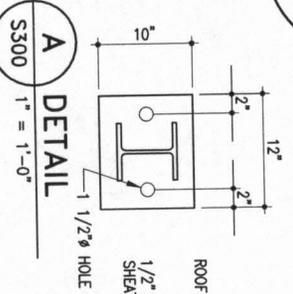


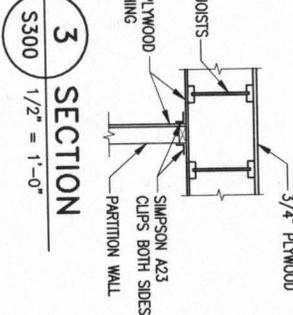
1 SECTION
 S300 1/2" = 1'-0"

ASSOCIATION OF PROFESSIONAL ENGINEERS
 OF SASKATCHEWAN
CERTIFICATE OF AUTHORIZATION
 CROSIER, KILGOUR & PARTNERS LTD.
 NUMBER 47
 FIDELITY TO CONSULT HEAD BR.
 SEC. REG. NO. 31708
 SIGNATURE

ORIGINAL DRAWING
 SEALED BY
 B. FLISAK
 AND DATED
 2014/12/19

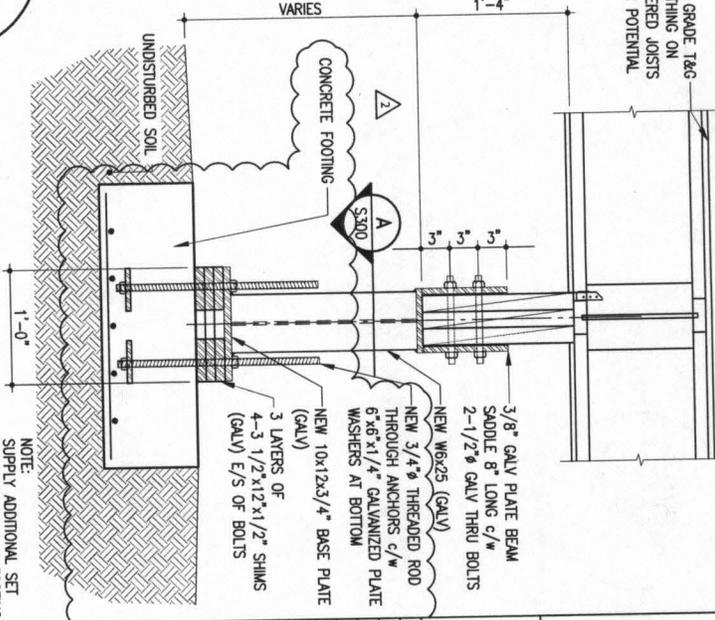


A DETAIL
 S300 1" = 1'-0"



3 SECTION
 S300 1/2" = 1'-0"

2 SECTION
 S300 1" = 1'-0"



NOTE:
 SUPPLY ADDITIONAL SET
 OF 6 SHIMS x 12 FOOTING
 = 72 SHIMS x 12 OWNER
 FOR FUTURE USE

300-275 Calder Street
 Winnipeg, Manitoba R2C 5K6
 T 204 943 7507
 F 204 943 7527
 201-1-1317

Crosier Kilgour & Partners Ltd.
 CONSULTING STRUCTURAL ENGINEERS

republic

374 Donald Street, First Floor
 Winnipeg, MB R3B 2J2
 T 204 989 0102
 F 204 989 0094

RCMP

Carrot River, SK

MOBILE HOME DESIGN

NO.	DESCRIPTION	DATE
1	NEW CONCRETE FOOTING	1/18/12
2	SOLID ON CONNECTION	1/18/12
3	W/S SUBMITTAL	1/18/12
4	REVISION	1/18/12
5	REVISION	1/18/12

Project No. 91

Scale: AS NOTED

S300 R 0

GENERAL NOTES

- STRUCTURAL DESIGN BASED ON THE NATIONAL BUILDING CODE OF 2011 EDITION.
 - IMPORTANCE CATEGORY: NORMAL
 - WIND LOAD: $q_{50} = 7.9$ P.S.F.
 - GROUND SNOW LOAD: $s_g = 41.7$ P.S.F.
 - ASSOCIATED RAIN LOAD: $s_r = 21.1$ P.S.F.
- SEISMIC SITE CLASSIFICATION: NOT APPLICABLE
- DO NOT SCALE DRAWINGS.
- ALL DIMENSIONS ARE TO BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION.
- THESE STRUCTURAL DRAWINGS SHOW THE COMPLETED STRUCTURE AND DO NOT INDICATE ALL COMPONENTS NECESSARY FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SHEET ON AND AROUND THE JOBSITE DURING CONSTRUCTION.

FOUNDATIONS

- NO GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED BY THE OWNER AT THIS SITE AT THE TIME OF ISSUANCE OF THESE DRAWINGS. THEREFORE ALL FOOTINGS ARE DESIGNED ON AN ASSUMED ALLOWABLE BEARING CAPACITY OF 2000 P.S.F. FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL.
- OWNER ACCEPTS RESPONSIBILITY FOR SOIL CAPACITIES DIFFERING FROM THE ASSUMPTIONS NOTED ABOVE, AS WELL AS POTENTIAL DIFFERENTIAL SOIL MOVEMENTS.

WOOD

- ALL LUMBER TO BE NO.1/NO.2 SPF. ALL WOOD TO BE KILN DRIED.
- ALL WALLS TO BE ADEQUATELY BRACED UNTIL SHEATHING INSTALLED ON WALLS, FLOOR BELOW AND STRUCTURES ABOVE.
- RAILING PATTERNS AND NAIL LENGTHS SHALL CONFORM TO TABLE 9.2.3.3.4, AND 9.2.3.3.5 OF THE NATIONAL BUILDING CODE RESIDENTIAL STANDARDS.
- PLYWOOD SUB-FLOORING AND SHEATHING SHALL BE EXTERIOR DOUGLAS FIR PLYWOOD CONFORMING TO THE LATEST EDITION OF CSA 0121 "DOUGLAS FIR PLYWOOD" UNLESS OTHERWISE NOTED.
- ALL JOISTS OR BEAMS FLUSH FRAMED INTO OTHER BEAMS SHALL BE CONNECTED USING METAL JOIST OR BEAM HANGERS.
- MICROLUM LV FLEXURAL MEMBERS TO BE 1.9E GRADE AS MANUFACTURED BY WETBERWELSER OR APPROVED ALTERNATE.
- ALL WOOD ROSSERS ARE TO BE DESIGNED IN ACCORDANCE WITH:
 - THE LATEST EDITION OF CAN/CSA 086 "ENGINEERING DESIGN IN WOOD"
 - THE NATIONAL BUILDING CODE OF CANADA AND FOR ANY ANTICIPATED SNOW BUILD-UP LOADS.
- PROSSERS FRAMING INTO BEAMS OR OTHER ROSSERS SHALL BE CONNECTED WITH PROPER METAL FRAMING ACCESSORIES APPROVED BY THE PROJECT ENGINEER.
- THE TRUSS SUPPLIERS IS TO SUBMIT ENGINEERING DRAWINGS BEARING THE SEAL OF AN ENGINEER REGISTERED IN THE PROVINCE OF SASKATCHEWAN. THE PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION. ENGINEERING SHOP DRAWINGS SHALL INCLUDE A LAOUT PLAN SHOWING ALL CONNECTIONS, PERMANENT WEB AND CHORD BRACING REQUIRED BY TRUSS DESIGN, AND TEMPORARY BRACING. ALL MISCELLANEOUS METAL BRACING CONNECTORS AND BRACING NOTED ABOVE SHALL BE SPECIFIED BY TRUSS SUPPLIER AND SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.

STRUCTURAL STEEL

- NOTE: IN PREPARATION OF TRUSS DESIGNS, THE WEB ORIENTATIONS, LUMBER GRADE AND MEMBER SIZES EMPLOYED ARE TO MINIMIZE THE REQUIREMENT FOR WEB BRACING.
- STRUCTURAL STEEL TO CONFORM TO CSA-G40.21 "STRUCTURAL QUALITY STEELS" AND CSA-G40.20 "GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL".
 - ALL ROLLED OR WELDED STRUCTURAL QUALITY STEEL:
 - G40.21-44M
 - G40.21-44W
 - FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA S16-09, "STEEL STRUCTURES FOR BUILDINGS".
 - ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF CSA W59, "WELDED STEEL CONSTRUCTION". FABRICATORS SHALL BE PROPERLY CERTIFIED IN ACCORDANCE WITH CSA W47.1, "CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL STRUCTURES".
 - ALL STEEL IS TO BE HOT DIPPED GALVANIZED.
 - ANCHOR BOLTS TO BE GRADE ASTM A307 PROVIDED BY STEEL SUPPLIER AND SET BY THE GENERAL CONTRACTOR.
 - FABRICATION TO NOTIFY ENGINEER OF ANY PROPOSED MEMBER SUBSTITUTIONS AND CHANGED CONNECTION DETAILS.
 - THE STRUCTURAL STEEL SUPPLIER SHALL PROVIDE AND BE RESPONSIBLE FOR ALL HOLES IN STEEL SECTIONS REQUIRED BY CUTTING OF STEEL AT THE JOB SITE SHALL BE DONE ONLY AS DIRECTED AND APPROVED BY THE ENGINEER.

FOUNDATIONS

- NO GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED AT THIS SITE AT THE TIME OF ASSUANCE OF THESE DRAWINGS. THEREFORE ALL FOOTINGS ARE DESIGNED ON AN ASSUMED ALLOWABLE BEARING CAPACITY OF 2000 P.S.F. FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL.
- OWNER ACCEPTS RESPONSIBILITY FOR SOIL CAPACITIES DIFFERING FROM THE ASSUMPTIONS NOTED ABOVE, AS WELL AS POTENTIAL DIFFERENTIAL SOIL MOVEMENTS.

2.1

CAST-IN-PLACE CONCRETE

- CONCRETE
- ALL CONCRETE IS TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF CAN/CSA-4231-09 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION" AND CAN/CSA-4232-09 "METHOD OF TEST FOR CONCRETE". PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF QUALITY, YIELD AND STRENGTH AS SPECIFIED IN CONCRETE MIXES. AND WILL COMPLY WITH CAN/CSA-4231.1, CERTIFICATION LETTER TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF SASKATCHEWAN.
- PROVIDE CERTIFICATION THAT PLANT, EQUIPMENT, AND MATERIALS TO BE USED IN CONCRETE COMPLY WITH REQUIREMENTS OF CAN/CSA-4231.1, CERTIFICATION LETTER TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF SASKATCHEWAN.
- CONCRETE PROPERTIES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
 - FOOTINGS:
 - 32 MPa MIN. AT 56 DAYS
 - CLASS OF EXPOSURE: S-2
 - ENHANCED PERFORMAS
 - AGGREGATE MAX 20 MM
 - CURING TYPE: TYPE 2 - ADDITIONAL

UNLESS INDICATED OTHERWISE THE CONTRACTOR SHALL SPECIFY CONCRETE SLUMP APPROPRIATE WITH PLACEMENT METHODS AND SITE CONDITIONS. THE CONTRACTOR SPECIFIED SLUMP MUST BE SHOWN ON THE CERTIFICATION LETTER AND CONCRETE DELIVERY TICKET.

- UNLESS NOTED OTHERWISE CONCRETE CURING TO CONFORM TO THE LATEST EDITION OF CAN/CSA-4231-09 AS FOLLOWS:
 - TYPE 2 - ADDITIONAL: 7 DAYS ± 10% AND FOR A TIME NECESSARY TO ACHIEVE 70% OF THE SPECIFIED STRENGTH.

- AR ENTRAINING ADMIXTURES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C260/C259M-10A "STANDARD SPECIFICATION FOR AIR ENTRAINING ADMIXTURES FOR CONCRETE". SUPERPLASTICIZING ADMIXTURES SHALL CONFORM TO ASTM C494/C494M "STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE" OR ASTM C1017/C1017M "STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE" WHEN FLOWING CONCRETE IS APPLICABLE. AIR ENTRAINING ADMIXTURES TO HAVE A DURABILITY FACTOR GREATER THAN 75. WHEN TESTED TO ASTM STANDARD G689/G689M PROCEDURE A SPONGE "STANDARD TEST METHOD FOR MICROSCOPICAL DETERMINATION OF PARAMETERS OF THE AIR-VOID SYSTEM IN HARDENED CONCRETE".

REINFORCING STEEL

- REINFORCING STEEL TO BE CAN/CSA-G30.19M GRADE 400R DEFORMED BARS EXCEPT COLUMN TIES AND BEAM STRIPPERS WHICH SHALL BE GRADE 400M STEEL. ALL REINFORCING IS TO BE DERIVED IN ACCORDANCE WITH THE LATEST EDITION OF THE WELDED STEEL WIRE MESH SHALL BE TO ASTM A185/A185M-07, 400 MPa YIELD, FLAT SHEETS ONLY.
- REINFORCING STEEL COVER IS TO CONFORM TO CAN/CSA A23.3-04 "DESIGN OF CONCRETE STRUCTURES FOR BUILDINGS" AND AS FOLLOWS:
 - FOOTINGS:
 - EXPOSURE CLASS: S-2
 - 3 IN.
- IN WALLS AND GRADE BEAMS, BOND ALL TOP AND INTERMEDIATE HORIZONTAL STEEL, 2"-Ø AROUND CORNERS, OR USE EXTRA L BARS 4L-Ø" LONG. ALL OPENINGS IN WALLS TO HAVE 2-19M EACH SIDE AND 2-25M OVER, EXCEPT AS NOTED.
- ALL REINFORCING TO BE HELD IN PLACE AND TIED BY THE USE OF PROPER ACCESSORIES, SUCH AS H-CHAINS, SPACERS, ETC. FORMWORK.
- ALL OPENINGS IN CAST-IN-PLACE CONCRETE PLANKWORK TO BE FRAMED WITH 2-19M ALL AROUND ON BOTH FACES, EXCEPT AS NOTED.
- ALL MISCELLANEOUS CONCRETE PADS AND CURBS ARE TO BE REINFORCED WITH A MINIMUM OF 10M AT 400 MM 16 IN. Ø/C EACH WAY, UNLESS NOTED.

FORMWORK

- UNLESS NOTED OTHERWISE PROVIDE SLIP JOINT AT ALL PAVING OR CONCRETE SLABS ON GRADE AGAINST STRUCTURAL MEMBERS WITH 1/2 IN. ASPHALT IMPREGATED FIREBOARD.
- ALL CONSTRUCTION JOINT KETS ARE TO BE A MINIMUM OF 1 1/2 IN. DEEP.
- PLACE TO WILL POLYETHYLENE UNDER ALL SLABS ON FILL.

ORIGINAL DRAWING
SEALED BY
B. FLISAK
AND DATED
2014/12/19

300275 Columbia Street
Winnipeg, Manitoba R2P 5R6
F.204.943.7201
2014-12-17



Cosier Kilgour & Partners Ltd.
CONSULTING STRUCTURAL ENGINEERS

republic
ARCHITECTS

374 Donald Street, First Floor
Winnipeg, MB R4B 3J2
T.204.989.0102
F.204.989.0574

1	WALL CONCRETE FOOTINGS	1/2000	1/2000	1/2000	1/2000
2	WALL FOR CONSTRUCTION	1/1000	1/1000	1/1000	1/1000
3	WALL FOUNDATION	1/1000	1/1000	1/1000	1/1000
4	FOUNDATION	1/1000	1/1000	1/1000	1/1000

MOBILE HOME DESIGN

Corner River SK

Scale: AS NOTED

91

S400 R

0