGESTED
5. Diaphragms and Shearwalls		Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness. Verify size and installation of hold-downs and straps.	ANSI/AF&PA & Supplier's Specs	Periodic	YES
6. Prefabricated Wood Trusses & I-Joists		See Item #1. Inspect installation for location, spacing, bearing length, connectors, and permanent bracing.	ANSI/AF&PA & Supplier's Specs	Periodic	SUGGESTED

SPECIAL INSPECTIONS – STRUCTURAL STEEL

VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Fabricator Certification/Quality Control Procedures	–	Review shop fabrication and quality control procedures.		N/A	YES OR PRE-APPROVAL
2. Material Certification	STRUCTURAL ENGINEER OF RECORD	Review certified mill test reports and identification markings on shapes, high strength bolts, nuts cold-formed steel deck, and welding electrodes	Applicable ASTM, AWS & AISC Specs	Prior to start of fabrication	NO
3. Open Web Steel Joists	ICC-SSSI	Inspect installation, field welding, bearing length and bridging of joists	SJI	–	YES
4. Bolting – Bearing-Type Connections	AWS/AISC-SSI ICC-SSSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension controlled bolts	Applicable ASTM & AISC Specs	Periodic	NO
5. Bolting – Slip-Critical Connections	AWS/AISC-SSI ICC-SSSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension controlled bolts	Applicable ASTM & AISC Specs	Continuous	NO
6. Welding – Complete & Partial Penetration Groove Welds	AWS-CWI ASNT	Visually inspect welds. Ultrasonic testing of all full-penetration welds	AWS D1.1	Continuous	NO
7. Welding – Multipass Fillet Welds	AWS-CWI	Visually inspect welds. Inspect pre-heat, post-heat and surface prep. between passes. Verify size and length of fillet weld	AWS D1.1	Continuous	NO
8. Welding – Single-pass fillet welds greater than 5/16"	ICC-SSSI AWS-CWI	Visually inspect welds. Verify size and length of fillet weld	AWS D1.1	Continuous	NO
9. Welding – Single-pass fillet welds less than or equal to 5/16"	ICC-SSSI AWS-CWI	Visually inspect welds. Verify size and length of fillet weld	AWS D1.1	Periodic	YES
10. Welding/Mech Fastening – Floor and roof decks	AWS/AISC-SSI ICC-SSSI	Visually inspect welds. Verify size and spacing of deck attachment	AWS D1.3 & SDI	Periodic	NO
11. Shear Connectors	AWS/AISC-SSI ICC-SSSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring Test all shear connectors w/ 3 lb hammer. Bend test all questionable studs to 15 degrees.	Applicable ASTM & AISC Specs	Periodic	NO
12. Structural Details	AWS/AISC-SSI ICC-SSSI	Inspect steel frame for compliance with structural drawings, including bracing, member configurations and connection details	Applicable AISC Specs	Periodic	YES

SPECIAL INSPECTIONS – PRECAST CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	AGENCY QUALIFICATION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Supplier's Plant Certification/Quality Control Procdures	Per PCI requirements	Precast supplier to perform all work per PCI requirements. Maintain plant records and quality control program during production of precast components. All components of precast production to be tested per PCI requirements. Make records available upon request	Applicable PCI & ACI Specs	Per PCI requirements	YES
2. Erection of Precast Elements	ICC-PCSI	Inspect erection of precast concrete including member configuration, connections, welding and grouting	Applicable PCI & ACI Specs	Periodic	YES

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

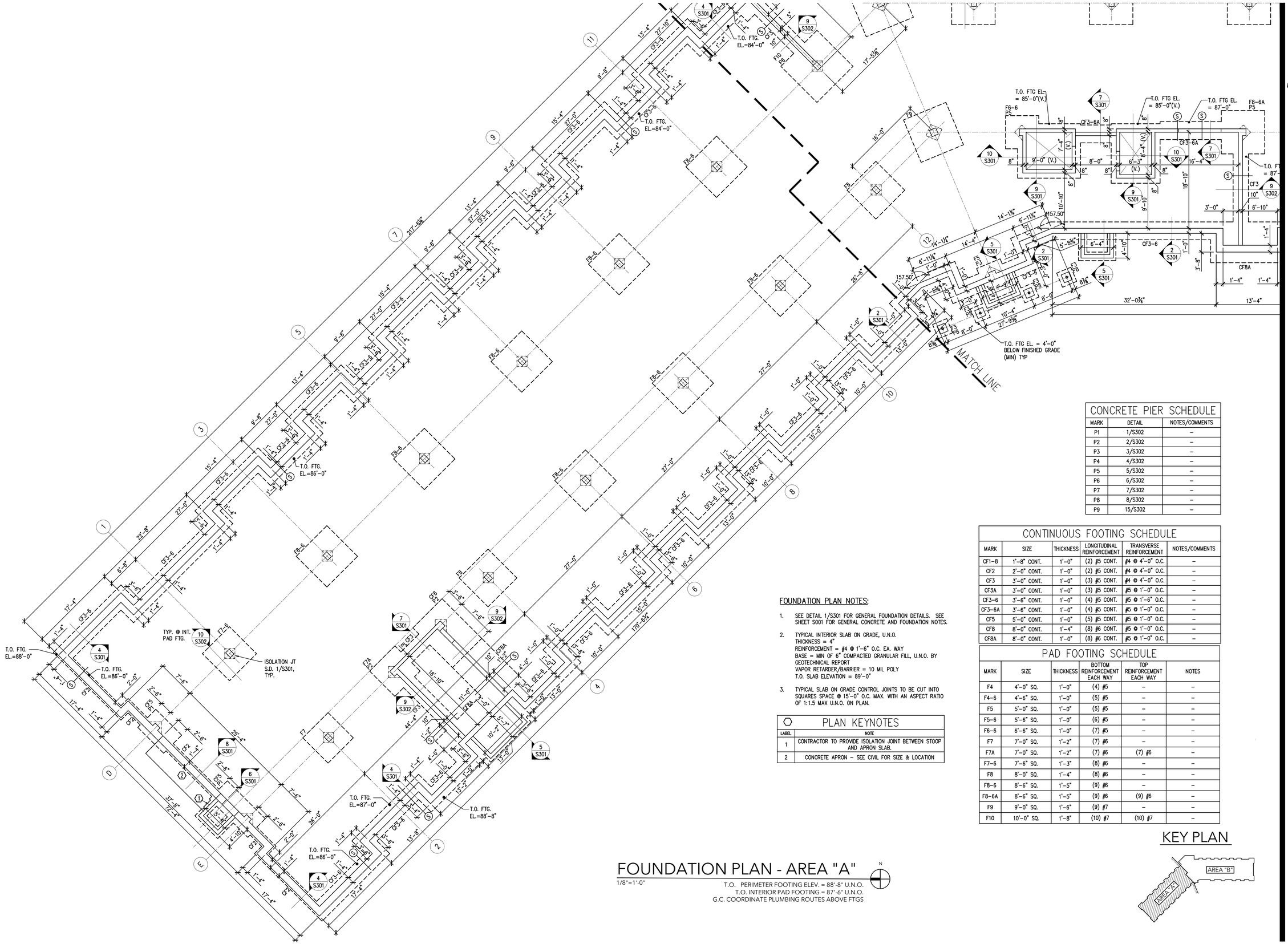
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
SPECIAL INSPECTIONS

SHEET NO.
S002

Proj. #18124-4



CONCRETE PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1	1/S302	–
P2	2/S302	–
P3	3/S302	–
P4	4/S302	–
P5	5/S302	–
P6	6/S302	–
P7	7/S302	–
P8	8/S302	–
P9	15/S302	–

CONTINUOUS FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF1-8	1'-8" CONT.	1'-0"	(2) #5 CONT.	#4 @ 4'-0" O.C.	–
CF2	2'-0" CONT.	1'-0"	(2) #5 CONT.	#4 @ 4'-0" O.C.	–
CF3	3'-0" CONT.	1'-0"	(3) #5 CONT.	#4 @ 4'-0" O.C.	–
CF3A	3'-0" CONT.	1'-0"	(3) #5 CONT.	#5 @ 1'-0" O.C.	–
CF3-6	3'-6" CONT.	1'-0"	(4) #5 CONT.	#5 @ 1'-6" O.C.	–
CF3-6A	3'-6" CONT.	1'-0"	(4) #5 CONT.	#5 @ 1'-0" O.C.	–
CF5	5'-0" CONT.	1'-0"	(5) #5 CONT.	#5 @ 1'-0" O.C.	–
CF8	8'-0" CONT.	1'-4"	(8) #6 CONT.	#5 @ 1'-0" O.C.	–
CF8A	8'-0" CONT.	1'-0"	(8) #6 CONT.	#5 @ 1'-0" O.C.	–

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES
F4	4'-0" SQ.	1'-0"	(4) #5	–	–
F4-6	4'-6" SQ.	1'-0"	(5) #5	–	–
F5	5'-0" SQ.	1'-0"	(5) #5	–	–
F5-6	5'-6" SQ.	1'-0"	(6) #5	–	–
F6-6	6'-6" SQ.	1'-0"	(7) #5	–	–
F7	7'-0" SQ.	1'-2"	(7) #6	–	–
F7A	7'-0" SQ.	1'-2"	(7) #6	(7) #6	–
F7-6	7'-6" SQ.	1'-3"	(8) #6	–	–
F8	8'-0" SQ.	1'-4"	(8) #6	–	–
F8-6	8'-6" SQ.	1'-5"	(9) #6	–	–
F8-6A	8'-6" SQ.	1'-5"	(9) #6	(9) #6	–
F9	9'-0" SQ.	1'-6"	(9) #7	–	–
F10	10'-0" SQ.	1'-8"	(10) #7	(10) #7	–

FOUNDATION PLAN NOTES:

1. SEE DETAIL 1/S301 FOR GENERAL FOUNDATION DETAILS. SEE SHEET S001 FOR GENERAL CONCRETE AND FOUNDATION NOTES.
2. TYPICAL INTERIOR SLAB ON GRADE, U.N.O.
   THICKNESS = 4"
   REINFORCEMENT = #4 @ 1'-6" O.C. EA. WAY
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, U.N.O. BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = 10 MIL POLY
   T.O. SLAB ELEVATION = 89'-0"
3. TYPICAL SLAB ON GRADE CONTROL JOINTS TO BE CUT INTO SQUARES SPACE @ 15'-0" O.C. MAX. WITH AN ASPECT RATIO OF 1:1.5 MAX U.N.O. ON PLAN.

PLAN KEYNOTES

LABEL	NOTE
1	CONTRACTOR TO PROVIDE ISOLATION JOINT BETWEEN STOOP AND APRON SLAB.
2	CONCRETE APRON – SEE CIVIL FOR SIZE & LOCATION

FOUNDATION PLAN - AREA "A"

1/8"=1'-0"

T.O. PERIMETER FOOTING ELEV. = 88'-8" U.N.O.
T.O. INTERIOR PAD FOOTING = 87'-6" U.N.O.
G.C. COORDINATE PLUMBING ROUTES ABOVE FTGS

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10.4.18

Revisions: #	DATE	COMMENTS

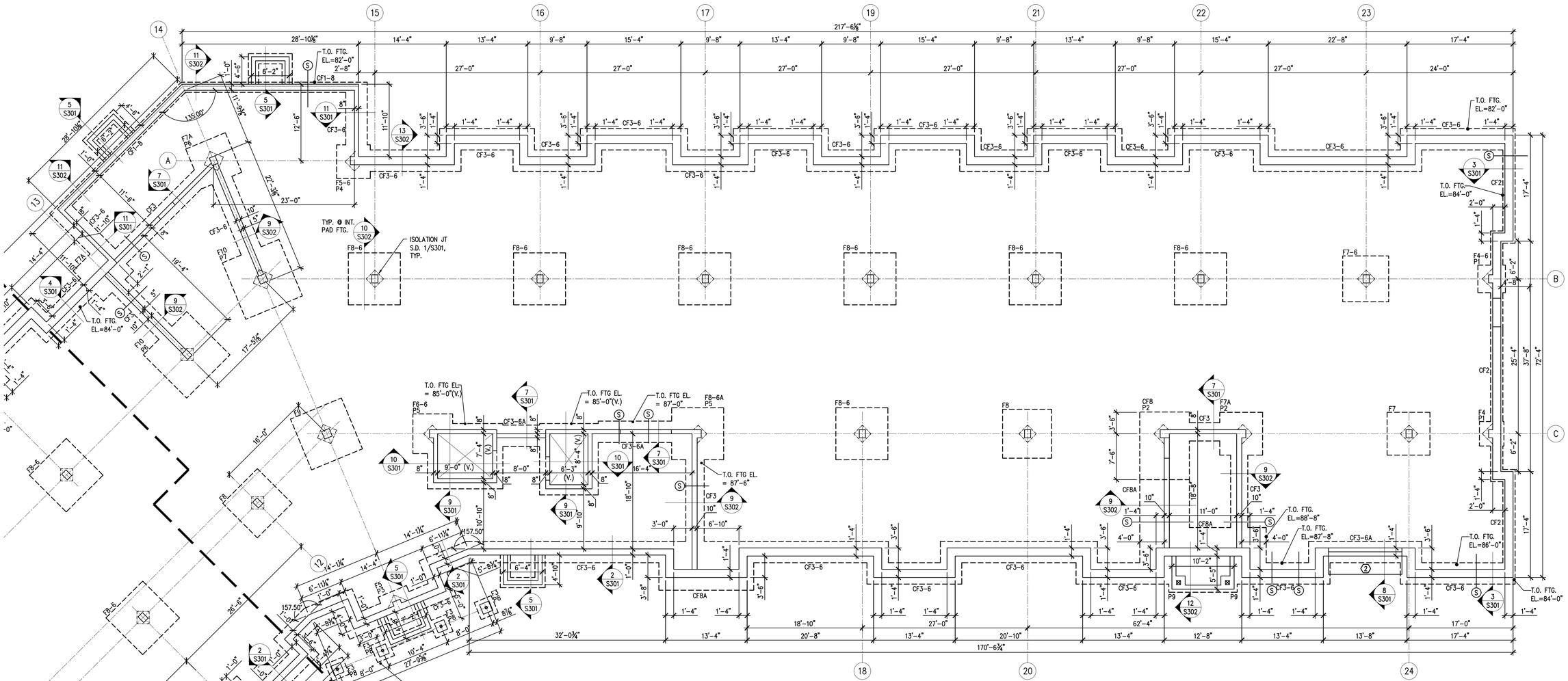
PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature:
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FOUNDATION PLAN AREA "A"

SHEET NO.
S101A

Proj. #18124-4



FOUNDATION PLAN - AREA "B"

1/8"=1'-0"

T.O. PERIMETER FOOTING ELEV. = 88'-8" U.N.O.
T.O. INTERIOR PAD FOOTING = 87'-6" U.N.O.
G.C. COORDINATE PLUMBING ROUTES ABOVE FTGS

FOUNDATION PLAN NOTES:

1. SEE DETAIL 1/S301 FOR GENERAL FOUNDATION DETAILS. SEE SHEET S001 FOR GENERAL CONCRETE AND FOUNDATION NOTES.
2. TYPICAL INTERIOR SLAB ON GRADE, U.N.O.
   THICKNESS = 4"
   REINFORCEMENT = #4 @ 1'-6" O.C. EA. WAY
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, U.N.O. BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = 10 MIL POLY
   T.O. SLAB ELEVATION = 89'-0"
3. TYPICAL SLAB ON GRADE CONTROL JOINTS TO BE CUT INTO SQUARES SPACE @ 15'-0" O.C. MAX. WITH AN ASPECT RATIO OF 1:1.5 MAX U.N.O. ON PLAN.

PLAN KEYNOTES

LABEL	NOTE
1	CONTRACTOR TO PROVIDE ISOLATION JOINT BETWEEN STOOP AND APRON SLAB.
2	CONCRETE APRON – SEE CIVIL FOR SIZE & LOCATION

CONCRETE PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1	1/S302	–
P2	2/S302	–
P3	3/S302	–
P4	4/S302	–
P5	5/S302	–
P6	6/S302	–
P7	7/S302	–
P8	8/S302	–
P9	15/S302	–

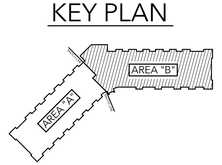
CONTINUOUS FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF1–8	1'–8" CONT.	1'–0"	(2) #5 CONT.	#4 @ 4'–0" O.C.	–
CF2	2'–0" CONT.	1'–0"	(2) #5 CONT.	#4 @ 4'–0" O.C.	–
CF3	3'–0" CONT.	1'–0"	(3) #5 CONT.	#4 @ 4'–0" O.C.	–
CF3A	3'–0" CONT.	1'–0"	(3) #5 CONT.	#5 @ 1'–0" O.C.	–
CF3–6	3'–6" CONT.	1'–0"	(4) #5 CONT.	#5 @ 1'–6" O.C.	–
CF3–6A	3'–6" CONT.	1'–0"	(4) #5 CONT.	#5 @ 1'–0" O.C.	–
CF5	5'–0" CONT.	1'–0"	(5) #5 CONT.	#5 @ 1'–0" O.C.	–
CF8	8'–0" CONT.	1'–4"	(8) #6 CONT.	#5 @ 1'–0" O.C.	–
CF8A	8'–0" CONT.	1'–0"	(8) #6 CONT.	#5 @ 1'–0" O.C.	–

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES
F4	4'–0" SQ.	1'–0"	(4) #5	–	–
F4–6	4'–6" SQ.	1'–0"	(5) #5	–	–
F5	5'–0" SQ.	1'–0"	(5) #5	–	–
F5–6	5'–6" SQ.	1'–0"	(6) #5	–	–
F6–6	6'–6" SQ.	1'–0"	(7) #5	–	–
F7	7'–0" SQ.	1'–2"	(7) #6	–	–
F7A	7'–0" SQ.	1'–2"	(7) #6	(7) #6	–
F7–6	7'–6" SQ.	1'–3"	(8) #6	–	–
F8	8'–0" SQ.	1'–4"	(8) #6	–	–
F8–6	8'–6" SQ.	1'–5"	(9) #6	–	–
F8–6A	8'–6" SQ.	1'–5"	(9) #6	(9) #6	–
F9	9'–0" SQ.	1'–6"	(9) #7	–	–
F10	10'–0" SQ.	1'–8"	(10) #7	(10) #7	–

KEY PLAN



SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FOUNDATION PLAN AREA "B"

SHEET NO.
S101B

Proj. #18124-4

SUPERIMPOSED PRECAST LOADING KEYNOTES

⬡	UNIFORM LINE LOAD (KLF)			CONCENTRATED LOAD (K)		
MARK	DEAD LOAD	LIVE LOAD	SNOW LOAD	DEAD LOAD	LIVE LOAD	SNOW LOAD
A	2.1	2.3	1.1	–	–	–
B	1.0	0.8	1.0	–	–	–
C	0.9	2.0	0.2	–	–	–
D	2.4	2.7	1.0	–	–	–
E	0.9	0.8	0.3	–	–	–
F	0.7	0.2	0.5	–	–	–
G	0.7	0.2	0.5	–	–	–
H	0.6	0.3	0.2	–	–	–
I	1.7	1.8	0.9	–	–	–
J	1.3	1.3	1.0	–	–	–
K	0.6	0.4	0.0	–	–	–
L	2.0	4.4	1.0	–	–	–
M	–	–	–	10.0	12.3	5.5
N	–	–	–	6.0	9.4	2.4
O	–	–	–	13.2	15.3	4.7
P			–	10.0	12.9	4.5
Q	–	–	–	19.7	23.2	7.3
R	–	–	–	5.6	5.9	2.9

NOTE: SUPERIMPOSED LOADS PROVIDED ARE NOMINAL LOADS TO BE USED IN IBC COMBINATIONS WITH APPROPRIATE LOAD FACTORS. LIVE LOADS

C.I.P. CONCRETE BEAM SCHEDULE

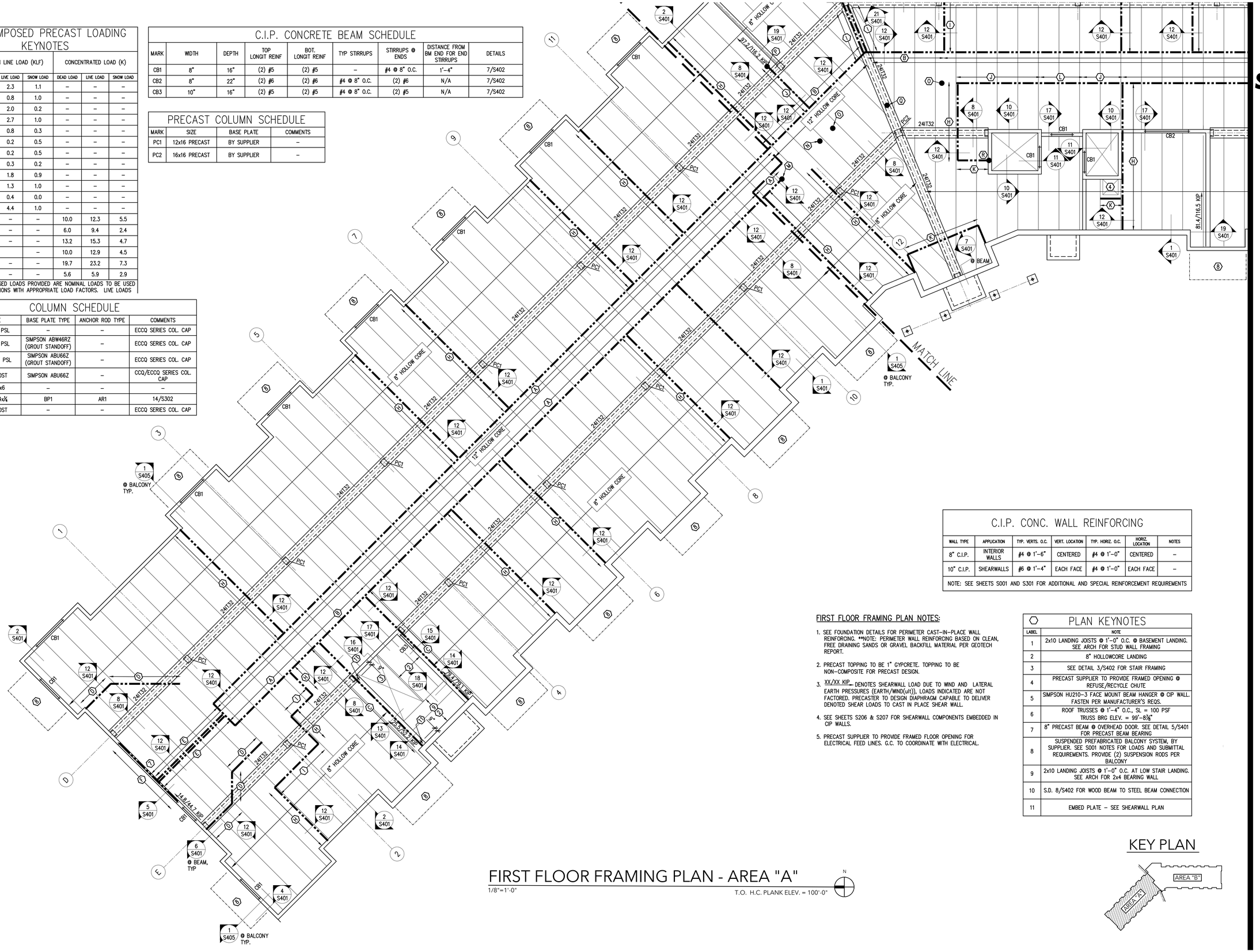
MARK	WIDTH	DEPTH	TOP LONGIT REINF	BOT. LONGIT REINF	TYP STIRRUPS	STIRRUPS @ ENDS	DISTANCE FROM BM END FOR END STIRRUPS	DETAILS
CB1	8"	16"	(2) #5	(2) #5	–	#4 @ 8" O.C.	1'-4"	7/S402
CB2	8"	22"	(2) #6	(2) #6	#4 @ 8" O.C.	(2) #6	N/A	7/S402
CB3	10"	16"	(2) #5	(2) #5	#4 @ 8" O.C.	(2) #5	N/A	7/S402

PRECAST COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	COMMENTS
PC1	12x16 PRECAST	BY SUPPLIER	–
PC2	16x16 PRECAST	BY SUPPLIER	–

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP



FIRST FLOOR FRAMING PLAN - AREA "A"

1/8"=1'-0"

T.O. H.C. PLANK ELEV. = 100'-0"

N

C.I.P. CONC. WALL REINFORCING

WALL TYPE	APPLICATION	TYP. VERTS. O.C.	VERT. LOCATION	TYP. HORIZ. O.C.	HORIZ. LOCATION	NOTES
8" C.I.P.	INTERIOR WALLS	#4 @ 1'-6"	CENTERED	#4 @ 1'-0"	CENTERED	–
10" C.I.P.	SHEARWALLS	#6 @ 1'-4"	EACH FACE	#4 @ 1'-0"	EACH FACE	–

NOTE: SEE SHEETS S001 AND S301 FOR ADDITIONAL AND SPECIAL REINFORCEMENT REQUIREMENTS

FIRST FLOOR FRAMING PLAN NOTES:

1. SEE FOUNDATION DETAILS FOR PERIMETER CAST-IN-PLACE WALL REINFORCING. **NOTE: PERIMETER WALL REINFORCING BASED ON CLEAN, FREE DRAINING SANDS OR GRAVEL BACKFILL MATERIAL PER GEOTECH REPORT.
2. PRECAST TOPPING TO BE 1" GYPCRETE. TOPPING TO BE NON-COMPOSITE FOR PRECAST DESIGN.
3. XX/XX KIP_ DENOTES SHEARWALL LOAD DUE TO WIND AND LATERAL EARTH PRESSURES (EARTH/WIND(ult)), LOADS INDICATED ARE NOT FACTORED. PRECASTER TO DESIGN DIAPHRAGM CAPABLE TO DELIVER DENOTED SHEAR LOADS TO CAST IN PLACE SHEAR WALL.
4. SEE SHEETS S206 & S207 FOR SHEARWALL COMPONENTS EMBEDDED IN CIP WALLS.
5. PRECAST SUPPLIER TO PROVIDE FRAMED FLOOR OPENING FOR ELECTRICAL FEED LINES. G.C. TO COORDINATE WITH ELECTRICAL.

PLAN KEYNOTES

LABEL	NOTE
1	2x10 LANDING JOISTS @ 1'-0" O.C. @ BASEMENT LANDING. SEE ARCH FOR STUD WALL FRAMING
2	8" HOLLOWCORE LANDING
3	SEE DETAIL 3/S402 FOR STAIR FRAMING
4	PRECAST SUPPLIER TO PROVIDE FRAMED OPENING @ REFUSE/RECYCLE CHUTE
5	SIMPSON HU210-3 FACE MOUNT BEAM HANGER @ CIP WALL. FASTEN PER MANUFACTURER'S REQS.
6	ROOF TRUSSES @ 1'-4" O.C., SL = 100 PSF TRUSS BRG ELEV. = 99'-8⅞"
7	8" PRECAST BEAM @ OVERHEAD DOOR. SEE DETAIL 5/S401 FOR PRECAST BEAM BEARING
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	2x10 LANDING JOISTS @ 1'-0" O.C. AT LOW STAIR LANDING. SEE ARCH FOR 2x4 BEARING WALL
10	S.D. 8/S402 FOR WOOD BEAM TO STEEL BEAM CONNECTION
11	EMBED PLATE – SEE SHEARWALL PLAN

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

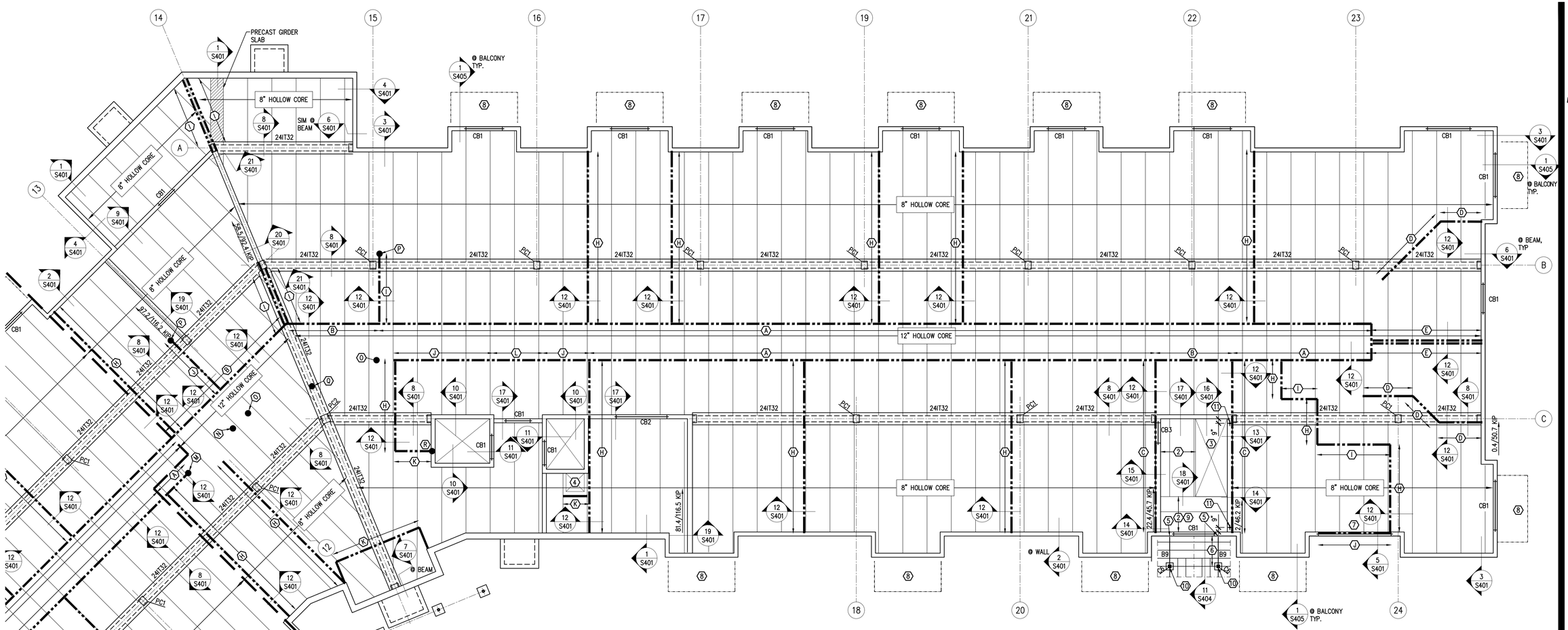
PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FIRST FLOOR FRAMING PLAN AREA "A"

SHEET NO.

S201A

Proj. #18124-4



FIRST FLOOR FRAMING PLAN - AREA "B"

1/8"=1'-0" — T.O. H.C. PLANK ELEV. = 100'-0"

C.I.P. CONC. WALL REINFORCING

WALL TYPE	APPLICATION	TYP. VERTS. O.C.	VERT. LOCATION	TYP. HORIZ. O.C.	HORIZ. LOCATION	NOTES
8" C.I.P.	INTERIOR WALLS	#4 @ 1'-6"	CENTERED	#4 @ 1'-0"	CENTERED	–
10" C.I.P.	SHEARWALLS	#6 @ 1'-4"	EACH FACE	#4 @ 1'-0"	EACH FACE	–
NOTE: SEE SHEETS S001 AND S301 FOR ADDITIONAL AND SPECIAL REINFORCEMENT REQUIREMENTS						

SUPERIMPOSED PRECAST LOADING KEYNOTES

⬡	UNIFORM LINE LOAD (KLF)			CONCENTRATED LOAD (K)		
MARK	DEAD LOAD	LIVE LOAD	SNOW LOAD	DEAD LOAD	LIVE LOAD	SNOW LOAD
A	2.1	2.3	1.1	–	–	–
B	1.0	0.8	1.0	–	–	–
C	0.9	2.0	0.2	–	–	–
D	2.4	2.7	1.0	–	–	–
E	0.9	0.8	0.3	–	–	–
F	0.7	0.2	0.5	–	–	–
G	0.7	0.2	0.5	–	–	–
H	0.6	0.3	0.2	–	–	–
I	1.7	1.8	0.9	–	–	–
J	1.3	1.3	1.0	–	–	–
K	0.6	0.4	0.0	–	–	–
L	2.0	4.4	1.0	–	–	–
M	–	–	–	10.0	12.3	5.5
N	–	–	–	6.0	9.4	2.4
O	–	–	–	13.2	15.3	4.7
P			–	10.0	12.9	4.5
Q	–	–	–	19.7	23.2	7.3
R	–	–	–	5.6	5.9	2.9

NOTE: SUPERIMPOSED LOADS PROVIDED ARE NOMINAL LOADS TO BE USED IN IBC COMBINATIONS WITH APPROPRIATE LOAD FACTORS. LIVE LOADS HAVE NOT BEEN REDUCED PER ASCE7.

FIRST FLOOR FRAMING PLAN NOTES:

1. SEE FOUNDATION DETAILS FOR PERIMETER CAST-IN-PLACE WALL REINFORCING. **NOTE: PERIMETER WALL REINFORCING BASED ON CLEAN, FREE DRAINING SANDS OR GRAVEL BACKFILL MATERIAL PER GEOTECH REPORT.
2. PRECAST TOPPING TO BE 1" GYPCRETE. TOPPING TO BE NON-COMPOSITE FOR PRECAST DESIGN.
3. XX/XX KIP DENOTES SHEARWALL LOAD DUE TO WIND AND LATERAL EARTH PRESSURES (EARTH/WND(ult)), LOADS INDICATED ARE NOT FACTORED. PRECASTER TO DESIGN DIAPHRAGM CAPABLE TO DELIVER DENOTED SHEAR LOADS TO CAST IN PLACE SHEAR WALL.
4. SEE SHEETS S206 & S207 FOR SHEARWALL COMPONENTS EMBEDDED IN CIP WALLS.
5. PRECAST SUPPLIER TO PROVIDE FRAMED FLOOR OPENING FOR ELECTRICAL FEED LINES. G.C. TO COORDINATE WITH ELECTRICAL.

PLAN KEYNOTES

LABEL	NOTE
1	2x10 LANDING JOISTS @ 1'-0" O.C. @ BASEMENT LANDING. SEE ARCH FOR STUD WALL FRAMING
2	8" HOLLOWCORE LANDING
3	SEE DETAIL 3/S402 FOR STAIR FRAMING
4	PRECAST SUPPLIER TO PROVIDE FRAMED OPENING @ REFUSE/RECYCLE CHUTE
5	SIMPSON HU210-3 FACE MOUNT BEAM HANGER @ CIP WALL. FASTEN PER MANUFACTURER'S REQS.
6	ROOF TRUSSES @ 1'-4" O.C., SL = 100 PSF TRUSS BRG ELEV. = 99'-8⅛"
7	8" PRECAST BEAM @ OVERHEAD DOOR. SEE DETAIL 5/S401 FOR PRECAST BEAM BEARING
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	2x10 LANDING JOISTS @ 1'-0" O.C. AT LOW STAIR LANDING. SEE ARCH FOR 2x4 BEARING WALL
10	S.D. 8/S402 FOR WOOD BEAM TO STEEL BEAM CONNECTION
11	EMBED PLATE – SEE SHEARWALL PLAN

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9¼" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9¼" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9¼" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9¼" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¼" LVL	SEE PLAN

PRECAST COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	COMMENTS
PC1	12x16 PRECAST	BY SUPPLIER	–
PC2	16x16 PRECAST	BY SUPPLIER	–

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP

C.I.P. CONCRETE BEAM SCHEDULE

MARK	WIDTH	DEPTH	TOP LONGIT REINF	BOT. LONGIT REINF	TYP STIRRUPS	STIRRUPS @ ENDS	DISTANCE FROM BM END FOR END STIRRUPS	DETAILS
CB1	8"	16"	(2) #5	(2) #5	–	#4 @ 8" O.C.	1'-4"	7/S402
CB2	8"	22"	(2) #6	(2) #6	#4 @ 8" O.C.	(2) #6	N/A	7/S402
CB3	10"	16"	(2) #5	(2) #5	#4 @ 8" O.C.	(2) #5	N/A	7/S402

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

#	Revisions: DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FIRST FLOOR FRAMING PLAN AREA "B"

SHEET NO.
S201B

Proj. #18124-4

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

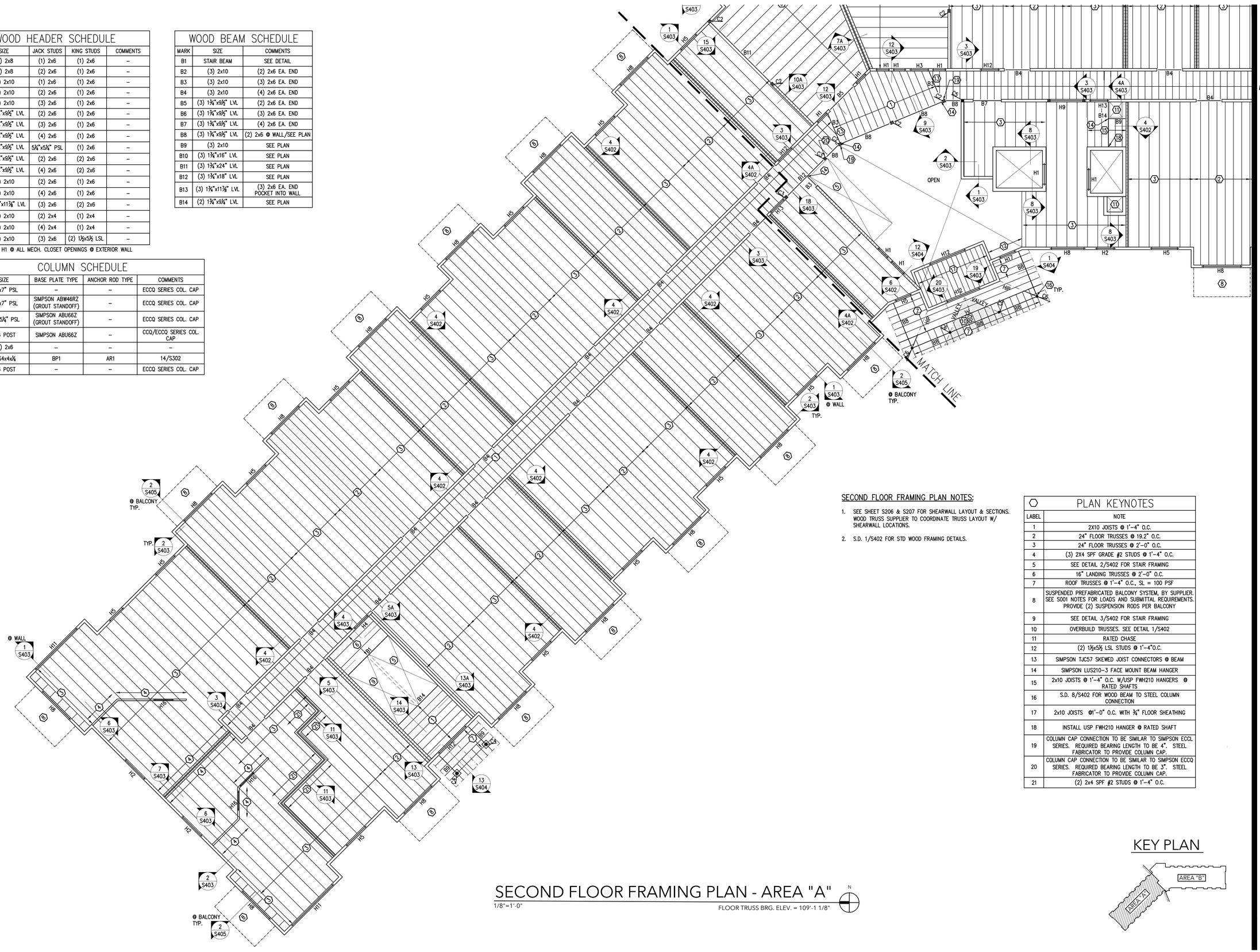
NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¼" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP



SECOND FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS.

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(3) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	SEE DETAIL 2/S402 FOR STAIR FRAMING
6	16" LANDING TRUSSES @ 2'-0" O.C.
7	ROOF TRUSSES @ 1'-4" O.C., SL = 100 PSF
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	SEE DETAIL 3/S402 FOR STAIR FRAMING
10	OVERBUILD TRUSSES. SEE DETAIL 1/S402
11	RATED CHASE
12	(2) 1½x5½ LSL STUDS @ 1'-4"O.C.
13	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
14	SIMPSON LUS210-3 FACE MOUNT BEAM HANGER
15	2x10 JOISTS @ 1'-4" O.C. W/USP FWH210 HANGERS @ RATED SHAFTS
16	S.D. 8/S402 FOR WOOD BEAM TO STEEL COLUMN CONNECTION
17	2x10 JOISTS @1'-0" O.C. WITH ¾" FLOOR SHEATHING
18	INSTALL USP FWH210 HANGER @ RATED SHAFT
19	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCL SERIES. REQUIRED BEARING LENGTH TO BE 4". STEEL FABRICATOR TO PROVIDE COLUMN CAP.
20	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCQ SERIES. REQUIRED BEARING LENGTH TO BE 3". STEEL FABRICATOR TO PROVIDE COLUMN CAP.
21	(2) 2x4 SPF #2 STUDS @ 1'-4" O.C.

KEY PLAN

SECOND FLOOR FRAMING PLAN - AREA "A"

1/8"=1'-0"

FLOOR TRUSS BRG. ELEV. = 109'-1 1/8"

N

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

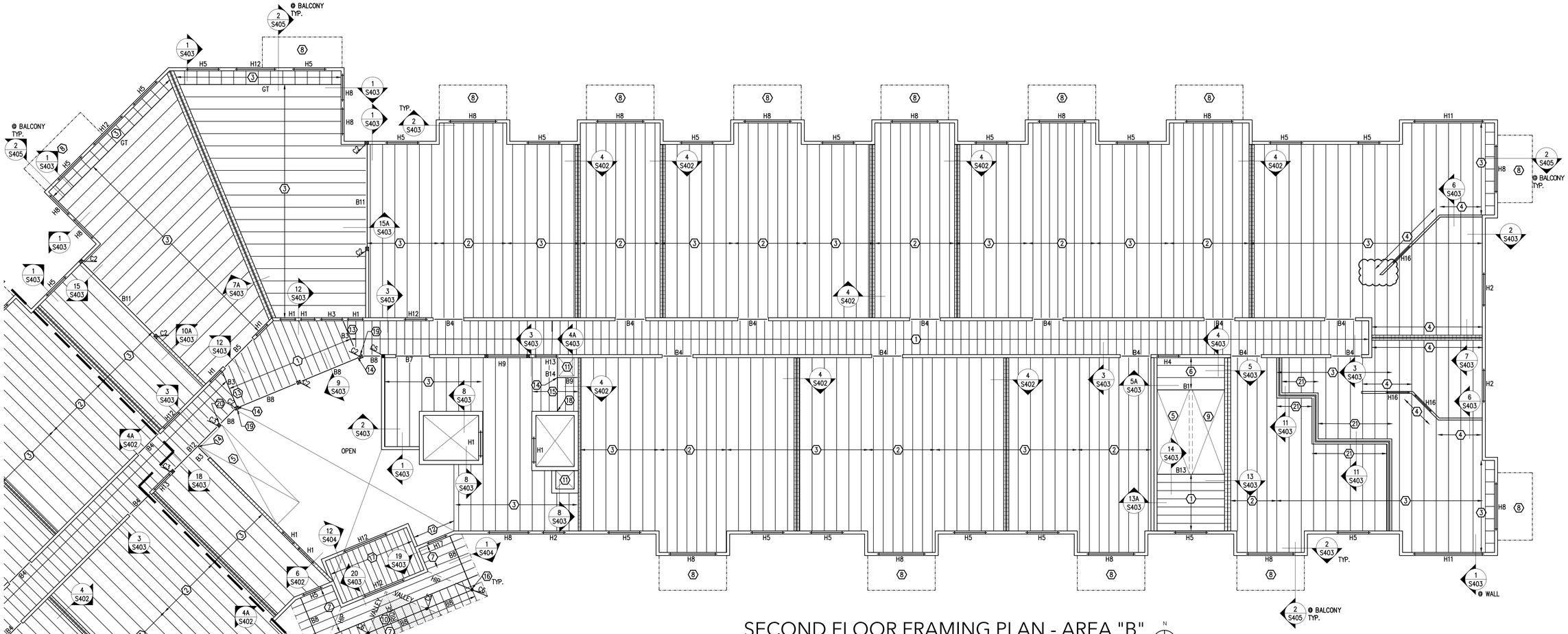
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
SECOND FLOOR FRAMING PLAN AREA "A"

SHEET NO.
S202A

Proj. #18124-4



SECOND FLOOR FRAMING PLAN - AREA "B"

1/8"=1'-0" FLOOR TRUSS BRG. ELEV. = 109'-1 1/8"

N

SECOND FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS.

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(3) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	SEE DETAIL 2/S402 FOR STAIR FRAMING
6	16" LANDING TRUSSES @ 2'-0" O.C.
7	ROOF TRUSSES @ 1'-4" O.C., SL = 100 PSF
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	SEE DETAIL 3/S402 FOR STAIR FRAMING
10	OVERBUILD TRUSSES. SEE DETAIL 1/S402
11	RATED CHASE
12	(2) 1½x5½ LSL STUDS @ 1'-4"O.C.
13	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
14	SIMPSON LUS210-3 FACE MOUNT BEAM HANGER
15	2x10 JOISTS @ 1'-4" O.C. W/USP FWH210 HANGERS @ RATED SHAFTS
16	S.D. 8/S402 FOR WOOD BEAM TO STEEL COLUMN CONNECTION
17	2x10 JOISTS @1'-0" O.C. WITH ¾" FLOOR SHEATHING
18	INSTALL USP FWH210 HANGER @ RATED SHAFT
19	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCL SERIES. REQUIRED BEARING LENGTH TO BE 4". STEEL FABRICATOR TO PROVIDE COLUMN CAP.
20	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCQ SERIES. REQUIRED BEARING LENGTH TO BE 3". STEEL FABRICATOR TO PROVIDE COLUMN CAP.
21	(2) 2x4 SPF #2 STUDS @ 1'-4" O.C.

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

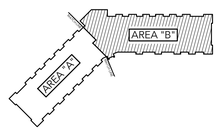
WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¼" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP

KEY PLAN



SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
SECOND FLOOR FRAMING PLAN AREA "B"

SHEET NO.
S202B

Proj. #18124-4

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1⅝x5½ LSL	–

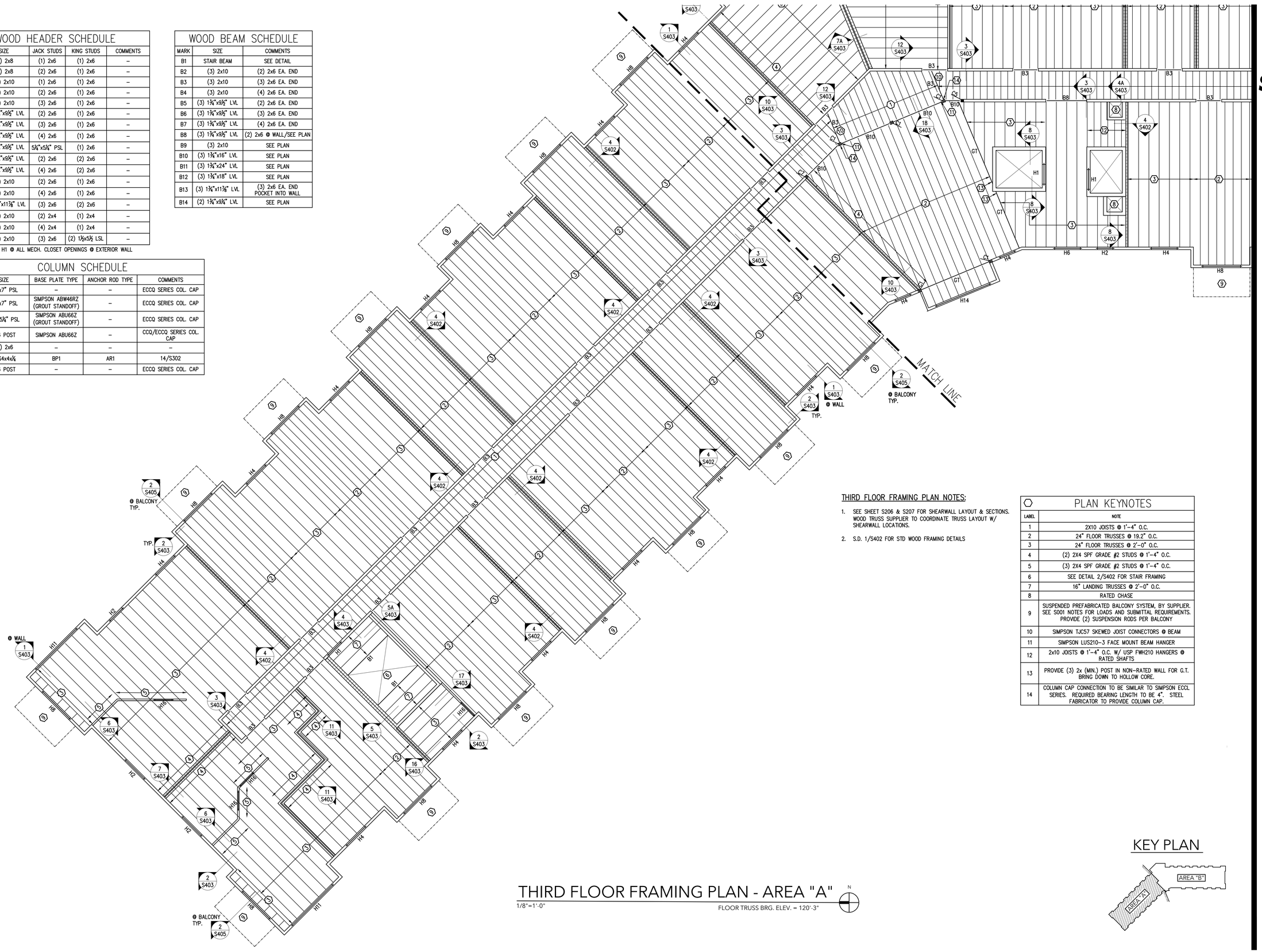
NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¾" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP



THIRD FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(2) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	(3) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
6	SEE DETAIL 2/S402 FOR STAIR FRAMING
7	16" LANDING TRUSSES @ 2'-0" O.C.
8	RATED CHASE
9	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
10	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
11	SIMPSON LUS210-3 FACE MOUNT BEAM HANGER
12	2x10 JOISTS @ 1'-4" O.C. W/ USP FWH210 HANGERS @ RATED SHAFTS
13	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
14	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCL SERIES. REQUIRED BEARING LENGTH TO BE 4". STEEL FABRICATOR TO PROVIDE COLUMN CAP.

THIRD FLOOR FRAMING PLAN - AREA "A"

1/8"=1'-0"

FLOOR TRUSS BRG. ELEV. = 120'-3"

N

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

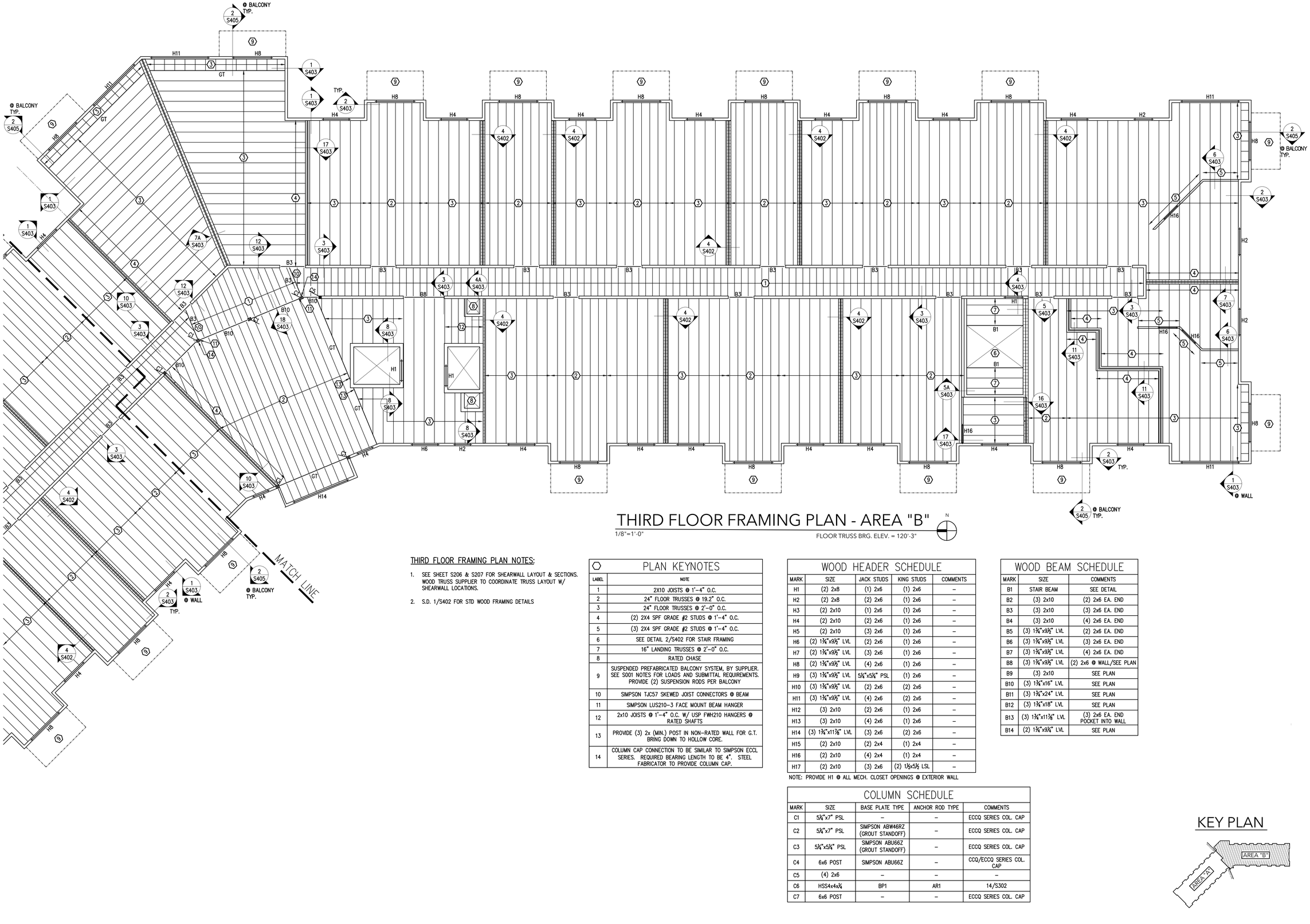
PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
THIRD FLOOR FRAMING PLAN AREA "A"

SHEET NO.

S203A

Proj. #18124-4



THIRD FLOOR FRAMING PLAN - AREA "B"

1/8"=1'-0"

FLOOR TRUSS BRG. ELEV. = 120'-3"

N

THIRD FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(2) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	(3) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
6	SEE DETAIL 2/S402 FOR STAIR FRAMING
7	16" LANDING TRUSSES @ 2'-0" O.C.
8	RATED CHASE
9	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
10	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
11	SIMPSON LUS210-3 FACE MOUNT BEAM HANGER
12	2x10 JOISTS @ 1'-4" O.C. W/ USP FWH210 HANGERS @ RATED SHAFTS
13	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
14	COLUMN CAP CONNECTION TO BE SIMILAR TO SIMPSON ECCL SERIES. REQUIRED BEARING LENGTH TO BE 4". STEEL FABRICATOR TO PROVIDE COLUMN CAP.

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½"x5½ LSL	–

NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¼" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
THIRD FLOOR FRAMING PLAN AREA "B"

SHEET NO.
S203B

Proj. #18124-4

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

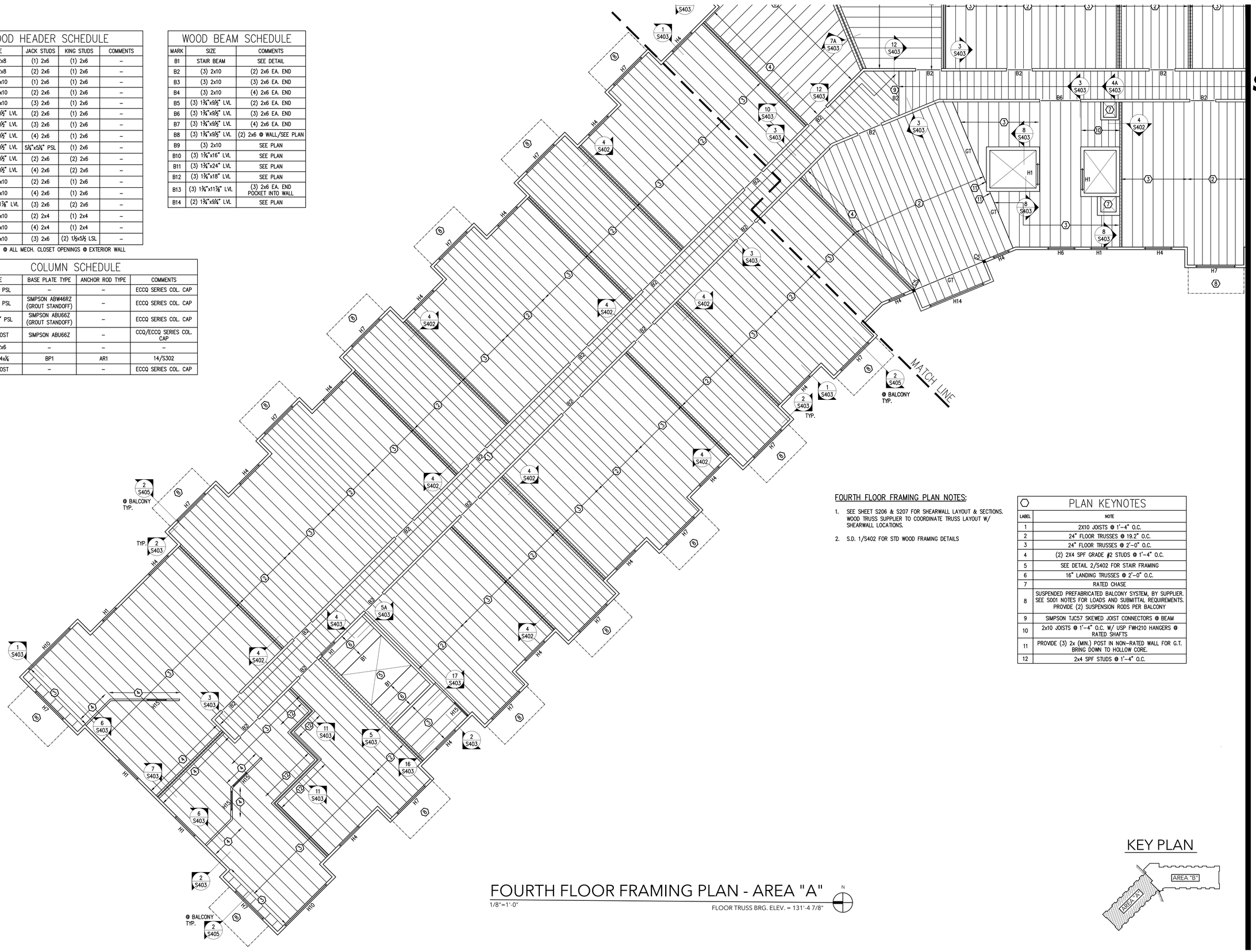
NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¾" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP



FOURTH FLOOR FRAMING PLAN - AREA "A"

1/8"=1'-0"

FLOOR TRUSS BRG. ELEV. = 131'-4 7/8"

N

FOURTH FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(2) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	SEE DETAIL 2/S402 FOR STAIR FRAMING
6	16" LANDING TRUSSES @ 2'-0" O.C.
7	RATED CHASE
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
10	2x10 JOISTS @ 1'-4" O.C. W/ USP FWH210 HANGERS @ RATED SHAFTS
11	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
12	2x4 SPF STUDS @ 1'-4" O.C.

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

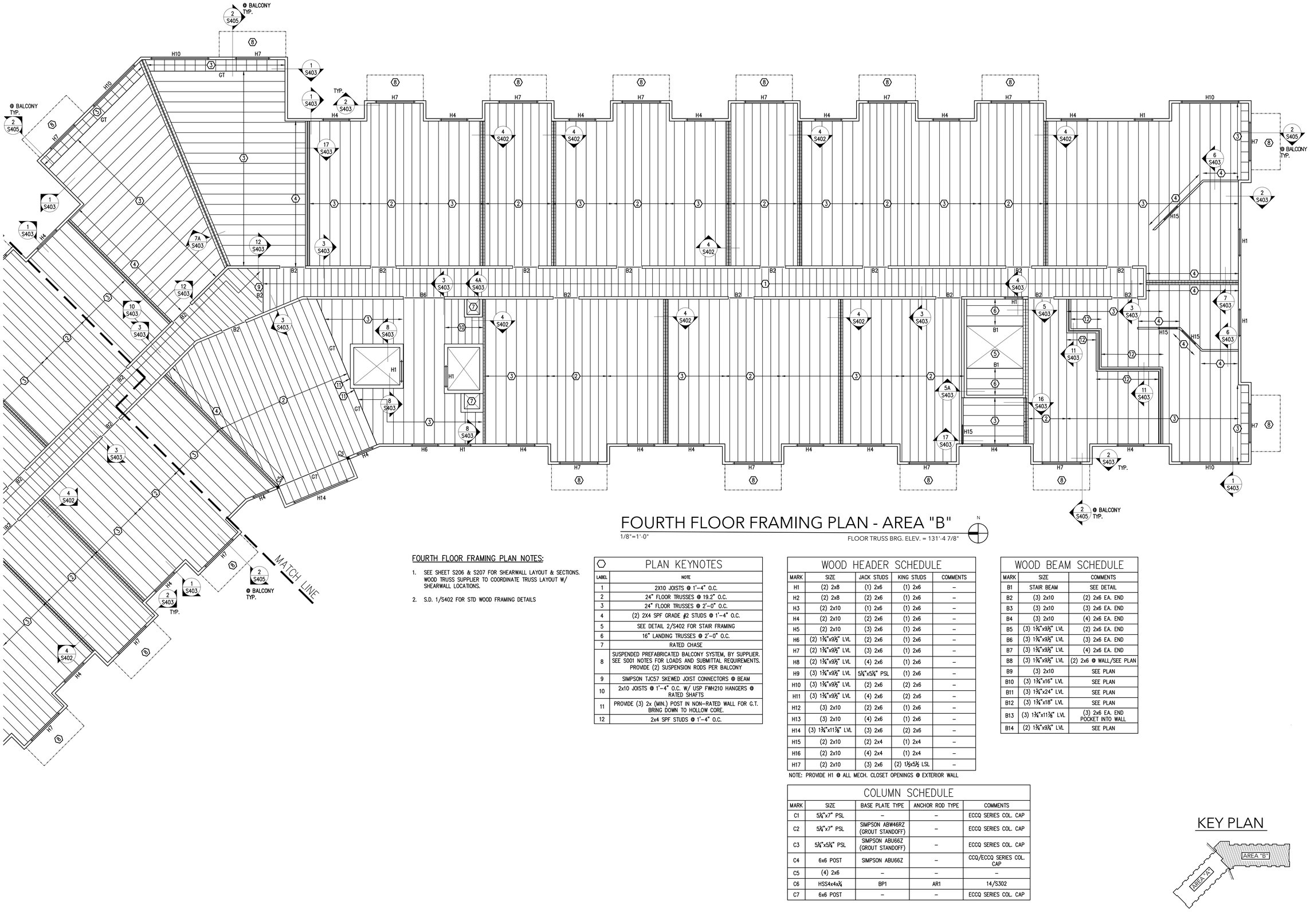
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FOURTH FLOOR FRAMING PLAN AREA "A"

SHEET NO.
S204A

Proj. #18124-4



FOURTH FLOOR FRAMING PLAN - AREA "B"

1/8"=1'-0"

FLOOR TRUSS BRG. ELEV. = 131'-4 7/8"

N

FOURTH FLOOR FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS

PLAN KEYNOTES

LABEL	NOTE
1	2X10 JOISTS @ 1'-4" O.C.
2	24" FLOOR TRUSSES @ 19.2" O.C.
3	24" FLOOR TRUSSES @ 2'-0" O.C.
4	(2) 2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
5	SEE DETAIL 2/S402 FOR STAIR FRAMING
6	16" LANDING TRUSSES @ 2'-0" O.C.
7	RATED CHASE
8	SUSPENDED PREFABRICATED BALCONY SYSTEM, BY SUPPLIER. SEE S001 NOTES FOR LOADS AND SUBMITTAL REQUIREMENTS. PROVIDE (2) SUSPENSION RODS PER BALCONY
9	SIMPSON TJC57 SKEWED JOIST CONNECTORS @ BEAM
10	2x10 JOISTS @ 1'-4" O.C. W/ USP FWH210 HANGERS @ RATED SHAFTS
11	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
12	2x4 SPF STUDS @ 1'-4" O.C.

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¾" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP

KEY PLAN

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions:

#	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/4/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FOURTH FLOOR FRAMING PLAN AREA "B"

SHEET NO.
S204B

Proj. #18124-4

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

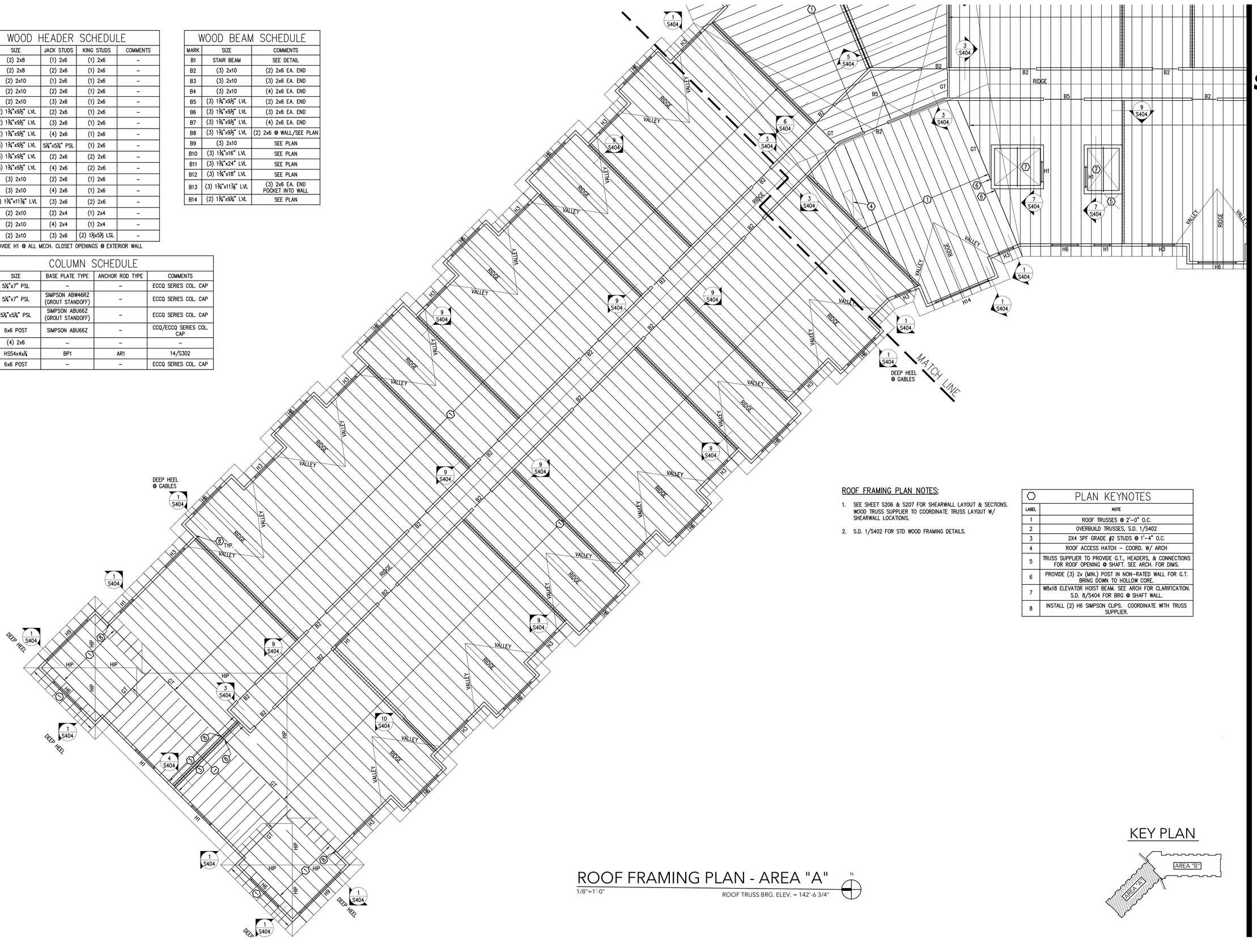
NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¾" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP



ROOF FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS.

PLAN KEYNOTES

LABEL	NOTE
1	ROOF TRUSSES @ 2'-0" O.C.
2	OVERBUILD TRUSSES, S.D. 1/S402
3	2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
4	ROOF ACCESS HATCH – COORD. W/ ARCH
5	TRUSS SUPPLIER TO PROVIDE G.T., HEADERS, & CONNECTIONS FOR ROOF OPENING @ SHAFT. SEE ARCH. FOR DIMS.
6	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
7	W8x18 ELEVATOR HOIST BEAM. SEE ARCH FOR CLARIFICATION. S.D. 8/S404 FOR BRG @ SHAFT WALL.
8	INSTALL (2) H6 SIMPSON CLIPS. COORDINATE WITH TRUSS SUPPLIER.

ROOF FRAMING PLAN - AREA "A"

1/8"=1'-0"

ROOF TRUSS BRG. ELEV. = 142'-6 3/4"

N

KEY PLAN

SANDMAN
Structural Engineers

1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

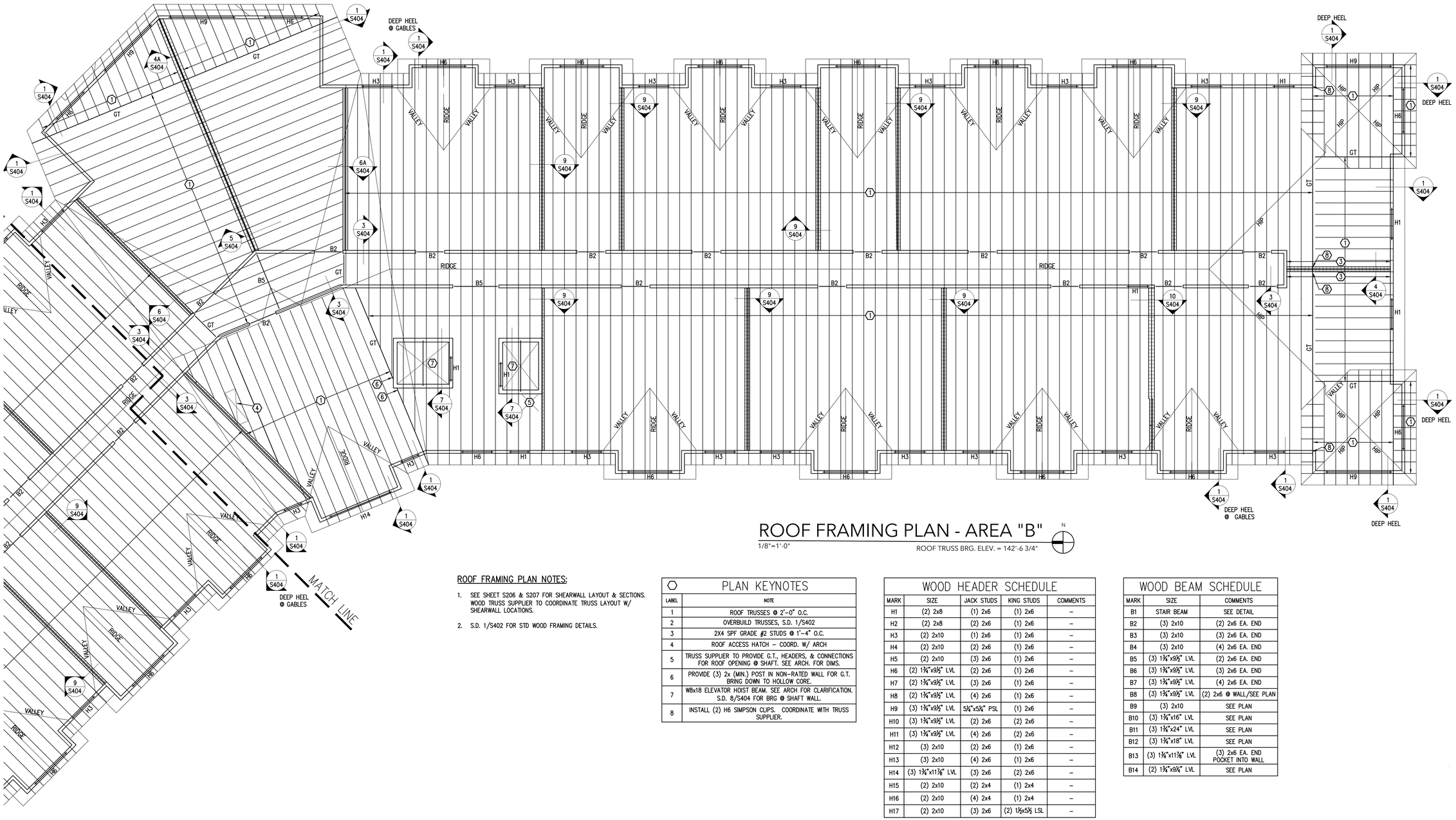
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
ROOF FRAMING PLAN AREA "A"

SHEET NO.
S205A

Proj. #18124-4



ROOF FRAMING PLAN - AREA "B"

1/8"=1'-0"

ROOF TRUSS BRG. ELEV. = 142'-6 3/4"

N

ROOF FRAMING PLAN NOTES:

1. SEE SHEET S206 & S207 FOR SHEARWALL LAYOUT & SECTIONS. WOOD TRUSS SUPPLIER TO COORDINATE TRUSS LAYOUT W/ SHEARWALL LOCATIONS.
2. S.D. 1/S402 FOR STD WOOD FRAMING DETAILS.

PLAN KEYNOTES

LABEL	NOTE
1	ROOF TRUSSES @ 2'-0" O.C.
2	OVERBUILD TRUSSES, S.D. 1/S402
3	2X4 SPF GRADE #2 STUDS @ 1'-4" O.C.
4	ROOF ACCESS HATCH - COORD. W/ ARCH
5	TRUSS SUPPLIER TO PROVIDE G.T., HEADERS, & CONNECTIONS FOR ROOF OPENING @ SHAFT. SEE ARCH. FOR DIMS.
6	PROVIDE (3) 2x (MIN.) POST IN NON-RATED WALL FOR G.T. BRING DOWN TO HOLLOW CORE.
7	W8x18 ELEVATOR HOIST BEAM. SEE ARCH FOR CLARIFICATION. S.D. 8/S404 FOR BRG @ SHAFT WALL.
8	INSTALL (2) H6 SIMPSON CLIPS. COORDINATE WITH TRUSS SUPPLIER.

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	–
H2	(2) 2x8	(2) 2x6	(1) 2x6	–
H3	(2) 2x10	(1) 2x6	(1) 2x6	–
H4	(2) 2x10	(2) 2x6	(1) 2x6	–
H5	(2) 2x10	(3) 2x6	(1) 2x6	–
H6	(2) 1¾"x9½" LVL	(2) 2x6	(1) 2x6	–
H7	(2) 1¾"x9½" LVL	(3) 2x6	(1) 2x6	–
H8	(2) 1¾"x9½" LVL	(4) 2x6	(1) 2x6	–
H9	(3) 1¾"x9½" LVL	5¼"x5¼" PSL	(1) 2x6	–
H10	(3) 1¾"x9½" LVL	(2) 2x6	(2) 2x6	–
H11	(3) 1¾"x9½" LVL	(4) 2x6	(2) 2x6	–
H12	(3) 2x10	(2) 2x6	(1) 2x6	–
H13	(3) 2x10	(4) 2x6	(1) 2x6	–
H14	(3) 1¾"x11⅞" LVL	(3) 2x6	(2) 2x6	–
H15	(2) 2x10	(2) 2x4	(1) 2x4	–
H16	(2) 2x10	(4) 2x4	(1) 2x4	–
H17	(2) 2x10	(3) 2x6	(2) 1½x5½ LSL	–

NOTE: PROVIDE H1 @ ALL MECH. CLOSET OPENINGS @ EXTERIOR WALL

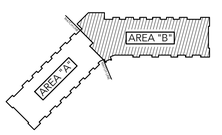
WOOD BEAM SCHEDULE

MARK	SIZE	COMMENTS
B1	STAIR BEAM	SEE DETAIL
B2	(3) 2x10	(2) 2x6 EA. END
B3	(3) 2x10	(3) 2x6 EA. END
B4	(3) 2x10	(4) 2x6 EA. END
B5	(3) 1¾"x9½" LVL	(2) 2x6 EA. END
B6	(3) 1¾"x9½" LVL	(3) 2x6 EA. END
B7	(3) 1¾"x9½" LVL	(4) 2x6 EA. END
B8	(3) 1¾"x9½" LVL	(2) 2x6 @ WALL/SEE PLAN
B9	(3) 2x10	SEE PLAN
B10	(3) 1¾"x16" LVL	SEE PLAN
B11	(3) 1¾"x24" LVL	SEE PLAN
B12	(3) 1¾"x18" LVL	SEE PLAN
B13	(3) 1¾"x11⅞" LVL	(3) 2x6 EA. END POCKET INTO WALL
B14	(2) 1¾"x9¼" LVL	SEE PLAN

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	5¼"x7" PSL	–	–	ECCQ SERIES COL. CAP
C2	5¼"x7" PSL	SIMPSON ABW46RZ (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C3	5¼"x5¼" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	–	ECCQ SERIES COL. CAP
C4	6x6 POST	SIMPSON ABU66Z	–	CCQ/ECCQ SERIES COL. CAP
C5	(4) 2x6	–	–	–
C6	HSS4x4x¼	BP1	AR1	14/S302
C7	6x6 POST	–	–	ECCQ SERIES COL. CAP

KEY PLAN



SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

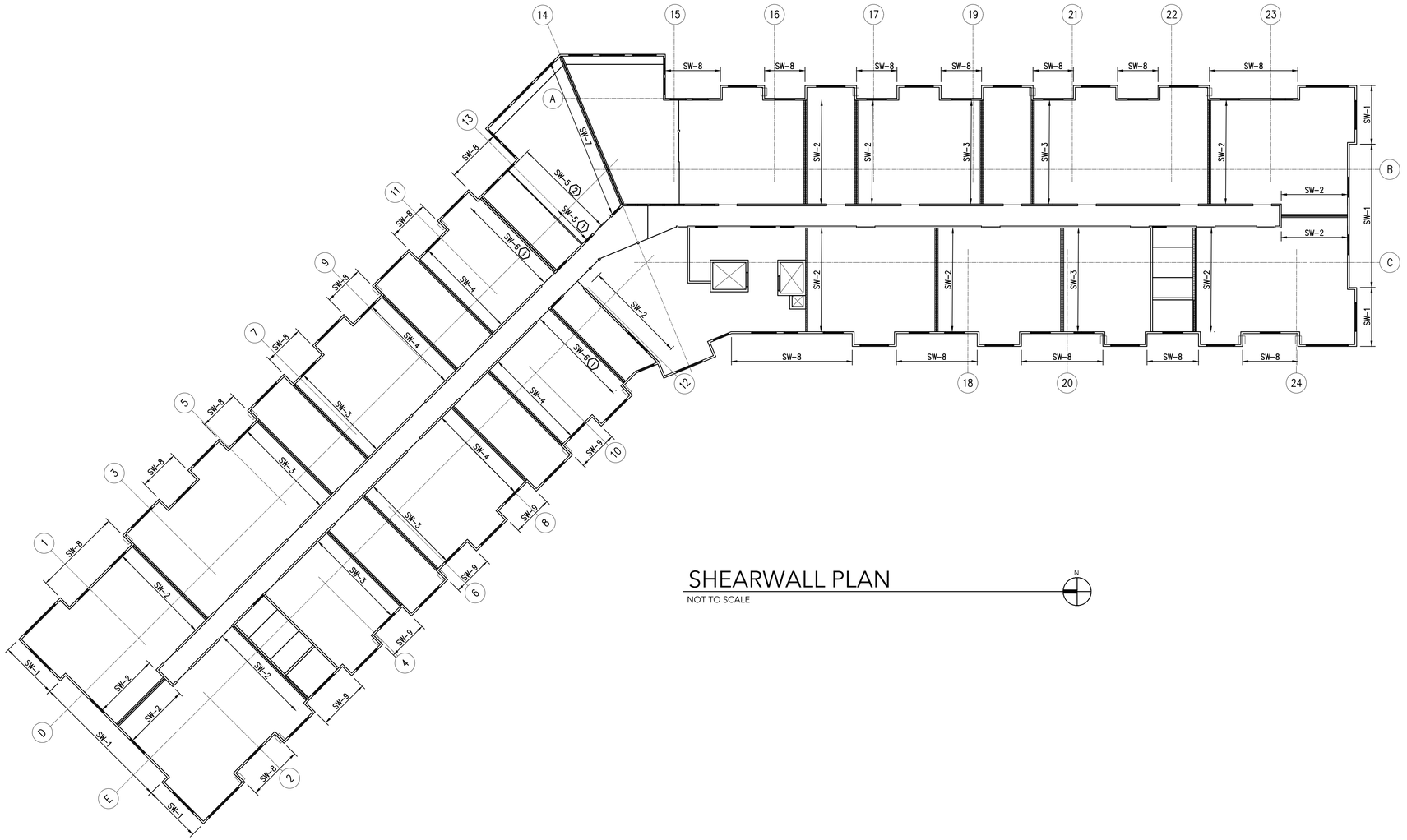
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
ROOF FRAMING PLAN AREA "B"

SHEET NO.
S205B

Proj. #18124-4



SHEARWALL PLAN

NOT TO SCALE

SHEAR WALL SCHEDULE

	4TH LEVEL				3RD LEVEL				2ND LEVEL				1ST LEVEL						ULTIMATE WIND LOAD TO PODIUM		RESISTING DL
LABEL	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST/ COMP POST	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST/ COMP POST	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST/ COMP POST	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST/ COMP POST	BASE TENSION ROD ANCHOR	SILL ℄ FASTENING @ BASE LEVEL	BASE LEVEL SHEAR TO PODIUM	SW END VERTICAL FORCE.	SW END VERTICAL FORCE
SW-1	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x6/ (1) 2x6	⅝"ø THREADED ROD	SIMPSON RTUD5	SIMPSON BPRTUD5-6A	(2) 2x6/ (2) 2x6	¾"ø THREADED ROD H.S.	SIMPSON RTUD6	SIMPSON BPRTUD5-6A	(2) 2x6/ (2) 2x6	¾"ø THREADED ROD H.S., S.D.10/S207	½"øx5" SIMPSON TITEN HD ANCHORS @ 2'-0" O.C.	–	–	–
SW-2	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4/ (1) 2x4	¾"ø THREADED ROD	SIMPSON RTUD6	SIMPSON BPRTUD5-6A	(2) 2x4/ (5) 2x4	¾"ø THREADED ROD H.S.	SIMPSON RTUD6	SIMPSON BPRTUD5-6B	(2) 2x4/ (9) 2x4 OR (2) 2x6/(2) 2x6	¾" THRU BOLT H.S. S.D. 10/S207 OR EMBED PLATE S.D. S207	½"øx5" SIMPSON TITEN HD ANCHORS @ 1'-8" O.C.	+/- 27.7 KIP	+/- 27.5 KIP	6.3 KIP
SW-3	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4/ (1) 2x4	⅝"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4/ (3) 2x4	¾"ø THREADED ROD	SIMPSON RTUD6	SIMPSON BPRTUD5-6A	(2) 2x4/ (6) 2x4	¾" THRU BOLT, S.D. 10/S207	½"øx5" SIMPSON TITEN HD ANCHORS @ 2'-6" O.C.	+/- 19.5 KIP	+/- 19.6 KIP	6.3 KIP
SW-4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4/ (1) 2x4	⅝"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4/ (2) 2x4	⅝"ø THREADED ROD	SIMPSON RTUD5	SIMPSON BPRTUD5-6A	(2) 2x4/ (4) 2x4	⅝" THRU BOLT, S.D. 10/S207	½"øx5" SIMPSON TITEN HD ANCHORS @ 3'-0" O.C.	+/- 15.7 KIP	+/- 15.7 KIP	6.3 KIP
SW-5	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(3) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(6) 2x4	¾"ø THREADED ROD	SIMPSON RTUD6	SIMPSON BPRTUD5-6C	(2) 2x4/ (7) 2x4	¾" THRU BOLT, S.D. 10/S207	½"øx5" SIMPSON TITEN HD ANCHORS @ 1'-0" O.C.	+/- 17.6 KIP	+/- 21.2 KIP	8.0 KIP
SW-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x4	NOT REQUIRED	½"øx5" SIMPSON TITEN HD ANCHORS @ 4'-0" O.C.	+/- 5.8 KIP	+/- 2.4 KIP	1.0 KIP
SW-7	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(4) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(7) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(11) 2x4	NOT REQUIRED	½"øx5" SIMPSON TITEN HD ANCHORS @ 1'-8" O.C.	+/- 41.8 KIP	+/- 27.3 KIP	27.4 KIP
SW-8	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	½"øx5" SIMPSON TITEN HD ANCHORS @ 2'-0" O.C.	–	–	–
SW-9	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x6/ (1) 2x6	½"ø THREADED ROD	SIMPSON RTUD4	SIMPSON BPRTUD3-4	(2) 2x6/ (1) 2x6	½"ø ADHESIVE ANCHOR W/ 0'-10" CONC. EMBED	½"øx5" SIMPSON TITEN HD ANCHORS @ 2'-0" O.C.	–	–	–

KEYNOTES

1. S.W. @ 1ST FLOOR.
2. S.W. @ 2ND, 3RD & 4TH FLOORS.

SHEARWALL NOTES:

1. SEE GENERAL NOTES FOR TYPICAL SHEATHING REQUIREMENTS. NOT SHOWN ON WALL SECTIONS.
2. SEE S001 GENERAL NOTES FOR ADHESIVE REQUIREMENTS.
3. INTERIOR CORRIDOR BEARING WALL SILL PLATE FASTENING TO BE ½"ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" O.C. U.N.O. IN SHEAR WALL SCHEDULE.
4. EXTERIOR BEARING WALL SILL PLATE FASTENING TO BE ½"ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" O.C. U.N.O. IN SHEAR WALL SCHEDULE.
5. PROVIDE SIMPSON BPS½-3HDG SILL ANCHOR WASHERS AT ALL SHEAR WALLS.
6. MAXIMUM WALL STUD SPACING TO BE 16" O.C FOR ALL SHEAR WALLS, U.N.O.
7. TENSION RODS TO BE STANDARD STRENGHT MATERIAL, Fu=58 KSI, U.N.O.
8. TENSION RODS TO BE HIGH STRENGTH MATERIAL, Fu = 120 KSI MIN. WHEN DENOTED "H.S."
9. OVERSIZE TENSION ROD HOLES IN WOOD PLATES TO COMPLY WITH SIMPSON SPECIFICATIONS
10. NOMINAL LOADS PROVIDED IN SHEARWALL SCHEDULE ARE TO BE USED IN IBC 2012 LOADS COMBINATIONS WITH APPROPRIATE LOAD FACTORS

SANDMAN
Structural Engineers

1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

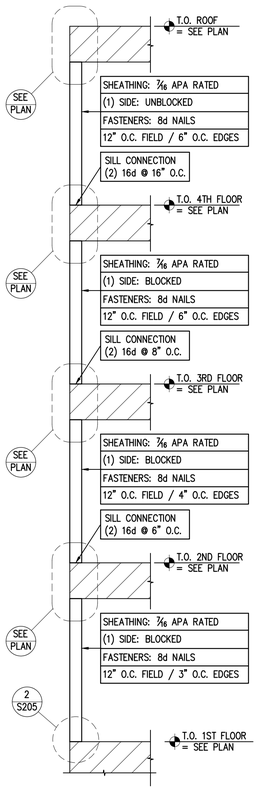
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

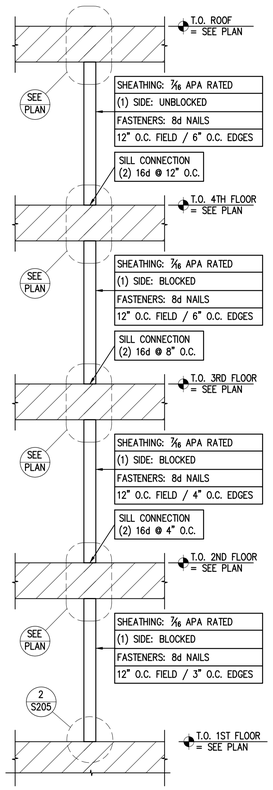
SHEET CONTENTS:
SHEAR WALL PLAN, NOTES & SCHEDULE

SHEET NO.
S206

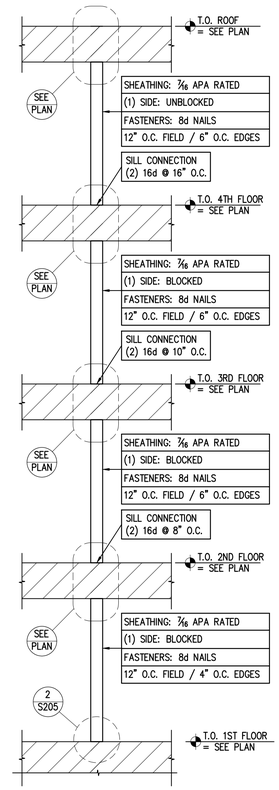
Proj. #18124-4



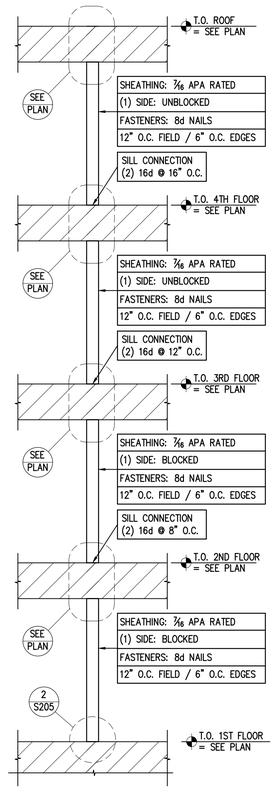
SW SECTION (SW-1) 1 S207
NO SCALE



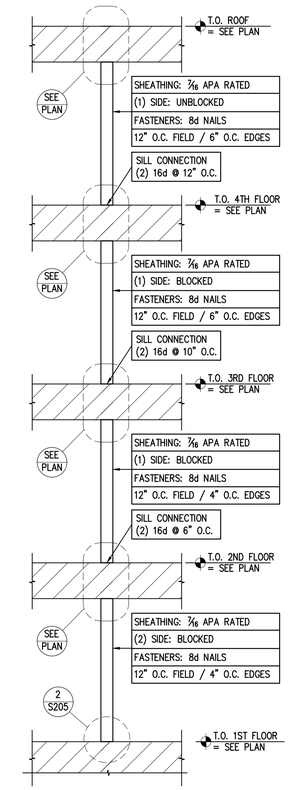
SW SECTION (SW-2) 2 S207
NO SCALE



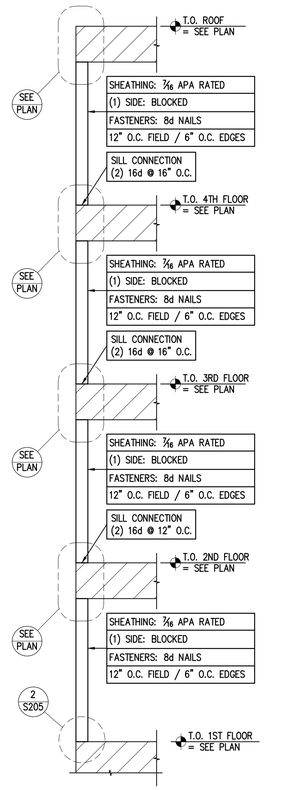
SW SECTION (SW-3) 3 S207
NO SCALE



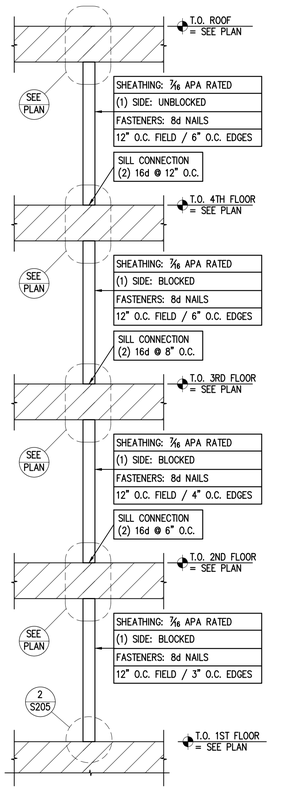
SW SECTION (SW-4) 4 S207
NO SCALE



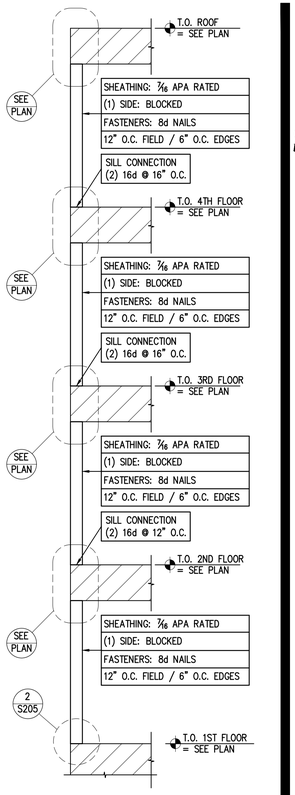
SW SECTION (SW-5) 5 S207
NO SCALE



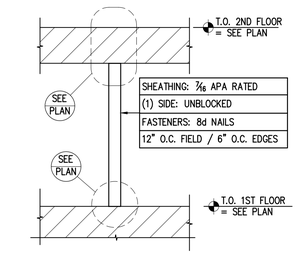
SW SECTION (SW-6) 6 S207
NO SCALE



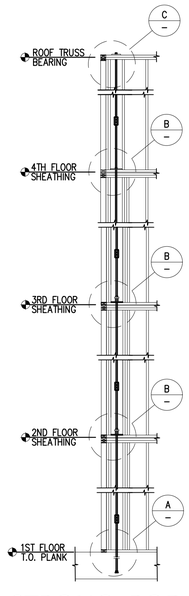
SW SECTION (SW-7) 7 S207
NO SCALE



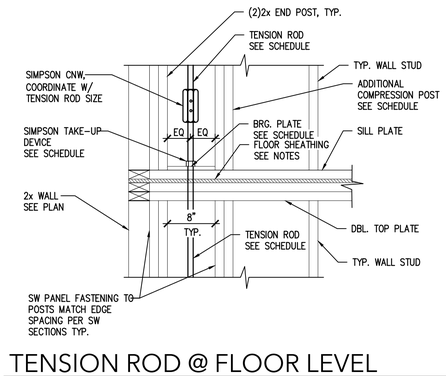
SW SECTION (SW-8) 8 S207
NO SCALE



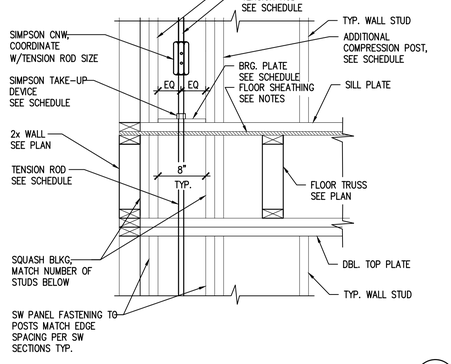
SW SECTION (SW-9) 9 S207
NO SCALE



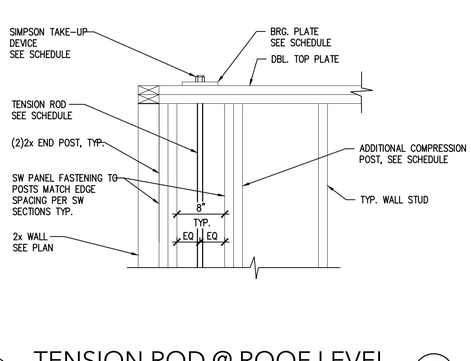
STRONG- ROD ATS
1/4"=1'-0"

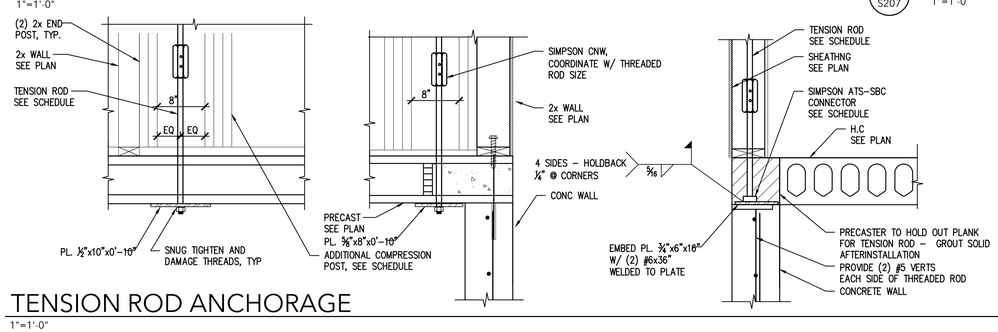


TENSION ROD @ FLOOR LEVEL
1"=1'-0"
B S207



TENSION ROD @ ROOF LEVEL
1"=1'-0"
C S207





TENSION ROD ANCHORAGE
1"=1'-0"
A S207

10 S207

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
SHEAR WALL DETAILS

SHEET NO.
S207

Proj. #18124-4

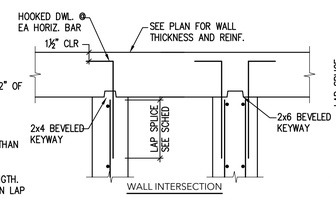
REINFORCING STEEL SPLICE LENGTHS FOR STANDARD NON-COATED BARS								
CONCRETE STRENGTH F'c	TYPE #1 SPLICE CLASS A SPLICE		TYPE #2 SPLICE CLASS B SPLICE		TYPE #3 SPLICE CLASS B SPLICE		TYPE #4 SPLICE COMPRESSION SPLICE
	#6 AND SMALLER	#7 AND LARGER	#6 AND SMALLER	#7 AND LARGER	#6 AND SMALLER	#7 AND LARGER	#4 AND LARGER
3000 psi	44 Bd	55 Bd	57 Bd	71 Bd	85 Bd	107 Bd	30 Bd
4000 psi	38 Bd	47 Bd	49 Bd	62 BD	74 Bd	92 Bd	30 Bd

Bd = BAR DIAMETER

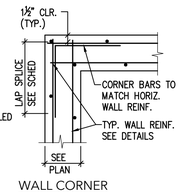
REBAR CLEAR COVER SCHEDULE	
CONCRETE REINFORCEMENT CLEAR COVER, U.N.O. (NON-PRESTRESSED)	
CONDITION & DESIGNATION	CLEAR COVER
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THRU #18	2"
CONCRETE EXPOSED TO EARTH OR WEATHER: #5 OR SMALLER	1½"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH	
SLABS, WALLS, JOISTS: #14 & #18	1½"
SLABS, WALLS, JOISTS: #11 & SMALLER	¾"
BEAMS, COLUMNS (PRIMARY REINF, TIES, STIRRUPS, SPIRALS)	1½"

NOTES:

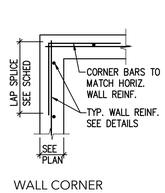
1. MIN. LAP: 18" FOR TYPE #1 THRU TYPE #3 & 12" FOR TYPE #4 SPLICES.
2. REQ'D. SPLICE LENGTH = LISTED SPLICE LENGTH X ADJUSTMENT FACTORS
   ADJUSTMENT FACTORS = 1.0 IF NONE BELOW APPLY
   A. FOR HORIZ. REINFORCING IN MAT SLABS, BEAMS, AND FOOTINGS W/ MORE THAN 12" OF FRESH CONCRETE PLACED BELOW BAR – ADJUSTMENT FACTOR = 1.3
   B. FOR Fy OTHER THAN 60 KSI – ADJUSTMENT FACTOR = Fy (USED)/ 60
   C. FOR LIGHT WEIGHT CONCRETE – ADJUSTMENT FACTOR = 1.3
   D. TYPICAL EPOXY COATED REINFORCING – ADJUSTMENT FACTOR = 1.2
   E. EPOXY COATED REINFORCING W/ COVER LESS THAN Bd OR CLEAR SPACING LESS THAN 6 Bd – ADJUSTMENT FACTOR = 1.5
3. ALL ADJUSTMENT FACTORS THAT APPLY SHALL BE USED TO CALCULATE REQ'D SPLICE LENGTH.
4. UNLESS OTHERWISE NOTED ON PLAN OR DETAILS, LAP THE FOLLOWING BARS AS DEFINED IN LAP SPLICE TABLE ABOVE.
   A. VERTICAL HOOKED OR STRAIGHT BARS EXTENDING FROM FOOTINGS: TYPE #4 SPLICE, U.N.O.
   B. HORIZONTAL BARS IN GRADE BEAMS, FOOTINGS, & FOUNDATION WALLS: TYPE #2 SPLICE
   C. VERTICAL BARS IN COLUMNS & PIERS: TYPE #4 SPLICE
   D. VERTICAL BARS IN BASEMENT & RETAINING WALLS: TYPE #3 SPLICE
   E. U.N.O ON PLAN OR DETAILS, LAP THE SLAB BARS WITH A LAP LENGTH OF 48 Bd.



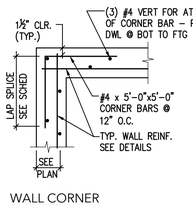
WALL INTERSECTION



WALL CORNER

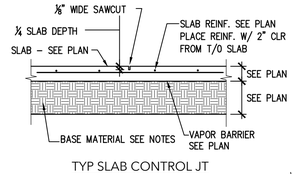


WALL CORNER

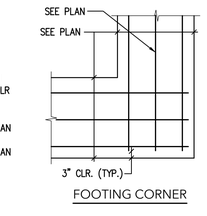


WALL CORNER

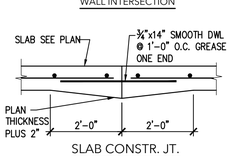
NOTES:
1. SAWCUT JT SHALL BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING



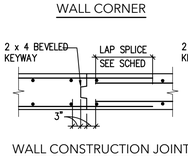
TYP SLAB CONTROL JT



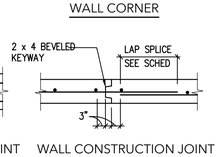
FOOTING CORNER



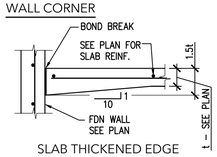
SLAB CONSTR. JT.



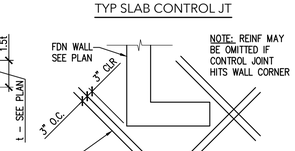
WALL CONSTRUCTION JOINT



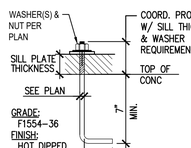
WALL CONSTRUCTION JOINT



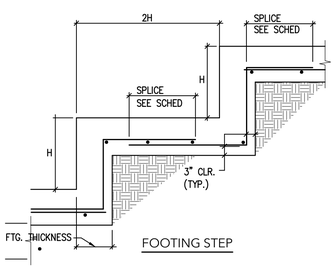
SLAB THICKENED EDGE



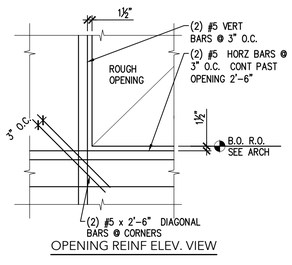
REENTRANT CORNER REINF



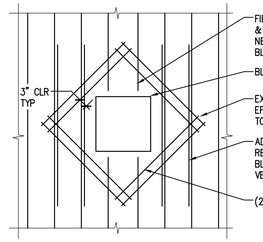
WOOD SILL PLATE ANCHOR



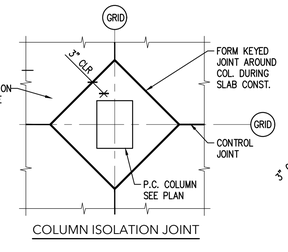
FOOTING STEP



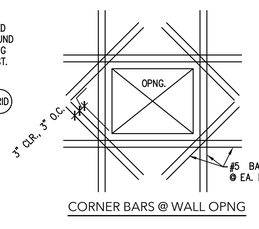
OPENING REINF ELEV. VIEW



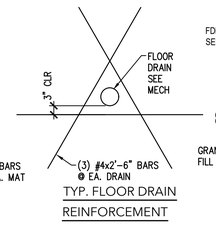
UTILITY BLOCKOUT DETAIL



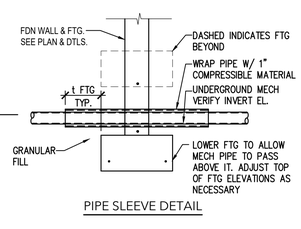
COLUMN ISOLATION JOINT



CORNER BARS @ WALL OPNG



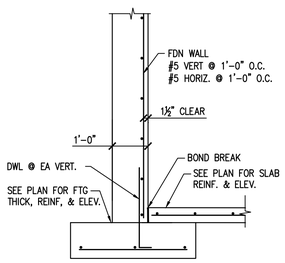
TYP. FLOOR DRAIN REINFORCEMENT



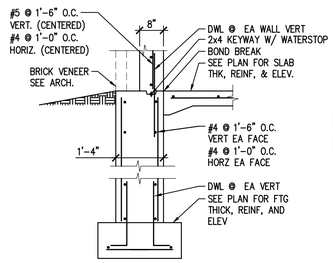
PIPE SLEEVE DETAIL

FOUNDATION STANDARD DETAILS

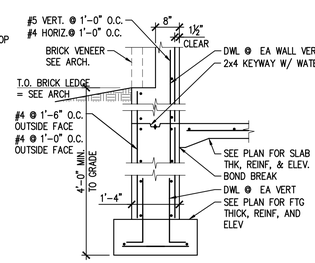
NO SCALE



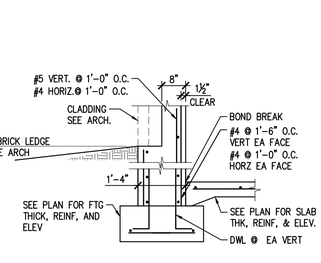
FOUNDATION DETAIL 2 S301
½" = 1'-0"



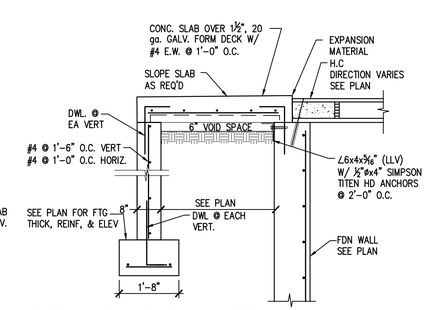
FOUNDATION DETAIL 3 S301
½" = 1'-0"



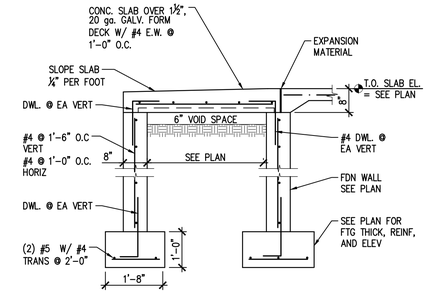
FROST PROTECTED



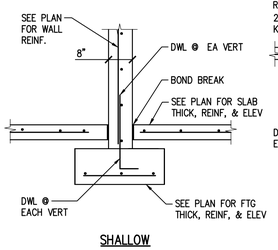
SHALLOW



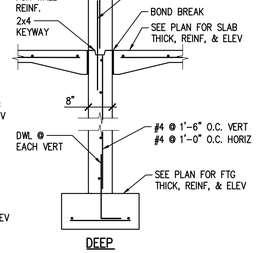
FOUNDATION DETAIL 5 S301
1/2"=1'-0"



STOOP DETAIL 6 S301
1/2" = 1'-0"

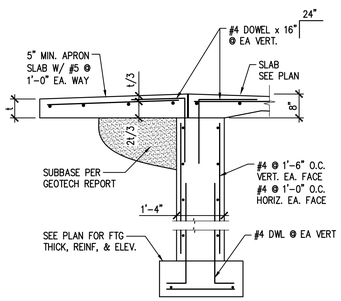


SHALLOW

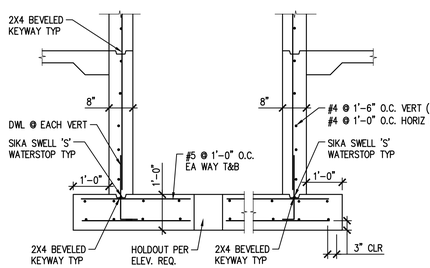


DEEP

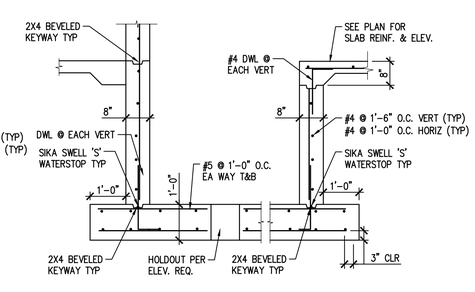
FOUNDATION DETAIL 7 S301
1/2"=1'-0"



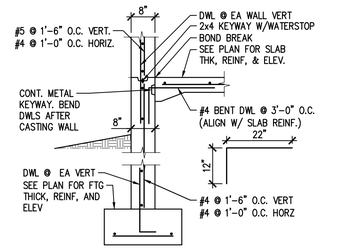
FDN DETAIL 8 S301
1/2"=1'-0"



FDN DETAIL 9 S301
1/2"=1'-0"



ELEVATOR PIT 10 S301
1/2"=1'-0"



FOUNDATION DETAIL 11 S301
1/2"=1'-0"

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

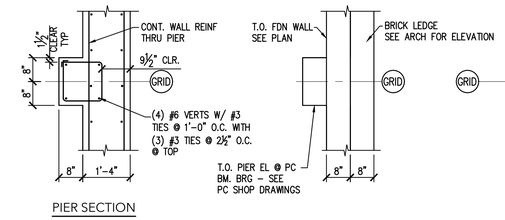
PARK PLACE APARTMENTS

RED WING, MN.

SHEET CONTENTS:
FOUNDATION DETAILS

SHEET NO.
S301

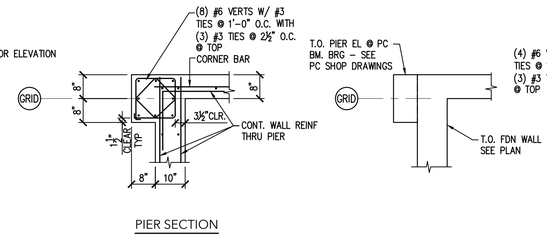
Proj. #18124-4



PIER SECTION

PIER DETAIL (P1)

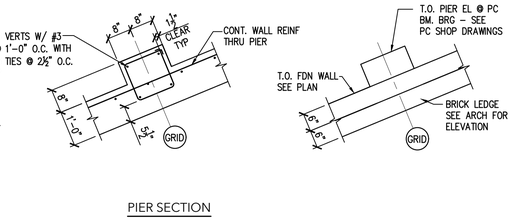
1/2"=1'-0" SEE PLAN FOR ORIENTATION — 1 S302



PIER SECTION

PIER DETAIL (P2)

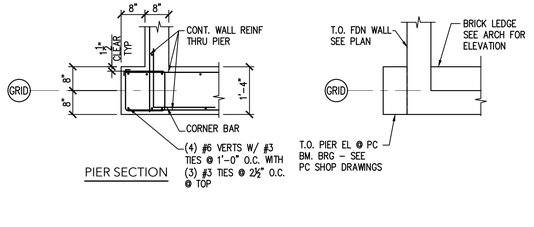
1/2"=1'-0" SEE PLAN FOR ORIENTATION — 2 S302



PIER SECTION

PIER DETAIL (P3)

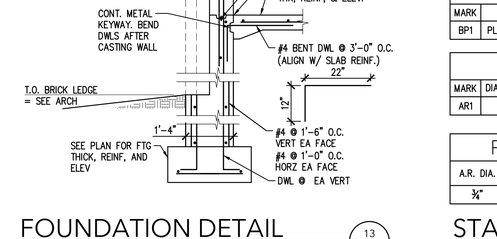
½" = 1'-0" — 3 S302



PIER SECTION

PIER DETAIL (P4)

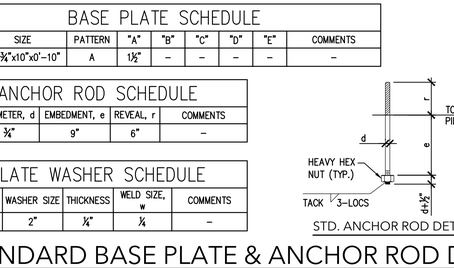
1/2"=1'-0" — 4 S302



PIER SECTION

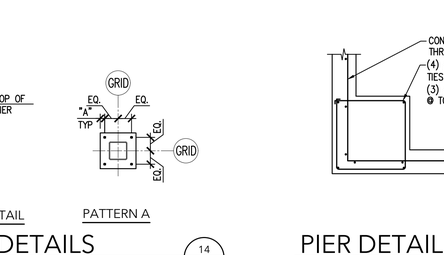
PIER DETAIL (P5)

1/2"=1'-0" SEE PLAN FOR ORIENTATION — 5 S302



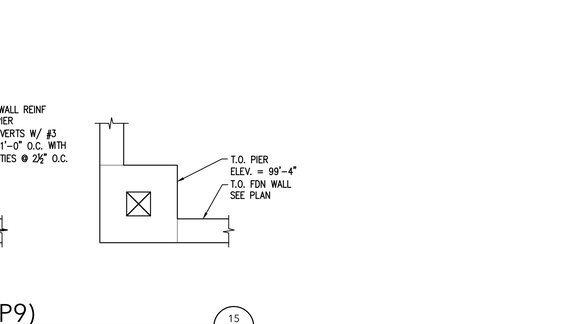
PIER DETAIL (P6)

1/2"=1'-0" SEE PLAN FOR ORIENTATION — 6 S302



PIER DETAIL (P7)

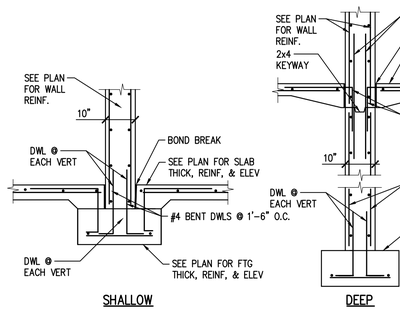
1/2"=1'-0" SEE PLAN FOR ORIENTATION — 7 S302



PIER SECTION

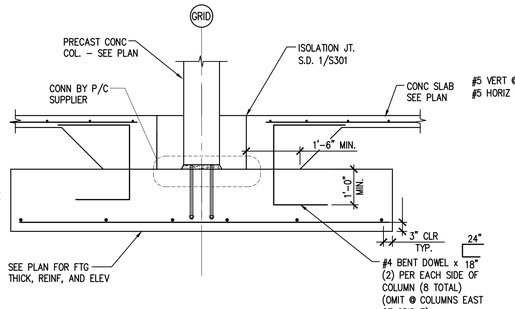
EXTERIOR COLUMN PIER (P8)

1/2"=1'-0" — 8 S302



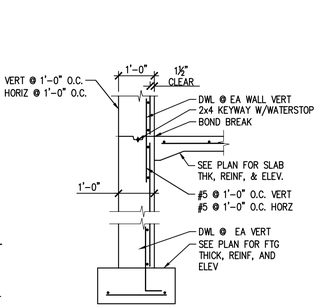
FOUNDATION DETAIL

1/2"=1'-0" — 9 S302



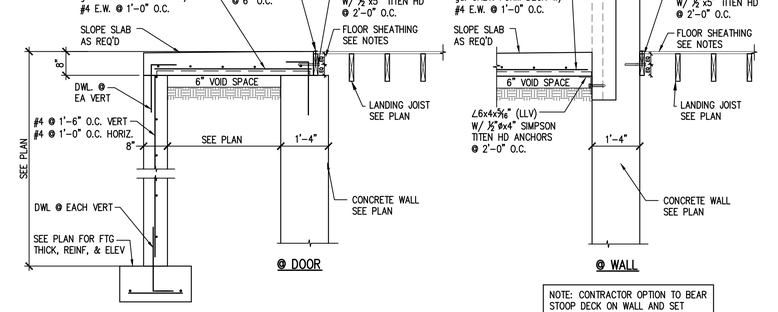
INTERIOR PAD FOOTING DETAIL

½" = 1'-0" — 10 S302



FOUNDATION DETAIL

1/2"=1'-0" — 11 S302



STOOP SECTION

½" = 1'-0" — 12 S302

FOUNDATION DETAIL

1/2"=1'-0" — 13 S302

BASE PLATE SCHEDULE								
MARK	SIZE	PATTERN	"A"	"B"	"C"	"D"	"E"	COMMENTS
BP1	PL ¾"x10"x0'-10"	A	1½"	–	–	–	–	–

ANCHOR ROD SCHEDULE				
MARK	DIAMETER, d	EMBEDMENT, e	REVEAL, r	COMMENTS
AR1	¾"	9"	6"	–

PLATE WASHER SCHEDULE				
A.R. DIA.	WASHER SIZE	THICKNESS	WELD SIZE, w	COMMENTS
¾"	2"	¼"	¼	–

STD. ANCHOR ROD DETAIL

PATTERN A

STANDARD BASE PLATE & ANCHOR ROD DETAILS

NO SCALE — 14 S302

PIER DETAIL (P9)

1/2"=1'-0" SEE PLAN FOR ORIENTATION — 15 S302

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

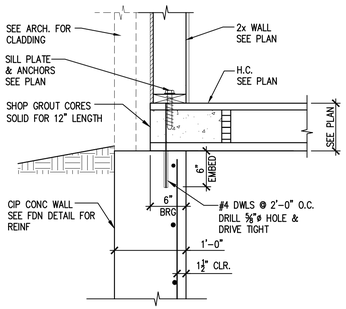
PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature:
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS: FOUNDATION DETAILS

SHEET NO. S302

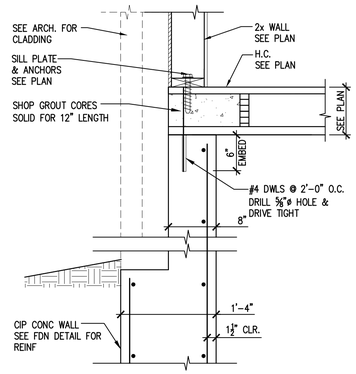
Proj. #18124-4



FRAMING DETAIL

1" = 1'-0"

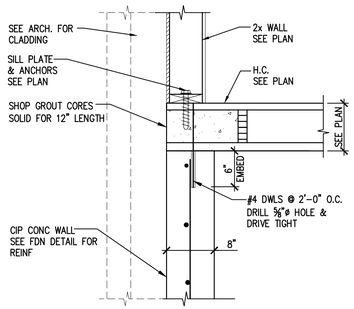
1 S401



FRAMING DETAIL

1" = 1'-0"

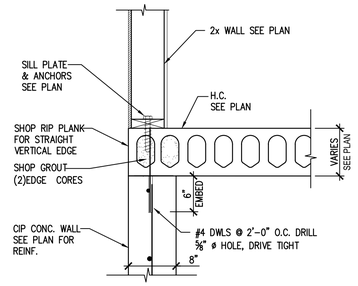
2 S401



FRAMING DETAIL

1" = 1'-0"

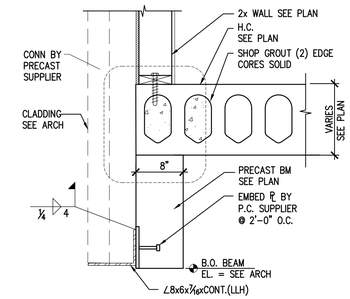
3 S401



FRAMING DETAIL

1"=1'-0"

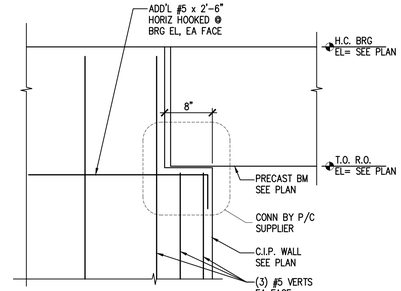
4 S401



FRAMING DETAIL

1"=1'-0"

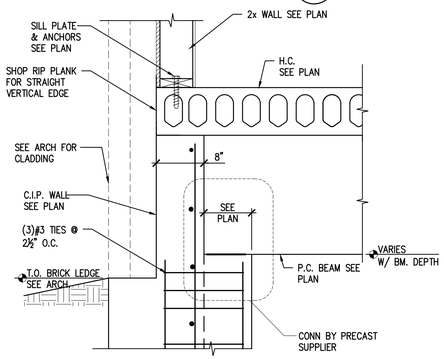
5 S401



FRAMING DETAIL

1"=1'-0"

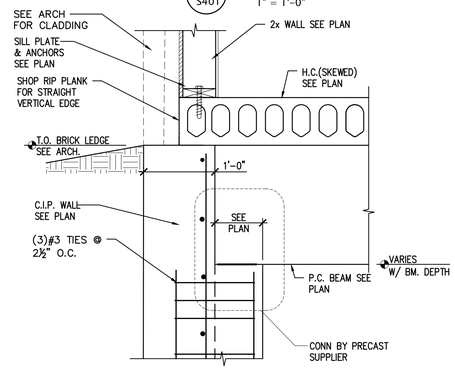
5 S401



FRAMING DETAIL

1"=1'-0"

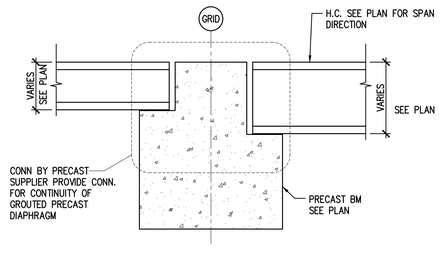
6 S401



FRAMING DETAIL

1"=1'-0"

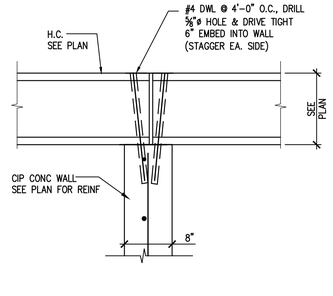
7 S401



FRAMING DETAIL

1"=1'-0"

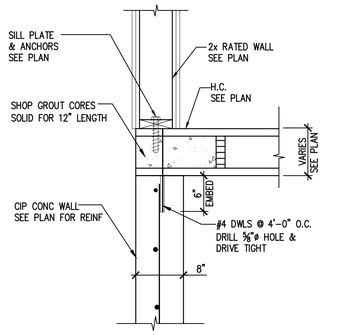
8 S401



FRAMING DETAIL

1"=1'-0"

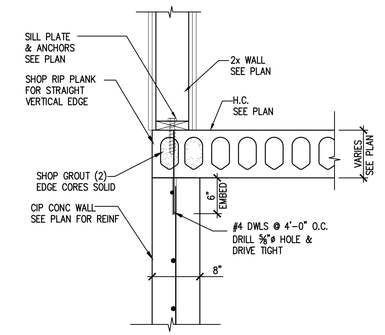
9 S401



FRAMING DETAIL

1"=1'-0"

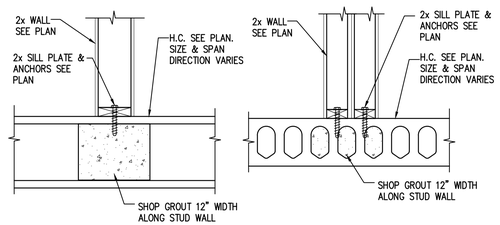
10 S401



FRAMING DETAIL

1"=1'-0"

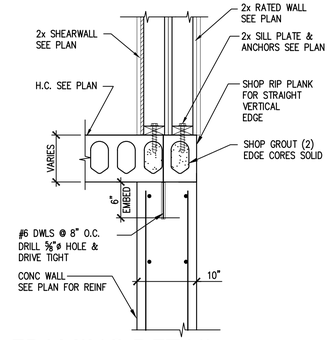
11 S401



FRAMING DETAIL

1"=1'-0"

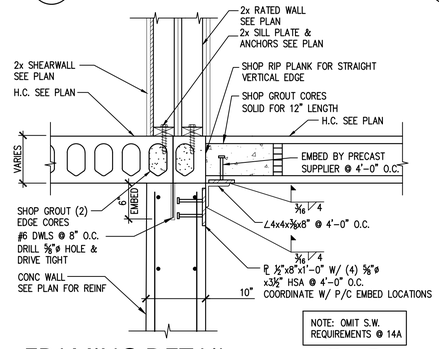
12 S401



FRAMING DETAIL

1"=1'-0"

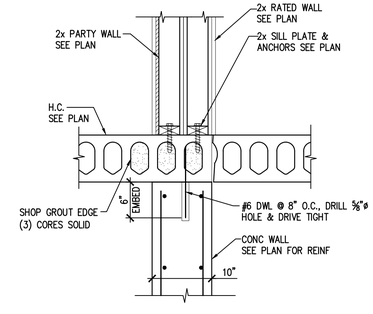
13 S401



FRAMING DETAIL

1"=1'-0"

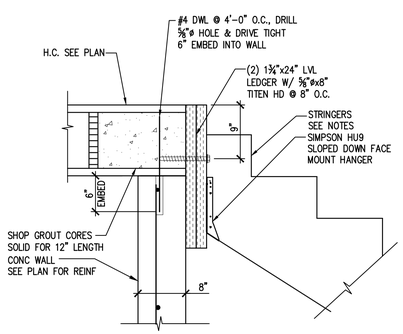
14A S401 14 S401



FRAMING DETAIL

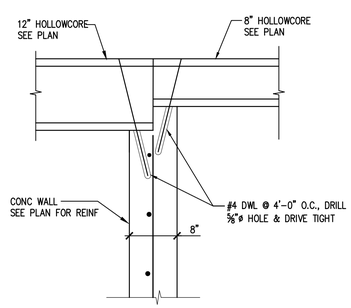
1"=1'-0"

15 S401



FRAMING DETAIL

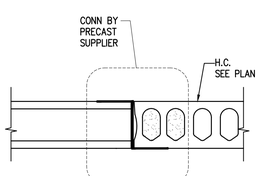
16 S401



FRAMING DETAIL

1"=11"-0"

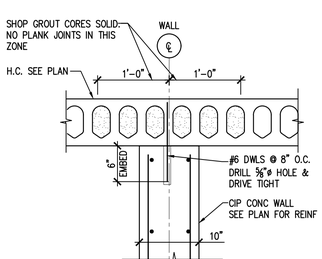
17 S401



FRAMING DETAIL

1"=1'-0"

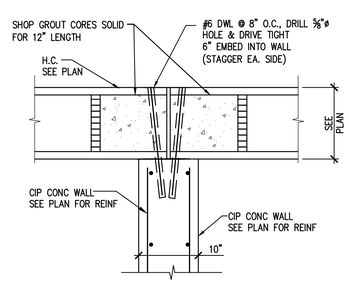
18 S401



FRAMING DETAIL

1"=1'-0"

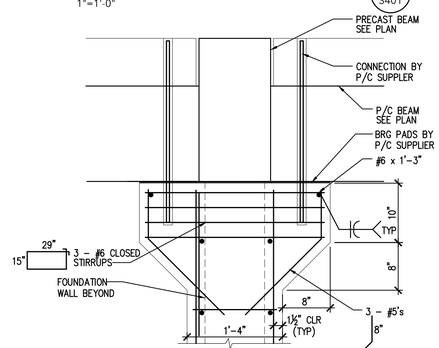
19 S401



FRAMING DETAIL

1"=1'-0"

20 S401



P/C BEAM BRG @ CIP PIER

1"=1'-0"

21 S401

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

#	Revisions: DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

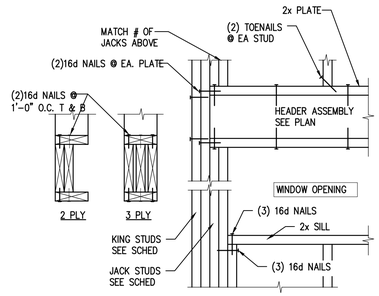
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

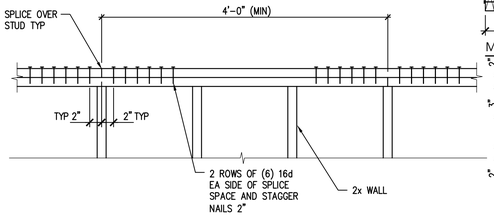
SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S401

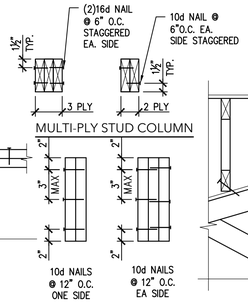
Proj. #18124-4



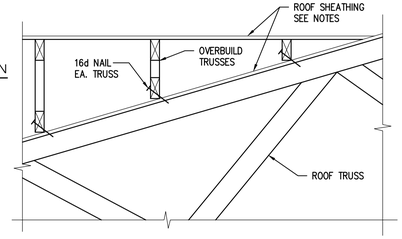
HEADER ASSEMBLY



DBL TOP PLATE SPLICE



BEAM FASTENING DETAIL



ROOF TRUSS OVERBUILD

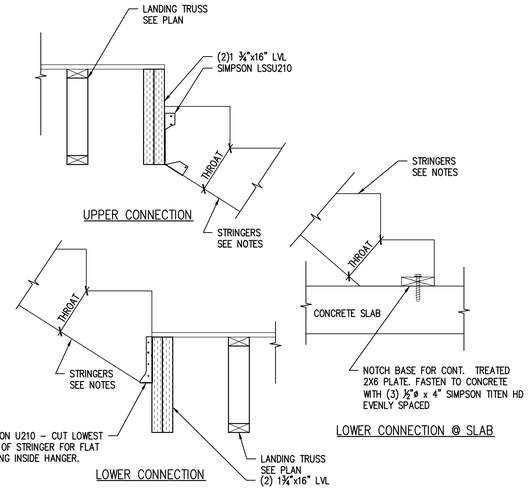
STANDARD WOOD FRAMING DETAILS

NO SCALE

1 S402

STAIR FRAMING NOTES

1. SEE ARCH FOR STAIR RISE/RUN AND LANDING DIMENSIONS
2. FRAMING CONDITIONS ENCOUNTERED IN THE FIELD THAT DO NOT MATCH THE SHOWN STRUCTURAL DETAILS, MUST BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO FRAMING.
3. DO NOT OVERCUT TREADS
4. STRINGERS: (4) 1¾"x14" LSL EVENLY SPACED
5. MIN. THROAT DIMENSIONS:
   14" MEMBER = 8"
   16" MEMBER = 10"
   18" MEMBER = 12"
6. PROVIDE 2x4 BRG. WALL WITH BEVELED TOP PLATE @ MID-SPAN OF LOWEST STRAIGHT RUN STAIRS.
7. CONNECT HEADER BEAM TO SHAFT WALL WITH USP FWH SERIES OR SIMPSON DGH SERIES. PROVIDE (3) 2x STUD PACK COLUMN IN WALL @ BEAM BEARING. HEADER TO BE SUPPORTED MID-SPAN WITH (3) 2x STUD PACK IN DIVIDER WALL



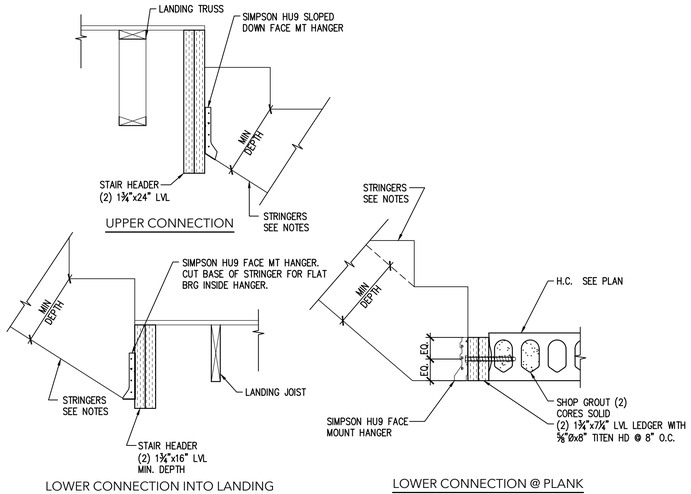
STAIR FRAMING DETAILS

1"=1'-0"

2 S402

STAIR FRAMING NOTES

1. SEE ARCH FOR STAIR RISE/RUN AND LANDING DIMENSIONS
2. FRAMING CONDITIONS ENCOUNTERED IN THE FIELD THAT DO NOT MATCH THE SHOWN STRUCTURAL DETAILS, MUST BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO WORK.
3. DO NOT OVERCUT TREADS
4. STRINGERS: (4) 1¾"x18" LVL EVENLY SPACED
5. MIN. THROAT DIMENSIONS:
   14" MEMBER = 8"
   16" MEMBER = 10"
   18" MEMBER = 12"
6. ALT. HANGERS MUST BE SUBMITTED FOR APPROVAL PRIOR TO WORK.
7. LVL MATERIAL TO BE 2.0E.
8. PROVIDE (3) 2x STUD PACK COLUMN IN WALL AT BEAM BEARING



WOOD STAIR (@ FULL RUN STAIRS ONLY)

1" = 1'-0"

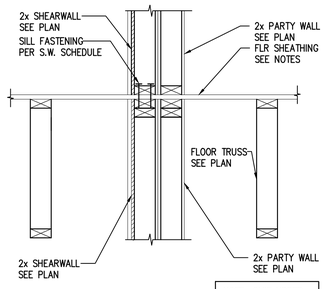
3 S402

DEVELOPMENT LENGTH SCHEDULE		
TOP BAR		
SIZE	DEVELOPMENT LENGTH	ALT HOOK LENGTH
#5	36"	14"
#6	46"	17"
#7	62"	20"
BOT BAR		
SIZE	DEVELOPMENT LENGTH	ALT HOOK LENGTH
#5	27"	14"
#6	27"	14"
#7	27"	14"

FRAMING DETAIL

1"=1'-0"

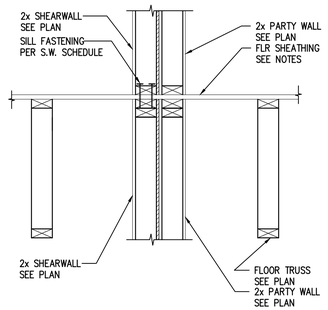
7 S402



FRAMING DETAIL

1"=1'-0"

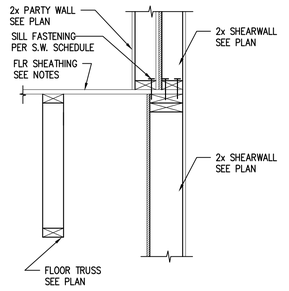
4A S402 4 S402



FRAMING DETAIL

1"=1'-0"

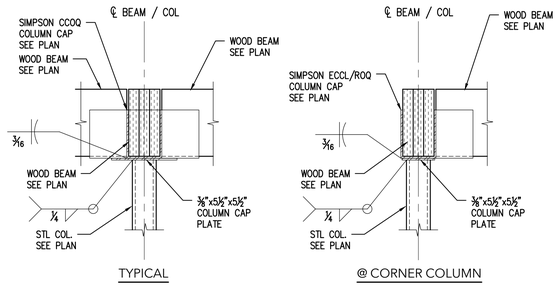
5 S402



FRAMING DETAIL

1"=1'-0"

6 S402



FRAMING DETAIL

1"=1'-0"

8 S402

SANDMAN
Structural Engineers

1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

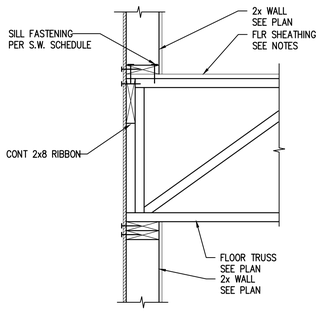
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

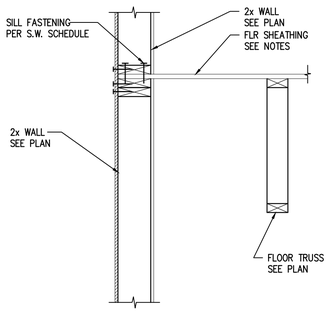
SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S402

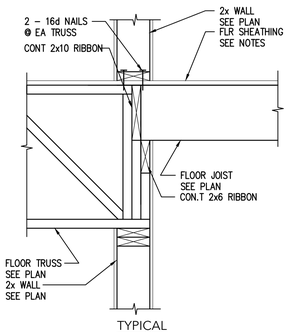
Proj. #18124-4



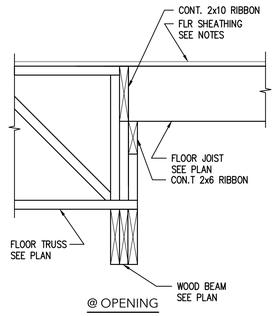
FRAMING DETAIL 1 S403
1"=1'-0"



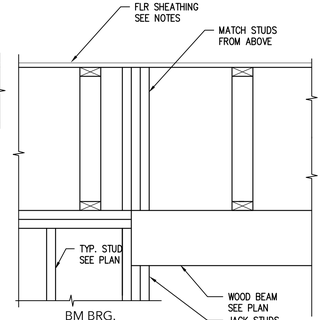
FRAMING DETAIL 2 S403
1"=1'-0"



TYPICAL

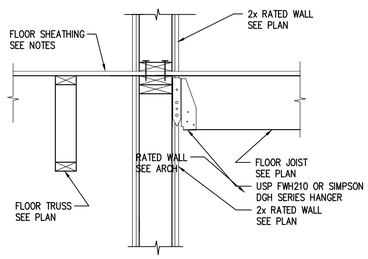


@ OPENING



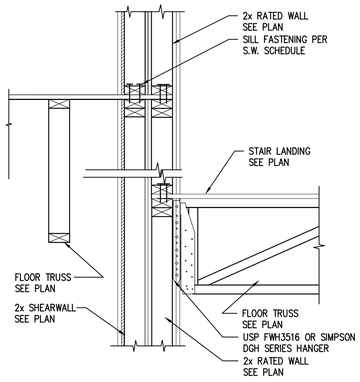
BM BRG.

FRAMING DETAIL 3 S403
1"=1'-0"

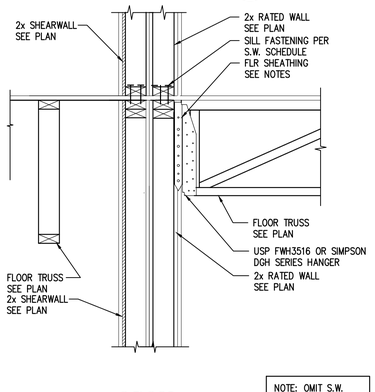


NOTE: @4A OMIT FLOOR THIS SIDE

FRAMING DETAIL 4A S403 / 4 S403
1"=1'-0"



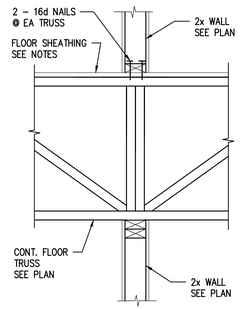
@ LANDING



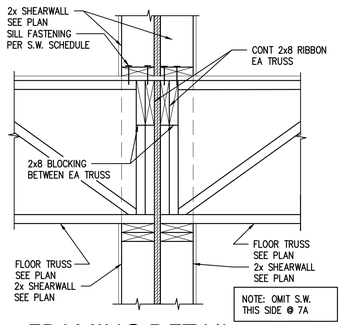
@ FLOOR

NOTE: OMIT S.W. REQUIREMENTS @ 5A

FRAMING DETAIL 5A S403 / 5 S403
1"=1'-0"

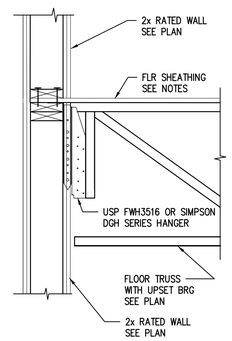


FRAMING DETAIL 6 S403
1"=1'-0"

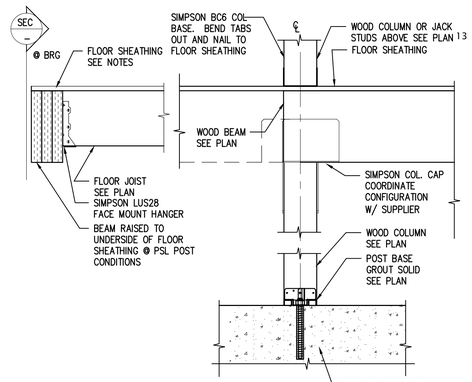


NOTE: OMIT S.W. THIS SIDE @ 7A

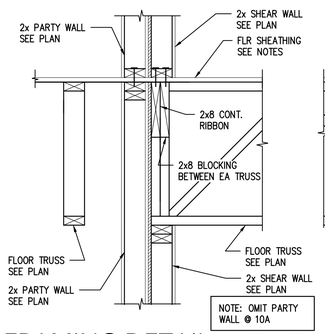
FRAMING DETAIL 7A S403 / 7 S403
1"=1'-0"



FRAMING DETAIL 8 S403
1"=1'-0"

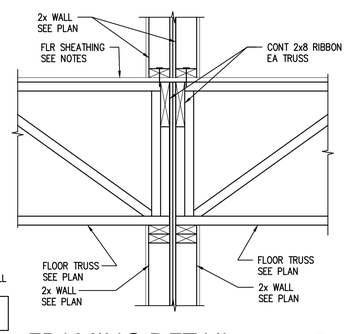


FRAMING DETAIL 9 S403
1"=1'-0"

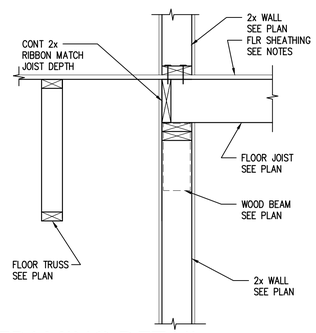


NOTE: OMIT PARTY WALL @ 10A

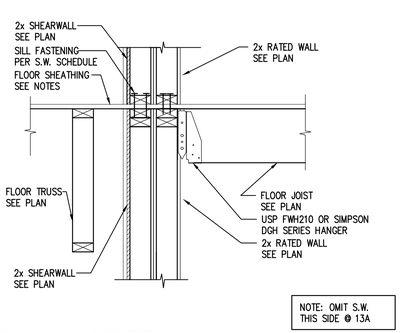
FRAMING DETAIL 10A S403 / 10 S403
1"=1'-0"



FRAMING DETAIL 11 S403
1"=1'-0"

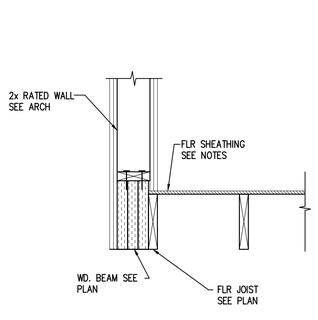


FRAMING DETAIL 12 S403
1"=1'-0"

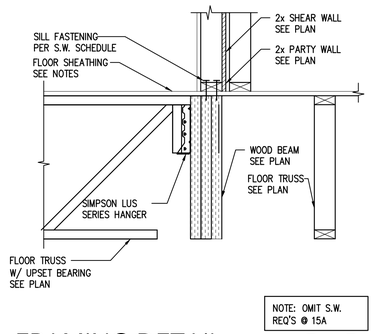


NOTE: OMIT S.W. THIS SIDE @ 13A

FRAMING DETAIL 13 S403 / 13A S403
1"=1'-0"

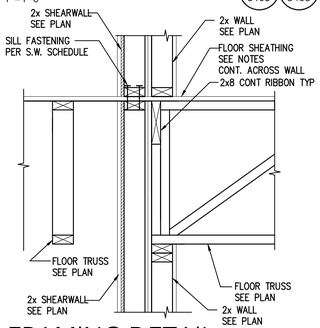


FRAMING DETAIL 14 S403
1" = 1'-0"

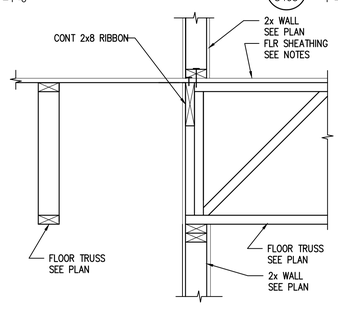


NOTE: OMIT S.W. REQ'S @ 15A

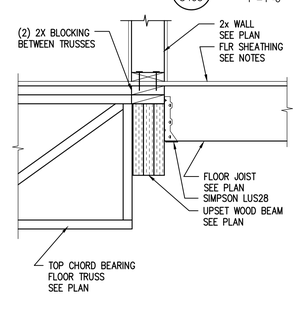
FRAMING DETAIL 15A S403 / 15 S403
1"=1'-0"



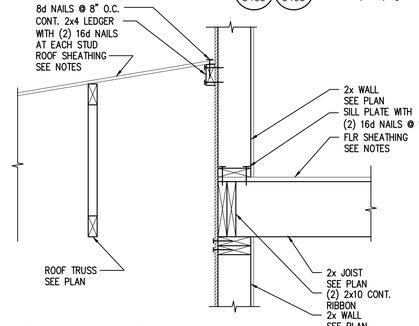
FRAMING DETAIL 16 S403
1"=1'-0"



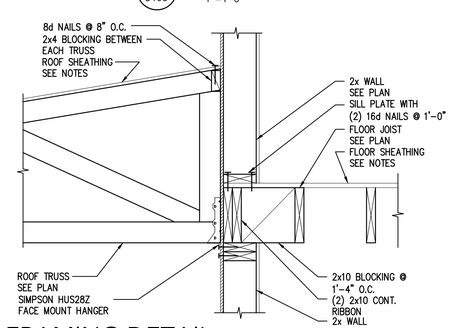
FRAMING DETAIL 17 S403
1"=1'-0"



FRAMING DETAIL 18 S403
1"=1'-0"



FRAMING DETAIL 19 S403
1" = 1'-0"



FRAMING DETAIL 20 S403
1" = 1'-0"

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

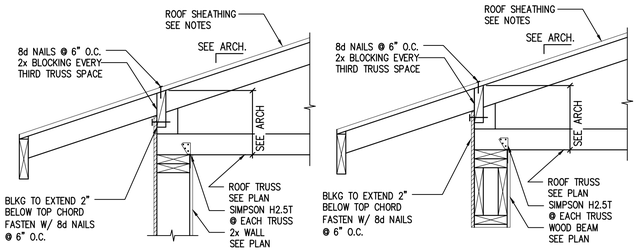
PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

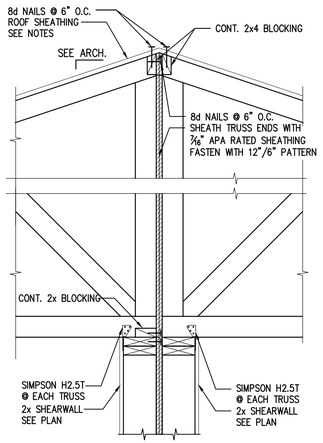
SHEET CONTENTS:
FRAMING DETAIILS

SHEET NO.
S403

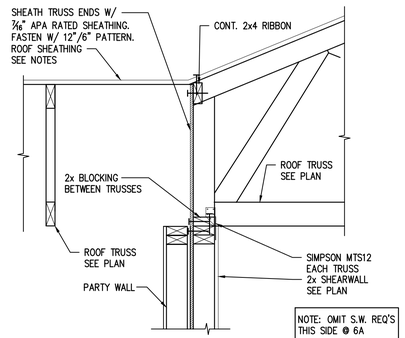
Proj. #18124-4



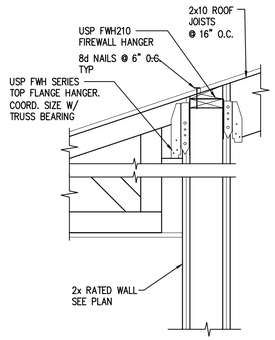
FRAMING DETAIL
1"=1'-0" — 1 / S404



FRAMING DETAIL
1"=1'-0" — 5 / S404

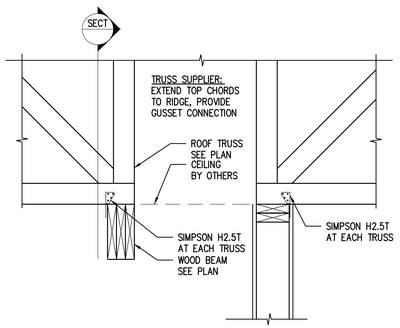


FRAMING DETAIL
1"=1'-0" — 6A / S404 — 6 / S404

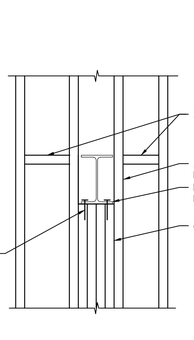


FRAMING DETAIL
1"=1'-0" — 7 / S404

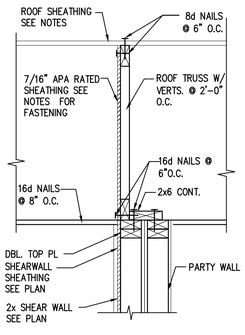
DETAIL NOT USED
1"=1'-0" — 2 / S404



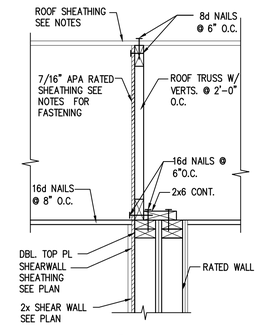
FRAMING DETAIL
1"=1'-0" — 3 / S404



FRAMING DETAIL
1"=1'-0" — 8 / S404

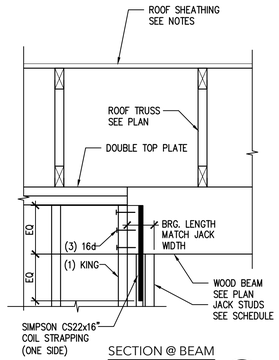


FRAMING DETAIL
1" = 1'-0" — 9 / S404

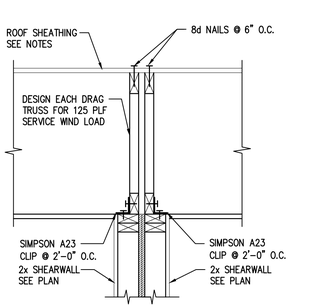


FRAMING DETAIL
1" = 1'-0" — 10 / S404

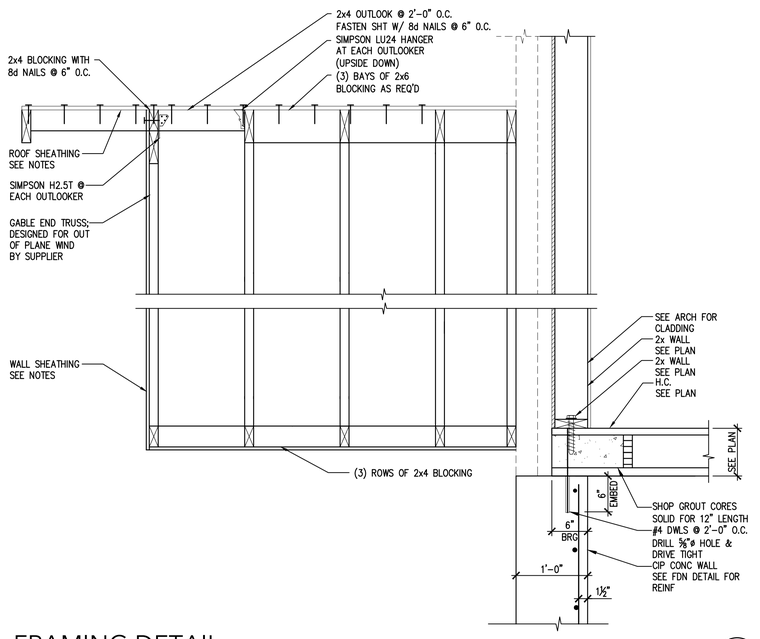
FRAMING DETAIL
1"=1'-0" — 3 / S404



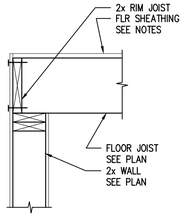
SECTION @ BEAM



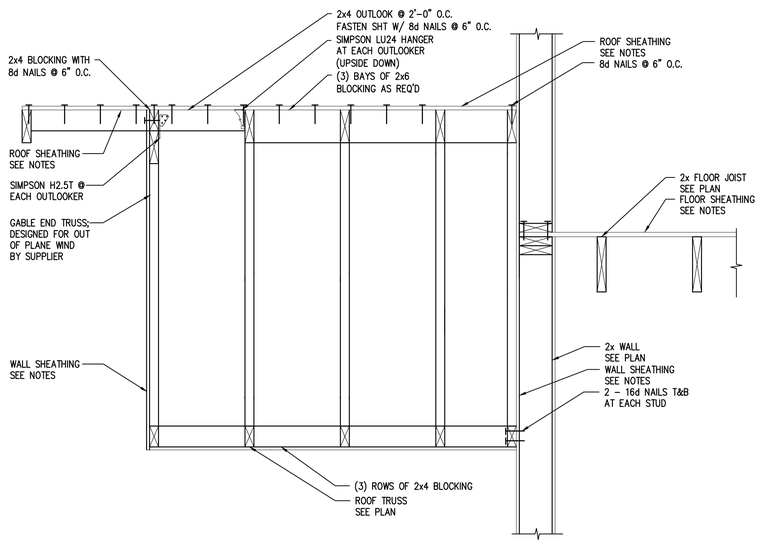
FRAMING DETAIL
1"=1'-0" — 4A / S404 — 4 / S404



FRAMING DETAIL
1"=1'-0" — 11 / S404



FRAMING DETAIL
1"=1'-0" — 12 / S404



FRAMING DETAIL
1"=1'-0" — 13 / S404

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

Revisions: #	DATE	COMMENTS

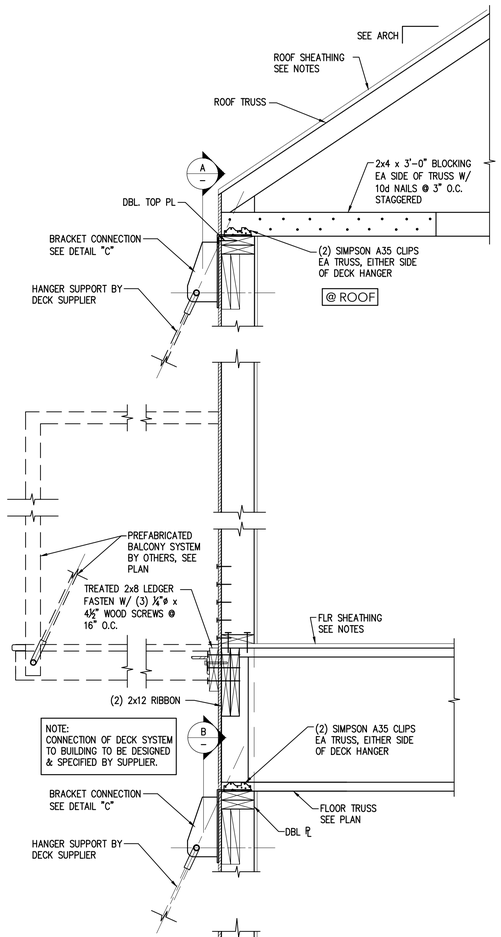
PROFESSIONAL ENGINEER
I Hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S404

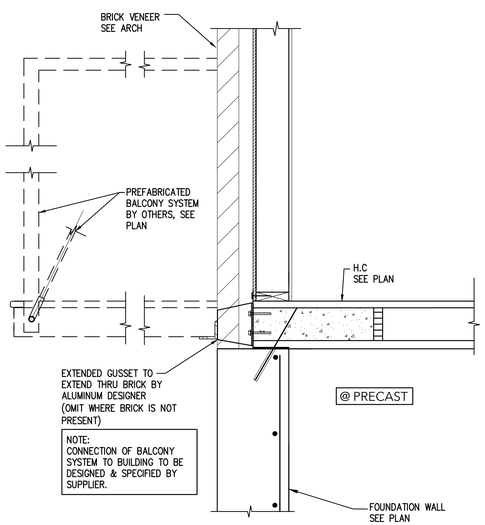
Proj. #18124-4

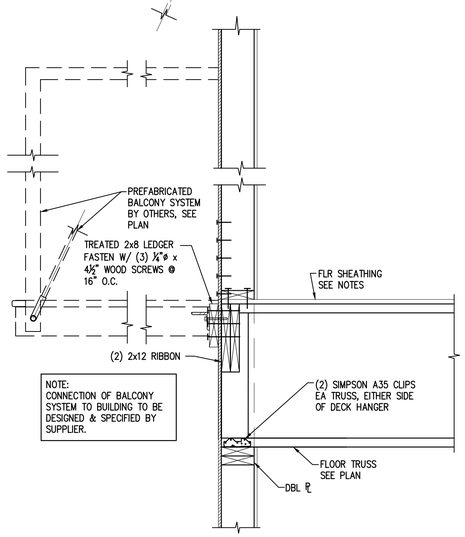


DECK DETAIL

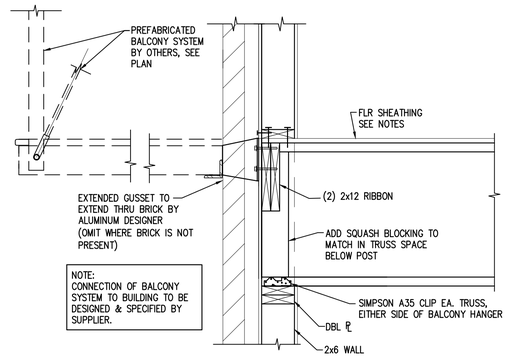
1" = 1'-0"

1 / S405





@ 2ND, 3RD & 4TH FLOOR WITHOUT BRICK

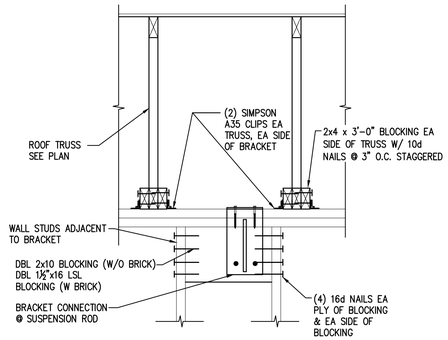


@ 2ND, 3RD & 4TH FLOOR WITH BRICK

DECK DETAIL

1" = 1'-0"

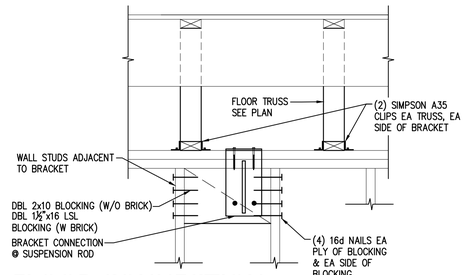
2 / S405



ROOF CONNECTION

1" = 1'-0"

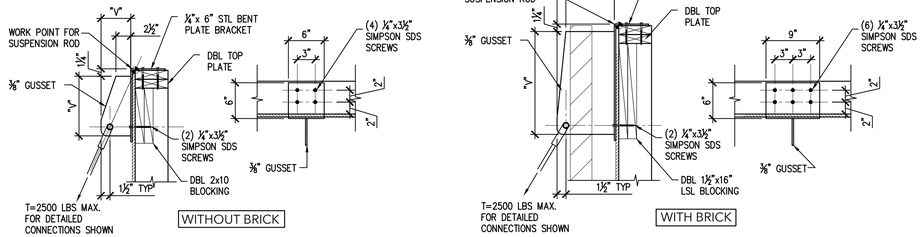
A / –



FLOOR CONNECTION

1" = 1'-0"

B / –



BRACKET CONNECTION

1" = 1'-0"

C / –

SANDMAN
Structural Engineers
1587 30th Avenue South
Moorhead, MN 56560
218-227-0022 · www.SandmanSE.com

Proj. Engineer: NB
Drawn by: FV
Date Issued: 10-4-18

#	DATE	COMMENTS

Revisions:

PROFESSIONAL ENGINEER
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Kurt Sandman
Signature: [signature]
Date: 10/04/2018 License #: 43486

PARK PLACE APARTMENTS
RED WING, MN.

SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S405

Proj. #18124-4