Project:

Schlegel Villages
The Village of Innis Landing

800 Yonge Street Barrie Ontario

Report:

Foundation Design Analysis Plan

Prepared By:

ANDERSON WELLSMAN ARCHITECTS
With Assistance From:

TATHAM ENGINEERING
EXP ENGINEERING
CO-ELEVATE ENGINEERING

Date:
September 06, 2024

Site Information

Description of the Site Location

- 800 Yonge Street Barrie ON
- Part of PIN 58737-3208 (LT): PART OF BLOCK 19, PLAN 51M832, PART 1, 51R44107; TOGETHER WITH AN EASEMENT OVER PART OF BLOCK 19, PLAN 51M832, PARTS 3 AND 4, 51R44107, BARRIE

Current Land Use

- Vacant

Adjacent Land Uses

- The land is bounded by Country Lane in the north, and by Yonge Street to the east. The property to the south is also vacant, proposed to be Commercial/Retail. The properties to the west are existing residential, townhouses and condominium well set back from the boundary. There is no impact on the proposed foundation design. Refer to the Architectural Master Site Plan drawing SP 1.0

Topography

- Refer to the KRCMAR Topographic Survey drawing 21-677TP01

Site Investigations Conducted

- There is no obvious or suspected waste or contamination. See ESA Phase I Page 4 Executive Summary seventh paragraph.

  Based on the findings of the Phase One ESA and conclusions, a Phase Two ESA is not required to assess the soil and groundwater conditions at the Site ….

- See Hydrogeological Investigation page 10 Section 3.4 Groundwater Quality

  When comparing the chemistry of the collected groundwater samples to the City of Barrie Sanitary Sewer Discharge Criteria, there were no parameter exceedances to be reported.

  When comparing the chemistry of the collected groundwater samples to the City of Barrie Storm Sewer Discharge Criteria, the concentration of Total Suspended Solid exceeded the criteria.

Subsurface Investigations

Expected Conditions

- Aquifer properties, groundwater levels.
  See Hydrogeological Investigation page 10 Section 3.2 Water Level Monitoring and 95th page Appendix C: Groundwater Elevation Summary.
  High Ground Water recorded **258.73**.
  See also 40th page Cross Section A-A.
  See also 41st page Figure 6 Groundwater Contour Plan for flow direction.

- There are no potential flood levels from adjacent water courses or underlying pressurized aquifers. See Hydrogeologic Investigation 36th page Figure 3B: Regulated Flood Plains.
  See also Geological Investigation, page 4 Section 5. Subsurface Conditions

Scaled Plan Showing the Location of Investigate Boreholes

- See Hydrogeological Investigation 38th page Borehole/ Monitoring Well Location Plan.
- See Geological Investigation 18th page Borehole/Monitoring Well Location Plan.

Detailed Boreholes/Well Logs `
including those from any referenced previous investigation(s)

- See Hydrogeological Investigation, 50th page to 92nd page
- See Geological Investigation, 21st page to 58th page

Minimum of one cross-section depicting the interpreted stratigraphy, groundwater levels and key or target levels (e.g. the municipal aquifer and overlying confining layers)

- See Hydrogeological Assessment, 40th page, Figure 5 Cross Section A-A and reference 39th page, Figure 4 Borehole/Monitoring Well Location Plan

Planned depths of foundations, associated structures and any barrier/venting system or geothermal system shall also be shown on the section(s) as described in foundation details section.

- See Structural Drawing S1.01 and S1.02

Proposed Development includes:

- A 6-storey, 192-bed Long-Term Care Home.
- A 12-storey Retirement Home of 485 suites and 120 dwelling units

built in two stages.
- Two apartment buildings with a total of 360 dwelling units.
- A basement level of underground parking totaling 877 spaces.
- Refer to civil engineering Master Grading Plan drawing MGP-1 for the proposed site grading.
- The proposed foundations are a combination cast-in-place concrete strip and pad footings supporting cast-in-place concrete walls and columns 1-storey below ground.

Foundation Details

- Geotechnical recommendation for foundation design.
  See Geotechnical Investigation Page 6 Section 6.2 Foundation Consideration. No risks with proposed shallow foundations.

- Requirements for engineered fill for buildings and other elements (e.g. location, thickness, extents/side-slope, subgrade preparation, materials, compaction) See Geotechnical Investigation Page 10 Section 6.4 Backfill Considerations and Section 6.5 Floor Slab Construction – no engineered fill expected for footings.

- Plan drawings shall reference all relevant information with respect to associated depths of footings, piers, piles, depth of relevant geologic unit (e.g. key confining layer, municipal aquifer), and groundwater levels

  Foundation Plans and sections indicate foundation bearing elevations for Phase 1 See S1.01 & S1.02 attached. Section through the entire site indicates high water level elevations at each subsequent Phase and the anticipated foundation bearing elevations. See drawing S0.02 attached.

- The design is planned to have shallow foundations (-1 storey) with bearing depths 1 meter or more above the recorded high groundwater level. There will be localized deeper foundations at elevator pits, sumps and grease interceptors; however, all these lower areas, at elevation 259.73 and below, will be waterproofed.

- Typically, the foundations will be dampproof and supplied with a drainage course to a perimeter weeping tile. Basement slabs will be protected with a 15 mil underslab vapour barrier on a clear stone granular base. The base will also have a weeping tile connected to the perimeter system. This system will control infiltrated surface water and lower hydrostatic pressure on the foundation. The weeping system will be located at elevation 259.73 or above, 1 meter above the recorded high groundwater level, so that no groundwater will

enter the weeping tile system. The storm system is designed to direct the weeping tile and roof water to infiltration galleries designed to locally recharge groundwater.

- A vapour barrier will be installed below basement floor slabs. This will be supplemented with below slab and a perimeter weeping tile system to direct infiltrated surface water to the soak-away galleries. No venting or geothermal systems are contemplated.

- There will be no permanent water-taking. See Hydrogeological Investigation page 17 Section 4.4.2 Post-Construction Dewatering Considerations.

Construction Monitoring and Contingency Plans

- There will be a permit to take water during the construction stages. See the Hydro geological Investigation Page 17 Section 4.5 MECP Water taking permits.

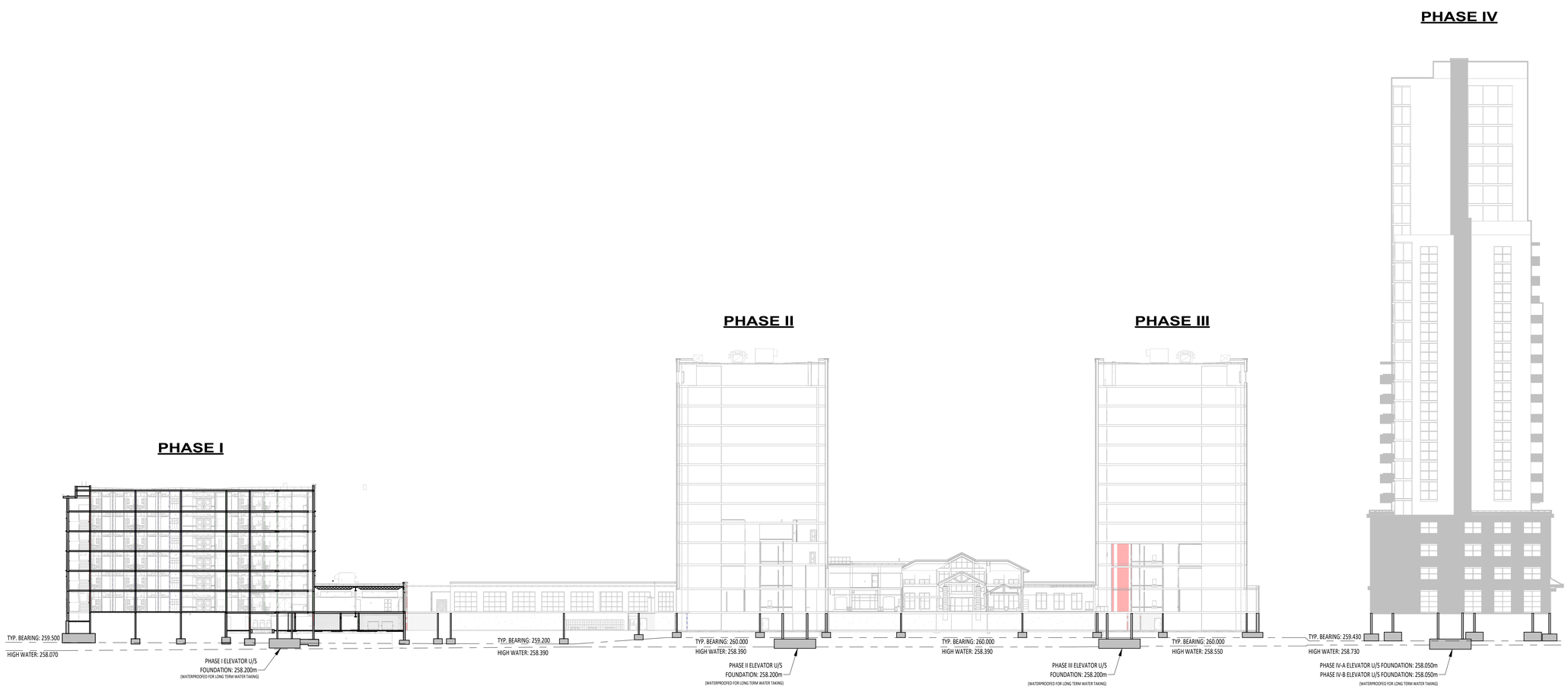
- The Construction Manager will oversee the project daily during excavations. The Geotechnical Engineer will periodically review the construction bi-weekly, or as needed by the excavation and foundation placement work.

- Construction will be monitored by the Construction Manager with support from the Geotechnical Engineer. In the event of unexpected soil bearing conditions, the Geotechnical engineer will determine the extent of the soft material with the Construction Managers forces and will determine additional excavation and placement of lean mix concrete, or other appropriate material, if required. In the event of unanticipated groundwater, the Geotechnical engineer with assistance of the Hydrogeological engineer and Construction Manager will determine the extent of the impact, and in accordance with the approved permit to take water, dewater the affected area to facilitate placement of footings and foundations. The construction Manager will notify the City site inspector accordingly.

Please note any referenced depths are the estimated or anticipated depths to assess the risk. Depths will be validated at the time of building permit.

Prepared By:
Anderson Wellsman Architects Incorporated

Robert Anderson B.E.S B.Arch. OAA
President



01
S0.02

Section

Full Size Plot Scale:1 : 400

SCHLEGEL VILLAGES

No.	Revision	Date
1	ISSUED FOR MLTC TECHNICAL REVIEW 50%-PROGRESS	2024-06-06
2	ISSUED FOR SPA SUBMISSION	2024-07-18
3	ISSUED FOR BUILDING PERMIT SUBMISSION	2024-08-15
4	ISSUED FOR SPA SUBMISSION #2	2024-09-06

co-elevate

THE CONTRACTOR MUST CHECK ALL DRAWINGS AND VERIFY ALL DIMENSIONS ON THE PROJECT. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION WORK OR SHOP FABRICATION. DRAWINGS ARE NOT TO BE SCALED.

The Village of Innis Landing

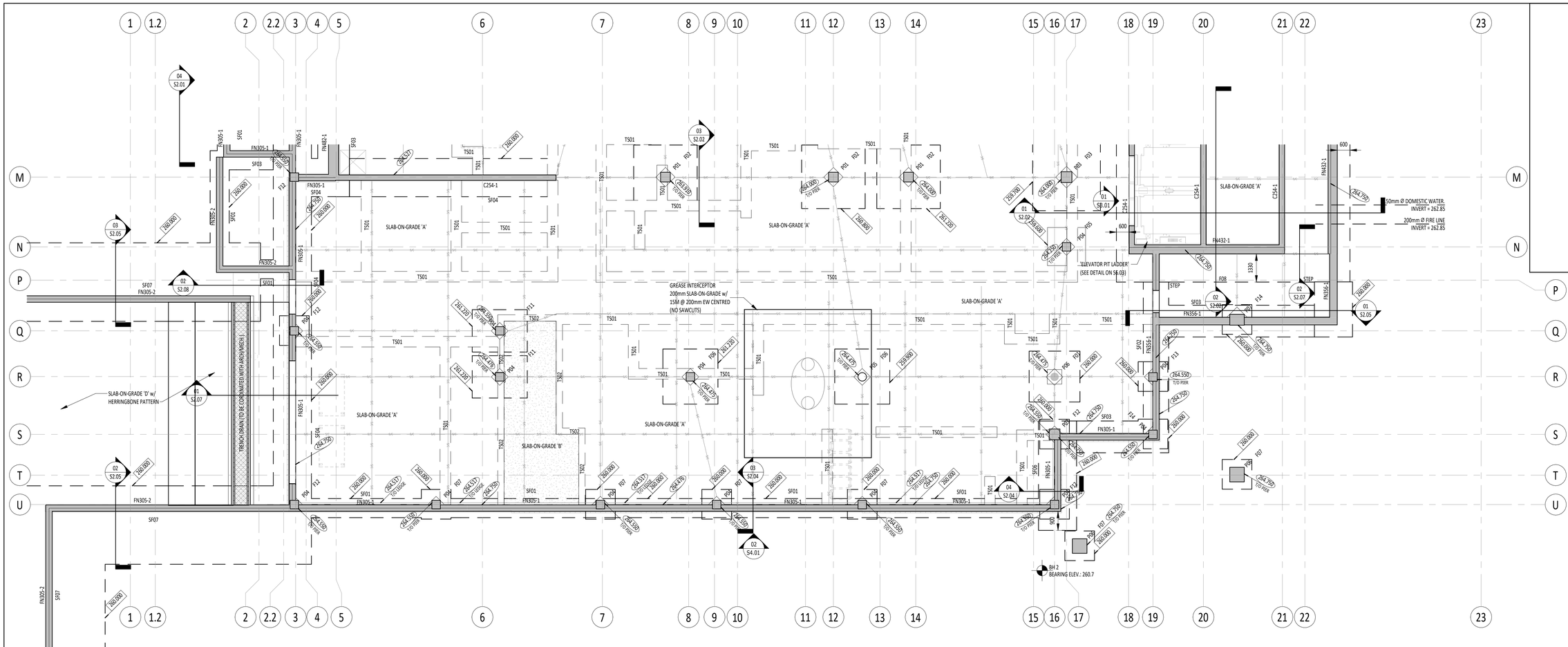
800 Yonge Street, Barrie, ON

Drawn By: JK/RS

Project No.: 3548

SITE SECTION

S0.02



Part Foundation Plan - Sector 1

Full Size Plot Scale: 1 : 100

0 1000 2500 5000

NOTES:

A. TYPICAL t/o SLAB-ON-GRADE AT 261.550 , UNLESS NOTED OTHERWISE.
(SEE ARCHITECTURAL PLANS FOR CONCRETE SLAB-ON-GRADE ELEVATIONS AND SLOPES)
[ ] DESIGNATES DEPRESSED OR SLOPED SLAB-ON-GRADE EXTENTS
(SEE SLAB DESIGNATION)
'SLAB-ON-GRADE A': 100 THICK POURED CONCRETE SLAB-ON-GRADE w/ 152x152 MW 18.7 WWF ON 200mm OF CLEARSTONE.
'SLAB-ON-GRADE B' 150 THICK POURED CONCRETE SLAB-ON-GRADE w/ 152x152 MW 18.7 WWF ON 200mm OF CLEARSTONE.
'SLAB-ON-GRADE C': 150 THICK POURED CONCRETE SLAB-ON-GRADE w/ 10M @300mm o.c. EW ON 200mm OF CLEARSTONE.
'SLAB-ON-GRADE D': RADIANT HEATED 200 THICK POURED CONCRETE SLAB-ON-GRADE w/ 10M @ 300mm o.c. EW ON 200mm OF CLEARSTONE.

B. WHERE THE INTEGRITY OF THE CONCRETE SLAB ON GRADE WILL BE COMPROMISED BY UNDER-SLAB SERVICES REFER TO DETAIL ON S6.03 FOR REMEDIAL WORK. LEAN CONCRETE IS TO BE AT THE EXPENSE OF THE OFFENDING TRADE.

C. COORDINATE ELEVATIONS WITH ARCHITECTURAL AND SITE SERVICING DRAWINGS. INFORM ENGINEER OF ANY DISCREPENCIES.

D. CONTRACTOR IS TO COORDINATE AND VERIFY ALL GRADING, EXTERIOR STAIR AND WALL ELEVATIONS (AREAS OUTSIDE OF THE BUILDING ENVELOPE) WITH CIVIL, LANDSCAPE, AND ARCHITECTURAL DRAWINGS. REPORT ANY INCONSISTENCIES.

E. SOIL BEARING CAPACITIES ARE TO BE VERIFIED AT ALL LOCATIONS PRIOR TO FORMING (ENSURE MIN. 1200mm COVER OVER FOOTINGS UNLESS NOTED OTHERWISE). REFER TO GEOTECHNICAL INVESTIGATION LISTED IN THE SPECIFICATIONS.

F. THE CONTRACTOR IS RESPONSIBLE FOR REFERENCING ALL MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ANY DIMENSIONING, INTERFERENCES, AND LOCATES AS THEY APPLY.

G. EXPOSED COLUMNS AND CONCRETE WALLS TO BE TREATED AS ARCHITECTURAL CONCRETE. (CO-ORDINATE w/ ARCHITECTURAL DRAWINGS)

H. ALL EXPOSED CONCRETE COLUMNS AND PIERS TO HAVE CHAMFERED CORNERS AS PER SPECIFICATIONS AND TO ENSURE MINIMUM REINFORCING COVERAGE. (CO-ORDINATE w/ ARCHITECTURAL DRAWINGS)

J. FOUNDATION WALLS ARE NOT DESIGNED TO ACT AS INDEPENDENT RETAINING ELEMENTS. INSTALL FLOOR DIAPHRAGM OR PROVIDE TEMPORARY SHORING PRIOR TO BACKFILL.

K. CONSTRUCTION JOINTS IN CONCRETE WALLS TO BE SPACED AT MAXIMUM OF 60m ON CENTRE. CONSTRUCTION JOINTS ARE NOT TO OCCUR OVER OPENINGS OR WITHIN 1m OF THE END OF AN OPENING. PROVIDE CONTROL JOINTS IN CONCRETE WALLS EVERY 15m ON CENTRE. JOINTS TO BE MINIMUM 1800 FROM FOOTING STEPS. SEE S6.03 FOR DETAILS.

L. WHERE SERVICES ENTER THROUGH FOUNDATION WALLS PROVIDE ADDITIONAL REINFORCING AS PER 'FOUNDATION SLEEVE DETAIL' ON S6.03.

M. FOR OPENINGS IN NON-LOAD BEARING CONCRETE BLOCK AND POURED CONCRETE NOT SHOWN, SEE 'OPENINGS THROUGH WALLS' ON S6.03.

N. WHERE STRIP FOOTINGS INTERSECT, CONTINUE REINFORCING FROM EACH FOOTING THROUGH INTERSECTION.

P. PROVIDE SEALER AT BASE OF CONCRETE WALLS AND COLUMNS, MINIMUM OF 100mm ABOVE THE SLAB (AT PARKING DRIVE AISLE AREAS)

Q. WHERE DELTABEAMS USE A THROUGH BOLT CONNECTION, CONFIRM t/o CONCRETE ELEVATION WITH PEIKKO DRAWINGS.

R. SEE S6.01 FOR COLUMN SCHEDULES.

S. SEE S6.01 FOR SPECIFICATIONS AND S6.02 FOR SCHEDULES.

CONCRETE FOUNDATION WALL SCHEDULE

DESIGNATION	SIZE	REINFORCING
FN305-1	305mm THICK	20M @ 250mm o.c. VIF 20M @ 300mm o.c. HIF
FN305-2	305mm THICK	20M @300mm o.c. HEF 25M @250mm o.c. VEF
FN356-1	356mm THICK	20M @250mm o.c. VIF 20M @300mm o.c. HIF
FN432-1	432mm THICK	20M @250mm o.c. VIF 20M @300mm o.c. HIF
FN482-1	482mm THICK	20M @200mm o.c. VIF 20M @300mm o.c. HIF

CONCRETE STRIP FOOTING SCHEDULE

NOTE: DOWELS TO STRIP FOOTINGS TO MATCH SIZE AND SPACING OF VERTS ABOVE UNO

DESIGNATION	SIZE	REINFORCING
SF01	900x400	15M @ 250mm BLL 4-15M CONT. BUL
SF02	1200x600	20M @ 250mm BLL 5-20M CONT. BUL
SF03	1500x900	25M @ 250mm BLL 6-25M CONT. BUL
SF04	1800x1100	25M @ 225mm BLL 8-25M CONT. BUL
SF05	2100x1100	25M @ 225mm BLL 10-25M CONT. BUL
SF06	2400x1200	30M @ 250mm BLL 9-30M CONT. BUL
SF07	3705x700 (2500 TOE)	18-20M CONT. BUL 20M @200mm o.c. TOP & BLL
SF08	1800x500 (1000 TOE)	10M CONT. TLL & BUL +15M @300mm o.c. (HOOKED ENDS) TUL & BLL

CONCRETE PIER SCHEDULE

DESIGNATION	SIZE	REINFORCING
P01	450x450	8-25M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P02	550x550	12-25M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P03	500x500	12-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P04	400x400	8-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P05	400 DIA.	8-20M VERTS + 10M TIES @ 300 o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P06	686x686	20-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P07	512x686	14-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP

CONCRETE PAD FOOTING SCHEDULE

NOTE: DOWELS TO PAD FOOTINGS TO MATCH SIZE AND SPACING OF VERTS ABOVE UNO

DESIGNATION	SIZE	REINFORCING
F01	2400x2400x600	10-20M B.E.W
F02	3000x3000x900	11-25M B.E.W
F03	3200x3200x950	12-25M B.E.W
F04	3600x3600x1300	19-25M B.E.W
F05	1800x1800x400	5-20M B.E.W
F06	2600x2600x750	14-20M B.E.W
F07	1400x1400x300	6-20M B.E.W
F08	SEE PLANS FOR DIMENSIONS (1600mm THICK)	30M @200mm o.c. T&B EW
F09	SEE PLANS FOR DIMENSIONS (1200mm THICK)	25M @200mm o.c. T&B EW
F10	SEE PLANS FOR DIMENSIONS (600mm THICK)	20M @200mm o.c. T&B EW
F11	2000x2600x750	10-20M BUL 14-20M BLL
F12	1400x1400x1200	11-20M B.E.W
F13	1400x1400x900=	8-20M B.E.W
F14	1400x1400x600	8-20M B.E.W

SCHLEGEL VILLAGES

No.	Revision	Date
1	ISSUED FOR MLTC TECHNICAL REVIEW 50% PROGRESS	2024-06-06
2	ISSUED FOR SPA SUBMISSION	2024-07-16
3	ISSUED FOR BUILDING PERMIT SUBMISSION	2024-08-15
4	ISSUED FOR SPA SUBMISSION #2	2024-09-06

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Barrie, ON

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Project No.: 3548

FOUNDATION PLAN - SECTOR 1

S1.01

BH 20
BEARING ELEV.: 259.3
BOREHOLE TERMINATED
AT 258.4. WATER NOT
ENCOUNTERED.

BH 19
BEARING ELEV.: 259.4
BOREHOLE TERMINATED
AT 258.5. WATER NOT
ENCOUNTERED.

BH/MW 3
BEARING ELEV.: 259.5
INSPECTION WATER ELEV: 258.07
MAX WATER ELEV: 258.10

BH/MW 1
BEARING ELEV.: 260.5
INSPECTION WATER ELEV: 257.88
MAX WATER ELEV: 257.91

UNEXCAVATED

SLAB-ON-GRADE 'A'

610MM CONCRETE SLAB SLAB
(SEE SECTION FOR DETAILS)

200mm Ø STORM
INVERT = 262.97

200mm Ø STORM
INVERT = 262.97

200mm Ø STORM
INVERT = 263.15

50mm Ø DOMESTIC WATER
INVERT = 262.85

200mm Ø FIRE LINE
INVERT = 262.85

'ELEVATOR PIT LADDER'
(SEE DETAIL ON S6.03)

'ELEVATOR PIT LADDER'
(SEE DETAIL ON S6.03)

Part Foundation Plan - Sector 2

Full Size Plot Scale: 1 : 100
SEE PREVIOUS SHEET FOR FIRST FLOOR FRAMING PLAN NOTES.

0 1000 2500 5000

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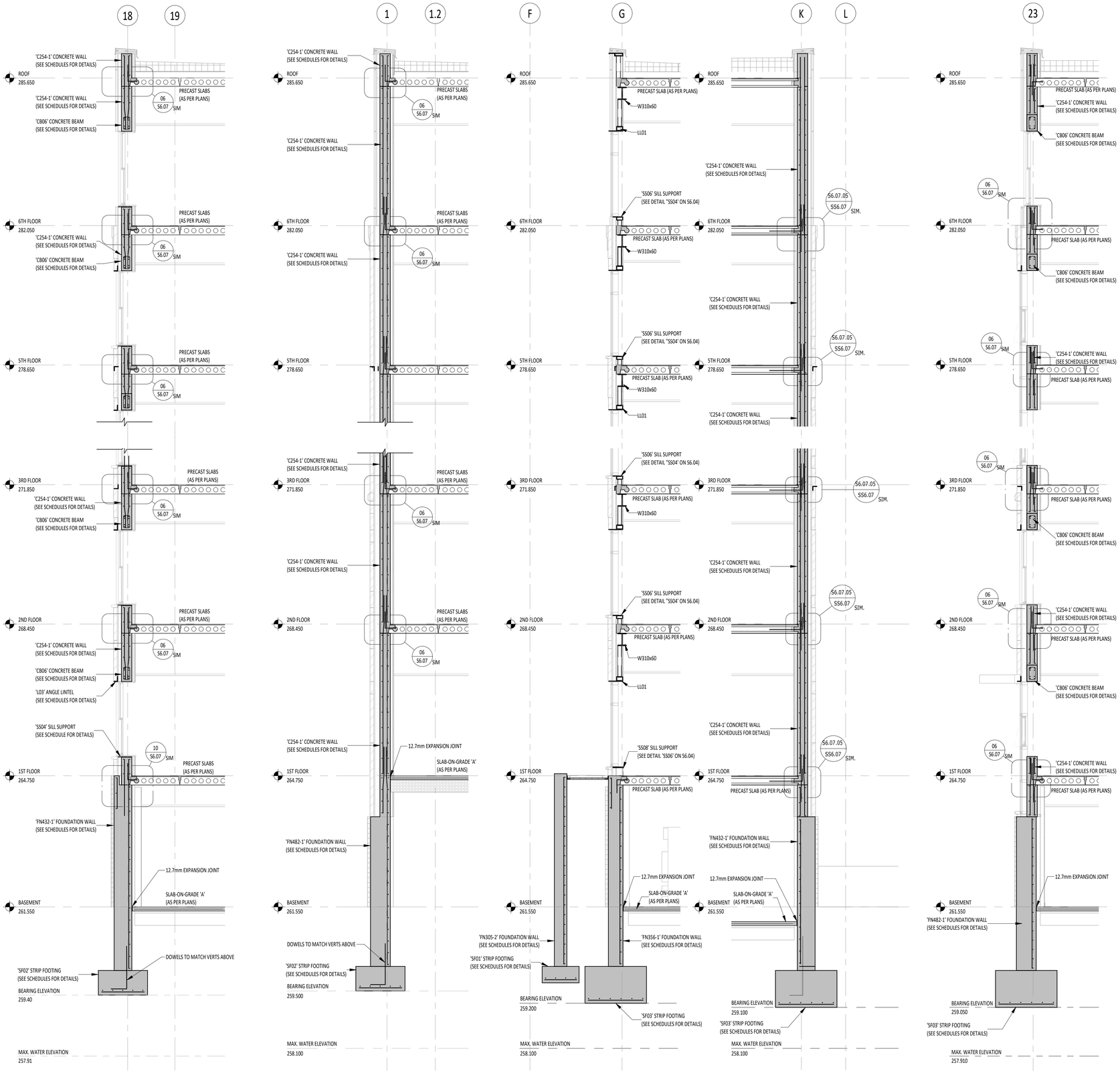
FOUNDATION PLAN - SECTOR 2

S1.02



01 S2.01 **Section**
Full Size Plot Scale: 1 : 50
0 500 1000 2500

02 S2.01 **Section**
Full Size Plot Scale: 1 : 50
0 500 1000 2500

03 S2.01 **Section**
Full Size Plot Scale: 1 : 50
0 500 1000 2500

04 S2.01 **Section**
Full Size Plot Scale: 1 : 50
0 500 1000 2500

05 S2.01 **Section**
Full Size Plot Scale: 1 : 50
0 500 1000 2500

500

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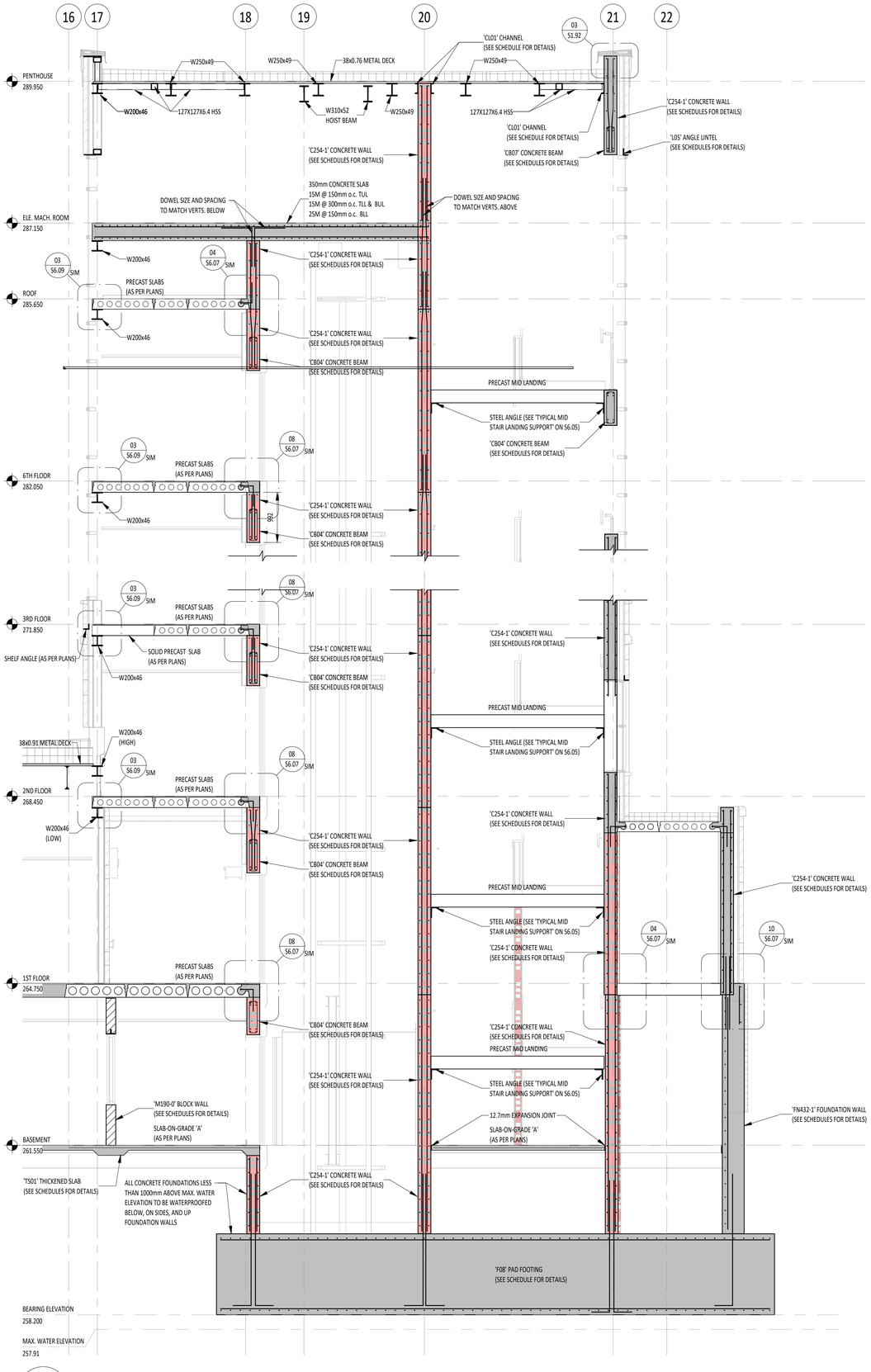
SECTIONS

S2.01



01 S2.02 **Section**

Full Size Plot Scale: 1 : 50

0 500 1000 2500

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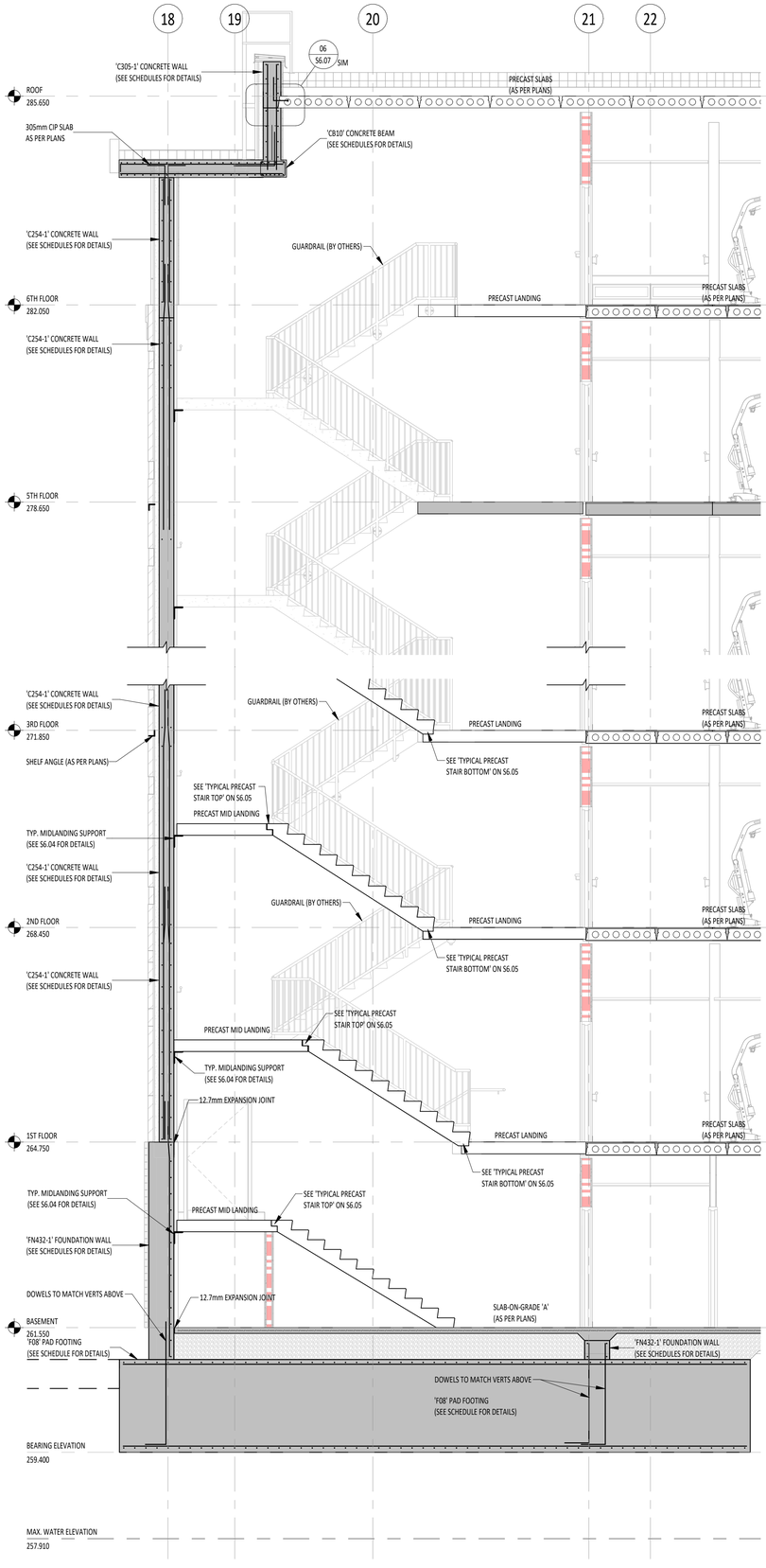
SECTIONS

S2.02



01
S2.03

Section

Full Size Plot Scale: 1 : 50

0 500 1000 2500

SCHLEGEL VILLAGES

No.	Revision	Date
4	ISSUED FOR SPA SUBMISSION #2	2024-09-06

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800 Yonge Street
Barrie, ON

Drawn By: Author

Project No.: 3548

SECTIONS

S2.03

GENERAL NOTES:
1. DO NOT SCALE THESE DRAWINGS. CHECK ALL DIMENSIONS BY SITE MEASUREMENT PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS WITH THE STRUCTURAL DETAILS SHOWN. REPORT ANY INCONSISTENCIES PROMPTLY TO THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ANY EXISTING SERVICE PIPES OR CONDUITS TO REMAIN ACTIVE ON THE NEW SITE.
3. COMPLY WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE AND THE ONTARIO CONSTRUCTION SAFETY ACT AND REGULATION.
4. DO NOT EXCEED THE DESIGN LOADS DURING CONSTRUCTION. PROVIDE ADEQUATE BRACING TO ENSURE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. PROVIDE TEMPORARY BRACING AS REQUIRED.

BACKFILLING, ROUGH GRADING:
1. MAKE GOOD EXISTING EXTERIOR WORKS, LANDSCAPING, ETC. AFFECTED BY THE WORK.
2. EXAMINE THE DRAWINGS FORMING A PART OF THIS CONTRACT AND CONFORM TO THEIR REQUIREMENTS.
3. FOLLOW THE REQUIREMENTS OF:
   A. ONTARIO BUILDING CODE, AS CURRENTLY AMENDED.
   B. THE OCCUPATIONAL HEALTH & SAFETY ACT AND REGULATION FOR CONSTRUCTION PROJECTS, LOCAL BY-LAWS AND ALL OTHER REGULATION OF THE M.O.L. AND M.O.E.E. OF ONTARIO.
   C. M.T.C. FORM 1010, SPECIFICATION FOR SELECTED GRANULAR BASE COURSE.
   D. SOIL REPORT AS COMPLETED BY exp. REPORT NUMBER GTR-21023592-A0 DATED 2023-01-09.
   E. HYDROGEOLOGICAL REPORT AS COMPLETED BY exp. REPORT NUMBER GTR-21023592-A0, DATED 2024-01-11.
4. CO-ORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER TRADES.
5. EXAMINE THE SITE FOR THE PURPOSE OF DETERMINING THE CONDITIONS WHICH MAY AFFECT THE WORK OF THIS SECTION, INCLUDING AVAILABLE ACCESS TO THE SITE, SITE CONTOURS, EXISTING BUILDINGS/FOUNDATIONS, ETC.
6. DETERMINE THE NATURE AND LOCATION OF ALL EXISTING SERVICES BELOW AND ABOVE GROUND WHICH MAY AFFECT THE WORK OF THIS SECTION. EXERCISE CARE AND PROTECT SERVICES FROM DAMAGE.
7. ALL MATERIALS SHALL BE SUBJECT TO TEST AND INSPECTION BY A TESTING AND INSPECTION COMPANY APPOINTED BY THE OWNER. MATERIAL OR WORKMANSHIP WHICH FAILS TO ACHIEVE THE SPECIFIED STANDARDS SHALL BE MADE GOOD AS DIRECTED BY THE CONSULTANT AND ADDITIONAL TESTS MADE. THE COST OF SUCH ADDITIONAL TESTING AND THE COST OF REMEDIAL ACTION SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

BACKFILL MATERIALS:
1. GRANULAR FILL - CLASS 'A' & CLASS 'B' - IMPORTED IN ACCORDANCE WITH CURRENT O.P.S.S. FORM 1010 FOR GRANULAR 'A' AND GRANULAR 'B'.
2. GRANULAR MATERIALS SHALL BE FREE DRAINING AND NOT SUSCEPTIBLE TO FROST ACTION AS DETERMINED BY CURRENT M.T.C. STANDARDS.
3. A TESTING AND INSPECTION COMPANY TO REVIEW MATERIAL PRIOR TO PLACEMENT.
4. SUPPLY ONLY THOSE MATERIALS APPROVED FOR USE ON THIS PROJECT BY THE INSPECTION COMPANY.

EXCAVATION:
1. FOUND FOOTINGS ON THE NATIVE UNDISTURBED SOIL AT THE ELEVATIONS SHOWN ON THE DRAWINGS. FOOTINGS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 300 kPA SLS AND 450 kPa ULS. UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. EXCAVATED MATERIAL IS NOT ACCEPTABLE AS BACKFILL WITHIN THE BUILDING, NOR BENEATH EXTERIOR AREAS TO RECEIVE PAVERS, SLABS OR ASPHALT PAVING, UNLESS APPROVED BY SOILS ENGINEER. DISPOSE OFF SITE.
3. EXCAVATED MATERIAL MAY BE ACCEPTABLE FOR BACKFILL TO RESTORE EXCAVATIONS OUTSIDE THE BUILDING PROVIDED IT CAN BE SHOWN TO BE SUITABLE COMPACTED.
4. NOTIFY THE CONSULTANT OF ANY UNUSUAL SOIL CONDITIONS ENCOUNTERED DURING EXCAVATION SO THAT CORRECTIVE ACTION MAY BE TAKEN IF NECESSARY.
5. WHERE EXCAVATIONS FOR FOOTINGS ARE ACCIDENTALLY OVER-EXCAVATED, FILL THE OVER-EXCAVATED PORTION WITH LEAN CONCRETE FILL TO THE FOUNDING ELEVATION SHOWN ON THE PLANS, AT NO ADDITIONAL COST TO THE OWNER.
6. PROVIDE EXCAVATIONS FOR FOOTINGS OF SUFFICIENT WIDTH FOR THE CONSTRUCTION AND INSPECTION OF FORMWORKS AND THE SATISFACTORY AND SAFE EXECUTION OF THE WORK. IN GENERAL, PROVIDE NOT LESS THAN 18" (450mm) CLEAR AT ALL CONSTRUCTION.
7. TRIM THE BOTTOM OF ALL EXCAVATIONS TO ELEVATIONS AS SHOWN ON THE DRAWINGS OR APPROVED BY THE CONSULTANT. ALLOW FOR MINIMUM OF 2" (50mm) MUDSLAB BELOW FOOTINGS WHERE EXCAVATION TO BE LEFT OVERNIGHT OR ALLOWED TO BECOME WET.
8. USE HAND OPERATED EQUIPMENT, AS REQUIRED, WHEN WORKING NEAR BURIED SERVICES. EXERCISE CARE AND DUE DILIGENCE IN DIGGING AND EXCAVATING SO AS NOT TO DAMAGE ANY EXISTING, BELOW GRADE SERVICES.
9. NOTIFY THE TESTING COMPANY WHEN EACH PHASE OF THE EXCAVATION IS COMPLETED SO THAT BEARING SURFACES MAY BE INSPECTED.

PUMPING & DEWATERING:
1. KEEP ALL EXCAVATIONS FREE FROM ACCUMULATIONS OF WATER FROM ALL SOURCED BY PUMPING OR OTHER METHODS SATISFACTORY TO THE CONSULTANT.
2. CONDUCT DEWATERING OPERATIONS, WHEN REQUIRED, IN SUCH A MANNER AS TO AVOID DAMAGE TO WORK UNDER CONSTRUCTION OR EXISTING ADJACENT STRUCTURES AND SO AS NOT TO WEAKEN THE STRENGTH OF BEARING SOILS OR TO ENDANGER THE STABILITY OF BANKS OR SLOPES.
3. PROVIDE SETTLING AREA AS REQUIRED. DO NOT ALLOWING SILT CONTAMINATED RUN-OFF INTO SEWERS OR DITCHES.

BACKFILL & COMPACTION:
1. AFTER THE CONSTRUCTION OF FOOTINGS, PITS, WALLS OR PIERS, RESTORATION OF DRAINAGE TILE SYSTEMS AND THE APPROVAL OF THE WORK BY THE CONSULTANT, BACKFILL AND COMPACT WITH GRANULAR 'B' MATERIALS TO THE ELEVATIONS SHOWN ON THE DRAWINGS.
2. ALL THE BACKFILL MATERIALS ARE TO BE COMPACTED GRANULAR MATERIAL. NON-GRANULAR MATERIALS ARE NOT ACCEPTABLE INSIDE OR OUTSIDE OF THE BUILDING.
3. BACKFILL AND COMPACT IN EQUAL LIFTS ON EACH SIDE OF WALLS BELOW GRADE.
4. DEPOSIT AND SPREAD GRANULAR MATERIALS IN UNIFORM LAYERS NOT EXCEEDING 12" (300mm) IN DEPTH.
5. COMPACT ALL GRANULAR MATERIALS TO NOT LESS THAN 98% OF STANDARD PROCTOR DRY DENSITY. MAINTAIN OPTIMUM WATER CONTENT FOR PROPER COMPACTION BY THE ADDITION OF WATER AS REQUIRED. DO NOT USE FROZEN MATERIALS IN THE BACKFILL.
6. COMPACT USING APPROVED VIBRATORY PLATE TAMPERS OR VIBRATORY ROLLERS, EXCEPT WHEN WORKING CLOSE TO SILT OF OTHER MATERIALS WHICH MAY BE ADVERSELY AFFECTED BY THE VIBRATION, IN WHICH CASE, USE APPROVED NON-VIBRATORY ROLLERS TO AVOID DISTURBANCE OF THE SUB-GRADE.
7. DO NOT COMPACT ADJACENT TO WALLS WITH EARTH ON ONE SIDE ANY CLOSER THAN 6'-0" (1800mm) WITH HEAVY EQUIPMENT. USE HAND CONTROLLED COMPACTION EQUIPMENT WITHIN THIS 6'-0" (1800mm) ZONE.

ROUGH GRADING:
1. ROUGH GRADE ALL AREAS AROUND THE BUILDING IN ACCORDANCE WITH THE SITE PLAN WITH DUE ALLOWANCE FOR THE EXISTING AND REQUIRED GRADE SHOWN, AND AS DIRECTED BY THE CONSULTANT.
2. AREAS TO RECEIVE SOD OR SEEDING SHALL BE ROUGH GRADED TO AN ELEVATION 8" (200mm) BELOW FINISHED GRADE.
3. FOR AREAS TO RECEIVE ASPHALT PAVING, SEE REQUIREMENTS OUTLINED IN SOIL REPORT.
4. SLOPE GROUND SO THAT WATER WILL BE DIRECTED AWAY FROM THE BUILDING.
5. ROUGH GRADED AREAS SHALL BE CLEANLY RAKED FREE OF COARSE MATERIAL AND LEFT READY FOR FINAL GRADE.

SUB-FLOOR GRANULAR FILL:
1. PRIOR TO PLACING CLASS 'A' GRANULAR, REMOVE ALL SOFT AND LOOSE MATERIALS, SUB-EXCAVATE ANY SOFT SPOTS AND REPLACE WITH COMPACTED GRANULAR 'B'. PROOF-ROLL SUB-GRADE TO 98% OF STANDARD PROCTOR DENSITY, USING NON-VIBRATORY ROLLERS. PLACE GRANULAR 'B' AND COMPACT TO 98% SPDD TO UNDERSIDE OF GRANULAR 'A' LAYER.
2. PROVIDE A MINIMUM OF 8" (200mm) COMPACTED THICKNESS OF GRANULAR 'A' COMPACTED TO 98% SPDD. GRADE SMOOTH AND LEVEL.
3. TAKE CARE NOT TO DAMAGE ANY UNDER-FLOOR MECHANICAL SYSTEMS.
4. PROVIDE A MINIMUM 15 MIL VAPOUR RETARDER BELOW CONCRETE SLAB ON GRADE.
   A. CONFORM TO ASTM E1745 CLASS A AND BE INSTALLED DIRECTLY BELOW AND IN CONTACT WITH THE CONCRETE SLAB.
   B. CONFORM TO ASTM E1643 AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION AND CASTING OPERATIONS.
   C. SEAMS SHALL BE LAPPED AND SEALED WITH A COMPATIBLE SEALANT OR TAPE PRODUCT, IN ACCORDANCE WITH THE MATERIALS MANUFACTURERS' INSTRUCTIONS.
   D. ALL PENETRATIONS THROUGH THE VAPOUR RETARDER AND PERIMETER JOINTS SHALL ALSO BE TAPED AND SEALED.

FOUNDATIONS AND FLOOR SLAB:
1. LOADING:
   A. SLAB HAS BEEN DESIGNED FOR 4.8 kPa LIVE LOAD.
2. PROVIDE CONCRETE CHAIRS TO SUPPORT WIRE MESH IN A 30" X 30" (750mm X 750mm) GRID. EXERCISE CARE TO ENSURE WIRE MESH IS CAST IN THE TOP HALF OF THE SLAB.
3. ALL FOOTINGS SHALL BE PLACED ON NATIVE UNDISTURBED MATERIAL CAPABLE OF SUPPORTING THE DESIGN BEARING PRESSURE UNO. PROTECT ALL FOUNDATION SOILS FROM DETERIORATION AT ALL TIMES; ENSURE ALL PONDING WATER IN THE FOOTING EXCAVATION IS REMOVED PROMPTLY. IN COLD WEATHER INSULATE FOOTINGS FROM FROST ACTION.
4. THE MINIMUM FOOTING PROJECTION BEYOND THE FOUNDATION WALL SHALL BE 4" (100mm) UNO STEPPED DOWN FOOTINGS SHALL BE LOCATED BY THE CONTRACTOR TO COINCIDE WITH THE CONDITIONS ON SITE.
5. ALL FOUNDATION WALLS SHALL BE CENTRALLY PLACED ON FOOTINGS UNO BACKFILL AND COMPACT SOIL EACH SIDE OF THE FOUNDATION WALL SIMULTANEOUSLY.

CAST-IN-PLACE CONCRETE:

LOCATION	SPEC. 28 DAY (COMPRESSIVE STRENGTH)	SLUMP*	AIR CONTENT**	EXPOSURE CLASS
MUD SLABS & LEAN FILL	15 MPa	125mm MAX.	NIL	N
SLABS-ON-GRADE (INTERIOR)	25 MPa	90mm ± 25mm	NIL	N
SUSPENDED SLABS (INTERIOR)	30 MPa	75mm ± 25mm	NIL	N
SIDEWALKS, CURBS AND EXTERIOR PAVEMENTS	32 MPa	75mm ± 25mm	5-8%	C-2
FOUNDATION WALLS	25 MPa	100mm ± 25mm	5-8%	F-1
CONCRETE COLUMNS, BEAMS AND WALLS ABOVE GRADE (ELSEWHERE)	30 MPa	75mm ± 25mm	NIL	N
EXTERIOR SUSPENDED SLABS, RAMPS AND RETAINING WALLS	35 MPa	100mm ± 25mm	5-8%	C-1
FOOTINGS	25 MPa	100mm ± 25mm	NIL	N
CONCRETE COLUMNS (FOUNDATION LEVEL)	40 MPa	75mm ± 25mm	5-8%	F-1
SHRINKAGE COPENSATING CONCRETE***	35 MPa	75mm ± 25mm	5-8%	N

CAST-IN-PLACE CONCRETE (cont'd):
CONCRETE IN SLAB ON GRADES THAT ARE TO RECEIVE FLOORING SHALL HAVE A WATER CONTENT RATIO LESS THAN 0.5.

* NOTE: PLUS SUPER-PLASTICIZER AS REQUIRED FOR PLACING. CONTRACTOR IS RESPONSIBLE FOR PROPER FLOWABLE MIX TO ALLOW PLACEMENT AND MEET CRITERIA IN TABLE.
** NOTE: ALL CONCRETE EXPOSED TO WEATHER IN THE FINISHED STRUCTURE, TO BE AIR ENTRAINED AT 5% - 8% INCLUDING THOSE INTEGRAL WITH FOUNDATION WALLS.
*** NOTE: FOR SHRINKAGE COMPENSATING CONCRETE, LIMIT w/c RATIO LESS THAN 0.5 AND SHRINKAGE TO 0.035%.

1. ALL CONCRETE SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH CAN3-A23.1 AND CAN3-A23.3.
2. CONCRETE SHALL BE READY-MIXED AND USE MATERIAL CONFORMING TO:
   A. CEMENT: CSA A3001, NORMAL TYPE GU PORTLAND CEMENT
   B. AGGREGATE & ADMIXTURES: CSA A23.1
   C. REINFORCING STEEL (PLAIN and EPOXY): CSA G30.18 GRADE 400 (GRADE 400W TO BE SUPPLIED WHEN WELDABLE REBAR REQUIRED)
   D. WELDED WIRE FABRIC: ASTM A1064
3. THE SPECIFIED COVER FOR REINFORCING BARS IN CONCRETE SHALL NOT BE LESS THAN AS FOLLOWS:

EXPOSURE CONDITION		TYPE N	TYPE F-2	TYPE C-1
FOOTINGS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH		75mm	75mm	75mm
BEAMS, GIRDERS, OR COLUMNS	25M OR SMALLER	30mm	40mm	60mm
	30M OR LARGER	1.0 x BAR DIA.	1.5 x BAR DIA.	2.0 x BAR DIA.
SLABS AND WALLS	25M OR SMALLER	25mm	40mm	60mm
	30M OR LARGER	1.0 x BAR DIA.	1.5 x BAR DIA.	2.0 x BAR DIA.

4. DEVELOPMENT AND LAP SPLICING OF REINFORCING TO FOLLOW CHARTS ON S6.01.
5. FIBRE REINFORCED CONCRETE TO BE USED IN AREAS OF 50mm TOPPING OR MORE OVER PRECAST.
   A. THE FIBRES SHALL BE FIBRILLATED POLYPROPYLENE, ENGINEERED AND DESIGNED FOR USE IN CONCRETE, AND MANUFACTURED FROM VIRGIN POLYPROPYLENE. CONCRETE SHALL CONTAIN 0.88kg OF POLYPROPYLENE FIBRE PLUS 0.58kg OF PLASTICIZER PER CUBIC METER OF CONCRETE. THE ADDITION OF THE FIBRES SHALL NOT CAUSE A SLUMP REDUCTION TO THE CONCRETE WHEN ADDED AT THE JOB SITE.
   B. THE FIBRES SHALL BE 2" (50mm) IN LENGTH AND UPON DISPERSION SHALL BE CAPABLE OF CONTRIBUTING A MINIMUM OF 5.5 MILLION INDIVIDUAL FIBERS PER CUBIC METER OF CONCRETE.
6. PROTECT THE CONCRETE SLAB FROM PREMATURE MOISTURE LOSS OR MECHANICAL INJURY FOR A MINIMUM OF 4 DAYS FOLLOWING PLACEMENT. USE A CLEAR LIQUID SEAL TO CGSB STD 90.GP.1A OR WET CURING.
7. THE CONTRACTOR SHALL ARRANGE FOR ALL TESTING OF CONCRETE PLACED ON THE PROJECT TO CAN3.A23.1M. TEST RESULTS SHOULD BE PROMPTLY FORWARDED TO THE ENGINEER FOR REVIEW.
8. THE FINISH ON THE INTERNAL CONCRETE SLABS SHALL BE TROWELED LEVEL AND CLEAR OF ANY DEFECTS. EXTERNAL CONCRETE SHALL RECEIVE A LIGHT BROOM FINISH.
9. EXTERIOR SURFACES SHALL BE FREE FROM HONEYCOMBING, VOIDS, LOSS OF FINES, COLD JOINTS, CHIPS AND SPALLS. PLACE A 5/8" (15mm) BEVEL ON ALL EXPOSED EDGES.
10. CONSTRUCTION JOINTS IN CONCRETE WALLS TO BE SPACED AT MAXIMUM OF 60m ON CENTRE. CONSTRUCTION JOINTS ARE NOT TO OCCUR OVER OPENING OR WITHIN 1m OF THE END OF AN OPENING. PROVIDE CONTROL JOINTS IN CONCRETE WALLS EVERY 15m' ON CENTRE. JOINTS TO BE MINIMUM 1800 FROM FOOTING STEPS. SEE S6.03 FOR DETAILS.
11. WET SETTING OF REINFORCING STEEL DOWELS AND ANCHOR BOLTS IS PROHIBITED.

PRECAST SLABS:
1. DESIGN PRECAST ELEMENTS TO CSA A23.3, CSA A23.4, AND TO CARRY HANDLING STRESS. DESIGN LOADS TO BE IN ACCORDANCE WITH OBC AND VIBRATION CHARACTERISTICS TO BE IN ACCORDANCE WITH NBCC.
2. MANUFACTURERS AND ERECTORS PRECAST TO MEET REQUIREMENTS OF CSA A23.4, PCI MNL 116, PCI MNL 117, AND CPCI CERTIFICATION PROGRAM. WELDERS TO BE QUALIFIED TO CSA W47.1. WELDS TO BE CSA W59 AND W186.
3. THE CONCRETE MIX SHALL BE NORMAL DENSITY, 42 MPa CONCRETE. USE APPROPRIATE EXPOSURE CLASS. GROUT MIX SHALL BE MIN. 20 MPa CEMENT GROUT.
4. SUBMIT SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER. INCLUDE DESIGN CALCULATIONS FOR ITEMS BY MANUFACTURER, TABLES AND DIAGRAMS FOR REINFORCING, ESTIMATED CAMBERS, FINISHING SCHEDULES, METHODS OF HANDLING, AND ALL OPENINGS AND RELATED HANGERS AND REINFORCMENT. DO NOT FABRICATE UNTIL ALL SUBMITTALS ARE REVIEWED.
5. PROVIDE ALL PLANT, LABOUR, EQUIPMENT, AND MATERIALS TO COMPLETE THE PRECAST-PRESTRESSED CONCRETE WORK. THE WORK INCLUDES, BUT IS NOT LIMITED TO MANUFACTURING AND INSTALLATION OF PRECAST CONCRETE PLANKS, CORE DRILLING OF OPENINGS, GROUTING OF REINFORCING IN JOINTS, CAULKING GROOVES AT BOTTOM OF SLAB, INSTALLATION OF DOWELS, INSTALLATION OF DOWELS, INSTALLATION OF WELD PLATES OR ANGLES, AND WELDING OF REBAR ANCHORS GROUTED INTO PRECAST T STRUCTURAL STEEL ITEMS.
6. PRECAST SLABS TO END BEAR A MINIMUM OF 90mm. PRECAST SLABS TO SIDE BEAR A MINIMUM OF 50mm. PROVIDDE CONTINUOUS BEARING PADS WHERE REQUIRED.
7. HANGERS SHALL BE PROVIDED WHERE GROUPED OPENINGS, SLEEVES OR INSERTS CUT THROUGH PLANS. PROVIDE FILLED ENDS AT OPENINGS WHERE REQUIRED FOR FIRE RATING.
8. DO NOT CUT THROUGH ANY PRESTRESSING STRANDS.
9. PROVIDE FINISH ON TOP OF PRECAST SLABS FOR APPLICATION OF BONDED CONCRETE TOPPING.
10. HOLES SMALLER THAN 150mm WILL BE MARKED ON SITE AND CUT BY PRECAST TRADE AS PART OF PRECAST CONTRACT.

STRUCTURAL UNIT MASONRY:
1. ALL MASONRY SHALL BE PLACED IN ACCORDANCE WITH NORMAL GOOD PRACTICE AND CSA S304, TRUE TO LINE AND PLUMB.
2. STRUCTURAL MASONRY UNITS SHALL BE AS FOLLOWS:
   A. HOLLOW UNITS: CSA A165.1, TYPE H/20/A/M, NORMAL WEIGHT (UNO), CONCRETE AUTOCLAVE BLOCKS
   B. SOLID UNITS: CSA A165.1, TYPE S/20/A/M, NORMAL WEIGHT (UNO), CONCRETE AUTOCLAVE BLOCKS
   C. CORE FILL GROUT: CSA A179, 20 MPa CONCRETE
   D. MORTAR: CSA A179, TYPE S
   E. REINFROCING STEEL (PLAIN): CSA G30.18 GRADE 400 (GRADE 400W TO BE SUPPLIED WHERE WELDABLE REBAR IS REQUIRED)
   F. WIRE REINFORCMENT: CSA-A371 & CSA G30.14, LADDER TYPE
3. ALL STRUCTURAL MASONRY SHALL BE 8" (200mm) IN HEIGHT, NOMINALLY. REINFORCE IN ACCORDANCE WITH THE NOTES ON THE DRAWING, LAP VERTICAL AND HORIZONTAL REINFORCEMENT TO MAINTAIN CONTINUITY. FILL EACH REINFORCED CORE WITH CORE FILL GROUT AS SPECIFIED.
4. FILL TOP COURSE OF BLOCK AT PERIMETER WALL WITH CORE FILL GROUT AND PLACE 2-15M HORIZONTAL BARS.
5. PROVIDE 1-15M VERTICAL, FULL HEIGHT, AT EACH WALL END (UNO).
6. MASONRY UNITS TO BE LAID IN RUNNING BOND.

STRUCTURAL STEEL:
1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED TO CSA S16. SUPPLY ALL NEW STRUCTURAL STEEL:
   A. ROLLED BEAMS, COLUMNS, AND HOLLOW SECTIONS: CSA G40.21 GRADE 350W CLASS 'C'.
   B. CHANNELS, ANGLES, AND PLATES: CSA G40.21 GRADE 300W CLASS 'C'.
   C. BOLTS: ASTM F3125 GRADE 325M OR 490M.
   D. ANCHOR BOLTS: ASTM F1554 GRADE 36
2. SHOP AND SITE WELDING SHALL COMPLY WITH CSA W59 AND W48 USING E490xx ELECTRODES. WELDING SHALL BE CARRIED OUT BY WELDERS CERTIFIED UNDER CWB IN ACCORDANCE WITH CSA W47.1.
3. ALL STEEL SHALL BE CLEANED TO SSPC-SP3 MINIMUM. EXPOSED MEMBERS SHALL RECEIVE 2 COATS OF ZINC RICH PRIMER TO CGSB SPEC 1.GP.171M, REMAINDER TO RECEIVE 1 SHOP COAT OF PRIMER TO CGSB SPEC 1.GP.40M, UNLESS HOT DIPPED GALVANIZING IS NOTED. EXISTING STEEL TO BE THOROUGHLY CLEANED OF ALL FLAKING, PAINT SURFACE CORROSION AND SCALE.
4. ALL CONNECTIONS SHALL USE ASTM F3125 GRADE 325M OR 450M BOLTS AND CONFORM TO CSA S16 AND THE CISC HANDBOOK OF STEEL CONSTRUCTION.
5. SUBMIT COPIES OF SHOP DRAWINGS SHOWING ERECTION AND CONNECTION DETAILS. PROVIDE ALL TEMPORARY SHORING AND BRACING TO ENSURE THE STRUCTURE REMAINS STABLE DURING CONSTRUCTION.
6. GROUT BELOW ALL COLUMN BEARING PLATES USING DRY PACK NON-SHRINK CONCRETE GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 40 MPa UNO.
7. THE SHEAR CAPACITY OF ALL BEAM AND GIRDER CONNECTIONS SHALL NOT BE LESS THAN THE SHEAR CAPACITY OF THE SECTION ACTING AS A SIMPLE BEAM LOADED UNIFORMLY TO ITS MOMENT CAPACITY OVER THE SAME SPAN NOR LESS THAN THAT SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER.

STRUCTURAL METAL DECK:
1. USE NEW METAL ROOF DECK FREE FROM CORROSION AND DAMAGE TO THE PROFILE.
2. FABRICATION AND ERECTION OF ALL METAL DECK SHALL CONFORM TO CSA S136. NEW ROOF DECKING SHALL BE FORMED FROM SHEET STEEL TO CSSBI 101M ZINC COATED STRUCTURAL QUALITY SHEET FOR ROOF; MINIMUM GRADE 'A' AND MINIMUM ZINC COATING DESIGNATION OF ZF075 (WIPED COAT). CLEAN SURFACE OF EXISTING DECK OF ALL CORROSION PRIOR TO PAINTING WITH A ZINC RICH PRIMER OR GALVAFROID.
3. ALL WELDING SHALL CONFORM TO CSA STDS W55.2 AND W59 USING WELDERS CERTIFIED UNDER CSA W47.1. WELD DECK WITH 3/4" (19mm) DIAMETER PUDDLE FUSION WELDS AS FOLLOWS, UNO:
   A. END WELDS - 19mm PUDDLE WELDS IN 36/7 PATTERN.
   B. PERIMETER WELDS - 19mm PUDDLE WELDS @150mm o.c.
   C. INTERMEDIATE SUPPORTS - 19mm PUDDLE WELDS IN 36/7 PATTERN.
   STAGGER WELDS ACROSS FLANGES OF BEAMS/JOISTS. MAKE END LAPS OVER SUPPORTS NOT LESS THAN 2" (50mm). CONNECT MALE AND FEMALE SIDE LAPS BY WELDING OR MECHANICALLY INTERLOCKING AT NOT MORE THAN 24" (600mm) ON CENTER. TOUCH UP ALL WELDS ON THE BEAMS AND DECK WITH A ZINC RICH PRIMER OR GALVAFROID.
4. ROOF DECK PROFILES HAVE BEEN CHECKED FOR THE INDICATED LOADS AND SPANS ASSUMING 3 SPANS CONTINUOUS. ANY NEW MATERIAL INCLUDING SUPPORTS FOR ROOF OR WALLS SHOULD BE DESIGNED TO LIMIT DEFLECTION UNDER TOTAL LOAD TO 1/240 OF SPAN, UNDER LIVE LOAD ONLY TO 1/360 OF SPAN.
5. FOR OPENINGS IN STEEL DECK, REFER TO TYP. DETAIL ON S6.04. FOR LARGER OPENINGS OR ANY ROOFTOP EQUIPMENT, FORWARD INFORMATION TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO CARRYING OUT THE WORK.

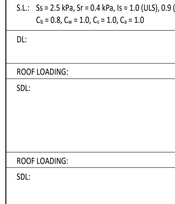
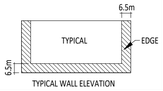
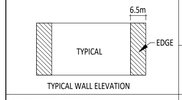
OPEN WEB STEEL JOISTS:
1. THE DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS SHALL BE IN ACCORDANCE WITH CAN3.S16.1-M, USING CSA G40.21 GRADE 300W STEEL OR GREATER.
2. SERVICE LOAD DEFLECTION SHALL NOT EXCEED 1/240 SPAN FOR TOTAL LOAD AND 1/360 SPAN FOR LIVE LOAD. UNLESS NOTED OTHERWISE ON PLAN. SUBMIT DESIGN CALCULATION FOR ALL JOISTS STAMPED BY A LICENSED ENGINEER WITH PLACEMENT DRAWING.
3. TOP CHORDS OF JOISTS TO BE NOT LESS THAN 3" (75mm) IN TOTAL WIDTH AND HAVE MINIMUM THICKNESS OF 5/32" (4mm).
4. CENTER REACTION OF JOISTS ON THE CENTROID ON THE SUPPORTS.
5. PROVIDE ADDITIONAL BOTTOM CHORD BRIDGING AS NEEDED TO ENSURE ADEQUATE BOTTOM CHORD COMPRESSION CAPACITY WHERE STRESS REVERSAL MAY OCCUR DUE TO NET UPLIFT OR CANTILEVER ACTION.
6. NOTE THAT THE ROOF SYSTEMS ARE SLOPED FOR DRAINAGE, WHICH REQUIRES ATTENTION TO DETAILING AND FABRICATION. THIS MAY INCLUDE SLOPED TOP CHORDS AND/OR VARIABLE BEARING DEPTHS.
7. DESIGN AND DETAILING OF CONNECTION, ETC., IN ACCORDANCE WITH CSA S15.1. SERVICE LOADS MUST BE FACTORED FOR LIMIT STATES DESIGN.

LIGHT GAUGE STEEL FRAMING:
1. DESIGN SHALL BE BASED ON LIMIT STATES DESIGN PRINCIPLES USING FACTORED LOADS AND RESISTANCES.
2. LOADS AND LOAD FACTORS SHALL BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
3. RESISTANCES AND RESISTANCE FACTORS SHALL BE DETERMINED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND CSA S136.
4. CONFORM TO THE REQUIREMENTS OF SPECIFIED FIRE RATED ASSEMBLIES.
5. DESIGN BRIDGING TO PREVENT MEMBER ROTATION AND MEMBER TRANSLATION PERPENDICULAR TO THE MINOR AXIS. ALLOW FOR SECONDARY STRESS EFFECTS DUE TO TORSION BETWEEN LINES OF BRIDGING.
6. MAXIMUM DEFLECTION UNDER LOADS SHALL CONFORM TO THE FOLLOWING:
   A. WALL STUDS SUPPORTING MATERIALS SUSCEPTIBLE TO CRACKING (E.G. MASONRY VENEER, PORTLAND CEMENT PLASTER, CERAMIC TILE) L/360.
   B. WALL STUDS SUPPORTING MATERIALS NOT SUSCEPTIBLE TO CRACKING (E.G. METAL CLADDING, SYNTHETIC VENEERS, GYPSUM DRYWALL) L/240.
7. DESIGN COMPONENTS OR ASSEMBLIES TO ACCOMMODATE SPECIFIED ERECTION TOLERANCES OF THE STRUCTURE.
8. ALLOW FOR MOVEMENT OF THE STRUCTURE. DESIGN WIND BEARING STUD END CONNECTIONS TO ACCOMMODATE ROOF AND FLOOR DEFLECTIONS SUCH THAT THE STUDS ARE NOT LOADED AXIALLY.
9. CONNECTIONS BETWEEN LIGHT GAUGE STEEL FRAMING MEMBERS SHALL BE BOLTS, WELDS OR SHEET METAL SCREWS.
10. LIGHT GAUGE STEEL FRAMING WORKS INCLUDE, BUT ARE NOT LIMITED TO, THE DESIGN AND INSTALLATION OF STEEL STUD WALLS, HEADERS, SILLS, JAMBS, SILL SUPPORTS, BRACING, PARAPETS, AND THEIR RESPECTIVE CONNECTIONS, UNLESS NOTED OTHERWISE.

LIGHT GAUGE STEEL MATERIALS:
1. STEEL SHALL HAVE METALLIC COATINGS THAT CONFORM TO ONE OF THE FOLLOWING:
   A. A525M - GENERAL REQUIREMENTS FOR STEEL SHEET, ZINC-COATED (GALVANIZED) BY THE HOT-DIP PROCESS.
   B. A591 - STEEL SHEET, COLD-ROLLED, ELECTROLYTIC ZINC-COATED.
   C. A792M - GENERAL REQUIREMENTS FOR THE STEEL SHEET ALUMINUM-ZINC ALLOY COATED BY THE HOT-DIP PROCESS.
2. STEEL SHALL CONFORM TO THE REQUIREMENTS OF CAN3-S136.
3. ROOF AND WALL MEMBERS SHALL HAVE A MINIMUM COATING OF Z180 GALVANIZING IN ACCORDANCE WITH A525M.
4. INTERIOR MEMBERS SHALL HAVE A MINIMUM COATING OF CLASS C ELECTRO-GALVANIZING IN ACCORDANCE WITH A591.
5. SHEET METAL SCREWS SHALL HAVE A MINIMUM COATING THICKNESS OF .008MM OF ZINC OR CADMIUM.
6. WELDING ELECTRODES SHALL BE OF THE 480 MPa MINIMUM TENSILE STRENGTH SERIES (E.G. E480XX).
7. ZINC RICH PAINT FOR TOUCHING UP WELDS AND DAMAGED METALLIC COATING SHALL CONFORM TO CGSB 1-GP-181M.
8. TYPICAL GUARDRAIL SPECIFICATIONS (TO MEET OBC 4.1.4.14)
   A. 42mmØ x 4.8 XP PIPE TOP RAIL, BOTTOM RAIL, AND VERTICAL SUPPORTS. VERTICAL SUPPORTS @1200mm o.c. MAX. w/ 150x150x12.7 BASE PLATE (4-12.7mmØ HILTI KWIK HUS-EZ ANCHORS, SPACED AT 102mm o.c. w/ 108mm EMBEDMENT) 15.9mmØ PICKETS @110mm o.c. MAX.
9. TYPICAL HANDRAIL SPECIFICATIONS (TO MEET OBC 4.1.4.14)
   A. 42mmØ x 3.18 PIPE HANDRAIL w/ 15.9mmØ BRACKET SUPPORT + 75mm x 6.4mm BRACKET PLATE (SEE ARCHITECTURAL DRAWINGS FOR LAYOUT OF HANDRAILS).

SUBMITTALS:
1. SUBMIT ELECTRONIC COPIES OF ALL SHOP DRAWINGS.
   A. EACH SHOP DRAWING SUBMITTED SHALL BEAR THE STAMP AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED TO THE PROVINCE OF ONTARIO.
   B. INCLUDE ALL NECESSARY SHOP DETAILS AND ERECTION DIAGRAMS. INDICATE MEMBER SIZES, LOCATIONS, THICKNESS (EXCLUSIVE OF COATING), COATINGS AND MATERIALS. INCLUDE CONNECTION DETAILS FOR ATTACHING FRAMING TO ITSELF AND FOR ATTACHMENT TO THE STRUCTURE. SHOW SPLICE DETAILS WHERE APPLICABLE. INDICATE DIMENSIONS, OPENINGS, REQUIREMENTS OF RELATED WORK AND CRITICAL INSTALLATION PROCEDURES. SHOW TEMPORARY BRACING REQUIRED FOR ERECTION PURPOSES.
   C. INDICATE DESIGN LOADS.
2. DO NOT FABRICATE UNTIL ALL SUBMITTALS ARE REVIEWED.

THIRD PARTY TESTING REQUIREM

LOADING NOTES:		
ROOF LOADING:		
LOCATION: BARRIE S.L.: Ss = 2.5 kPa, Sr = 0.4 kPa, Is = 1.0 (ULS), 0.9 (SLS) C_b = 0.8, C_w = 1.0, C_s = 1.0, C_a = 1.0		
DL:	203 PRECAST	3.02 kPa
	305 PRECAST	4.12 kPa
ROOF LOADING:	TOWER ROOF, LL = 1.0 kPa	
SDL:	ROOFING/INSULATION	0.30 kPa
	CEILING	0.15 kPa
	MECHANICAL/ELECTRICAL	0.35 kPa
	TOTAL DEAD LOAD	0.80 kPa (UNO)
ROOF LOADING:	MAIN STREET & PENTHOUSE, LL = 1.0 kPa	
SDL:	ROOFING/INSULATION	0.36 kPa
	METAL DECK	0.15 kPa
	FRAMING	0.20 kPa
	CEILING	0.15 kPa
	MECHANICAL/ELETRICAL	0.35 kPa
	TOTAL DEAD LOAD	1.21 kPa (UNO)
FLOOR LOADING:	TYPICAL FLOOR LOADING	
DL:	203 PRECAST	3.02 kPa
	254 PRECAST	3.54 kPa
	305 PRECAST	4.12 kPa
SDL:	30mm MAX SKIM COAT	0.50 kPa
	PARTITION	1.00 kPa
	CEILING	0.15 kPa
	FLOORING	0.10 kPa
	MECHANICAL/ELETRICAL	0.35 kPa
	TOTAL DEAD LOAD	2.10 kPa (UNO)
LL:	RESIDENTIAL	1.90 kPa
	WASHROOMS	2.40 kPa
	MECHANICAL/SERVICE	3.60 kPa
	CORRIDORS/STAIRS	4.80 kPa
	TERRACES/BALCONIES	4.80 kPa
	DINING/KITCHENS	4.80 kPa
SEISMIC DATA: AS PER O.B.C. 2012		
WHERE:	I_E = 1.000	
	Sa(0.2) = 0.108	
	Sa(0.5) = 0.077	
	Sa(1.0) = 0.047	
	Sa(2.0) = 0.025	
	Sa(5.0) = 0.0061	
	Sa(10.0) = 0.0025	
	PGA = 0.063 ; PGV = 0.06	
ASSUMPTIONS:	SITE CLASSIFICATION D PER TABLE 4.1.8.4.A	
	IMPORTANCE CATEGORY : NORMAL; Ie = 1.0	
SEISMIC FORCE RESISTING SYSTEMS (SFRS):	CONCRETE - CONVENTIONAL CONSTRUCTION SHEAR WALLS Rd=1.5, Ro=1.3	
ANALYSIS METHOD:	EQUIVALENT STATIC FORCE PROCEDURE	
	Ie*Fa*Sa(0.2) = 0.13 IS LESS THAN 0.35	
	REGULAR STRUCTURE, h<60m, Ta<2s IN BOTH DIRECTIONS T_{xa} = 0.45 sec, T_{ya} = 0.38 sec B = 1.5 IS LESS THAN 1.7	
WIND LOADING NOTES:		
WIND LOADING:	q(1/50): 0.36 kPa, I_w = 1.0 ULS, 0.75 SLS	
	SURROUNDING TERRAIN - OPEN	
	Cpi DESIGN CATEGORY - CATEGORY 2 Cpi = -0.45 TO 0.3	
ROOF GROSS UPLIFT (UNFACTORED)		
	ZONE [R] = 1.25 kPa	
	ZONE [S] = 1.57 kPa	
	ZONE [C] = 2.4 kPa	
	MAIN ROOF: USE RESISTING DEAD LOAD OF 4.12 kPa METAL DECK ROOF: USE RESISTING DEAD LOAD OF 0.7 kPa	
MAIN STREET ROOF GROSS DOWNWARD WIND (UNFACTORED)		
	TYPICAL = 0.94 kPa	
	EDGE = 1.25 kPa	
EXTERIOR WALL DESIGN (UNFACTORED)		
	TYPICAL = 0.94 kPa	
	EDGE = 1.25 kPa	
INTERIOR WALL DESIGN	INTERIOR WALLS/PARITIONS = 0.25 kPa	
	INTERIOR FIREWALLS = 0.50 kPa	
FREE STANDING PLATES, WALLS AND PARAPETS AS PER FIGURE I-12 OF NBCC 2015 STRUCTURAL COMMENTARIES. Fn=Cf*Cn*qs*Cg*Ce*H*Iw WITH Cg = 2.5 FOR COMPONENTS.		
GUARD LOADS		
INTERIOR	GUARD LOADING AS PER OBC 2012: 4.1.5.14. WALLS ACTING AS GUARDS: 0.5 kPa OR ABOVE AS PER 4.1.5.16.	
EXTERIOR	LOADING AS PER ABOVE WITH ADDITIONAL WIND LOAD PER EXTERIOR WALL DESIGN.	
FOUNDATIONS	EARTH PRESSURE ON WALLS: K_a = 0.35 K_o = 0.5 K_p = 3.00 GAMMA = 20kN/m³	

CONCRETE STRIP FOOTING SCHEDULE

NOTE: DOWELS TO STRIP FOOTINGS TO MATCH SIZE AND SPACING OF VERTS ABOVE UNO

DESIGNATION	SIZE	REINFORCING
SF01	900x400	15M @ 250mm BLL 4-15M CONT. BUL
SF02	1200x600	20M @ 250mm BLL 5-20M CONT. BUL
SF03	1500x900	25M @ 250mm BLL 6-25M CONT. BUL
SF04	1800x1100	25M @ 225mm BLL 8-25M CONT. BUL
SF05	2100x1100	25M @ 225mm BLL 10-25M CONT. BUL
SF06	2400x1200	30M @ 250mm BLL 9-30M CONT. BUL
SF07	3705x700 (2500 TOE)	18-20M CONT. BUL 20M @200mm o.c. TOP & BLL
SF08	1800x500 (1000 TOE)	10M CONT. TLL & BUL +15M @300mm o.c. (HOOKED ENDS) TUL & BLL

CONCRETE PAD FOOTING SCHEDULE

NOTE: DOWELS TO PAD FOOTINGS TO MATCH SIZE AND SPACING OF VERTS ABOVE UNO

DESIGNATION	SIZE	REINFORCING
F01	2400x2400x600	10-20M B.E.W
F02	3000x3000x900	11-25M B.E.W
F03	3200x3200x950	12-25M B.E.W
F04	3600x3600x1300	19-25M B.E.W
F05	1800x1800x400	5-20M B.E.W
F06	2600x2600x750	14-20M B.E.W
F07	1400x1400x300	6-20M B.E.W
F08	SEE PLANS FOR DIMENSIONS (1600mm THICK)	30M @200mm o.c. T&B EW
F09	SEE PLANS FOR DIMENSIONS (1200mm THICK)	25M @200mm o.c. T&B EW
F10	SEE PLANS FOR DIMENSIONS (600mm THICK)	20M @200mm o.c. T&B EW
F11	2000x2600x750	10-20M BUL 14-20M BLL
F12	1400x1400x1200	11-20M B.E.W
F13	1400x1400x900=	8-20M B.E.W
F14	1400x1400x600	8-20M B.E.W

CONCRETE FOUNDATION WALL SCHEDULE

DESIGNATION	SIZE	REINFORCING
FN305-1	305mm THICK	20M @ 250mm o.c. VIF 20M @ 300mm o.c. HIF
FN305-2	305mm THICK	20M @300mm o.c. HEF 25M @250mm o.c. VEF
FN356-1	356mm THICK	20M @250mm o.c. VIF 20M @300mm o.c. HIF
FN432-1	432mm THICK	20M @250mm o.c. VIF 20M @300mm o.c. HIF
FN482-1	482mm THICK	20M @200mm o.c. VIF 20M @300mm o.c. HIF

CONCRETE PIER SCHEDULE

DESIGNATION	SIZE	REINFORCING
P01	450x450	8-25M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P02	550x550	12-25M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P03	500x500	12-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P04	400x400	8-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P05	400 DIA.	8-20M VERTS + 10M TIES @ 300 o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P06	686x686	20-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP
P07	512x686	14-20M VERTS + 10M TIES @ 300mm o.c. + 3-10M TIES @ 75mm o.c. AT TOP

CONCRETE BEAM SCHEDULE

DESIGNATION	SIZE	REINFORCING
CB01	482x400	2-25M T&B +10M STIRRUPS @200mm o.c.
CB02	356x400	2-20M T&B +10M STIRRUPS @200mm o.c.
CB03	305x400	2 LAYERS 2-25M T&B +10M STIRRUPS @200mm o.c.
CB04	254x700	2 LAYERS 2-25M T&B +10M STIRRUPS @250mm o.c.
CB05	203x500	2 LAYERS 2-20M T&B +10M STIRRUPS @200mm o.c.
CB06	254x400	2 LAYERS 2-20M T&B +10M STIRRUPS @200mm o.c.
CB07	254x600	2 LAYERS 2-20M T&B + 10M STIRRUPS @ 200mm o.c.
CB08	305x400	2 LAYERS 2-20M T&B + 10M STIRRUPS @ 200mm o.c.
CB09	432x500	2 LAYERS 2-20M T&B +10M STIRRUPS @200mm o.c.
CB10	500x300	4-20M TOP 6-25M BOT +10M STIRRUPS @150mm o.c. +10M STIRRUPS @ 75mm o.c. WITHIN 600mm OF CB11
CB11	254x1200	2-20M T&B 15M@200mm E.F. +10M STIRRUPS @200mm o.c.

THICKENED SLAB SCHEDULE

DESIGNATION	SIZE	REINFORCING
TS01	500x200	2-15M CONTINUOUS
TS02	300x275	SEE 'TYPICAL RECESSED SLAB @ MASONRY WALL' ON S6.04

MASONRY WALL SCHEDULE

DESIGNATION	SIZE	REINFORCING
M90-0	90 BLOCK WALL	UNGROUTED
M140-0	140 BLOCK WALL	UNGROUTED
M190-0	190 BLOCK WALL	UNGROUTED

MASONRY WALLS:
FIRE RATED BLOCK WALLS ARE TO BE LIGHT WEIGHT CONCRETE BLOCK. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED BLOCK WALLS.
MT: SEE 'TYP. MASONRY TO CONCRETE WALL' DETAILS ON S6.03
ALL WALLS TO HAVE 2 WIRE MASONRY REINFORCING AT ALTERNATE COURSES. VERT. REINFORCING AT GROUTED CORES. PROVIDE ADDITIONAL BARS AT END OF WALL AND EACH SIDE OF AN OPENING.
ALL REINFORCED MASONRY WALLS TO HAVE BOND BEAM NEAR TOP OF WALL r/w 2-15M CONT.
DO NOT CUTBOND BEAMS WITHOUT PERMISSION FROM ENGINEER.
PROVIDE DOWELS FROM FOUNDATION WALLS TO BLOCK WALLS TO SUIT BLOCK WALL REINFORCING SIZE AND SPACING.
TIE INTERSECTING NEW WALLS TOGETHER w/ 2 WIRE LADDER STYLE REINFORCING @ ALT. COURSES. TIE INTERSECTING NEW WALLS TO EXISTING OR INFILL WALLS w/ SCREW IN MASONRY TIES AT ALT. COURSES.
OPENING FOR MECH. OPENINGS IN MASONRY WALLS FOR VENEER > 200mm AND BLOCK WALLS > 400mm REQUIRE LINTELS. SEE ADDITIONAL OPENINGS ON MECH. DRAWINGS NOT SHOWN ON STRUCTURAL DRAWINGS.
IN 90 BRICK OR BLOCK:
USE 'L04' LINTEL FOR OPENINGS < 1600
IN 140 BLOCK:
USE 'L01' LINTEL FOR OPENINGS <1800
IN 190 BLOCK:
USE 'L02' LINTEL FOR OPENINGS < 1800
DO NOT CUT OPENINGS DIRECTLY BELOW JOISTS OR BEAMS UNLESS NOTED ON STRUCTURAL DRAWINGS.

LINTEL SCHEDULE

ALL LINTELS USED FOR EXTERIOR BRICK VENEER TO BE HOT DIPPED GALVANIZED. GALVANIZED LINTELS ARE NOT TO BE CUT ON SITE. ANY DAMAGE TO GALVANIZED LINTELS TO BE TREATED WITH ZINC RICH PRIMER OR GALVAFROID.

DESIGNATION	SIZE	MIN. END BEARING
L01	2-L76x64x6.4 WELDED B/B LLV	150mm
L02	2-L89x89x6.4 WELDED B/B	150mm
L03	L127x89x7.9 LLV	150mm
L04	L89x89x6.4	150mm
L05	L127x89x6.4 LLV + 102 DEEP FERO FAST BRACKETS @600mm o.c. w/ 12.7mmØ GALV. KWIK HUS EZ (82mm EMBED.)	N/A
L06	L152x89x7.9 LLV	150mm

STUB COLUMN SCHEDULE

DESIGNATION	SIZE	CONNECTION
STUB01	102x102x6.4 HSS	300x300x12.7 BASEPLATE (SEE S1.82 FOR DETAILS)
STUB02	102x102x6.4 HSS	WELDED TO BEAM BELOW w/ 5mm ALL AROUND
STUB03	76x76x6.4 HSS	WELDED TO BEAM

CONCRETE WALL SCHEDULE

DESIGNATION	SIZE	REINFORCEMENT
C203-1	203mm THICK	15M @ 400mm o.c. CENTRED
C254-1	254mm THICK	15M @ 400mm o.c. EF EW
C305-1	305mm THICK	15M @ 400mm o.c. EF EW
C305-2	305mm THICK	15M @ 300mm o.c. EF EW

BEARING PLATE SCHEDULE

NOTE: BP01 IS LARGER THAN WALL TO ACCOMODATE WELDING

DESIGNATION	SIZE	ANCHOR
BP01	203x12.7x228	1-15M DOWEL (300mm LONG) WELDED TO PLATE + 50mm HOOK
BP02	254x19x254	1-15M DOWEL (300mm LONG) WELDED TO PLATE + 50mm HOOK
BP03	400x50x400	1-15M DOWEL (300mm LONG) WELDED TO PLATE + 50mm HOOK
BP04	203x9.5x228	1-15M DOWEL (300mm LONG) WELDED TO PLATE + 50mm HOOK
BP05	203x12.7x228	2-15M DOWEL (300mm LONG) WELDED TO PLATE + 50mm HOOK
BP06	152x19x102	1-20M DOWEL (300mm LONG) WELDED TO PLATE + 100mm HOOK
BP07	406X19X305	4-25M DOWEL (500mm LONG) WELDED TO PLATE + 75mm HOOK

CONCRETE CURB SCHEDULE

DESIGNATION	SIZE	REINFORCING
CURB203-1	203mm THICK	2-15M T&B +15M @400mm o.c. EW PROVIDE 15M DOWELS TO PRECAST @400mm o.c. (SEE 03/S2.06 FOR DETAILS)

SCHLEGEL VILLAGES

No.	Revision	Date
1	ISSUED FOR MLTC TECHNICAL REVIEW 50% PROGRESS	2024-06-06
2	ISSUED FOR SPA SUBMISSION	2024-07-18
3	ISSUED FOR BUILDING PERMIT SUBMISSION	2024-08-15
4	ISSUED FOR SPA SUBMISSION #2	2024-09-06

co-elevate

THE CONTRACTOR MUST CHECK ALL DRAWINGS AND VERIFY ALL DIMENSIONS ON THE PROJECT. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION WORK OR SHOP FABRICATION. DRAWINGS ARE NOT TO BE SCALED.

The Village of Innis Landing

800 Yonge Street, Barrie, ON

Drawn By: Author

Project No.: 3548

SCHEDULES & LOADING NOTES

S6.02