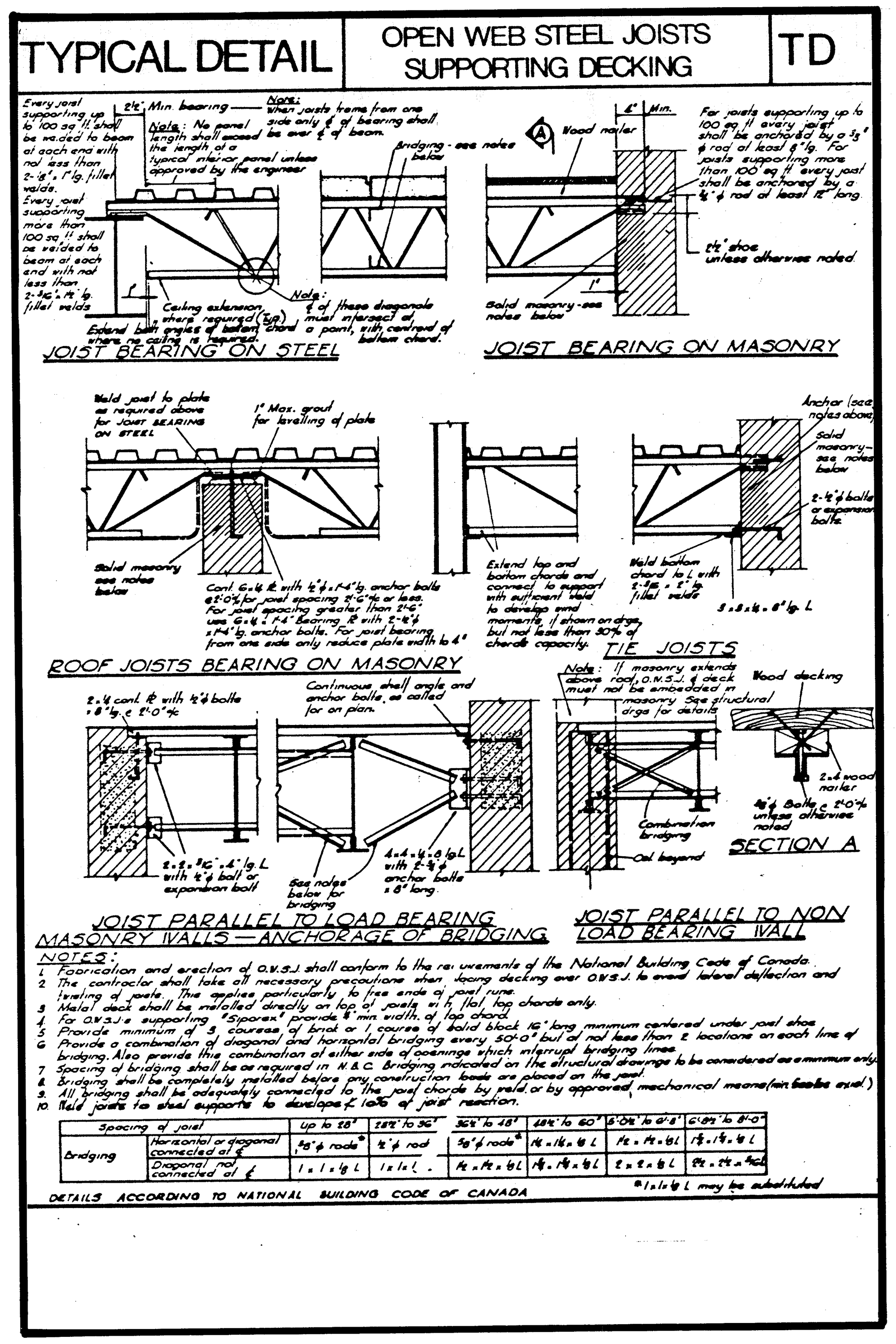


GENERAL NOTES

GENERAL
Refer also to notes under plans and schedules on Structural drawings.

For Typical Details see Specification and/or Drawings.

All dimensions given on the structural drawings must be checked against the Architectural drawings and any inconsistancies reported to the Architect before proceeding with the work. Structural drawings must not be scaled.

DESIGN
The structure described on the structural drawings has been designed to comply with the requirements of the building code of the municipality in which the structure is to be erected. Unless otherwise noted the basis of design is Ultimate Strength Design for concrete and Working Strength Design for structural steel.

SOIL
See notes on structural drawings and soil report, a copy of which is available in the offices of the Architect and Engineer.

CONCRETE
See notes under plans and schedules on structural drawings for 28 day concrete strength. Unless specifically noted otherwise, concrete strength shall in no case be less than 3,000 p.s.i. at 28 days.

REINFORCING STEEL
All reinforcing steel unless specifically noted otherwise on the drawings shall be Hard Grade deformed bars conforming to C.S.A. Standard G30 series with a minimum yield stress of [ ] kips per square inch except for stirrups and ties which shall be intermediate grade. Reinforcing steel must be so detailed, bent, placed, and supported as to conform to the Standard Manual for detailing Reinforced Concrete Structures ACI–315 (latest edition) except as noted otherwise on the structural drawings. Lap all continuous bars 30 diameters or 1'–0" minimum unless otherwise noted.

CONSTRUCTION JOINTS
Unless specifically noted, reinforcing in walls is based upon vertical construction joints at no greater than 30 feet on centre. There shall be no joints in exterior basement concrete walls below grade without waterstops being provided across joints (See Typical Detail Sheet TD11).

BACKFILLING
Slabs on grade and all structure framing into walls retaining earth must be in place before backfilling. At grade wall conditions backfill each side of wall simultaneously.

MASONRY BEARING
Beams bearing on masonry walls shall have a minimum bearing of 8" unless otherwise noted. Bearing shall be on bricks or solid blocks laid in cement mortar. This shall be done for a depth equal to the length of bearing and for a length equal to twice the length of bearing. Supply 5/8" diameter minimum masonry anchors to all beams bearing on masonry walls. Provide a 2¼" deep min. x 4" wide min. continuous solid masonry top course for load bearing masonry walls.

LINTELS
Unless otherwise noted on the Structural drawings provide lintels over all openings as follows:–
Concrete block walls
Provide 8" deep block lintels filled with 2,500 p.s.i. concrete (Note: Mortar not acceptable) and reinforced with 1.#3 top and bottom for each 4" of wall thickness or portion thereof for clear spans up to 4'–0".
Brick and block walls
For clear spans up to 4'–0" use IL 3½x3½x5/16 for each 4" of wall thickness, and for clear spans from 4'–0" to 6'–0" inclusive use one angle 5x3½x5/16 (long leg vertical) for each 4" of wall thickness. Pairs of lintel angles are to be bolted or welded together at not more than 18" o/c except as noted. All lintels are to have a minimum of 6" bearing on solid masonry (see note above) unless noted.
Concrete Walls
At openings in concrete walls, add 2–#5 rods in heads, jambs and sills unless otherwise noted.

MASONRY ABUTTING CONCRETE
Where masonry abutts or faces concrete provide Dovetailed Masonry Anchors staggered 1'–4" o/c vertically by 2'–0" o/c horizontally unless noted otherwise.

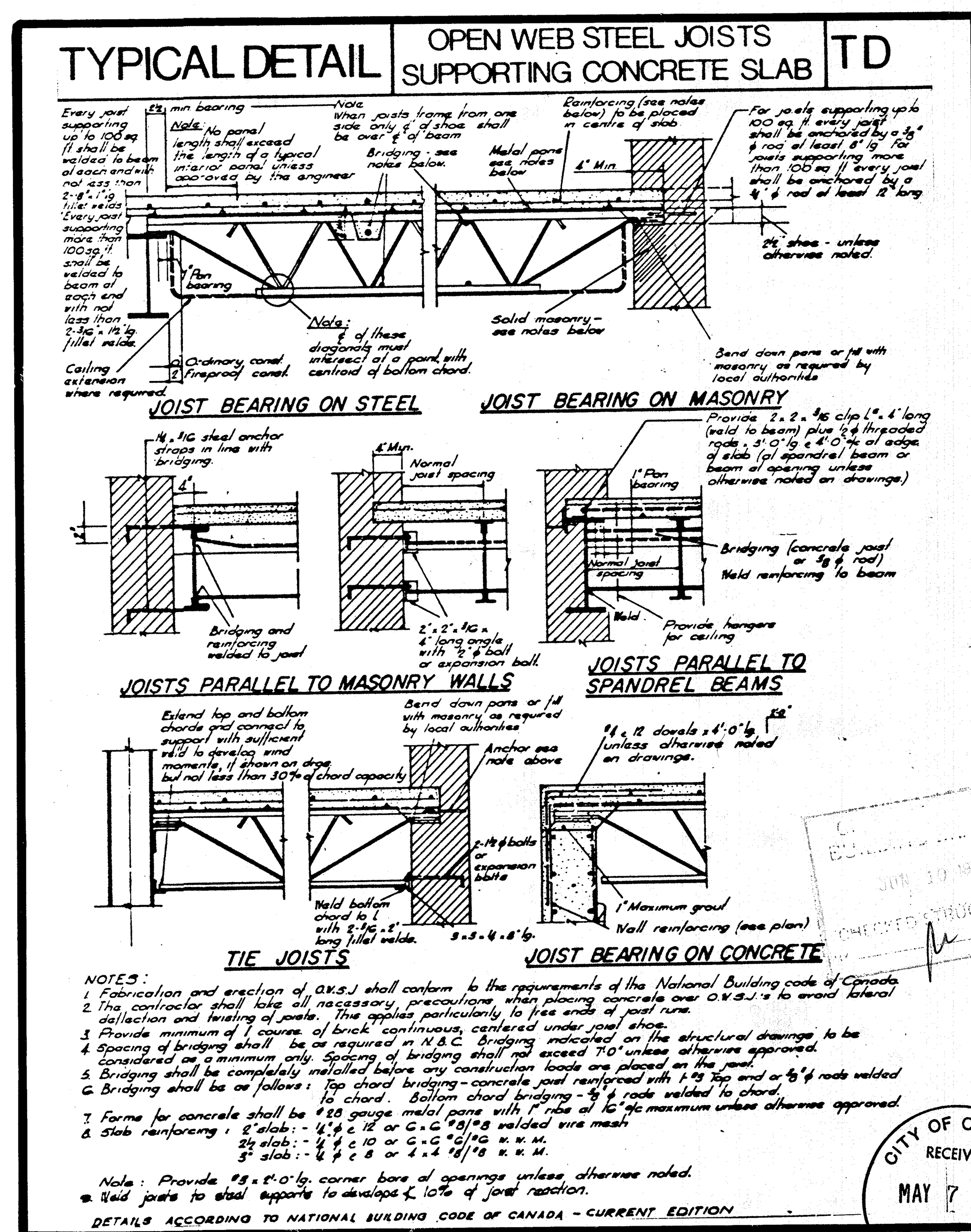
FOUNDATIONS
All exterior footings shall be carried down to a minimum of 4'–0" below finished grade. Footings exposed to frost action during construction shall be protected by 4'–0" of earth or its equivalent sufficient to prevent freezing.
The line of slope between adjacent excavations for footings or along stepped footings shall not exceed a rise of 7 in. a run of 10. Maximum step approximately 2'–0".
Cap depths given in the Footing Schedule, or as called for on plans, are for assumed design conditions. If actual soil conditions or special job conditions vary from those assumed, footings shall be raised or lowered by adjusting cap depths in accordance with the following limiting requirements:–
(a) Under a steel column
Minimum depth of cap shall be twice the greatest horizontal projection of the cap beyond the base plate.
Maximum depth of cap shall be five times its least dimension unless reinforced.
(b) Under a concrete column
Minimum depth of cap shall be greater of:–
1. Twice the greatest horizontal projection of the cap beyond the column.
2. Half the length of the column dowels plus 3" minus the depth of the footing.
Maximum depth of cap shall be five times its least dimension unless reinforced.

STRUCTURAL STEEL
See notes under plans and column schedule on Structural Drawings for grade of Structural Steel. See also specification.

TYPICAL REINFORCING SCHEDULE FOR EARTHQUAKE LOADS - SEISMIC ZONE 2

THICKNESS OF WALL	HORIZONTAL Fabricated Mesh of 2 corrosive resistant steel rods - 5φ Heavy Duty or equivalent	VERTICAL REBARS
100	Every 2nd Block Course	10 @ 600
150	Every 2nd Block Course	10 @ 600 or 1-10 / 1-15 } @ 900
200	Every Block Course	10 @ 600 or 2-10 @ 1200
250	Every Block Course	10 @ 400 or 3-10 @ 1200
300	Every Block Course	15 @ 400 or 3-15 @ 1200

NOTES:
1. Prior to placing above reinforcing coordinate with the Engineer a schedule of placing including any Shop Dwgs. if so is required.
2. Provide extra reinforcing 1-15 bar around all windows, door openings and Knock-out Panels extending at least 600 mm beyond the corners of the openings.
3. All vertical reinforcing bars to be grouted in with Typical Mortar Type "S" or fill voids with high slump concrete 175-200 (7"-8").
4. Inspection Company to test samples of mortar Type "S" to ensure conformation to the Code and intent of design.
5. Reinforcement need not be provided in interior non-load bearing walls which do not exceed 3000 mm in height and are laterally supported at top.
6. All walls above grade to have Type "S" mortar unless otherwise noted.



This drawing shall not be used for construction purposes unless countersigned by:

g. d. xiggoros, p. eng.

g. d. xiggoros & associates ltd.
consulting engineers
4111 lawrence avenue east
scarborough, ontario M1E 2S2
tel. (416) 283-7208

NO.	REVISIONS	DATE

REGISTERED PROFESSIONAL ENGINEER
G. XIGGOROS
PROVINCE OF ONTARIO
84-11

PROJECT TITLE
PROPOSED WAREHOUSE HEADQUARTERS AND DISTRIBUTION CENTRE FOR
HOLDER
OF NORTH AMERICA
OTTAWA CANADA

DRAWING TITLE
TYPICAL DETAILS, GENERAL NOTES AND SECTIONS

DRAWN BY	L.R.S	DATE	May, 1985
CHECKED BY	G X	DATE	May
PROJECT NO.	84-11	DRAWING NO.	
DATE ISSUED	May/85		