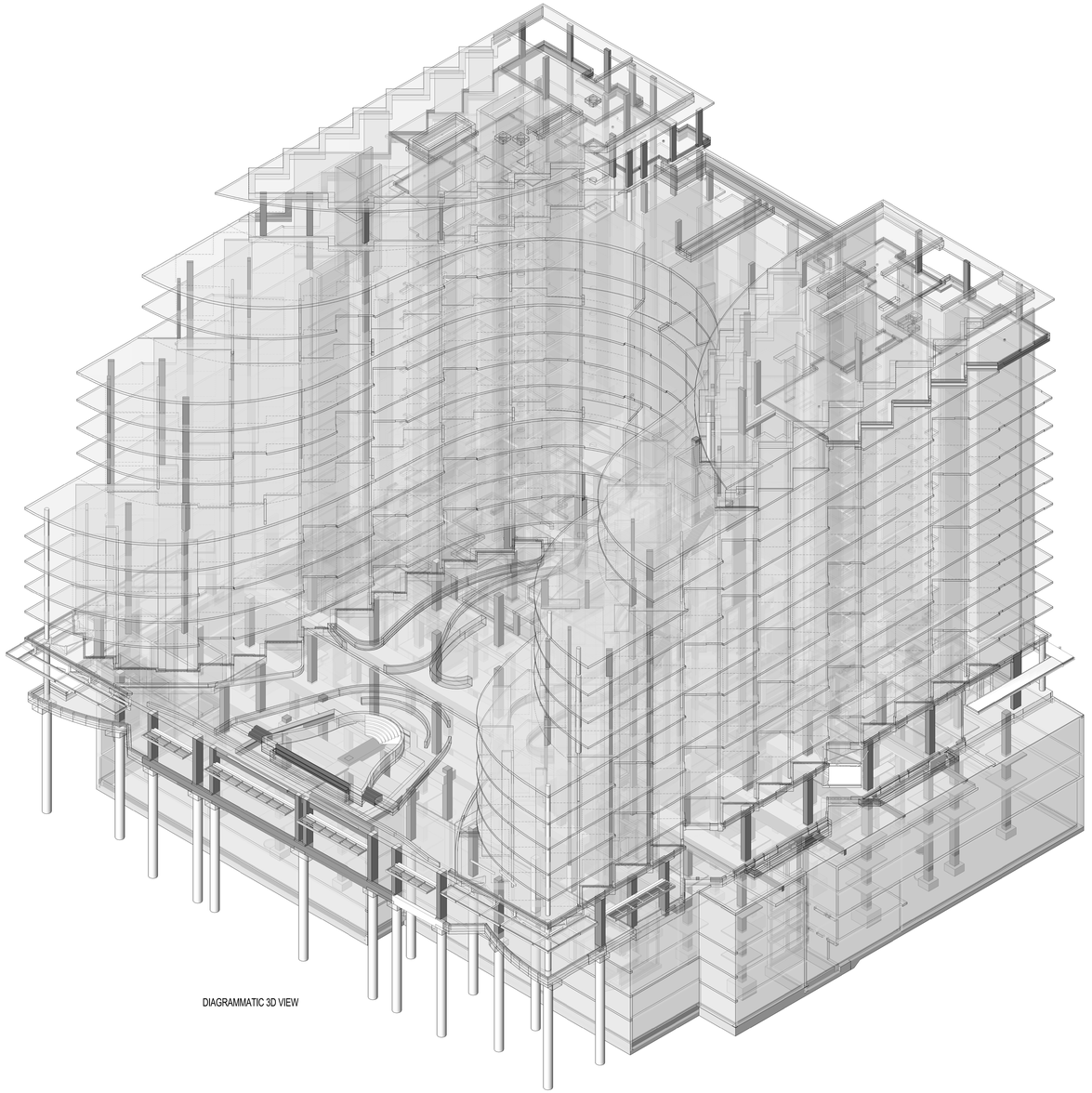

DIAGRAMMATIC 3D VIEW

DRAWING LIST

Sheet Number	Sheet Name
S0 SERIES - COVER SHEET	
S0-01	COVER SHEET
S1 SERIES - PLANS	
S1-01	FOUNDATION PLAN
S1-02	LEVEL P3 FLOOR FRAMING PLAN
S1-03	LEVEL P2 FLOOR FRAMING PLAN
S1-04	LEVEL P1 FLOOR FRAMING PLAN
S1-05	LEVEL P1 MEZZANINE FRAMING PLAN
S1-06	LEVEL 1-GROUND FLOOR FRAMING PLAN - WITH TOP REINFORCEMENT AND DETAILS
S1-07	LEVEL 1-GROUND FLOOR FRAMING PLAN - WITH BOTTOM REINFORCEMENT AND SCHEDULES
S1-08	LEVEL L1 MEZZANINE FRAMING PLAN
S1-09	LEVEL 2 FLOOR FRAMING PLAN
S1-10	LEVEL 3 FLOOR FRAMING PLAN
S1-11	LEVEL 4 FLOOR FRAMING PLAN
S1-12	LEVEL 5 FLOOR FRAMING PLAN
S1-13	LEVEL 6 FLOOR FRAMING PLAN
S1-14	LEVEL 7 FLOOR FRAMING PLAN
S1-15	LEVEL 8 FLOOR FRAMING PLAN
S1-16	LEVEL 9 FLOOR FRAMING PLAN
S1-17	LEVEL 10 FLOOR FRAMING PLAN
S1-18	LEVEL 11 FLOOR FRAMING PLAN
S1-19	LEVEL 12 / PH1 FLOOR FRAMING PLAN
S1-20	LEVEL 13/PH2/ MECH. FLOOR FRAMING PLAN
S1-21	ROOF FRAMING PLANS
S1-22	WIND UPLIFT PLAN
S2 SERIES - SCHEDULES	
S2-01	COLUMN SCHEDULES - LEVEL 2 AND BELOW
S2-02	COLUMN SCHEDULE - LEVEL 2 ABOVE AND CONNECTION PLATE SCHEDULE
S2-03	BEAM SCHEDULES
S3 SERIES - WALL ELEVATIONS	
S3-01	WALL ELEVATIONS AND NOTES
S3-02	WALL ELEVATIONS
S3-03	WALL ELEVATIONS
S3-04	WALL ELEVATIONS
S3-05	WALL ELEVATIONS
S3-06	WALL ELEVATIONS
S3-07	WALL ELEVATIONS
S3-08	WALL ELEVATIONS
S3-09	WALL ELEVATIONS
S3-10	WALL ELEVATIONS
S4 SERIES - FOUNDATION ELEVATION AND SECTIONS	
S4-01	FOUNDATION ELEVATIONS
S4-02	FOUNDATION SECTIONS
S4-03	FOUNDATION SECTIONS
S4-04	FOUNDATION SECTIONS
S5 SERIES - PODIUM FLOOR SECTIONS	
S5-01	PODIUM FLOOR SECTIONS
S6 SERIES - FLOOR SECTIONS	
S6-01	FLOOR SECTIONS
S7 SERIES - ROOF SECTIONS	
S7-01	ROOF SECTIONS
S8 SERIES - TYPICAL NOTES & DETAILS	
S8-01	GENERAL NOTES & TYPICAL DETAILS
S8-02	TYPICAL DETAILS

Contractor Must Check And Verify All Dimensions On The Job.
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Date:

DEC 18,2015 DEC 18,2015

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7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21,2015
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2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
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No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
COVER SHEET

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale

Drawn by
DC

Checked by
BBS

Project No
20140031

Date
DEC.18,2015

Drawing No
S0-01

Plot Date: 1/6/2016 9:58:23 AM

DESIGN CRITERIA NOTES

1. GENERAL
   1.1. THE PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 OBC
   1.2. THE PARKING GARAGE HAS BEEN DESIGNED IN ACCORDANCE TO THE STRUCTURAL REQUIREMENTS OF CSA-S413 OF PARKING STRUCTURES. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING, SEALERS, ETC., DETAILED IN ACCORDANCE WITH CSA-S413-07. SEE ALSO MECHANICAL DRAWINGS FOR COMPLIANCE WITH THE MECHANICAL REQUIREMENTS OF CSA-S413-07.
   1.3. ALL PARKING LEVELS, INCLUDING RAMPS AND ROOF SLABS HAVE BEEN DESIGNED FOR CLAUSES 4.1.5.8, & 4.1.5.10, APPENDIX A OF THE OBC AND WHERE APPLICABLE GARAGE ROOF SLABS HAVE BEEN DESIGNED FOR THE REQUIREMENTS OF THE CITY OF TORONTO GUIDELINES FOR GARBAGE TRUCK AND FIRE TRUCK WHEEL LOADING
   1.4. ALL REINFORCED CONCRETE SLABS, BEAMS, COLUMNS, AND SHEAR WALLS HAVE BEEN DESIGNED TO CSA-A23.3-04 AND ARE DETAILED ACCORDINGLY.
   1.5. MISCELLANEOUS METAL, PRECAST AND STAIR FABRICATION SHALL:
      1.5.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
      1.5.2. DESIGN ALL GUARDS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.15.
      1.5.3. DESIGN ALL STAIRS TO MEET LIVE LOADS DESCRIBED IN OBC 4.1.5.15.
      1.5.4. DESIGN ALL STAIRS TO SUPPORT A MINIMUM DEAD LOAD OF 5 kPa.
   1.6. ARCHITECTURAL PRECAST FABRICATOR SHALL:
      1.6.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
      1.6.2. DESIGN ALL PRECAST GUARDS TO GUARD DESIGN THE PRECAST AND CONNECTIONS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.15.
   1.7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SUPPLYING AND INSTALLING EQUIPMENT, THAT ALL ELEMENTS OF STRUCTURES LISTED IN TABLE 4.1.8.17 OF THE OBC 2012 ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.8.17.
   1.8. STRUCTURE IS DESIGNED FOR GRAVITY, WIND, AND EARTHQUAKE (6 NORMAL (sn1.3)
   1.9. STAIR ELEMENTS NOT PART OF SFRS SHALL BE SEPARATED FROM THE STRUCTURE AS PER OBC CLAUSE 4.1.8.5 (ie. EXAMPLES INCLUDE, BUT NOT LIMITED TO MASONRY PARTITIONS, BRICK VENEER, PRECAST CLADDING ETC. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO PROVIDE SHOP DRAWINGS, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE. PROVIDE MINIMUM 10mm SEPARATION UNLESS NOTED OTHERWISE ON DRAWINGS AND SPECIFICATION.

2. LATERAL LOADS ON STRUCTURE
   2.1. WIND
      $q = 0.5 \times 1.0 \times 0.44^2 = 0.44$ kPa
      Ce = (H/10)0.2 NOT LESS THAN 1.0 AND NOT GREATER THAN 2.5(DYNAMIC APPROACH)
      Cg = 1.0
      Cp = AS PER FIGURE I-15 OF USER'S GUIDE - NBC 2005 STRUCTURAL COMMENTARIES (PART 4 OF DIVISION B)
   2.2. EARTHQUAKE
      Sa(0.2) = 0.22 — PGA = 0.12 — Fa = 1.0
      Sa(0.5) = 0.13 — SITE CLASS = C — Fv = 1.0
      Sa(1.0) = 0.067 — Ro = 1.5 — Ie = 1.0
      Sa(2.0) = 0.031 — Rd = 1.3
      THE BUILDING CONSISTS OF CONCRETE SHEAR WALLS
      STRUCTURAL IRREGULARITIES CONSIDERED IN THE DESIGN PER CLAUSE 4.1.8.6. CONSIST OF:
      TYPES 1, 2, 3, 4, 5 & 8
      METHOD OF ANALYSIS - DYNAMIC
3. FOUNDATION WALLS
   3.1. ALL FOUNDATIONS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND HORIZONTAL EARTH AND HYDROSTATIC PRESSURE (PHE (KN/m)=Ko(q+hγe)L)
      WHERE
      Ko = 0.40
      hh = 22mm
      q = 10 kPa (4.5 PSF) LIVE LOAD SURCHARGE)
      h1 = (DEPTH TO GROUND WATER TABLE, IN METRES
      h2 = DEPTH BELOW GROUND WATER TABLE, IN METRES
      Y = (2.4)kN/m³ (SOIL UNIT WEIGHT)
      Y' = (12.4)kN/m³ (SUBMERGED SOIL UNIT WEIGHT)
      γw = 10kN/m³ (WATER UNIT WEIGHT)

	STRENGTH AT 28 DAYS (Mpa)	SLUMP AT DELIVERY (mm)	AIR ENTRAINMENT	MAXIMUM W/C RATIO	EXPOSURE CLASSIFICATION
GENERAL (NON-EXPOSED) CONCRETE INTERIOR SLABS, WALLS, COLUMNS, BEAMS AND FOUNDATIONS (SEE PLAN & SCHEDULE FOR STRENGTH)	25 30 35 40 45	80 ± 20	·····	TO SUIT	N
EXTERIOR (EXPOSED) CONCRETE WALLS AND ON COLUMNS, EXCEPT PARKING STRUCTURE	25 30 35 40 45	80 ± 20	4 - 7 %	0.55	F - 2
(1) GENERAL INTERIOR SLAB - ON - GRADE	25	80 ± 20	·····	TO SUIT	N
EXTERIOR SLABS-ON-GRADE, SIDEWALKS, CURBS AND GUTTERS (UNREINFORCED)	32	80 ± 20	5 - 8 %	0.45	C - 2
(1) PARKING STRUCTURE (SLAB, COLUMNS, BEAMS WALLS GRADE BEAMS/CAPS AND FOOTINGS)	35 40 45	80 ± 20	5 - 8 %	0.40	C - 1
(1) EXTERIOR GARAGE ROOF (PROVIDE DCI AT A DOSAGE OF 10L/m³)	35	80 ± 20	5 - 8 %	0.40	C - 1
(1) PARKING SLABS-ON-GRADE	32	80 ± 20	5 - 8 %	0.45	C - 2
NON WATER PROOFED EXPOSED BALCONY SLAB, POOL	30	80 ± 20	5 - 8 %	0.50	F - 1
LEAN MIX CONCRETE	15	80 ± 20	·····	TO SUIT	N

1) REINFORCED WITH SYNTHETIC FIBRES ADDED AT BATCHING PLANT - SEE SPECIFICATION.

2) CHLORIDE ION PENETRABILITY REQUIREMENTS < 1500 COULOMBS WITHIN 56 DAYS.

FOUNDATION PLAN NOTES:

1. TOP OF SLAB VARIES IN PARKING LEVEL AND IS TO BE SLOPED TO SUIT DRAINAGE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
2. PROVIDE SLAB DEPRESSIONS, THICKENINGS, AND THICK WITH SAW CUTS @3000 c/c EACH WAY. SEE SPECIFICATIONS.
3. PROVIDE SLAB DEPRESSIONS, OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS, AS REQUIRED BY ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
4. SLAB-ON-GRADE TO BE PLACED ON A 200 mm MINIMUM LAYER OF COMPACTED 19mm MAXIMUM SIZE CLEAR CRUSHED STONE.
5. ALL FOOTINGS TO BE CARRIED DOWN TO SOUND BEDROCK WITH A FACTORED GEOTECHNICAL RESISTANCE @SLS OF 3000 kPa.
   ALL SPREAD AND STRIP FOOTINGS TO BE CAST AGAINST SIDES OF EXCAVATION.
6. FRICTION CAISSONS HAVE BEEN DESIGNED FOR LESS BEND STRENGTH OF 70MPa BETWEEN CONCRETE AND SOUND SHALE.
7. THE FOUNDATION WALLS HAVE BEEN DESIGNED TO BE FOUND AT THE ELEVATIONS SHOWN. ANY VARIATIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
8. REFER TO SOIL REPORT BRM-SOILTECH-LETTER-APRIL 24, 2015 PREPARED BY EXP. AND MEMORANDUM DATED APRIL 30,2015.
9. BEDROCK AT THE UNDERSIDE OF ALL FOOTINGS IS TO BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF EXP. SERVICES INC. PRIOR TO PLACING ANY CONCRETE. A MINIMUM OF 300mm CONCRETE SHALL BE PLACED ON BEDROCK IMMEDIATELY AFTER EXCAVATION AND INSPECTION IS COMPLETED.
10. TOP OF FOOTINGS TO BE AT ELEVATIONS AS NOTED ON PLAN (TOF +)
11. EXP = STEP FOOTINGS. STEPS IN ANY FOOTING SHALL BE 600mm HIGH AND 1V:2HORZ. TO 1V:3VERT. UNLESS OTHERWISE NOTED. ALL WALL FOOTINGS TO BE 300 mm DEEP WITH 150 mm PROJECTION EACH SIDE, UNLESS OTHERWISE NOTED ON PLAN.
    ALL PERIMETER FOUNDATION WALL FOOTINGS TO BE WITH 150 mm PROJECTION.
    PROTECT FOOTING BASE BY 50mm CONCRETE IF CONCRETE PLACEMENT NOT OCCUR ON THE SAME DAY.
12. DO NOT PLACE BACKFILL AGAINST WALLS BY MAKING EARTH-SKIDS, FLOOR AT TOP AND BOTTOM OF WALLS ARE PLACED AND HAVE ATTAINED SPECIFIED DESIGN STRENGTH ON.
13. ALL CONCRETE SHALL BE AIR ENTRAINED AS PER CSA A23.1-04 AND ACCESS AND COMPACTED.
    SEAL THICKNESS 5 IN SOUTH SIDES TO EQUALIZE SOIL PRESSURE.
15. CO-ORDINATE ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER AND ARCHITECT PRIOR TO PROCEEDING WITH ANY WORK.
16. CENTRE LINES OF COLUMNS, WALLS, CAPS, CAISSONS AND FOOTINGS ARE CONCIDENT UNLESS OTHERWISE NOTED ON DRAWINGS.
17. CONCRETE FOR FOUNDATION WALLS AND ALL FOOTINGS SHALL BE CLASS C-1 WITH A MINIMUM CONCRETE STRENGTH AT 28 DAYS OF 35 MPa (f'c).
18. ALL CONCRETE WALLS POURED MONOLITHICALLY WITH COLUMNS AND/OR SHEAR WALLS SHALL HAVE THE SAME CONCRETE STRENGTH AS INDICATED FOR THE COLUMNS AND/OR SHEAR WALLS WHICHEVER IS GREATER.
19. THE FORMING CONTRACTOR IS TO SUBMIT FOR REVIEW PROPOSED SLAB-ON-GRADE SAWCUT LAYOUT SEE TYPICAL DETAILS.
20. THE PROJECT SUPERINTENDENT MUST CONTACT THE OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE.
21. SEE COLUMN SCHEDULES AND SHEAR WALL ELEVATIONS
22. SEE ALSO GENERAL NOTES AND TYPICAL DETAILS.
23. SEE TYPICAL CONCRETE MIX CHART DRAWING S1-01
24. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR UNDER SLAB-ON-GRADE WEEPING TILE SYSTEM.
25. PROVIDE DCI AT A DOSAGE OF 10L/m³ CONCRETE IN THE FINNED RAMP SLAB AND ALL TURNING AREAS.
26. CY = CAST IN SONOTUBE CAISSON, SEE SCHEDULE FOR DIMENSIONS
27. DP = DRY PACKED ROCK SOCKET, SEE SCHEDULE ON THIS DRAWING
28. REFER TO SOIL REPORT RECOMMENDATIONS REGARDING HEAVE WELL BOND STRENGTH FOR CAISSONS.

SITE PREPARATION NOTES FOR SLAB-ON-GRADE (WITHIN BUILDING ENVELOPE)

1. THE AREA WITHIN THE BUILDING SHALL BE STRIPPED OF THE UPPER LAYER SOIL, FILL, ORGANICALLY CONTAMINATED MATERIAL AND RUBBLE AND TO A MINIMUM OF 200mm (8") BELOW THE UNDERSIDE OF THE SLAB ON GRADE.
2. THE EXPOSED SUB-GRADE SHALL BE EXAMINED AND APPROVED BY THE SOIL CONSULTANT.
3. THE ENTIRE AREA SHALL BE PROOF ROLLED UNDER THE DIRECTION OF A MINIMUM OF 98% STANDARD PROCTOR MAX. DRY DENSITY AND TO THE APPROVAL OF THE SOIL CONSULTANT.
4. ANY SOFT, WET OR UNSUITABLE SPOTS ENCOUNTERED SHALL BE SUB-EXCAVATED AND BACKFILLED WITH COMPACTED APPROVED MATERIAL.
5. FILL REQUIRED TO RAISE THE GRADES SHALL BE COMPRISED OF APPROVED GRANULAR 'B' TYPE II CONFORMING TO OPSS.1010. PLACED IN ACCESS 8 (+)200 200mm(8") LAYERS EACH COMPACTED TO AT LEAST 95% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.
6. THE UPPER 150mm OF SUB-GRADE MATERIAL DIRECTLY BELOW SLAB ON GRADE SHALL BE 200mm (8") OF GRANULAR 'A' COMPACTED TO 98% STANDARD PROCTOR MAX. DRY DENSITY. MIN.
7. ALL PROCEDURES, EQUIPMENT AND MATERIALS SHALL BE APPROVED BY THE SOIL CONSULTANT WHO SHALL CONDUCT SUFFICIENT TESTS TO ENSURE THAT THE SPECIFIED MATERIALS AND METHODS ARE ACHIEVED.
8. THE CONTRACTOR SHALL CO-ORDINATE WITH THE SOIL CONSULTANT AND ARRANGE A SUITABLE PROGRAM FOR TESTING AND INSPECTION OF THE SUB-GRADE AND FILL MATERIALS.
9. EXISTING ON-SITE MATERIAL SHALL NOT BE USED WITHIN THE BUILDING AREA FOR BACKFILLING IN TRENCHES AGAINST FOUNDATION WALLS OR UNDER SLABS-ON-GRADE.
10. REFER TO THE SPECIFICATIONS AND THE SOIL REPORT FOR PREPARATION OF AREAS OUTSIDE THE BUILDING ENVELOPE.

CAISSON SCHEDULE

CAISSON NUMBER	CAISSON DIA.	UPPER SHAFT REINFORCEMENT	UPPER SHAFT STIRRUPS ZONE	UPPER SHAFT REMAINING STIRRUPS	EMBEDMENT INTO SOUND BEDROCK m	CONCRETE STRENGTH	LOAD ULS kN
C1	915Ø	11-25 V + 10@150 TIES	2750	10@300	2.0	25MPa	3700
C2	915Ø	16-25 V + 10@150 TIES	2750	10@200	3.0	25MPa	5500

FOOTING SCHEDULE

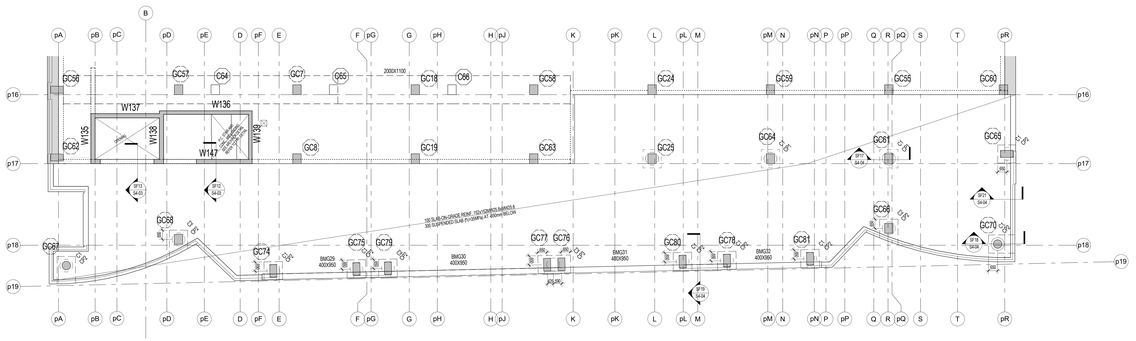
FOOTING NUMBER	FOOTING NUMBER AND SIZE	FOOTING REINF. LG. (HOOKED EE)	FOOTING REINF. TR. (HOOKED EE)	LOAD ULS KN
F1	1000x1100x500 DP.	10-20B	11-20B	4400
F1a	1000x1050x600 DP.	10-20B	11-20B	4400
F2	1300x1400x600 DP.	13-20B	14-20B	7300
F3	1600x1700x1100 DP.	12-25B	13-25B	10900
F4	1900x2100x1400 DP.	19-25B	21-25B	16000
F5	900x1300x650 DP.	9-20B	13-20B	4700

CAISSON CAP SCHEDULE

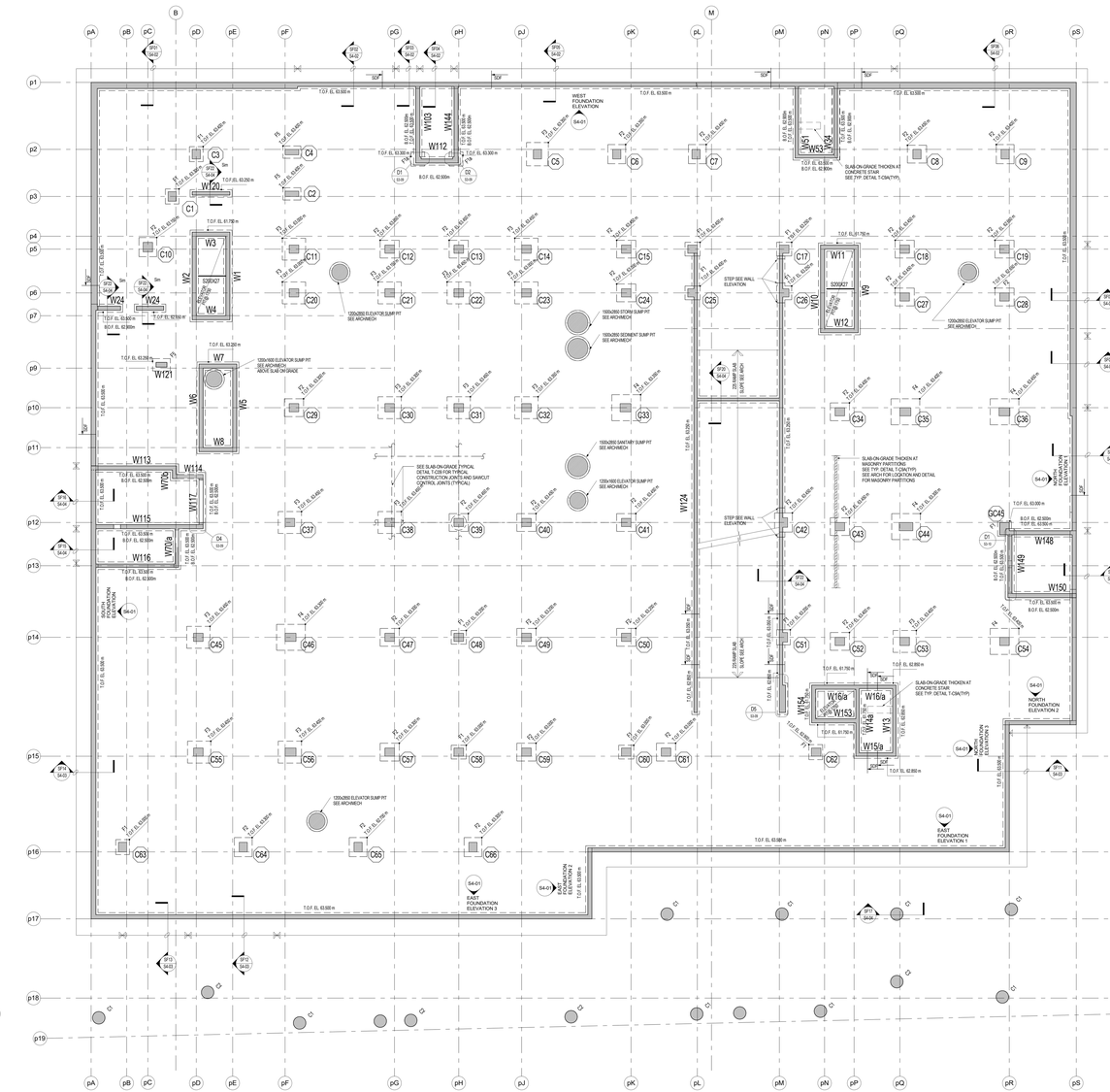
CAP #	CAP SIZE	REINF. HOOKED EE	CONCRETE STRENGTH
CP1	1300x1300x800 DP	6-20 BEW	25 MPa
CP2	1300W/07%x800DP, LENGTH TO SUIT	6-20 BEW	25 MPa
CP3	2315W/07%x800DP, LENGTH TO SUIT	6-20 TB&S LG. 3-20 TAB TR.	25 MPa

LEGEND

- WALLS AND COLUMN SHADED AS THUS INDICATE WALL AND COLUMN BELOW SLAB
- WALLS AND COLUMN SHADED AS THUS INDICATE WALL AND COLUMN ABOVE SLAB
- (-) - INDICATES COLUMN NUMBER OF BELOW SLAB. REFER TO COLUMN SCHEDULE
- (-) - INDICATES COLUMN NUMBER OF ABOVE SLAB. REFER TO COLUMN SCHEDULE



FOUNDATION PLAN AT GROUND LEVEL
1 : 100


WEST FOUNDATION ELEVATION
S4-01
EAST FOUNDATION ELEVATION 3
EAST FOUNDATION ELEVATION 2
EAST FOUNDATION ELEVATION 1
NORTH FOUNDATION ELEVATION 2
NORTH FOUNDATION ELEVATION 1
SLAB-ON-GRADE THICKEN AT CONCRETE STAIR SEE TYP. DETAIL T-CMA (TYP).
STEP/ SEE WALL ELEVATION
SLAB-ON-GRADE THICKEN AT MASONRY PARTITIONS SEE TYP. DETAIL T-CMA(TYP). SEE ARCH FOR LOCATION AND DETAIL FOR MASONRY PARTITIONS
1050x2850 ELEVATOR SUMP PIT SEE ARCHMECH
1050x2850 STORM SUMP PIT SEE ARCHMECH
1050x2850 SEDIMENT SUMP PIT SEE ARCHMECH
1200x2850 SANITARY SUMP PIT SEE ARCHMECH
1200x1600 ELEVATOR SUMP PIT SEE ARCHMECH
1200x1600 ELEVATOR SUMP PIT SEE ARCHMECH
1200x2850 ELEVATOR SUMP PIT SEE ARCHMECH
SEE SLAB-ON-GRADE TYPICAL DETAIL T-CON FOR TYPICAL CONSTRUCTION JOINTS AND SAWCUT CONTROL JOINTS (TYPICAL)
T.O.F. EL. 63.000 m
T.O.F. EL. 62.500m
T.O.F. EL. 62.800 m
T.O.F. EL. 61.750 m
T.O.F. EL. 63.500 m
T.O.F. EL. 63.300 m
T.O.F. EL. 63.200 m
T.O.F. EL. 61.700 m
T.O.F. EL. 62.200 m
T.O.F. EL. 62.000 m
T.O.F. EL. 61.250 m
T.O.F. EL. 63.000 m
T.O.F. EL. 62.500 m
T.O.F. EL. 62.300 m
T.O.F. EL. 62.800 m
T.O.F. EL. 62.600 m
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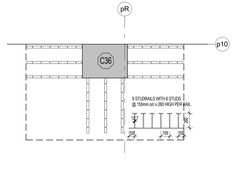
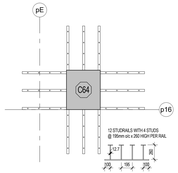
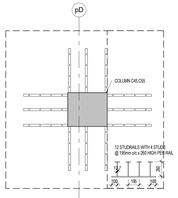
T.O.F. EL. 62.000 m
T.O.F. EL. 61.750 m
T.O.F. EL. 62.800



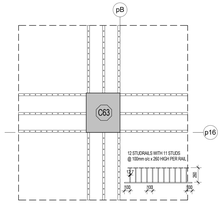
D2 PLAN DETAIL
S1-02 1 : 25



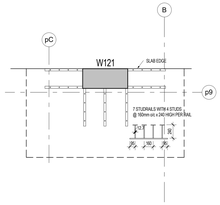
D3 PLAN DETAIL
S1-02 1 : 25



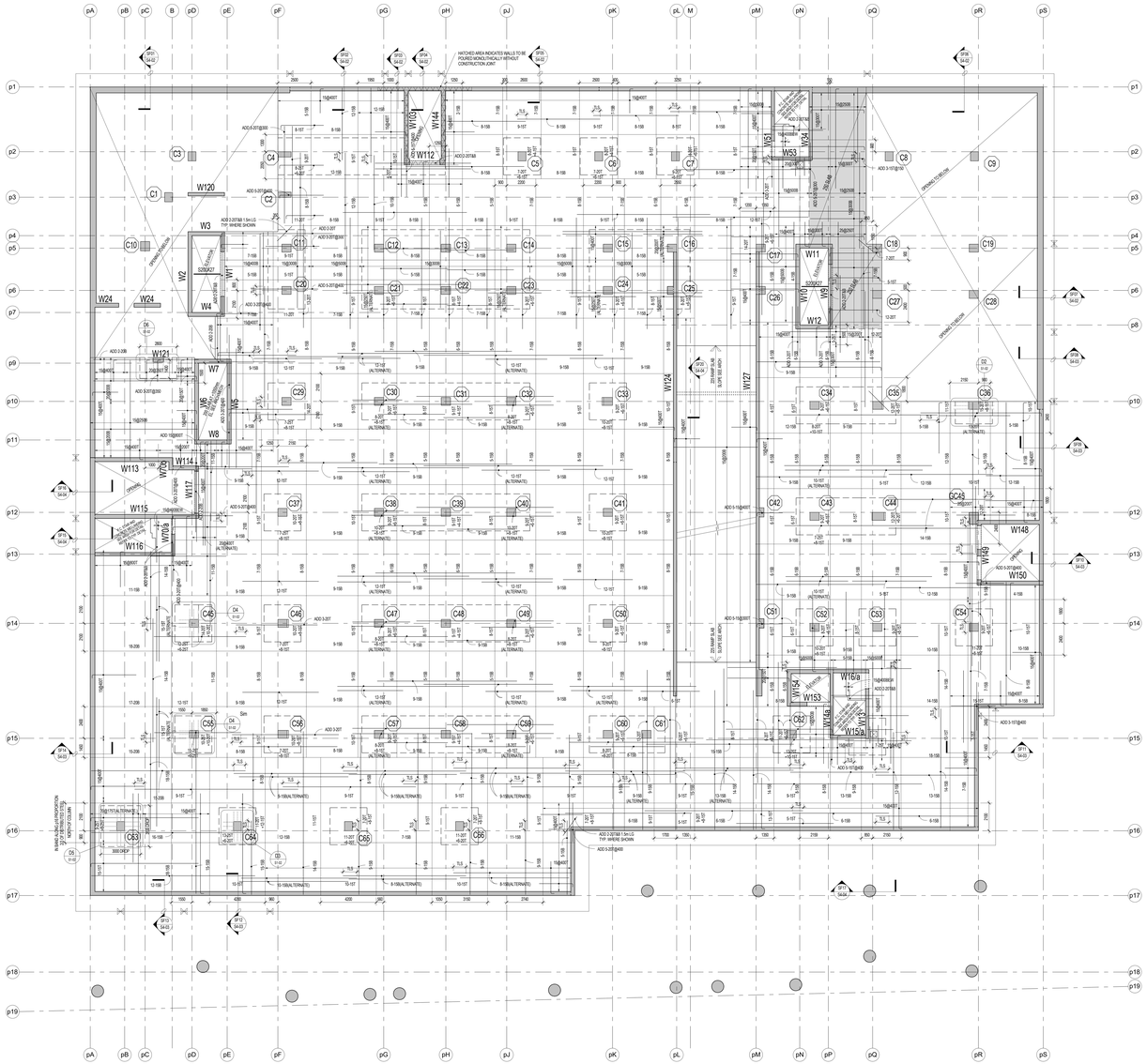
D4 PLAN DETAIL
S1-02 1 : 25

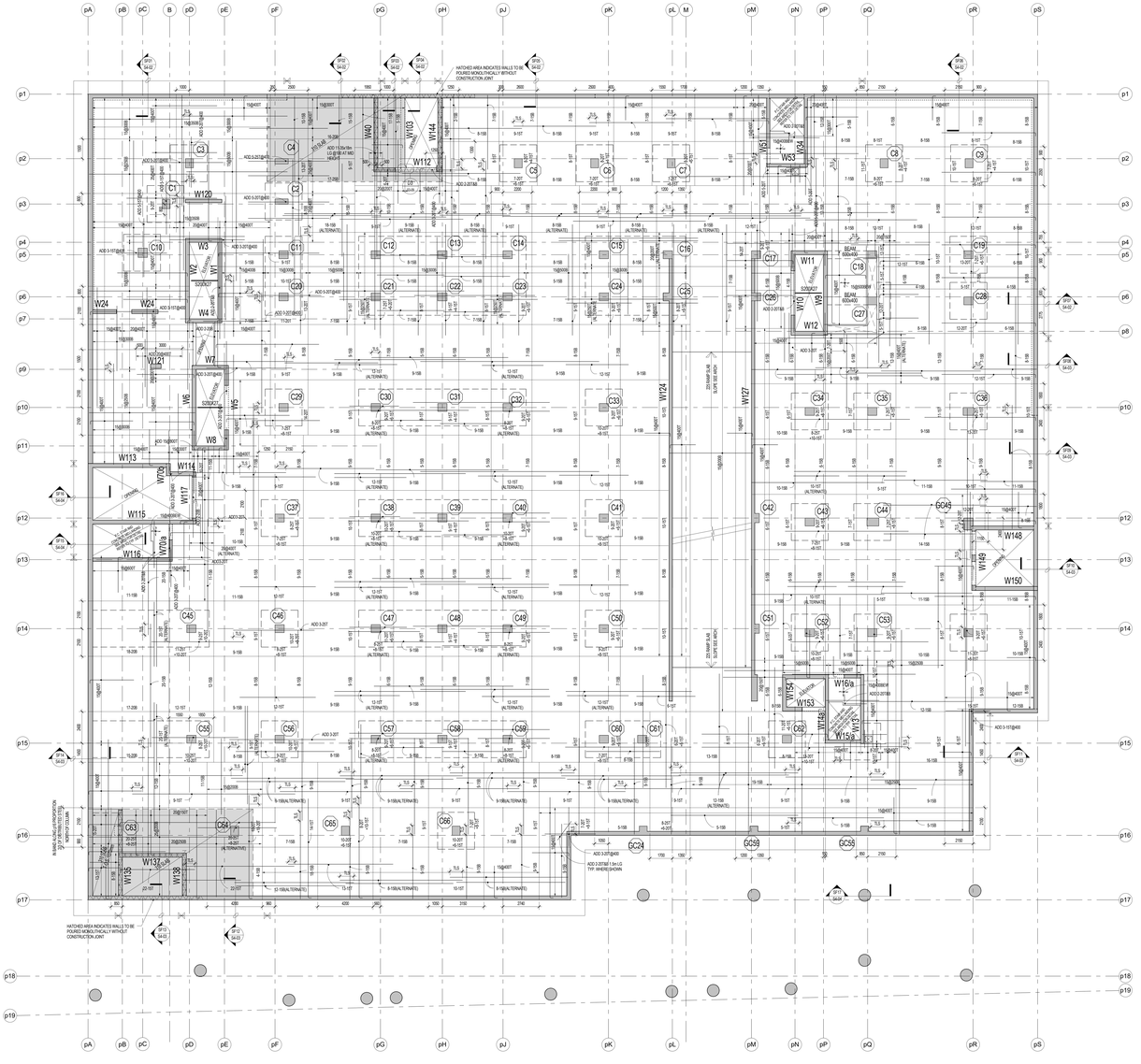


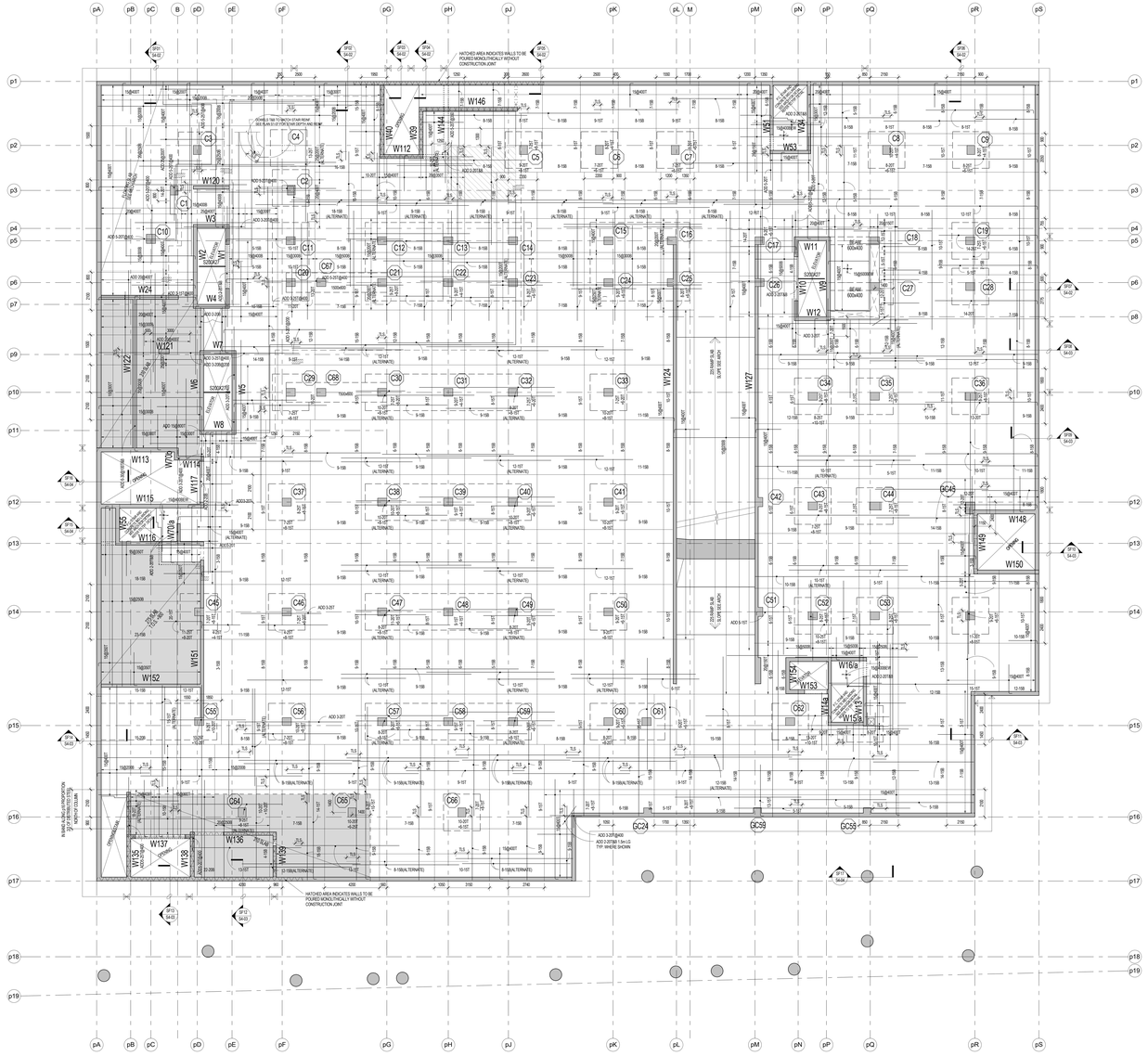
D5 PLAN DETAIL
S1-02 1 : 25



D6 PLAN DETAIL
S1-02 1 : 25




HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
BUMP-OUTS ARE IN OPPOSITION TO ONE ANOTHER
ADD 3-20T@40
ADD 3-20T@80 1.5m LG TYP. WHERE SHOWN
ADD 3-20T@40
ADD 3-20T@80
ADD 3-20T@40
ADD 3-20T@40
ADD 3-20T@40



LEVEL P1 FRAMING PLAN

1 : 100

1. TOP OF STRUCTURAL SLAB VARIES FROM FINISHED PARKING LEVEL DATUM ELEVATION TO 200m AT ELEVATOR CORE. TOP OF SLAB ELEVATION VARIES AND IS TO BE SLOPED TO SUIT DRAINAGE AS SHOWN ON ARCHITECTURAL DRAWINGS.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT.

	LL	SDL
PARKING	2.4 kPa	0.5 kPa
STORAGE AND LOCKERS	2.4 kPa	0.5 kPa
STAIRS AND ELEVATOR LOBBIES	4.8 kPa	0.5 kPa
MECHANICAL AND ELECTRICAL	7.2 kPa	1.0 kPa
AMENITY	4.8 kPa	1.0 kPa
WATER TANK	10 kN/m²	1.0 kPa
WHIRLPOOL (3Ø'S AREA	7kPa	1.0 kPa

3. CONCRETE SHALL MEET THE REQUIREMENTS FOR CLASS C1 EXPOSURE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS. REFER ALSO TO COLUMN AND WALL SCHEDULES. SEE ALSO CONCRETE MIX SCHEDULE ON FOUNDATION PLAN.
4. CONCRETE COVER FOR TOP SLABS IN SLABS TO BE 40 mm, CONCRETE COVER FOR BOTTOM BARS IN SLABS TO BE 20mm.
5. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
6. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
7. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BEARING MASONRY WALLS.
8. SEE ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR CURBS. REINFORCE AS PER TYPICAL DETAIL.
9. SEE COLUMN AND WALL SCHEDULES.
10. SEE ALSO TYPICAL NOTE AND DETAIL DRAWINGS.
11. REFER TO BEAM SCHEDULES.
12. ALL BEAMS SHALL BE CLOSED STIRRUPS AS, HOOK BARS AT OPENING AND ADD BARS OF SAME SIZE ON EACH SIDE OF THE OPENING, EQUAL TO 1/2 THE NUMBER OF BARS HOOKED.
13. PROVIDE 25mm CHAMFER ON ALL EXPOSED EDGES OF COLUMNS, WALLS, BEAMS AND DROPS.
14. AREAS NOTED THUS: IN PLAN, INDICATE THICKENED SLAB. SEE PLAN FOR THICKNESS.

AREAS NOTED THUS: IN PLAN, ARE BUILT-UP CONCRETE. SEE TYPICAL DETAILS.

TRANSFER SLABS TO BE SHORED UNTIL REACH SPECIFIED 28 DAYS CONCRETE STRENGTH.

SHORING SHOULS NOT BE SUPPORTED ON BUILDING SLABS.

15. PROVIDE 600 X 600 EDGE OF 15cm CONCRETE IN THE FINNED RAMP SLAB AND ALL TURNING AREAS.
16. SLAB SLOPED AS FOLLOW TOP OF SLAB SLOPES TO MAINTAIN SLAB THICKNESS AS NOTED.
17. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL.

TLL = TOP UPPER LAYER
TLL = TOP LOWER LAYER
BLL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM	
SLAB:	200 MIN. s/n
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@600
DROP:	2950x3950x1100P s/n
CONCRETE STRENGTH	35 MPa CLASS C1
SLAB:	225 RAMP SLAB
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@450
CONCRETE STRENGTH	35 MPa CLASS C1
SLAB:	275 MIN.
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@450
CONCRETE STRENGTH	35 MPa CLASS C1
SLAB:	315 MIN.
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@300
CONCRETE STRENGTH	35 MPa CLASS C1

Contractor Must Check And Verify All Dimensions On The Job.
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Date:

DEC 18,2015 DEC 18,2015

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No.	Revision	Date

No.	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IKT REVIEW	MAY 21,2015

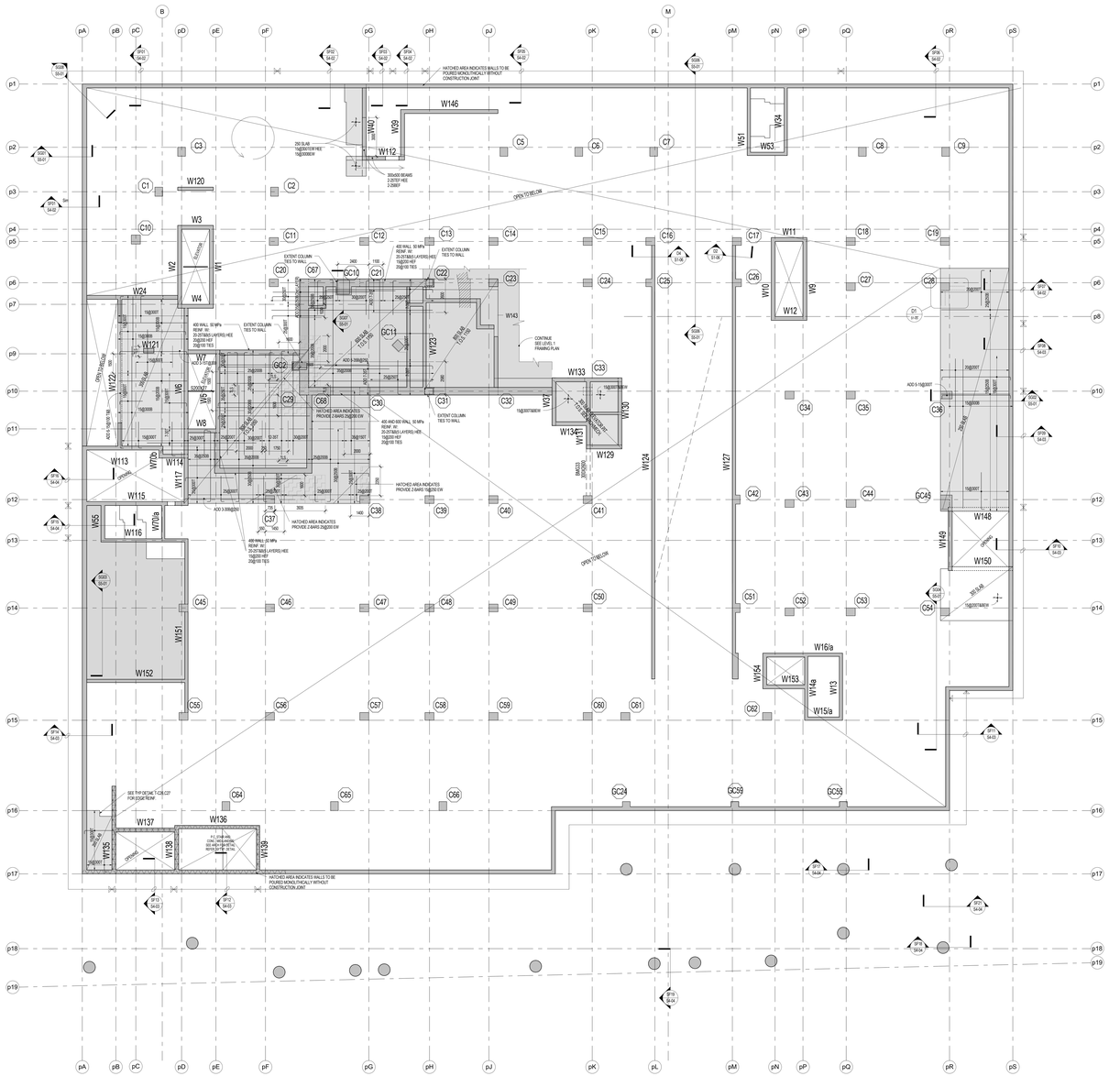
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL P1 FLOOR FRAMING PLAN

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	PC/BBS
Project No.	2014003?
Date	DEC.18.2015
Drawing No.	S1-04

Plot Date: 12/9/2016 9:58:38 AM



LEVEL P1 MEZZ. FRAMING PLAN

1 : 100

1. TOP OF LEVEL 1 MEZZANINE FLOOR STRUCTURAL SLAB TO BE 0.6 mm BELOW FINISHED GROUND FLOOR DATUM ELEVATION 75.85m. THE STRUCTURAL SLAB STEPS AT THE EDGE OF GROUND FLOOR. SEE PLAN AND DETAILS FOR ELEVATION CHANGES. SEE ALSO ARCHITECTURAL DRAWINGS AND LANDSCAPE DRAWINGS FOR GARAGE ROOF ELEVATIONS AND SLOPES TO DRAINS.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO SELF WEIGHT:

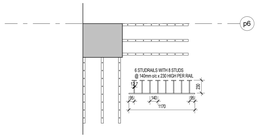
	LL	SDL
STAIRS / MEZZANINE	4.8 kPa	0.5 kPa

3. CONCRETE SHALL MEET THE REQUIREMENTS FOR CLASS C1 EXPOSURE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS. REFER ALSO TO COLUMN AND WALL SCHEDULES. SEE ALSO CONCRETE MIX SCHEDULE ON FOUNDATION PLAN.
4. CONCRETE COVER FOR TOP BARS IN SLABS TO BE 25 mm. CONCRETE COVER FOR BOTTOM BARS IN SLABS TO BE 20 mm.
5. NO OPENING MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
6. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 48 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
7. SEE TYPICAL DETAIL FOR LINTELS IN NON-LOAD BEARING MASONRY WALLS.
8. SEE ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR CURBS, REINFORCE AS PER TYPICAL DETAIL.
9. SEE COLUMN AND WALL SCHEDULES.
10. SEE ALSO TYPICAL NOTE AND DETAIL DRAWINGS.
11. REFER TO BEAM SCHEDULES.
12. ALL EXPOSED CORNERS OF ALL EXPOSED EDGES OF COLUMNS, WALLS, BEAMS & DROPS.
13. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.

TLL = TOP UPPER LAYER
TLL = TOP LOWER LAYER
BLL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB INTEGRITY BARS CONCRETE STRENGTH TEMP. STEEL	250 MIN. 3.0M BEW 35 MPa 15@400 o/c	
SLAB INTEGRITY BARS CONCRETE STRENGTH TEMP. STEEL	250 MIN. 3.0M BEW 35 MPa 15@400 o/c	
SLAB INTEGRITY BARS CONCRETE STRENGTH TEMP. STEEL	300 MIN. 3.0M BEW 35 MPa 15@300 o/c	
SLAB INTEGRITY BARS CONCRETE STRENGTH TEMP. STEEL	800 MIN. 5.0M BEW 40 MPa 25@300 o/c	



D1 / S1.05 DETAIL 1 : 25

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC.18.2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21.2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR KT REVIEW	MAY.01.2015

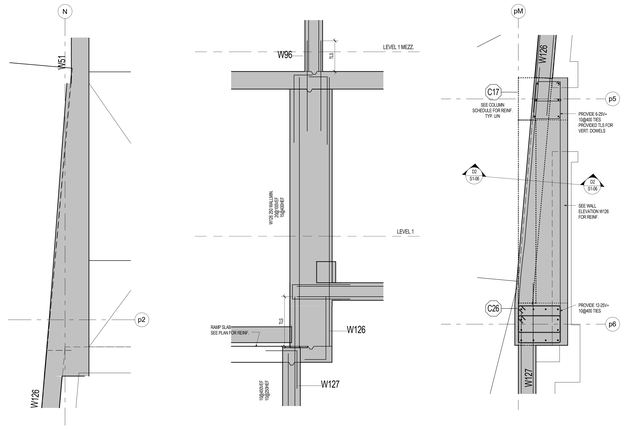
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL P1 MEZZANINE FRAMING PLAN

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	PC/BBS
Project No.	2014-0031
Date	DEC.18.2015
Drawing No.	S1-05

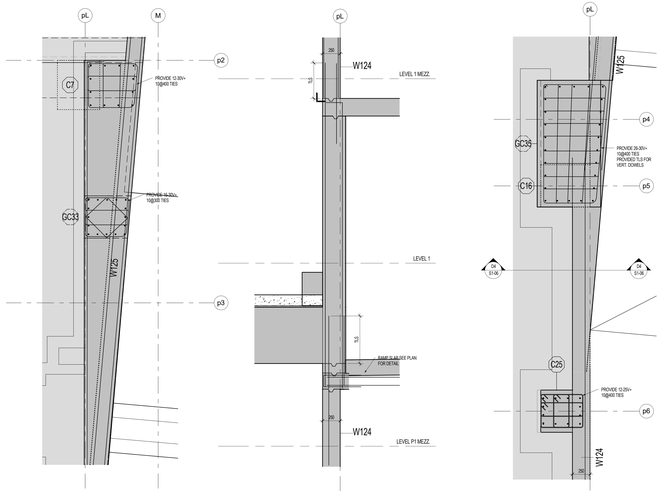
Plot Date: 12/9/2016 9:58:40 AM



D5 PLAN DETAIL S1-06 1 : 20

D2 ELEVATION DETAIL S1-06 1 : 20

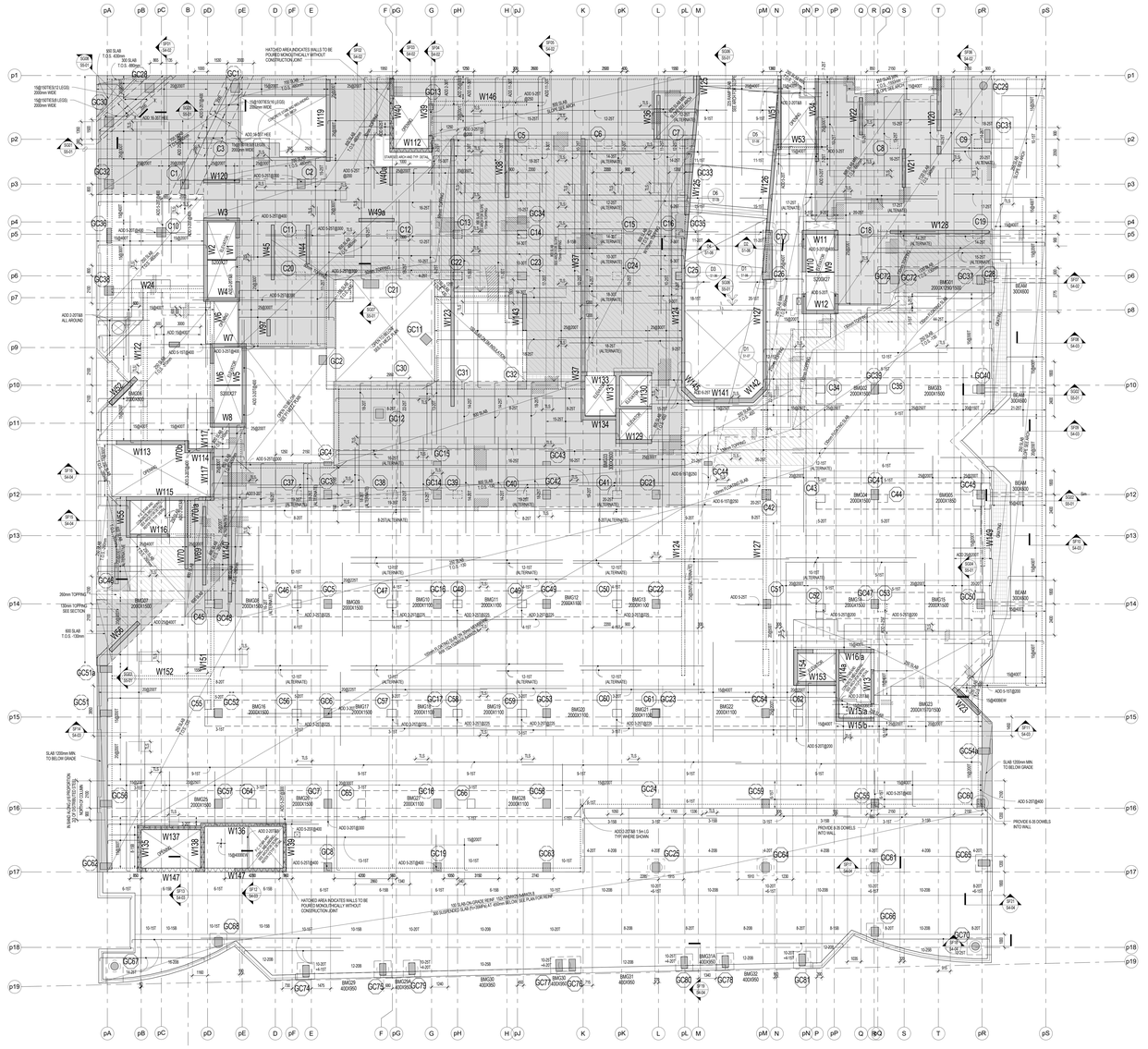
D1 PLAN DETAIL S1-06 1 : 20

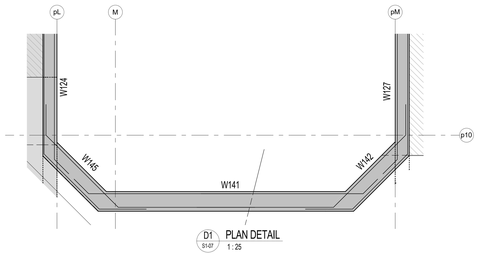


D6 PLAN DETAIL S1-06 1 : 20

D4 PLAN DETAIL S1-06 1 : 20

D3 PLAN DETAIL S1-06 1 : 20




pL
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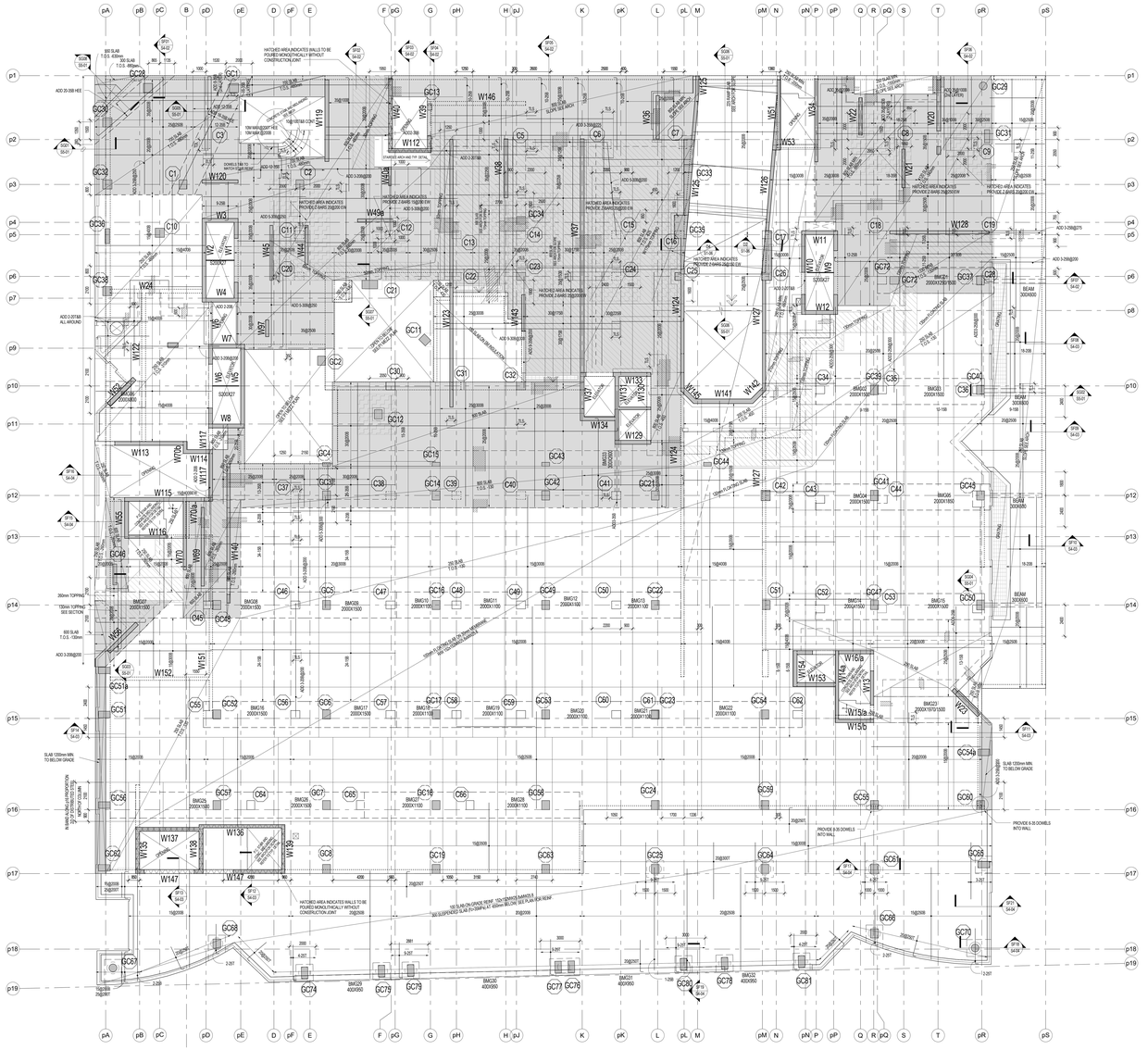
S1-07
PLAN DETAIL
1 : 25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800 SLAB
T.O.S. 425mm
300 SLAB
T.O.S. 850mm
HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
ADD 20-20B HEX
ADD 5-20B@200
ADD 5-20B@250
ADD 5-20B@300
ADD 10-20B
ADD 2-20B@375
ADD 2-20B@200
ADD 2-20B
ADD 2-20T&B ALL AROUND
ADD 3-20B@200
ADD 3-20B@250
ADD 3-20B@300
ADD 3-20T&B
ADD 3-20B
ADD 4-20B
ADD 4-20T&B
ADD 5-20T&B
ADD 6-20T&B
ADD 7-20T&B
ADD 8-20T&B
ADD 10-20T&B
ADD 12-20T&B
ADD 14-20T&B
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ADD 44-20T&B
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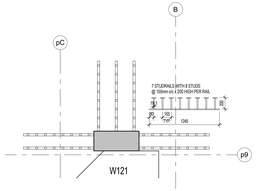
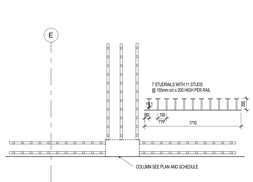
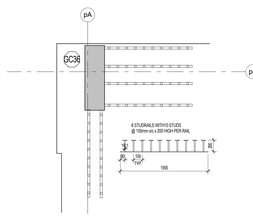


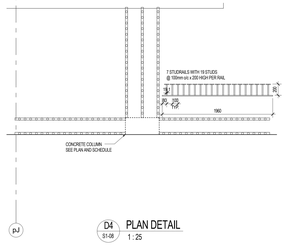
D1 PLAN DETAIL
S1-08 1 : 25



D2 PLAN DETAIL
S1-08 1 : 25

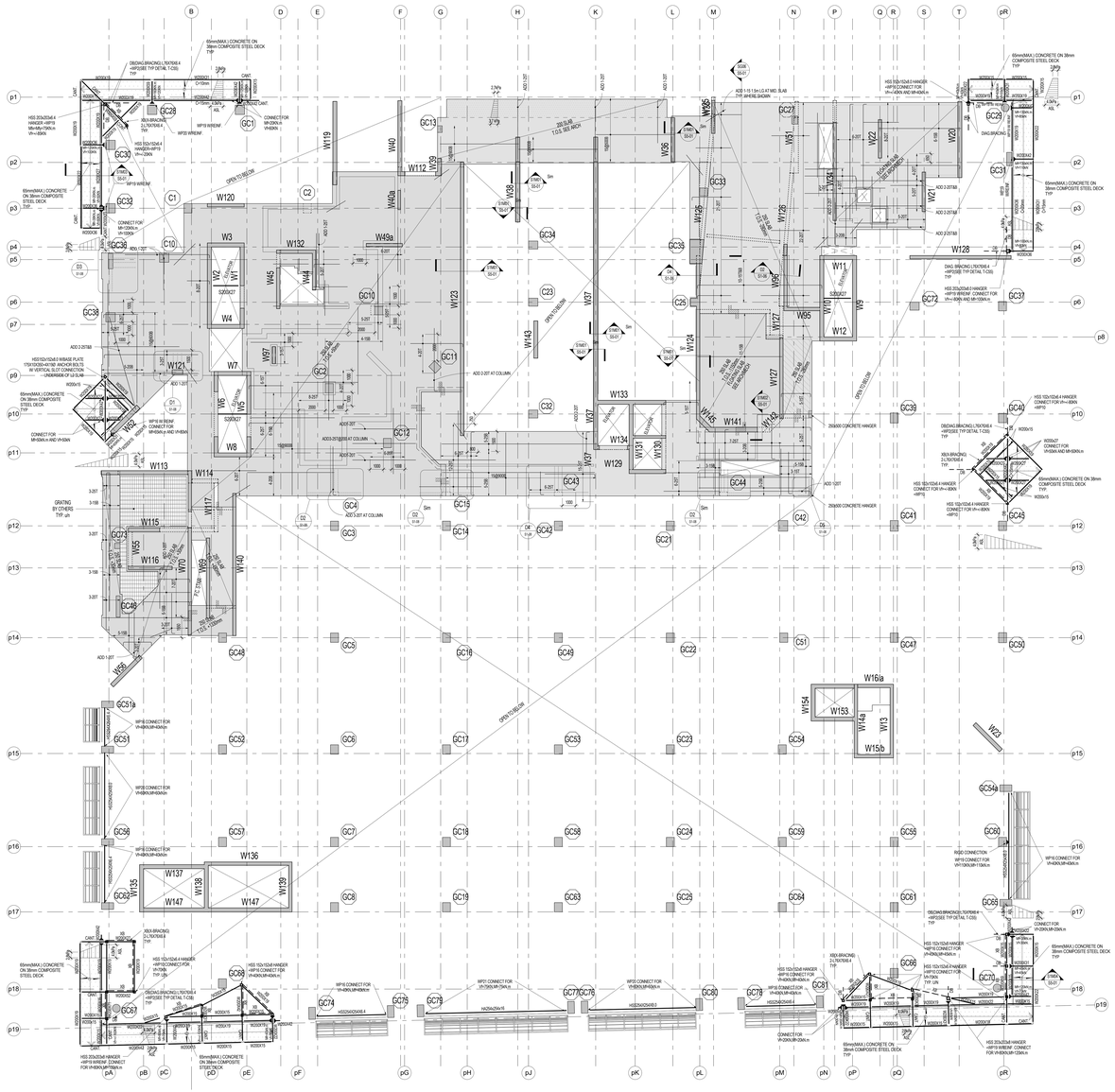


D3 PLAN DETAIL
S1-08 1 : 25



D4 PLAN DETAIL
S1-08 1 : 25

D5 PLAN DETAIL
S1-08 1 : 25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65mmMAX.) CONCRETE ON 38mm COMPOSITE STEEL DECK TYP.
OPEN TO BELOW
GRATING BY OTHERS TYP. u/s
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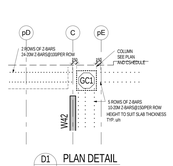
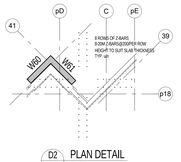
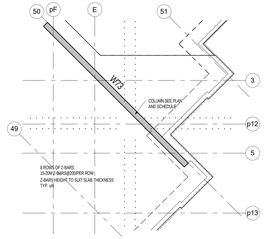


D1 PLAN DETAIL
S1-09 1 : 50



D2 PLAN DETAIL
S1-09 1 : 50



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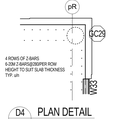

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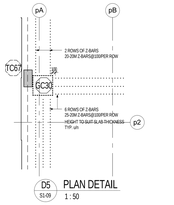
S1-09 1 : 50



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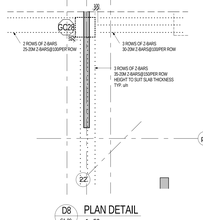
S1-09 1 : 50



D6 PLAN DETAIL
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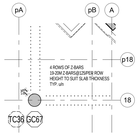
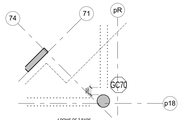


D6 PLAN DETAIL
S1-09 1 : 50



D7 PLAN DETAIL
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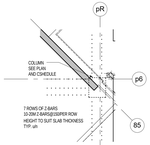

D9 PLAN DETAIL
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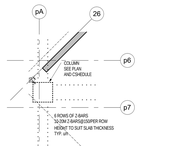
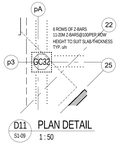


D10 PLAN DETAIL
S1-09 1 : 50



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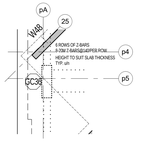
S1-09 1 : 50



D12 PLAN DETAIL
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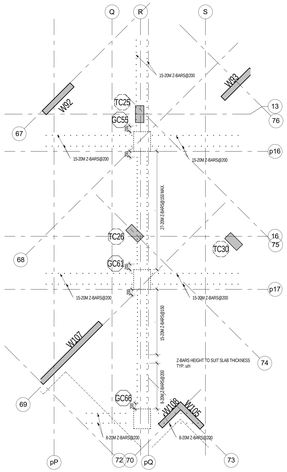
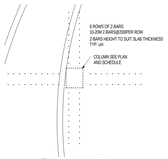
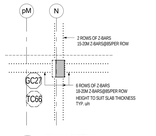


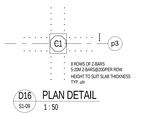
D13 PLAN DETAIL
S1-09 1 : 50



D14 PLAN DETAIL
S1-09 1 : 50



D15 PLAN DETAIL
S1-09 1 : 50



D16 PLAN DETAIL
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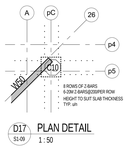
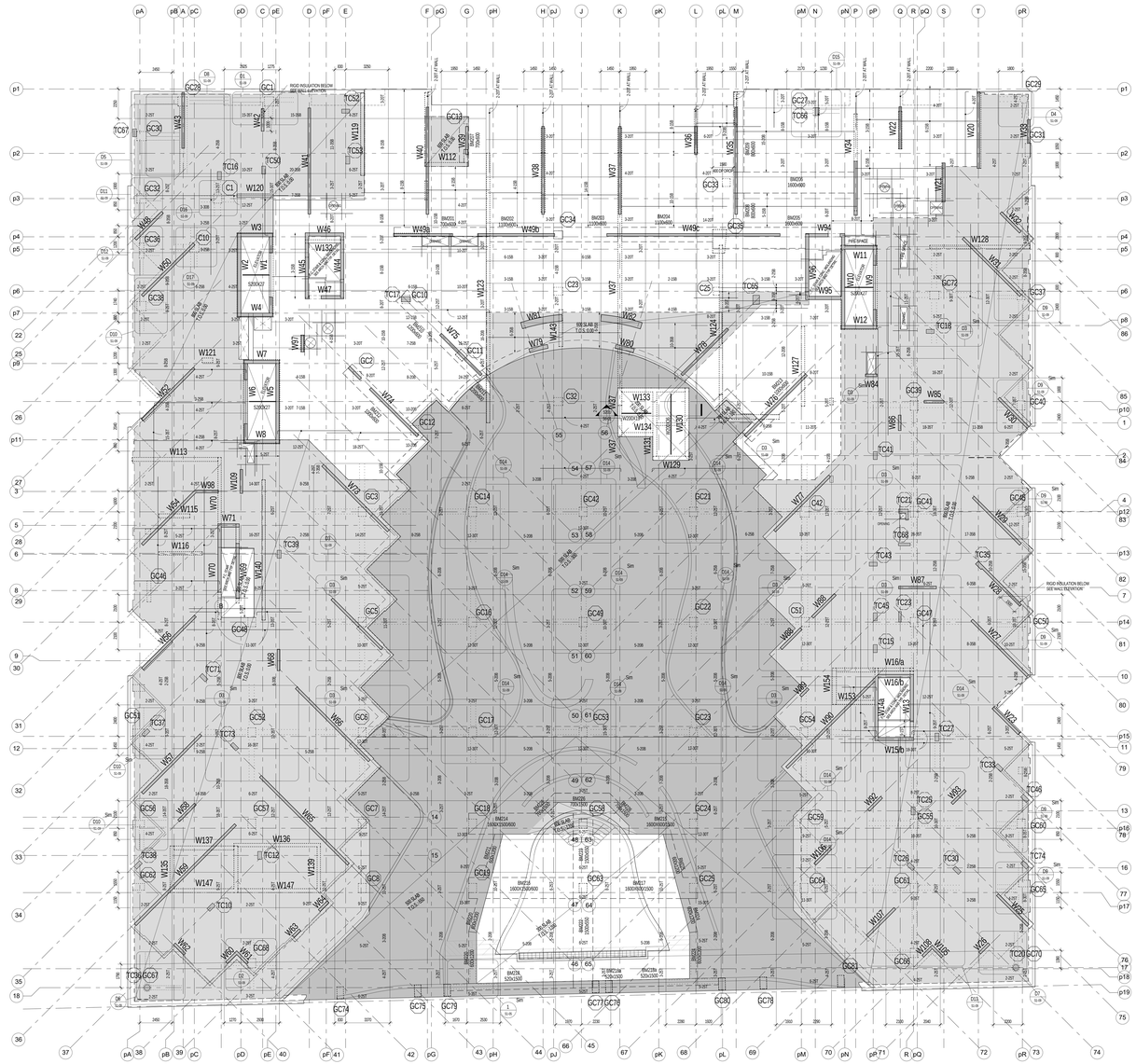


D17 PLAN DETAIL
S1-09 1 : 50



1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS CROSSED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL), IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.25 kPa
CORRIDO	4.8 kPa	2.5 kPa
STAIRS/ELCONES/HALLS/OBBY	4.8 kPa	2.5 kPa
CANOPY	2.4 kPa*	2.5 kPa

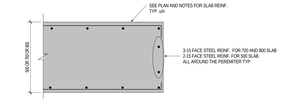
* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** AN ALLOWANCE FOR SNOW LOAD OF 1.2 kPa HAS BEEN CONSIDERED SEE PLAN FOR ADDITIONAL SNOWLOAD

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE CONCRETE CONTRACTOR/AGENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE TYPICAL DETAIL DRAWING FOR LINTELS IN NON-LOAD BEARING BLOCK WALLS.
7. SEE ALSO TYPICAL NOTES AND DETAILS.
8. REFER TO BEAM AND COLUMN SCHEDULES, WALL ELEVATIONS.
9. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND DETAILS.
10. PROVIDE CONTINUOUS TOP AND BOTTOM TEMPERATURE STEEL ANCHORED AT EDGE OF SLAB AND OPENINGS IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
11. IN TRANSFER SLABS, HOOK BOTTOM BARS AND EXTEND ALL TOP BARS INTO ADJACENT SLABS BY 2000mm (TYP.)
12. TRANSFER SLABS TO BE SHORED UNTIL REACH SPECIFIED 28 DAYS CONCRETE STRENGTH.
13. SHORING SHOULD NOT BE SUPPORTED ON BUILDING SLABS.
14. ADD 2.0TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SECTION FOR DETAIL.

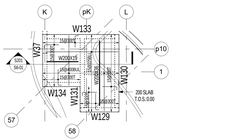
REINFORCEMENT PLACEMENT DIAGRAM

SLAB	200 MIN. u/n
INTEGRITY BARS	3-20M BEW
CONCRETE STRENGTH	45 MPa
TEMPERATURE STEEL	
BOTTOM STEEL	15@500BEW u/n
TOP STEEL	15@500TEW u/n
SLAB	350 MIN.
INTEGRITY BARS	3-25M BEW
CONCRETE STRENGTH	45 MPa
TEMPERATURE STEEL	
BOTTOM STEEL	15@350BEW u/n
TOP STEEL	15@350TEW u/n
SLAB	500 MIN.
INTEGRITY BARS	4-25M BEW
CONCRETE STRENGTH	45 MPa
TEMPERATURE STEEL	
BOTTOM STEEL	20@300BEW u/n
TOP STEEL	20@300TEW u/n
FACE STEEL	2-15M HEF
SLAB	600 MIN.
INTEGRITY BARS	5-25M BEW
CONCRETE STRENGTH	45 MPa
TEMPERATURE STEEL	
BOTTOM STEEL	25@250BEW u/n
TOP STEEL	25@250TEW u/n
SLAB	700 AND 800 MIN.
INTEGRITY BARS	4-25M BEW
CONCRETE STRENGTH	45 MPa
TEMPERATURE STEEL	
TOP STEEL	25@300TEW u/n
BOTTOM STEEL	25@300BEW u/n
FACE STEEL	3-25M HEF

SEE PLAN FOR ADDITIONAL REINFORCEMENT



SLAB EDGE FACE BARS DETAIL LEVEL 2
1 : 10



LEVEL 2 ELEVATOR ROOF FRAMING PLAN
1 : 100

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No	Revision	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IKT REVIEW	MAY 21,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL 2 FLOOR FRAMING PLAN

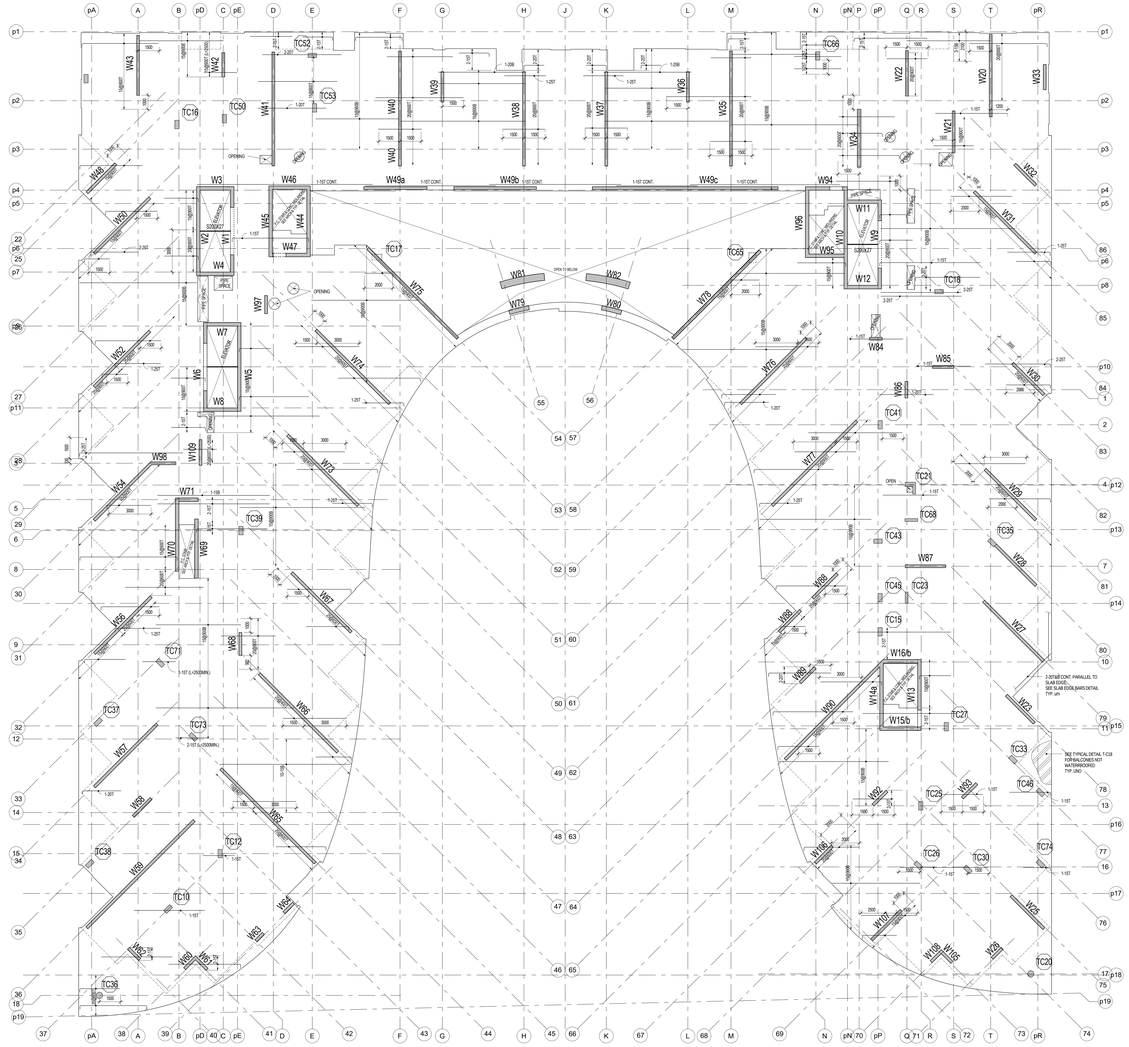
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No	2014-00031
Date	DEC.18.2015
Drawing No	S1-09

Plot Date: 3/8/2016 11:13:37 AM

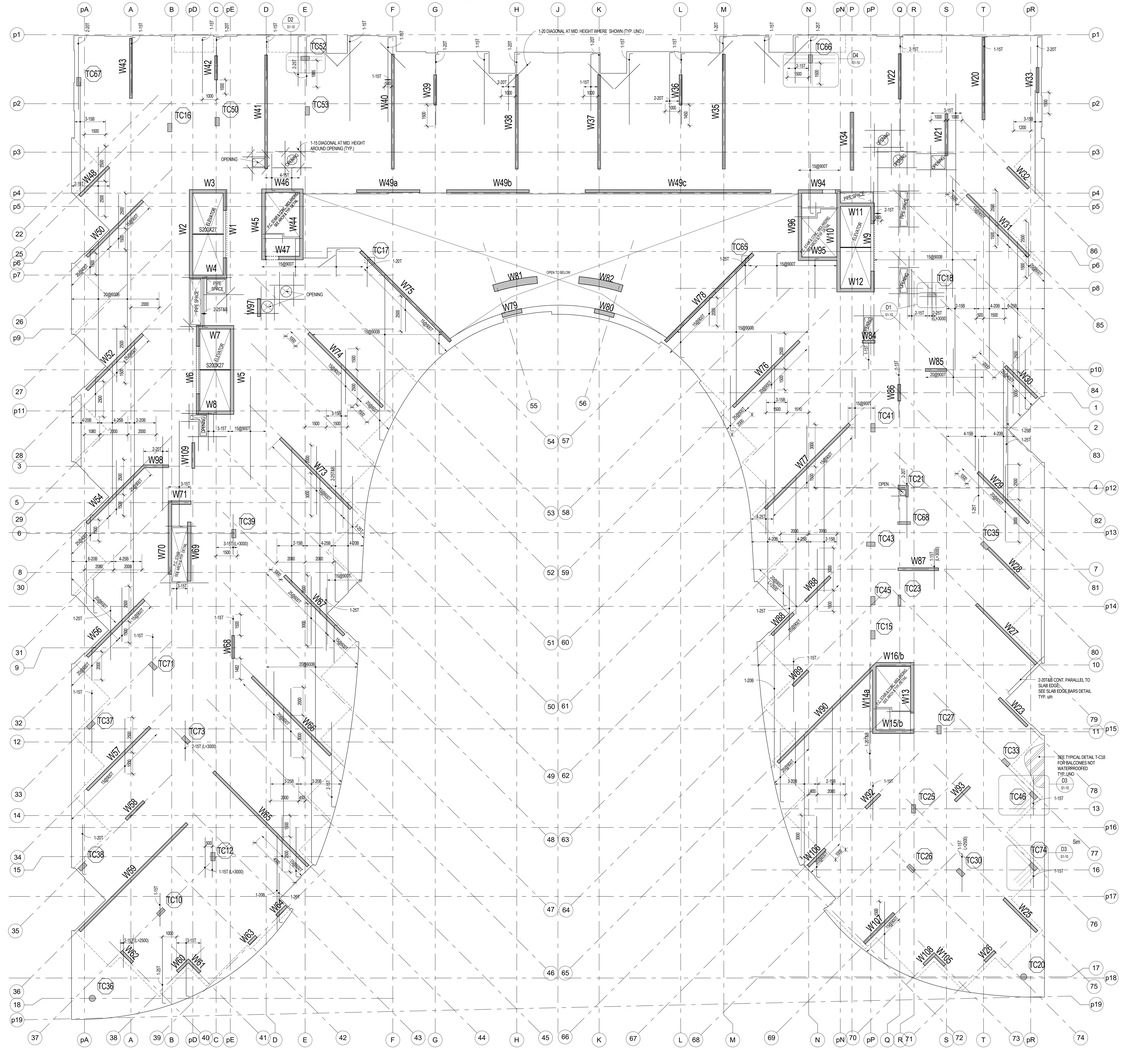
LEVEL 3 FRAMING PLAN - WITH BUL AND TLL

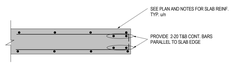
1 : 100



LEVEL 3 FRAMING PLAN WITH - BLL AND TUL

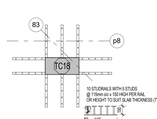
1 : 100





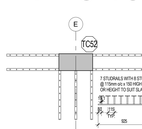
SLAB EDGE BARS DETAIL

1 : 10



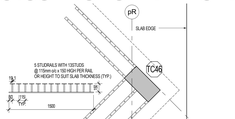
D1 PLAN DETAIL

S1-10 1 : 25



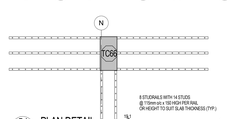
D2 PLAN DETAIL

S1-10 1 : 25



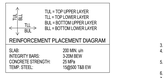
D3 PLAN DETAIL

S1-10 1 : 25



D4 PLAN DETAIL

S1-10 1 : 25



SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.25 kPa
TERRACE	4.8 kPa*	5.7 kPa*
MECHANICAL/BBY	4.8 kPa	2.5 kPa
BALCONIES	4.8 kPa	1.0 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 6th ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE REBAR AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. ALL CONCRETE WALLS TO BE DOWELLED TO TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
9. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.
10. TYP. DETAIL 1 C18 UNLESS NOTED OTHERWISE.

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY 21,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 3 FLOOR FRAMING PLAN

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale: As indicated

Drawn by: DC

Checked by: IA/BBS

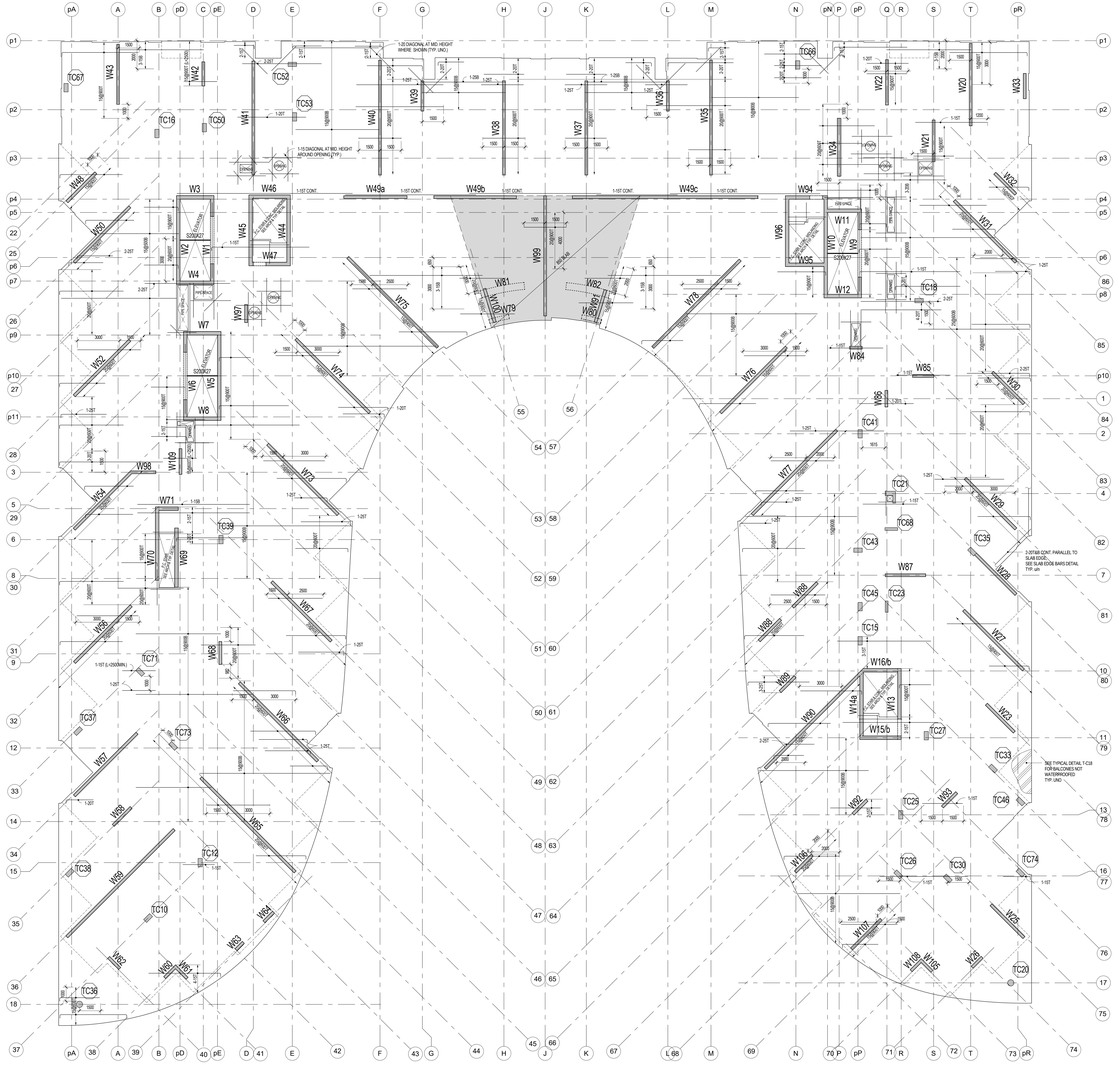
Project No.: 20140031

Date: DEC.18.2015

Drawing No.: S1-10

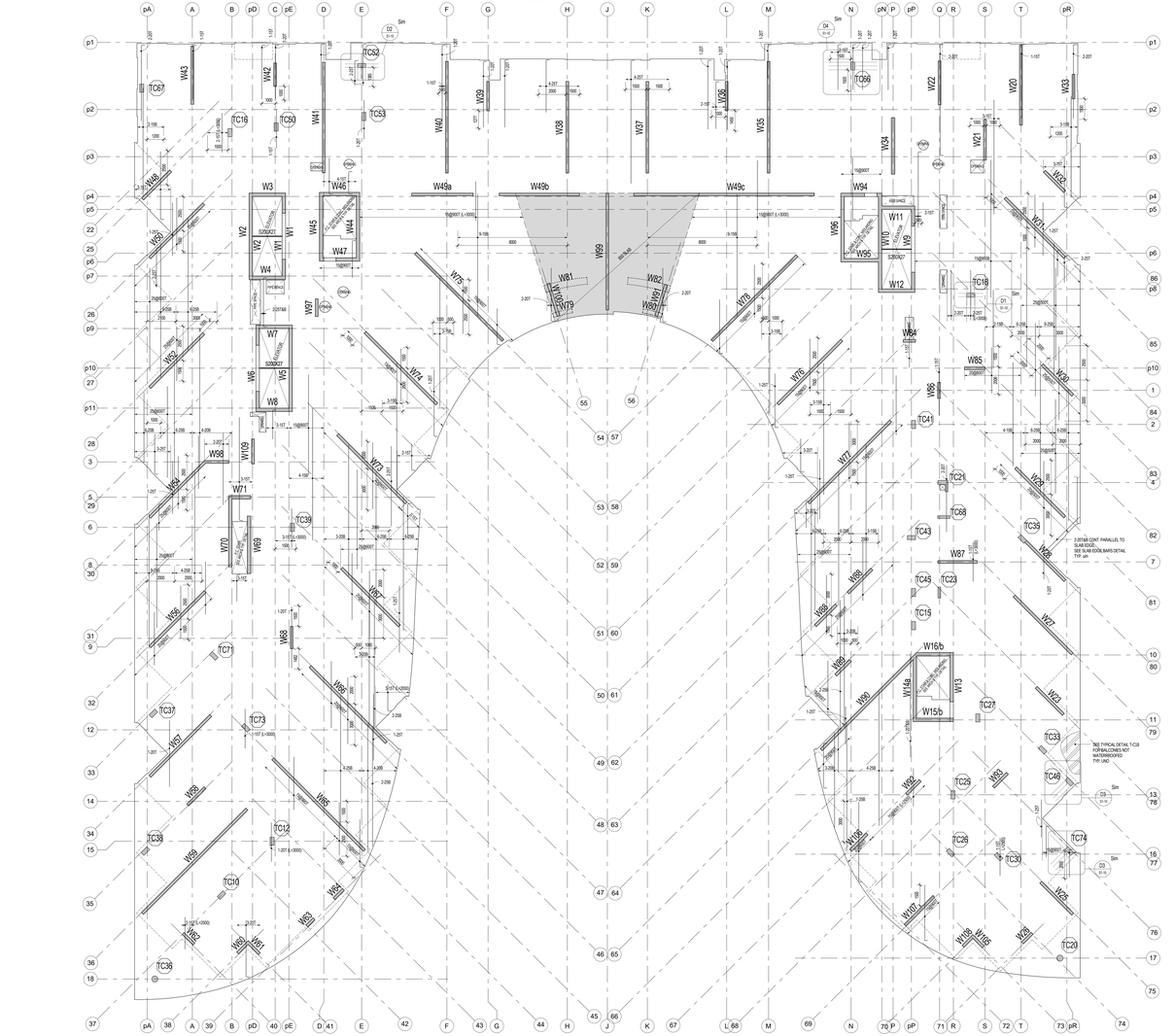
LEVEL 4 FRAMING PLAN - WITH BUL AND TLL

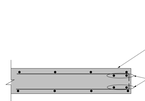
1 : 100



LEVEL 4 FRAMING PLAN - WITH BLL AND TUL

1 : 100

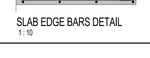




REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	250 MPa y/s
INTEGRITY BARS:	3-20M BBW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	10@500 T&B EW
SLAB:	500 MPa
INTEGRITY BARS:	3-20M BBW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	20@175 T&B EW

SEE PLAN FOR ADDITIONAL REINFORCEMENT



SLAB EDGE BARS DETAIL

1 : 10

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION UNLESS NOTED OTHERWISE AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	0.5 kPa*
TERRACE	4.8 kPa*	0.5 kPa*
CORRIDORS	4.8 kPa	0.5 kPa
BALCONIES	4.8 kPa	1.0 kPa

* INCLUDES ALLOWANCE FOR SLOPE AND ROOFING MATERIALS
** 4% ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE BEAM AND COLUMN SCHEDULES. WALL ELEVATIONS.
8. PROVIDE CORNER BARS TO MATCH SIZE AND SPACING OF BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO NEW DESIGN BAR SHOWN ON PLAN.
9. PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
10. ADD 3-20TS8 CONT. AT PERIMETER BEYOND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

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No.	Revision	Date

No.	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY.01,2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 4 FLOOR FRAMING PLAN

Project

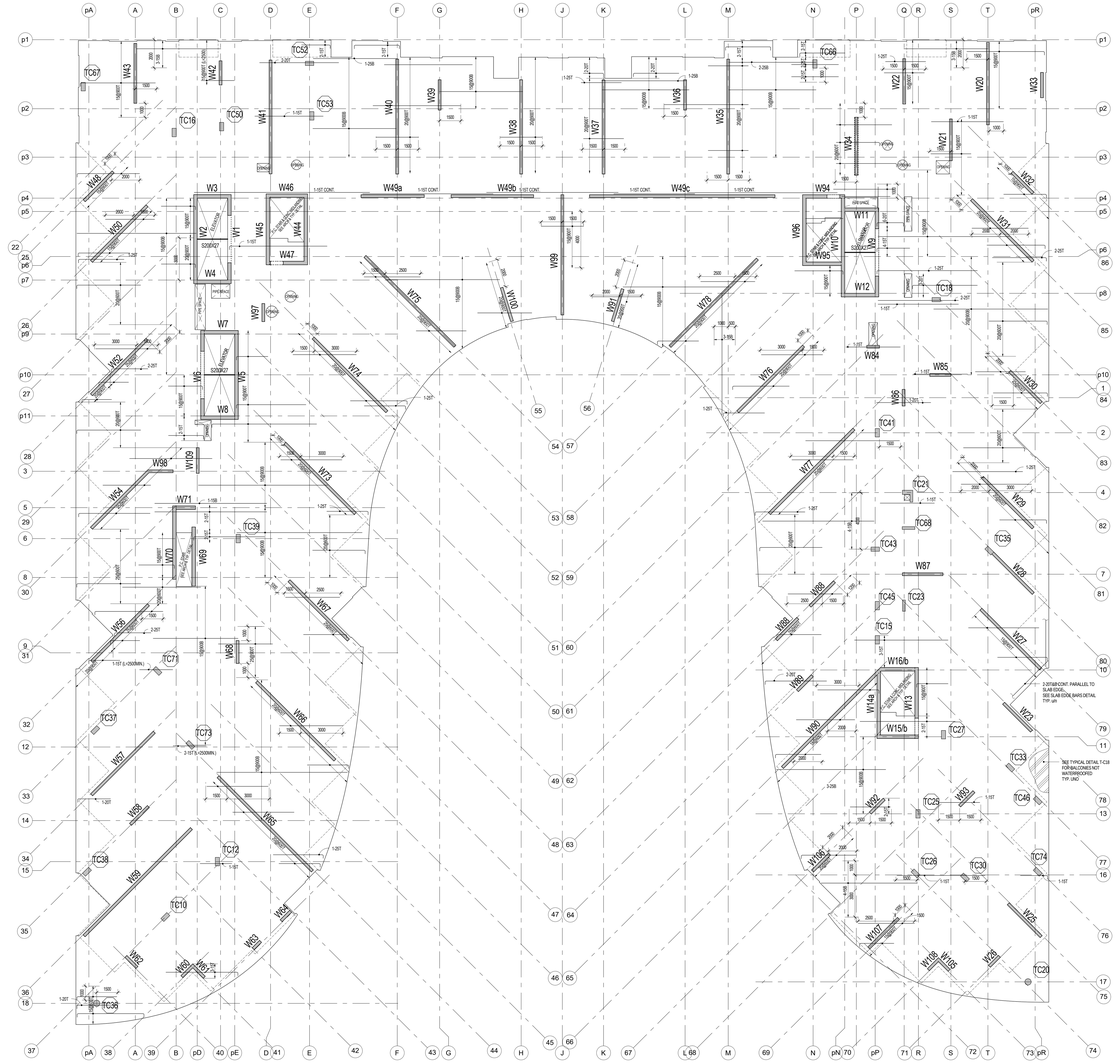
Hines TRIDEL

AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	20140031
Date	DEC.18,2015
Drawing No.	S1-11

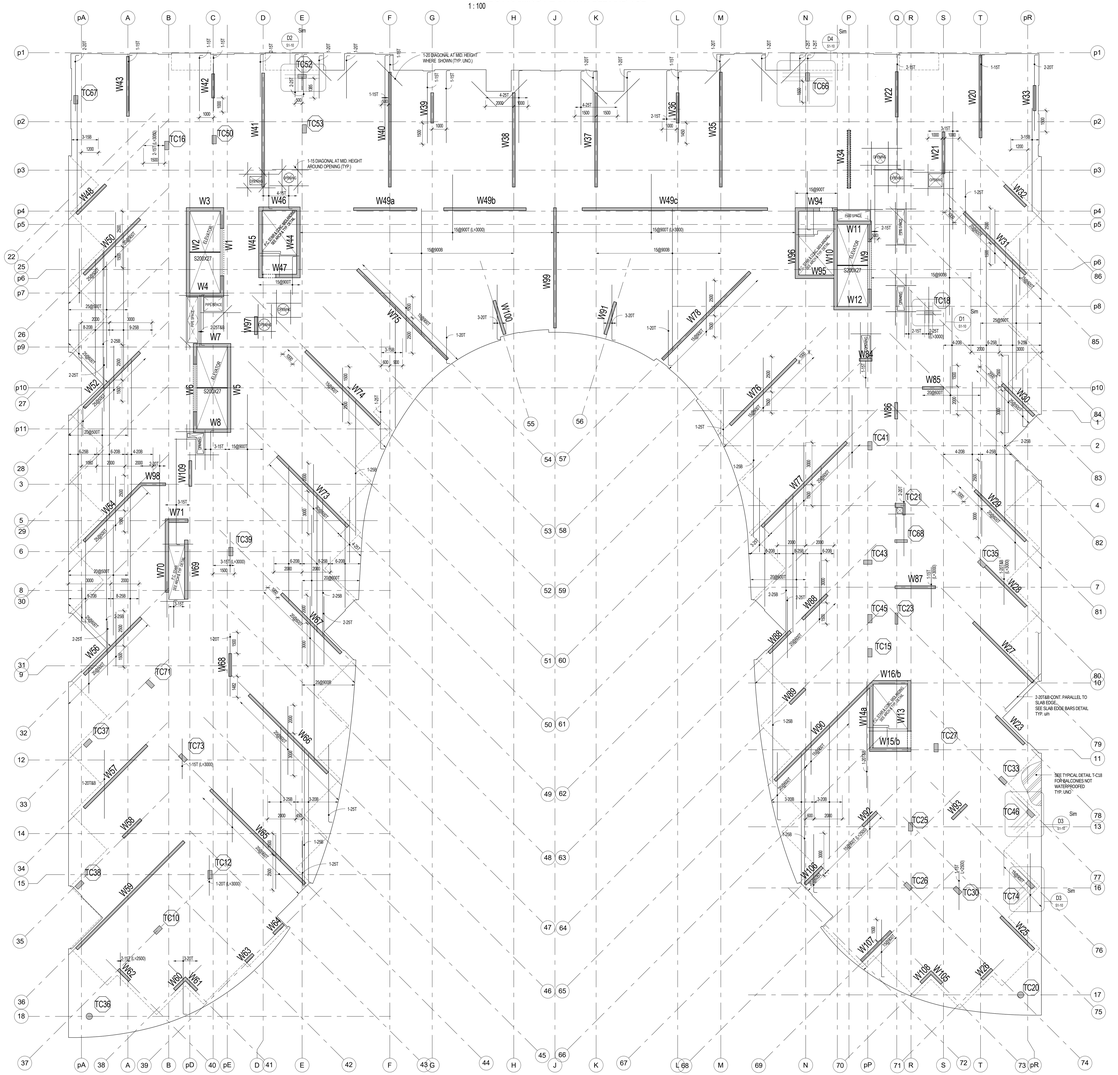
LEVEL 5 FRAMING PLAN - WITH BUL AND TLL

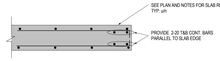
1 : 100



LEVEL 5 FRAMING PLAN WITH BLL AND TUL

1 : 100





SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION UNLESS CROSSED AND NOTED. SEE ARCHITECTURAL DRAWING FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT.

	LL	SDL
SUITES	1.9 kPa	1.5 kPa
TERRACE	4.8 kPa*	4.5 kPa*
STAIRS/LOBBY	4.8 kPa	2.0 kPa
BALCONIES	4.8 kPa*	3.0 kPa

* INCLUDES ALLOWANCE FOR SLOPE AND ROOF/BALCONY DRAINS.
** AN ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE BEAM AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. ALL REINFORCING BARS TERMINATING AT A CONCRETE EDGE TO BE HOOKED AT EDGE OF SLAB AND CONTINUOUS, IN ADDITION TO NOMINAL REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. 'P' PERIMETER BENDING TO BUT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IAT REVIEW	MAY 21,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 5 FLOOR FRAMING PLAN

Project

Hines TRIDEL

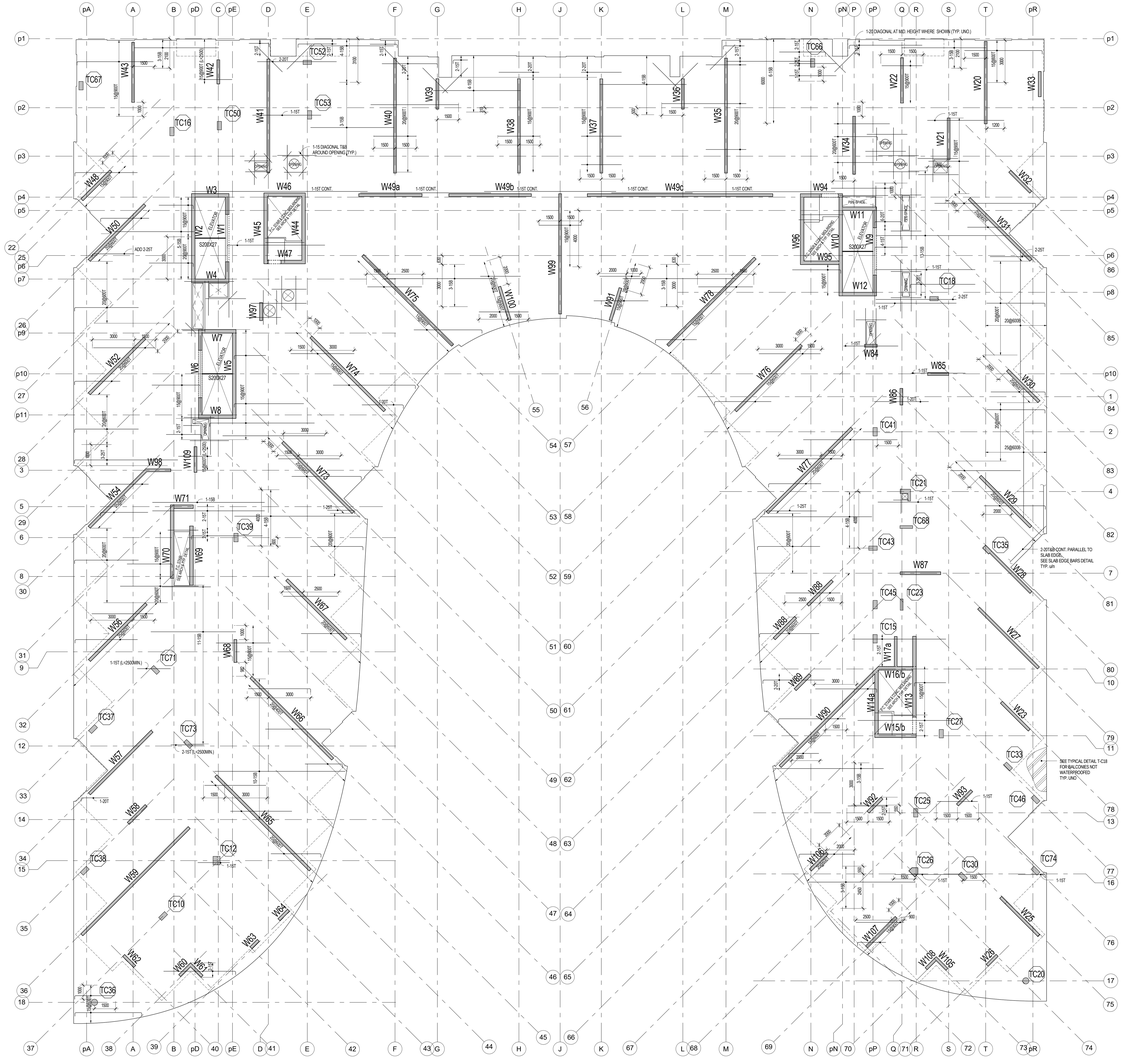
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	20140031
Date	DEC.18.2015
Drawing No.	S1-12

Plot Date: 3/9/2016 10:50:04 AM

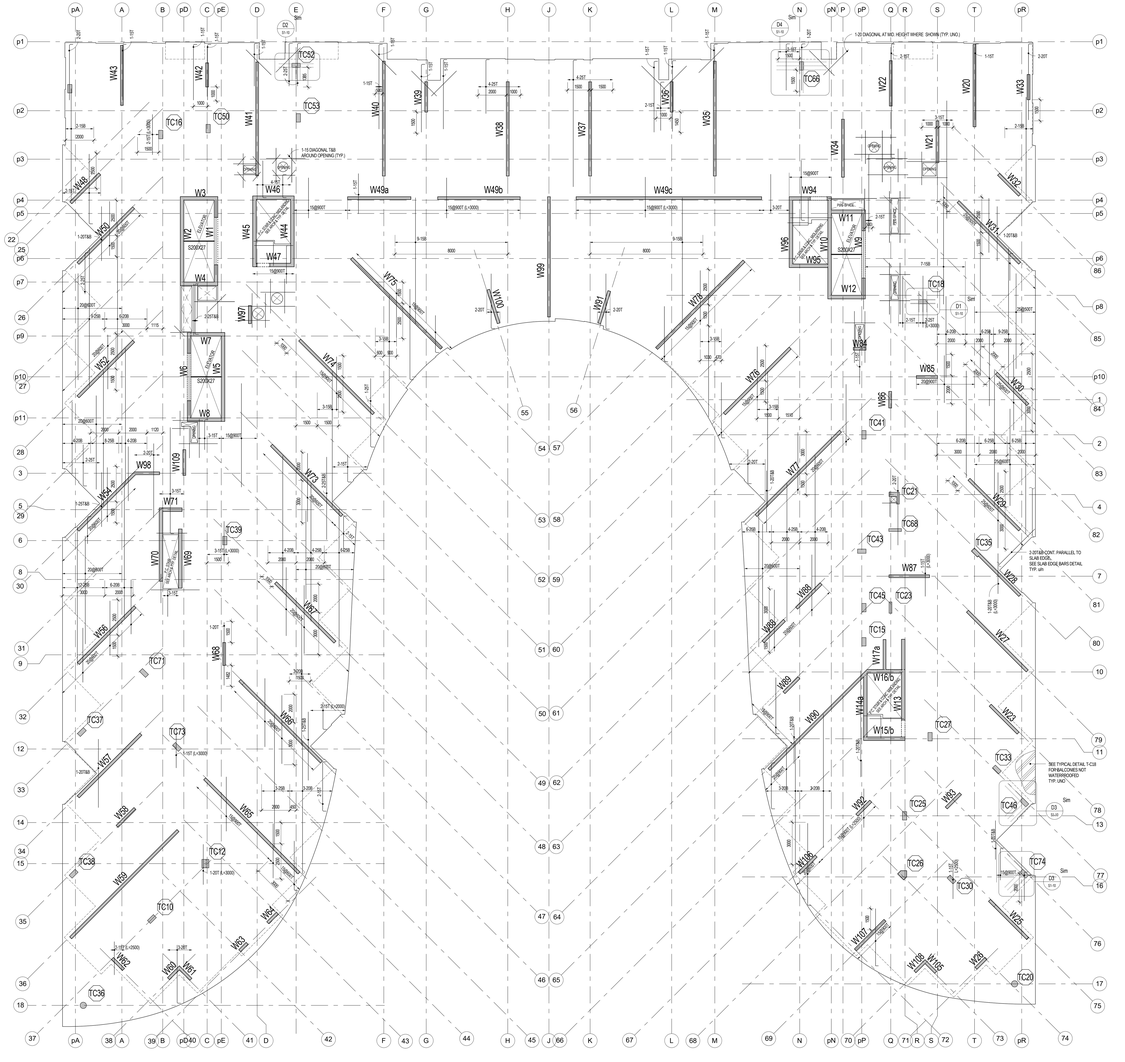
LEVEL 6 FRAMING PLAN - WITH BUL AND TLL

1 : 100



LEVEL 6 FRAMING PLAN - WITH BLL AND TUL

1 : 100



NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS CROSSED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT.

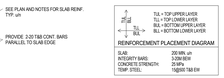
	LL	SDL
SUITES	1.9 kPa	1.25 kPa
CORRIDOR	4.8 kPa*	0.5 kPa
STAIRS/LOBBY	4.8 kPa	0.5 kPa
BALCONIES	4.8 kPa*	0.5 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 4% ALLOWANCE FOR ONION LOAD OF 1.35 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. DO NOT SCALE DRAWINGS. OBTAIN DIMENSION FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLANS.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THE OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF REINFORCING.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE ARCHITECTURAL DRAWINGS FOR ALL ELEVATIONS.
8. PROVIDE CONTROLLED TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

SLAB EDGE BARS DETAIL

1 : 10



REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	200 MPa uN
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15@600 TAB EW

SEE PLAN FOR ADDITIONAL REINFORCEMENT

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DEC. 18,2015 DEC. 18,2015

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No	Revision	Date
7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY.01,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

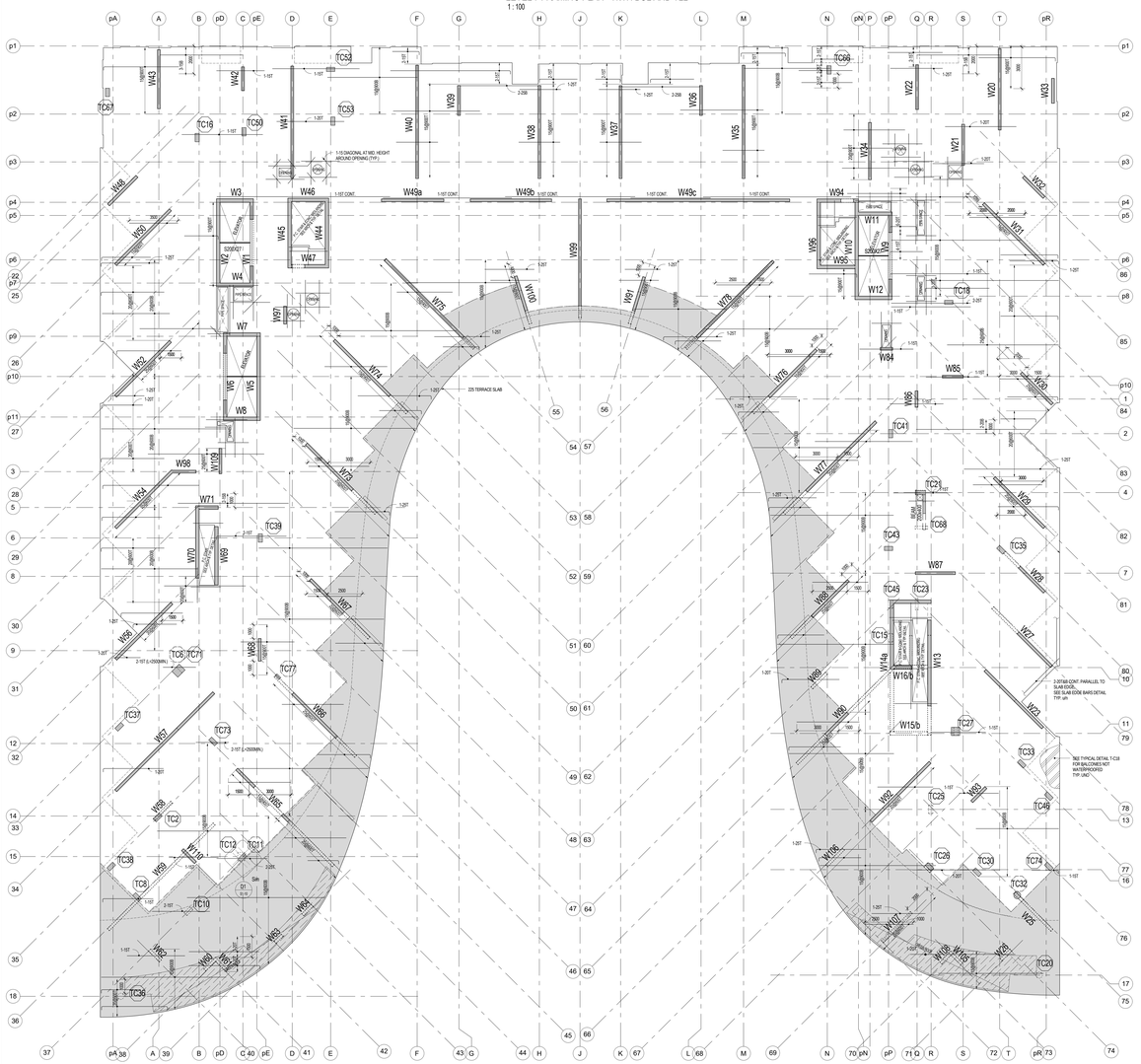
Drawing Title
LEVEL 6 FLOOR FRAMING PLAN

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003I
Date	DEC.18,2015
Drawing No.	S1-13

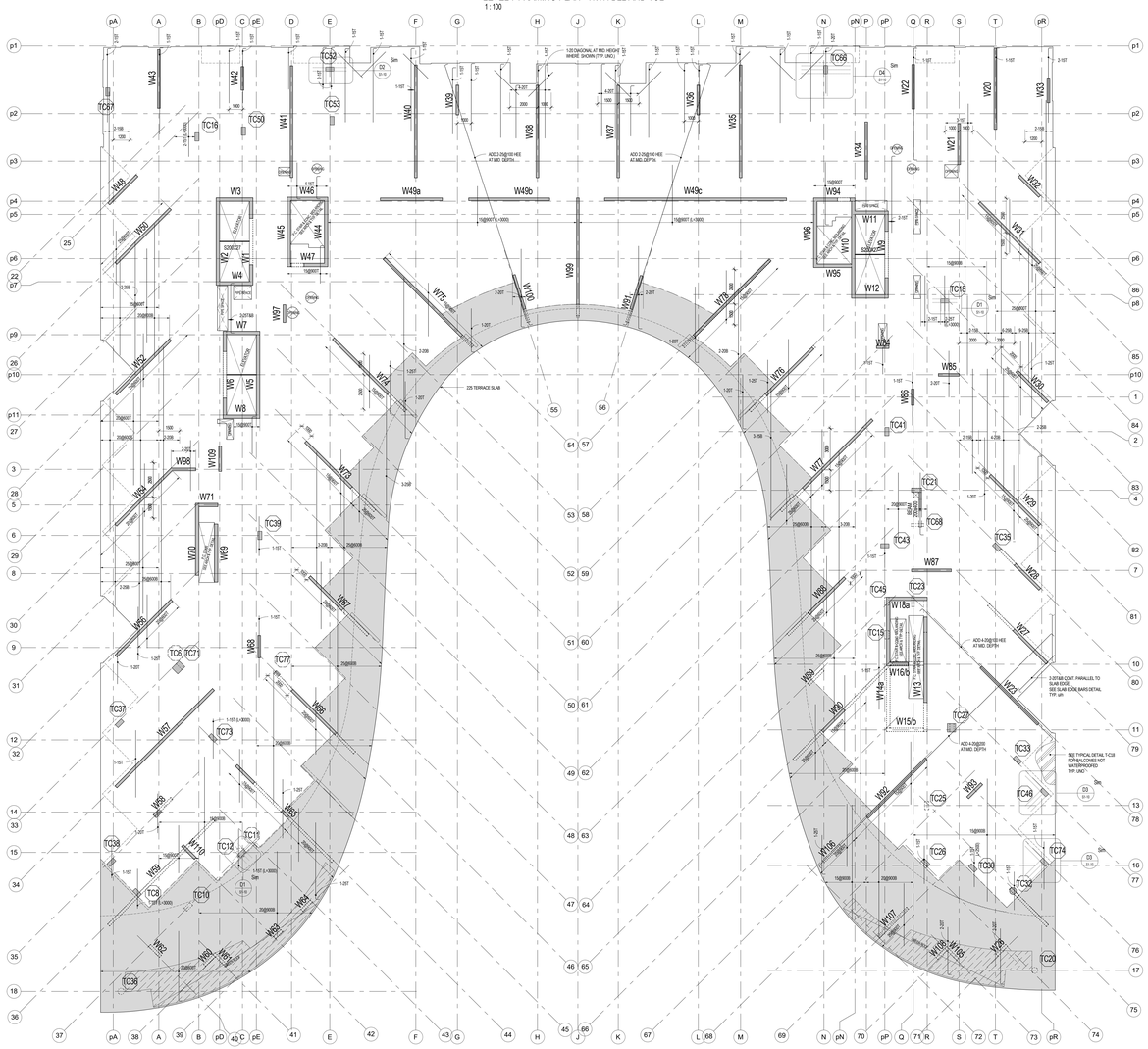
LEVEL 7 FRAMING PLAN - WITH BUL AND TLL

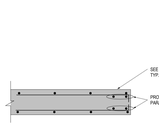
1 : 100



LEVEL 7 FRAMING PLAN - WITH BLL AND TUL

1 : 100





SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM

SLAB	200 MIN. o/h
INTEGRITY BARS	3-20M BEW
TERRACE SLAB LENGTH	1500
TEMP. STEEL	10@450 T&B EW
TERRACE SLAB	225 MIN. o/h
INTEGRITY BARS	3-20M BEW
TERRACE SLAB LENGTH	1500
TEMP. STEEL	10@450 T&B EW

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS CROSSED AND NOTED.
2. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
   THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT.

	LL	SDL
SUITES	1.9 kPa	1.25 kPa
CORRIDOR	4.8 kPa	0.5 kPa
MECHANICAL	4.8 kPa	0.5 kPa
TERRACE SLAB	4.8kPa*	1.5kPa
GREEN ROOF**	4.8kPa*	1.5kPa

   * INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
   ** AN ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.
   INCLUDES ALLOWANCE FOR 8.3 kPa GREEN ROOF DEAD LOAD.
3. CONCRETE STRENGTH TO BE 40 MPa @ 56 DAYS UNLESS NOTED.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE ARCHITECTURAL DRAWINGS FOR WALL ELEVATIONS.
8. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE TLT FOR ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL

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No.	Revision	Date
1	GREEN ROOF LOAD REVISION	NOV 16,2015

7	ISSUED FOR STEEL TENDER	DEC 18,2015
4	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
3	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 21,2015

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 7 FLOOR FRAMING PLAN

Project

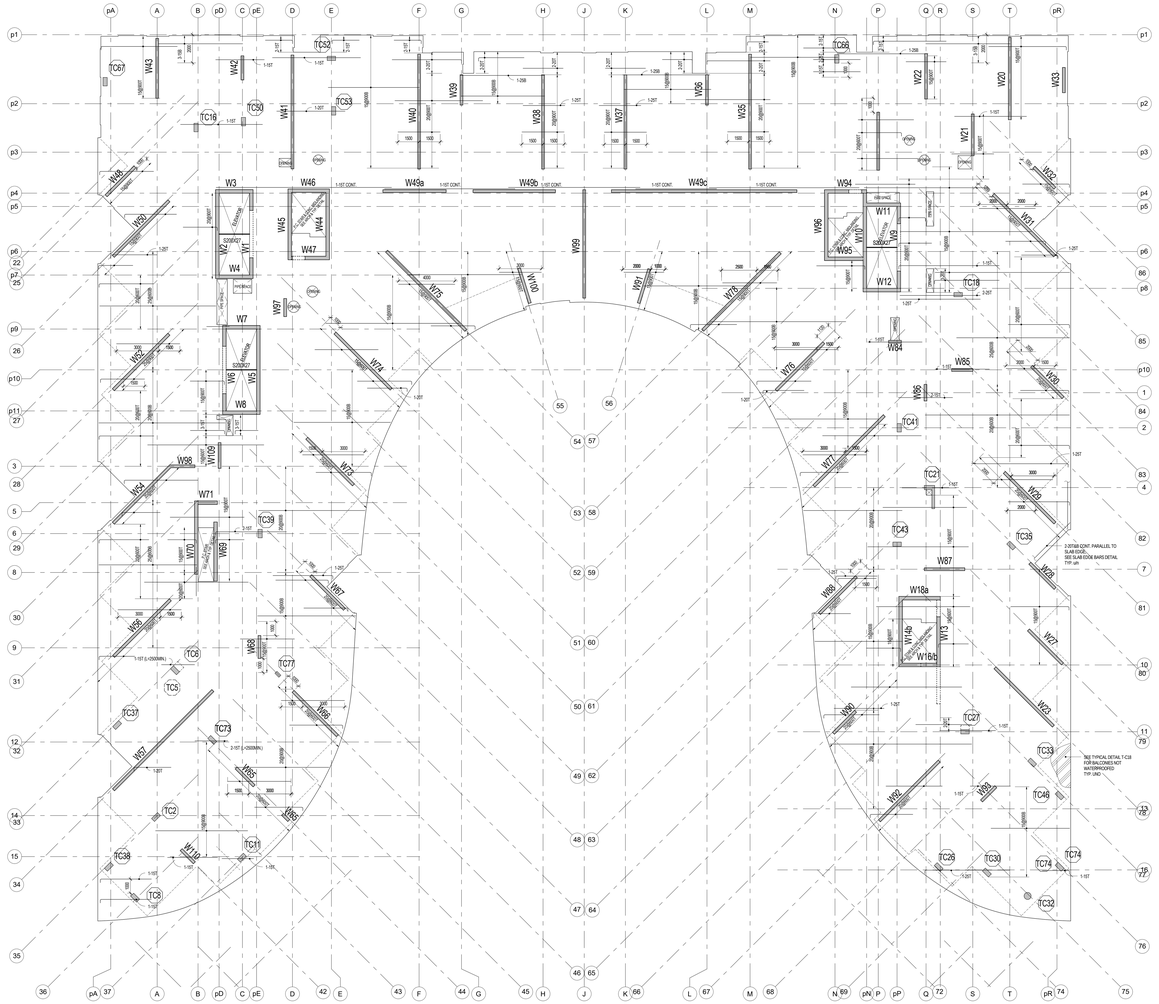
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003.2
Date	DEC.18.2015
Drawing No.	S1-14

Plot Date: 3/9/2016 10:50:24 AM

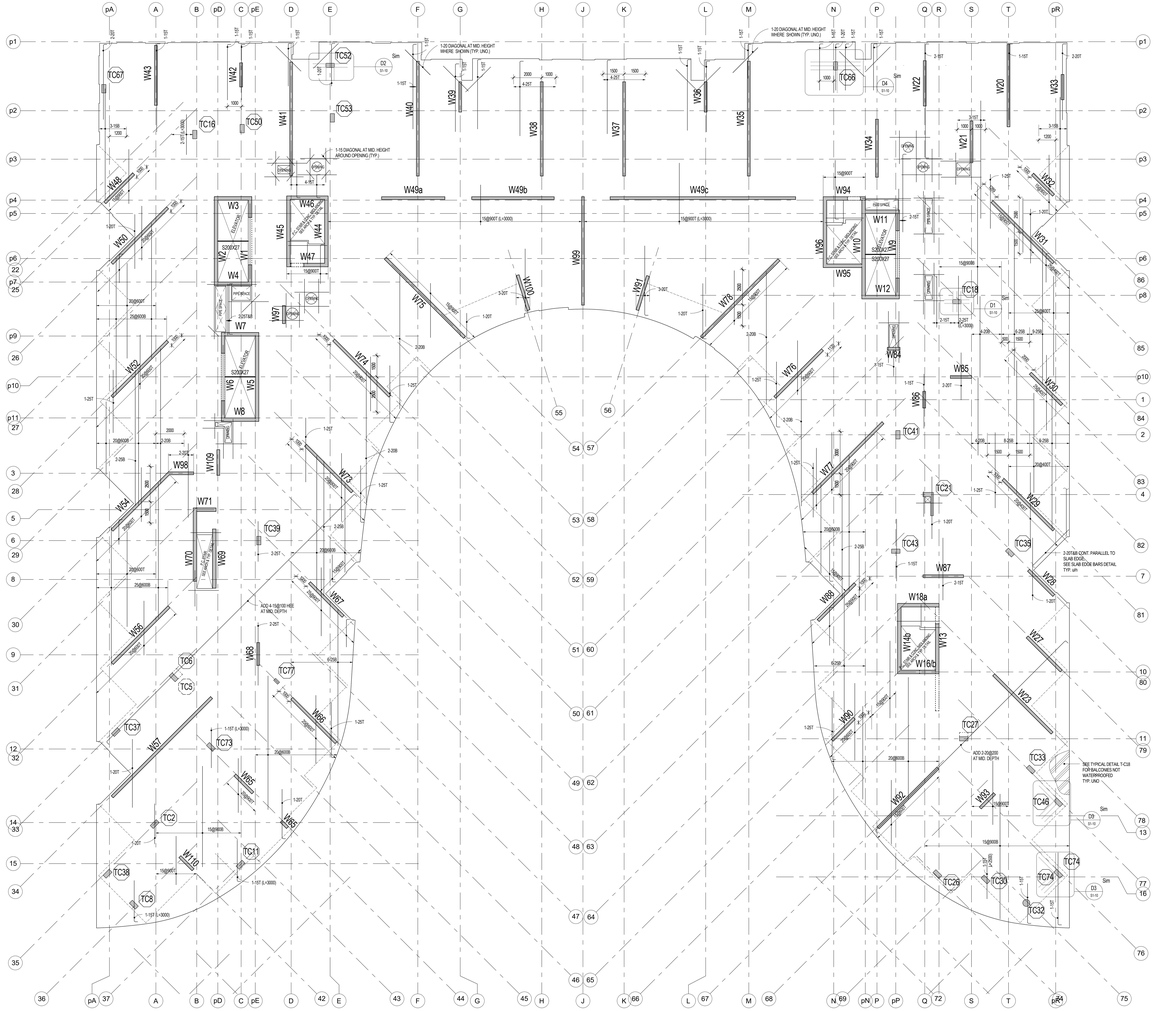
LEVEL 8 FRAMING PLAN - WITH BUL AND TLL

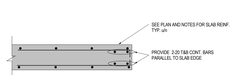
1 : 100



LEVEL 8 FRAMING PLAN - WITH BLL AND TUL

1 : 100





SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM

SLAB	200 MPa u/n
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15M@457 T&B E/W

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 5.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS CROSSED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.25 kPa
CORRIDOR	4.8 kPa*	0.5 kPa*
STAIRS/LOBBY	4.8 kPa	1.5 kPa
BALCONIES	4.8 kPa*	1.5 kPa

* INCLUDES ALLOWANCE FOR SLOPE AND ROOFING MEMBRANES
** AN ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE CONCRETE SUPPLIER / CONTRACTOR MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE BEAM AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS IN ALL SLABS UNLESS NOTED OTHERWISE ON PLAN.
9. PROVIDE T&B CONT. SLAB REINFORCEMENT.
10. ADD 2-20TM5 CONT. AT PERIMETER BEND BARS TO BUT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

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No.	Revision	Date

No.	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IMT REVIEW	MAY 21,2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 8 FLOOR FRAMING PLAN

Project

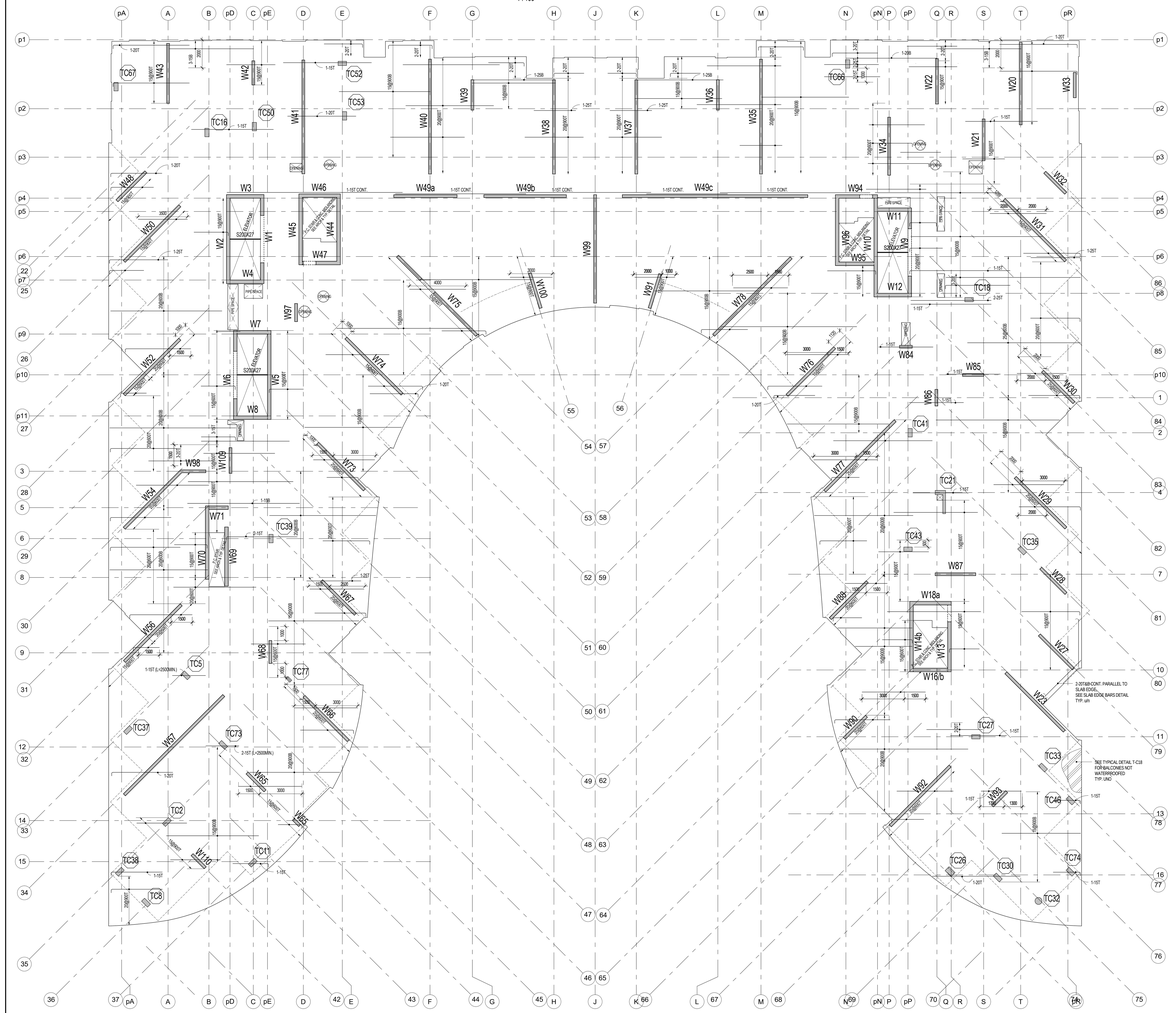
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003I
Date	DEC.18.2015
Drawing No.	S1-15

Plot Date: 3/9/2016 10:00:27 AM

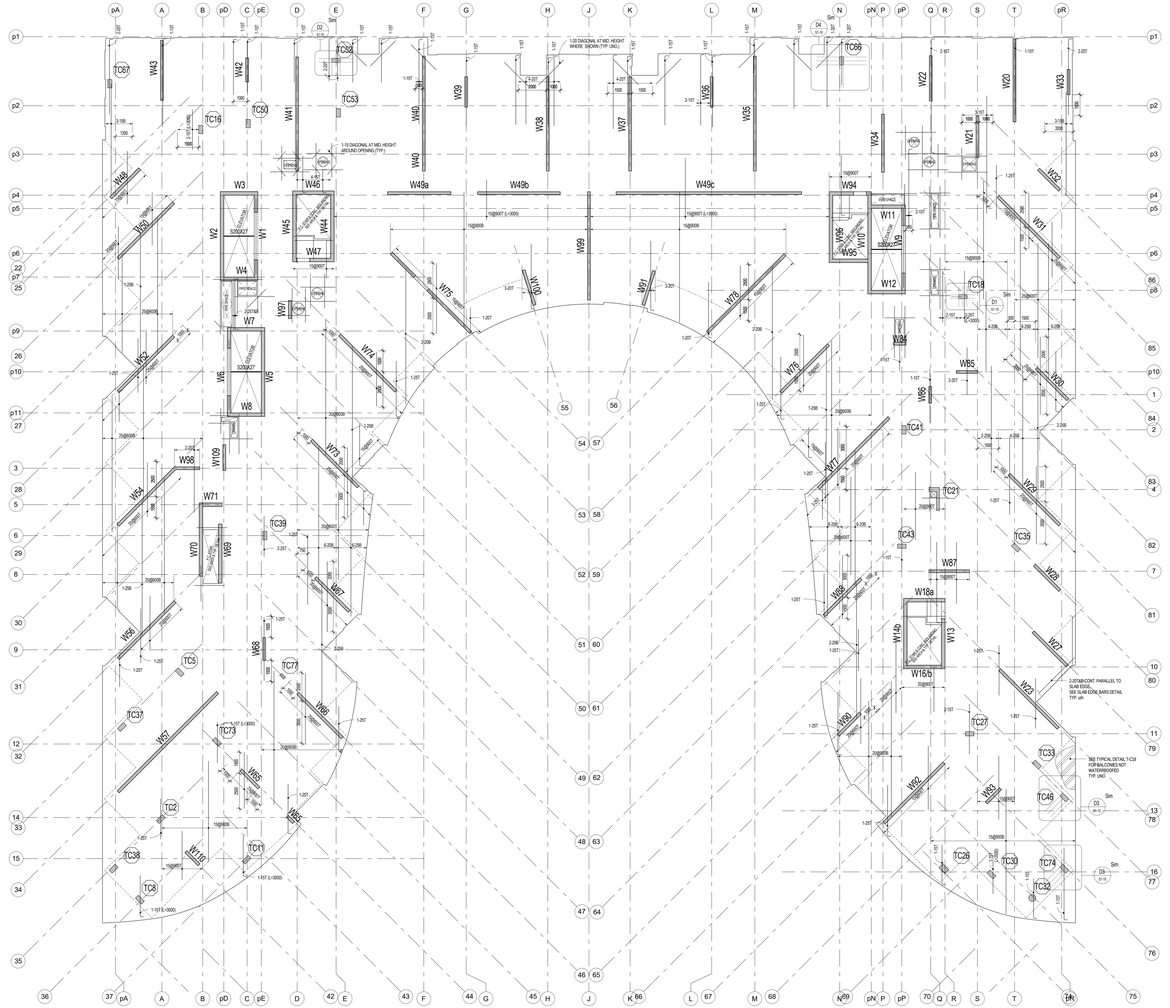
LEVEL 9 FRAMING PLAN - WITH BUL AND TLL

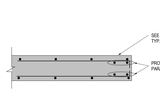
1 : 100



LEVEL 9 FRAMING PLAN - WITH BLL AND TUL

1 : 100





SLAB EDGE BARS DETAIL

1 : 10

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.0 kPa
TERRACE	4.8 kPa*	6.0 kPa*
STAIRS/LOBBY	4.8 kPa	1.0 kPa
BALCONIES	4.8 kPa*	6.0 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS.
** AN ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THE OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE BEAM AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. ALL REINFORCEMENT TO BE CONTINUOUS OR LAP SPLICED, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
10. ADD 2-20TB8 CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

T/L = TOP UPPER LAYER
TLL = TOP LOWER LAYER
BUL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB	200 MPa y/s
DOWEL BARS	400 MPa y/s
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15@600 T&B EW

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No	Revision	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY 21,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL 9 FLOOR FRAMING PLAN

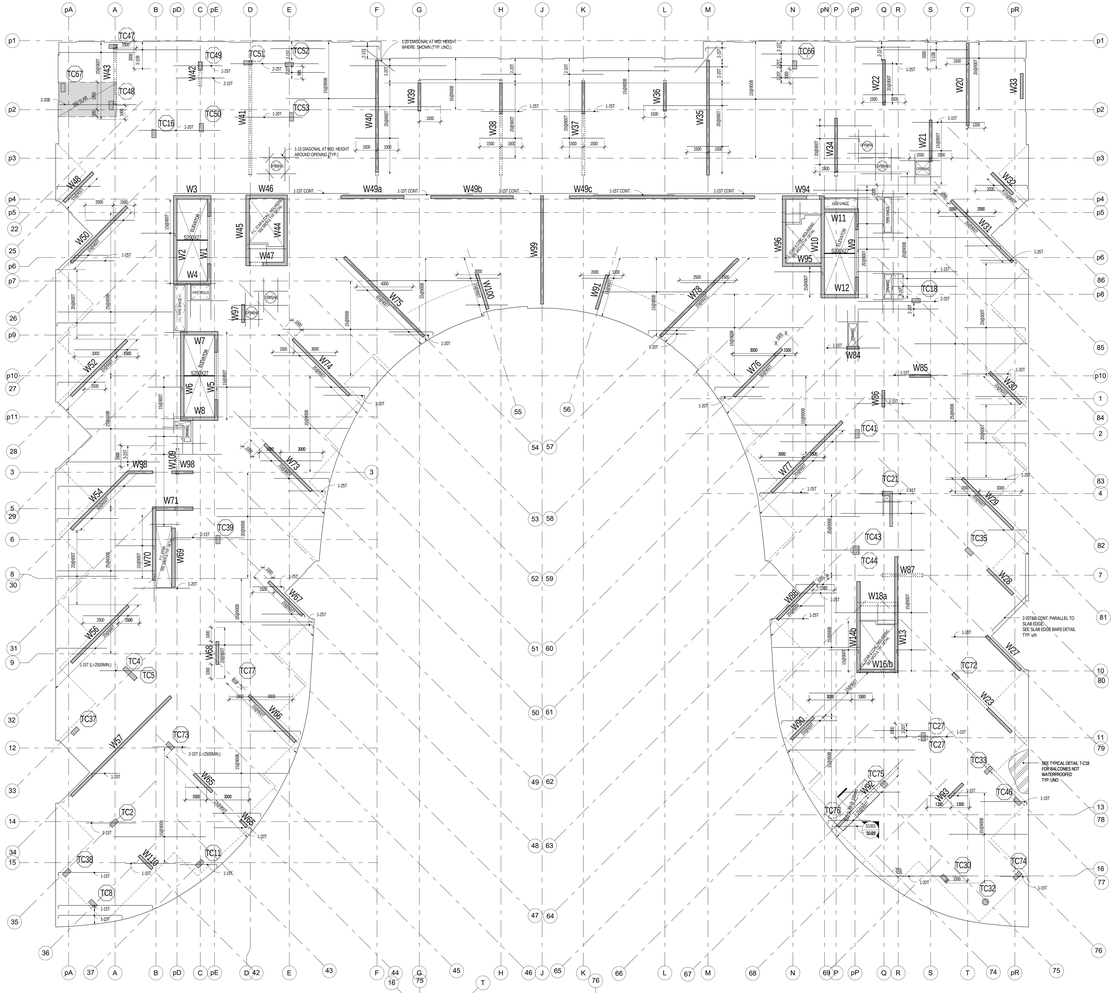
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	20140031
Date	DEC.18.2015
Drawing No.	S1-16

Plot Date: 3/8/2016 10:00:31 AM

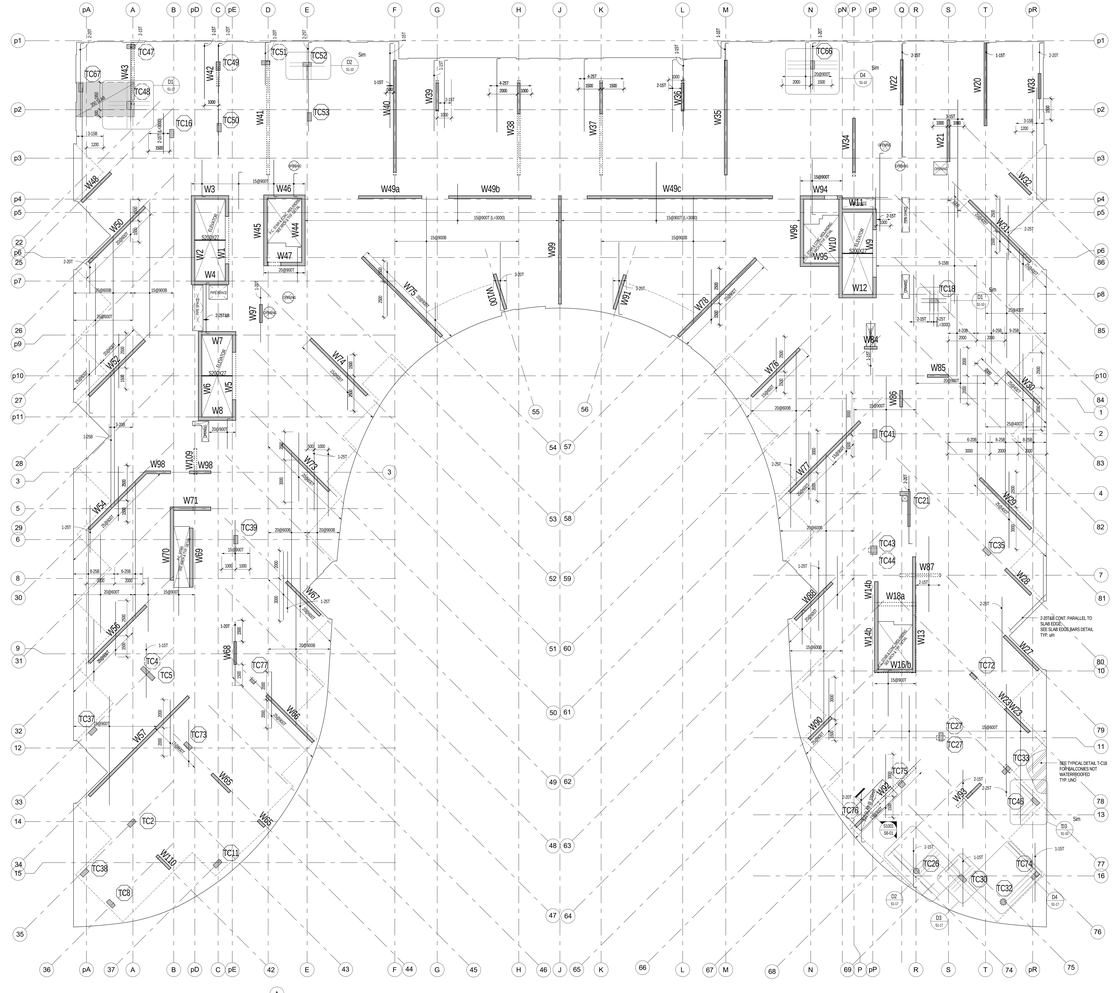
LEVEL 10 FRAMING PLAN - WITH BUL AND TLL

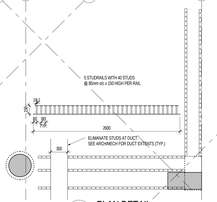
1 : 100



LEVEL 10 FRAMING PLAN - WITH BLL AND TUL

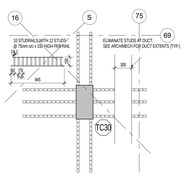
1 : 100





D4 S1-17 PLAN DETAIL

1 : 25



D3 S1-17 PLAN DETAIL

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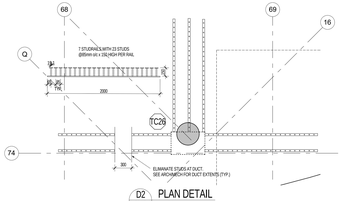

D2 S1-17 PLAN DETAIL

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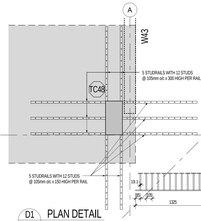
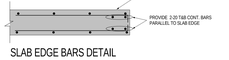


D1 S1-17 PLAN DETAIL

1 : 25



SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM		
SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	25D MIN. c/c 3.25N BEW 25 MPa 15@50 T&B EW	
SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	25D MIN. 3.00N BEW 35 MPa 15@50 T&B EW	

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS INDICATED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.25 kPa
TERRACE	4.8 kPa*	0.5 kPa
CORRIDORS**	4.8 kPa	0.5 kPa
BALCONIES	4.8 kPa	0.5 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 4% ALLOWANCE FOR SHOW CASS OF 3.65 kPa DESIGN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. CONCRETE STRENGTH TO BE AS NOTED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE ARCHITECTURAL DRAWINGS FOR WALL ELEVATIONS.
8. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE T2.5 FOR ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IBT REVIEW	MAY 21,2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 10 FLOOR FRAMING PLAN

Project

Hines TRIDEL

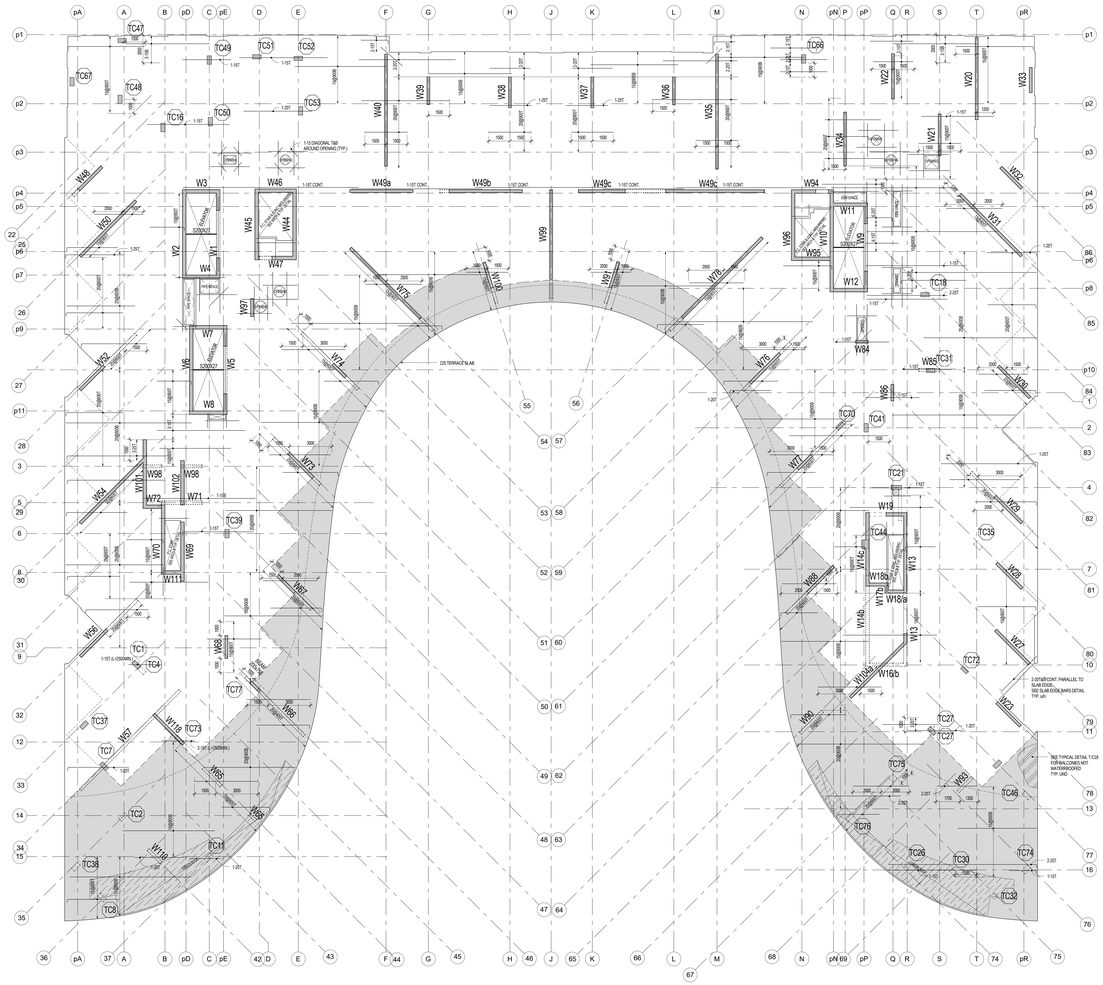
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	20140031
Date	DEC 18,2015
Drawing No.	S1-17

Plot Date: 3/9/2016 11:13:43 AM

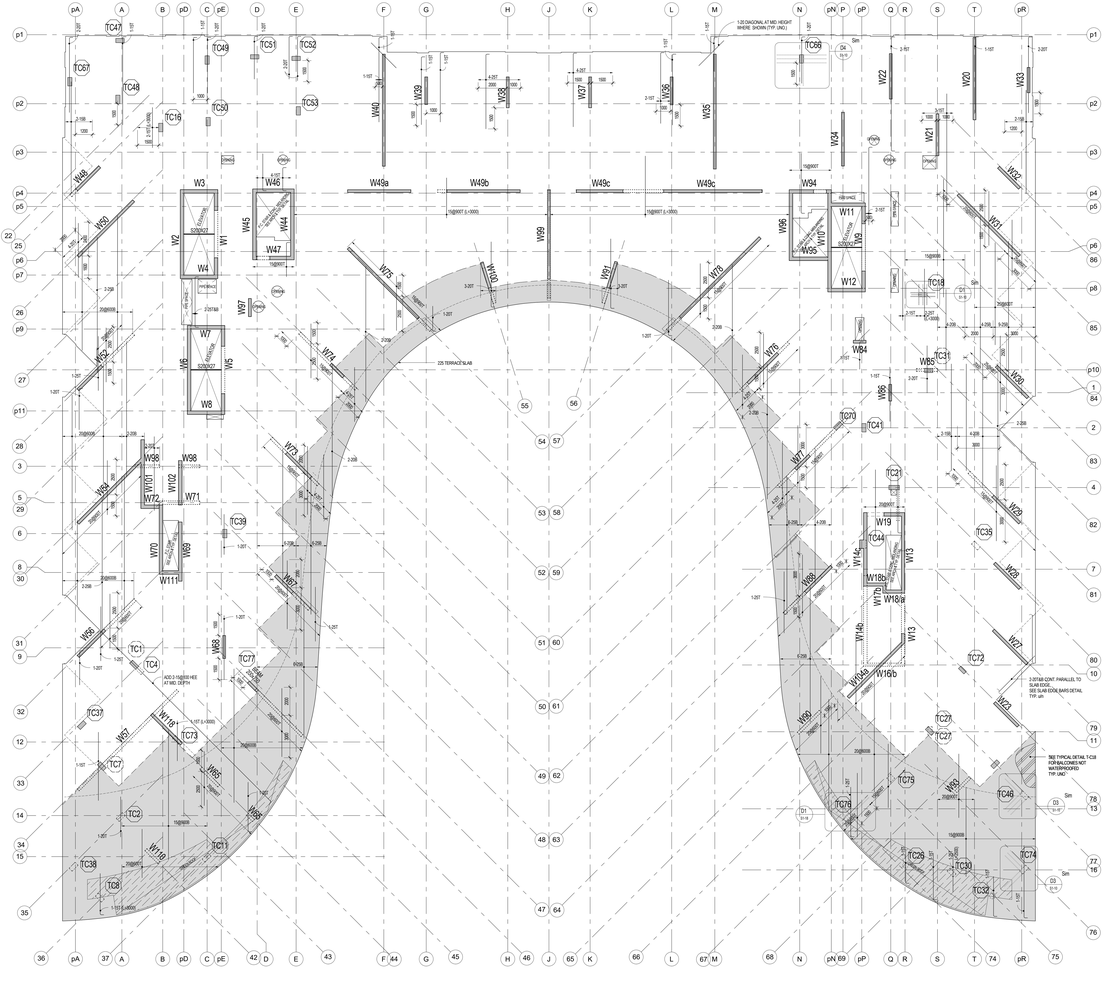
LEVEL 11 FRAMING PLAN - WITH BUL AND TLL

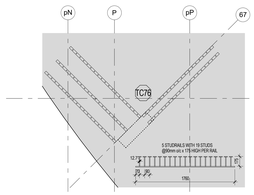
1 : 100



LEVEL 11 FRAMING PLAN WITH BLL AND TUL

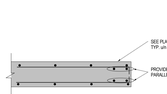
1 : 100





DETAIL

1 : 25



SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM	
	TLL = TOP UPPER LAYER TLL = TOP LOWER LAYER BLL = BOTTOM UPPER LAYER BLL = BOTTOM LOWER LAYER
SLAB:	300 MIN. u/n
ACCURITY BARS:	1-30M BOM
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	152x9M T&B EW
TERRACE SLAB:	225 MIN. u/n
ACCURITY BARS:	1-30M BOM
CONCRETE STRENGTH:	35 MPa C1
TEMP. STEEL:	152x9M T&B EW

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS CROSSED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.20 kPa
PATIO 2	4.8 kPa *	2.0 kPa
CORRIDOR/LOBBY	4.8 kPa	2.0 kPa
BALCONIES	4.8 kPa**	2.0 kPa
MECHANICAL ROOM	7.2 kPa	2.0 kPa

* INCLUDES ALLOWANCE FOR SLOPE AND ROOFING MATERIALS
** AN ALLOWANCE FOR SNOW LOAD OF 1.28 kPa HAS BEEN CONSIDERED. INCLUDES ALLOWANCE FOR 0.5 kPa GREEN ROOF DEAD LOAD.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
5. THE CONSTRUCTION SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE ALSO TYPICAL NOTES AND DETAILS.
7. SEE SHEAR AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB WHERE NO BEAM OR WALL OCCURS UNLESS OTHERWISE SHOWN ON PLAN.
9. PROVIDE TLL/TUR ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.
11. AREAS NOTED THUS [ ] IN PLAN, INDICATE THICKENED SLAB. SEE PLAN FOR THICKNESS.
12. PROVIDE C1 CONCRETE WHERE EXPOSURE EXISTS.

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DEC.18,2015 DEC.18,2015

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No.	Revision	Date
1	GREEN ROOF LOAD REVISION	NOV.16,2015

7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21,2015
5	BUILDING PERMIT RESUBMISSION	JULY.22,2015
2	BUILDING PERMIT SUBMISSION	JUNE.12,2015
1	ISSUED FOR WT REVIEW	MAY.01,2015

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 11 FLOOR FRAMING PLAN

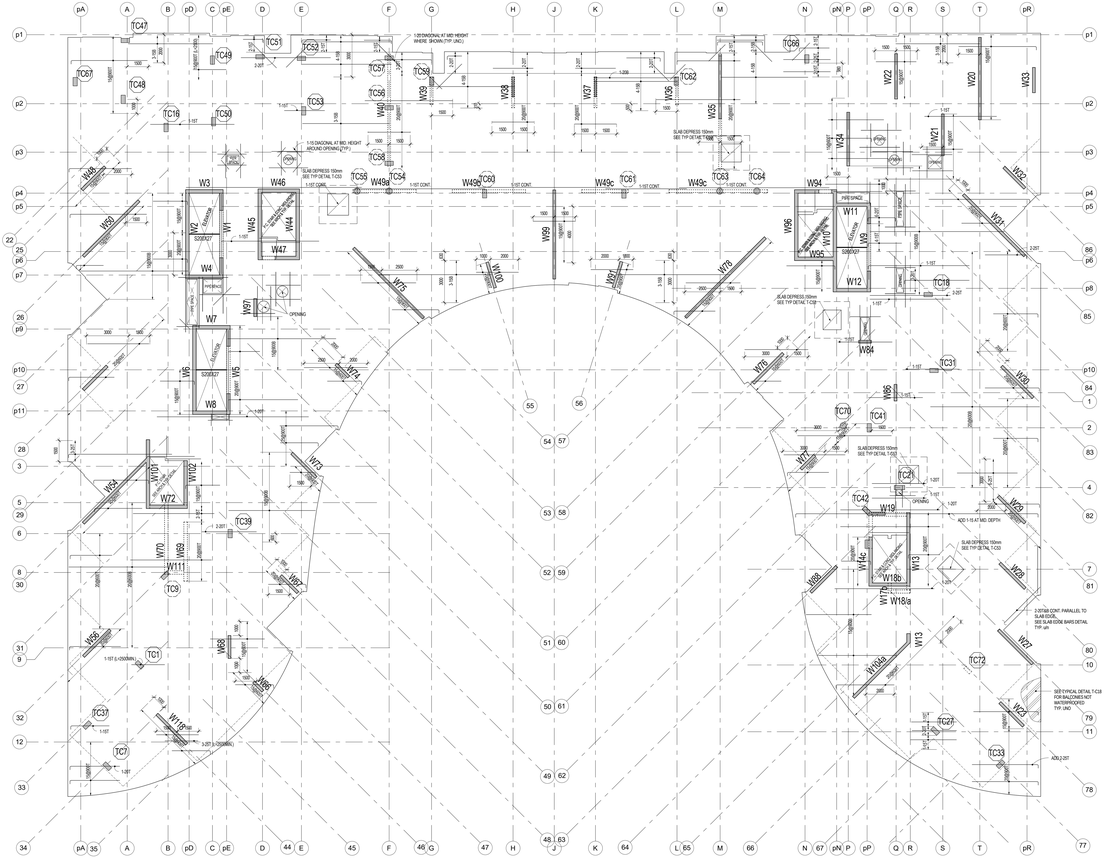
Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003
Date	DEC.18.2015
Drawing No.	S1-18

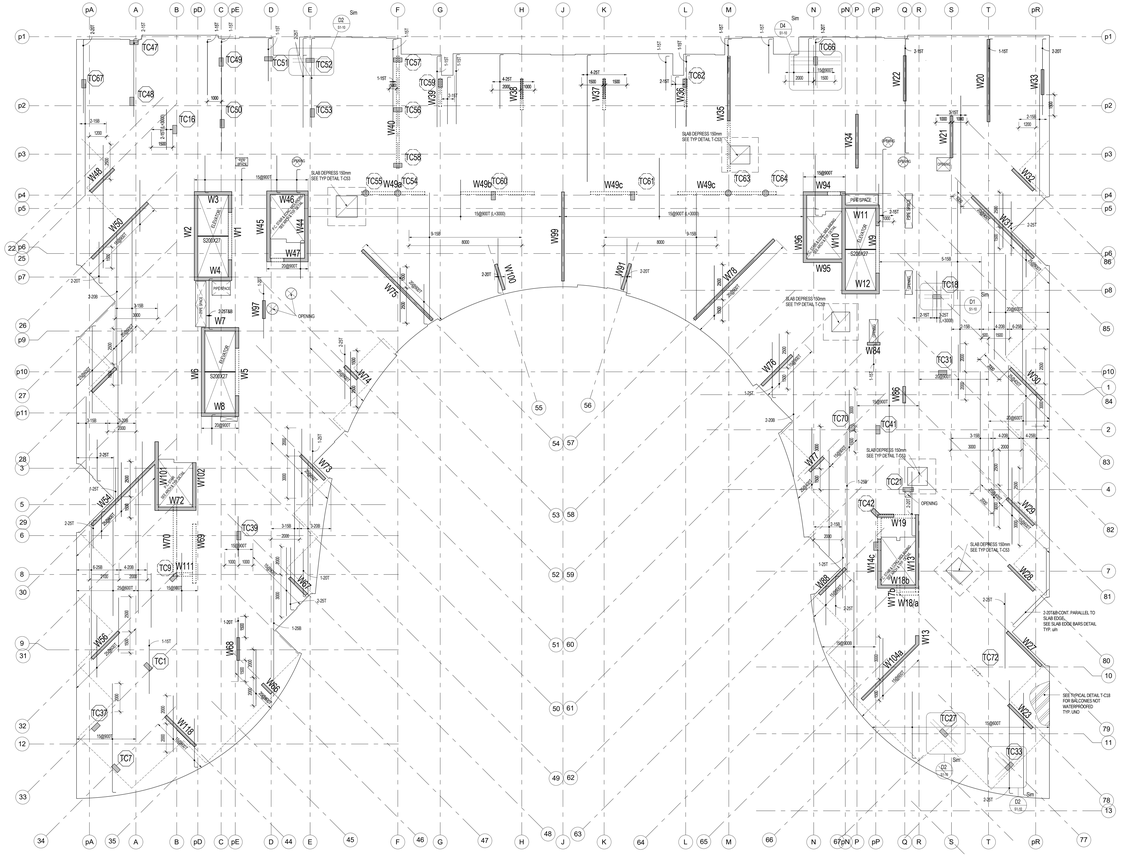
LEVEL 12 FRAMING PLAN - WITH BLL AND TUL

1 : 100



LEVEL 12 FRAMING PLAN - WITH BUL AND TLL

1 : 100



SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	200 MIN. uon
INTEGRITY BARS:	3-20M BOX
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	152X305 TEW
	152X305 BOX

SEE PLAN FOR ADDITIONAL REINFORCEMENT

NOTES:

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT AS DROPPED AND NOTED. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL) IN ADDITION TO THE SELF WEIGHT:

	LL	SDL
SUITES	1.9 kPa	1.2 kPa
CORRIDORS	4.8 kPa	1.2 kPa
STAIRS/LOBBY	4.8 kPa	0.5 kPa
BALCONIES	4.8 kPa*	0.5 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS.
** ADDITIONAL LOADING FOR SNOW ONLY OF 1.28 kPa HAS BEEN CONSIDERED.

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS LOCATED OTHER THAN THOSE SHOWN ON PLAN.
5. THE PROJECT SUPERINTENDENT MUST CONTACT THE OFFICE 24 HOURS PRIOR TO PLACING CONCRETE IN ORDER FOR A REVIEW OF PREPARATIONS.
6. ALL ELECTRICAL BOXES AND CONDUITS TO BE SURFACE MOUNTED.
7. SEE REAR AND COLUMN SCHEDULES, WALL ELEVATIONS.
8. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
9. PROVIDE T.S.OP ALL SLAB REINFORCEMENT.
10. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 21,2015

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 12 / PH1 FLOOR FRAMING PLAN

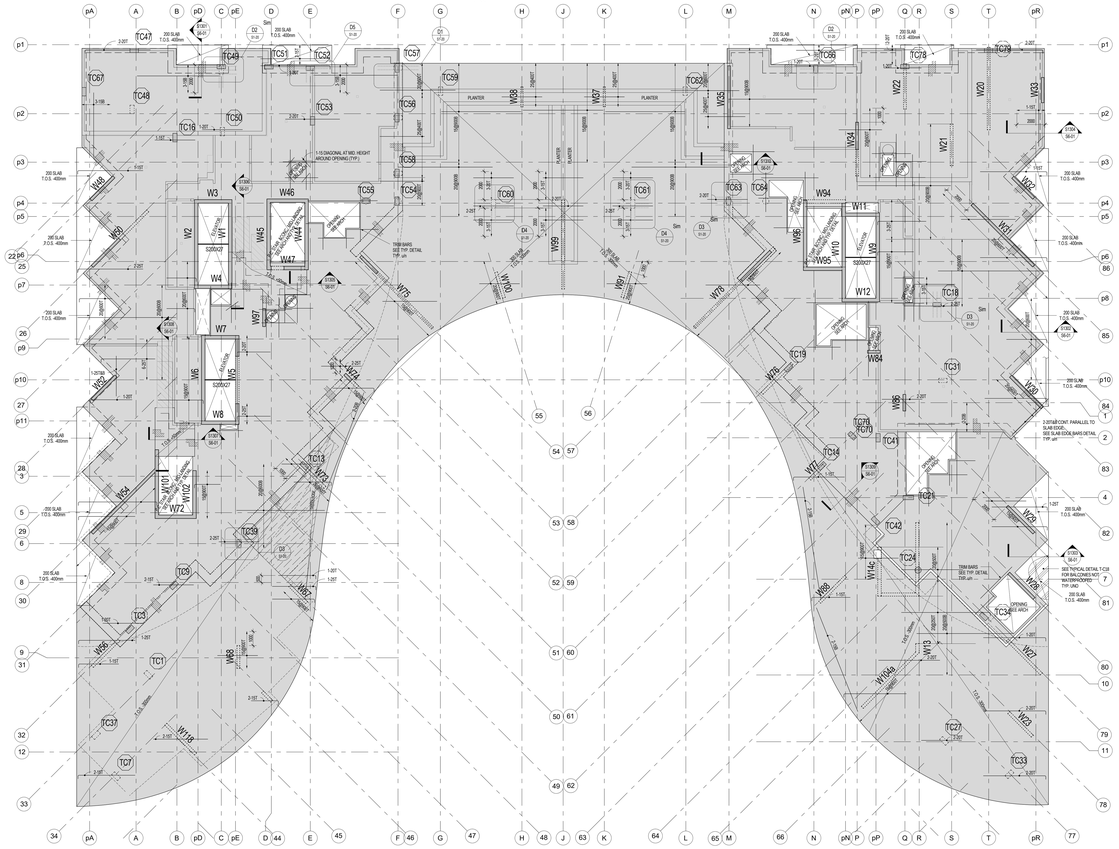
Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003
Date	DEC.18.2015
Drawing No.	S1-19

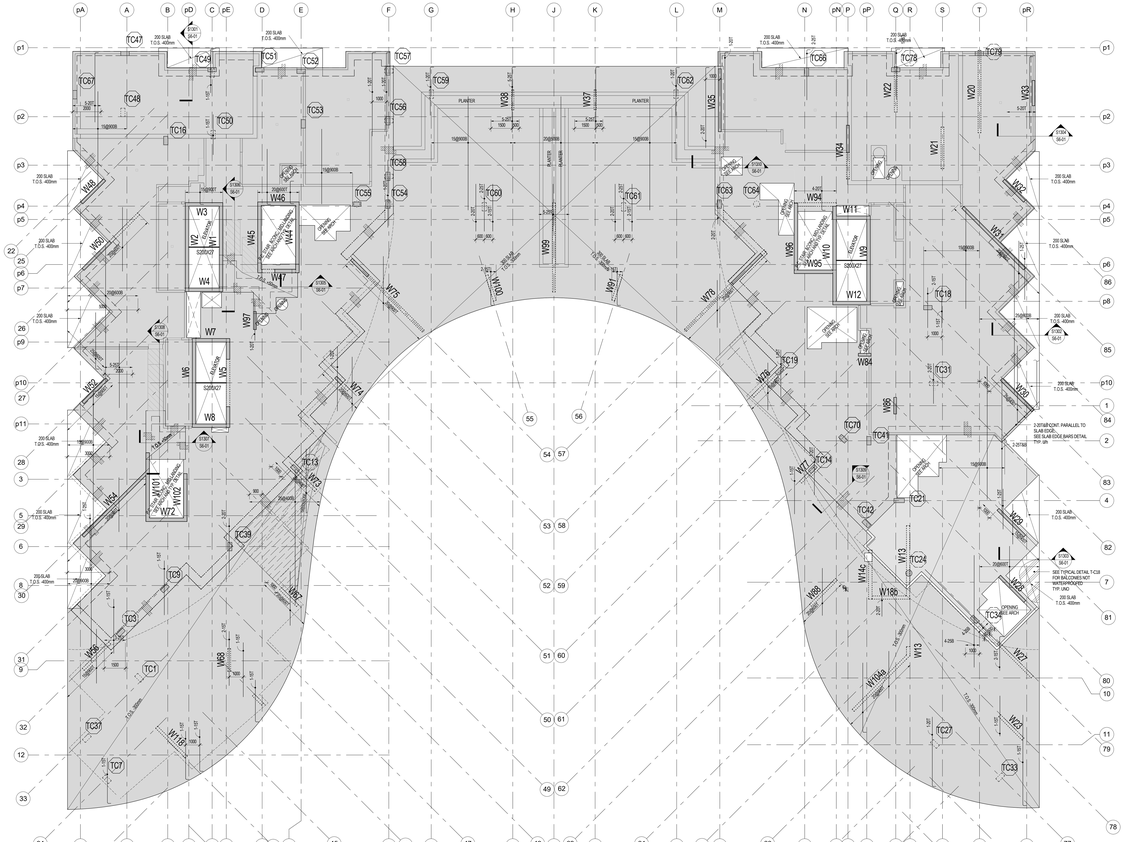
LEVEL 13 FRAMING PLAN - WITH BLL AND TUL

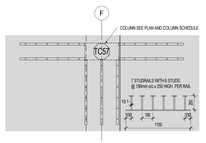
1 : 100



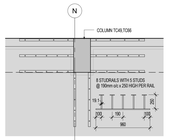
LEVEL 13 FRAMING PLAN - WITH BUL AND TLL

1 : 100

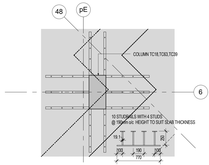




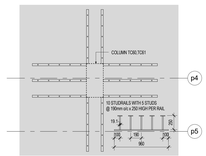
D1 PLAN DETAIL
S1-20 1 : 25



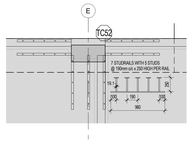
D2 PLAN DETAIL
S1-20 1 : 25



D3 PLAN DETAIL
S1-20 1 : 25



D4 PLAN DETAIL
S1-20 1 : 25



D5 PLAN DETAIL
S1-20 1 : 25

SLAB EDGE BARS DETAIL

1 : 10

REINFORCEMENT PLACEMENT DIAGRAM

TLL = TOP UPPER LAYER
TLL = TOP LOWER LAYER
BUL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

SLAB:	300 MIN. TYP. u/n
INTEGRITY BARS:	3-25M BEW
CONCRETE STRENGTH:	25 MPa
BOTTOM STEEL:	15@300EW/5 u/n
TOP STEEL:	15@300EW/5 u/n
SLAB:	200 MIN.
INTEGRITY BARS:	3-25M BEW
CONCRETE STRENGTH:	25 MPa
BOTTOM STEEL:	15@300EW/5 u/n
TOP STEEL:	15@300EW/5 u/n

SEE PLAN FOR ADDITIONAL REINFORCEMENT

10. SEE COLUMN AND BEAM SCHEDULES, WALL ELEVATIONS.
11. SEE ALSO TYPICAL NOTES AND DETAILS.
12. SEE ARCHITECTURAL DRAWINGS FOR EXTENT, SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. REINFORCE ALL RE-ENTRY TYPICAL DETAIL.
13. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATION, EXTENT AND SIZE OF HOUSEKEEPING PADS. REINFORCE PADS WITH WWF 152x152 MW13.3xMW13.3 PLUS 10M @ 450 ON CENTRE DOWELS x 300 LONG.
14. SEE MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATION, EXTENT AND SIZE OF FLOATING FLOOR. REINFORCE SLABS WITH 15M@300 EW (C), EPOXY COATED.
15. PROVIDE TLS FOR ALL SLAB REINFORCEMENT
16. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
17. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

NOTES

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION WITHIN THE MECHANICAL ROOM AND AT SLAB HIGH POINTS. TOP OF SLAB IS IS DEPICTED TO DRAWING AS SHOWN ON THE ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. TOP OF STRUCTURAL SLAB TO BE 50.0 mm BELOW FINISHED FLOOR DATUM ELEVATION WITHIN THE MECHANICAL ROOM AND AT SLAB HIGH POINTS. TOP OF SLAB IS IS DEPICTED TO DRAWING AS SHOWN ON THE ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
3. THE SLAB DESIGN HAS BEEN ACHIEVED BY SLOPING THE TOP OF THE SLAB. NOTE THAT THE BOTTOM OF SLAB IS FLAT.
4. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) SUPERIMPOSED DEAD LOADS (SDL) AND SNOW LOADS (S) IN ADDITION TO THE SELF WEIGHT.

	LL	SDL
GENERATOR/COOLING TOWER/MECHANICAL PENTHOUSE	6.0 kPa	2.5 kPa
STAIRS/HALL/LOBBY	4.8 kPa	2.5 kPa
PENTHOUSE SUITES	1.9 kPa	1.25 kPa
PENTHOUSE ROOF*	1.5kPa	1.25 kPa
GREEN ROOF*	4.8kPa**	1.5 kPa
PLANTERS	1.15kPa	20 kPa*
MECHANICAL/ELECTRICAL ROOM	3.6 kPa	2.5 kPa
TERRACE	4.8 kPa**	6.0 kPa*

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 4% ALLOWANCE FOR SNOW LOAD OF 1.0 kPa HAS BEEN CONSIDERED.
SEE PLAN FOR ADDITIONAL SNOW LOAD
*** 4% ALLOWANCE FOR 0.8% GREEN ROOF DEAD LOAD.

5. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 25MPa REFER ALSO TO WALL SCHEDULE.
6. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 20 mm.
7. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
8. THE PROJECT SUPERINTENDENT MUST CONTACT THE STRUCTURAL ENGINEER 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
9. SEE TYPICAL DETAIL DRAWING FOR LINTELS IN NON-LOAD BEARING BLOCK WALLS.

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No.	Revision	Date
1	GREEN ROOF LOAD REVISION	NOV 16,2015

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title

LEVEL 13/PH2/ MECH. FLOOR FRAMING PLAN

Project

Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale
As indicated

Drawn by
DC

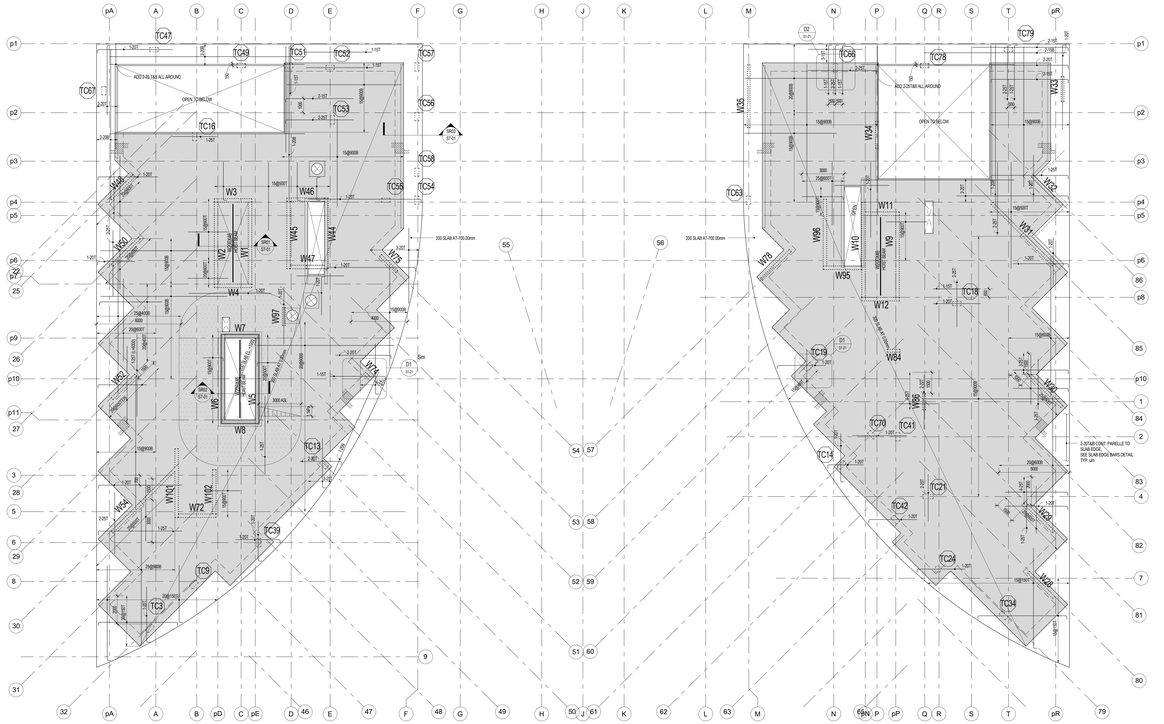
Checked by
IA/BBS

Project No.
20140031

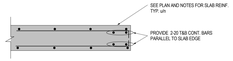
Date
DEC 18,2015

Drawing No.
S1-20

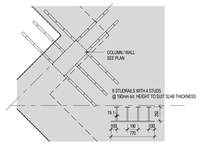
LEVEL 14 FRAMING PLAN
1 : 100



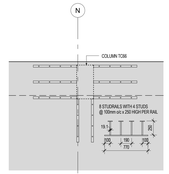
SLAB EDGE BARS DETAIL
1 : 10



D1 PLAN DETAIL
S1-21 1 : 25



D2 PLAN DETAIL
S1-21 1 : 25



1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm ABOVE ROOF DATUM ELEVATION EXCEPT AS CROSSED AND NOTED AND AS SLOPED TO DRAINS AS SHOWN ON THE ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DATUM ELEVATION.
2. ROOF DRAINAGE SLOPES ARE TO BE ACHIEVED BY SLOPING THE TOP OF THE SLAB. NOTE THAT THE SOFFIT OF SLAB IS FLAT.
3. THE STRUCTURAL SLAB HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS (LL) AND SUPERIMPOSED DEAD LOADS (SDL), AND SNOW LOADS (S) IN ADDITION TO THE SELF WEIGHT.

	LL	SDL
ROOF AREA	1.12 kPa+S(L)	2.2 kPa *
GREEN ROOF **	1.12 kPa+SL	12 kPa*
PLYWELL ROOF	1.12 kPa+SL	1.5 kPa*

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** INCLUDES ALLOWANCE FOR 9.2 kPa GREEN ROOF DEAD LOAD.

4. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS. REFER ALSO TO COLUMN AND WALL ELEVATION DRAWINGS.
5. PROVIDE CONTINUOUS TOP AND BOTTOM BARS IN SLABS TO BE 25 mm. REINFORCING TO BE CHAIRED TO MINIMUM PROPER COVER.
6. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON PLAN.
7. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING CONCRETE FOR REVIEW OF REINFORCING DETAILS AND LOCATIONS.
8. SEE ALSO TYPICAL NOTES AND DETAIL DRAWINGS.
9. REFER TO BEAM AND COLUMN SCHEDULES, WALL ELEVATIONS.
10. PROVIDE CONTINUOUS TEMPERATURE STEEL TOP AND BOTTOM, HOOKED AT EDGE OF SLAB AND OPENINGS, IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.
11. PROVIDE TLS FOR ALL SLAB REINFORCEMENT.
12. ADD 2-20TAB CONT. AT PERIMETER BEND BARS TO SUIT SLAB EDGE. SEE SLAB EDGE BARS DETAIL.

TLL = TOP UPPER LAYER
TLL = TOP LOWER LAYER
BUL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB	300 MN
BOTCONTY BARS:	3-25M BEW
CONCRETE STRENGTH:	25 MPa
BOTTOM STEEL:	15@400EW u/n
TOP STEEL:	15@400EW u/n
SLAB	300 MN BALCONY
BOTCONTY BARS:	3-25M BEW
CONCRETE STRENGTH:	25 MPa
BOTTOM STEEL:	15@400EW u/n
TOP STEEL:	15@400EW u/n

SEE PLAN FOR ADDITIONAL REINFORCEMENT

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Date:

DEC 18,2015 DEC 18,2015

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No.	Revision	Date
9	GREEN ROOF LOAD REVISION	NOV 16,2015
7	ISSUED FOR STEEL TENDER	DEC 18,2015
4	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
3	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

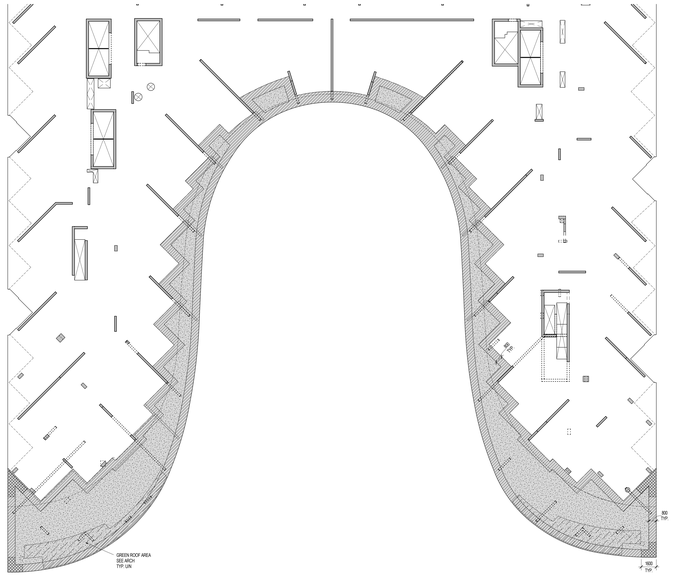
No.	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

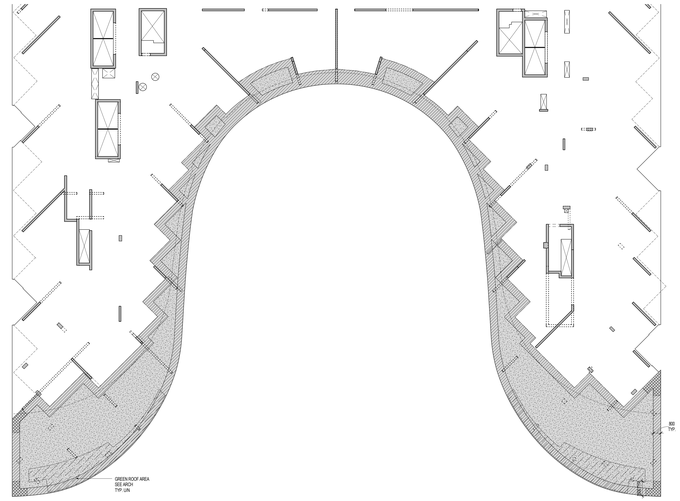
Drawing Title
ROOF FRAMING PLANS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

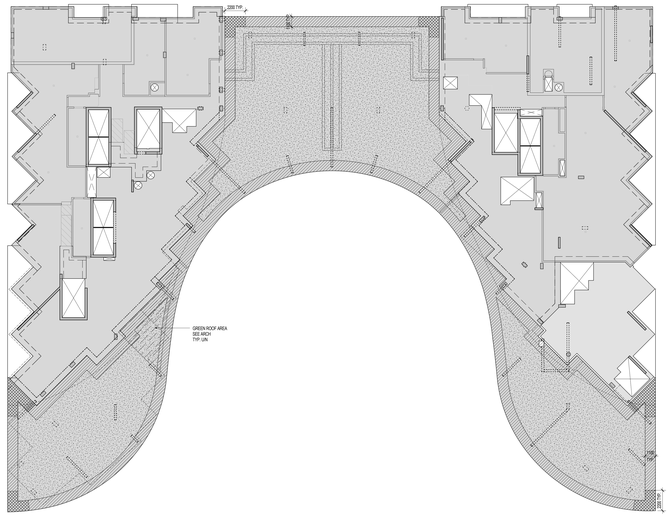
Scale
As indicated
Drawn by
DC
Checked by
IA/BBS
Project No.
2014003?
Date
DEC.18,2015
Drawing No.
S1-21



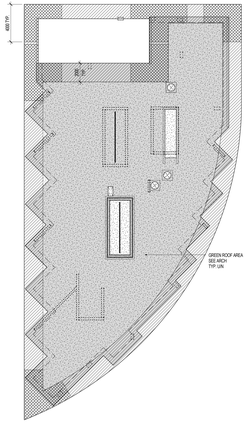
LEVEL 7 WIND UPLIFT PLAN
1 : 150



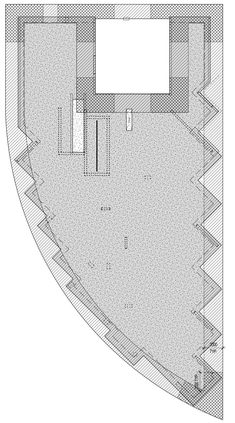
LEVEL 11 WIND UPLIFT PLAN
1 : 150



LEVEL 13 WIND UPLIFT PLAN
1 : 150



ROOF WIND UPLIFT PLAN
1 : 150



LEGEND:

1. LOADS NOTED ARE UNFACTORED WIND UPLIFT VALUES.

- 1.04 kPa
- 2.34 kPa
- 3.44 kPa

NOTE: REFER TO ARCH FOR GREEN ROOF EXTENT(TYP.)

Contractor Must Check And Verify All Dimensions On The Job.

Do Not Scale The Drawings.

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No	Revision	Date

No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WIND UPLIFT PLAN

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale
As indicated
Drawn by
Author
Checked by
Checker
Project No.
2014003?
Date
Drawing No.
S1-22

CONCRETE COLUMN SCHEDULE (LEVEL 2 AND BELOW)

| COLUMN NUMBER | | | GC1 | GC2 | GC3 | GC4 | GC5 | GC6 | GC7 | GC8 | GC10 | GC11 | GC12 | GC13 | GC14 | GC15 | GC16 | GC17 | GC18 | GC19 | GC21 | GC22 | GC23 | GC24 | GC25 | GC44 | GC27 | GC28 | GC29 | GC30 | | |

CONCRETE COLUMN SCHEDULE (LEVEL 2 ABOVE)

	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	TC9	TC10	TC11	TC12	TC13	TC14	TC15	TC16	TC17	TC18	TC19	TC20	TC21	TC23	TC75	TC24	TC25	TC26	TC27	TC30	TC31	TC32	TC34	TC35	TC33	TC36	TC37	TC38	TC39	TC41	TC42	TC43	TC45	TC44	TC46	TC47	TC48	TC50	TC49	TC51	TC52	TC53	TC54	TC55	TC56	TC57	TC58	TC59	TC60	TC61	TC62	TC63	TC64	TC65	TC66	TC67	TC68	TC70	TC71	TC72	TC73	TC74	TC77	TC78	TC79	
LEVEL 14																																																																																																							LEVEL 14
124000																		

LEVEL 1 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS							TOP BARS										STIRRUPS			REMARKS
		No.	T_1	T_2					No.	T_1	T_2								T_1	T_2	T_3	
BM101	2000X1290/1500	12	35				BLL		6	30			TLA					15	10@150 RE			TRIPLES
		10	15				SHEF		5	35			TLA	2000				15	@300 REM			DOUBLES
									5	35			2000	TLA								
BM102	2000X1500	22	35				BLL		9	30			2600	TLA				15	@125			FIVE SETS
		22	35				BLL		6	35			1400	TLA								
		10	15				SHEF		12	30				TLA	3600		4900					
									8	35				TLA	2000		2000					
									6	30				TLA	2000		2000					
BM103	2000X1500	12	35				BLL		12	30		FROM BM102		TLA				15	5@125 RE			TRIPLES
		12	35				BLL		8	35		FROM BM102		TLA				15	6@200 LE			TRIPLES
		10	15				SHEF		6	30		FROM BM102		TLL				15	@300 REM			DOUBLES
									8	30				TLA	2600							
									9	35				TLA	2000							
BM104	2000X1500	22	35				BLL		6	35			2600	TLA				15	@150			FIVE SETS
		12	35				BLL		7	35			1400	TLA								
		12	15				SHEF		12	35				TLA	3400		4300					
									5	35				TLA	2000		2000					
									5	35				TLL	2000		2000					
BM105	2000X1850	14	35				BLL		12	35		FROM BM104		TLA				15	10@100 RE			FIVE SETS
		14	35				BLL		5	35		FROM BM104		TLA				15	@200 REM			FIVE SETS
		16	15				SHEF		5	35		FROM BM104		TLL								
									5	35				TLA	4000							
									5	35				TLL	2700							
BM106	2000X800	6	35				BLL		6	35			TLA		1			15	@125			FOUR SETS
		12	30				BLL		3	30			TLA		1							
		16	35				BLA															
		4	15				2nEF															
BM107	2000X1500	7	30				BLL		6	30			3700	TLA				10	@300			TRIPLES
		12	15				SHEF		8	30				TLA	3300		4000					
									7	30				TLL	2100		2100					
BM108	2000X1500	16	30				BLL		8	30		FROM BM107		TOL				10	5@125 LE			TRIPLES
		12	15				SHEF		7	30		FROM BM107		TLL				10	@300 REM			TRIPLES
									17	35				TLA	4000		4300					
									17	35				TLL	2000		2000					
BM109	2000X1500	19	35				BLL		17	35		FROM BM108		TOL				15	@150			FIVE SETS
		14	35				BLA		17	35		FROM BM108		TLL								
		12	15				SHEF		11	35				TLA	4300		3100					
									8	30				TLL	2000		2000					
BM110	2000X1100	15	35				BLL		11	35		FROM BM109		TOL				10	@300			TRIPLES
		8	15				SHEF		8	35		FROM BM109		TLL								
									6	35				TLA	3100		4300					
									5	35				TLL	1400		1400					
BM111	2000X1100	6	25				BLL		6	35		FROM BM105		TOL				10	@300			TRIPLES
		8	15				SHEF		5	35		FROM BM110		TLL								
									7	35				TLA	3100		4300					
									7	30				TLL	2000		2200					
BM112	2000X1100	10	30				BLL		7	35		FROM BM111		TOL				10	6@200 RE			TRIPLES
		10	30				BLA		7	30		FROM BM111		TLL				10	10@150 LE			TRIPLES
		8	15				SHEF		8	35				TLA	4300		3100	10	@300 REM			TRIPLES
									7	30				TLL	2000		2200					
BM113	2000X1100	10	30				BLL		8	35		FROM BM112		TOL				10	@300			TRIPLES
		10	30				BLA		7	30		FROM BM112		TLL								
		8	15				SHEF		9	35				TLA	2600							
BM114	2000X1500	18	35				BLL		6	35			2600	TLA				15	5@100 RE			FIVE SETS
		14	35				BLL		5	35			1400	TLA				15	@200 REM			TRIPLES
		10	15				SHEF		16	35				TLA	3400		4900					
									9	35				TLL	2000		2000					
BM115	2000X1500	16	35				BLL		16	35		FROM BM107		TOL				15	10@150 RE			FIVE SETS
		12	35				BLA		9	35		FROM BM114		TLL				15	@300 REM			TRIPLES
		12	15				SHEF		12	35				TLA	3600							
									8	35				TLL	2000							
BM116	2000X1500	15	35				BLL		12	30			4100	TLA				15	@150			FOUR SETS
		11	30				BLA		10	25			2000	TLA								
		12	15				SHEF		15	35				TLA	4100		4400					
									12	35				TLL	2100		2100					

LEVEL 1 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS							TOP BARS										STIRRUPS			REMARKS
		No.	T_1	T_2					No.	T_1	T_2								T_1	T_2	T_3	
BM117	2000X1300	15	35				BLL		15	35		FROM BM116		TOL				15	5@100 LE			FOUR SETS
		11	30				BLA		12	35		FROM BM116		TLL				15	@150 REM			TRIPLES
		12	15				SHEF		15	35				TLA	4400		3100					
									12	35				TLL	2100		2100					
BM118	2000X1100	13	30				BLL		15	35		FROM BM117		TOL				10	@200			DOUBLES
		8	15				SHEF		12	35		FROM BM117		TLL								
									8	30				TLA	3000		3100					
									7	30				TLL	1400		1400					
BM119	2000X1100	10	30				BLL		8	30		FROM BM118		TOL				10	@200			DOUBLES
		8	15				SHEF		7	30		FROM BM118		TLL								
									9	35				TLA	3100		4300					
									8	30				TLL	1400		1400					
BM120	2000X1100	10	35				BLL		9	35		FROM BM119		TOL				10	2@150 LE			TRIPLES
		10	30				BLA		8	30		FROM BM119		TLL				10	@200 REM			TRIPLES
		8	15				SHEF		10	35				TLA	FROM BM121							
									6	30				TLL	FROM BM121							
BM121	2000X1100	8	25				BLL		10	35	4200			TLA			5800	10	@200			DOUBLES
		8	15				SHEF		6	30	2000			TLL			2800					
BM122	2000X1500	18	35				BLL		10	35		FROM BM121		TOL				15	2N@125 RE			TRIPLES
		10	30				BLA		6	30		FROM BM121		TLL				15	2N@125 LE			TRIPLES
		8	15				SHEF		10	35				TLA	4800			15	@200 REM			TRIPLES
									4	30				TLL	2700							
BM123	2000X1970/1500	20	35				BLL		7	35	4400			TLA				15	2N@125 RE			DOUBLES
		17	35				BLA		5	30	2500			TLL				15	6@250 LE			DOUBLES
		15	15				SHEF		12	35				TLA	6400		5000	15	@300 REM			DOUBLES
									4	30				TLL	2800		2800					
BM124	2000X900	8	25				BLL		12	35		FROM BM123		TOL				15	5@200 RE			DOUBLES
		8	15				2nEF											15	5@250 LE			DOUBLES
									DELETED									15	@300 REM			DOUBLES
BM125	2000X1500	12	35				BLL		9	30			5000	TLA				10	10@200 RE			TRIPLES
		12	15				SHEF		12	35				TLA	4800		7200	10	10@200 LE			TRIPLES
									10	30				TLL	3000		3000	10	@300 REM			TRIPLES
BM126	2000X1500	14	35				BLL		12	35		FROM BM125		TOL				10	3N@150 RE			TRIPLES
		10	30				BLA		10	30		FROM BM125		TLL				10	7@200 LE			TRIPLES
		10	15				SHEF		12	35				TLA	4800		4400	10	@300 REM			TRIPLES
									10	30				TLL	2300		2300					
BM127	2000X1100	13	35				BLL		12	35		FROM BM126		TOL				10	7@200 RE			TRIPLES
		8	15				SHEF		10	30		FROM BM126		TLL				10	7@200 LE			TRIPLES
									8	35				TLA	4800		4400	10	@300 REM			TRIPLES
									8	30				TLL	2300		2300					
BM128	2000X1100	15	35				BLL		8	35		FROM BM127		TOL				10	4N@150 RE			TRIPLES
		8	15				SHEF		8	30		FROM BM127		TLL				10	7@200 LE			TRIPLES
									8	35				TLA	4800			10	@300 REM			TRIPLES
									8	30				TLL	2300							
BM129	4000X900	5	20				BLL		3	25			5000	TLA				10	@300			
		8	15				SHEF		2	15			2300	TLA								
									2	15			2300	TLL								
									3	25				TLA	5100		5800					
									2	25				TLA	2300		3300					
									5	25				TLL	2300		3300					
BM129A	4000X900	3	20				BLL		3	25		FROM BM129		TLA				10	@300			
		8	15				SHEF		2	25		FROM BM129		TLA								
									5	25		FROM BM129		TLL								
BM130	4000X900	3	20				BLL		3	25		FROM BM129		TLA				10	@300			
		2	25				BLL		2	25		FROM BM129		TLA								
		8	15				BLA		5	25		FROM BM129		TLA								
							SHEF		3	25				TLA	4300		5100					
									2	25				TLA	3300		3800					
									5	25				TLL	3300		3800					
BM130A	4000X900	3	20				BLL		3	25		FROM BM129		TLA				10	@300			
		8	15				SHEF		2	25		FROM BM129		TLA								
									5	25		FROM BM129		TLL								

LEVEL 1 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS							TOP BARS										STIRRUPS			REMARKS
		No.	T_1	T_2					No.	T_1	T_2								T_1	T_2	T_3	
BM131	4000X900	3	20				BLL		3	25		FROM BM130		TLA				10	5N@100 LE			FOUR SETS
		2	25				BLA		2	25		FROM BM130		TLA								
		8	15				4nEF		5	25		FROM BM130		TLA								
									3	25				TLA	5200		7000					
									2	25				TLA	2700		5900					
									5	25				TLL	2700		5900					
BM131A	4000X900	3	20				BLL		3	25		FROM BM131		TLA				10	@300			
		8	15				4nEF		2	25		FROM BM131		TLA								
									5	25		FROM BM131		TLL								
BM132	4000X900	5	20				BLL		3	25		FROM BM131		TLA				10	@300			
		2	15				BLA		2	25		FROM BM131		TLA								
		8	15				4nEF		5	25		FROM BM131		TLA								
									3	25				TLA	6100							
									2	20				TLA	2900							
									2	20				TLL	2900							

LEVEL 2 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS							TOP BARS										STIRRUPS			REMARKS
		No.	T_1	T_2					No.	T_1	T_2								T_1	T_2	T_3	
BM201	700X600	6	40				BLL		6	25			5000	TLA				10	@125			IN TRIPLES
									6	45				TLA	3400		3700					
									6	45				TNL	1300		1300					
									2	45				TLL	1300		1300					
BM202	1100X600	8	35				BLL		6	45		FROM BM201		TLA				15	7@100			IN TRIPLES
		8	30				BLA		6	45		FROM BM201		TNL								
									2	45		FROM BM201		TLL								
BM203	1100X600	8	30				BLL		5	45		FROM BM202		TLA	2800			10	@150			IN DOUBLES
									3	45		FROM BM202		TLA	1900		1900					
									8	45		FROM BM202		TLL	1900		1900					
BM204	1100X600	8	35				BLL		5	45		FROM BM203		TLA				15	11@100			IN TRIPLES
		8	30				BLA		3	45		FROM BM203		TLA	2800							
									8	45		FROM BM203		TLL	2200		2200					
BM205	1600X600	5	35				BLL		5	45		FROM BM204		TLA				15	@150			IN TRIPLES
		8	30				BLA		3	45		FROM BM204		TLA	2800							
									8	45		FROM BM204		TLL	2200		2200					
BM206	1600X400	7	35				BLL		7	30			7800	TLA				15	10@75RE			IN FOUR SETS
		10	30				BLL		6	35			2300	TLA				15	@300REM			IN DOUBLES
		8	30				BLA		16	30				TLA	3400							
									16	35				TLL	2200							
BM207	700X600	7	30				BLL		7	25			1500	TLA			1900	15	10@75LE			IN TRIPLES
		4	30				BLA		7	30				TLL				15	@150REM			IN TRIPLES
BM208	800X600	2	29				BLL		3	25			3100	TLA				10	@150			IN DOUBLES
		2	20				BLL		5	30				TLA	2900		2600					
									4	30				TLA	1700		1700					
									4	30				TLL	1700		1700					
BM209	800X600	8	35				BLL		5	30		FROM BM208		TLA				15	@150			IN TRIPLES
		8	35				BLA		2	35		FROM BM208		TLA								
									4	30		FROM BM208		TLA								
									4	35				TLA	4900		1					
									2	25				TLL	3300		1					
BM210	1200X600	6	35				BLL		4	35			3000	TLA				10	@150			IN TRIPLES
		4	30				BLL		2	35			2300	TLA								
									6	30				TLA	3900		2200					
									4	35				TLA	2300		1000					
									4	30				TLL	2300		1000					
BM211	1200X600	7	30				BLL		6	30		FROM BM210		TLA				10	@150			IN TRIPLES
									4	35		FROM BM210		TLA								
									4	30		FROM BM210		TLA								
									5	30				1900	1							
									2	30				1900	1							
BM212	1000X600	9	45				BLL		9	45			7000	TLA			1000	15	@150			IN FOUR SETS
		9	45				BLA		5	30			1000	TLL	3500		1000					
									5	35			1900	TLL	1900							
BM213	1000X600	9	45				BLL		9	45			2000	TLA				15	@150			IN FOUR SETS
		6	35				BLA		9	45			2000	TLL								
BM214/BM216	1600X1000/600	10	30				BLL		6	30			4000	TLA				10	10@140RE			IN DOUBLES
									4	30			2300	TLA				10	10@140LE			IN TRIPLES
									8	30				TLA	5600		5600	10	@140REM			
									5	35				TLA	2300		2300					
									4	30				TLL	2300		2300					
BM215/BM217	1600X1000/600	10	30				BLL		8	30		FROM BM214/BM216		TLA				10	10@140LE			IN TRIPLES
									9	30		FROM BM214/BM216		TLA				10	10@140RE			IN DOUBLES
									4	30		FROM BM214/BM216		TLA				10	@140REM			
									6	30				TLA	4000		1					
									4	30				TLA	2300		1					
BM218	520X1500	6	30				BLL		3	30			7000	TLA				15	10@150 RE			IN DOUBLES
		4	30				BLA		2	30			2500	TLA				15	14@225 LE			
		10	15				SHEF		4	25			2500	TLA				15	@300 REM			
									3	30				TLL	5500		5500					
									3	30				TLA	2500		2500					
									6	30				TLL	2500		5500					
BM218a	520X1500	6	30						3	30		FROM BM218						10	@200			
		10	15				SHEF		3	30		FROM BM218										
									6	30		FROM BM218										

LEVEL 2 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS							TOP BARS										STIRRUPS			REMARKS
		No.	T_1	T_2					No.	T_1	T_2								T_1	T_2	T_3	
BM219	520X1500	6	30				BLL		3	30								15	@200			
		8	25				BLL		3	30		FROM BM218										
		10	15				5nEF		6	30		FROM BM218										
									3	30				TLA	4000		1					
									2	30				TLA	2300		1					
									7	25				TLL	2300		1					
BM220/BM224	600X1300	3	25				BLL		2	15			5000	TLA				10	@300			
		2	30				BLL		2	30				TLA	3200		4000					
		8	15				4nEF		2	30				TLA	2300		2300					
									2	15				TLL	2300		2300					
BM221/BM225	600X1300	3	25				BLL		2	30		FROM BM220/BM224						10	@300			
		8	15				4nEF		2	30		FROM BM220/BM224										
									2	15		FROM BM220/BM224										
									2	15				TLA	4000		1					
BM222	1500X600	5	30				BLL		7	30			3400					10	11@125LE			IN DOUBLES
		6	35				BLL		2	30			1900					10	3N@75RE			IN DOUBLES
									7	30				TLA	4600		3300	10	@275REM			IN DOUBLES
									4	35				TLA	1900		1900					
									3	35				TLL	1900		1900					
BM223	1500X600	7	30				BLL		7	30		FROM BM222						10	11@75LE			
									4	35		FROM BM222						10	@150REM			
									3	35		FROM BM222										
									4	30				TLA	2700		1					
									2	30				TLA	1500		1					
BM226	700X1300	5	30				CONT. BLL		9	20				CONT. TLA				10	@300			
		12	15				5nEF															

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Date:

DEC 18,2015 DEC 18,2015

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015

No	Issued For	Date

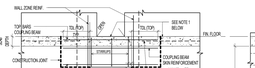
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
BEAM SCHEDULES

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

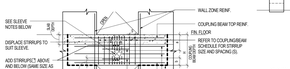
Scale	1 : 1
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-0031
Date	DEC.18.2015
Drawing No.	S2-03

Plot Date: 12/18/2015 10:51:39 AM



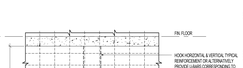
NOTE:
1. IF WALL IS GREATER THAN SLAB, COUPLING BEAM IS SHALL BE THE SAME AS THE WALL
2. IF COUPLING BEAM IS < 4th OF SLAB, PUDDLE AS PER TYPICAL DETAIL 7/-208

1 TYPICAL COUPLING BEAM REINFORCEMENT DETAIL



NOTE:
1. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL SLEEVES LARGER THAN H/4
2. MULTIPLE SLEEVES (MAX 3 SLEEVES WITH d/4H) SHALL BE PLACED WITH MIN 200mm CLEAR BETWEEN SLEEVES

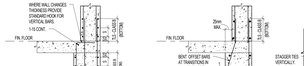
3 TYPICAL ADDITIONAL REINFORCEMENT COUPLING BEAM SLEEVES UP TO H/4



NOTE:
1. FOR LARGER OPENINGS SEE REINFORCEMENT ON WALL ELEVATIONS

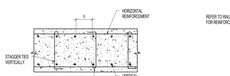
4 TYPICAL ADDITIONAL REINFORCEMENT FOR WALL OPENINGS UP TO 700mmX700mm SIZE

6 TYPICAL DETAIL AT TOP OF WALLS AND BELOW OPENINGS WHERE COUPLING BEAM IS NOT PROVIDED



NOTE:
A - STEPS = 75mm B - STEPS = 75mm

8 TYPICAL DETAIL AT WALL THICKNESS TRANSITIONS

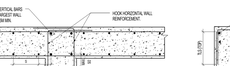


NOTE:
1. PROVIDE TIES TO DISTRIBUTE WALL REINFORCEMENT WITH VERTICAL SPACING AS PER TABLE 1 AND HORIZONTAL SPACING AS PER TABLE 2
2. WHEN CLEAR SPACE IS BETWEEN VERTICAL DISTRIBUTED REINFORCEMENT IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL BAR. WHEN S≤150, TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL BAR AS SHOWN ABOVE
3. REFER TO COUPLING REINFORCEMENT DETAILS FOR TIES IN THOSE AREAS.

7 TYPICAL TIE DETAIL FOR DISTRIBUTED VERTICAL WALL REINFORCEMENT

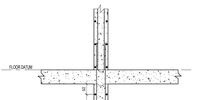
NOTE:
1. COORDINATE WALL ZONE VERTICAL BAR PLACEMENT WITH BEAM HORIZONTAL REINFORCEMENT ARRANGEMENT

8 TYPICAL COUPLING BEAM DETAIL PLAN DETAIL



5 TYPICAL DETAIL AT BOTTOM OF WALLS AND ABOVE OPENINGS WHERE COUPLING BEAM IS NOT PROVIDED

9 TYPICAL DETAIL OF SHEAR WALL SUPPORTED BY TRANSFER SLAB



10 TYPICAL DETAIL OF SHEAR WALL SUPPORTED BY BEAM

TYPE C - CORNER

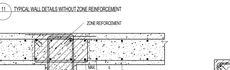
TYPE T - INTERSECTION

TYPE E - END

NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE WALL ELEVATIONS.

1. REFER TO TABLE 2 TO DETERMINE IF TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE REQUIRED. SEE DETAIL 7 WHEN TIES ARE REQUIRED
2. WHEN CLEAR SPACE BETWEEN ADJACENT VERTICAL ZONE BARS IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL ZONE BAR. WHEN THE CLEAR SPACE IS ≤ 150mm, TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL ZONE BAR.

11 TYPICAL WALL DETAILS WITHOUT ZONE REINFORCEMENT



TYPE C - CORNER ZONE

TYPE T - INTERSECTION ZONE

TYPE E - END ZONE

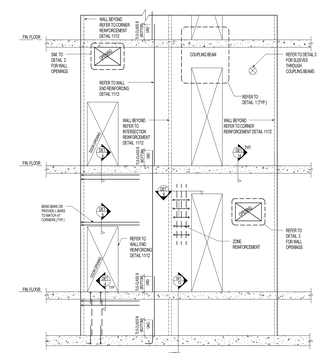
NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE WALL ELEVATIONS.

1. REFER TO TABLE 2 TO DETERMINE IF TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE REQUIRED. SEE DETAIL 7 WHEN TIES ARE REQUIRED
2. WHEN CLEAR SPACE BETWEEN ADJACENT VERTICAL ZONE BARS IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL ZONE BAR. WHEN THE CLEAR SPACE IS ≤ 150mm, TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL ZONE BAR.

12 TYPICAL WALL DETAILS WITH ZONE REINFORCEMENT

13 TYPICAL SHEAR WALL DOWELS AT FOUNDATION

14 TYPICAL SLAB TO SHEAR WALL CONNECTION WHERE SLAB IS BEARING ON ONE SIDE OF THE WALL ONLY



NOTES:
1. REFER TO WALL DETAILS WITH OR WITHOUT ZONE REINFORCEMENT BASED ON WALL ELEVATIONS.

15 TYPICAL WALL ELEVATIONS

SHEAR WALL NOTES:
1. SHEAR WALL ELEVATIONS SERVE THE PURPOSE OF DEFINING THE ZONE, DISTRIBUTED AND COUPLING BEAM REINFORCEMENT, ALONG WITH THE SIZE OF THE SHEAR WALLS, COUPLING BEAMS AND CONCRETE STRENGTH. THE ELEVATIONS ARE NOT INTENDED TO SHOW ALL REINFORCEMENT IN THE WALLS. FOR WALL DETAILS, THE GRAVITY ELEMENTS (CLG.BMS, S.BD, BEAMS, FOUNDATION SYSTEM, ETC.) ARE SHOWN CONCEPTUALLY FOR CLARIFICATION ONLY. FOR SIZE, GEOMETRY, STEPS, ETC. OF THE GRAVITY ELEMENTS REFER TO THE APPROPRIATE PLANS, DETAILS AND SCHEDULES.
2. CONCRETE STRENGTHS TO BE NOTED IN WALL ELEVATIONS.
3. ALL CONCRETE WORK AND REINFORCEMENT DETAILING SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA A23.3 AND MEET THE REQUIREMENTS FOR EXPOSURE CLASS AS DEFINED IN TABLE 1 OF CSA STANDARD CAN/CSA-A23.1 LATEST EDITION. REFER TO THE SPECIFICATIONS.
4. PROVIDE WALL REINFORCEMENT IN ACCORDANCE WITH THE VALUES INDICATED ON THE WALL ELEVATIONS OR PLANS. WHERE 15MR IS INDICATED PROVIDE THE NOMINAL WALL REINFORCEMENT, AS SHOWN IN TABLE 2.

TABLE 1: NOMINAL WALL REINFORCEMENT (15MR)

WALL THICKNESS	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL
150	15@300 (CENTER-CENTER)	15@450 (CENTER-CENTER)
200	15@400 HEF	15@400 HEF
250	15@300 HEF	15@400 HEF
300	15@300 HEF	15@300 HEF
350	15@300 HEF	15@300 HEF
400	15@300 HEF	15@300 HEF

WALL THICKNESS	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL
450	15@400 HEF	15@300 HEF
500	15@400 HEF	15@400 HEF
550	15@300 HEF	15@400 HEF

5. WALL REINFORCEMENT IS VERTICAL AND HORIZONTAL EACH FACE (HEAT) UNLESS NOTED OTHERWISE.
6. PROVIDE TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT IF THE BAR SIZE IS LARGER THAN 20M OR IF BAR SPACING IS LESS THAN THAT OUTLINED IN TABLE 2. REFER TO DETAIL 7 FOR ADDITIONAL INFORMATION.
7. UNLESS OTHERWISE SHOWN PROVIDE DOWELS FROM SHEAR WALL CAPS, OR FOOTINGS INTO SHEAR WALLS TO MATCH VERTICALS IN FIRST LIFT OF WALLS. SEE DETAIL 13.
8. UNLESS NOTED OTHERWISE AT TOPS OF ALL SHEAR WALLS PROVIDE 15 @ 400 DOWELS FROM WALL TO SLAB.
9. WHERE WALL IS DISCONTINUOUS ABOVE SLAB SEE DETAIL 14.
10. PROVIDE T.O.CLASS A (TOP) FOR ALL HORIZONTAL BARS FOR CLASS A23.1/A23.2
REFER TO DETAIL 7 FOR S = 450MPa OR 1.0/3 fy = 300MPa FOR LENGTHS.
11. PROVIDE T.O.CLASS B (TOP) FOR ALL HORIZONTAL BARS FOR CLASS A23.1/A23.2
REFER TO DETAIL 7 FOR S = 450MPa OR 1.0/3 fy = 300MPa FOR LENGTHS.
12. MINIMUM DOWEL LENGTH SHALL BE 24 FLD BOTTOM.
13. FOR WALLS THAT ARE UNPACKED FOR THE FULL LENGTH OF WALL UNLESS NOTED OTHERWISE.
14. FOR WALLS THAT ARE UNPACKED FOR THE FULL LENGTH OF WALL PROVIDE EITHER CONTINUOUS VERTICAL REINFORCEMENT FOR THE ENTIRE UNSUPPORTED HEIGHT OR USE MECHANICAL COUPLER AT THE LOCATION OF THE INTERMEDIATE SPLICE. PROVIDE TENSION LAP SPLICES (TOP) FOR ALL HORIZONTAL WALL REINFORCEMENT. IF BARS OF DIFFERENT DIAMETER ARE SPLICED, USE THE SPLICE LENGTH OF THE LARGER BAR.
15. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF WALL OPENINGS. THE CONTRACTOR SHALL PROVIDE FOR THE DIMENSIONED REVIEW SLEEVING DRAWINGS SHOWING THE PROPOSED LOCATION AND INVERT DIMENSIONED FROM THE SLAB DATUMS AND GRIDS FOR ALL SLEEVES 75mm DIAMETER AND LARGER. NO OPENINGS OTHER THAN THOSE WHICH ARE INDICATED ON PLAN OR ELEVATION SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
16. CLEAR CONCRETE COVER FOR ALL BARS SHALL BE 40mm UNLESS NOTED OTHERWISE. REFER TO TYPICAL DETAILS.
17. CLEAR CONCRETE COVER SHALL BE 25mm FOR WALLS AND SLABS ABOVE GRADE AND 40mm FOR WALLS BELOW GRADE UNLESS NOTED OTHERWISE.
18. PROVIDE 40mm CLEAR CONCRETE COVER FOR ALL ABOVE GRADE WALLS WHICH ARE EXPOSED TO FIRE ON BOTH SIDES SIMULTANEOUSLY AS DEFINED BY NBCC-APPENDIX D.

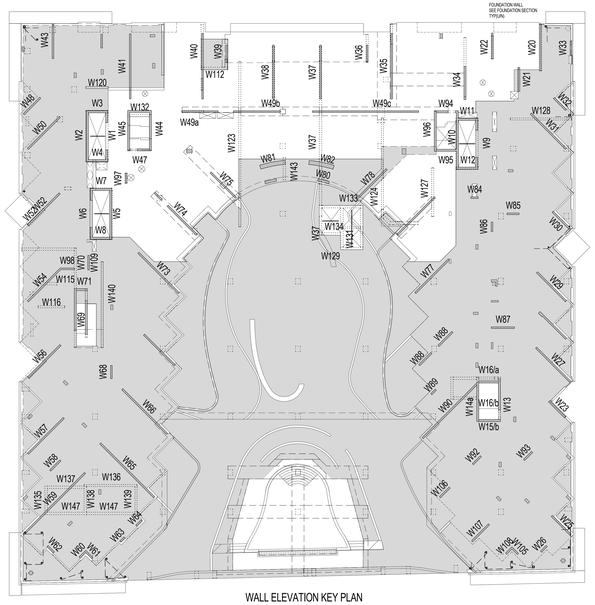
TABLE 2: TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT

WALL THICKNESS (MM)	TIE SPACING FOR DISTRIBUTED VERTICAL REINFORCEMENT Fy = 400MPa									
	10M		15M		20M		25M		30M	
	VERTICAL BARS SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BARS SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BARS SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BARS SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BARS SPACING (mm)	TIE VERTICAL SPACING (mm)
200	≤ 200	150	≤ 400	300	≤ 600	300				
250	≤ 150	150	≤ 300	300	≤ 450	300	600	300		
300	≤ 150	150	≤ 300	300	≤ 450	300	600	300	600	300
350	≤ 150	150	≤ 300	300	≤ 300	300	600	300	600	300
400	≤ 150	150	≤ 300	300	≤ 300	300	450	300	450	300
450			≤ 300	300	≤ 300	300	450	300	450	300
500			≤ 150	150	≤ 300	300	450	300	450	300
550			≤ 150	150	≤ 300	300	450	300	450	300
600			≤ 150	150	≤ 300	300	450	300	450	300

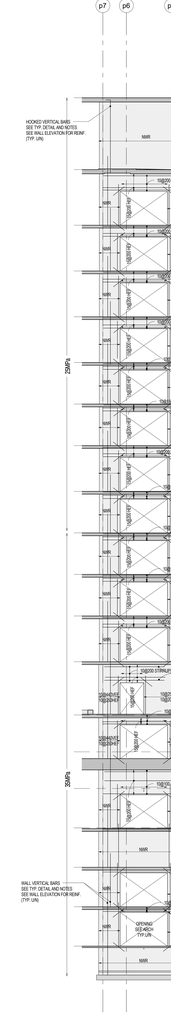
NOTES:
1. TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE 15M.
2. THE TABLE IS BASED ON S ≤ 450MPa. FOR S = 450MPa REDUCE TIE VERTICAL SPACING IN TABLE BY 66.67% ONLY 0.75.
3. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SPACINGS LESS THAN THAT INDICATED FOR 15M, 15M AND 20M BARS SHALL BE TIED WITH MINIMUM TIE VERTICAL SPACING AS INDICATED.
4. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SIZE LARGER THAN 20M SHALL BE TIED AT MINIMUM TIE VERTICAL SPACING INDICATED.
5. SEE ALSO DETAIL 7.

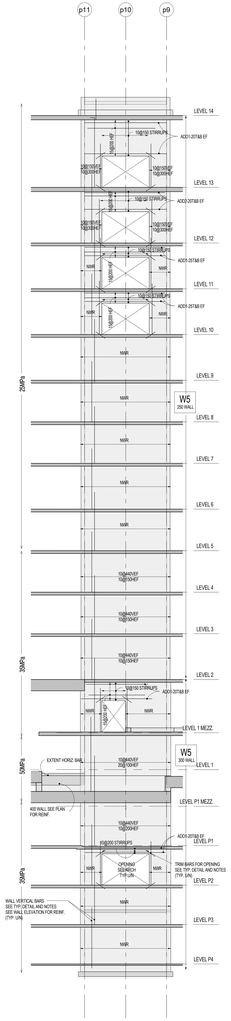
LEGEND

- WALLS AND COLUMN SHADED AS THUS INDICATE WALL AND COLUMN BELOW SLAB
- WALLS AND COLUMN SHADED AS THUS INDICATE WALL AND COLUMN ABOVE SLAB
- INDICATES COLUMN NUMBER OF BELOW SLAB. REFER TO COLUMN SCHEDULE
- INDICATES COLUMN NUMBER OF ABOVE SLAB. REFER TO COLUMN SCHEDULE

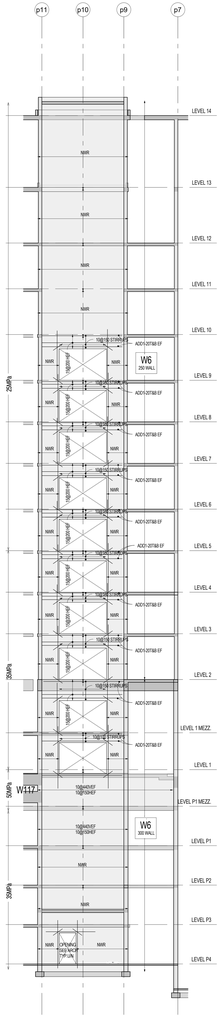


WALL ELEVATION KEY PLAN
1 : 175

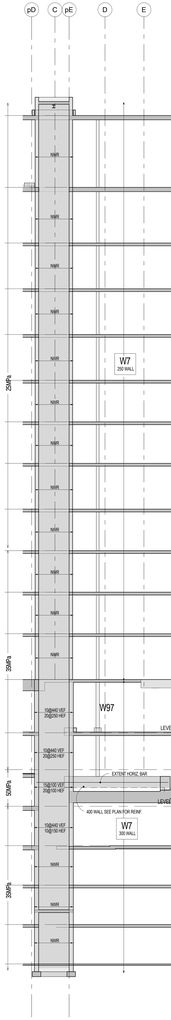

p7
p6
p5
p4
LEVEL 14
LEVEL 13
LEVEL 12
LEVEL 11
LEVEL 10
LEVEL 9
LEVEL 8
LEVEL 7
LEVEL 6
LEVEL 5
LEVEL 4
LEVEL 3
LEVEL 2
LEVEL 1 MEZZ.
LEVEL 1
LEVEL P1 MEZZ.
LEVEL P1
LEVEL P2
LEVEL P3
LEVEL P4
25MPa
30MPa
HOOKED VERTICAL BARS SEE TYP. DETAIL AND NOTES SEE WALL ELEVATION FOR REINF. (TYP. U/N)
NWR
15M@150 STIRRUPS
ADD1-20TA&B EF
ADD1-20TA&B EF
ADD1-20TA&B EF



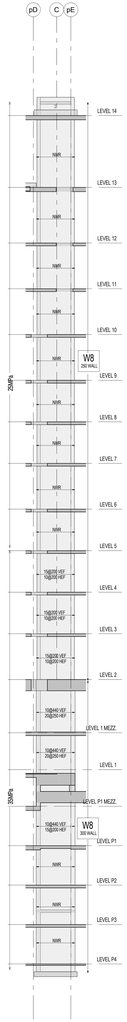
W5 WALL ELEVATION
S3-02 1 : 100



W6 WALL ELEVATION
S3-02 1 : 100



W7 WALL ELEVATION
S3-02 1 : 100



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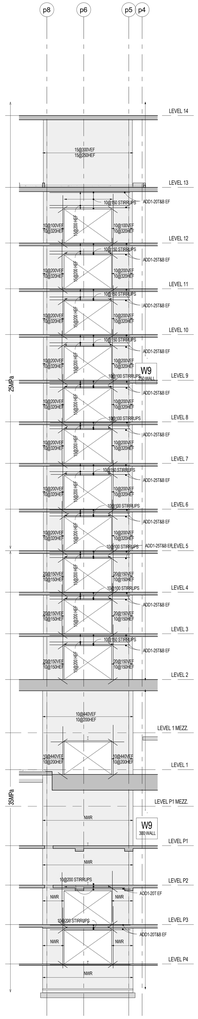
S3-02 1 : 100



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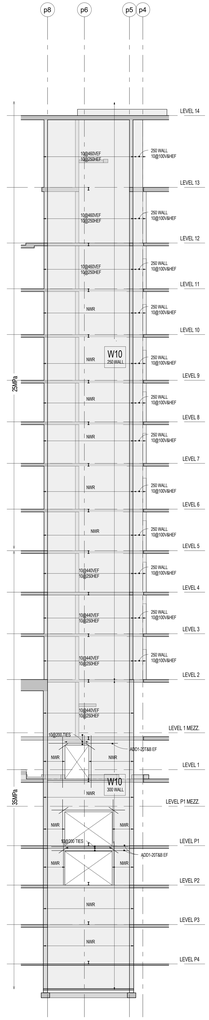
S3-02 1 : 100



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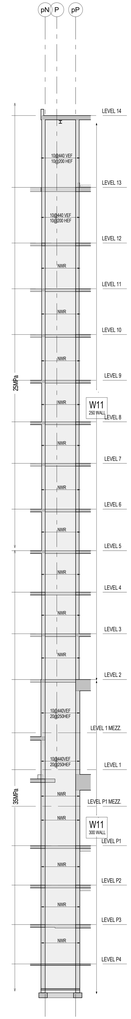
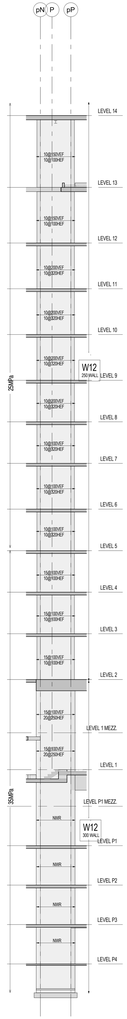


W11 WALL ELEVATION
S3-02 1 : 100



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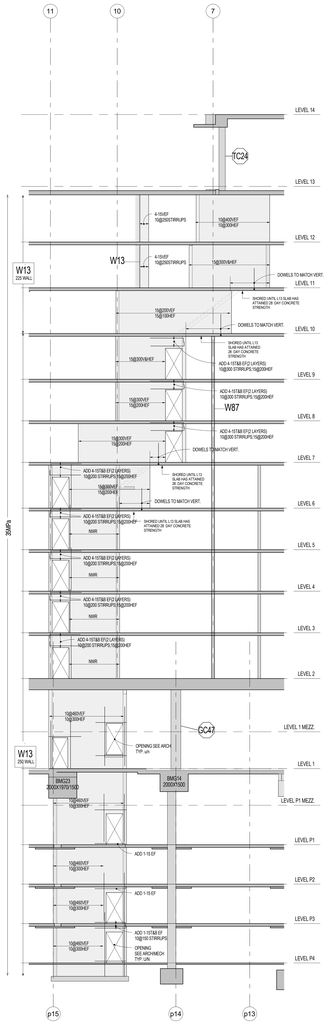
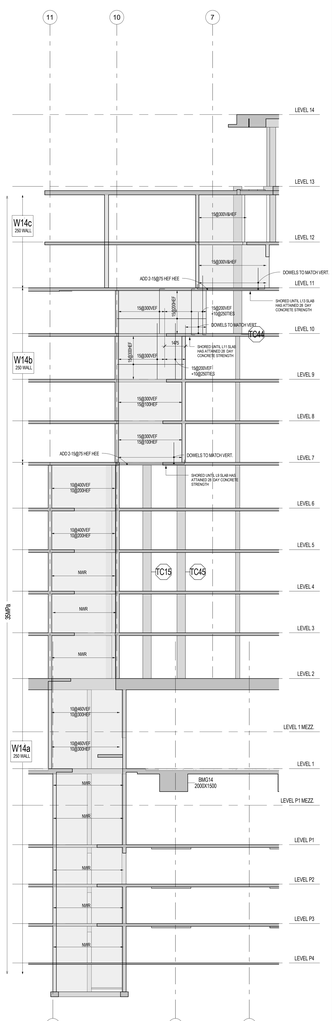


W13 WALL ELEVATION
S3-02 1 : 100



W14 WALL ELEVATION
S3-02 1 : 100

REFER TO NOTES ON SHEET S3-01

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Do Not Scale The Drawings.
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Date:

DEC 18,2015 DEC 18,2015

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No.	Revision	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR INT REVIEW	MAY 01,2015

No.	Issued For	Date

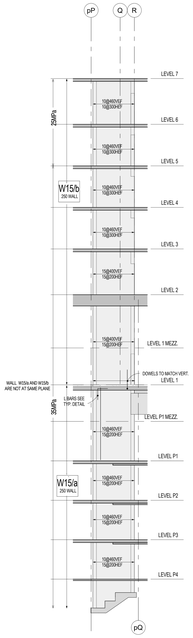
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-00031
Date	DEC.18.2015
Drawing No.	S3-02

Plot Date: 12/18/2015 10:01:58 .mw



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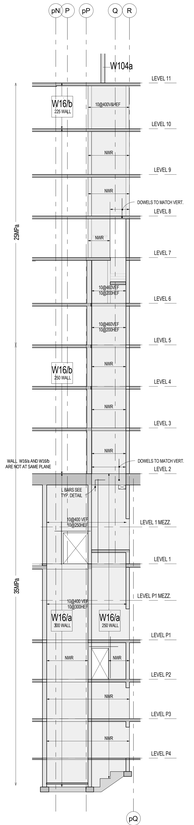
S3-03 1 : 100



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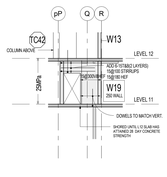
S3-03 1 : 100



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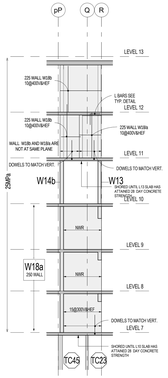
S3-03 1 : 100



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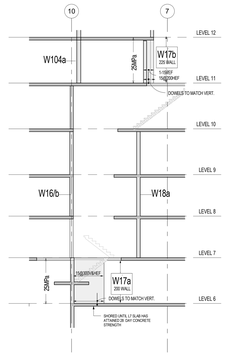

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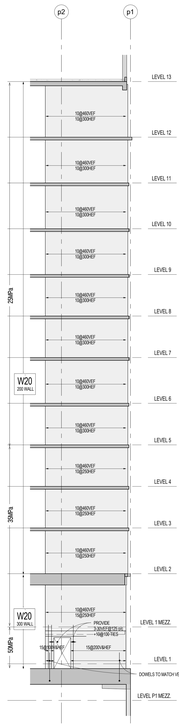

W20 WALL ELEVATION
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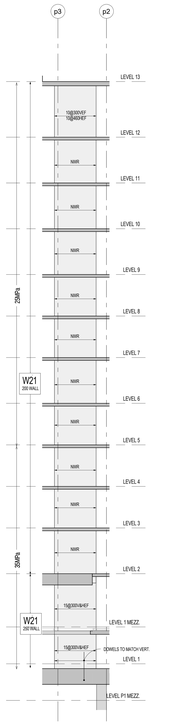

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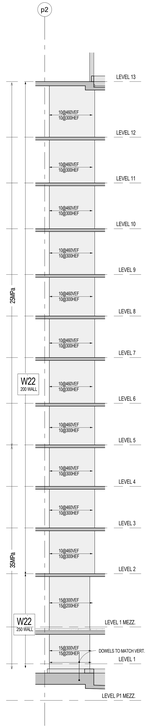

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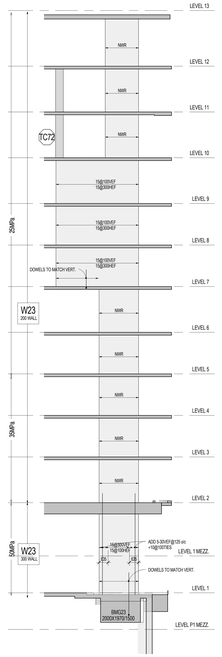
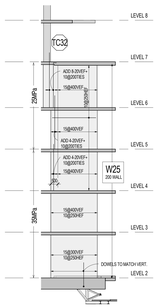
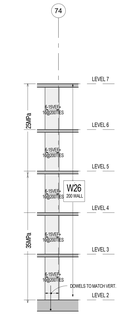


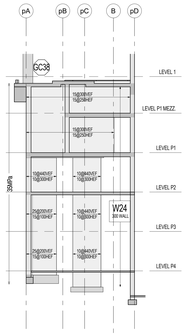
W23 WALL ELEVATION
S3-03 1 : 100



W25 WALL ELEVATION
S3-03 1 : 100



W26 WALL ELEVATION
S3-03 1 : 100



W24 WALL ELEVATION
S3-03 1 : 100

REFER TO NOTES ON SHEET S3-01

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No	Revision	Date

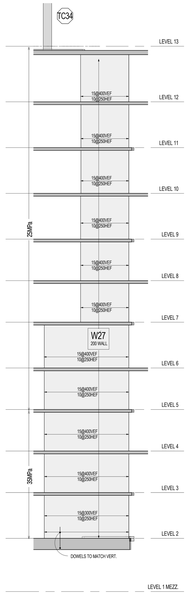
No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 21,2015

AQUAVISTA
AT BAYSIDE TORONTO

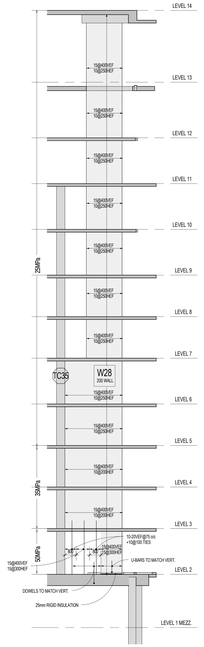
Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

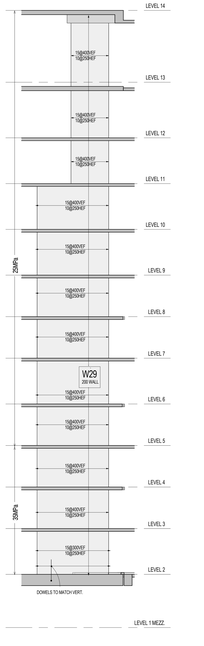
Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-00031
Date	DEC 18,2015
Drawing No.	S3-03



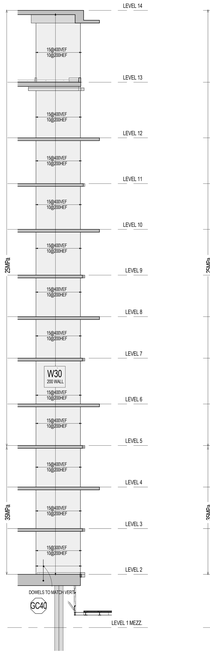
W27 WALL ELEVATION
S3-04 1 : 100



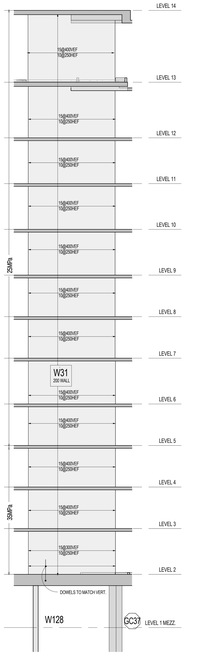
W28 WALL ELEVATION
S3-04 1 : 100



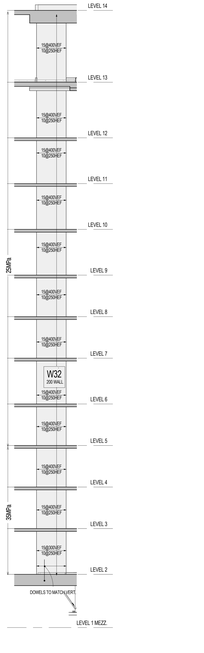
W29 WALL ELEVATION
S3-04 1 : 100



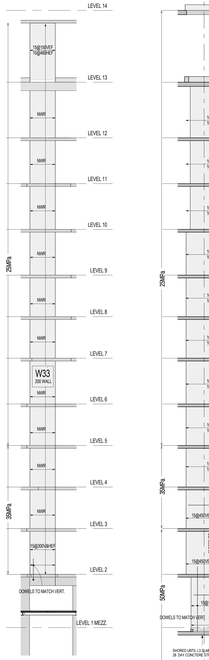
W30 WALL ELEVATION
S3-04 1 : 100



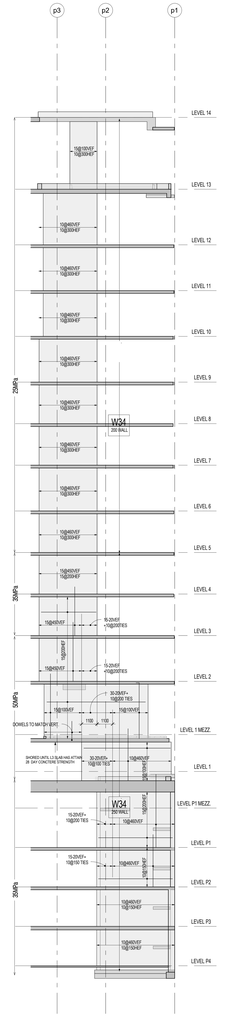
W31 WALL ELEVATION
S3-04 1 : 100



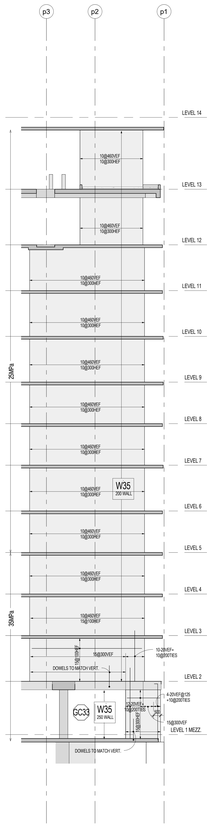
W32 WALL ELEVATION
S3-04 1 : 100



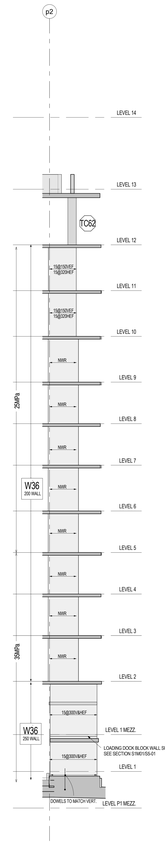
W33 WALL ELEVATION
S3-04 1 : 100



W34 WALL ELEVATION
S3-04 1 : 100



W35 WALL ELEVATION
S3-04 1 : 100



W36 WALL ELEVATION
S3-04 1 : 100

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No	Revision	Date

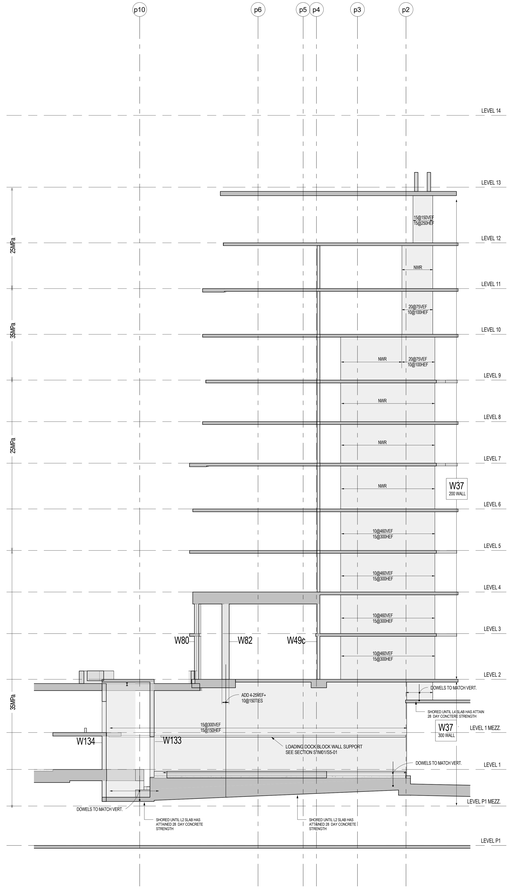
No	Issued For	Date
3	ISSUED FOR STEEL TENDER	DEC 18,2015
4	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
3	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

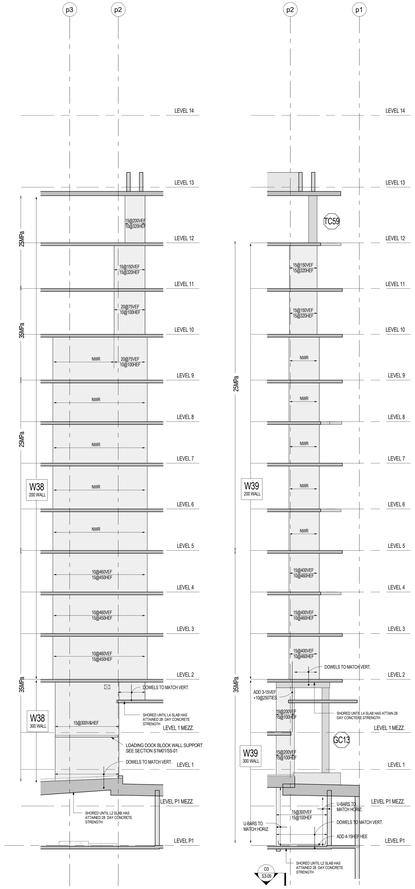
Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

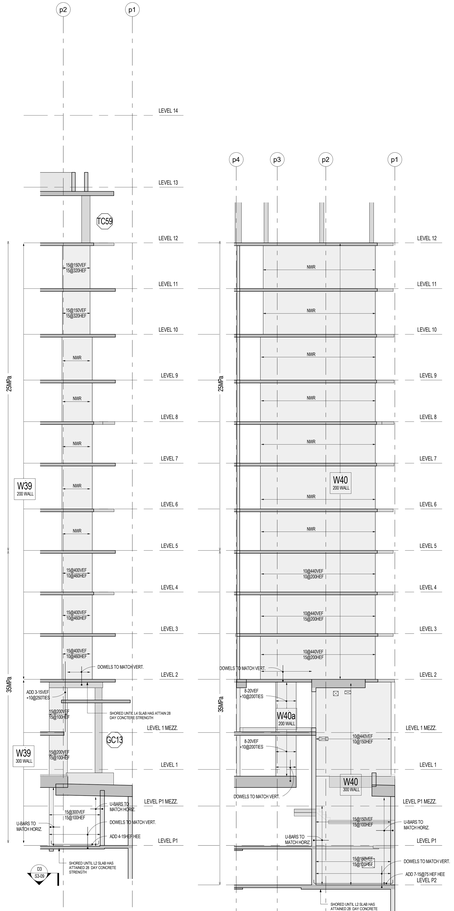
Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-0031
Date	DEC 18,2015
Drawing No.	S3-04



W37 WALL ELEVATION
S3-05 1 : 100

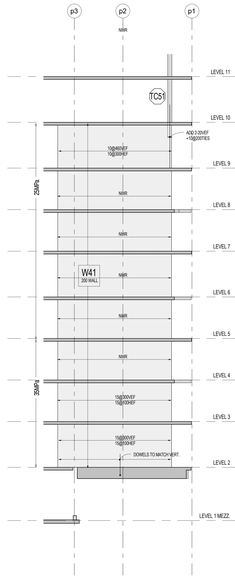


W38 WALL ELEVATION
S3-05 1 : 100

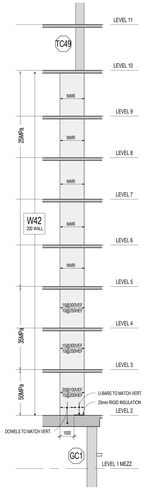


W39 WALL ELEVATION
S3-05 1 : 100

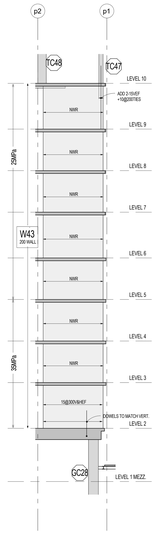
W40 WALL ELEVATION
S3-05 1 : 100



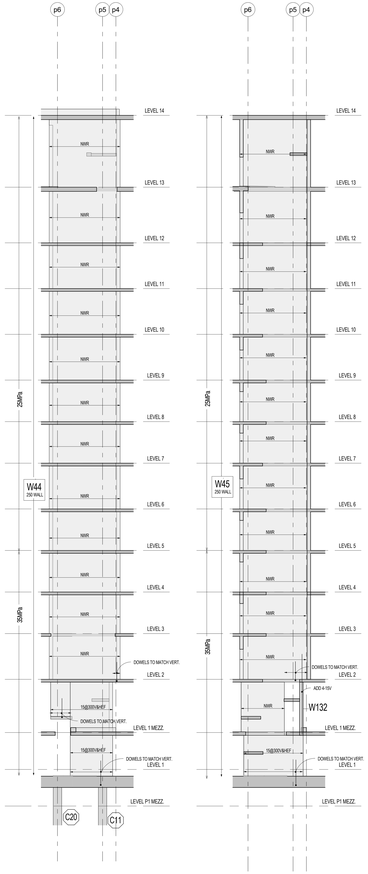
W41 WALL ELEVATION
S3-05 1 : 100



W42 WALL ELEVATION
S3-05 1 : 100



W43 WALL ELEVATION
S3-05 1 : 100



W44 WALL ELEVATION
S3-05 1 : 100

W45 WALL ELEVATION
S3-05 1 : 100

W46 WALL ELEVATION
S3-05 1 : 100

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

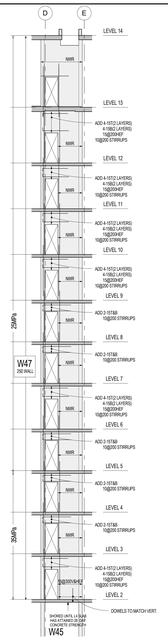
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

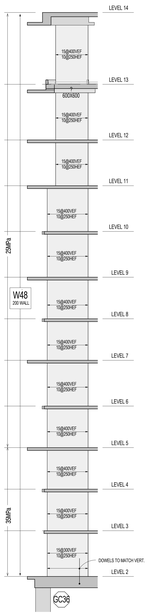
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-00031
Date	DEC.18.2015
Drawing No.	S3-05

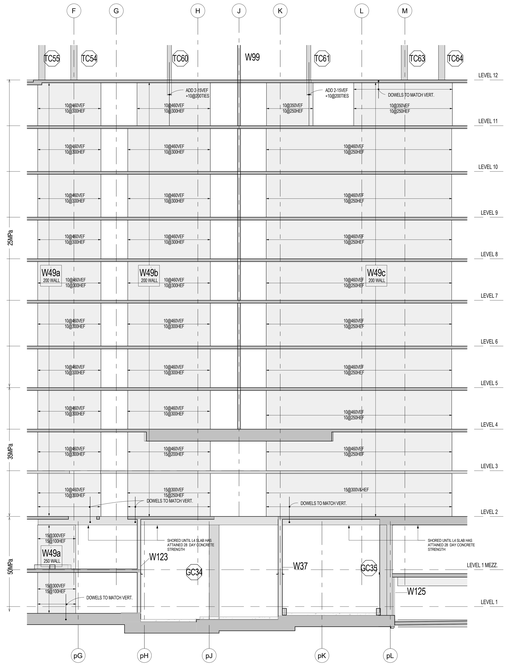
Plot Date: 3/9/2016 10:02:11 AM



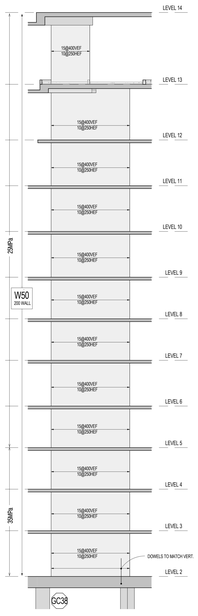
W47 WALL ELEVATION
S3-06 1 : 100



W48 WALL ELEVATION
S3-06 1 : 100

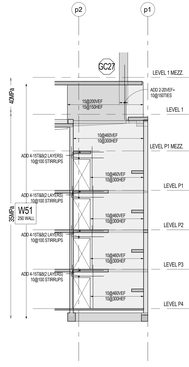


W49 WALL ELEVATION
S3-06 1 : 100

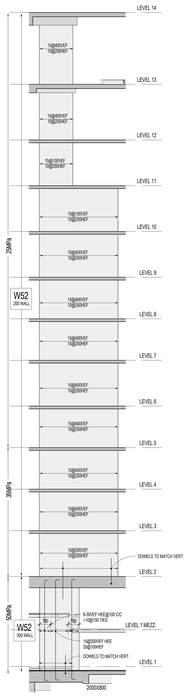


W50 WALL ELEVATION
S3-06 1 : 100

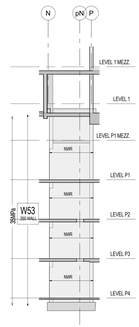
C10



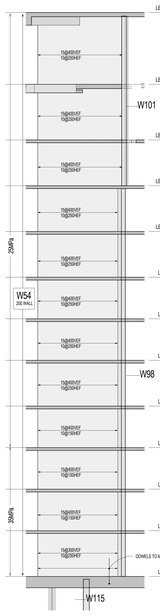
W51 WALL ELEVATION
S3-06 1 : 100



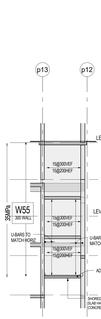
W52 WALL ELEVATION
S3-06 1 : 100



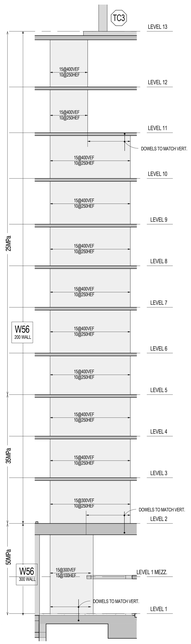
W53 WALL ELEVATION
S3-06 1 : 100



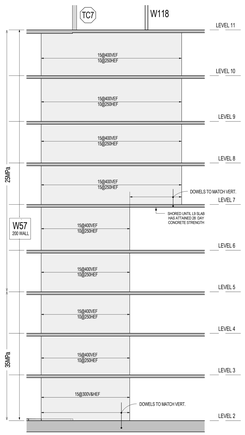
W54 WALL ELEVATION
S3-06 1 : 100



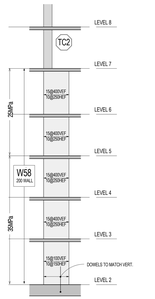
W55 WALL ELEVATION
S3-06 1 : 100



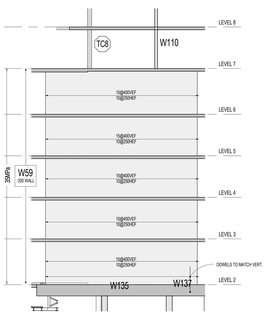
W56 WALL ELEVATION
S3-06 1 : 100



W57 WALL ELEVATION
S3-06 1 : 100



W58 WALL ELEVATION
S3-06 1 : 100



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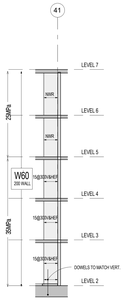
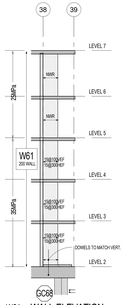
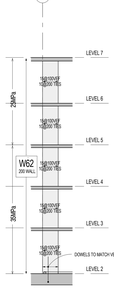
S3-06 1 : 100



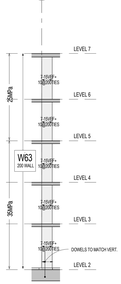
W60 WALL ELEVATION
S3-06 1 : 100



W61 WALL ELEVATION
S3-06 1 : 100

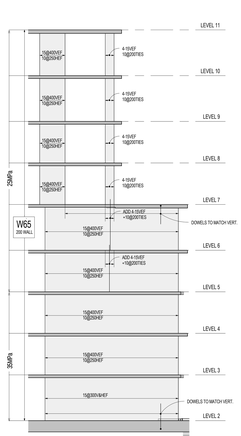


W62 WALL ELEVATION
S3-06 1 : 100

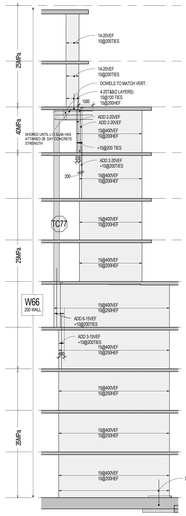


W63 WALL ELEVATION
S3-06 1 : 100

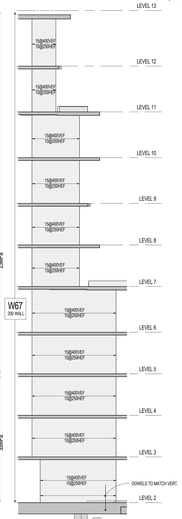
W64 WALL ELEVATION
S3-06 1 : 100



W65 WALL ELEVATION
S3-06 1 : 100



W66 WALL ELEVATION
S3-06 1 : 100



W67 WALL ELEVATION
S3-06 1 : 100

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No.	Revision	Date

No.	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

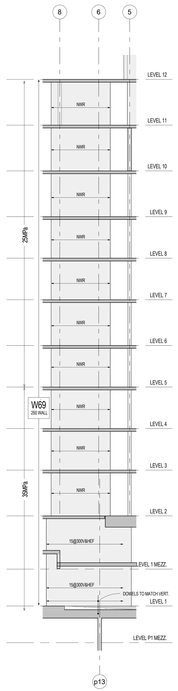
Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

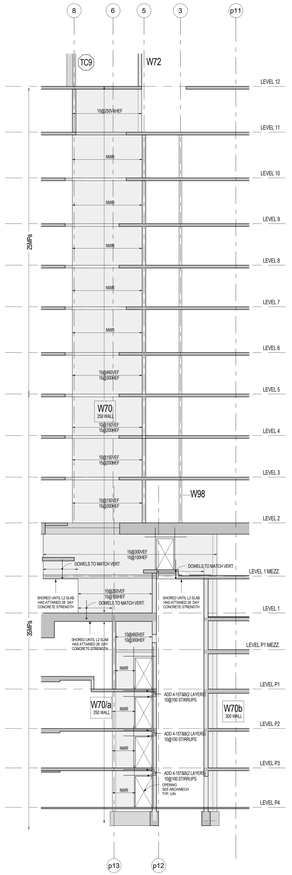
Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014003?
Date	DEC.18.2015
Drawing No.	S3-06

Plot Date: 3/9/2016 10:02:17 AM

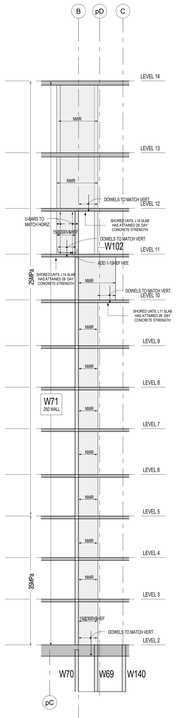
W68 WALL ELEVATION
S3-07 1 : 100



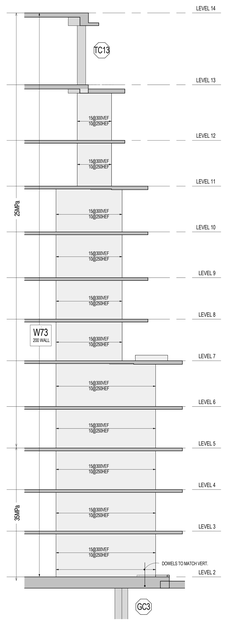
W69 WALL ELEVATION
S3-07 1 : 100



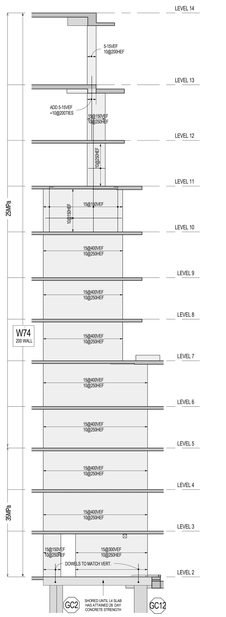
W70 WALL ELEVATION
S3-07 1 : 100



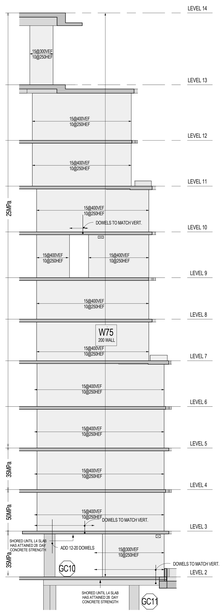
W71,W72 WALL ELEVATION
S3-07 1 : 100



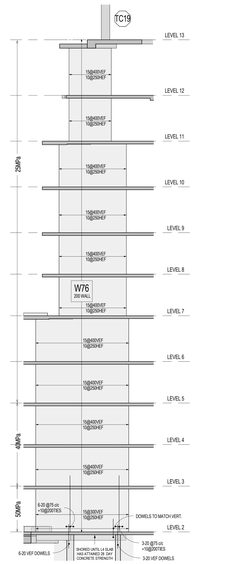
W73 WALL ELEVATION
S3-07 1 : 100



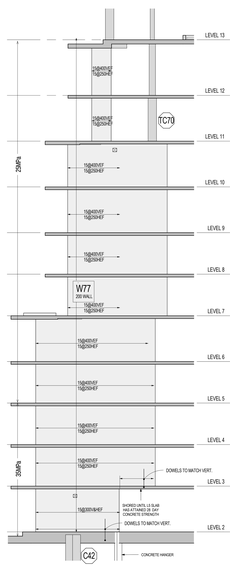
W74 WALL ELEVATION
S3-07 1 : 100



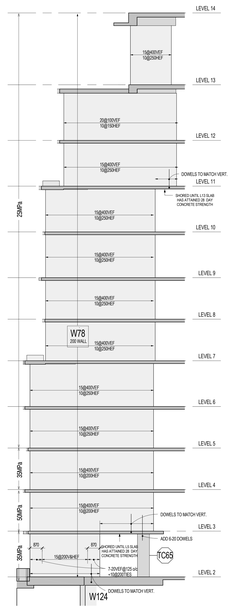
W75 WALL ELEVATION
S3-07 1 : 100



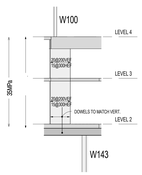
W76 WALL ELEVATION
S3-07 1 : 100



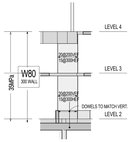
W77 WALL ELEVATION
S3-07 1 : 100



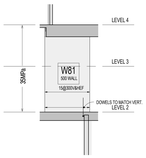
W78 WALL ELEVATION
S3-07 1 : 100



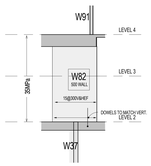
W79 WALL ELEVATION
S3-07 1 : 100



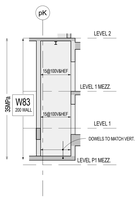
W80 WALL ELEVATION
S3-07 1 : 100



W81 WALL ELEVATION
S3-07 1 : 100



W82 WALL ELEVATION
S3-07 1 : 100



W83 WALL ELEVATION
S3-07 1 : 100

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 21,2015

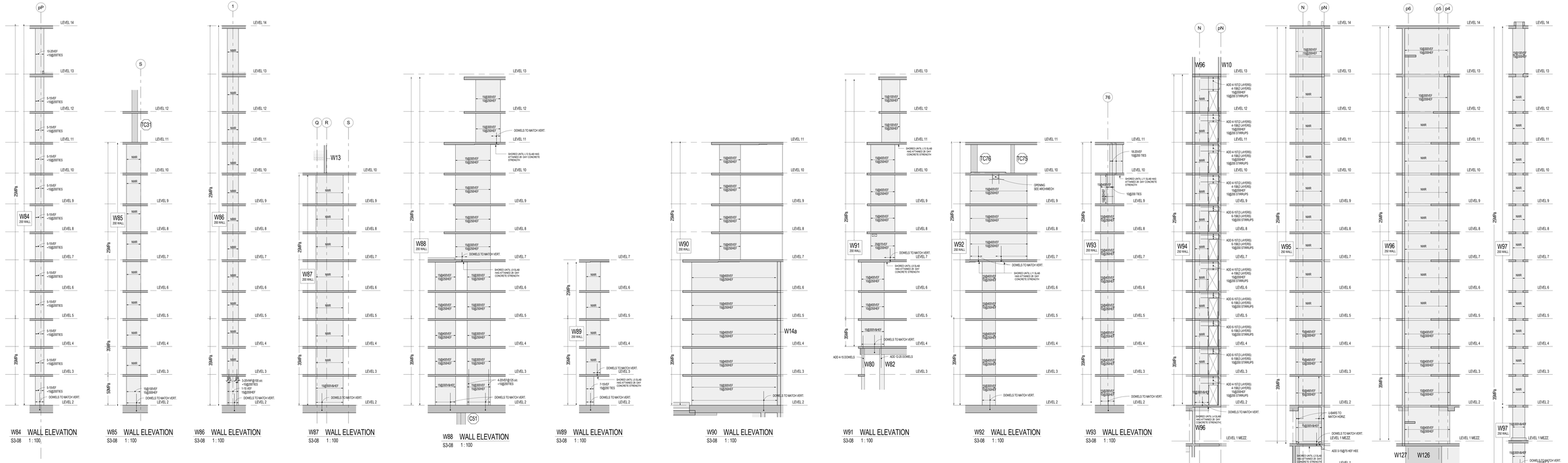
No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-0031
Date	DEC.18.2015
Drawing No.	S3-07



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No.	Revision	Date

No.	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IRT REVIEW	MAY 01,2015

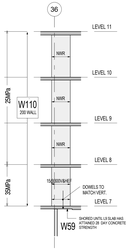
AQUAVISTA
AT BAYSIDE TORONTO

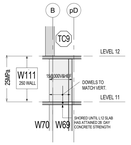
Drawing Title
WALL ELEVATIONS

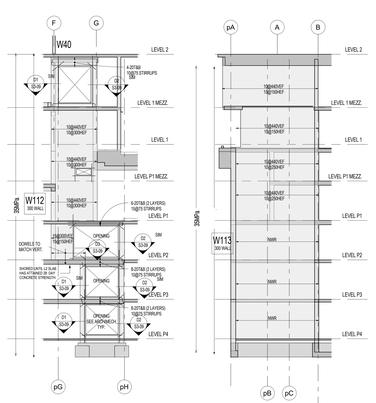
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

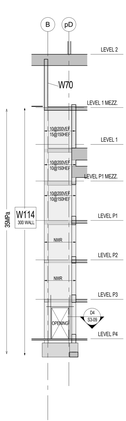
Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-0031
Date	DEC.18.2015
Drawing No.	S3-08

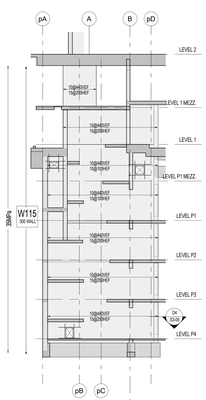
Plot Date: 12/18/2015 10:02:29 AM

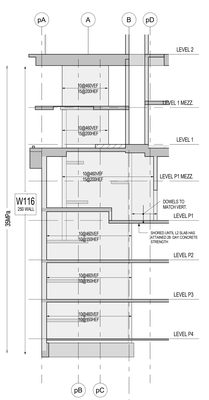


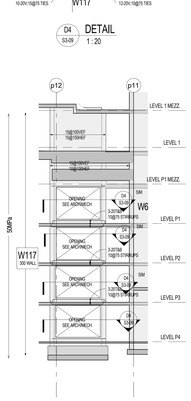


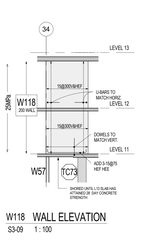


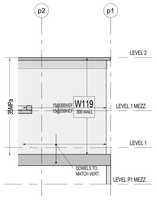


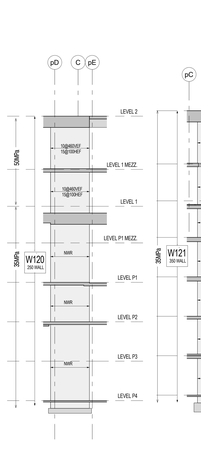


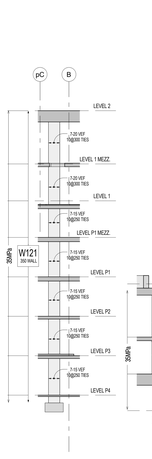


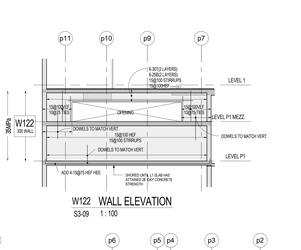


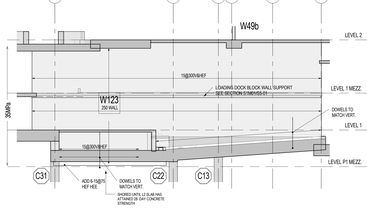


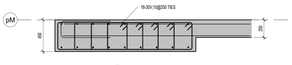


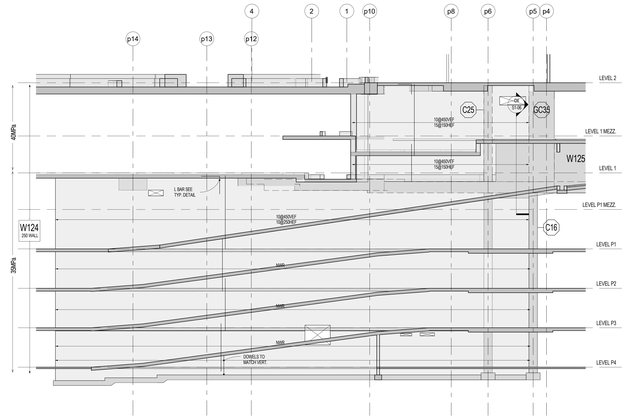


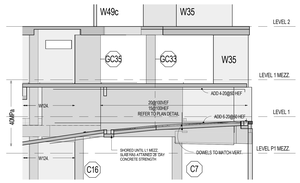


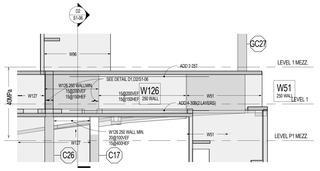


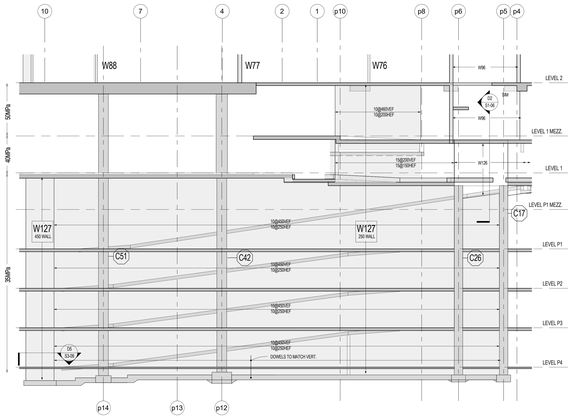


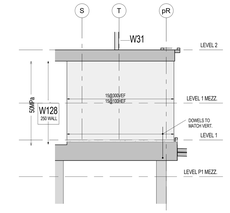


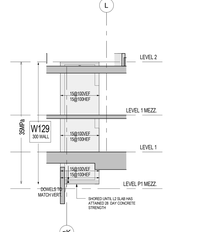


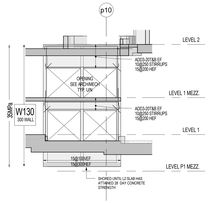


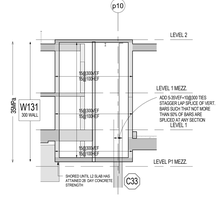












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No	Revision	Date

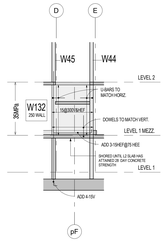
No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

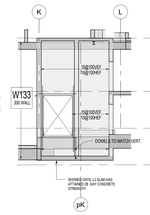
Drawing Title
WALL ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

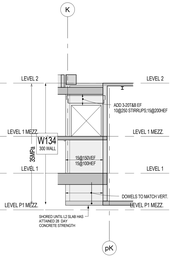
Scale	As indicated
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-0031
Date	DEC.18.2015
Drawing No.	S3-09



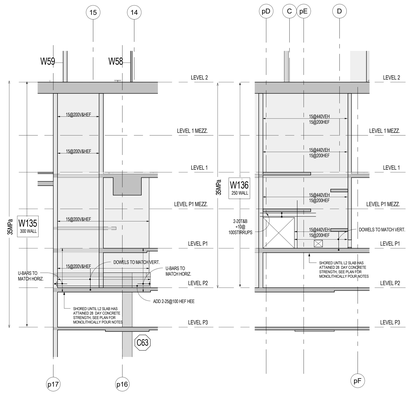
W132 WALL ELEVATION
S3-10 1 : 100



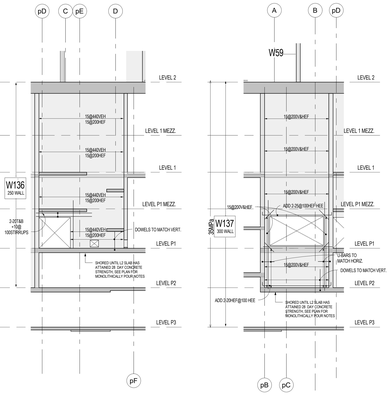
W133 WALL ELEVATION
S3-10 1 : 100



W134 WALL ELEVATION
S3-10 1 : 100

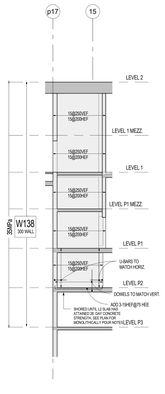


W135 WALL ELEVATION
S3-10 1 : 100

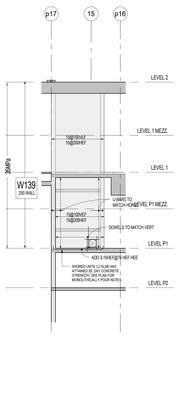


W136 WALL ELEVATION
S3-10 1 : 100

W137 WALL ELEVATION
S3-10 1 : 100



W138 WALL ELEVATION
S3-10 1 : 100



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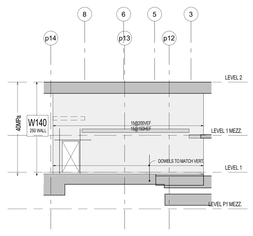
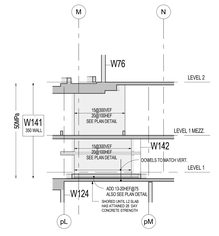
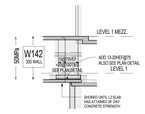
S3-10 1 : 100



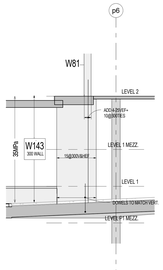
W140 WALL ELEVATION
S3-10 1 : 100



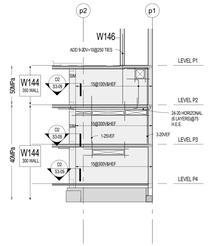
W141 WALL ELEVATION
S3-10 1 : 100



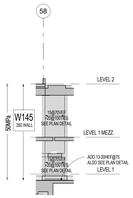
W142 WALL ELEVATION
S3-10 1 : 100



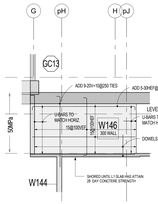
W143 WALL ELEVATION
S3-10 1 : 100



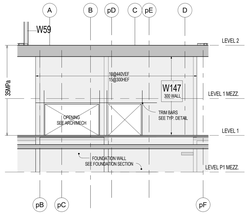
W144 WALL ELEVATION
S3-10 1 : 100



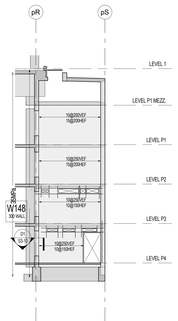
W145 WALL ELEVATION
S3-10 1 : 100



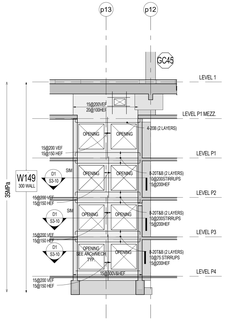
W146 WALL ELEVATION
S3-10 1 : 100



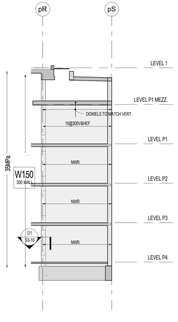
W147 WALL ELEVATION
S3-10 1 : 100



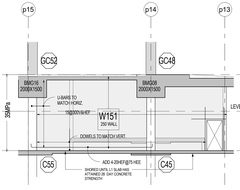
W148 WALL ELEVATION
S3-10 1 : 100



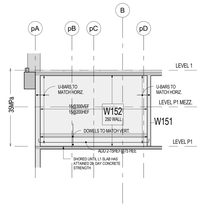
W149 WALL ELEVATION
S3-10 1 : 100



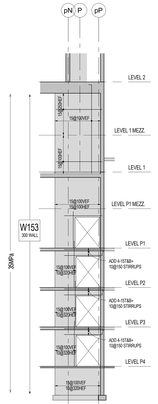
W150 WALL ELEVATION
S3-10 1 : 100



W151 WALL ELEVATION
S3-10 1 : 100



W152 WALL ELEVATION
S3-10 1 : 100



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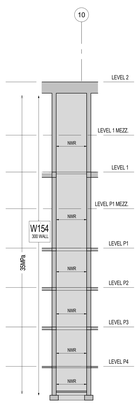
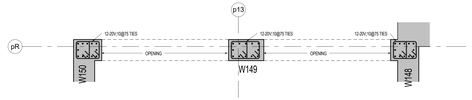
S3-10 1 : 100



W154 WALL ELEVATION
S3-10 1 : 100



D1 DETAIL
S3-10 1 : 20

REFER TO NOTES ON SHEET S3-01

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DEC 18,2015 DEC 18,2015

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No.	Revision	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IAT REVIEW	MAY 21,2015

No.	Issued For	Date

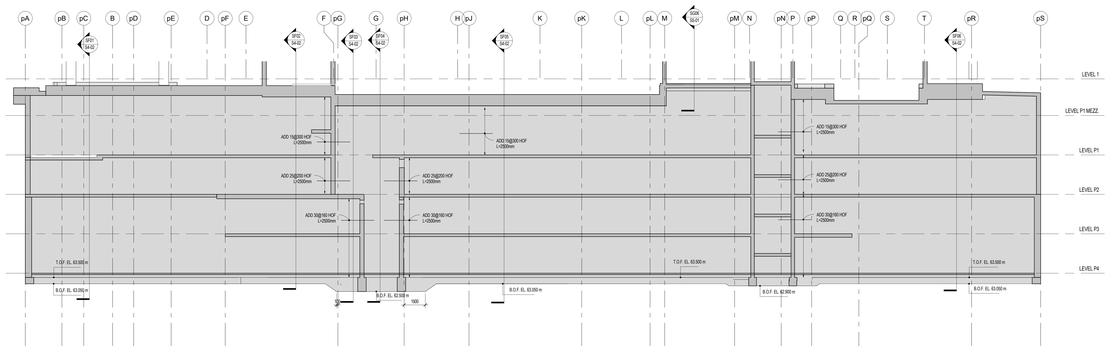
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

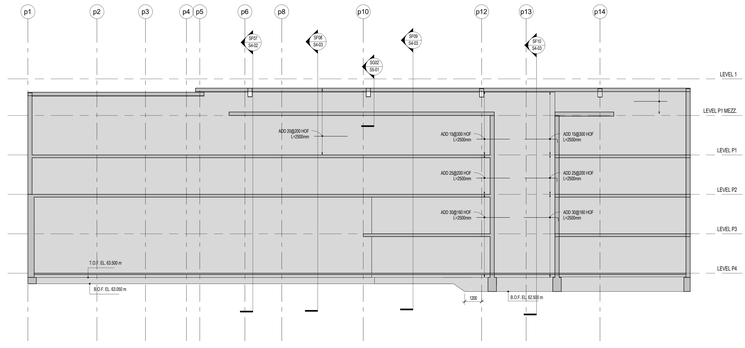
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	BK/BBS
Project No.	2014-00031
Date	DEC.18.2015
Drawing No.	S3-10

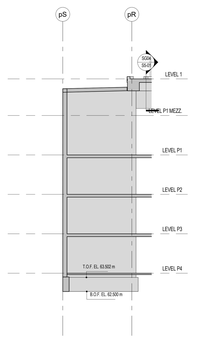
Plot Date: 3/9/2016 10:02:42 AM



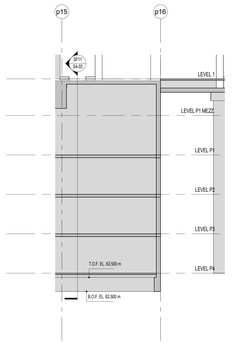
WEST FOUNDATION ELEVATION
1 : 100



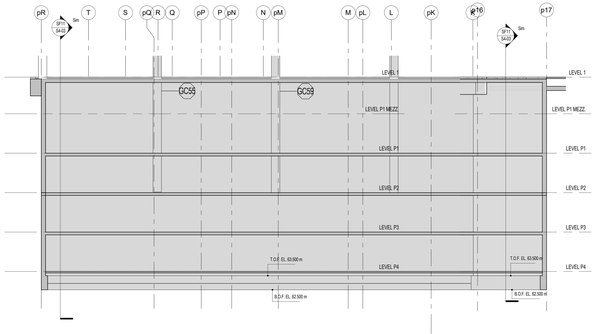
NORTH FOUNDATION ELEVATION 1
1 : 100



NORTH FOUNDATION ELEVATION 2
1 : 100

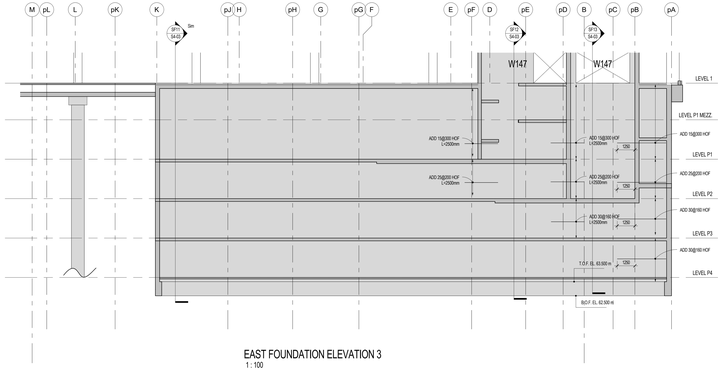


NORTH FOUNDATION ELEVATION 3
1 : 100

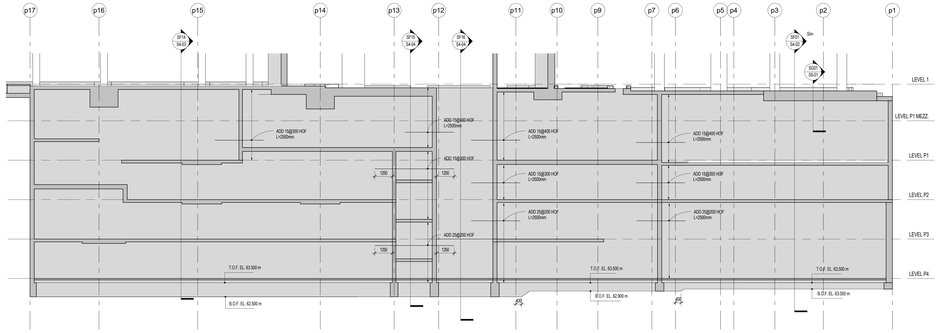


EAST FOUNDATION ELEVATION 1
1 : 100

EAST FOUNDATION ELEVATION 2
1 : 100



EAST FOUNDATION ELEVATION 3
1 : 100



SOUTH FOUNDATION ELEVATION
1 : 100

1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
2. OVERALL LENGTH OF REINFORCEMENT SHOULD ACCOUNT FOR VARIATIONS IN TOP OF FOOTING ELEVATION WHILE STILL MEETING THE MINIMUM LAP SPLICES INDICATED. VARIATIONS IN FOOTING ELEVATION DURING CONSTRUCTION WILL REQUIRE MODIFICATION TO REINFORCEMENT TO ACCOMMODATE ACCORDINGLY.

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR IBT REVIEW	MAY 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

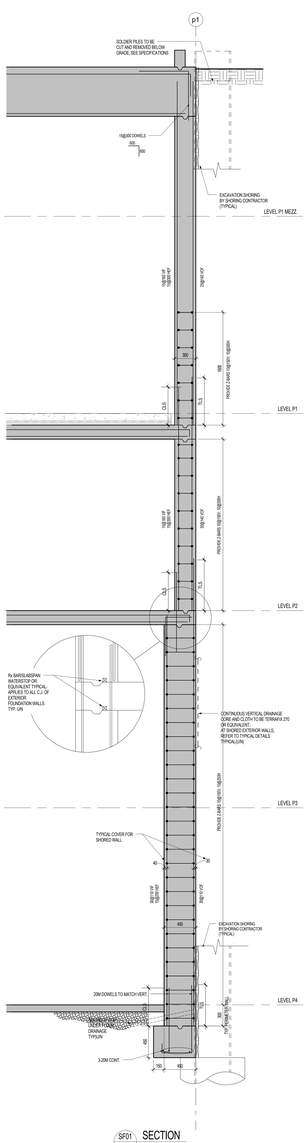
Drawing Title
FOUNDATION ELEVATIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

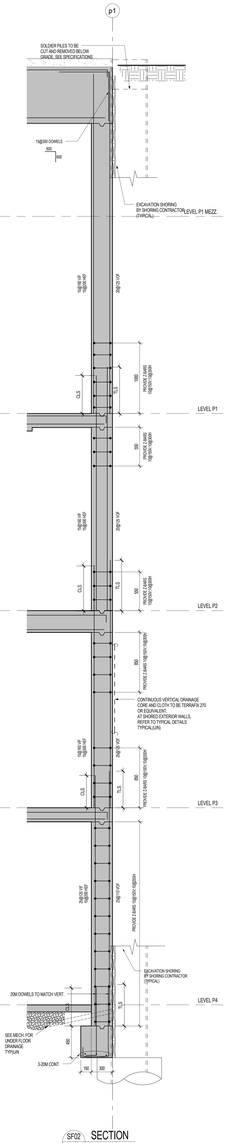
Scale	Drawn by
As indicated	DC
Checked by	Project No.
IA/BBS	20140031
Date	Drawing No.
DEC.18.2015	S4-01

Plot Date: 3/9/2016 10:02:45 AM

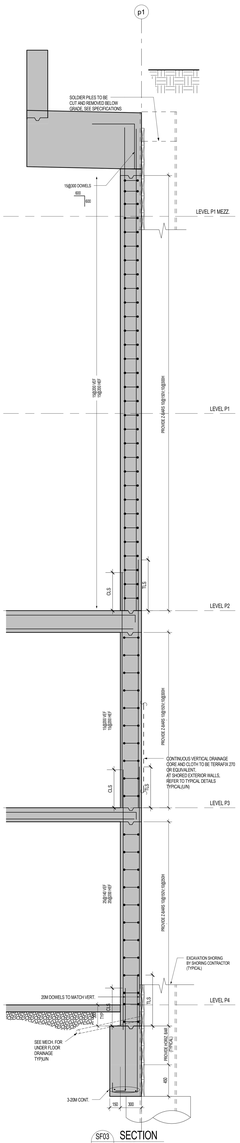
1. REFER TO TYPICAL DETAILS T-C06A AND TC06B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
2. OVERALL LENGTH OF REINFORCEMENT SHOULD ACCOUNT FOR VARIATIONS IN TOP OF FOOTING ELEVATION WHILE STILL MEETING THE MINIMUM LAP SPLICES INDICATED. VARIATIONS IN FOOTING ELEVATION DURING CONSTRUCTION WILL REQUIRE MODIFICATION TO REINFORCEMENT TO ACCOMMODATE ACCORDINGLY.



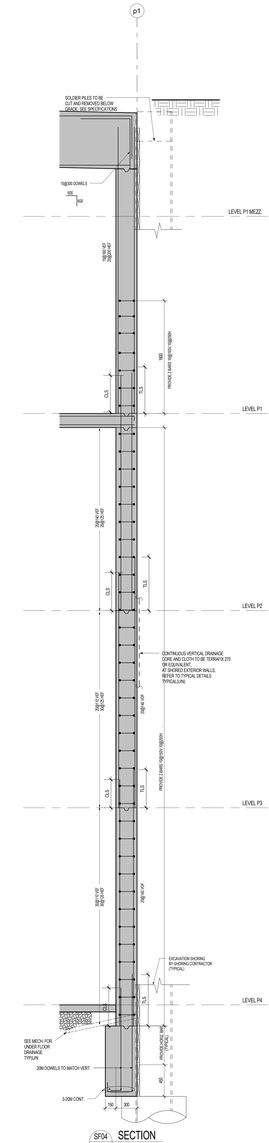
SF01 SECTION
S4-02 1 : 20



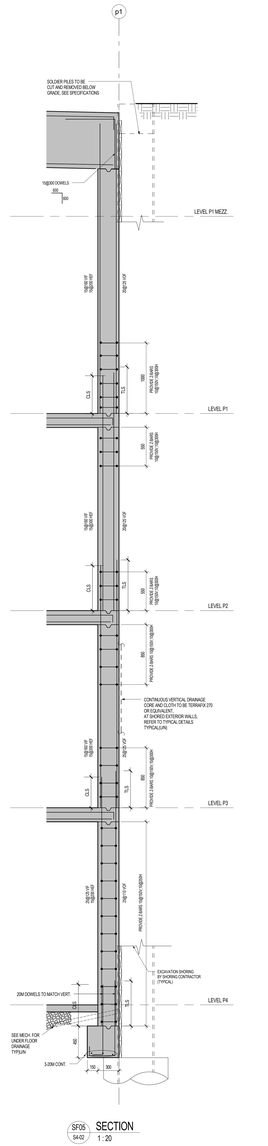
SF02 SECTION
S4-02 1 : 20



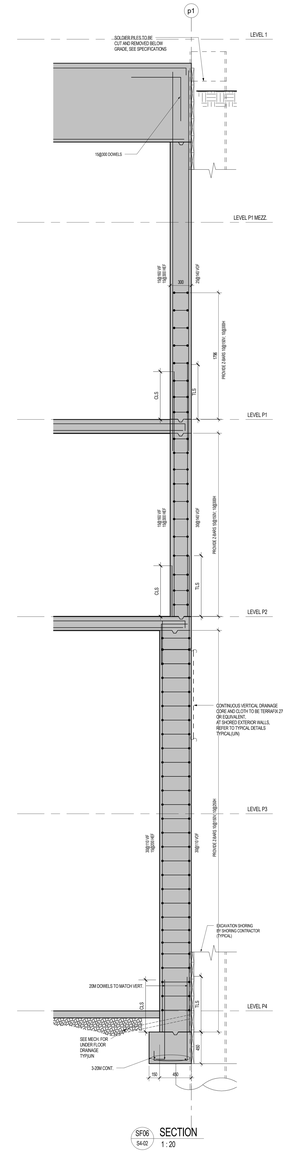
SF03 SECTION
S4-02 1 : 20



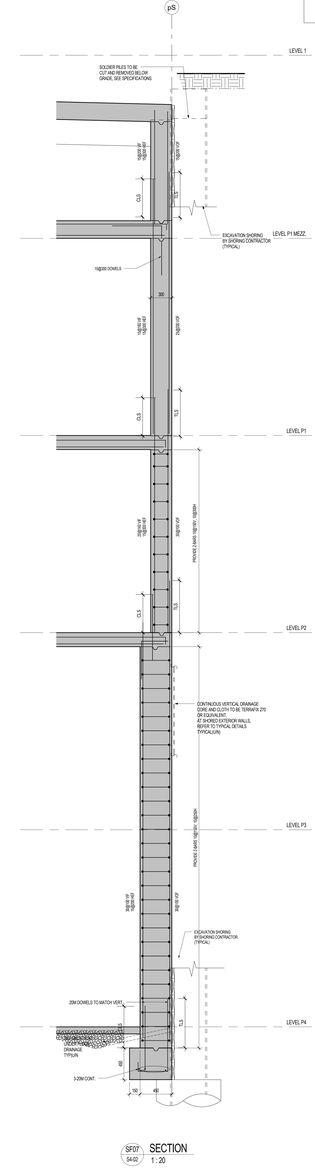
SF04 SECTION
S4-02 1 : 20



SF05 SECTION
S4-02 1 : 20



SF06 SECTION
S4-02 1 : 20



SF07 SECTION
S4-02 1 : 20

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT.21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR ATT REVIEW	MAY.01,2015

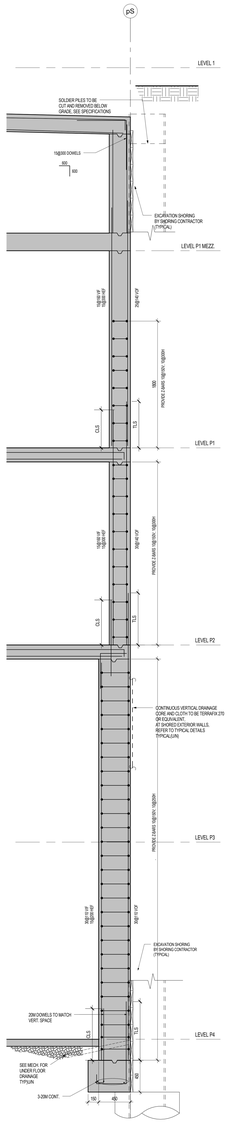
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
FOUNDATION SECTIONS

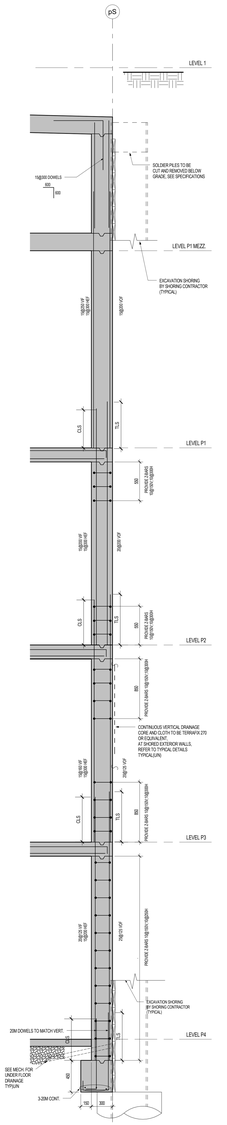
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014-0031
Date	DEC.18,2015
Drawing No.	S4-02

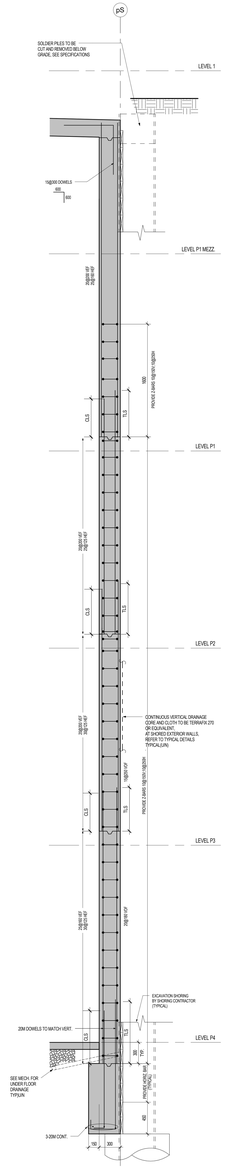
Plot Date: 12/9/2015 10:02:49 AM



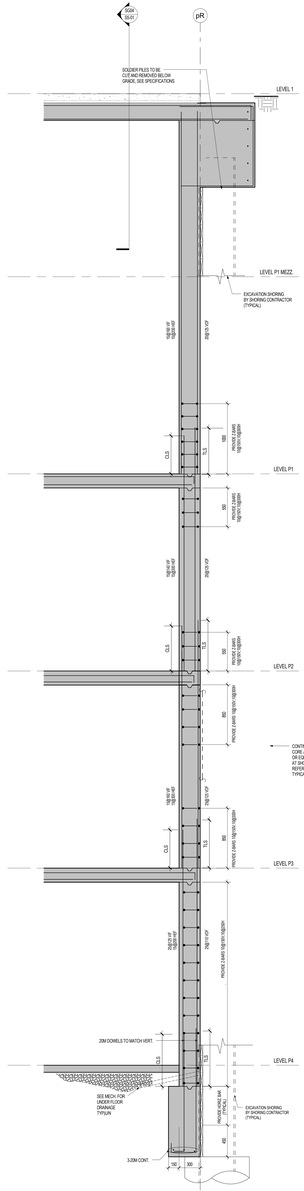
SF08 SECTION
S4-03 1 : 20



SF09 SECTION
S4-03 1 : 20



SF10 SECTION
S4-03 1 : 20



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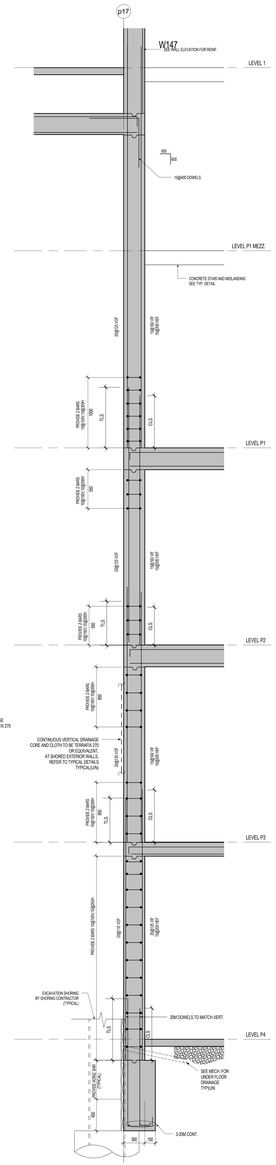
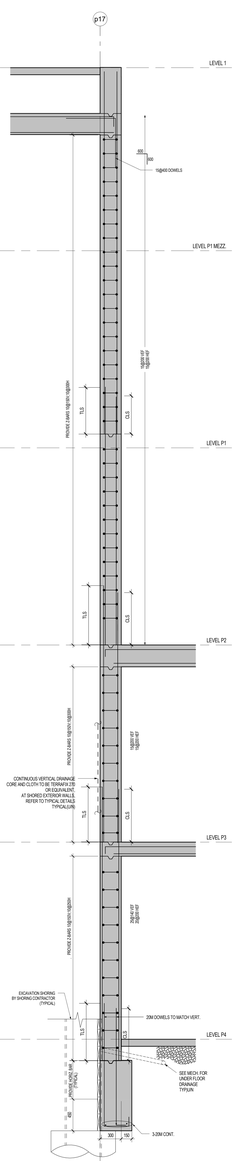
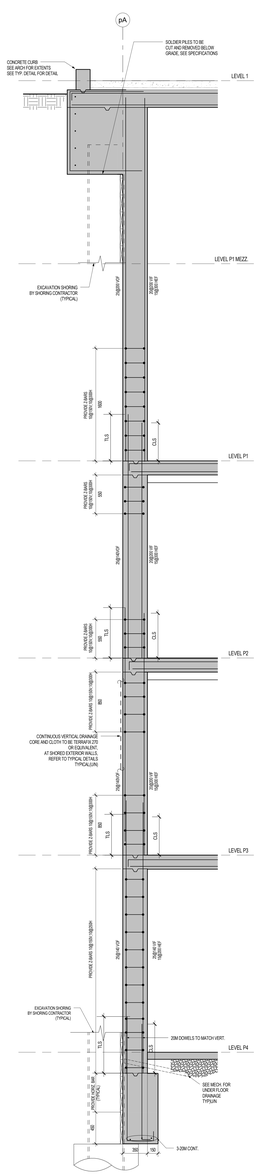
S4-03 1 : 20



SF12 SECTION
S4-03 1 : 20



SF13 SECTION
S4-03 1 : 20



SF14 SECTION
S4-03 1 : 20

1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
2. OVERALL LENGTH OF REINFORCEMENT SHOULD ACCOUNT FOR VARIATIONS IN TOP OF FOOTING ELEVATION WHILE STILL MEETING THE MINIMUM LAP SPLICES INDICATED. VARIATIONS IN FOOTING ELEVATION DURING CONSTRUCTION WILL REQUIRE MODIFICATION TO REINFORCEMENT TO ACCOMMODATE ACCORDINGLY.

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015
6	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
5	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	MAY 01,2015

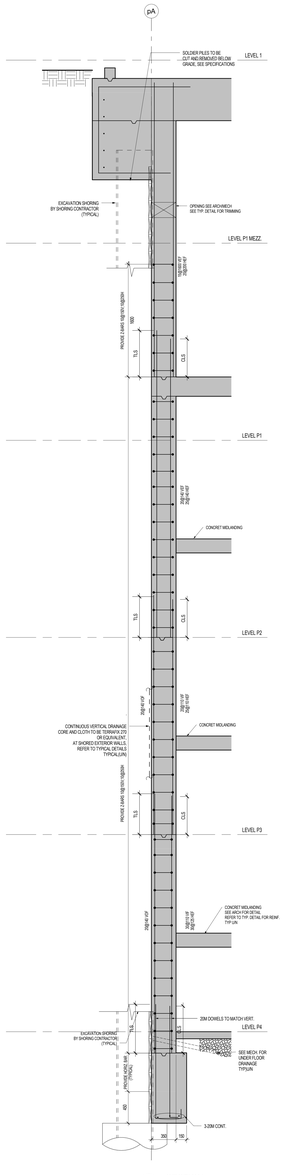
No	Issued For	Date

AQUAVISTA
AT BAYSIDE TORONTO

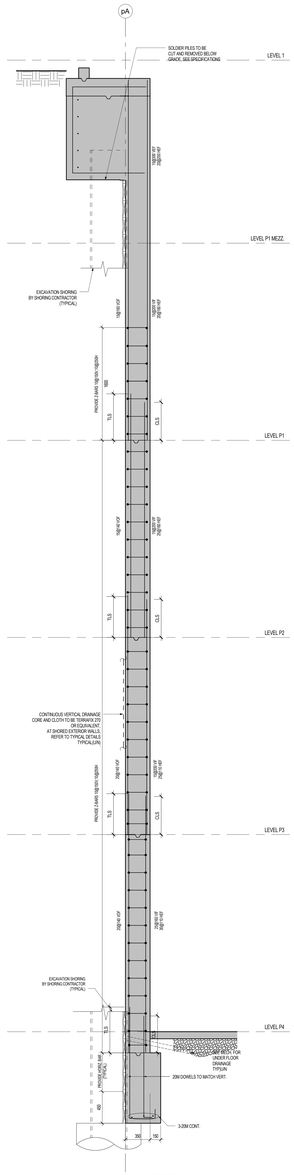
Drawing Title
FOUNDATION SECTIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

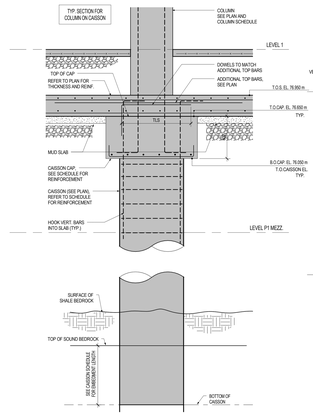
Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014003?
Date	DEC.18,2015
Drawing No.	S4-03



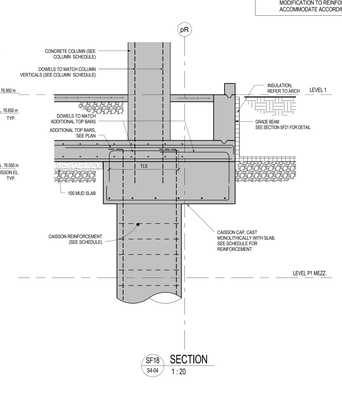
SF15 SECTION
S4-04 1 : 20



SF16 SECTION
S4-04 1 : 20



SF17 SECTION
S4-04 1 : 20



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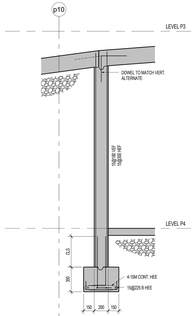
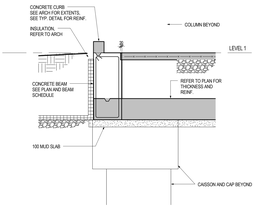
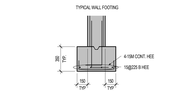
S4-04 1 : 20



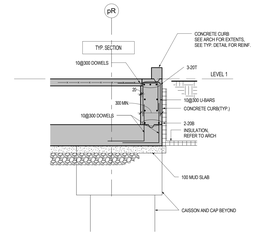
SF20 SECTION
S4-04 1 : 20



SF19 SECTION
S4-04 1 : 20



SF22 SECTION
S4-04 1 : 20



SF21 SECTION
S4-04 1 : 20

1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
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DEC 18,2015

DEC 18,2015

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC.18,2015
6	ISSUED FOR CAISSONS CONSTRUCTION ONLY	NOV.30,2015
4	BUILDING PERMIT - RESUBMISSION	SEPT.21,2015
3	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR WT REVIEW	MAY 01,2015

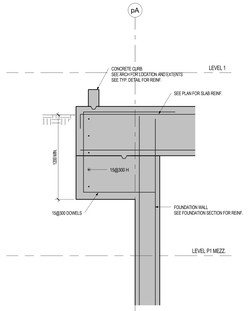
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
FOUNDATION SECTIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	IA/BBS
Project No.	2014-00031
Date	DEC.18,2015
Drawing No.	S4-04

Plot Date: 3/9/2016 10:02:56 AM



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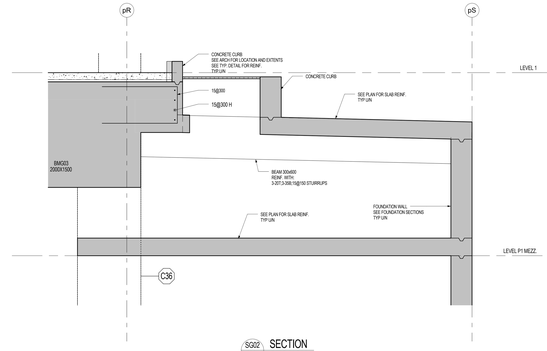

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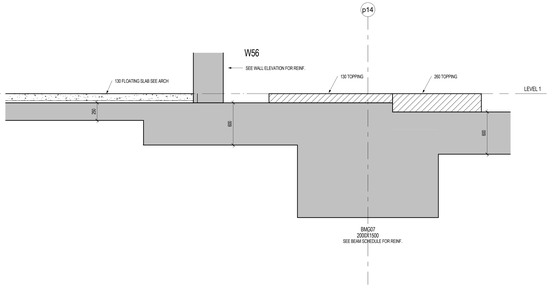

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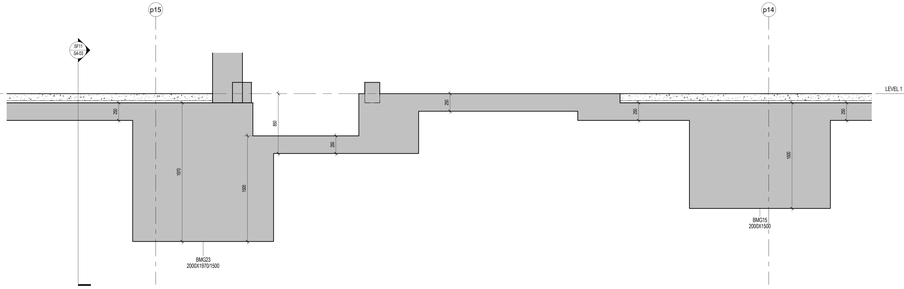

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SG05 SECTION
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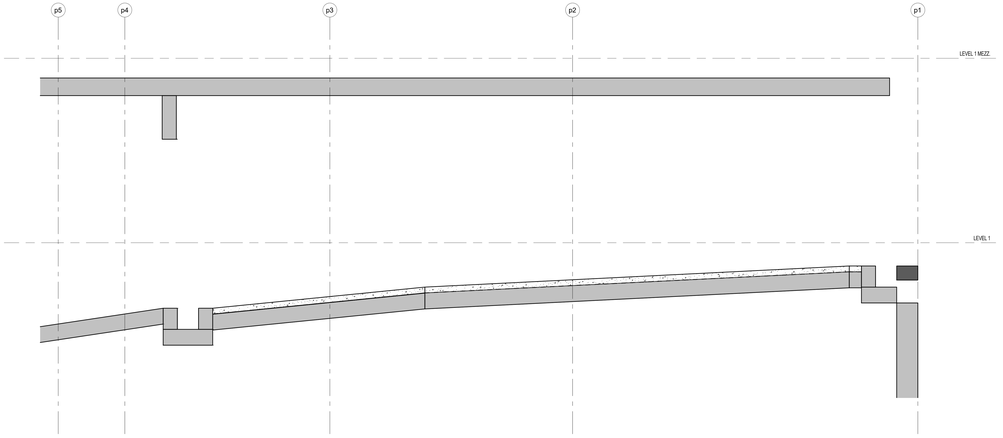

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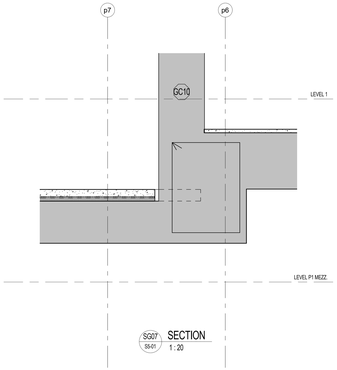

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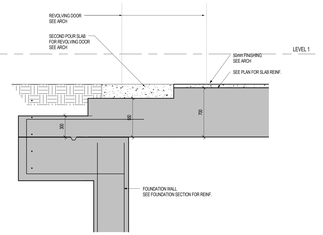

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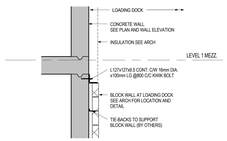

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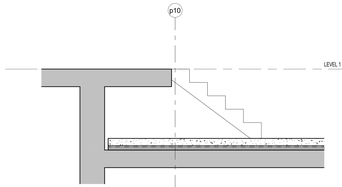

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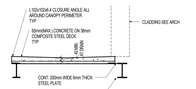

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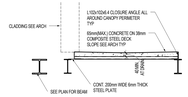

S1M04 SECTION
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DEC 18,2015 DEC 18,2015

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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC 18,2015
4	BUILDING PERMIT RESUBMISSION	SEPT 21,2015
3	BUILDING PERMIT RESUBMISSION	JULY 22,2015
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015

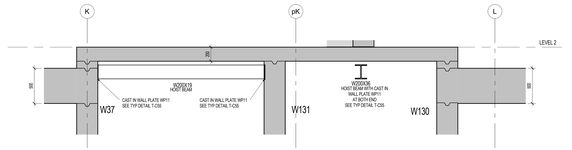
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
PODIUM FLOOR SECTIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 20
Drawn by	DC
Checked by	BK/BBS
Project No.	2014003.1
Date	DEC.18.2015
Drawing No.	S5-01

Plot Date: 12/18/2015 10:53:00 AM



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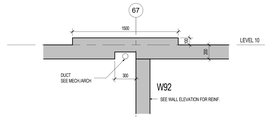

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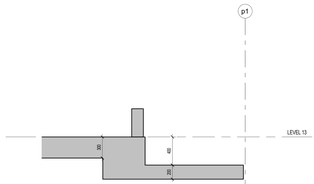

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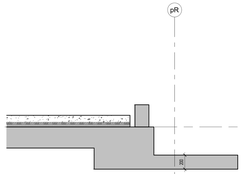

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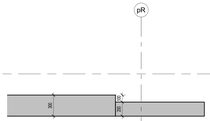

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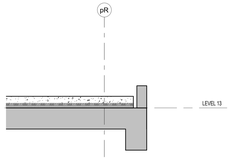

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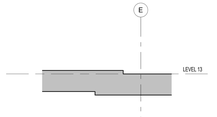

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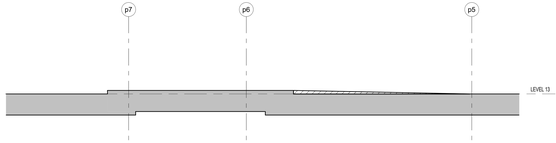

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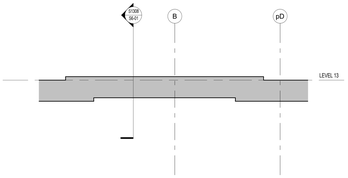

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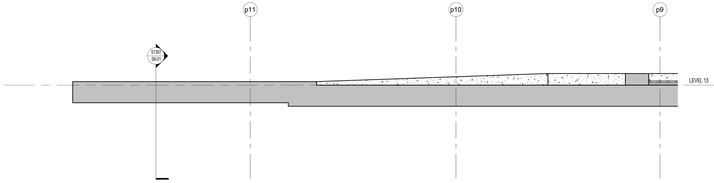

S1308 SECTION
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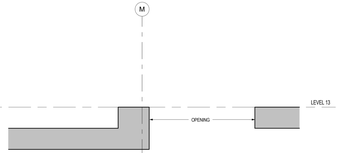

S1310 SECTION
S6-01 1 : 20

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No	Revision	Date

7	ISSUED FOR STEEL TENDER	DEC 18,2015

No	Issued For	Date

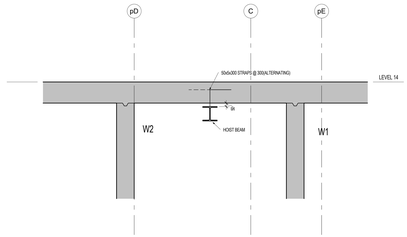
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
FLOOR SECTIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale 1 : 20
Drawn by DC
Checked by BBS
Project No 20140031
Date DEC 18,2015
Drawing No S6-01

Plot Date: 12/18/2015 10:53:02 AM



SR01 ST-01 SECTION
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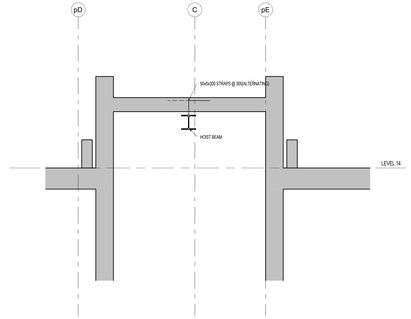

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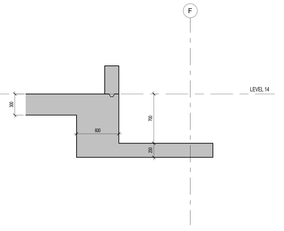

SR03 ST-01 SECTION
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No	Revision	Date

No	Issued For	Date
7	ISSUED FOR STEEL TENDER	DEC.18,2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
ROOF SECTIONS

Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale: 1 : 20
Drawn by: DC
Checked by: BBS
Project No: 20140031
Date: DEC.18,2015
Drawing No: S7-01

GENERAL NOTES T-A01

1. GENERAL
1.1. DESIGN AND CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE. REFER ALSO TO TYPICAL DETAILS, NOTES UNDER PLANS AND SCHEDULES ON THE STRUCTURAL DRAWINGS, AND TO THE SPECIFICATION. ALL CODES, MANUALS, STANDARDS AND SPECIFICATIONS REFERRED TO SHALL BE THE LATEST EDITION INCLUDING ALL REVISIONS AND ADDENDA, ALL DIMENSIONS, OTHER THAN STRUCTURAL, ARE TO BE CHECKED AND VERIFIED ON THE ARCHITECTURAL DRAWINGS AND ON SITE BEFORE COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. STRUCTURAL DRAWINGS MUST NOT BE SCALED.
1.2. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF OPENINGS, TRENCHES, PITS, SUMPS, EQUIPMENT, SLEEVES, DEPRESSIONS, GROOVES AND CHAMFERS NOT SHOWN ON THE STRUCTURAL DRAWINGS. ALL OPENINGS IN CONCRETE SLABS AND WALLS NOT SHOWN WHERE SHOWN ON THE STRUCTURAL DRAWINGS ARE INDICATED ONLY APPROXIMATELY AS TO SIZE AND LOCATION.
1.3. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY BRACING, SHORING, SHEET PILING OR OTHER TEMPORARY SUPPORTS TO SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES AFFECTED BY THIS WORK. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ACCEPTANCE.
2. SHOP DRAWINGS, PLACING DRAWINGS AND BAR LISTS
2.1. FOR ALL STRUCTURAL COMPONENTS SHOWN ON THE STRUCTURAL DRAWINGS, SUBMIT COPIES OF SHOP DRAWINGS AS DIRECTED FOR REVIEW BY THE STRUCTURAL CONSULTANT. SHOP DRAWINGS TO SHOW COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURAL COMPONENTS.
2.2. SUBMISSION OF SHOP DRAWINGS BY THE CONTRACTOR OR ANY SUB-TRADE OR THE SUBMITTED SHOP DRAWINGS REFLECT THE INTENT OF THE STRUCTURAL DESIGN.
2.3. REVIEW BY THE STRUCTURAL CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR SEEING THAT THE WORK IS COMPLETE, ACCURATE AND IN CONFORMITY WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
3. INSPECTION AND TESTING
3.1. A SOILS CONSULTANT AND AN INDEPENDENT INSPECTION AND TESTING COMPANY ARE TO BE ENGAGED TO CARRY OUT THE FOLLOWING SERVICES:
3.1.1. BEARING SOIL - REFER TO NOTES ON STRUCTURAL DRAWINGS AND ALSO TO THE SOIL REPORT.
3.1.2. FILL UNDER SLAB-ON-GRADE - CONFORM THAT FILL MATERIAL USED IS SATISFACTORY AND THAT COMPACTION IS TO 98% STANDARD PROCTOR DENSITY (SPD).
3.1.3. CAST-IN-PLACE AND PRECAST CONCRETE - ROUTINE INSPECTION OF MATERIALS, INCLUDING CYLINDER AND AIR ENTRAINMENT TESTS AND REINFORCING ROD TESTS WHEN REQUIRED OR DIRECTED IN ACCORDANCE WITH CSA STANDARD A23.1.
3.1.4. THE PROJECT SUPERINTENDENT IS TO ADVISE THE STRUCTURAL CONSULTANT A MINIMUM OF 24 WORKING HOURS IN ADVANCE OF THE TIME FOR REVIEW OF REINFORCING.
3.1.5. STRUCTURAL STEEL AND CWSJ - ROUTINE SHOP AND FIELD INSPECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS CSA S16.
3.1.6. STEEL DECK - SEE STEEL DECK NOTES.
3.1.7. MASONRY - WHEN REQUIRED OR DIRECTED, CONCRETE BLOCKS SHALL BE TESTED IN ACCORDANCE WITH CSA STANDARD A165.1 AND MORTAR IN ACCORDANCE WITH CAN/CSA A82 AND MEA MASONRY GROUT IN ACCORDANCE WITH CSA A179.
3.2. ALL INSPECTION AND TESTING SERVICES ARE TO BE PERFORMED BY COMPANIES CERTIFIED BY THE CANADIAN STANDARDS ASSOCIATION (CSA) FOR WELDING INSPECTORS AND BY THOSE CERTIFIED BY THE CANADIAN WELDING BUREAU.
4. FOUNDATIONS
4.1. REFER TO NOTES UNDER FOUNDATION PLANS, ALL EXTERIOR FOOTINGS OR OTHER FOOTINGS EXPOSED TO FREEZING IN THE FINISHED BUILDING SHALL BE FOUNDED AT A MINIMUM OF 1200mm (4'-0") BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. FOOTINGS EXPOSED TO FROST ACTION DURING CONSTRUCTION SHALL BE PROTECTED BY A MINIMUM OF 1200mm of (4'-0") EARTH OR ITS EQUIVALENT UNLESS OTHERWISE NOTED.
4.2. THE LINE OF SLOPE BETWEEN FOUNDATION WALLS AND EXTERIOR FOOTINGS OR PILE CAPS SHALL NOT EXCEED A RISE OF 1 IN A RUN OF 10, MAXIMUM STEP APPROX. 600mm (2'-0").
4.3. PIER DEPTHS AND FOOTING ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THE STRUCTURAL DRAWINGS.
4.4. PRIOR TO POURING CONCRETE, ALL FOOTING AND PIER EXCAVATIONS AND CONSTRUCTIONS MUST BE OBTAINED FROM THE STRUCTURAL CONSULTANT BEFORE PROCEEDING WITH THE WORK.
4.5. KEEP EXCAVATIONS CONTINUOUSLY DRY BEFORE CONCRETE IS PLACED. IF THE SOIL IS SOFTENED BY WATER, THE EXCAVATION SHALL BE EXTENDED BELOW THE SOFTENED MATERIAL AND FILLED TO THE FOOTING LOWERED TO SUIT.
5. SLABS ON GRADE AND FILL
5.1. SLABS ON GRADE AND ALL STRUCTURAL ELEMENTS FRAMING INTO WALLS WHICH RETAIN EARTH MUST BE IN PLACE BEFORE BACKFILLING.
5.2. AT FOUNDATION WALLS WITH GRADE BOTH SIDES, UNLESS ADEQUATELY SHORED, BACKFILL AND COMPACT EACH SIDE OF WALL SIMULTANEOUSLY.
5.3. UNDER SLABS ON GRADE, PROVIDE 100mm (4") CRUSHED STONE, OR CRUSHED GRAVEL OF 19mm (3/4") MAXIMUM SIZE GRADATION CONSISTS OF COMPACTED FILL, REFER TO SPECIFICATION FOR THE DRAINAGE).
5.4. BACKFILL UNDER SLAB-ON-GRADE, IN FOOTING EXCAVATIONS AND IN TRENCHES ONLY WITH APPROVED MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE. BACKFILLING SHALL BE CARRIED OUT IN MAXIMUM OF 200mm (8") THICK LIFTS OF LOOSE FILL EACH COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
5.5. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM 20MPa SLABS-ON-GRADE A MINIMUM OF 200mm (8") OF COMPACTED (MTO) GRANULAR 'B' MATERIAL. COMPACTION TO ACHIEVE A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY.

CAST-IN-PLACE CONCRETE NOTES T-A02

1. GENERAL
1.1. PROVIDE ALL LABOUR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO CARRY OUT THE WORK.
1.2. REFER ALSO TO GENERAL NOTES, NOTES UNDER PLANS AND SCHEDULES, TYPICAL DETAILS AND SPECIFICATION.
2. PRODUCTS
2.1. PORTLAND CEMENT, WATER AND AGGREGATES SHALL CONFORM TO CSA STANDARD A23.1.
2.2. PROVIDE AN APPROVED WATER-REDUCING ADMIXTURE IN ALL CONCRETE. PROVIDE AN APPROVED AIR ENTRAINING ADDITIVE IN ALL CONCRETE WHICH WILL BE EXPOSED TO A FREEZE/THAW CYCLE AND/OR DEICING SALTS. AIR CONTENT TO BE 5% TO 8% BY VOLUME OF CONCRETE.
2.3. FORMWORK SHALL CONFORM TO CSA STANDARD A23.1. CSA STANDARD S269.3 AND FALSEWORK SHALL CONFORM TO CSA S269.1.
2.4. IF SO INSTRUCTED, THE DESIGNS FOR THE FORMWORK SHALL BE SUBMITTED FOR REVIEW BEFORE CONSTRUCTION. FORMWORK DRAWINGS AND DESIGN SHALL BEAR THE STAMP OF A LICENCED PROFESSIONAL ENGINEER.
2.5. UNLESS OTHERWISE NOTED PROVIDE SLAB AND BEAM FORMS WITH AN UPWARD CAMBER OF 2 mm/1000 mm (1/4" PER 10'-0") OF SPAN, AND UPLIFT ENDS OF CANTILEVERED SLAB AND BEAM FORMS 3 mm/ 1000 mm (1/4" PER 8'-0") OF CANTILEVER LENGTH.
2.6. PROVIDE STANDARD ADJUSTABLE MASONRY ANCHOR SLOTS FOR ALL MASONRY FACING OR MUTTING WALLS.
2.7. PROVIDE AND/OR INSTALL STANDARD ADJUSTABLE ANCHORS, BOLTS AND ALL OTHER CAST IN INSERTS AS REQUIRED BY THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATION.
2.8. REINFORCING STEEL SHALL CONFORM TO CSA STANDARD G30.18 GRADE 400 PROVIDED CONFORMING TO CAN/CSA -G30.18-M 'GRADE 400 (60000 PSI).
2.9. WELDED WIRE FABRIC SHALL CONFORM TO CSA G30.5 SHEETS ONLY, UNLESS APPROVED OTHERWISE.
2.10. REINFORCING SHALL BE DETAILED, BENT, PLACED AND SUPPORTED TO CONFORM TO ACI DETAILING MANUAL AND THE MANUAL OF STANDARD PRACTICE PUBLISHED BY THE REINFORCING STEEL INSTITUTE OF CANADA.
2.11. DRY-PACK GROUT TO BE 1 PART PORTLAND CEMENT TO 1 1/2 PARTS SAND TO 2 PARTS OF 6 mm PEA GRAVEL MIXED WITH WATER TO A STIFF CONSISTENCY. MINIMUM COMPRESSIVE STRENGTH 50MPa AT 28 DAYS.
2.12. NON-SHRINK GROUT TO BE: AN APPROVED, PREMIXED PRODUCT.
2.13. PROVIDE APPROVED EXTRUDED PVC WATERSTOPS OF SIZE AND STYLE INDICATED, WITH PRE-RELIED CORNERS AND INTERSECTIONS. SEE ALSO TYPICAL DETAILS.
2.14. CURING AND SEALING COMPOUNDS WHERE APPROVED FOR USE TO CONFORM TO ASTM STANDARD C309. COMPOUNDS SHALL BE COMPATIBLE WITH ANY FINISH APPLIED, UNLESS NOTED OTHERWISE. COMPOUNDS ARE TO BE COMPATIBLE WITH APPLIED FINISHES.
2.15. SHEAR REINFORCEMENT AT SLAB CONNECTION AS SHOWN ON DRAWINGS AND DETAILS, SHALL BE STUDRAIL(S) AS MANUFACTURED BY DECON®. THE COMPLETE AND FINISHED STUDRAIL® SHALL BE ICC ES EVALUATED AND WELDING SHALL TAKE PLACE IN A CC ES APPROVED AND AUDITED FACILITY. STUDRAIL® SHALL CONFORM TO THE LATEST UPDATE OF ASTM A1044.
3. EXECUTION
3.1. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE @ 28 DAYS SHALL BE AS NOTED ON THE DRAWINGS (30MPA MINIMUM).
3.2. SLUMP AT THE POINT OF DISCHARGE SHALL BE CONSISTENT AT 80 mm ±20mm (3" ±1 1/8") UNLESS NOTED OTHERWISE. SLUMP TO BE TESTED TO CSA A23.2-5C.
3.3. CONCRETE MIXING, TRANSPORTATION, HANDLING AND PLACING SHALL CONFORM TO CSA STANDARD A23.1.
3.4. CONSTRUCTION JOINTS FOR WALLS ARE BASED UPON VERTICAL JOINTS AT A MAXIMUM SPACING OF 10000mm (30'-0") UNLESS CONTROL JOINTS ARE PROVIDED AT REDUCED SPACING AS PER DETAILS. TO BE TOTAL LENGTH OF POUR TO BE DISCUSSED WITH ENGINEER PRIOR TO PROCEEDING.
3.5. CONTROL JOINTS IN SLABS ON GRADE ARE TO BE LOCATED AS SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE CONSTRUCTION. GENERALLY, JOINTS IN SLABS SHALL BE AT RIGHT ANGLES TO THE SPANS, AT MID-SPAN IF POSSIBLE AND BE CLEAR OF SUPPORTS AND POINT LOADS.
3.6. INSERTS, PANEL OUTLETS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES, SHALL BE INSTALLED AS REQUIRED BY THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. THE ULTIMATE STRUCTURAL STRENGTH OF THE SYSTEM, BE SATISFIED THAT THEY SHALL NOT REQUIRE THE CUTTING, BENDING OR DISPLACEMENT OF THE REINFORCING OTHER THAN AS SHOWN ON THE TYPICAL DETAILS.
3.7. ELECTRICAL CONDUIT SHALL NOT PASS THROUGH A COLUMN. SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 SLAB THICKNESS OR WALL OR BEAM IN WHICH IT IS EMBEDDED. SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTRES. CONDUIT SHALL NOT BE EMBEDDED IN CONCRETE TOPPING OVER SLABS, UNLESS SPECIFICALLY PERMITTED OTHERWISE. SHALL NOT RUN HORIZONTALLY IN A CONCRETE WALL.
3.8. OPENINGS AND DRIVEN FASTENERS REQUIRED IN THE CONCRETE AFTER THE CONCRETE IS PLACED SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE PROCEEDING.
3.9. FINISHING, REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FINISH TO EXPOSED CONCRETE SURFACES. WHERE NOT SPECIFIED, FINISH TO BE AS DESCRIBED IN CSA STANDARD A23.1 AS APPROVED BY THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. CONCRETE FINISH TO CSA STANDARD A23.1 CLASS A CONVENTIONAL SMOOTH CLASSIFICATIONS.
3.10. TOLERANCES FOR PLACING CONCRETE, REINFORCING STEEL, CAST-IN HARDWARE AND FOR FLOOR AND ROOF FINISHES SHALL BE AS SPECIFIED IN CSA STANDARD A23.1.
3.11. MINIMUM REINFORCING FOR ANY CONCRETE SLAB TO BE AS SHOWN ON TYPICAL DETAIL FOR CONCRETE SLABS.
3.12. MINIMUM REINFORCING FOR ANY SUSPENDED SLAB SHALL BE TEMPERATURE BARS BOTTOM EACH WAY PLUS 10M @ 450 (15") CENTRES AROUND 2 (2" X 2") TOP AROUND PERIMETERS. REFER TO TYPICAL DETAIL OF ONE WAY SLABS.
4. FOR MASONRY, SEE MASONRY NOTES.
4.1. FOR INSPECTION AND TESTING, SEE GENERAL NOTES AND/OR SPECIFICATION.

STRUCTURAL STEEL NOTES T-A03A

1. GENERAL
1.1. STRUCTURAL STEEL DESIGN DETAILING AND CONSTRUCTION SHALL CONFORM TO CSA STANDARD S16 AND THE ONTARIO BUILDING CODE. ALL STRUCTURAL STEEL DESIGNS, ENGINEERS EXPERIENCED IN THIS TYPE OF WORK.
1.2. REFER ALSO TO GENERAL NOTES, NOTES UNDER PLANS AND TO THE SPECIFICATION.
1.3. WELDING SHALL CONFORM TO CSA STANDARD W59 AND BE PERFORMED BY A FABRICATOR CERTIFIED TO CSA W47.1.
1.4. BEAM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM OF 50% OF THE BEAM SHEAR CAPACITY UNLESS OTHERWISE NOTED. AND IN NO CASE BE LESS THAN THE LOADS SHOWN ON OR IMPLIED BY THE DRAWINGS.
2. PRODUCTS
2.1. STRUCTURAL STEEL SECTIONS SHALL CONFORM TO CSA-G40.20/G40.21:
2.1.1. WW SHAPES, S SHAPES, CHANNELS, ANGLES, PLATES AND HOSS - GRADE 300 W
2.1.2. HSS (ROUND) - GRADE 350 WT (CSA G40.20 / G40.21 HSS CLRN.)
2.1.3. W SHAPES - GRADE 350W
2.2. BOLTS FOR CONNECTIONS TO CONFORM TO ASTM A325 UNLESS NOTED.
2.3. ANCHOR RODS FOR BASE PLATES, BEARING PLATES AND WELD PLATES TO CONFORM TO ASTM A36 UNLESS NOTED.
2.4. NUTS AND WASHERS TO CONFORM TO ASTM A563 AND ASTM F436.
2.5. SHEAR STUDS WHERE REQUIRED TO CONFORM TO ASTM A108, WELDING TO CONFORM TO CSA W59.
2.6. WELDING MATERIALS TO CONFORM TO CSA W48.
2.7. PRIMER PAINT TO CONFORM TO CAN/CGSB - 1.40 OR CISC/PPAI 1 OR CISC/PPAI 2.
2.8. HOT DIP GALVANIZING WITH A MINIMUM ZINC COATING OF 600g/sq.m
2.9. UNLESS OTHERWISE SPECIFIED.
3. EXECUTION
3.1. FABRICATION, HANDLING AND ERECTION TO CONFORM TO CAN - S16 - 01.
3.2. PROVIDE A MINIMUM OF 3-10 mm (1/2") DIAMETER (M12) BOLTS AND ANCHORS FOR ALL BEAM AND JOIST WALL PLATES ON MASONRY, OR AS APPROVED EQUAL, UNLESS OTHERWISE NOTED.BEAMS AND JOISTS TO BE ANCHORED AT 2000mm (6'-0") CENTRES.
3.3. PROVIDE ADJUSTABLE ANCHORS TO ALL STEEL TO BE BUILT INTO MASONRY OR CONCRETE WALLS ANCHORS (REFER ALSO TO TYPICAL DETAILS IF SHOWN). SPACING OF ANCHORS TO BE: FOR VERTICAL SURFACES ..... NOT LESS THAN 3 ANCHORS
FOR HORIZONTAL SPACING ..... NOT TO EXCEED 3000mm (10'-0") MAX. 2000 (6'-6") CENTRES.
(NOTE: DOUBLE ANGLE BACK-UP BYTHE THICKNESS ONLY, TO BE DISCUSSED WITH ENGINEER)
3.4. WHERE STEEL PROVIDES LATERAL BRACING ONLY TO MASONRY (I.E. DOES NOT SUPPORT MASONRY) ANCHORS SHALL PERMIT DIFFERENTIAL VERTICAL MOVEMENT BETWEEN STRUCTURAL MEMBERS AND MASONRY.
3.5. CONNECTIONS SUPPLIED IN ACCORDANCE WITH STRUCTURAL STEEL WITH ONE COAT OF SHOP PRIMER APPLIED IN ACCORDANCE WITH CSA/CGSB - 51N, EXCEPT WHERE MEMBERS ARE TO BE ENCASED IN CONCRETE, OR TO RECEIVE SPRAY APPLIED FIRE PROOFING. FIELD TOUCH-UP BOLTS, WELDS, AND PRIMER ON SCRAPED SURFACES AFTER ERECTION.
3.6. PROVIDE ALL NECESSARY TEMPORARY BRACING TO KEEP STRUCTURE SAFE AND PLUMB. BRACING SHOWN ON DRAWINGS IS FOR COMPLETED STRUCTURE ONLY, NOT FOR CONSTRUCTION BUILDING ONLY.
3.7. COORDINATE WITH MECHANICAL AND ELECTRICAL WORK WITH SUB-TRADES WHOSE WORK MAY EFFECT DETAILING, FABRICATION AND ERECTION OF THE STEEL STRUCTURE.
3.8. TOLERANCES - VARIATION FROM PLUMB AND LEVEL, EXTERIOR COLUMNS, COLUMNS AT ELEVATOR SHAFTS, AND SPANDREL BEAMS INCLUDING ANGLES ..... 1:500 MAX. 25 mm (1/8" IN 10'-0" MAX. 1"),
..... 1:500 (1/8" IN 10'-0").
3.9. NO HOLES OTHER THAN THOSE SHOWN ON REVIEWED SHOP DRAWINGS SHALL BE MADE IN ANY STEEL MEMBER WITHOUT WRITTEN PERMISSION OF THE STRUCTURAL CONSULTANT.
4. QUALITY CONTROL
4.1. SEE GENERAL NOTES, NOTES UNDER PLANS, AND/OR SPECIFICATION FOR INSPECTION AND TESTING REQUIREMENTS.

LINTEL NOTES T-A06

UNLESS OTHERWISE SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS. PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS, AS FOLLOWS:
1. OPENINGS UP TO 1200mm (4'-0") CLEAR:
1.1. ONE ANGLE 89 x 89 x 8 (3 1/2" x 3 1/2" x 5/16") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
OR
1.2. 200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-15M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
2. OPENINGS FROM 1200mm (4'-0") CLEAR TO 1800mm (6'-0") CLEAR:
2.1. ONE ANGLE 125 x 89 X 8 LONG LEG VERTICAL (5"x 3 1/2" x 5/16") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
OR
2.2. 200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-15M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
3. ALL LINTELS TO BEAR 100mm (8") MINIMUM AT EACH END ON SOLID MASONRY, UNLESS SHOWN OTHERWISE.
4. PAIRS OF LINTEL ANGLES TO BE BOLTED OR WELDED TOGETHER, PRIOR TO PAINTING, AT MAXIMUM 400mm (18") CENTRES.
5. LINTELS IN CMU WALLS, BLOCKS MAY ONLY BE USED IN LOAD-BEARING WALLS WITH PERMISSION AND MUST BE FILLED WITH 20 MPA CONCRETE. MORTAR IS NOT ACCEPTABLE AND WILL BE REJECTED.
6. STEEL LINTELS ARE TO BE SUPPLIED BY STEEL CONTRACTOR BUT PLACED BY GENERAL CONTRACTOR OR MASONRY SUB-CONTRACTOR.
7. STEEL CONTRACTOR TO SUPPLY ALL NECESSARY DIRECTIONS REQUIRED FOR PLACING STEEL LINTELS.
8. ALL LINTELS SHALL BE PAINTED WITH ONE COAT OF SHOP PRIMER, EXCEPT THOSE EMBEDDED IN CONCRETE, DECKS, MACHINING, AND ELECTRICAL ACCESS, ACCESSIBLE AND POCKETS ETC., THROUGH LOAD-BEARING MASONRY WALLS. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND SUPPLY ALL LINTELS REQUIRED THROUGH LOAD-BEARING MASONRY WALLS (INCLUDING NON-LOAD BEARING WALLS THROUGHOUT THE PROJECT. UNLESS OTHERWISE DIRECTED, LINTELS SHALL CONFORM TO THE ABOVE REQUIREMENTS.
9. REFER ALSO TO TYPICAL DETAILS.

STANDARD ABBREVIATIONS T-A11

@	-At	H (HOR)	-Horizontal	S	-Standard Beam
ADJ	-Adjustable	HS	-Horizontal Each Face	SDG	-Strong Down Footing
APB	-Asphalt Impregnated Board	HSF	-Horizontal Inside Face	SDL	-Superimposed Dead
	-Asphalt Tile	HSS	-Hollow Structural Section	SEC	
ARCH	-Architectural	HT	-Height	SECT	-Section
A, ROOA (-)	-Anchor Rod	HSS	-Hollow Structural Section	SL	-Slab
ASL	-Accumulated Snow			SQ	-Square
		IF	-Inside Face	SSD	-Slab on Grade
B (BOT)	-Bottom	INV	-Invert	SUPP	-Supported
BOW	-Bottom Each Way			SPEC	-Specifications
BLDG	-Building	JT	-Joint	STL	-Steel
BM	-Beam			STD	-Standard
BM	-Beam Upper Layer	JT	-Joint	STR	-Straight
BM	-Beam			STRUCT	-Structural
BML	-Bottom Middle Layer	KLm	-Kilo Newton Metres		
BOT	-Bottom	KNm	-Kilo Newton per Square	TEMP	-Temperature
Bottom/Thickness			Metre	THKD	-Factored Tension
C	-Bottom of Footing	KNm	-Kilo Newton per Metre	Force	
	-Baseplate	KPa	-Kilo Pascals	T.J	-Top Level
BSMT	-Basement			TLL	-Top Lower Layer
BUL	-Bottom Upper Layer	L	-Angle	TM	-Top Middle
		LL	-Pounds	TOC	-Top of Concrete
C	-Standard Channel	LLL	-Live	TM	-Top Middle Layer
CAN	-Column Above	LLH	-Last / Lower Layer	TOF	-Top of Deck
CC (cc)	-Centre to Centre	LLH	-Long Leg Horizontal	T.O.F	-Top of Footing
CJ	-Control Joint	LLV	-Long Leg Vertical	TOS, TS	-Top of Steel
CL	-Centre Line	LSU	-Long Span Steel Joists	TOST	-Top of Slab
COL	-Column	LT	-Lintel/ Lower	TSQ	-Tube Square Foot
COMP	-Compressible			TUL	-Top Upper Layer
CONC	-Concrete	M	-Metre	TYP	-Typical
CONC	-Continuous	MAX	-Maximum	UL	-Upper Layer
CONST (F (C)T)	-Continuous	MECH	-Mechanical	UNO	-Unless Noted
CONT (CONTIN)	-Continue	MEZZ	-Mezzanine	U.N.O	-Unless Noted Otherwise
CW	-Complete With	MIN	-Minimum	US	-Underside
		MISC	-Miscellaneous	USD	-Underside of Deck
D FW	-Dowgles Fir	MIN	-Minimum		
DET	-Detail	ML	-Middle Layer	V (VERT)	
DIAG	-Diagonal	MM	-Millimetre	VIF	-Vertical
D (DIA)	-Diameter	MOM, (M)	-Moment	Framing	
DIM	-Dimension	MPa	-Mega Pascals	VP	-Vertical Each Face
DN	-Double Joist	MUL	-Middle Upper Layer	VSF	-Vertical Inside Face
DJ	-Down Load			VOF	-Vertical Outside Face
DSO		N	-Newton	VSC	-Vertically Slotted
DWG	-Drawing	N.S	-North-South	Connection	
DWL	-Dowel	NF	-Near Face		
DT	-Double Tee	NIC	-Not in Contract	W	-Wide Flange Beam
		NLWB	-Non-Load	WP	-Wall Plate
E W	-East-West	NTS	-Not to Scale	WWF	-Welded Wide Flange
EA	-Each			Beam	
EF	-Each End	OWSJ	-Open Web Steel Joist	WWF (WRM)	-Welded Wire Fabric)
EE	-Each Face			Mesh	
(LECT	-Electrical	Pa	-Pascal		
ELEV (EL)	-Elevation	PC	-Precast		
Elevator		PL	-Plate		
EQ	-Equal	PLF	-Pounds per Lineal Foot		
ES	-Each Side	PWEL	-Preformed		
EW	-Each Way	PRCC	-Pressure Treated		
EXP	-Footing	PSF	-Pounds per Square Foot		
EXP. JT.	-Expansion Joint	PSI	-Pounds per Square Inch		
EXT	-Exterior	PTL	-Partial Strand Lumber		
		PT	-Pressure Treated		
FDN	-Foundation				
FF	-Far Face	R	-Reaction		
FIN	-Finished	RAD	-Radius		
FL	-Floor	RBAR	-Reinforcing Bar		
FMC	-Full Moment	RCVR	-Reinforcing	HEL	-Hook Embedment
Connection		REQ	-Required	Length	
FT	-Foot / Feet	REV	-Revision/Revised	TLD	-Tension Lap Splice
FTG	-Footing	RF	-Reaction	Length	-Tension Development
		RW	-Reinforced Wall		
GA	-Gauge				
GALV	-Galvanized				
GEN	-General				

SHORING NOTES T-A13

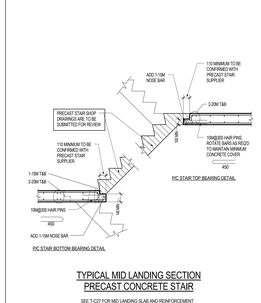
1.0 DESIGN
1.1. LATERAL EARTH PRESSURE EXERTED ON SHORING SYSTEM P = K (Β H+q)
K = 0.3 (ASSUMED) 25 PSF/0.3 TIMES
Β = 21.0kN/m³
H = DEPTH OF CUT
q = 12.0kN/m²
2.0 ALSO SEE SOILS REPORT BY ..... DATED .....
2.1. ALLOWABLE SOIL BEARING BY AN ARCHIVOWER COHEFFICIENT KH 1.5 AND THE CANADIAN FOUNDATION ENGINEERING MANUAL 3rd EDITION.
2.2. DESIGN COMPLIES WITH THE LATEST EDITIONS OF THE ONTARIO BUILDING CODE AND THE ONTARIO HIGHWAY BRIDGE DESIGN CODE.
3.0 MATERIALS
3.1. ALL STRUCTURAL STEEL SHALL BE NEW OR SOUND USED MATERIAL CONFORMING TO C.S.A. G40.21, GRADE 300.
3.2. ALTERNATIVE SECTIONS OR GRADES OF EQUIVALENT STRENGTH, MAY BE SUBSTITUTED SUBJECT TO APPROVAL OF ENGINEER.
3.3 CONCRETE STRENGTHS TO BE AS FOLLOWS:
a) PILE TOPS ..... 20 MPa
b) CONCRETE FILLED PILE TOES ..... 25 MPa
c) BACKFILL TO GRADE ..... MPa
d) FREE ZONES ..... BENTONITE GROUT
2.4 TIMBER LAGGING TO BE: Fir-rare MIN. (TRUE THICKNESS) AND THICKNESS UNLESS NOTED OTHERWISE.
2.5 WELDING SHALL CONFORM TO C.S.A. W59 AND BE PERFORMED BY QUALIFIED WELDERS.
4.0 EXCAVATION
4.1. DRILL HOLES TO SIZE AND DEPTHS INDICATED. INSTALL PILES PLUMB AND TRUE.
4.2 POUR SPECIFIED CONCRETE TOES AND BACKFILL TO GRADE.
4.3 EXCAVATE IN 1000mm MAX. LIFTS INTO ALTERNATE EXCAVATION PROCEDURE. CUT SOIL FACES NEATLY TO ENSURE A TIGHT FIT FOR LAGGING. WEDGE AT PILES AS REQUIRED. FILL VOIDS BEHIND LAGGING WITH SAND OR APPROVED GRANULAR FILL.
4.4 WHEN EXCAVATION REACHES 300mm ABOVE BOTTOM OF LOWEST LAGGING, DRILL AND INSTALL TIE-BACKS. LOCK-IN LOAD BEFORE EXCAVATING BELOW.
4.5 PROVIDE 2 TEST TIE BACKS. TEST TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN FOUNDATION ENGINEERING MANUAL - TEST ANCHORS TO THRICE THE DESIGN LOAD NOTED.
4.6 MAINTAIN LOAD FOR A MINIMUM OF 10 MINUTES. LOAD SHALL NOT CREEP MORE THAN 2mm IN 10 MINUTES. IF NO APPROVED CREEP OCCURS, MAINTAIN LOAD FOR 2 1/2 TIMES DESIGN LOAD AND LOCK-IN.
4.0 GENERAL CONTRACTOR
4.1 GENERAL CONTRACTOR TO PROVIDE THE FOLLOWING:
a) CHECK ALL DIMENSIONS WITH A RICH & STRUCT. ENGG. PRIOR TO PILE INSTALLATION.
b) SURVEY CONTROL FOR PILES.
c) ADEQUATE PROTECTION TO SHORING SYSTEM AND STRUCTURE AGAINST THE EFFECTS OF WEATHER, WATER OR FREEZING.
d) MONITORING OF ALL PILES FOR ANY LATERAL MOVEMENTS. REPORT ANY MOVEMENT GREATER THAN 5mm IMMEDIATELY TO ENGINEER.
e) LOCATE AND IDENTIFY ALL BURIED AND ABOVE GROUND SERVICES OR UTILITIES THAT MAY INTERFERE WITH PILE INSTALLATION OR REMOVAL OR RELOCATE AS NECESSARY.
f) DEWATER SITE AS NECESSARY.

COLD WEATHER CONCRETING T-A14

FOR FORECASTED AIR TEMPERATURES AT OR BELOW 5°C

1. ALL MATERIALS AND EQUIPMENT NEEDED FOR HEATED ENCLOSURE AND CONCRETE CURING PROTECTION SHALL BE ON HAND AND READY FOR USE BEFORE CONCRETE PLACING IS STARTED.
2. FORMS AND/OR STEEL DECK IS TO BE HEATED TO A MINIMUM OF 5°C. CONCRETE SHALL NOT BE PLACED ON FROZEN FORMS OR STEEL DECK.
3. FORMS AND/OR STEEL DECK MUST BE FREE OF SNOW AND ICE PRIOR TO PLACING CONCRETE. THE USE OF ANY DE-ICING CHEMICAL IS NOT PERMITTED ON THE FORMWORK OR STEEL DECK.
4. FOR SLABS LESS THAN 1000mm THICK THE MINIMUM CONCRETE TEMPERATURE AT TIME OF POURING IS TO BE 10°C. FOR SLABS GREATER THAN 1000mm THICK THE MINIMUM CONCRETE TEMPERATURE AT TIME OF POURING IS 5°C.
5. CONCRETE TEMPERATURE SHALL BE KEPT AT A MINIMUM OF 10°C FOR AT LEAST 3 DAYS OR UNTIL THE CONCRETE REACHES 40% OF THE SPECIFIED STRENGTH. ADDITIONAL CURING MAY BE REQUIRED IN WHICH CONCRETE SHALL BE KEPT AT A MINIMUM OF 10°C FOR AT LEAST 7 DAYS OR UNTIL THE CONCRETE REACHES 70% OF THE SPECIFIED STRENGTH.
6. IF THE FORECASTED AIR TEMPERATURE IS TO FALL BELOW 0°C, THE TOP OF SLAB SHALL BE PROTECTED FROM FREEZING. TOP OF SLAB PROTECTION SHALL BE PLACED AS TO NOT AFFECT THE FINISH OF THE SLAB.
7. IF THE FORECASTED AIR TEMPERATURE IS TO FALL BELOW 0°C WITH REASONABLY HIGH WINDS THE CONCRETE MUST BE PROTECTED FROM FLASH FREEZING DURING PLACEMENT AND FINISHING. THIS PROTECTION M

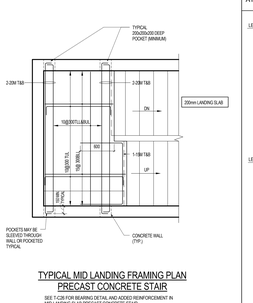
TYPICAL SECTION, PRECAST STAIR — T-C26



TYPICAL MID LANDING SECTION PRECAST CONCRETE STAIR

SEE T-C27 FOR MID LANDING DETAIL AND ADDED REINFORCEMENT IN MID LANDING SLAB PRECAST CONCRETE STAIR.

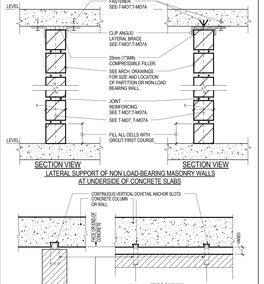
TYPICAL MID LANDING, PRECAST STAIR — T-C27



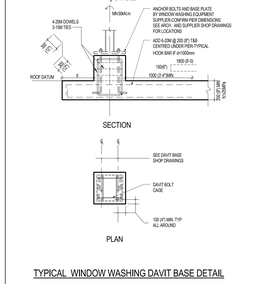
TYPICAL MID LANDING FRAMING PLAN PRECAST CONCRETE STAIR

SEE T-C26 FOR BEARING DETAIL AND ADDED REINFORCEMENT IN MID LANDING SLAB PRECAST CONCRETE STAIR.

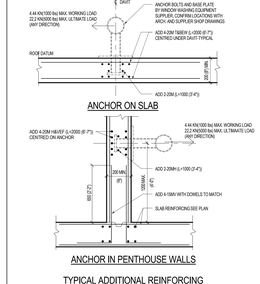
DETAILS OF NON LOAD-BEARING MASONRY WALLS AT CONCRETE SLAB AND WALL — T-C29



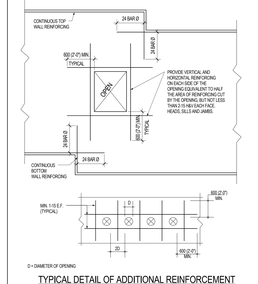
TYPICAL WINDOW WASHING DAVIT BASE DETAIL — T-C30



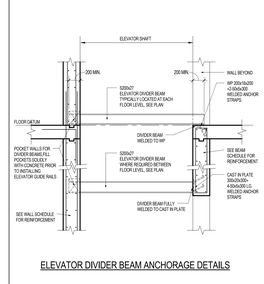
TYPICAL ADDITIONAL REINFORCING AT WINDOW WASHING ANCHORS — T-C32



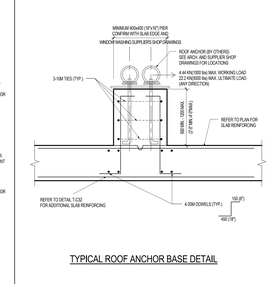
TYPICAL DETAIL OF OPENINGS IN CONCRETE WALL — T-C36



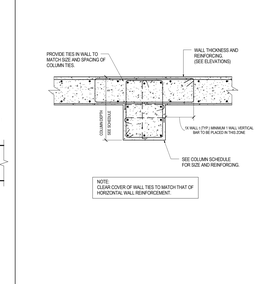
TYPICAL ELEVATOR DIVIDER BEAM DETAIL — T-C37



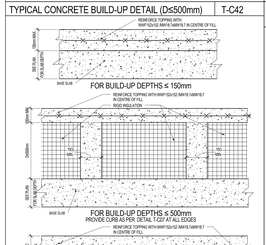
TYPICAL ROOF ANCHOR BASE DETAIL — T-C38



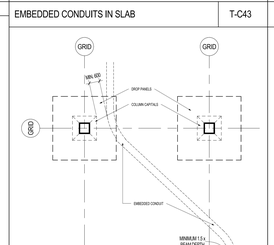
COLUMN CAST INTEGRALLY WITH SHEAR WALLS — T-C41



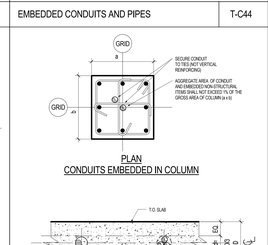
TYPICAL CONCRETE BUILD-UP DETAIL (Ds500mm) — T-C42



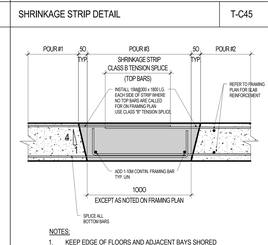
EMBEDDED CONDUITS IN SLAB — T-C43



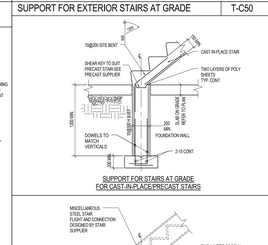
EMBEDDED CONDUITS AND PIPES — T-C44



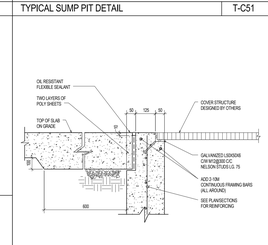
SHRINKAGE STRIP DETAIL — T-C45



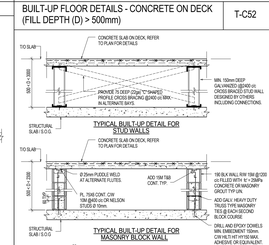
SUPPORT FOR EXTERIOR STAIRS AT GRADE — T-C50



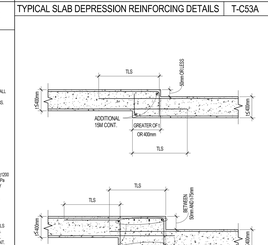
TYPICAL SUMP PIT DETAIL — T-C51



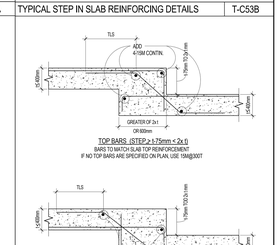
BUILT-UP FLOOR DETAILS - CONCRETE ON DECK (FILL DEPTH (D) > 500mm) — T-C52



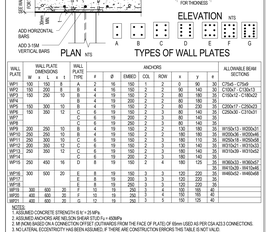
TYPICAL SLAB DEPRESSION REINFORCING DETAILS — T-C53A



TYPICAL STEP IN SLAB REINFORCING DETAILS — T-C53B



TYPICAL CAST IN PLACE SHEAR PLATE DETAIL — T-C55



COMPRESSION-TENSION DEVELOPMENT AND LAP LENGTHS Fy = 400 MPa — T-C56A

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOWS
CLS - COMPRESSION LAP SPLICE
CDL - COMPRESSION DEVELOPMENT LENGTH
HEL - HOOK EMBEDMENT LENGTH

COMPRESSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 400 MPa)

CLS: COMPRESSION LAP SPLICE LENGTH

UNCOATED BLACK BAR						
10M	15M	20M	25M	30M	35M	45M
330	470	570	740	880	1050	1260

CDL: COMPRESSION DEVELOPMENT LENGTH

f'c	UNCOATED BLACK BAR						
	10M	15M	20M	25M	30M	35M	45M
20MPa	250	340	420	540	640	770	940
25MPa	220	310	380	480	570	690	840
30MPa	200	280	340	440	520	630	770
35MPa	190	260	320	410	490	590	720
40MPa	180	250	310	390	460	560	680
45MPa	170	240	300	380	450	540	660
50MPa	160	230	280	360	430	510	630
55MPa	150	220	270	340	410	490	600

NOTES:
1. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.11 (TWO BAR BUNDLES)
b. MULTIPLY BY 1.20 (THREE BAR BUNDLES)
c. MULTIPLY BY 1.25 (FOUR BAR BUNDLES)

HEL: STANDARD HOOK TENSION EMBEDMENT LENGTHS

f'c	UNCOATED BLACK BAR						
	10M	15M	20M	25M	30M	35M	45M
20MPa	260	360	440	570	670	800	
25MPa	230	320	390	500	590	710	
30MPa	210	300	360	470	550	660	
35MPa	200	280	340	440	520	620	
40MPa	190	260	310	400	480	575	
45MPa	175	240	300	380	450	540	
50MPa	160	230	280	360	430	510	
55MPa	150	220	270	340	410	490	

NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TENSION DEVELOPMENT AND LAP LENGTHS Fy = 400 MPa — T-C56B

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOWS
TLS - TENSION LAP SPLICE
TDL - TENSION DEVELOPMENT LENGTH

TENSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 400 MPa)

TLS: TENSION LAP SPLICE LENGTH (CLASS B)

f'c	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	450	340	680	510	910	680	1140	850	1370	1020	1600	1190
25MPa	390	290	580	440	780	580	970	730	1170	870	1370	1020
30MPa	360	270	540	410	720	540	900	680	1080	810	1260	950
35MPa	330	250	500	380	670	500	840	630	1010	750	1180	880
40MPa	310	230	470	350	620	470	780	580	930	700	1090	810
45MPa	290	220	440	330	580	440	730	550	870	660	1020	760
50MPa	280	210	420	310	550	420	690	520	830	620	970	730
55MPa	270	200	400	300	530	400	670	500	800	600	930	700

NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TDL: TENSION DEVELOPMENT LENGTH

f'c	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	300	200	450	300	600	400	750	500	900	600	1050	700
25MPa	270	180	400	270	540	360	670	450	810	540	940	630
30MPa	240	160	360	240	480	320	600	400	720	480	840	560
35MPa	220	150	330	220	440	300	550	370	660	440	770	520
40MPa	210	140	310	210	420	280	520	350	630	420	730	490
45MPa	200	130	290	200	390	260	490	330	590	390	680	460
50MPa	190	130	280	190	380	250	470	320	570	380	660	440
55MPa	180	120	270	180	360	240	450	300	540	360	630	420

NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TENSION AND COMPRESSION DEVELOPMENT AND LAP LENGTHS Fy = 500 MPa — T-C57A

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOWS
CLS - COMPRESSION LAP SPLICE
CDL - COMPRESSION DEVELOPMENT LENGTH
HEL - HOOK EMBEDMENT LENGTH

COMPRESSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 500 MPa)

CLS: COMPRESSION LAP SPLICE LENGTH

UNCOATED BLACK BAR						
10M	15M	20M	25M	30M	35M	45M
400	590	720	930	1110	1320	1590

CDL: COMPRESSION DEVELOPMENT LENGTH

f'c	UNCOATED BLACK BAR						
	10M	15M	20M	25M	30M	35M	45M
20MPa	310	430	530	680	810	960	1150
25MPa	280	390	470	610	730	860	1030
30MPa	250	350	430	560	660	780	970
35MPa	230	320	400	510	610	720	890
40MPa	210	300	370	480	570	680	840
45MPa	200	280	350	450	540	640	790
50MPa	190	270	330	430	510	610	750
55MPa	180	250	310	410	490	580	720

NOTES:
1. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.11 (TWO BAR BUNDLES)
b. MULTIPLY BY 1.20 (THREE BAR BUNDLES)
c. MULTIPLY BY 1.25 (FOUR BAR BUNDLES)

HEL: STANDARD HOOK TENSION EMBEDMENT LENGTHS

f'c	UNCOATED BLACK BAR						
	10M	15M	20M	25M	30M	35M	45M
20MPa	320	450	580	710	840	1000	
25MPa	290	400	520	640	750	900	
30MPa	260	370	480	590	690	820	
35MPa	240	340	440	540	640	760	
40MPa	230	320	410	500	600	710	
45MPa	220	300	390	480	570	670	
50MPa	200	290	370	460	540	640	
55MPa	200	270	350	430	510	610	

NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TENSION AND COMPRESSION DEVELOPMENT AND LAP LENGTHS Fy = 500 MPa — T-C57B

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOWS
TLS - TENSION LAP SPLICE
TDL - TENSION DEVELOPMENT LENGTH

TENSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 500 MPa)

TLS: TENSION LAP SPLICE LENGTH (CLASS B)

f'c	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	560	420	840	630	1130	840	1410	1050	1690	1260	1970	1470
25MPa	500	370	750	560	1000	750	1250	940	1500	1120	1750	1310
30MPa	450	340	680	510	910	680	1140	850	1370	1020	1600	1190
35MPa	420	310	630	470	840	630	1050	780	1260	940	1470	1100
40MPa	390	290	580	440	780	580	970	730	1170	870	1370	1020
45MPa	360	270	540	410	720	540	900	680	1080	810	1260	950
50MPa	340	250	510	380	680	510	850	640	1020	770	1190	890
55MPa	320	240	480	360	640	480	800	600	960	720	1120	840

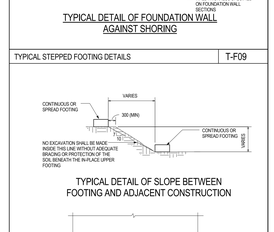
NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TDL: TENSION DEVELOPMENT LENGTH

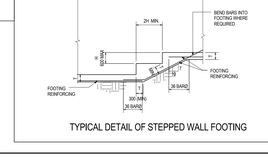
f'c	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	450	300	670	500	890	670	1110	830	1340	1000	1560	1170
25MPa	410	270	600	450	800	600	1000	750	1200	900	1400	1050
30MPa	370	240	550	410	730	550	910	680	1090	820	1270	950
35MPa	340	220	500	380	670	500	840	630	1010	750	1180	880
40MPa	310	200	470	350	620	470	780	580	930	700	1090	810
45MPa	290	190	430	320	580	430	720	540	860	650	1010	750
50MPa	270	180	410	300	540	410	680	510	820	610	950	710
55MPa	260	170	390	290	520	390	650	490	780	580	910	680

NOTES:
1. USE EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED.
a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 1.5 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 FOR SEMI-LW DENSITY CONCRETE
b. MULTIPLY BY 1.3 FOR LOW DENSITY CONCRETE)

TYPICAL FOUNDATION WALL AGAINST SHORING — T-F02



TYPICAL STEPPED FOOTING DETAILS — T-F09


VARIES
CONTINUOUS OR SPREAD FOOTING
300 (MIN)
CONTINUOUS OR SPREAD FOOTING
NO EXCAVATION SHALL BE MADE INSIDE THIS LINE WITHOUT ADEQUATE BRACING OR PROTECTION OF THE SOIL BENEATH THE IN-PLACE UPPER FOOTING
TYPICAL DETAIL OF SLOPE BETWEEN FOOTING AND ADJACENT CONSTRUCTION
2H MIN.
BEND BARS INTO FOOTING WHERE REQUIRED
45.0°
1V
FOO