

MEZZANINE FLOOR FRAMING PLAN
SCALE 1/8" = 1'-0"

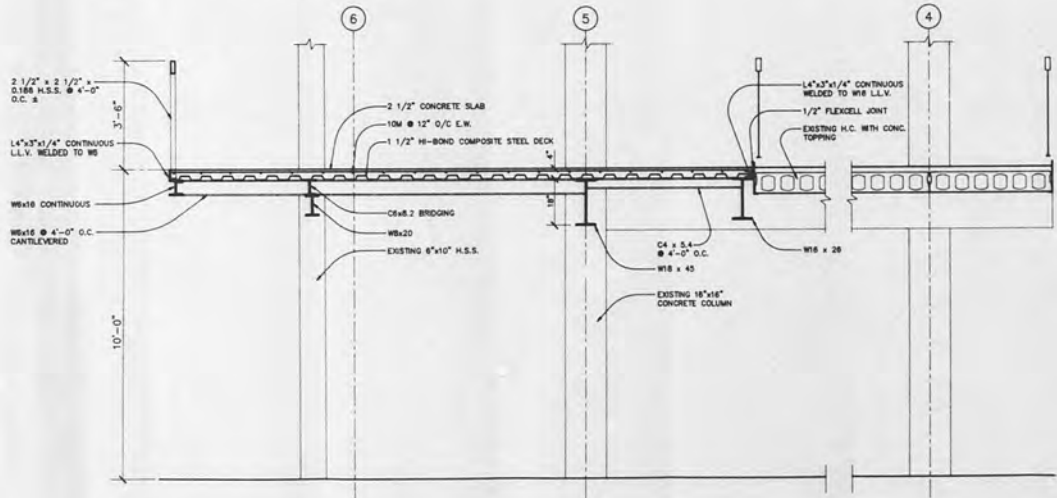
DESIGN LOADS:
LIVE LOAD = 100 P.S.F.
TOTAL LOAD = 150 P.S.F.

DESIGN SPECIFICATIONS

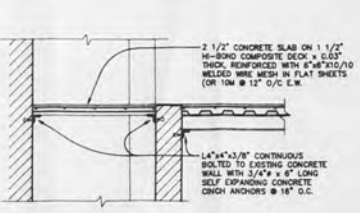
- D-1 This structure is designed in accordance with and shall be constructed in compliance with the Ontario Building Codes and applicable local bylaws:
 - a) The National Building Code of Canada 1990
 - b) Manitoba Building Code 1990
- D-2 Principal applied design loads are indicated on appropriate plans.

GENERAL NOTES

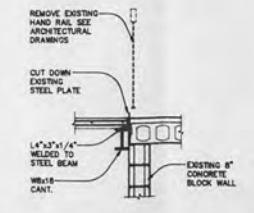
- 1) The structure is designed in accordance with, and shall be constructed in compliance with the National Building Code of Canada 1990 and all applicable local bylaws.
- 2) Principal applied design loads are indicated on appropriate drawings.
- 3) Design the loads shall not be exceeded at any time during construction.
- 4) DO NOT SCALE DRAWINGS.
- 5) Verify all dimensions, elevations, slopes, details, conditions, etc. shown on the structural drawings, with the latest architectural drawings, other consultant drawings and the site, prior to construction or prefabrication of any building component.
- 6) Discrepancies or ambiguities on the drawings and/or the site, which affect the structural framing, shall be reported to the Design Engineer.
- 7) Where an overlap or duplication occurs on the drawings, the more costly solution shall be considered correct, unless approved by the Design Engineer. Modifications, alterations or substitutions must be authorized in writing by the Design Engineer.
- 8) For openings in slab, floor, walls, roof, etc. refer to architectural, mechanical, and/or other pertinent drawings.
- 9) Location of construction joints is the responsibility of the general contractor but approval must be obtained from the engineer before proceeding.
- 10) The contractor shall be responsible for the design and installation of all necessary shoring, bracing and form work. Form work for new construction shall be bridged over existing services. Procedure must be approved by the Design Engineer.
- 11) Construction safety requirements shall be the responsibility of the General Contractor.



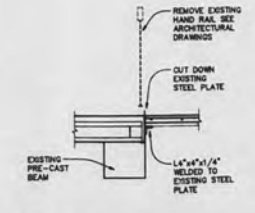
1 BALCONY SECTION
SCALE 1/2" = 1'-0"



2 STEEL DECK SECTION
SCALE 1/2" = 1'-0"



3 STEEL DECK SECTION
SCALE 1/2" = 1'-0"



4 STEEL DECK SECTION
SCALE 1/2" = 1'-0"

- REINFORCING STEEL
- 1) Reinforcing steel shall be new billet, deformed bars in accordance with CSA Standard C30.10 Minimum yield strength to be 400 MPa, except 10# bars may be 300 MPa.
 - 2) Reinforcing steel shall be detailed in accordance with the latest A.C.I. detailing manual.
 - 3) Top top bars at center span and bottom bars over supports.
 - 4) All reinforcing to be held in place and tied by the use of proper accessories such as hi-chairs, spacers, etc. to be applied by the reinforcing steel fabricator.
 - 5) Submit shop drawings which clearly indicate bar sizes, grade, spacing, hooks, bends, and supporting/spacers devices, etc., for review to the design engineer prior to fabrication of the reinforcing steel.
 - 6) Prior to placing concrete, ensure that all reinforcing steel is clean, free of loose scale, rust, mud, oil or other foreign material which would reduce bond.

- STRUCTURAL STEEL
- 1) Structural steel shall conform to CSA Standard C40.21-300W and C40.30W for H.S.S. Class C.
 - 2) Fabrication and erection shall conform to CSA Standard S16 (Latest).
 - 3) All welding shall be performed by qualified welders fully approved for structural welding by the Canadian Welding Bureau in accordance with CSA Specifications W47 and W59.
 - 4) Design and fabricate all connections for the full strength of the member.
 - 5) Splicing of members not permitted unless otherwise noted.
 - 6) Where beams are continuous over supports, no holes permitted in top flange. Provide 2-10 mm welded web stiffener plates each side of beam, aligned with column webs.
 - 7) Column base and cap plates shall be welded to columns. Provide 19 mm top plate 4" x 19 mm. Stiffeners for all columns supporting cantilevered beams.
 - 8) Coating all concrete with 1 coat of shop primer conforming to C.I.S.C./C.P.M.A. 1-73A or equivalent unless noted otherwise.
 - 9) Structural steel erector shall supply and install all temporary guying and bracing necessary to provide stability for the structure as a whole. These shall remain in place until floor slabs are well cured, steel roof deck is fully welded and/or permanent bracing is installed.
 - 10) Structural Steel Supplier shall submit shop docs, sealed by a Professional Engineer in the project province showing all design and fabrication details to S1 - architect for review prior to start of fabrication.

- STEEL DECK
- 1) Unless otherwise noted, Steel Deck Shall be 38 mm x 0.78 mm thick non-ribular. Rises at 150 mm o.c. Metal to be A486 Grade A or B, who coated to 275. Primer to CSB 1-AP-178MA. Deck to have deformed ribs for composite action.
 - 2) Supply all cleavars, cover plates and accessories.
 - 3) Work to conform to CSB Code of Practice, latest edition.
 - 4) Welding shall conform to CSA W59-M54.
 - 5) Erector to be certified to division 1 or 2.1 of CSA W47.1.
 - 6) Mechanically clamp side laps at 400 mm o.c. maximum. Lap and joints minimum 50 mm. Provide 20 mm diameter fusion welds at 300 mm o.c. at all supports. Minimum bearing on supports to be 30 mm. Spot prime welds immediately after welding.

CONCRETE

- 1) All concrete work shall conform to CSA Standard A23.1 (latest).
- 2) Concrete Specifications.

Component	Element Type	28 Day Strength (MPa)	Slump	Minimum Aggregate AP	Entrained Air	Clear for Wall/ Reinforcing Concrete Ratio	
						min	max
Slab (Structure)	Horizontal	25	90	20	3	40 Top and bottom	0.48

- 3) The use of any additives within the concrete mix shall be approved by the design engineer prior to construction.
- 4) Vibrate at concrete work with appropriate internal vibrators.
- 5) Concrete working time, from batching to placement and consolidation, shall not exceed 1 1/2 hours.
- 6) Concrete contractor shall place all components to be embedded in the concrete (i.e. wall plates, dowels for concrete and/or masonry, anchor bolts, inserts, water stop bars, weeping, etc.). See structural, architectural, mechanical and other pertinent drawings.
- 7) See architectural drawings for surface finishes, edge treatments, etc.
- 8) The general contractor (project manager) shall ensure that concrete testing be performed by an independent testing company. Three concrete test cylinders and one slump test shall be taken for every 100 (or less) cubic meters, or each day concrete is placed, whichever is greater. Testing shall performed in accordance with CSA Standard A23.2 (latest), and the results shall be forwarded to the Design Engineer.

PAN AM POOL EXERCISE AREA

R.M. GODSE & ASSOCIATES LTD.
CONSULTING ENGINEERS

DATE: MAY 20th 1991
DRAWN BY: P.A.
CHECKED BY: S.T.

PROJECT TITLE: STRUCTURAL PLAN AND DETAILS
SCALE: AS SHOWN
SHEET NO.: 81

