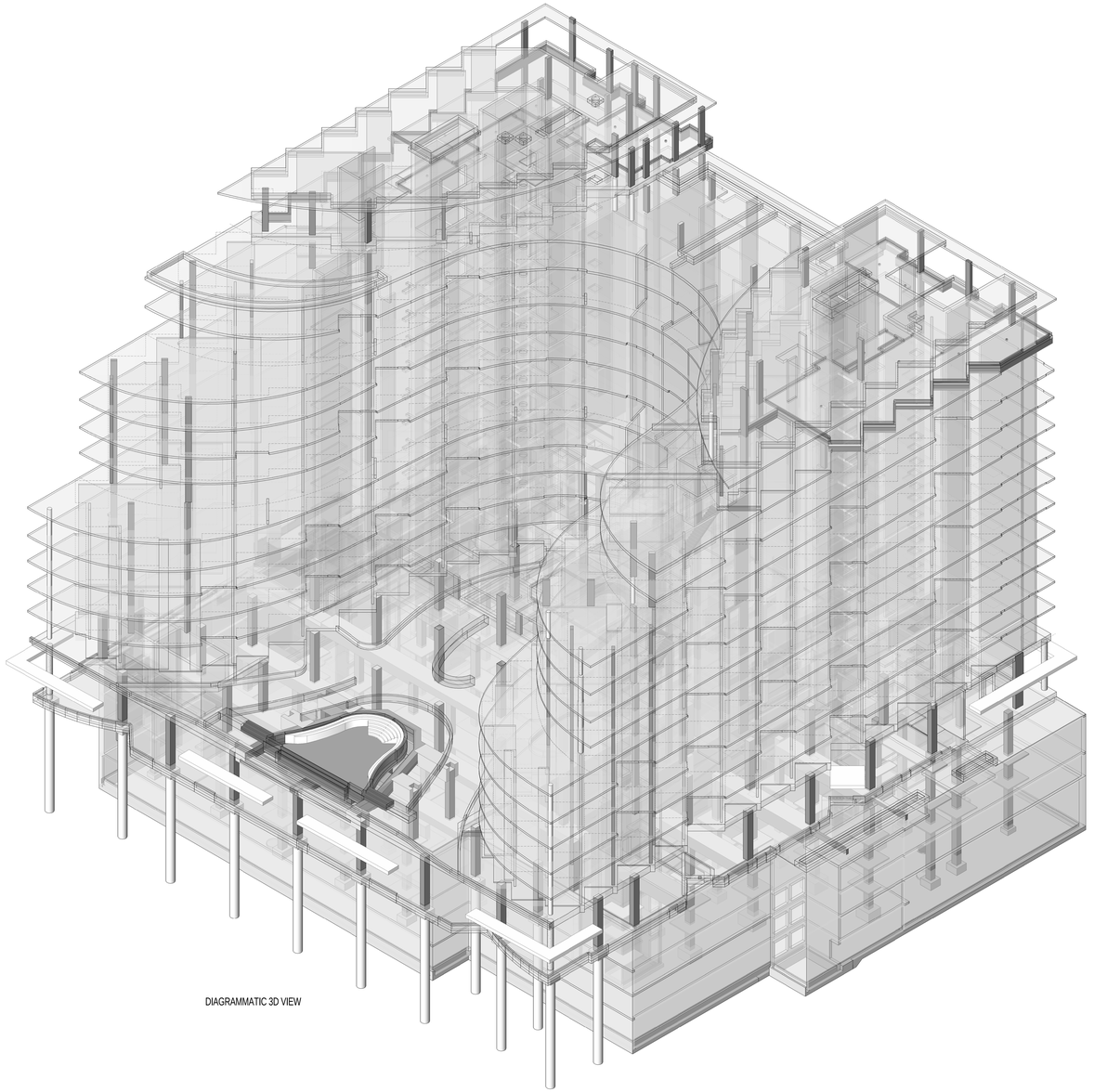

DIAGRAMMATIC 3D VIEW

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
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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
S2 SERIES - SCHEDULES	
S2-01	COLUMN SCHEDULES - LEVEL 2 AND BELOW
S2-02	COLUMN SCHEDULE - LEVEL 2 ABOVE AND CONNECTION PLATE SCHEDULE
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
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S4 SERIES - FOUNDATION ELEVATION AND SECTIONS	
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S8 SERIES - TYPICAL NOTES & DETAILS	
S8-01	GENERAL NOTES & TYPICAL DETAILS
S8-02	TYPICAL DETAILS

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
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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.
2014/0031

Date
JUNE 12,2015

Drawing No.
S0-01

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 REQUIRMENTS OF CSA-S413-07 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. THE BUILDING AND PARKING GARAGE STRUCTURE HAS BEEN DESIGNED FOR CLAUSES 4.1.5.5, 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 UNLESS NOTED OTHERWISE.
   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 RAILINGS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.16.
      1.5.4. DESIGN ALL STAIRS TO SUPPORT A MINIMUM LIVE LOAD OF 4.8kPa.
   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 PANELS AND 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 AND IS SUPPLYING AND INSTALLING EQUIPMENT, THAT ALL ELEMENTS OF STRUCTURES LISTED IN TABLE 4.1.6.17 OF THE OBC 2012 ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.6.1.
   1.8. THE BUILDING IS IN SEISMIC CATEGORY (ZNOW, WIND, AND EARTHQUAKE) IS NORMAL (ies=1.0).
   1.9. STAIR ELEMENTS NOT PART OF SFRS SHALL BE SEPARATED FROM THE STRUCTURE AS PER OBC CLAUSE 4.1.8.3 (BaL 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 DEMONSTRATING THAT THEY CAN ACCOMMODATE MINIMUM 25mm SEPARATION UNLESS NOTED OTHERWISE ON DRAWINGS AND SPECIFICATION.

2. LATERAL LOADS ON STRUCTURE
   2.1. WIND
      Iw(50) = 0.44 kPa
      Cx = (50/25)^0.9(NOT LESS THAN 1.0 AND NOT GREATER THAN 2.5)(DYNAMIC APPROACH)
      Cg = 1.8
      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 Rd = 1.5 Ie = 1.0
      Sa(2.0) = 0.033 Sa = 1.0
   2.3. DESIGN ASSISTS OF CONCRETE SHEAR WALLS:
      STRUCTURAL IRREGULARITIES CONSIDERED IN THE DESIGN PER CLAUSE 4.1.6.6. CONSIST OF: TYPES 1, 2, 3, 4, 5,6
      METHOD OF ANALYSIS :- DYNAMIC
3. FOUNDATION WALLS
   3.1. ALL WALLS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND HORIZONTAL EARTH AND HYDROSTATIC PRESSURE:
      (P=K·(Yh1+Yh2+q)+Yw·h2),
      WHERE
      K = 0.5
      Ww = 10kN/m³
      q = 13kPa (LIVE LOAD SURCHARGE)
      h1 = DEPTH TO GROUND WATER TABLE, IN METRES
      h2 = DEPTH BELOW GROUND WATER TABLE, IN METRES
      Yh1 = 23kN/m³ (MOIST SOIL)
      Y = 12.5kN/m³ (SUBMERGED SOIL UNIT WEIGHT)
      Yw = 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 OR 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
(2) PARKING STRUCTURE, (SLAB, COLUMNS AND WALLS GRADE BEAMS/CAPS AND FOOTINGS)	35 40 45	80 ± 20	5 - 8 %	0.40	C - 1
(2) GARAGE ROOF (PROVIDE DCI AT A DOSAGE OF 30L/M3	35	80 ± 20	5 - 8 %	0.40	C - 1
(2) 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	5	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 CONTROL JOINTS WITHIN THICK WITH SAW CUTS @3000 O/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 BEDROCK TO BE CARRIED DOWN TO SOUND BEDROCK WITH A FACTORED GEOTECHNICAL RESISTANCE (ULS) OF 3000 kPa
   ALL SPREAD AND STRIP FOOTINGS TO BE CAST AGAINST SIDES OF EXCAVATION.
6. FRICTION CAISSONS HAVE BEEN DESIGNED FOR ULS BOND STRENGTH OF 700kPA BETWEEN CONCRETE AND SOUND SHALE.
7. THE BEDROCK ULS VALUE IS ASSUMED 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-SNG7876-JEATED APRIL 24, 2015 PREPARED BY EXP. AND MEMORANDUM DATED APRIL 24,2015.
9. BEDROCK AT THE UNDERSIDE OF ALL FOOTINGS IS TO BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE SOILS CONSULTANT. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED MX CONCRETE SKIM SLAB IS TO 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. TOP + STEP FOOTING, STEPS IN ANY FOOTING SHALL BE 600mm MAX. AND 10 HORIZ. TO 1 VERT.
12. UNLESS OTHERWISE NOTED, ALL WALL FOOTINGS TO BE 350 mm DEEP WITH 150 mm PROJECTION EACH SIDE. ALL COLUMN FOOTINGS TO BE SQUARE AND 400 mm DEEP UNLESS NOTED OTHERWISE.
    PROTECT FOOTING BASE BY 50mm CONCRETE IF CONCRETE PLACEMENT OCCURS ON THE SAME DAY.
13. DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH UNTIL FLOORS AT TOP AND BOTTOM OF WALLS ARE PLACED AND HAVE ATTAINED SPECIFIED DESIGN STRENGTH (28 DAYS).
14. FILL REQUIRED ON BOTH SIDES OF FOUNDATION WALLS SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY TO PREVENT UNEQUAL LATERAL 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 CONCENTRIC UNLESS OTHERWISE SHOWN. (SEE ARCHITECTURAL)
17. CONCRETE FOR ALL FOOTINGS: ALL FOOTINGS SHALL BE CLASS C-1 WITH A MINIMUM CONCRETE STRENGTH AT 28 DAYS OF 35 MPa UNL.
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 HIGHER.
19. THE FORMING CONTRACTOR IS TO SUBMIT FOR REVIEW PROPOSED SLAB-ON-GRADE SAWCUT LAYOUT SEE TYPICAL DETAILS.
20. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO POURING STRUCTURAL CONCRETE.
21. SEE COLUMN SCHEDULES AND SHEAR WALL ELEVATIONS.
22. SEE TYPICAL FOOTING DETAILS ON CHART DRAWING S1.
23. SEE TYPICAL CONCRETE MIX CHART DRAWING S1.
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 FRAMED RAMP SLAB AND ALL TURNING AREAS.
26. C - ON PLAN DENOTES CAISSON. SEE SCHEDULE ON THIS DRAWING.
27. CP - ON PLAN DENOTES CAISSON CAP. SEE SCHEDULE ON THIS DRAWING.
28. REFER TO SOIL REPORT RECOMMENDATIONS REGARDING RELIEF WELLS, 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 250mm 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 WITH A HEAVY COMPACTOR TO A MINIMUM OF 98% STANDARD PROCTOR MAX. DRY DENSITY AND TO THE APPROVAL OF THE SOIL CONSULTANT.
4. ALL SOFT AND LOOSE 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 1 CONFORMING TO OPSS.1010, PLACED IN SUCCESSIVE LOOSE 200mmTHT LAYERS EACH COMPACTED TO AT LEAST 98% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.
6. THE SUB-GRADE FOR THE SLAB-ON-GRADE SUB-GRADE SHALL BE 200mm (8") OF GRANULAR 'A' COMPACTED TO MIN. 98% STANDARD PROCTOR MAX. DRY DENSITY.
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 DENSITIES ARE ACHIEVED.
8. THE CONTRACTOR SHALL CO-ORDINATE WITH THE SOIL CONSULTANT AND ARRANGE A SUITABLE PROGRAM FOR TESTING AND INSPECTION. THE COST SHALL BE INCLUDED IN THE BID PRICE.
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 SPECIFICATION AND THE SOIL REPORT FOR PREPARATION OF AREAS OUTSIDE THE BUILDING ENVELOPE.

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

CAISSON SCHEDULE

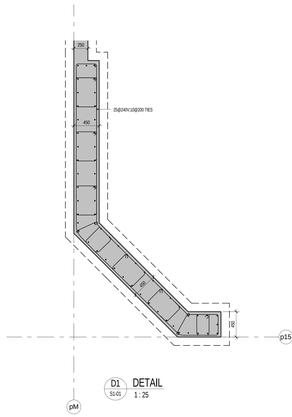
CAISSON NUMBER	CAISSON DIA	UPPER SHAFT REINFORCEMENT	UPPER SHAFT STIRRUPS ZONE	UPPER SHAFT REMAINING STIRRUPS	EMBEDMENT INTO SOUND BEDROCK, m	CONCRETE STRENGTH	LOAD ULS kN
C1	915Ø	11-20 V + 10@150 TIES	2750	10@300	2.0	25MPa	3700
C2	915Ø	16-25 V + 10@150 TIES	2750	10@200	4.0	35MPa	7400

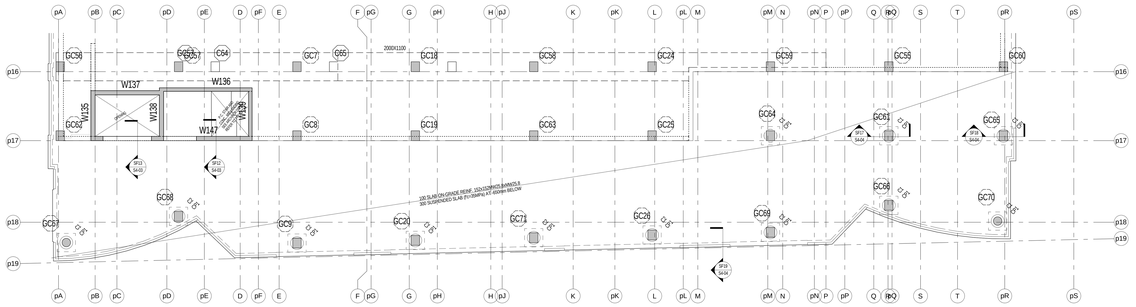
FOOTING SCHEDULE

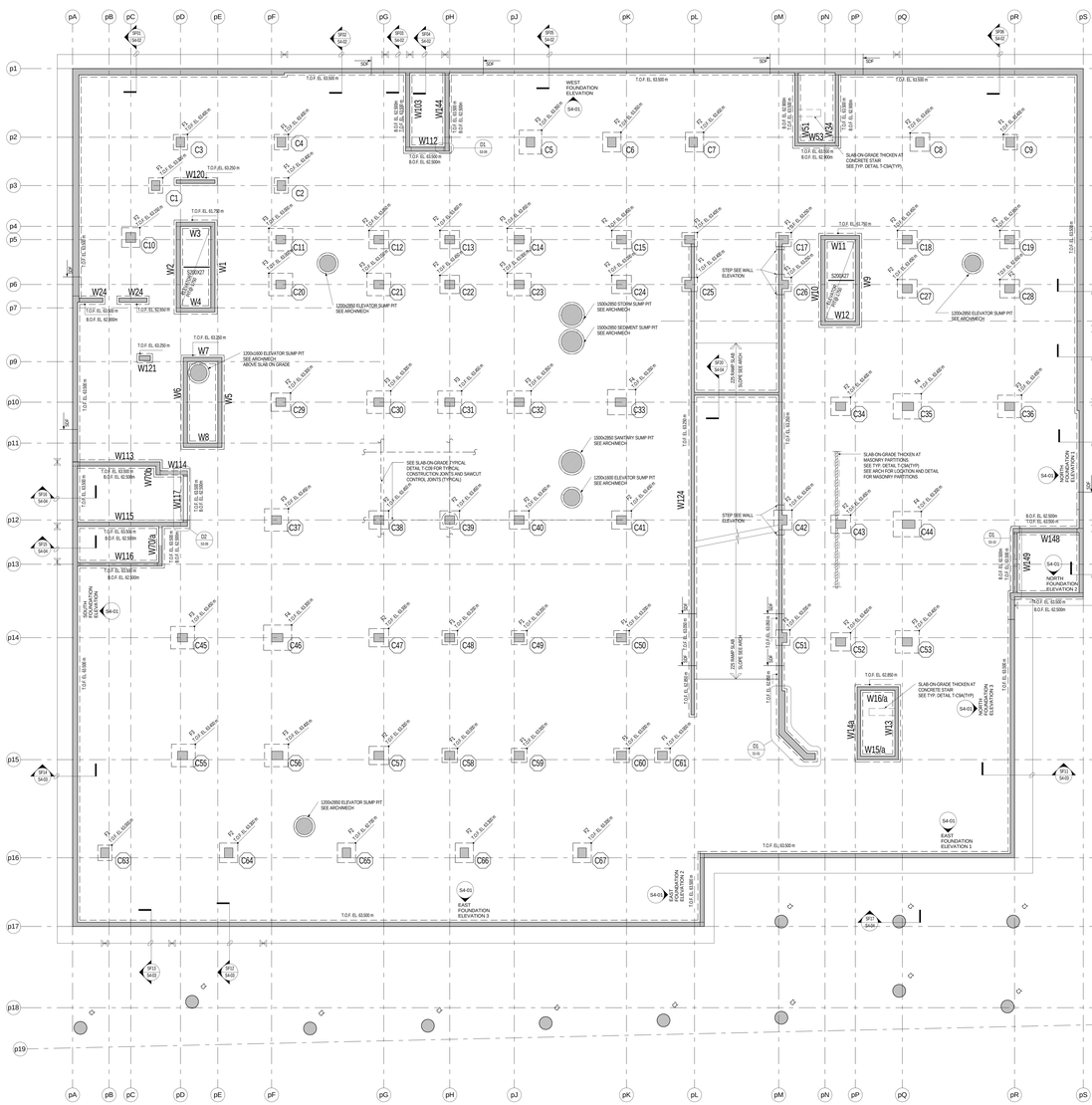
FOOTING NUMBER	FOOTING NUMBER AND SIZE	FOOTING REINF. LG. (HOOKED EE)	FOOTING REINF. TR. (HOOKED EE)	LOAD ULS kN
F1	1000x1100x500 DP.	10-20B	11-20B	4400
F2	1300x1400x600 DP.	13-20B	14-20B	7300
F3	1600x1700x1100 DP.	12-25B	13-25B	1000
F4	1800x2000x1300 DP.	16-25B	20-25B	14400

CAISSON CAP SCHEDULE

CAP NUMBER	CAP SIZE	CAP REINFORCEMENT	CONCRETE STRENGTH
CP1	1300x1300x700	6-20M BEW	35MPa







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AT BAYSIDE TORONTO

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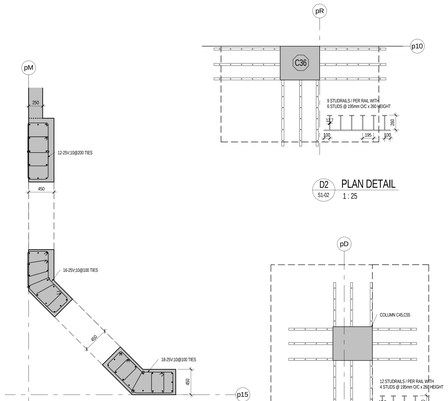
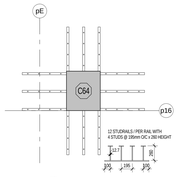


D1 PLAN DETAIL
S1-02 1 : 25

D2 PLAN DETAIL
S1-02 1 : 25



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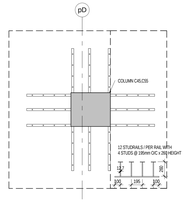

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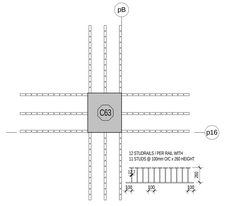
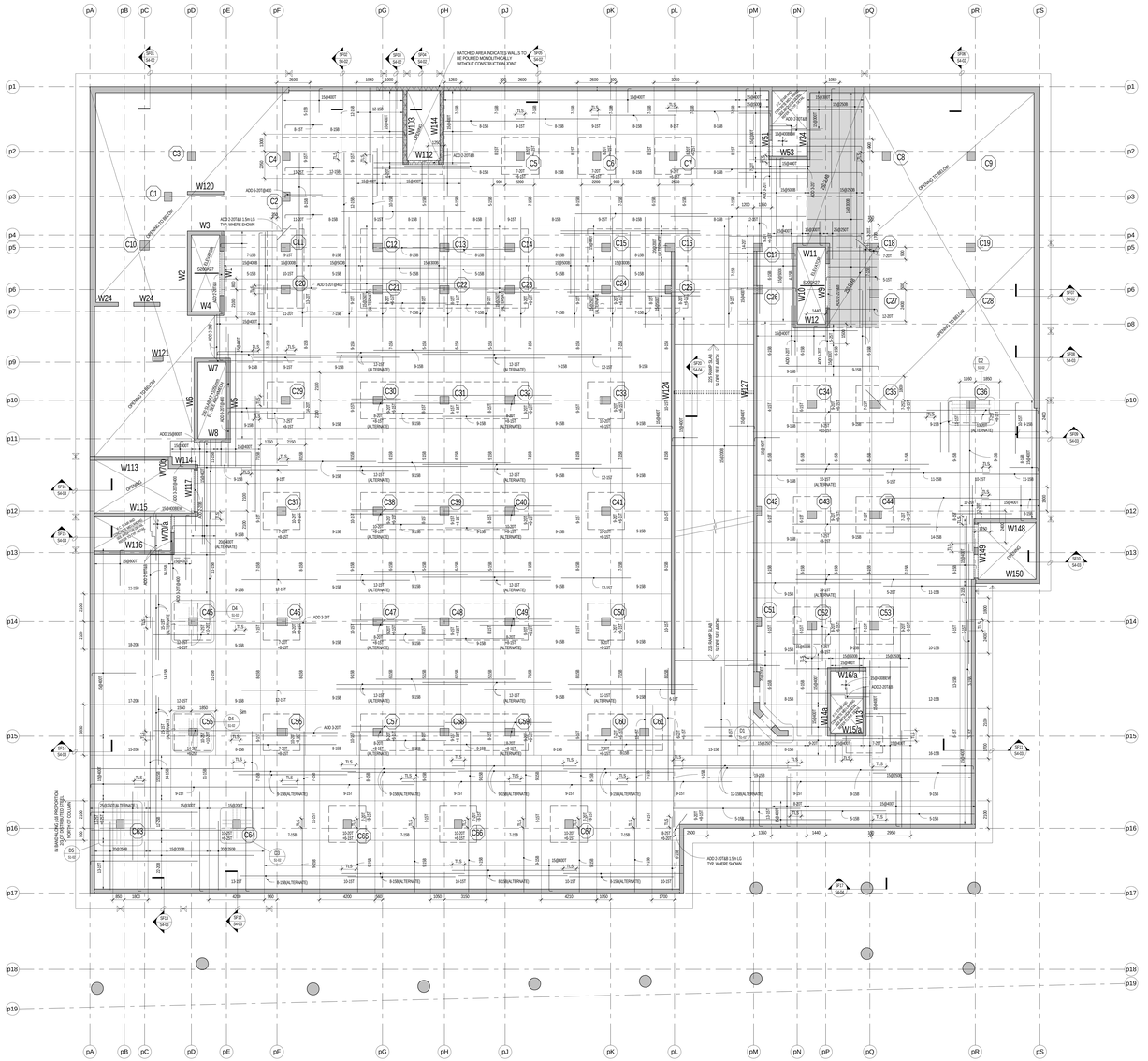
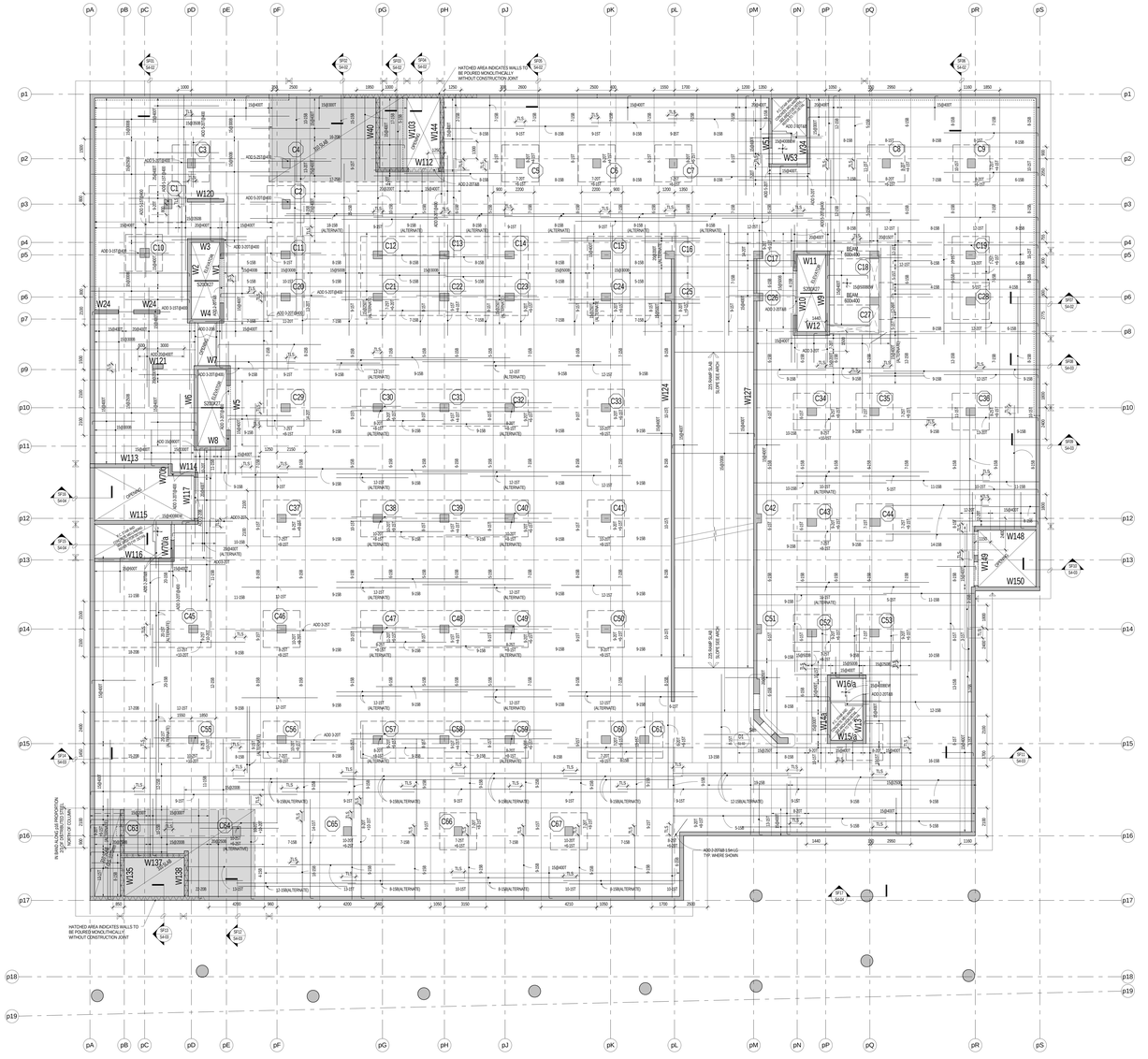


D5 PLAN DETAIL
S1-02 1 : 25


HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
OPENING
OPENING
OPENING



LEVEL P2 FRAMING PLAN

1 : 100

1. TOP OF STRUCTURAL SLAB VARIES FROM FINISHED PARKING LEVEL DATUM ELEVATION 69.450m AT ELEVATOR CORE. TOP OF SLAB ELEVATION VARIES AND IS TO BE SLOPED TO SUIT DRAINAGE AS SHOWN ON THE 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	7.2 kPa	0.5 kPa
STAIRS AND ELEVATOR LOBBIES	4.8 kPa	2.5 kPa
MECHANICAL AND ELECTRICAL	3.6 kPa	6.0 kPa
LOBBY	4.8 kPa	2.5 kPa
WATER TANK	12.0 kPa	1.5 kPa
WHIRLPOOL / SPA AREA	10kPa	1.5 kPa

3. CONCRETE SHALL MEET THE REQUIREMENTS FOR CLASS C 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 40 mm. CONCRETE COVER FOR BOTTOM BARS IN SLABS TO BE 25 mm.
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 TYPICAL DETAIL FOR LINTELS IN NON-LOAD BEARING MASONRY WALLS.
8. REFER TO ARCHITECTURAL, MECHANICAL 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. AT SLEEVES THROUGH THE SLAB, HOOK BARS AT OPENING AND ADD BARS OF SAME SIZE ON EACH SIDE OF OPENING. EXTEND BARS 600 mm BEYOND TO CLEAR SPAN.
13. PROVIDE 20mm CHAMFER ON ALL EXPOSED EDGES OF COLUMNS, WALLS, BEAMS AND DROPS.
14. AREAS NOTED THUS [ ] ON PLAN, INDICATE THICKENED SLAB. SEE PLAN FOR THICKNESS.
    TRANSFER SLABS TO BE SHORED UNTIL REACH SPECIFIED 28 DAYS CONCRETE STRENGTH.
    SHORING SHOULD NOT BE SUPPORTED ON BUILDING SLABS.
15. PROVIDE DC/ AT A DOSAGE OF 10L/M³ CONCRETE IN THE FRAMED RAMP SLAB AND ALL TURNING AREAS.
16. SLAB SOFFIT TO 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
BUL = BOTTOM UPPER LAYER
BLL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	200 MIN. slr
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@400
DROP:	2800x2800x1100F slr
CONCRETE STRENGTH:	35 MPa CLASS C1
SLAB:	225 RAMP SLAB
INTEGRITY BARS:	3-20M BEW
TEMP. STEEL:	15@400
CONCRETE STRENGTH:	35 MPa CLASS C1
SLAB:	310 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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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

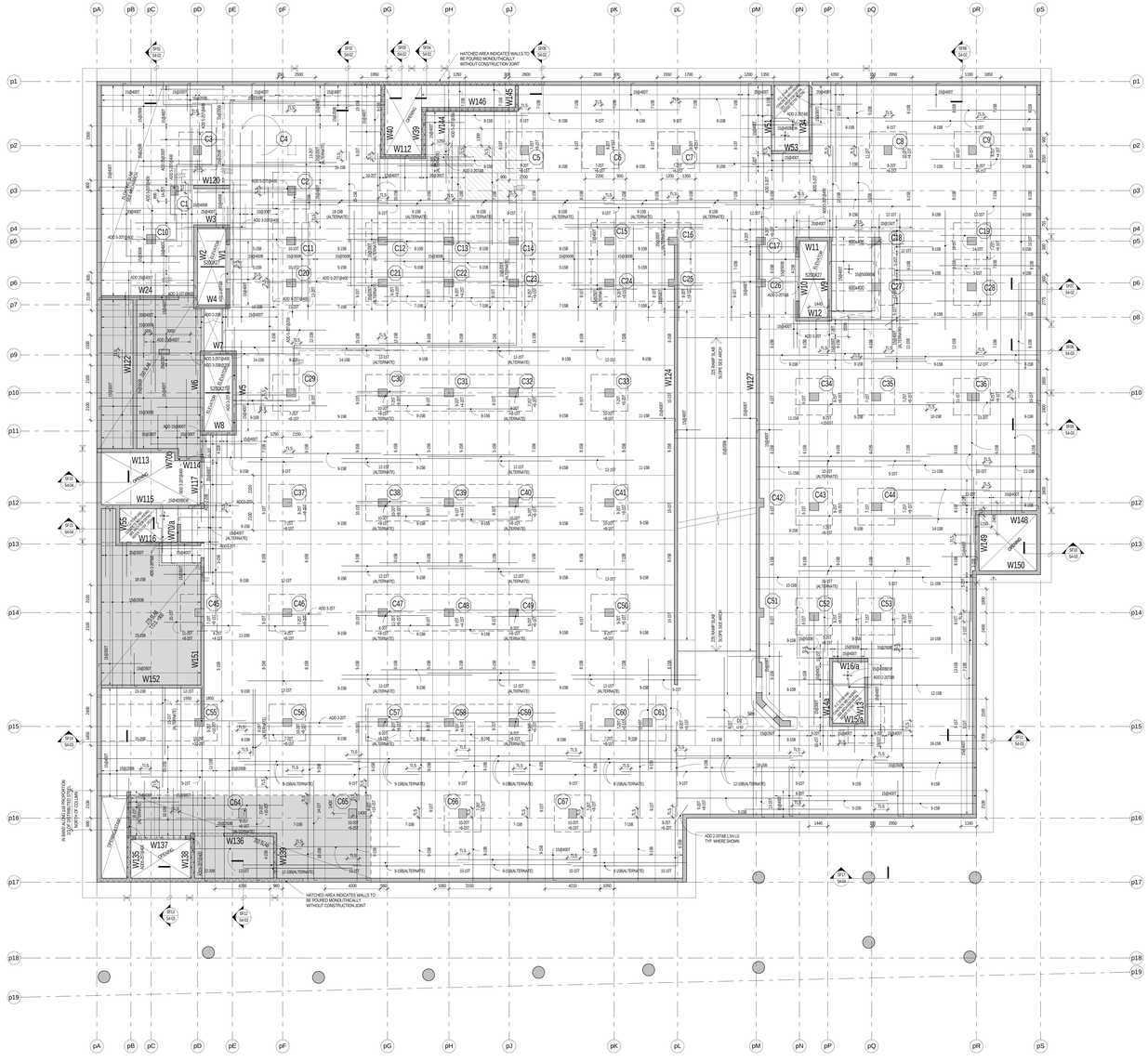
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL P2 FLOOR FRAMING PLAN

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	JUNE 12,2015
Drawing No.	S1-03

Plot Date: 6/11/2015 12:03:34 PM


HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
IN BAND ALONE (NOT PERPENDICULAR TO SLOPE) FOR 1.5m FROM EDGE OF RAMP SLAB
ADD 2-20TAB 1.5m LG TYP. WHERE SHOWN
25" RAMP SLAB SLOPE SEE ARCH
25" RAMP SLAB SLOPE SEE ARCH
W146
W147
W148
W149
W150
W151
W152
W153
W154
W155
W156
W157
W158
W159
W160
W161
W162
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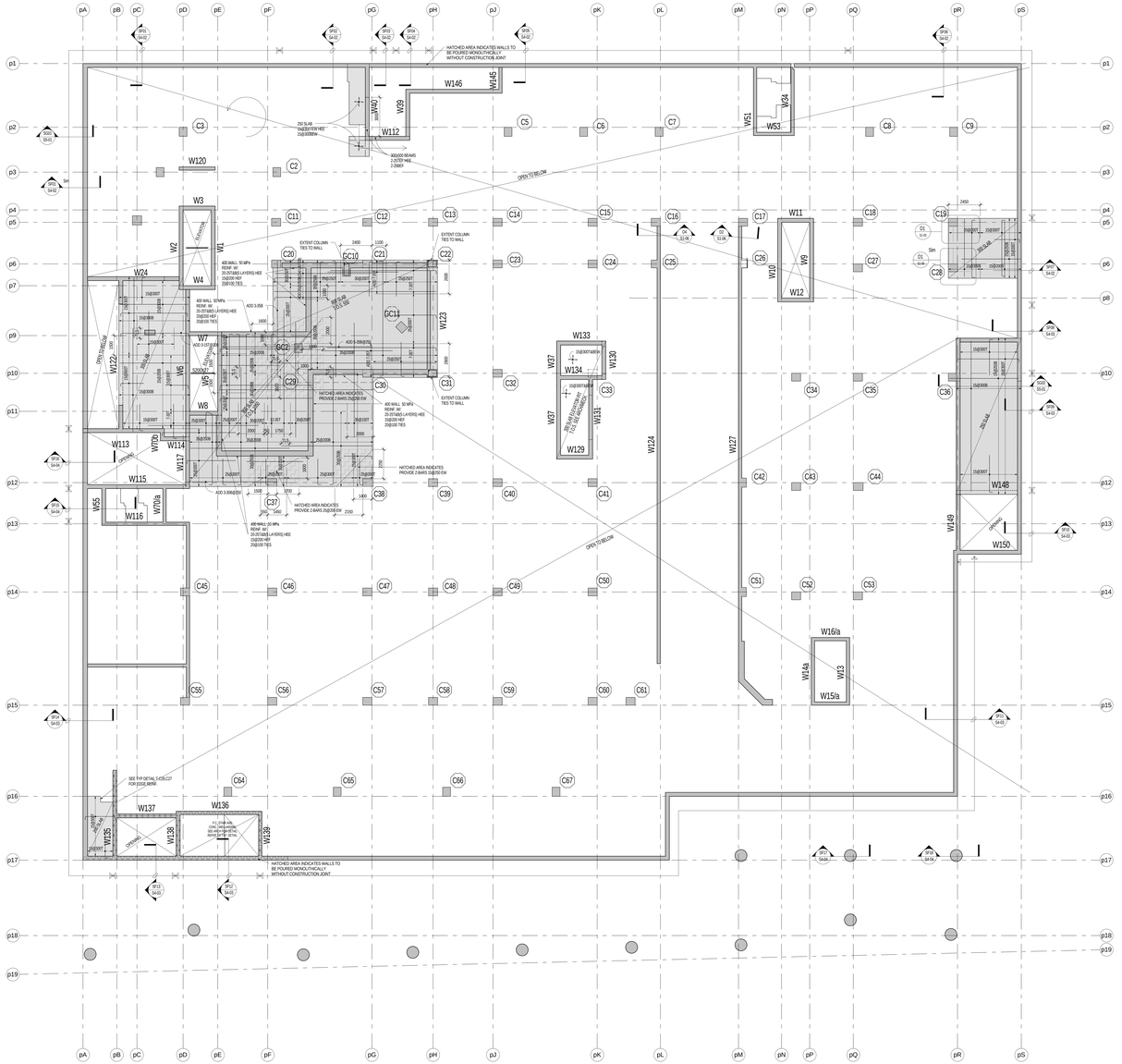
W184
W185



LEVEL P1 MEZZ. FRAMING PLAN

1 : 100

1. TOP OF LEVEL 1 MEZZANINE FLOOR STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED GROUND FLOOR DATUM ELEVATION TO DR. 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:

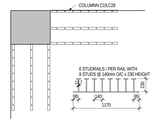
	LL	SDL
STAIRS / MEZZANINE	4.8 kPa	0.5 kPa

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 30 MM.
5. ALL OPENINGS, 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. PROVIDE CHAMFER STRIPS TO 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 LAYER LAYER
TUL = TOP UPPER LAYER
BLL = BOTTOM LAYER
BUL = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	250 MIN. 3.0M BEW 35 MPa 15@400 ulh
SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	250 MIN. 3.0M BEW 35 MPa 15@400 ulh
SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	300 MIN. 3.0M BEW 35 MPa 15@300 ulh
SLAB INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	800 MIN. 5.0M BEW 45 MPa 25@300 ulh



D1 / S1-05 DETAIL
1 : 25

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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
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Checked by	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-05

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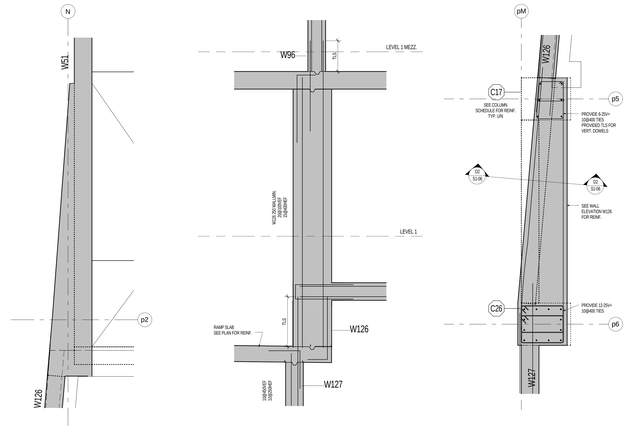
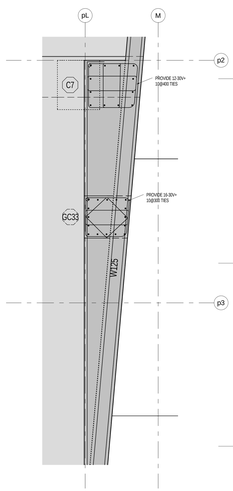


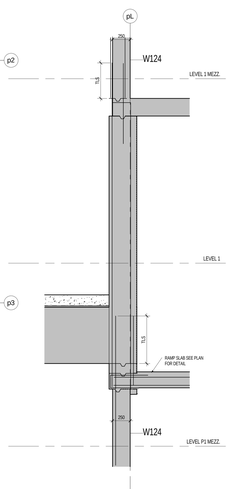
D5 PLAN DETAIL
S1-06 1 : 20

D2 ELEVATION DETAIL
S1-06 1 : 20

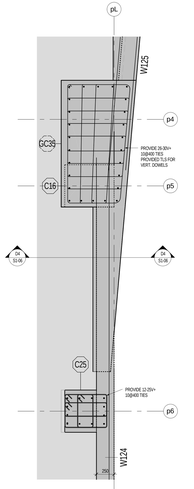
D1 PLAN DETAIL
S1-06 1 : 20



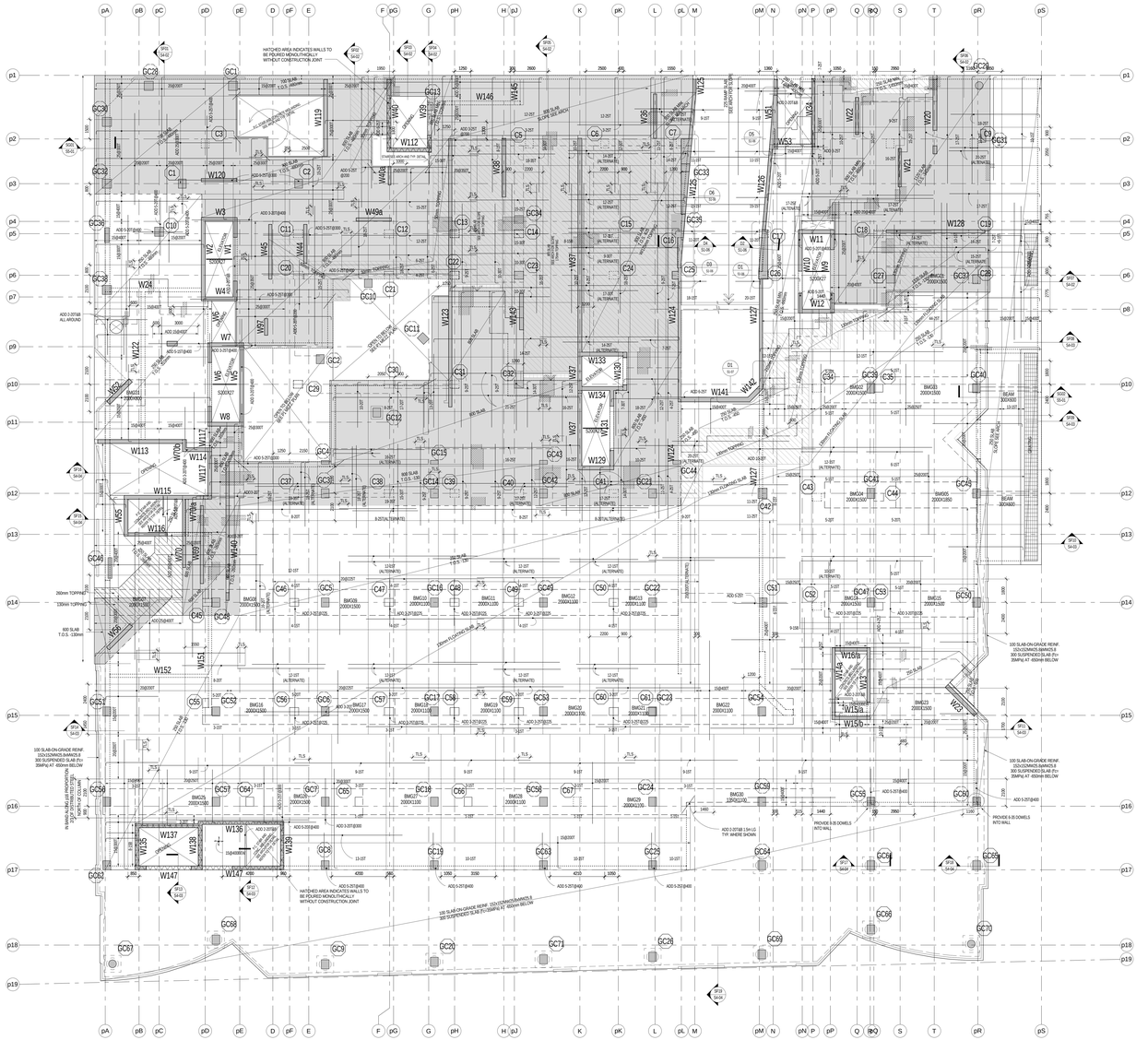
D6 PLAN DETAIL
S1-06 1 : 20



D4 PLAN DETAIL
S1-06 1 : 20



D3 PLAN DETAIL
S1-06 1 : 20


HATCHED AREA INDICATES WALLS TO BE POURED MONOLITHICALLY WITHOUT CONSTRUCTION JOINT
W112
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GC1
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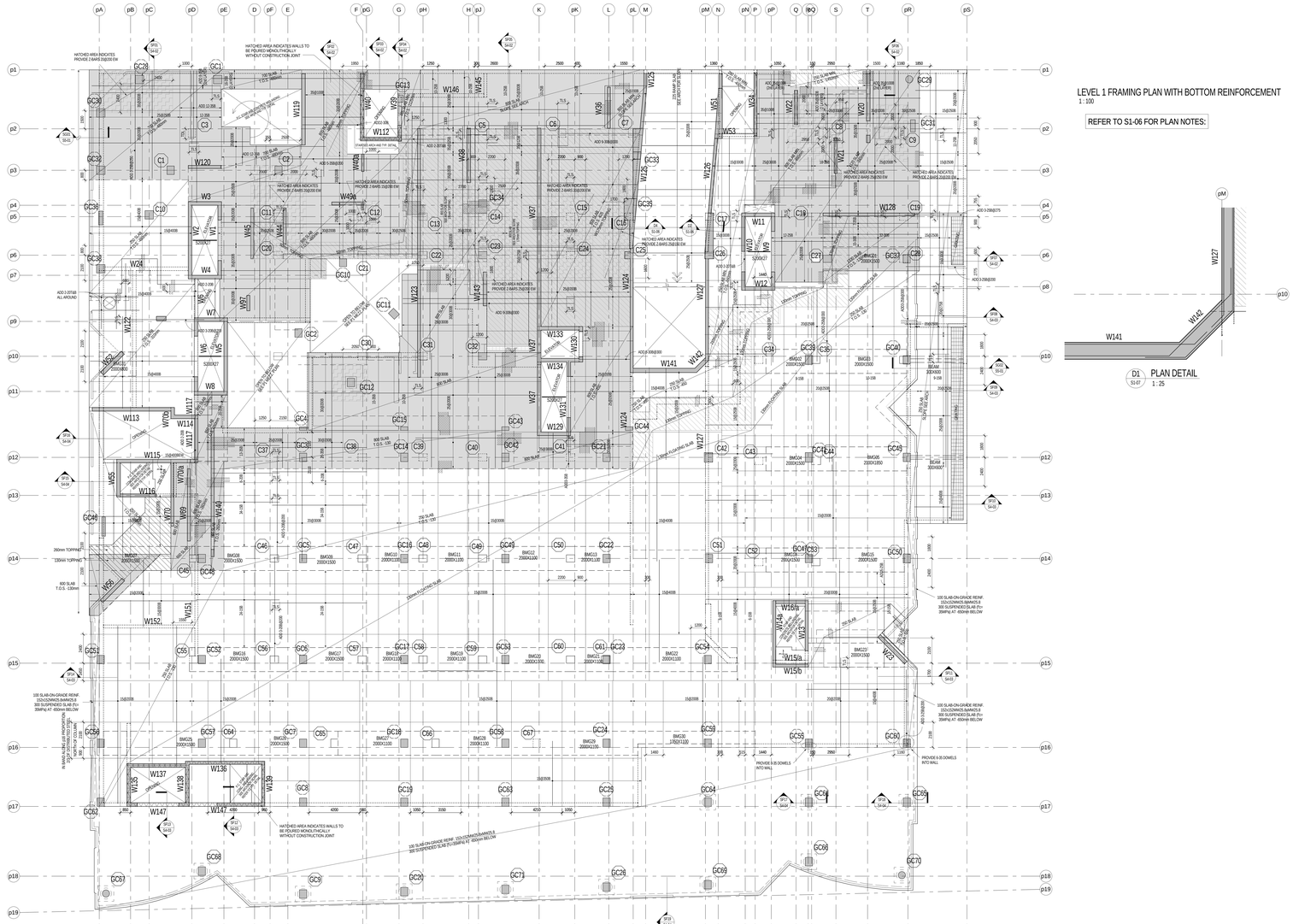
GC72
100 SLAB-ON-GRADE REINF. 15Dx15MM/25.8MM/25.8 300 SUSPENDED SLAB (TLS= 356MPa) AT 450mm BELOW
PROVIDE 6-35 DOWELS INTO WALL
ADD 5-20TAB @400
ADD 5-25TAB @400
ADD 5-15TAB @400
ADD 5-20TAB @400
ADD 3-20TAB @400
ADD 3-15TAB @400
ADD 3-20TAB @400
ADD 3-25

LEVEL 1 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS								TOP BARS								STIRRUPS		REMARKS
		No.								No.								No.		
BM101	2000X1500	12	35				BL1			6	30			T1A			3	15	100@100 RE	TRIPLES
		10	15				B1A			5	25			T1A	2600		3	10	@100 REM	DOUBLES
							SHE2			5	35		2000	T1A						
BM102	2000X1500	22	35				BL1			9	30		2600	T1A			15		@125	FIVE SETS
		22	35				B1A			6	35		1400	T1A						
		10	15				SHE2			12	30			T1A	3600	4600				
										8	35			T1A	2500	2000				
										6	30			T1L	2500	2000				
BM103	2000X1500	12	35				BL1			12	30		FROM BM102	T1C			15		5@125 RE	TRIPLES
		12	35				B1A			8	35		FROM BM102	T1A			15		5@200 LE	TRIPLES
		10	15				SHE2			6	30		FROM BM102	T1L			15		@100 REM	DOUBLES
										8	30			T1A	3600					
										9	35			T1A	2500					
BM104	2000X1500	22	35				BL1			6	35		2600	T1A			15		@100	FIVE SETS
		22	35				B1A			7	35		1400	T1A						
		12	15				SHE2			12	35			T1A	3400	4200				
										5	35			T1A	2500	2000				
										5	35			T1L	2500	2000				
BM105	2000X1850	14	35				BL1			12	35		FROM BM104	T1A			15		10@100 RE	FIVE SETS
		14	35				B1A			5	35		FROM BM104	T1A			15		@200 REM	FIVE SETS
		16	15				SHE2			5	35		FROM BM104	T1L						
										5	35			T1A	FROM BM106					
										5	35			T1L	2700	2700				
BM106	1475x900	5	35				BL1			5	35		FROM BM105	T1A			10		@150	TRIPLES
		6	15				B1A			8	35		4500	T1A						
							SHE2			DO NOT USE										
BM107	2000X1500	7	30				BL1			6	30		3700	T1A			10		@100	TRIPLES
		12	15				SHE2			8	30			T1A	5300	4000				
										7	30			T1L	2100	2100				
BM108	2000X1500	16	30				BL1			8	30		FROM BM107	T1L			10		5@125 LE	TRIPLES
		12	15				SHE2			7	30		FROM BM107	T1A			10		@300 REM	TRIPLES
										17	35			T1A	4000	4300				
										17	35			T1L	2000	2000				
BM109	2000X1500	19	35				BL1			17	35		FROM BM108	T1L			15		@100	FIVE SETS
		14	35				B1A			17	30		FROM BM108	T1L						
		12	15				SHE2			11	35			T1A	4300	3100				
										8	35			T1L	2000	2000				
BM110	2000X1100	15	35				BL1			11	35		FROM BM109	T1C			10		@300	TRIPLES
		8	15				SHE2			8	35		FROM BM109	T1L						
										6	35			T1A	3100	3100				
										5	35			T1L	1400	1400				
BM111	2000X1100	6	25				BL1			6	35		FROM BM110	T1C			10		@300	TRIPLES
		6	15				SHE2			5	35		FROM BM110	T1L						
										7	35			T1A	3100	4300				
										7	30			T1L	2000	2000				
BM112	2000X1100	10	30				BL1			7	35		FROM BM111	T1L			10		8@200 RE	TRIPLES
		10	30				B1A			7	30		FROM BM111	T1A			10		10@100 LE	TRIPLES
		8	15				SHE2			8	35			T1A	4300	3700	10		@300 REM	TRIPLES
										7	30			T1L	2000	2000				
BM113	2000X1100	10	30				BL1			8	35		FROM BM112	T1C			10		@300	TRIPLES
		10	30				B1A			7	30		FROM BM112	T1A						
		8	15				SHE2			9	35			T1A	2600					
BM114	2000X1500	18	35				BL1			6	35		2600	T1A			15		5@100 RE	FIVE SETS
		14	35				B1A			5	35		1400	T1A			15		@200 REM	TRIPLES
		10	15				SHE2			15	35			T1A	3400	4600				
										9	35			T1L	2500	2000				
BM115	2000X1500	16	35				BL1			15	35		FROM BM116	T1L			15		10@150 RE	FIVE SETS
		12	35				B1A			9	35		FROM BM116	T1L			15		@200 REM	TRIPLES
		12	15				SHE2			12	35			T1A	3600					
										8	35			T1L	2500					
BM116	2000X1500	15	35				BL1			12	30		4100	T1A			15		@150	FOUR SETS
		11	30				B1A			10	25		2000	T1A						
		12	15				SHE2			15	35			T1C	4150	4400				
										12	35			T1L	2100	2100				

LEVEL 1 BEAM SCHEDULE

BEAM NUMBER	SIZE	BOTTOM BARS								TOP BARS								STIRRUPS		REMARKS
		No.								No.								No.		
BM117	2000X1500	15	35				BL1			10	35		FROM BM118	T1C			15		5@100 LE	FOUR SETS
		11	30				B1A			12	35		FROM BM118	T1L			15		@150 REM	TRIPLES
		12	15				SHE2			10	35			T1A	4400	3100				
										12	35			T1L	2100	2100				
BM118	2000X1100	13	30				BL1			10	35		FROM BM117	T1L			10		@200	DOUBLES
		8	15				SHE2			12	35		FROM BM117	T1A						
										8	35			T1A	3000	3100				
										7	30			T1L	1400	1400				
BM119	2000X1100	10	30				BL1			8	30		FROM BM118	T1C			10		@200	DOUBLES
		8	15				SHE2			9	35		FROM BM118	T1A						
										9	35			T1A	3100	4300				
										8	30			T1L	1400	1400				
BM120	2000X1100	10	35				BL1			9	35		FROM BM119	T1A			10		25@100 LE	TRIPLES
		10	30				B1A			9	30		FROM BM119	T1L			10		@200 REM	TRIPLES
		8	15				SHE2			10	35			T1A	FROM BM121					
										6	30			T1L	FROM BM121					
BM121	2000X1100	6	25				BL1			10	35	4300		T1A		5850	10		@200	DOUBLES
		8	15				SHE2			6	30	2600		T1L		2600				
BM122	2000X1500	18	35				BL1			10	35		FROM BM121	T1C			15		25@125 RE	TRIPLES
		10	30				B1A			6	30		FROM BM121	T1L			15		25@125 LE	TRIPLES
		8	15				SHE2			10	35			T1A	4800		15		@200 REM	TRIPLES
										4	30			T1L	2700					
BM123	2000X1500	20	35				BL1			7	35		4400	T1A			15		25@125 RE	DOUBLES
		17	35				B1A			5	30		2500	T1L			15		4@200 LE	DOUBLES
		10	15				SHE2			12	35			T1A	6400	5000	15		@300 REM	DOUBLES
										4	30			T1L	2800	2800				
BM124	2000X600	9	25				BL1			12	35		FROM BM107	T1			15		5@200 RE	DOUBLES
		6	15				B1A			DO NOT USE							15		5@200 LE	DOUBLES
																	15		@300 REM	DOUBLES
BM125	2000X1500	12	35				BL1			9	30		5300	T1A			10		10@200 RE	TRIPLES
		12	15				SHE2			12	35			T1A	4800	7250	10		10@200 LE	TRIPLES
										10	30			T1L	3600	3000	10		@300 REM	TRIPLES
BM126	2000X1500	14	35				BL1			12	35		FROM BM125	T1L			10		35@100 RE	TRIPLES
		12	30				B1A			10	30		FROM BM125	T1A			10		10@200 LE	TRIPLES
		10	15				SHE2			12	35			T1A	4800	4800	10		@300 REM	TRIPLES
										10	30			T1L	2300	2300				
BM127	2000X1100	13	35				BL1			12	35		FROM BM126	T1C			10		7@200 RE	TRIPLES
		8	15				SHE2			8	35		FROM BM126	T1L			10		10@200 LE	TRIPLES
										8	35			T1A	4800	4800	10		@300 REM	TRIPLES
										8	30			T1L	2300	2300				
BM128	2000X1100	13	30				BL1			8	35		FROM BM127	T1C			10		@200	TRIPLES
		8	15				SHE2			8	30		FROM BM127	T1A						
										10	35			T1A	4400	4800				
										8	35			T1L	2400	2400				
BM129	2000X1100	13	30				BL1			8	35		FROM BM128	T1C			10		@200	TRIPLES
		8	15				SHE2			8	30		FROM BM128	T1A						
										10	35			T1A	4800	5800				
										10	30			T1L	2400	2400				
BM130	2000X1100	17	35				BL1			10	35		FROM BM129	T1C			10		7@200 RE	TRIPLES
		8	35				B1A			10	30		FROM BM129	T1A			10		10@200 LE	TRIPLES
		8	15				SHE2			8	35			T1A	4300		10		@300 REM	TRIPLES
BM131	2000X800	18	35				BL1			6	35			T1A			15		@125	FOUR SETS
		16	30				B1A			3	30			T1A						
		4	15				SHE2													



LEVEL 1 FRAMING PLAN WITH BOTTOM REINFORCEMENT

1 : 100

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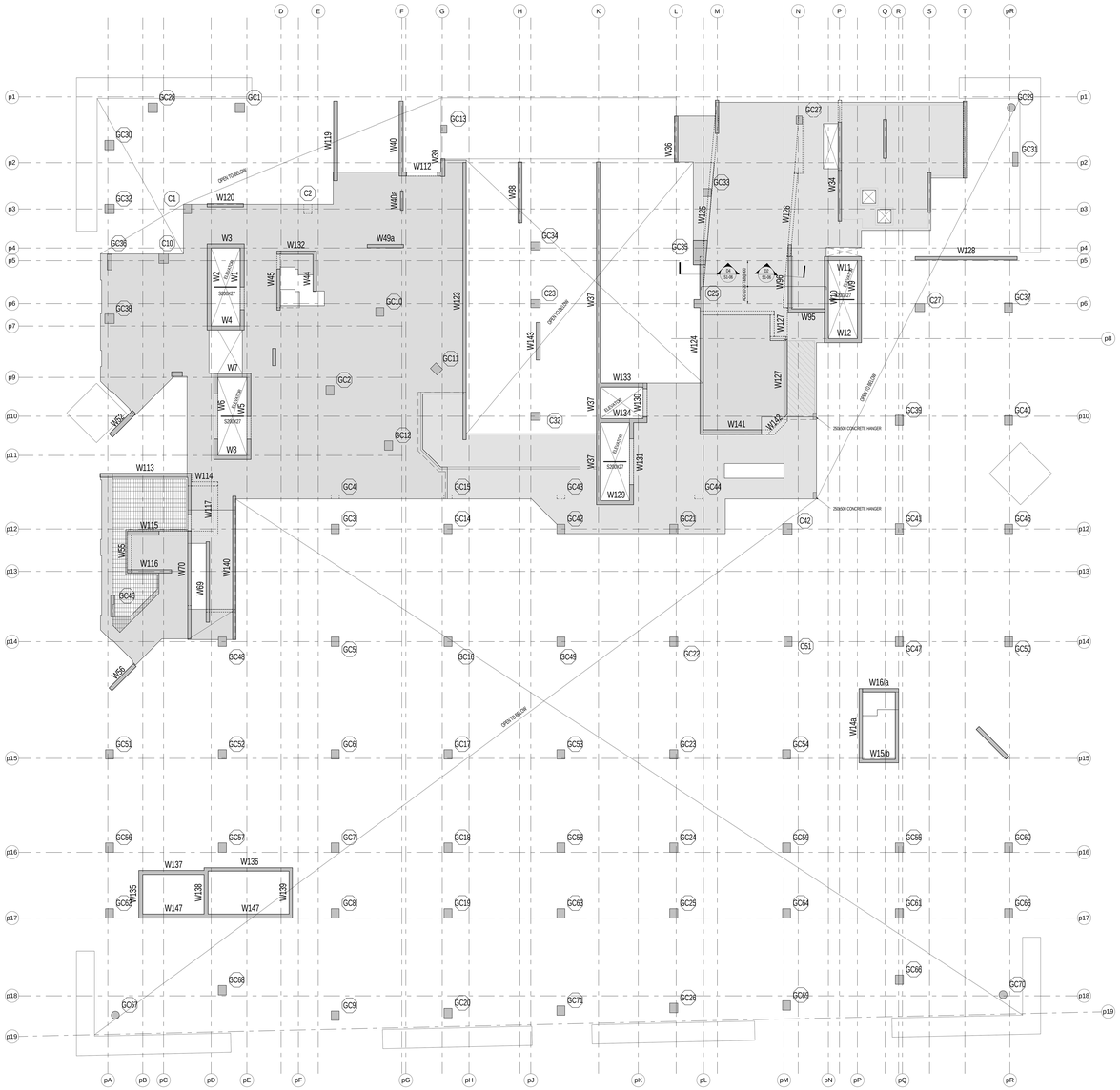
1	ISSUED FOR MT REVIEW	May 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL 1-GROUND FLOOR FRAMING PLAN WITH BOTTOM REINFORCEMENT AND SCHEDULES

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

Scale	As indicated
Drawn by	Author
Checked by	Checker
Project No.	2014-0031
Date	JUNE 12,2015
Drawing No.	S1-07



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No	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

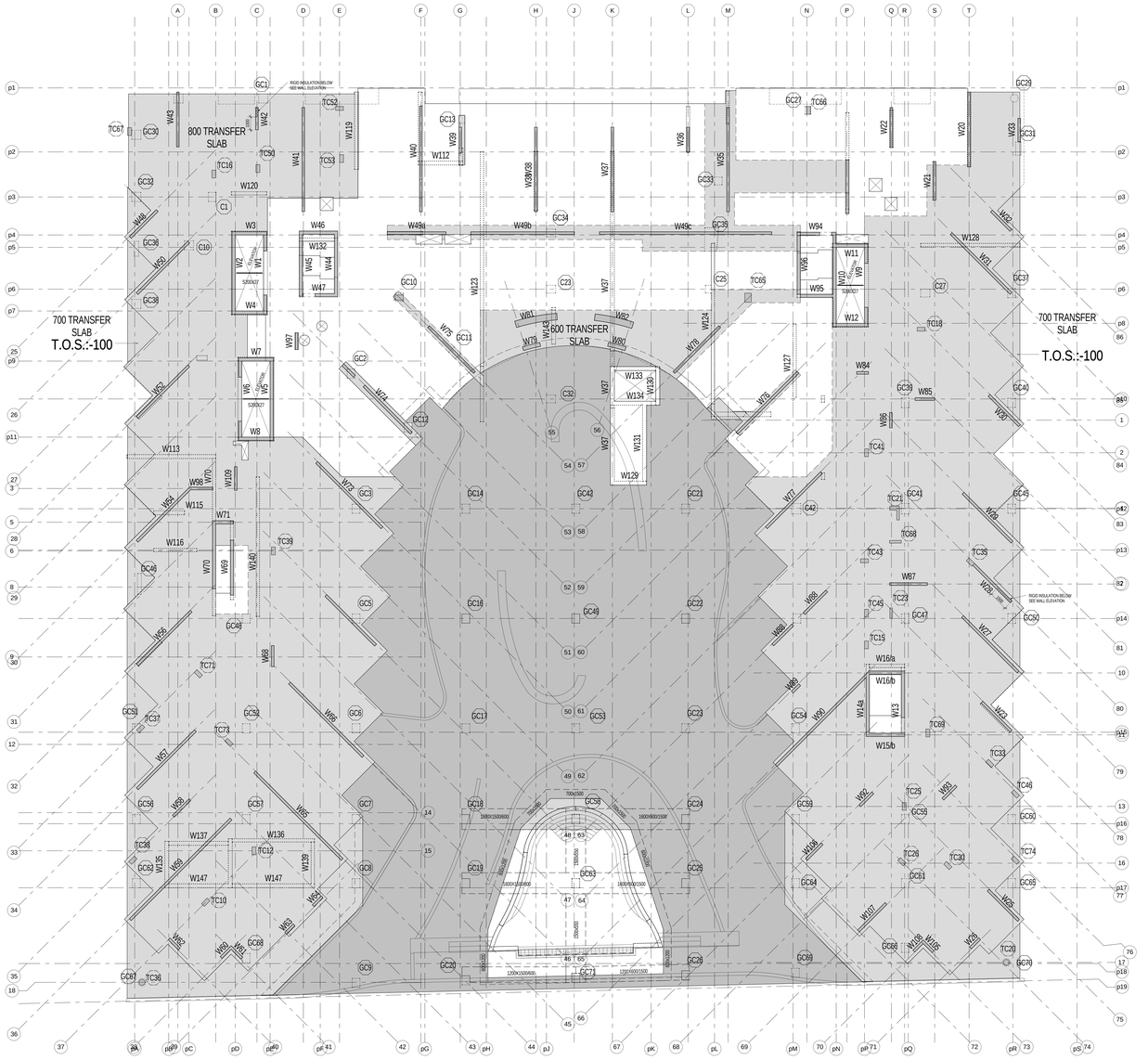
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
LEVEL L1 MEZZANINE FRAMING 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: 2014/0031
Date: JUNE 12,2015
Drawing No: S1-08

Plot Date: 6/11/2015 12:03:55 PM



LEVEL 2 FRAMING PLAN

1 : 100

1. TOP OF STRUCTURAL SLAB TO BE 0.2 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*	2.5 kPa
STAIRS/BALCONIES/HALL/LOBBY	4.8 kPa*	2.5 kPa
CANOPY	2.4 kPa*	0.5 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 4% ALLOWANCE FOR SNOW LOAD OF 1.0 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 SUPPLY AGREEMENT 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 SCHEDULES.
9. REFER TO ARCH. DRAWINGS FOR SLAB/STAIR REINFORCEMENT.
10. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.
11. IN TRANSFER SLABS, HOOK BOTTOM BARS AND EXTEND ALL TOP BARS INTO ADJACENT SLABS BY 2000mm (TYP)
12. RC ON PLAN DENOTES - ARCHITECTURAL COLUMN, REFER TO S2-02 FOR DETAILS
13. TRANSFER SLABS TO BE SHORED UNTIL ROADY SPECIFIED 28 DAYS CONCRETE STRENGTH. SHORING SHOULD NOT BE SUPPORTED ON BUILDING SLABS.

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

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	250 MIN. t/h
SLAB:	200 MIN.
INTEGRITY BARS:	3-15M BEW
CONCRETE STRENGTH:	35 MPa
BOTTOM STEEL EW:	2@400 t/h
TOP STEEL:	2@400 t/h
SLAB:	350 MIN.
INTEGRITY BARS:	3-15M BEW
CONCRETE STRENGTH:	35 MPa
TOP STEEL:	2@200 t/h
BOTTOM STEEL:	2@300 t/h
FACE STEEL:	3-15M HEF
SLAB:	500 MIN.
INTEGRITY BARS:	3-15M BEW
CONCRETE STRENGTH:	35 MPa
BOTTOM STEEL EW:	2@200 t/h
TOP STEEL:	2@200 t/h
SLAB:	600 MIN.
INTEGRITY BARS:	3-15M BEW
CONCRETE STRENGTH:	40 MPa
BOTTOM STEEL EW:	2@200 t/h
TOP STEEL:	2@200 t/h
SLAB:	1000 MIN.
INTEGRITY BARS:	3-15M BEW
CONCRETE STRENGTH:	40 MPa
BOTTOM STEEL EW:	2@200 t/h
TOP STEEL:	2@300 t/h

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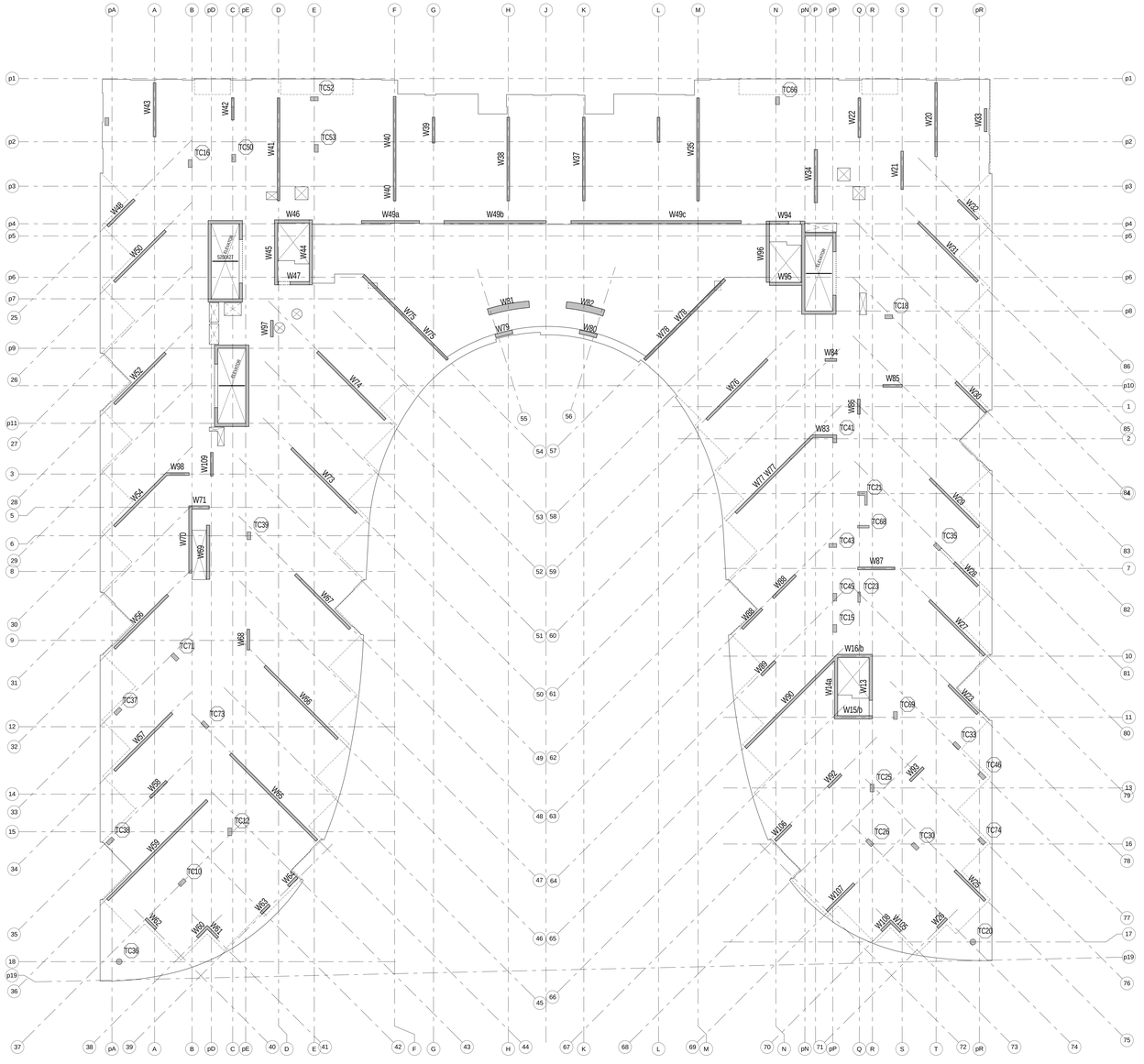
No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

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	BBS
Project No.	2014003I
Date	JUNE 12,2015
Drawing No.	S1-09



LEVEL 3 FRAMING PLAN

1 : 100

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*	1.9 kPa
STAIRS/HALLS/LOBBY	4.8 kPa*	1.9 kPa
BALCONIES	4.8 kPa*	2.3 kPa
GREEN ROOF	4.8 kPa*	5.2 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** 4% ALLOWANCE FOR SNOW LOAD OF 1.35 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOWLOAD

3. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm.
4. NO OPENINGS TO BE DEFINED 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 TYPICAL DETAIL DRAWING FOR LINTELS IN NON-LOAD BEARING BLOCK WALLS
7. SEE TYPICAL DETAIL DRAWINGS FOR DETAILS.
8. REFER TO BEAM SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.
10. AC ON PLAN DENOTES - ARCHITECTURAL COLUMN. REFER TO S2-02 FOR DETAILS
11. IN TRANSFER SLABS, NON BOTTOM BARS AND EXTEND ALL TOP BARS INTO ADJACENT SLABS BY 2000mm (TYP)

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

REINFORCEMENT PLACEMENT DIAGRAM

SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	200 MIN. d/n 3-20M BEW 35 MPa 15@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	250 MIN. 3-20M BEW 35 MPa 15@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	300 MIN. 3-20M BEW 35 MPa 15@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TOP STEEL: BOTTOM STEEL:	600 MIN. 3-25M BEW 40 MPa 25@300 25@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL: FACE STEEL:	1000 MIN. 3-25M BEW 45MPa 25@250 4-15M HEF

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1	ISSUED FOR MT REVIEW	May 01,2015

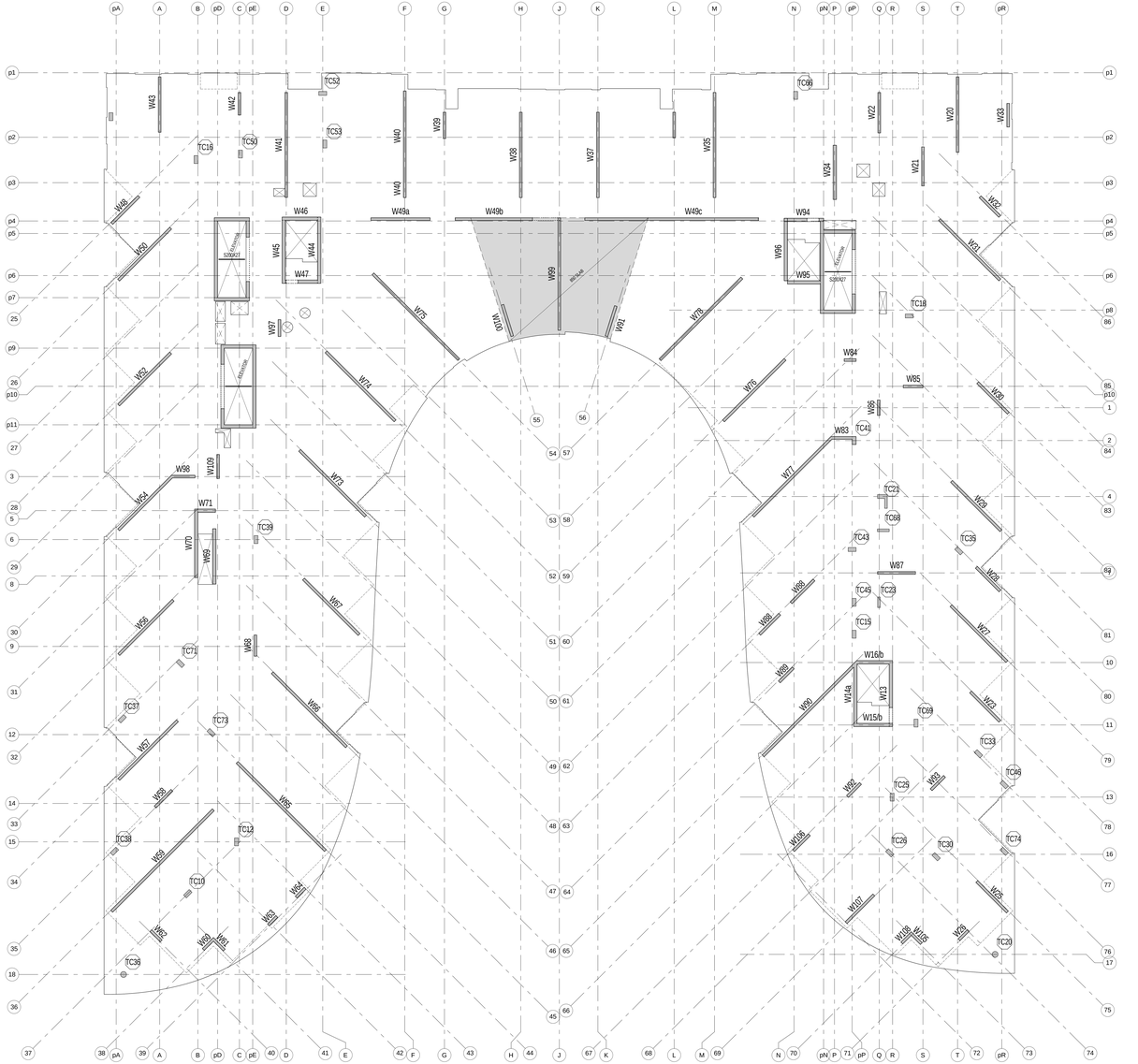
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-10

Plot Date: 6/12/2015 12:04:21 PM



LEVEL 4 FRAMING PLAN

1 : 100

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 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	1.0 kPa
TERRACE	4.8 kPa**	3.8 kPa*
ETHERSHALL LOBBY	4.8 kPa**	0.5 kPa
BALCONIES	4.8 kPa**	0.5 kPa
GREEN ROOF	4.8 kPa**	8.2 kPa*

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** AN ALLOWANCE FOR SNOW LOAD OF 1.78 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW 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 PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. REFER TO MASONRY DRAWINGS FOR LINTELS IN NON-LOAD BEARING BLOCK WALLS.
7. SEE A-0.0 TYPICAL NOTES AND DETAILS.
8. REFER TO BEAM SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND AROUND OPENINGS.
10. SEE A-0.0 TYPICAL SLAB ARCHITECTURAL COLUMN, REFER TO S2-02 FOR DETAILS
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. SHORING SHOULD NOT BE SUPPORTED ON BUILDING SLABS.

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

REINFORCEMENT PLACEMENT DIAGRAM

SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	200 MIN. ph 3.25M BEW 35 MPa 15@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	250 MIN. 3.25M BEW 35 MPa 15@400
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL:	300 MIN. 3.25M BEW 35 MPa 15@300
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TOP STEEL: BOTTOM STEEL:	600 MIN. 3.25M BEW 45 MPa 25@300 25@250
SLAB: INTEGRITY BARS: CONCRETE STRENGTH: TEMP. STEEL: FACE STEEL:	200 MIN. 3.25M BEW 40MPa 25@300 4-25M HEF

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1	ISSUED FOR MT REVIEW	May 01,2015

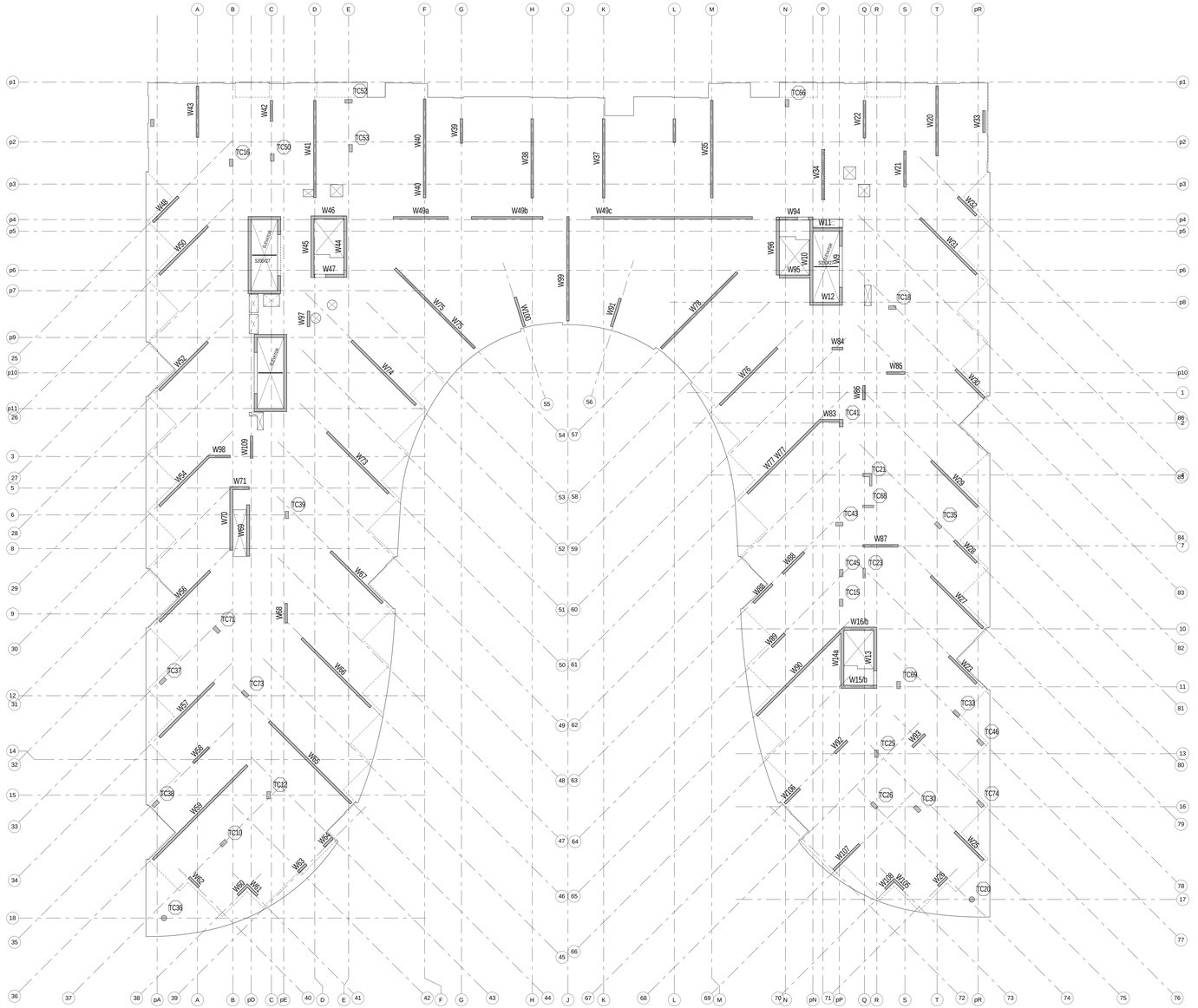
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014003S
Date	JUNE 12,2015
Drawing No.	S1-11

Plot Date: 6/11/2015 12:04:14 PM



LEVEL 5 FRAMING PLAN

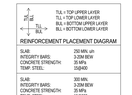
1 : 100

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 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
TERRACE	4.8 kPa**	3.6 kPa*
STAIRS/HALL/LOBBY	4.8 kPa	0.5 kPa
BALCONY	4.8 kPa**	6.3 kPa*
GREEN ROOF	4.8 kPa**	9.4 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 PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO ANY CONCRETE POUR TO ARRANGE 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 SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, EQUAL TO THE MAIN BOTTOM STEEL.
10. AT CIVIL PLAN BENDTES - ARCHITECTURAL COLUMN, REFER TO S2-02 FOR DETAILS
11. IN TRANSFER SLABS, HOOK BOTTOM BARS AND EXTEND ALL TOP BARS INTO ADJACENT SLABS BY 2000mm (TYP)



REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	250 MIN. sh
INTGERY BARS:	1-20M @ 300
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	10@400
SLAB:	300 MIN.
INTGERY BARS:	1-20M @ 300
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	10@300
SLAB:	450 MIN.
INTGERY BARS:	1-20M @ 300
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	10@200
SLAB:	550 MIN.
INTGERY BARS:	1-20M @ 300
CONCRETE STRENGTH:	35MPa
TEMP. STEEL:	20@250
SLAB:	650 MIN.
INTGERY BARS:	1-25M @ 300
CONCRETE STRENGTH:	35MPa
TEMP. STEEL:	25@250
SLAB:	850 and 900 MIN.
INTGERY BARS:	1-25M @ 300
CONCRETE STRENGTH:	35MPa
TEMP. STEEL:	25@250
FACE STEEL:	3-15M HEF

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1	ISSUED FOR MT REVIEW	May 01,2015

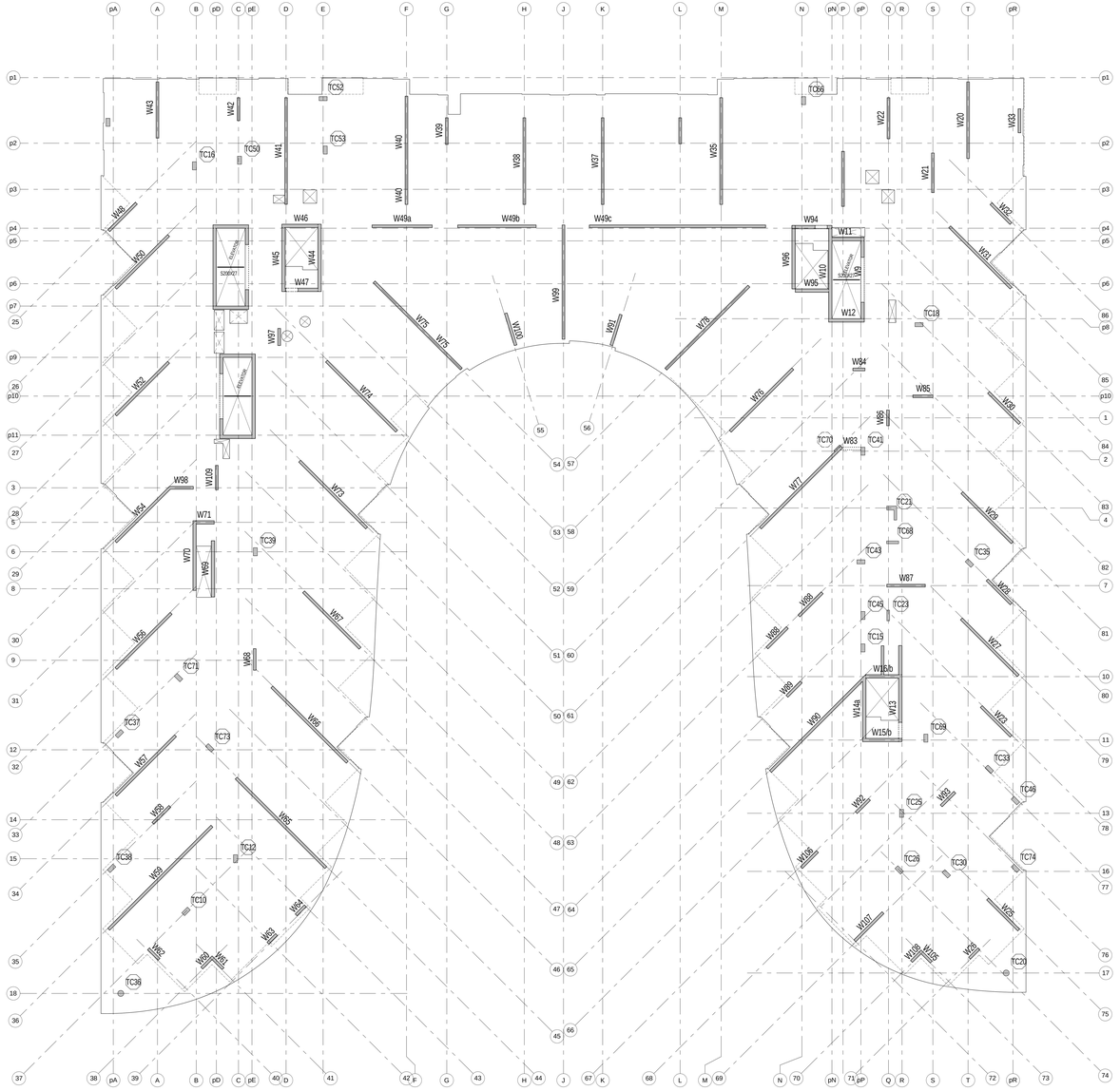
AQUAVISTA
AT BAYSIDE TORONTO

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	BBS
Project No.	2014003I
Date	JUNE 12,2015
Drawing No.	S1-12

Plot Date: 6/11/2015 12:04:18 PM



LEVEL 6 FRAMING PLAN

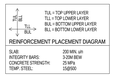
1 : 100

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
STAIRS/HALL/LOBBY	4.8 kPa	0.5 kPa
BALCONIES	6.8 kPa**	0.5 kPa

** AN ALLOWANCE FOR SNOW LOAD OF 1.12 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW 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 PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE STRUCTURAL DRAWING FOR LINTELS IN NON-LOAD BEARING BLOCK WALLS.
7. SLOPE SLABS AS REQUIRED FOR DETAILS.
8. REFER TO SEISMIC NOTES ON S0.01.
9. 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:	300 MIN. t/h
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15@300

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No	Issued For	Date
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1	ISSUED FOR MT REVIEW	May 01,2015

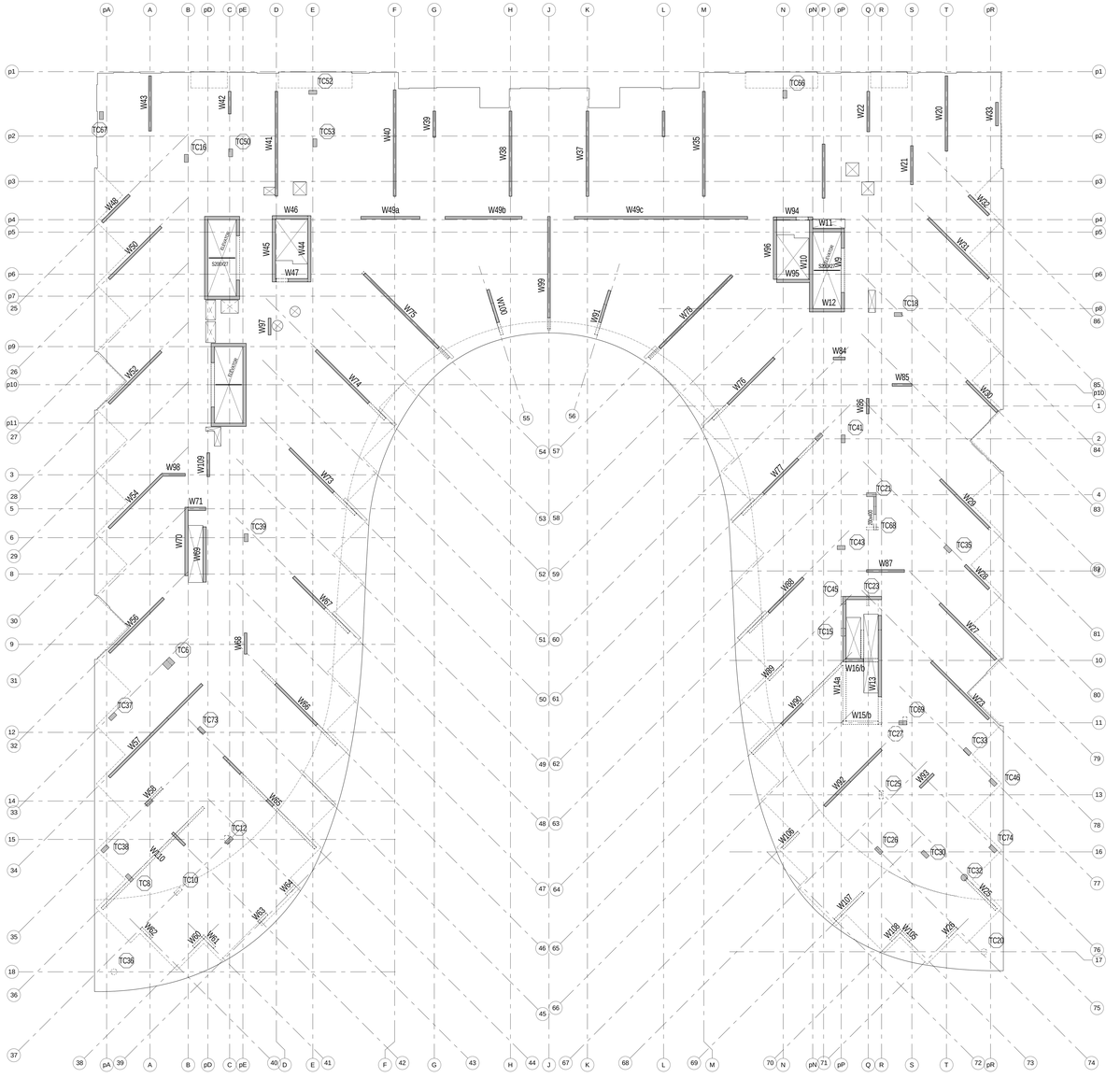
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014003
Date	JUNE 12,2015
Drawing No.	S1-13

Plot Date: 6/11/2015 12:04:31 PM



LEVEL 7 FRAMING PLAN

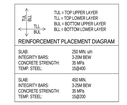
1 : 100

1. TOP OF STRUCTURAL SLAB TO BE 0.0 mm BELOW FINISHED FLOOR DATUM ELEVATION EXCEPT WHERE 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
TERRACE	4.8 kPa*	3.5 kPa*
STAIRS/HALLS/LOBBY	4.8 kPa	1.5 kPa
BALCONIES	4.8 kPa*	3.5 kPa
AMENITY	4.8 kPa*	1.5 kPa
GREEN ROOF	4.8 kPa*	6.3kPa*

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** AN ALLOWANCE FOR SNOW LOAD OF 1.12 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 SUPPLIER/CONTRACTOR 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 SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.
10. XC ON PLAN DENOTES - ARCHITECTURAL COLUMN. REFER TO S2-02 FOR DETAILS



REINFORCEMENT PLACEMENT DIAGRAM

SLAB	250 MIN. c/f
INTEGRITY BARS	3-25M BEW
TOP SITE STRENGTH:	25 BPB
TEMP. STEEL:	15@450
SLAB	450 MIN.
INTEGRITY BARS	3-25M BEW
TOP SITE STRENGTH:	25 BPB
TEMP. STEEL:	15@300

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

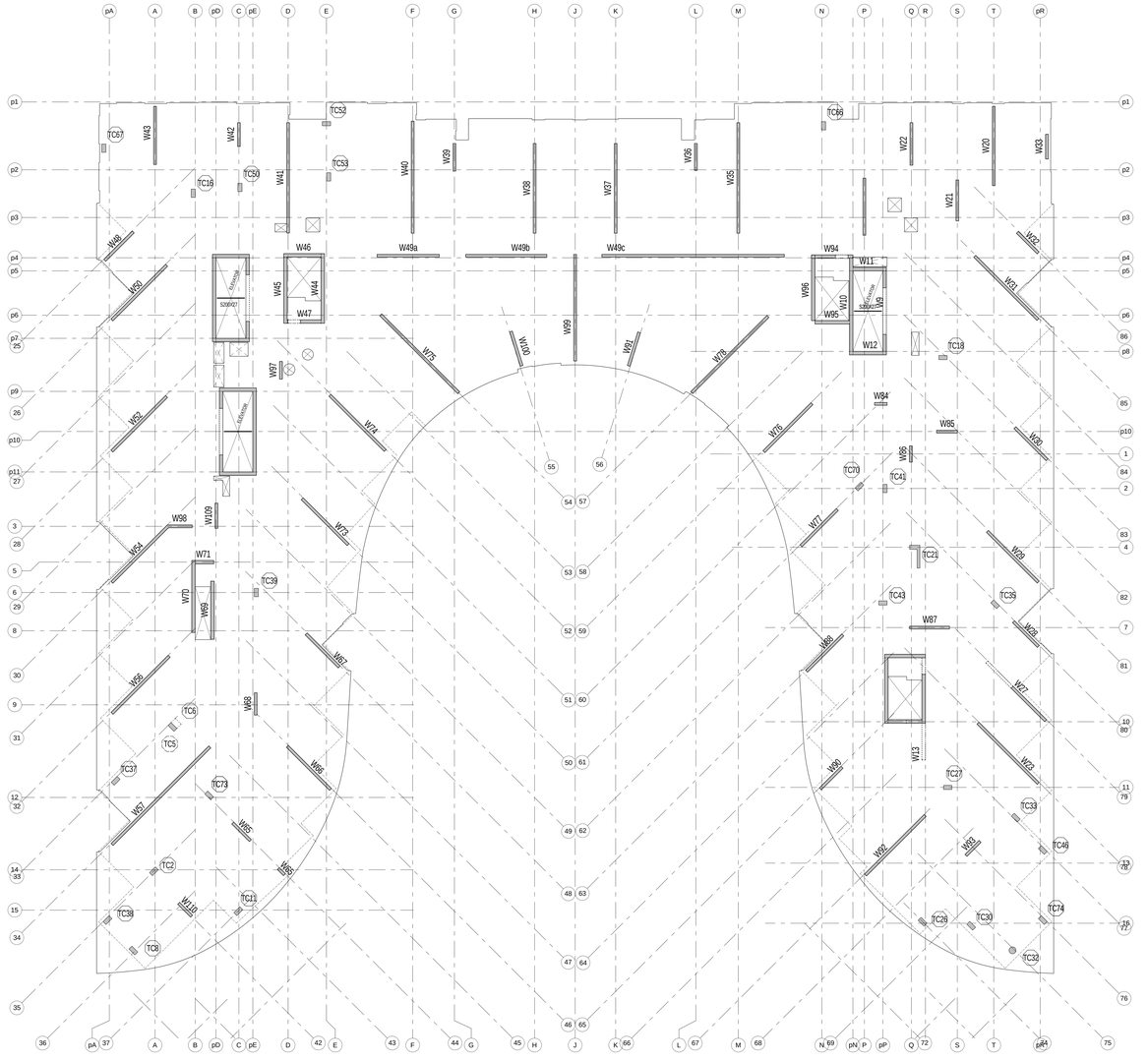
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-14

Plot Date: 6/11/2015 12:04:34 PM



LEVEL 8 FRAMING PLAN

1 : 100

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 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
STAIRS/BALCONIES/HALLS/CRRT	4.8 kPa	2.5 kPa

** AN ALLOWANCE FOR SNOW LOAD OF 1.12 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW 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 PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO POURING CONCRETE FOR ARRANGEMENTS FOR A REVIEW OF REINFORCING.
6. SEE TYPICAL DETAIL DRAWING FOR PARTELS IN NON-LOAD BEARING BLOCK WALLS.
7. SEE ALSO TYPICAL NOTES AND DETAILS.
8. REFER TO BEAM SCHEDULES.
9. 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	200 MIN. c/c 3-20M BEW 25 MPa 2@400
SLAB INTEGRITY BARS CONCRETE STRENGTH TEMP. STEEL	250 MIN. 3-20M BEW 25 MPa 2@400

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

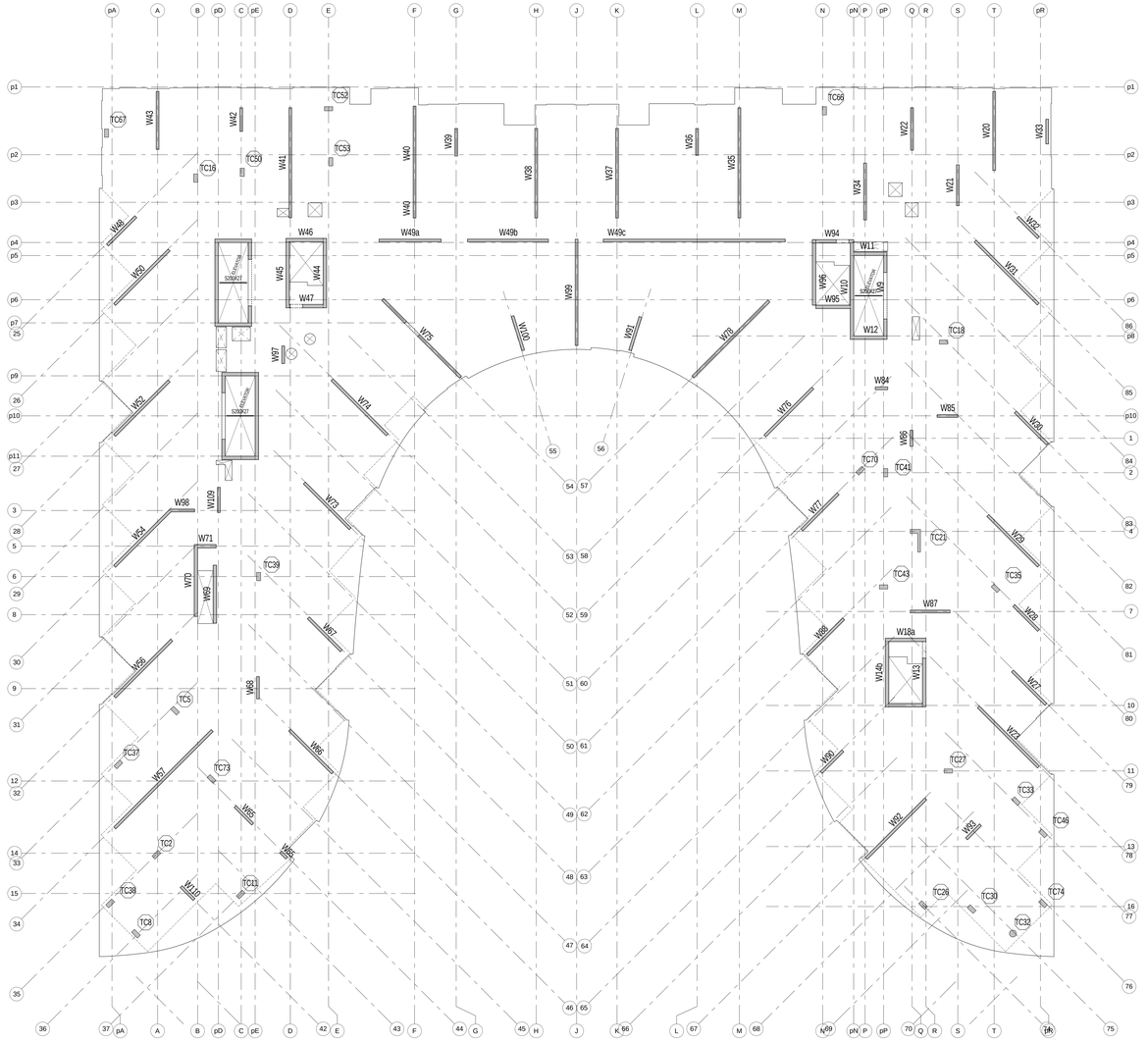
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-15

Plot Date: 6/11/2015 12:04:37 PM



LEVEL 9 FRAMING PLAN

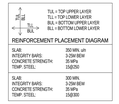
1 : 100

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
ROOF AREA	1.9 kPa*	1.5 kPa*
AMENITY AREA	4.8 kPa*	1.5 kPa*
GREEN ROOF	2.4 kPa*	1.5 kPa*
STAIR/SHALLOBBY	4.8 kPa	0.5 kPa
PLANTERS	4.8 kPa*	8.2 kPa*
DRIVE AISLE	2.4 kPa	0.5 kPa
DRIVE RAMP	2.4 kPa	0.5 kPa
TERRACE	4.8 kPa	5.0 kPa
POOL	14.4 kPa	7.2 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
* INCLUDES ALLOWANCE FOR PONDING. 12 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW 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 CONCRETE SUBCONTRACTOR MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STEEL/CONCRETE, 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 SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.
10. AC ON PLAN DENOTES - ARCHITECTURAL COLUMN. REFER TO S2-02 FOR DETAILS



REINFORCEMENT PLACEMENT DIAGRAM

SLAB	300 MIN. c/c
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	15@250
SLAB	300 MIN.
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	15@300

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

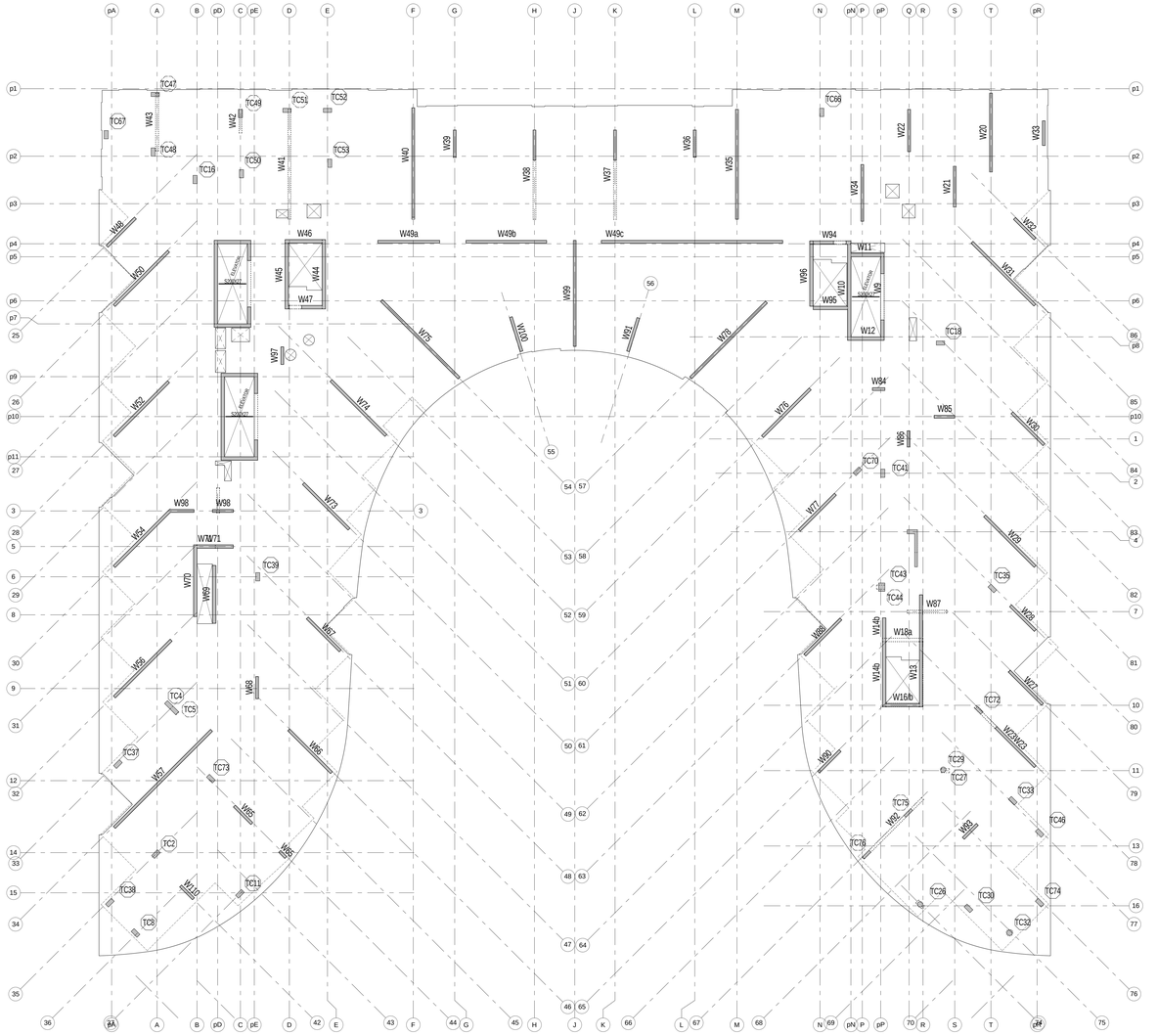
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-16

Plot Date: 6/12/2015 12:04:42 PM



LEVEL 10 FRAMING PLAN

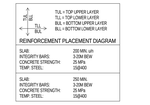
1 : 100

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 FLOOR 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
STAIRS/BALCONIES/HALLS/ OBBY	4.8 kPa	0.5 kPa

** AN ALLOWANCE FOR SNOW LOAD OF 1.12 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW 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 PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
6. SEE PLAN FOR LOCATIONS OF CONCRETE WALLS IN NON-LOAD BEARING BLOCK WALLS.
7. SEE ALSO TYPICAL NOTES AND DETAILS.
8. REFER TO BEAM SCHEDULES.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.



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

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	200 MIN. d/t
TOP BOTH BARS:	2-15M BARS
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	3fy400
SLAB:	250 MIN.
TOP BOTH BARS:	2-15M BARS
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	3fy400

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

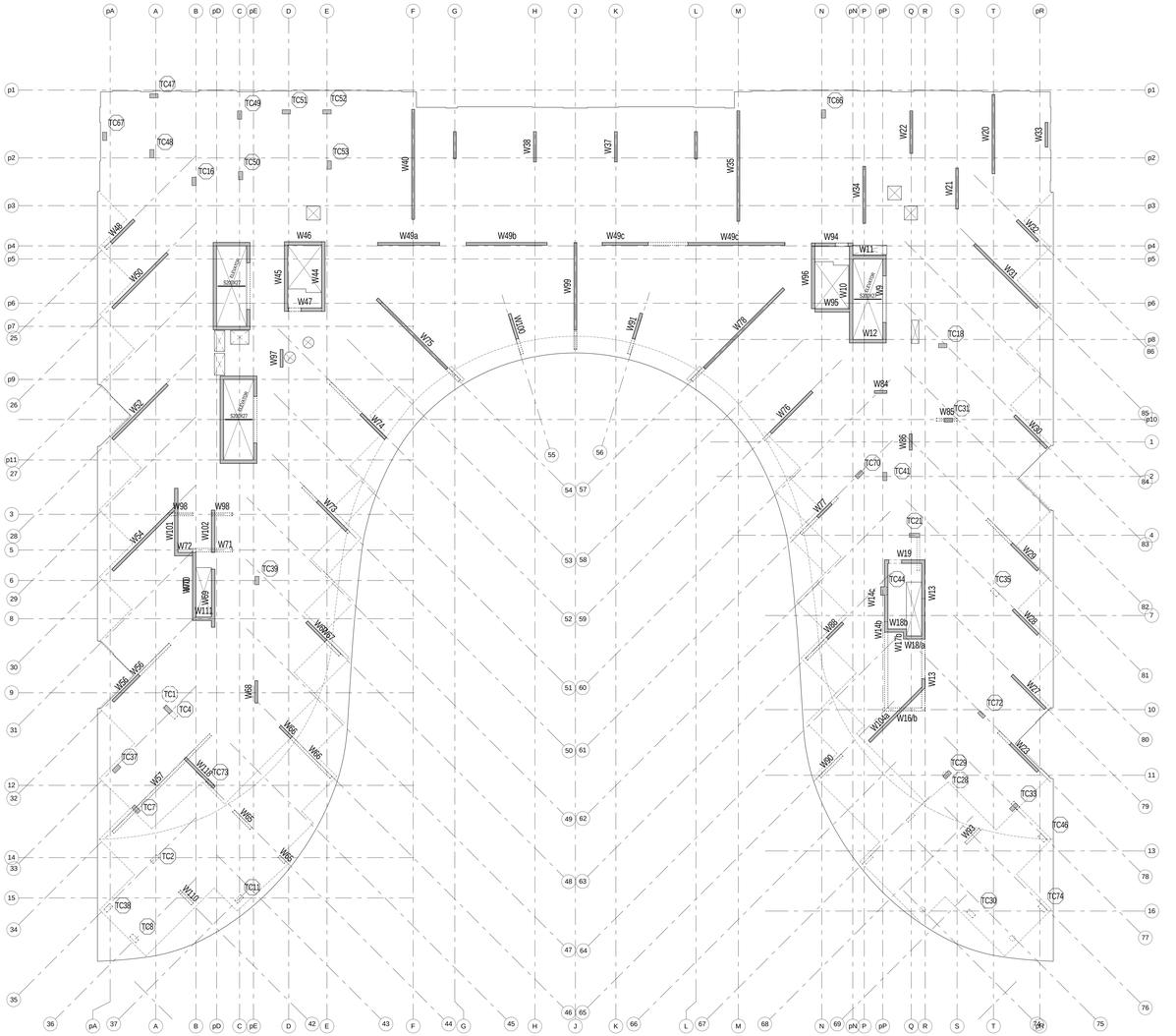
AQUAVISTA
AT BAYSIDE TORONTO

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	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S1-17

Plot Date: 6/12/2015 12:04:44 PM



LEVEL 11 FRAMING PLAN

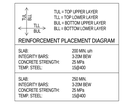
1 : 100

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
STAIRS/BALCONIES/HALLS OBBT	4.8 kPa	0.5 kPa

** AN ALLOWANCE FOR SNOW LOAD OF 1.12 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 SUBCONTRACTANTIDENT 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 SCHEDULES.
9. WHERE SLAB OPENINGS ARE SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.



REINFORCEMENT PLACEMENT DIAGRAM

SLAB	200 MIN. o/c
INTEGRITY BARS	3-15M BOM
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL	15M@300
SLAB	250 MIN.
INTEGRITY BARS	3-15M BOM
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL	15M@300

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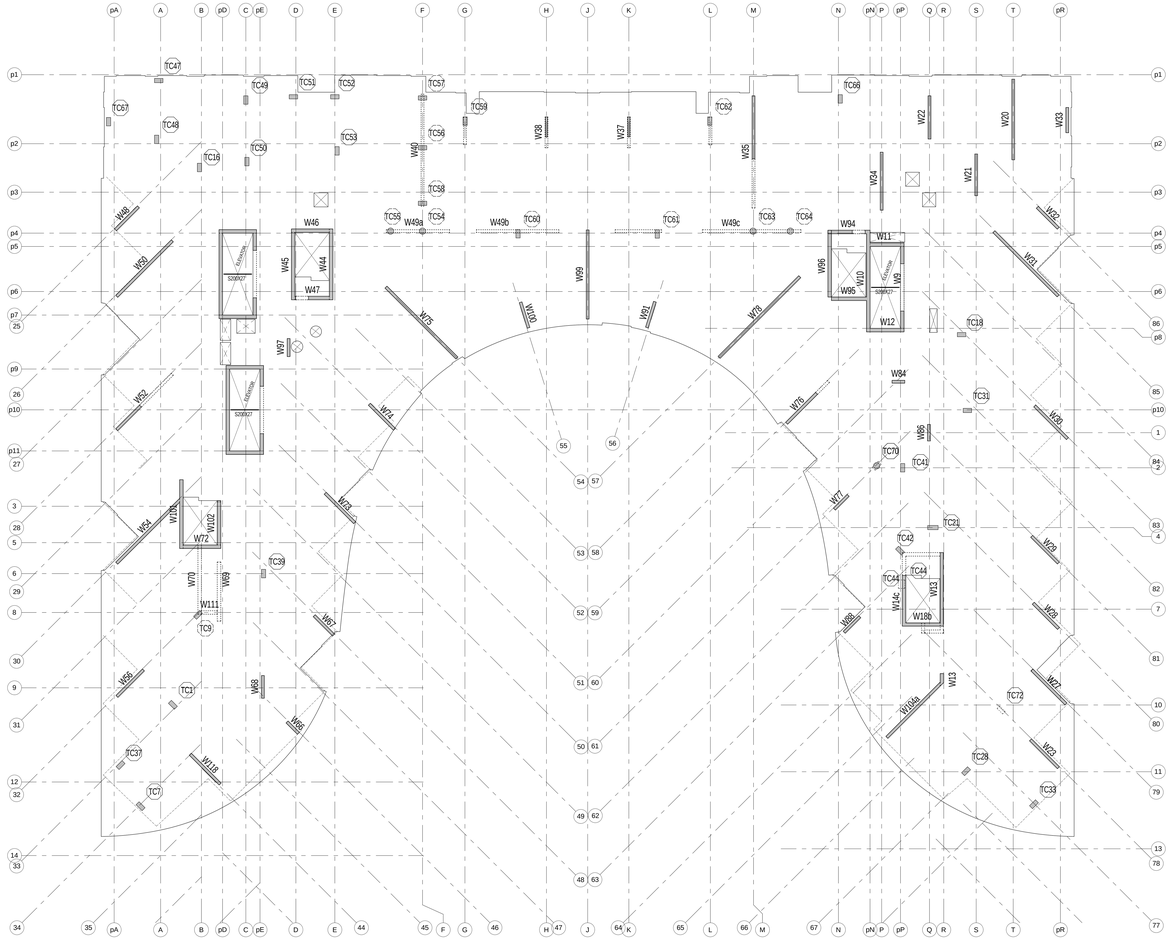
AQUAVISTA
AT BAYSIDE TORONTO

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: Author
Checked by: Checker
Project No: 2014003I
Date: JUNE 12,2015
Drawing No: S1-18

Plot Date: 6/12/2015 12:04:47 PM



LEVEL 12 FRAMING PLAN

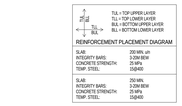
1 : 100

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
STAIRS/BALCONIES/HALLS OBBY	4.8 kPa	2.0 kPa

* 4% ALLOWANCE FOR SNOW LOAD OF 1.12 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 PROJECT SUPERINTENDENT 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. ALL SLAB EDGES TO BE FORMED.
9. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.



TU = TOP UPPER LAYER
TU = TOP LOWER LAYER
BUL = BOTTOM UPPER LAYER
BU = BOTTOM LOWER LAYER

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	200 MIN. s/n
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15@400
SLAB:	250 MIN.
INTEGRITY BARS:	3-20M BEW
CONCRETE STRENGTH:	25 MPa
TEMP. STEEL:	15@400

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1	ISSUED FOR MT REVIEW	May 01,2015

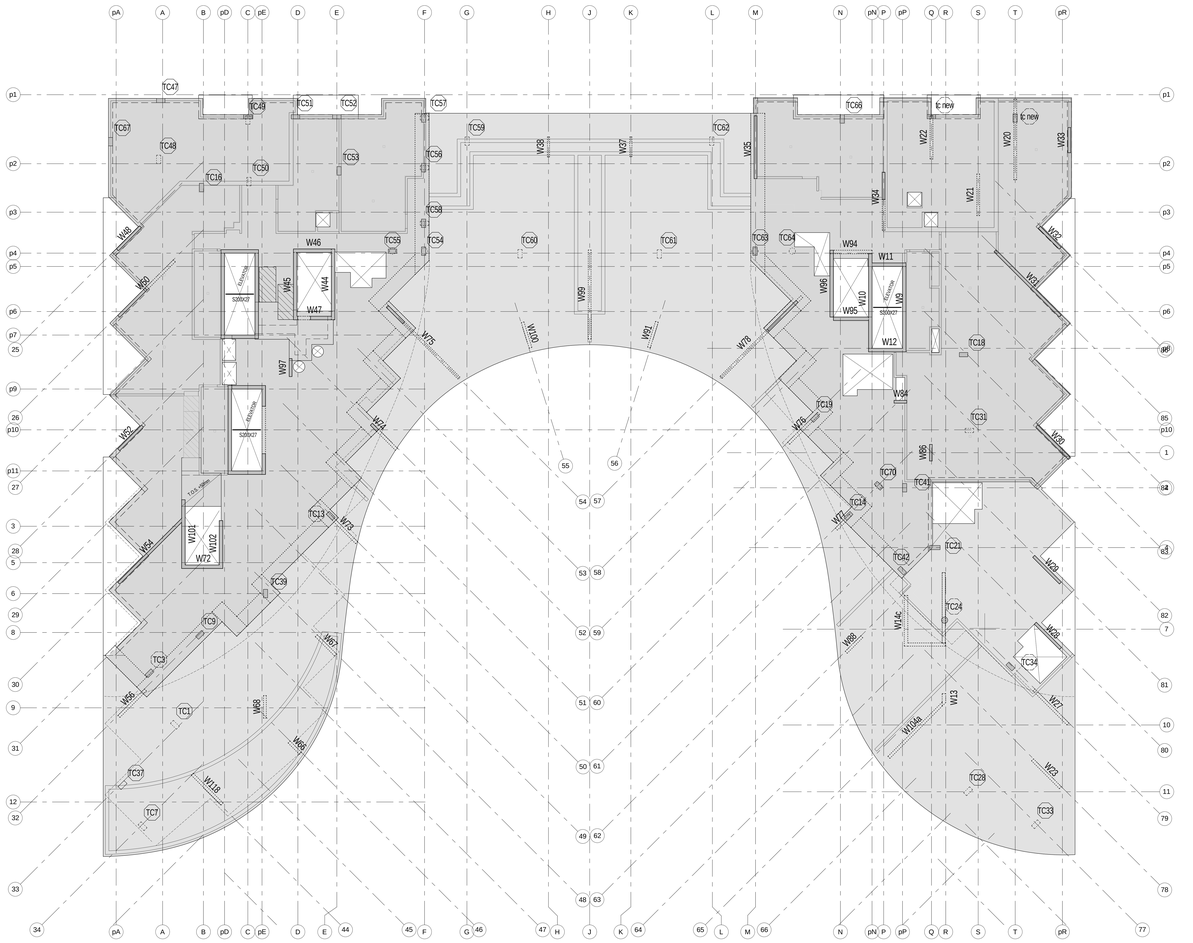
AQUAVISTA
AT BAYSIDE TORONTO

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: Author
Checked by: Checker
Project No: 2014003I
Date: JUNE 12,2015
Drawing No: S1-19

Plot Date: 6/11/2015 12:04:50 PM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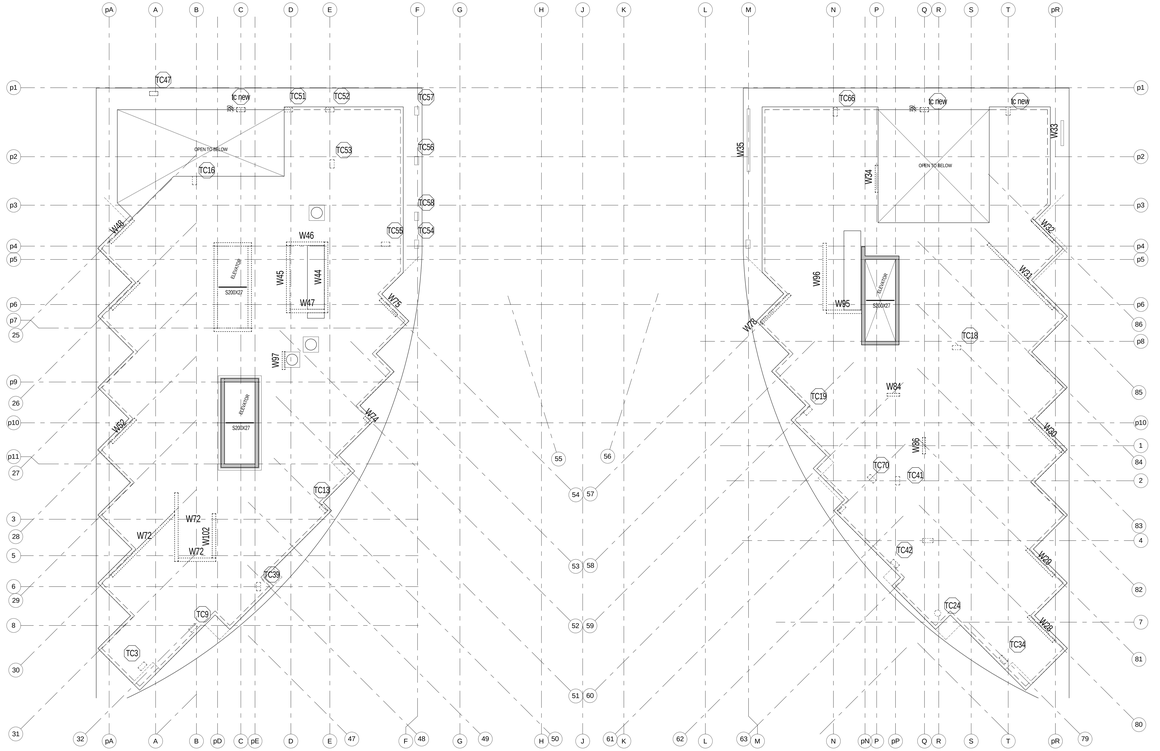

LEVEL 14 FRAMING PLAN

1 : 100

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 BY 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 TOP OF SLAB IS FLAT.
3. THE ROOF 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	1.2 kPa	1.0 kPa
TERRACE	4.8 kPa*	1.5 kPa

* INCLUDES ALLOWANCE FOR SLOPES AND ROOFING MATERIALS
** AN ALLOWANCE FOR SNOW LOAD OF 1.15 kPa HAS BEEN CONSIDERED. SEE PLAN FOR ADDITIONAL SNOW LOAD

4. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa AT 28 DAYS. REFER ALSO TO COLUMN AND WALL ELEVATION DRAWINGS.
5. CONCRETE COVER FOR TOP AND BOTTOM BARS IN SLABS TO BE 25 mm. REINFORCING TO BE CHAIRED TO MAINTAIN 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 STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
8. SEE ALSO TYPICAL NOTES AND DETAIL DRAWINGS.
9. REFER TO BEAM SCHEDULES.
10. WHERE BOTTOM STEEL NOT SHOWN, PROVIDE CONTINUOUS TEMPERATURE STEEL, HOOKED AT EDGE OF SLAB AND OPENINGS.

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

REINFORCEMENT PLACEMENT DIAGRAM

SLAB:	250 MIN. d/h
TOP BENDY BARS:	15@400EW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	15@400EW o/h
SLAB:	200 MIN.
TOP BENDY BARS:	15@400EW
CONCRETE STRENGTH:	35 MPa
TEMP. STEEL:	15@400

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No	Issued For	Date
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1	ISSUED FOR MT REVIEW	May 01,2015

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: BK/BBS
Project No: 2014/0031
Date: JUNE 12,2015
Drawing No: S1-21

Plot Date: 6/11/2015 12:05:07 PM

CONCRETE COLUMN SCHEDULE (LEVEL 2 AND BELOW)

COLUMN NUMBER			GC1	GC2	GC3	GC4	GC5	GC6	GC7	GC8	GC9	GC10	GC11	GC12	GC13	GC14	GC15	GC18	GC17	GC18	GC19	GC20	GC23	GC22	GC23	GC24	GC25	GC26	GC28	GC27	GC28	GC29	GC30	GC33	GC33	GC32	GC35	GC34	GC36	GC37	GC38	GC39	COLUMN NUMBER
LEVEL 2																																											LEVEL 2
84000																																											84000
LEVEL 1 MEZZ.	SIZE VERT. REINF. TIES STRENGTH	600x700 10-25M V. 10M@300 35 MPa		700x700 20-35M V. 10M@150 45 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	300x600 8-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14-30M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x650 14-25M V. 10M@300 35 MPa	600x700 12-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	450x600 8-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	300x600 6-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	450x600 14-30M V. 10M@300 35 MPa	700x700 15-25M V. 10M@300 35 MPa	600B 15-25M V. 10M@200 35 MPa	700X700 10-25M V. 10M@300 35 MPa	400x2000 14-20M V. 10M@300 35 MPa	600X600 ★ 16-30M V. 10M@150 45 MPa	700X700 10-25M V. 10M@300 35 MPa	900X1800 MIN. SEE PLAN 10M@300 35 MPa	600X700 10-25M V. 10M@300 35 MPa	350x1150 14-20M V. 10M@300 35 MPa	700X700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 12-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	750x700 14-25M V. 10M@300 35 MPa	600x750 16-25M V. 10M@300 45 MPa	600x700 10-25M V. 10M@300 35 MPa	SIZE VERT. REINF. TIES STRENGTH	LEVEL 1 MEZZ.
80220	SIZE VERT. REINF. TIES STRENGTH	600x700 10-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	700x700 ★ 20-35M V. 10M@150 45 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14-35M V. 10M@300 35 MPa	300x600 8-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14-30M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x650 14-25M V. 10M@300 35 MPa	600x700 12-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	450x600 8-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	300x600 6-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	400x2000 14-20M V. 10M@300 35 MPa	600X600 ★ 16-30M V. 10M@150 45 MPa	700X700 10-25M V. 10M@300 35 MPa	900X1800 MIN. SEE PLAN 10M@300 35 MPa	600X700 10-25M V. 10M@300 35 MPa	350x1150 14-20M V. 10M@300 35 MPa	700X700 10-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	600x700 12-25M V. 10M@300 35 MPa	600x700 10-25M V. 10M@300 35 MPa	750x700 14-25M V. 10M@300 35 MPa	600x750 16-25M V. 10M@300 45 MPa	600x700 10-25M V. 10M@300 35 MPa	SIZE VERT. REINF. TIES STRENGTH	LEVEL 1
77600	SIZE VERT. REINF. TIES STRENGTH	600x700 10-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa		600x700 14-35M V. 10M@300 35 MPa							600x650 14-25M V. 10M@300 35 MPa	600x700 12-25M V. 10M@300 35 MPa																																			LEVEL P1 MEZZ.
75000	SIZE VERT. REINF. TIES STRENGTH	600x700 10-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa																													600x700 10-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14-25M V. 10M@300 35 MPa	600x700 14

CONCRETE COLUMN SCHEDULE (LEVEL 2 ABOVE)

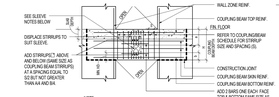
| | TC1 | TC2 | TC3 | TC4 | TC5 | TC6 | TC7 | TC8 | TC9 | TC10 | TC11 | TC12 | TC13 | TC14 | TC15 | TC16 | TC17 | TC18 | TC19 | TC20 | TC21 | TC23 | TC24 | TC25 | TC26 | TC27 | TC28 | TC29 | TC30 | TC31 | TC32 | TC34 | TC36 | TC33 | TC36 | TC37 | TC38 | TC39 | TC41 | TC42 | TC43 | TC44 | TC45 | TC74 | TC46 | TC47 | TC48 | TC50 | TC49 | TC51 | TC52 | TC53 | TC54 | TC55 | TC56 | TC57 | TC58 | TC59 | TC60 | TC61 | TC62 | TC63 | TC64 | TC65 | TC66 | | | TC67 | TC68 | TC69 | TC70 | TC71 | TC72 | TC73 | TC75 | TC76 | |
|---|---|---

NOTE:
1. IF WALL TS IS GREATER THAN SLAB TS, COUPLING BEAM IS SHALL BE THE SAME AS THE WALL.
2. IF COUPLING BEAM IS < 4'-0" SLAB, PLEASE ALSO REFER TYPICAL DETAIL 7.1.08

1 TYPICAL COUPLING BEAM REINFORCEMENT DETAIL

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

2 TYPICAL ADDITIONAL REINFORCEMENT FOR WALL OPENINGS UP TO 750mm/750mm SIZE



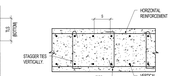
NOTE:
1. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL SLEEVES LARGER THAN 300mm
2. MULTIPLE SLEEVES (MAX 3 SLEEVES WITH (D +W/4) SHALL BE PLACED WITH MIN 200mm CLEAR BETWEEN SLEEVES.

3 TYPICAL ADDITIONAL REINFORCEMENT COUPLING BEAM SLEEVES UP TO 1'0 H/4

4 - STEPS < 75mm 8 - STEPS ≥ 75mm

NOTE:
1. STEPS IN WALL THICKNESS AT ZONE REINFORCEMENT SHALL FOLLOW DETAIL 5

4 TYPICAL DETAIL AT WALL THICKNESS TRANSITIONS

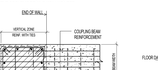


NOTE:
1. PROVIDE TIES TO DISTRIBUTED WALL REINFORCEMENT WITH VERTICAL SPACING AS PER TABLE 2 UNLESS NOTED OTHERWISE ON WALL ELEVATIONS.
2. WHEN CLEAR SPACE (S) BETWEEN VERTICAL DISTRIBUTED REINFORCEMENT IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL BAR. WHEN SAID TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL BAR.
3. REFER TO ZONE REINFORCEMENT DETAILS FOR TIES IN PLASTIC HINGE.

7 TYPICAL TIE DETAIL FOR DISTRIBUTED VERTICAL WALL REINFORCEMENT

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

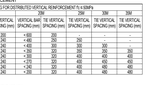
5 TYPICAL DETAIL AT BOTTOM OF WALLS AND ABOVE OPENINGS WHERE COUPLING BEAM IS NOT PROVIDED



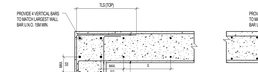
NOTE:
1. COORDINATE WALL ZONE VERTICAL BAR PLACEMENT WITH BEAM HORIZONTAL REINFORCEMENT WHERE APPLICABLE

8 TYPICAL COUPLING BEAM DETAIL PLAN DETAIL

9 TYPICAL DETAIL OF SHEAR WALL SUPPORTED BY TRANSFER SLAB



10 TYPICAL DETAIL OF SHEAR WALL SUPPORTED BY BEAM



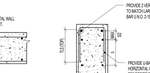
TYPE C - CORNER

TYPE T - INTERSECTION

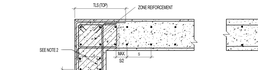
NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE WALL ELEVATIONS.

1. REFER TO TABLE 2 TO DETERMINE IF TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE REQUIRED. SEE DETAIL 7 WHEN TIES ARE REQUIRED

11 TYPICAL WALL DETAILS WITHOUT ZONE REINFORCEMENT

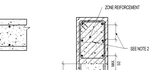


TYPE E - END



TYPE C - CORNER ZONE

TYPE T - INTERSECTION ZONE



TYPE E - END ZONE

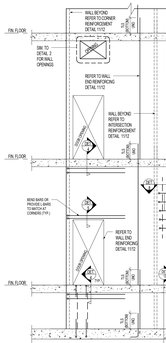
NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE WALL ELEVATIONS.

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



NOTE:
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. SHEAR WALL ELEVATIONS SHOULD BE READ IN CONJUNCTION WITH SCHEDULES AND TYPICAL SHEAR WALL DETAILS. THE GRAVITY SUPPORTING COLUMNS, SLABS, BEAMS, FOUNDATION SYSTEM, ETC. ARE SHOWN
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL OPENINGS, STEPS, ETC. OF THE GRAVITY ELEMENTS
3. REFER TO TYPICAL REINFORCEMENT, PLANS, DETAILS AND SCHEDULES.
4. CONCRETE STRENGTH TO BE AS NOTED IN WALL ELEVATIONS
5. FOR ALL GARAGE SLABS, WALLS, AND COLUMNS, CONCRETE SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA-A23.1/A23.2-14 AND CONTAIN THE MINIMUM CEMENTITIOUS MATERIALS AS LISTED IN TABLE 16 OF CSA-A23.1/A23.2-14 FOR EXPOSURE CLASS C-XL. SUBSTITUTIONS TO THE CEMENTITIOUS MATERIALS ARE NOT PERMITTED.
6. ALL WALL REINFORCEMENT IS ACCORDANCE WITH THE VALUES INDICATED ON THE WALL ELEVATIONS OR PLANS. WHERE 15M@ IS INDICATED PROVIDE THE NOMINAL WALL REINFORCEMENT AS SHOWN IN TABLE 1

TABLE 1: NOMINAL WALL REINFORCEMENT (NWR)

WALL THICKNESS (mm)	NOMINAL WALL REINFORCEMENT		WALL THICKNESS (mm)	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL		HORIZONTAL	VERTICAL
200	10@400 HEF	10@400 HEF	500	15@300 HEF	15@300 HEF
250	10@400 HEF	10@400 HEF	550	15@300 HEF	15@300 HEF
300	10@400 HEF	10@400 HEF	600	15@300 HEF	15@300 HEF
350	10@300 HEF	10@300 HEF			
400	10@300 HEF	10@300 HEF			
450	15@300 HEF	15@300 HEF			

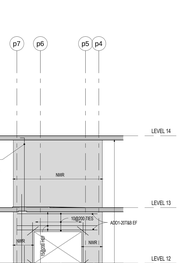
7. WALL REINFORCEMENT IS VERTICAL AND HORIZONTAL EACH FACE (NEXT) UNLESS NOTED OTHERWISE.
8. UNLESS NOTED OTHERWISE, ALL WALLS SHALL HAVE REINFORCEMENT IF THE BAR SIZE IS LARGER THAN 25M OR IF BAR SPACING IS LESS THAN 150 (TYP.) AS PER TABLE 2. REFER TO DETAIL 7 FOR ADDITIONAL INFORMATION.
9. UNLESS OTHERWISE SHOWN PROVIDE DOWELS TO FROM SHEAR WALL, CAPS, OR FOOTINGS INTO SHEAR WALLED FACE. WHERE WALL IS CONTINUOUS ABOVE & BELOW SEE DETAIL 14.
10. PROVIDE TLS BOTTOM FOR ALL VERTICAL BARS
11. PROVIDE TLS FOR COUPLING HORIZONTAL BARS (TYP.) = 150MPa FOR (12MTHS)
12. PROVIDE TLS FOR COUPLING HORIZONTAL BARS (TYP.) = 150MPa FOR (12MTHS).
13. REFER TO DETAIL 7.02@8.9 = 400MPa OR 7.02@ fs = 150MPa FOR (12MTHS).
14. MINIMUM DOWEL LENGTH SHALL BE 24 D.(BOTTOM)
15. PLACE HORIZONTAL REINFORCING ON OUTSIDE FACE OF WALL UNLESS NOTED OTHERWISE.
16. FOR WALLS WITH MIN 2-MATRICES FOR TWO STORIES OR MORE PROVIDE EITHER CONTINUOUS VERTICAL REINFORCEMENT OR THE ENTIRE DISCONTINUOUS HEIGHT OR LENGTH MECHANICAL COUPLER AT THE LOCATION OF SPLICE. SEE DETAIL 7.02@8.9 FOR SPLICE LENGTH. SEE DETAIL 7.02@8.9 FOR SPLICE LENGTH. IF BARS OF DIFFERENT DIAMETER ARE SPLICED, USE THE SPLICE LENGTH OF THE LARGER BAR.
17. UNLESS NOTED OTHERWISE, REFER TO THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF WALL OPENINGS. THE CONTRACTOR SHALL PROVIDE FOR THE ENGINEER'S REVIEW, SLEEVE LAYOUT DRAWINGS SHOWING THE PROPOSED LOCATION AND HEIGHT (DIMENSION) FROM THE SLAB SOFFIT AND EDGES OF OPENINGS. SLEEVES SHALL NOT BE PLACED IN WALLS UNLESS SHOWN ON THE DRAWINGS. THOSE SHOWN ARE INDICATED ON PLAN OR ELEVATION SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
18. WHERE MASONRY VENEER FACES A WALL, PROVIDE STANDARD DOVETAIL ANCHOR SLOTS. REFER TO TYPICAL DETAILS.
19. ALL CONCRETE WALLS SHALL BE 25mm FOR WALLS ABOVE GRADE AND 40mm FOR WALLS BELOW GRADE UNLESS NOTED OTHERWISE.
20. PROVIDE 25mm CLEAR CONCRETE COVER FOR ALL ABOVE GRADE WALLS WHICH ARE EXPOSED TO PRE ON BOTH SIDES (SMALL) TAKEN AS NO DEFINED BY NBCC APPENDIX D.

TABLE 2: TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT

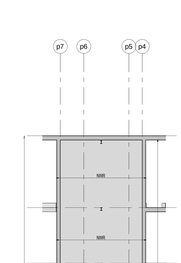
WALL THICKNESS (mm)	TIE SPACING FOR DISTRIBUTED VERTICAL REINFORCEMENT fy = 60MPa							
	10M		15M		20M		25M	
	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	TIE VERTICAL SPACING (mm)	TIE VERTICAL SPACING (mm)
200	< 200	160	< 400	300	< 600	200	-	-
250	< 150	160	< 300	240	< 480	200	240	200
300	< 150	160	< 270	240	< 400	320	300	300
350	< 150	160	< 230	240	< 350	320	300	300
400	< 150	160	< 200	240	< 300	320	400	400
450	-	-	< 180	240	< 270	320	400	400
500	-	-	< 160	240	< 240	320	400	400
600	-	-	< 140	240	< 200	320	400	400

NOTES:
1. TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE 10M.
2. TIES SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 2 FOR THE VERTICAL SPACING IN TABLE BY MULTIPLYING BY 0.75
3. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SPACING LESS THAN THAT INDICATED FOR 10M AND 20M BARS SHALL BE TIED WITH MINIMUM TIE VERTICAL SPACING AS INDICATED.
4. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SIZES LARGER THAN 20M SHALL BE TIED AT MINIMUM TIE VERTICAL SPACING INDICATED
5. SEE A.S.I DETAIL 7

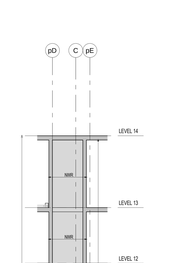
WALL ELEVATION KEY PLAN
1 : 175



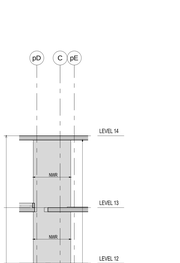
W1 WALL ELEVATION
S3-01 1 : 100



W2 WALL ELEVATION
S3-01 1 : 100



W3 WALL ELEVATION
S3-01 1 : 100



W4 WALL ELEVATION
S3-01 1 : 100

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

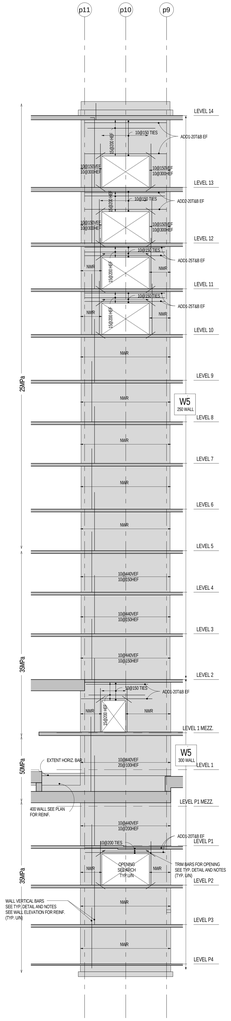
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS AND NOTES

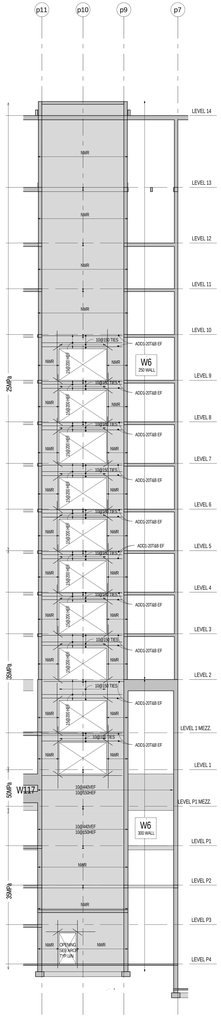
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	BK/BBS
Project No.	20140031
Date	JUNE 12,2015
Drawing No.	S3-01

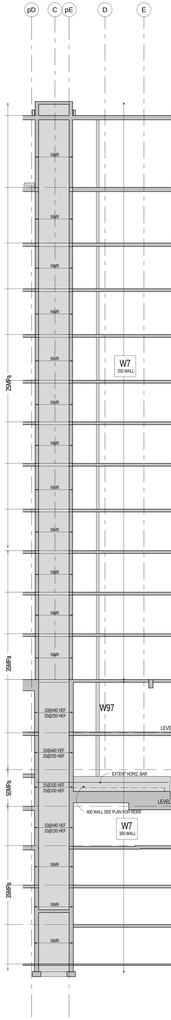
Plot Date: 6/11/2015 12:25:51 PM



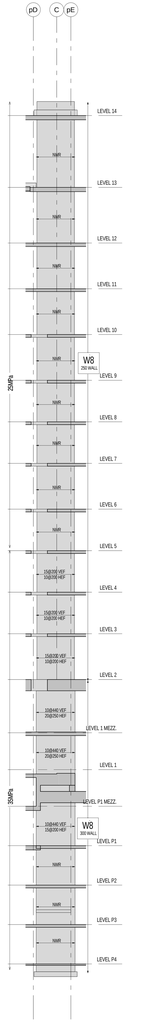
W5 WALL ELEVATION
S3-02 1 : 100



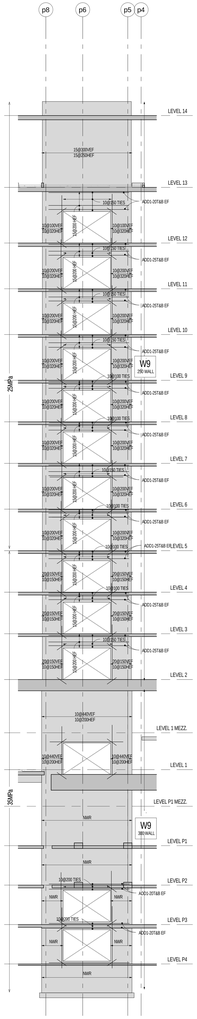
W6 WALL ELEVATION
S3-02 1 : 100



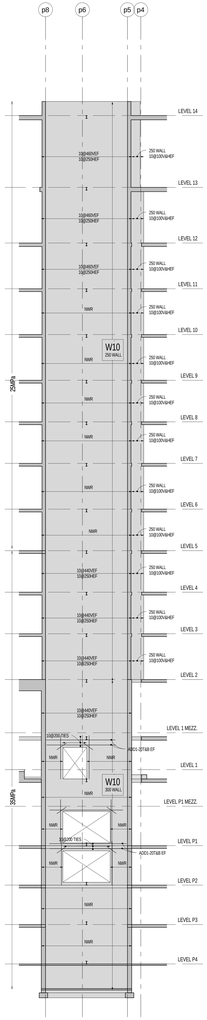
W7 WALL ELEVATION
S3-02 1 : 100



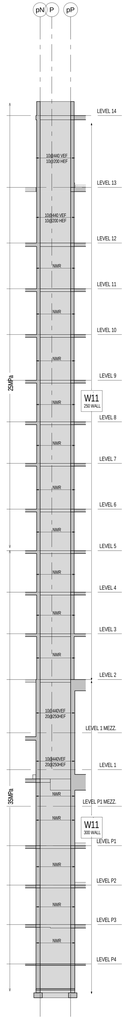
W8 WALL ELEVATION
S3-02 1 : 100



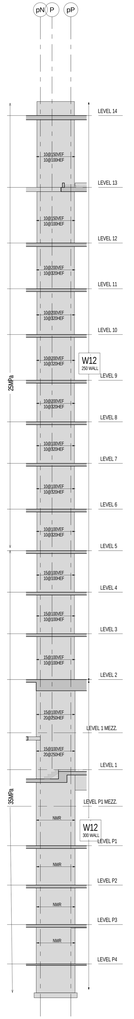
W9 WALL ELEVATION
S3-02 1 : 100



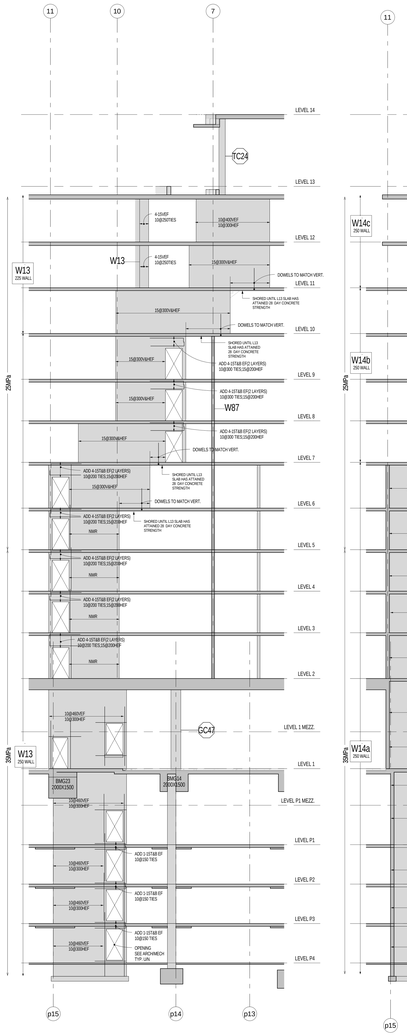
W10 WALL ELEVATION
S3-02 1 : 100



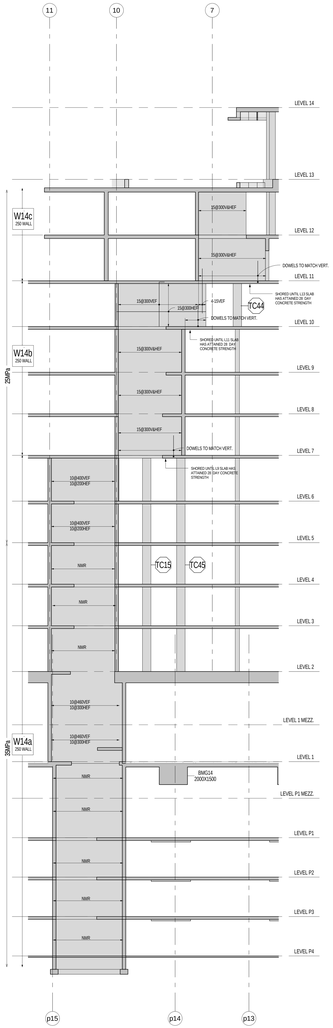
W11 WALL ELEVATION
S3-02 1 : 100



W12 WALL ELEVATION
S3-02 1 : 100



W13 WALL ELEVATION
S3-02 1 : 100



W14 WALL ELEVATION
S3-02 1 : 100

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

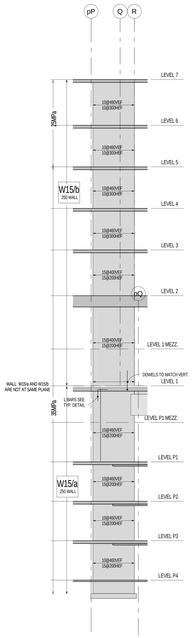
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

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

Scale: 1 : 100
Drawn by: Author
Checked by: Checker
Project No: 2014-00031
Date: JUNE 12,2015
Drawing No: S3-02

Plot Date: 6/11/2015 12:05:25 PM



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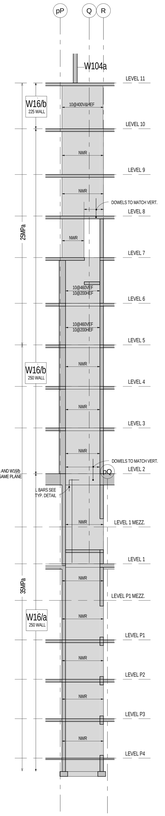
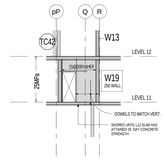
S3-03 1 : 100



W16 WALL ELEVATION
S3-03 1 : 100



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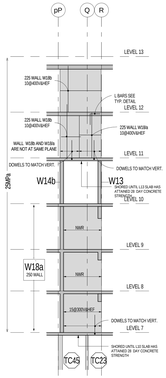
S3-03 1 : 100



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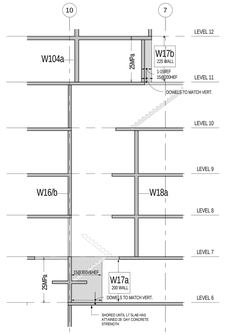
S3-03 1 : 100



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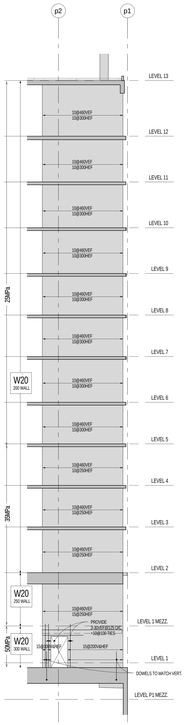

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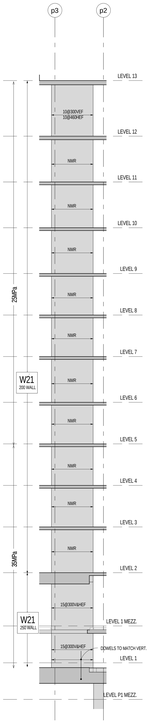
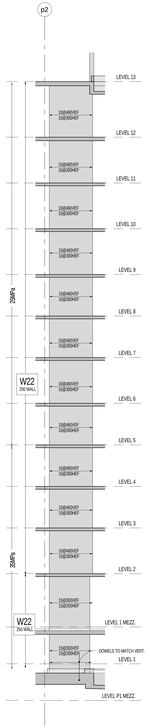
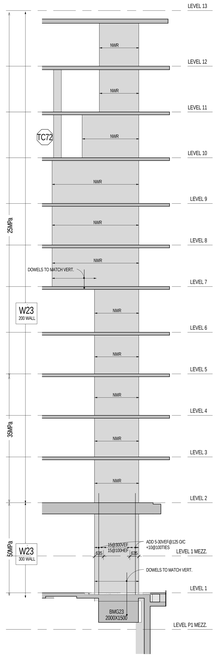
S3-03 1 : 100



W21 WALL ELEVATION
S3-03 1 : 100



W22 WALL ELEVATION
S3-03 1 : 100



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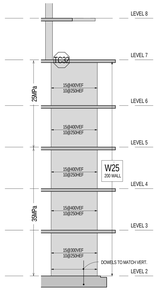
S3-03 1 : 100



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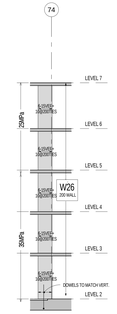
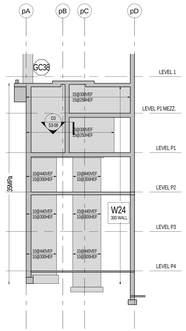


W26 WALL ELEVATION
S3-03 1 : 100



W24 WALL ELEVATION
S3-03 1 : 100

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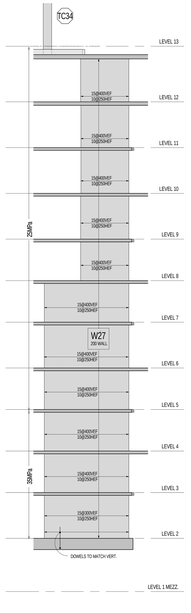
No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

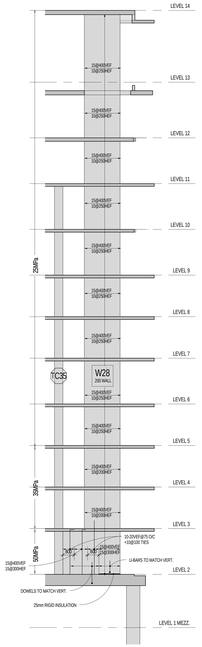
Drawing Title
WALL ELEVATIONS

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

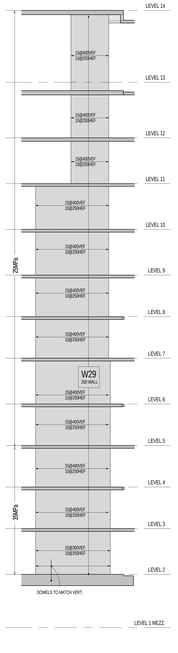
Scale	1 : 100
Drawn by	DC
Checked by	BBS
Project No.	2014-0031
Date	JUNE 12,2015
Drawing No.	S3-03



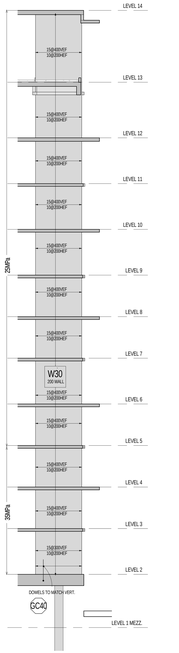
W27 WALL ELEVATION
S3-04 1 : 100



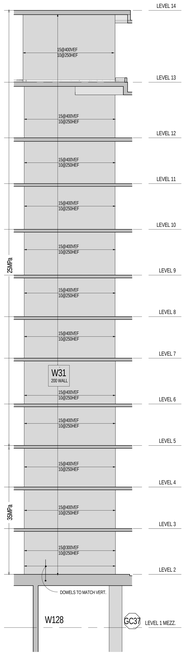
W28 WALL ELEVATION
S3-04 1 : 100



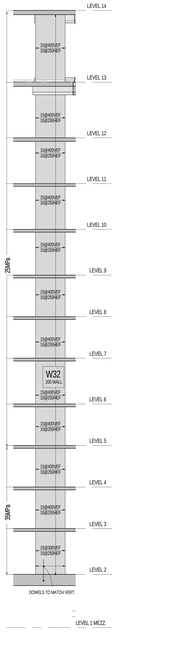
W29 WALL ELEVATION
S3-04 1 : 100



W30 WALL ELEVATION
S3-04 1 : 100



W31 WALL ELEVATION
S3-04 1 : 100



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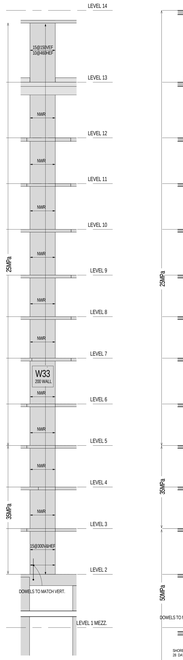
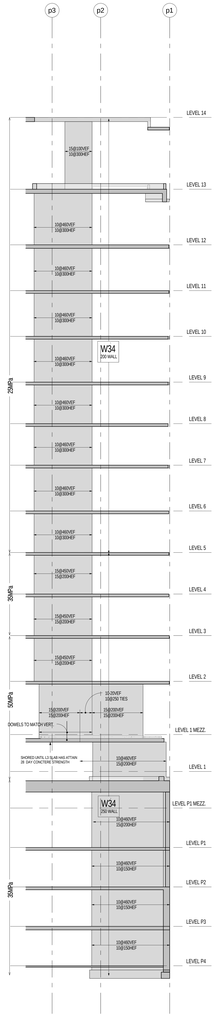
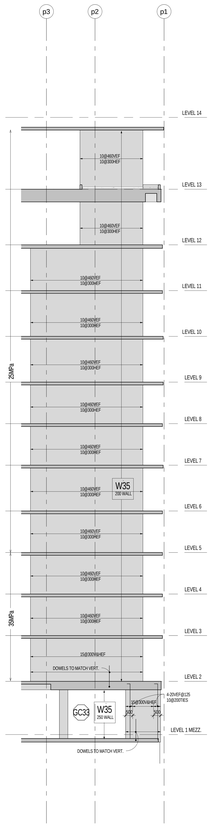
S3-04 1 : 100



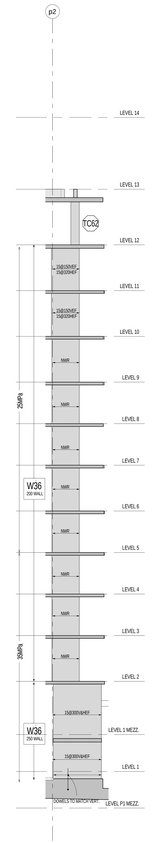
W33 WALL ELEVATION
S3-04 1 : 100



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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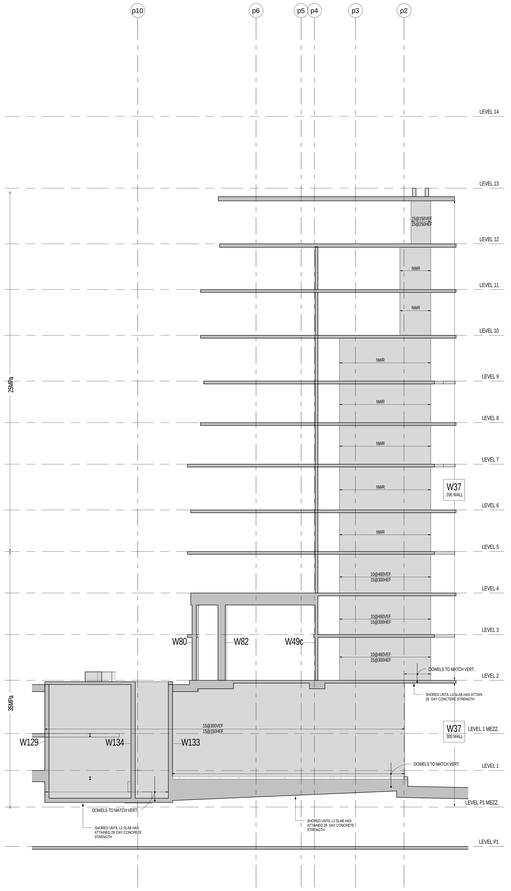
No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

AQUAVISTA
AT BAYSIDE TORONTO

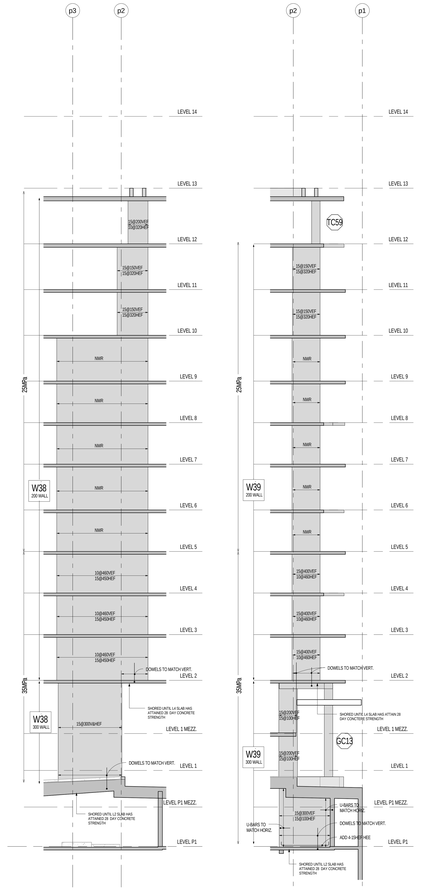
Drawing Title
WALL ELEVATIONS

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.	2014-0031
Date	JUNE 12,2015
Drawing No.	S3-04

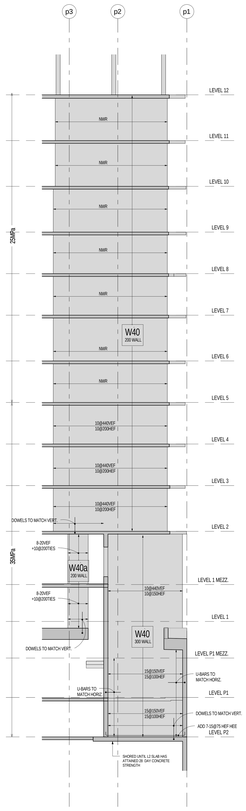


W37 WALL ELEVATION
S3-05 1 : 100

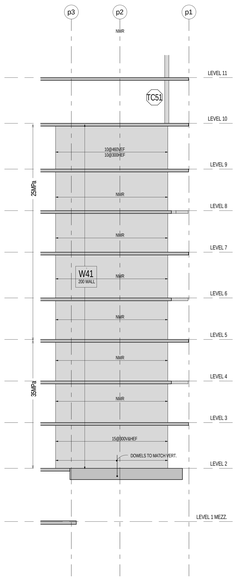


W38 WALL ELEVATION
S3-05 1 : 100

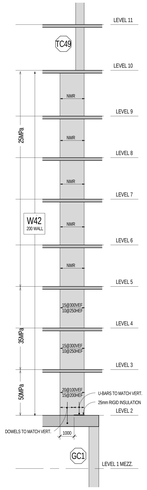
W39 WALL ELEVATION
S3-05 1 : 100



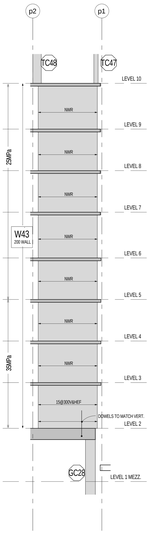
W40 WALL ELEVATION
S3-05 1 : 100



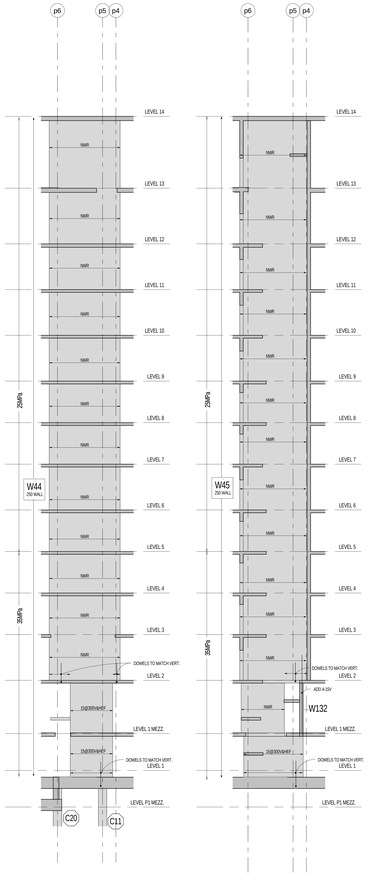
W41 WALL ELEVATION
S3-05 1 : 100



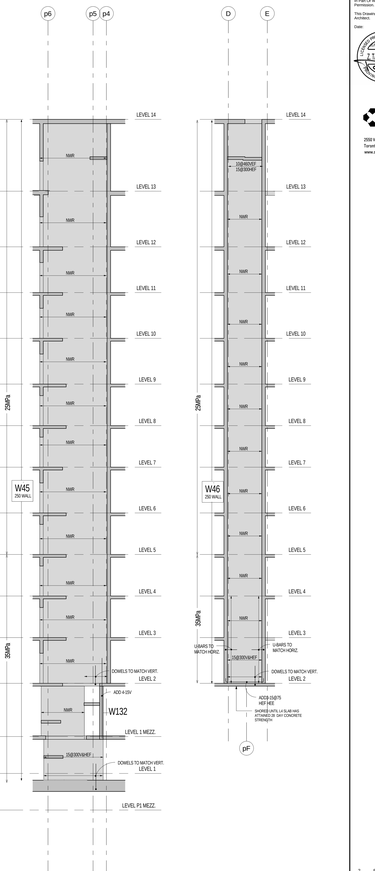
W42 WALL ELEVATION
S3-05 1 : 100



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	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

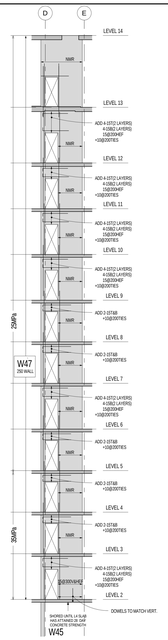
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

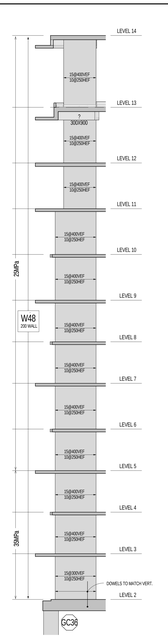
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 100
Drawn by	DC
Checked by	Checker
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S3-05

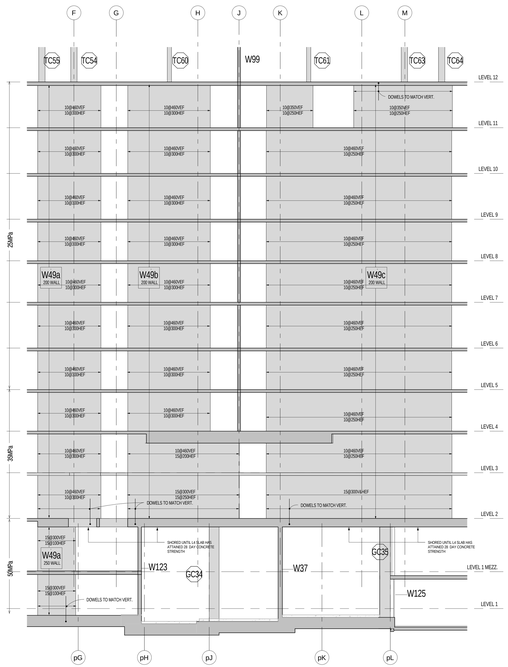
Plot Date: 6/11/2015 12:05:34 PM



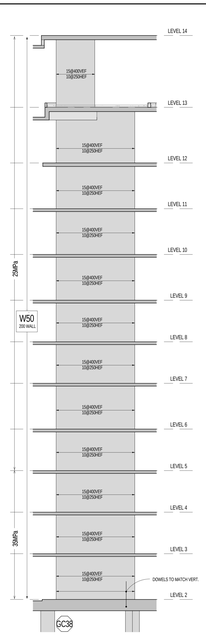
W47 WALL ELEVATION
S3-06 1 : 100



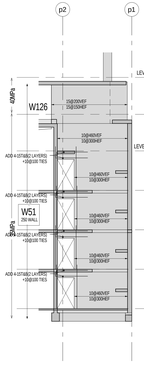
W48 WALL ELEVATION
S3-06 1 : 100



W49 WALL ELEVATION
S3-06 1 : 100

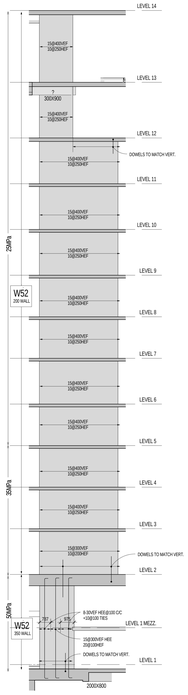


W50 WALL ELEVATION
S3-06 1 : 100

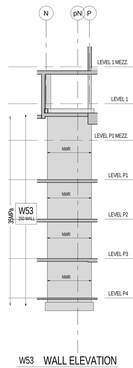


W51 WALL ELEVATION
S3-06 1 : 100

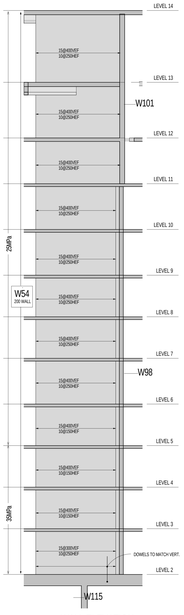
C10



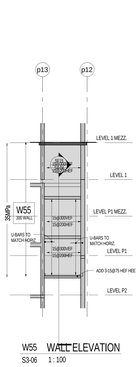
W52 WALL ELEVATION
S3-06 1 : 100



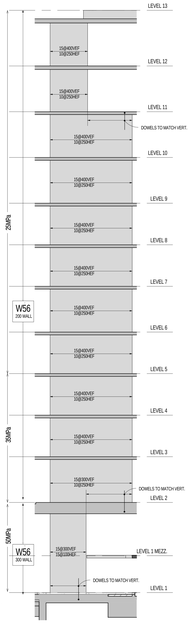
W53 WALL ELEVATION
S3-06 1 : 100



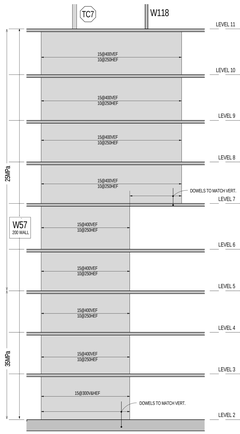
W54 WALL ELEVATION
S3-06 1 : 100



W55 WALL ELEVATION
S3-06 1 : 100



W56 WALL ELEVATION
S3-06 1 : 100



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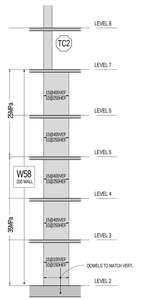
S3-06 1 : 100



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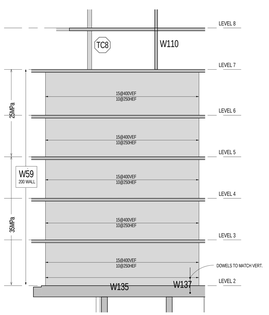
S3-06 1 : 100



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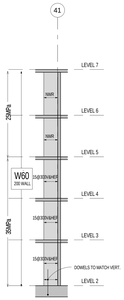
S3-06 1 : 100



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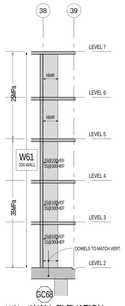
S3-06 1 : 100



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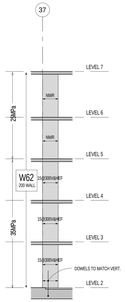
S3-06 1 : 100



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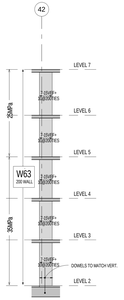
S3-06 1 : 100



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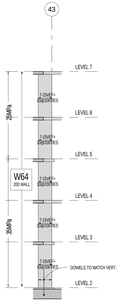
S3-06 1 : 100



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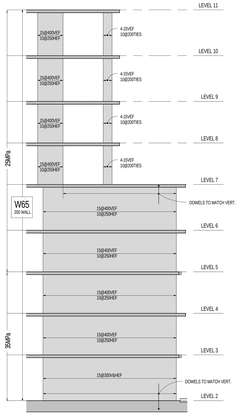
S3-06 1 : 100



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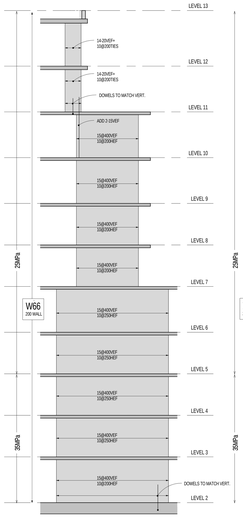
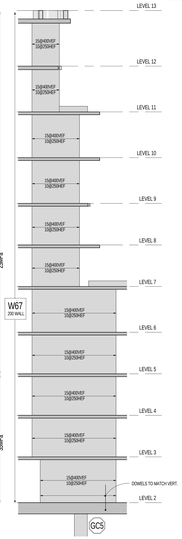
S3-06 1 : 100



W66 WALL ELEVATION
S3-06 1 : 100



W67 WALL ELEVATION
S3-06 1 : 100

REFER TO NOTES ON SHEET S3-01

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Date:

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

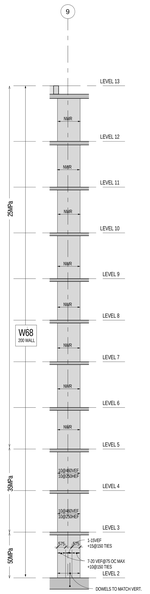
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

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

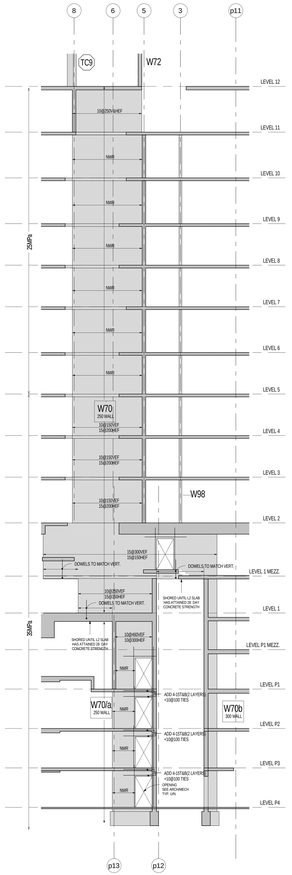
Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S3-06

Plot Date: 6/12/2015 12:05:39 PM



W68 WALL ELEVATION
S3-07 1 : 100

W69 WALL ELEVATION
S3-07 1 : 100



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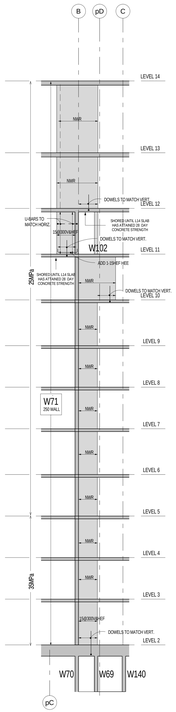
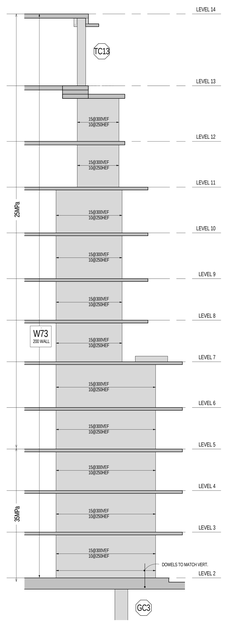
S3-07 1 : 100



W71,W72 WALL ELEVATION
S3-07 1 : 100



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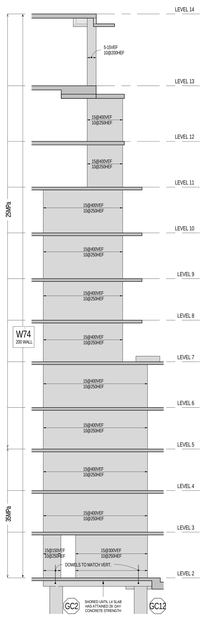

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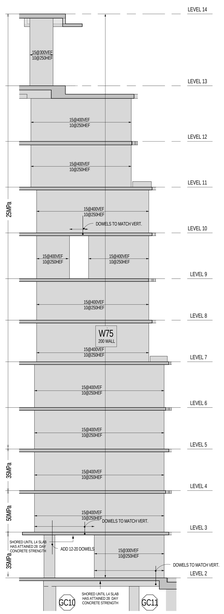
S3-07 1 : 100



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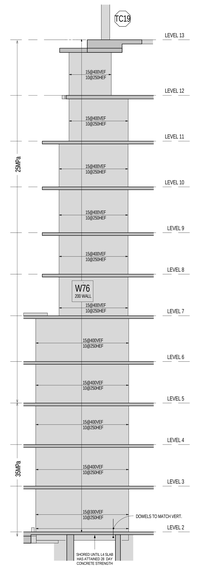
S3-07 1 : 100



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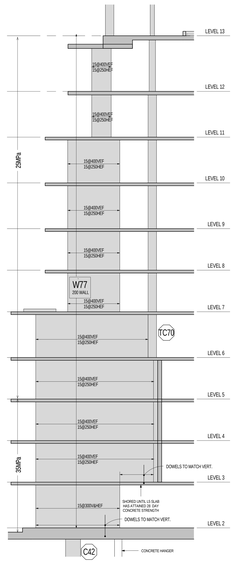
S3-07 1 : 100



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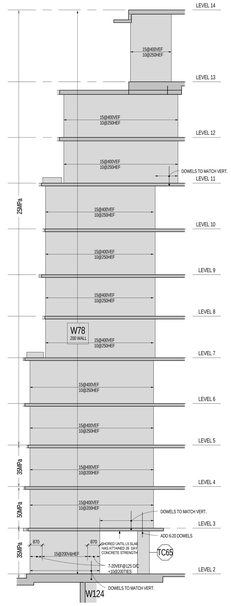
S3-07 1 : 100



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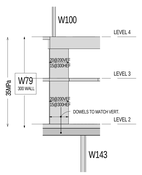
S3-07 1 : 100



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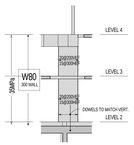
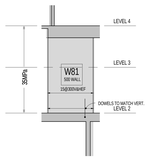
S3-07 1 : 100



W80 WALL ELEVATION
S3-07 1 : 100



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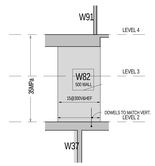
S3-07 1 : 100



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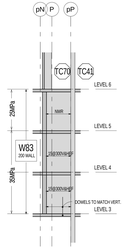
S3-07 1 : 100



W83 WALL ELEVATION
S3-07 1 : 100

REFER TO NOTES ON SHEET S3-01

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Date:

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

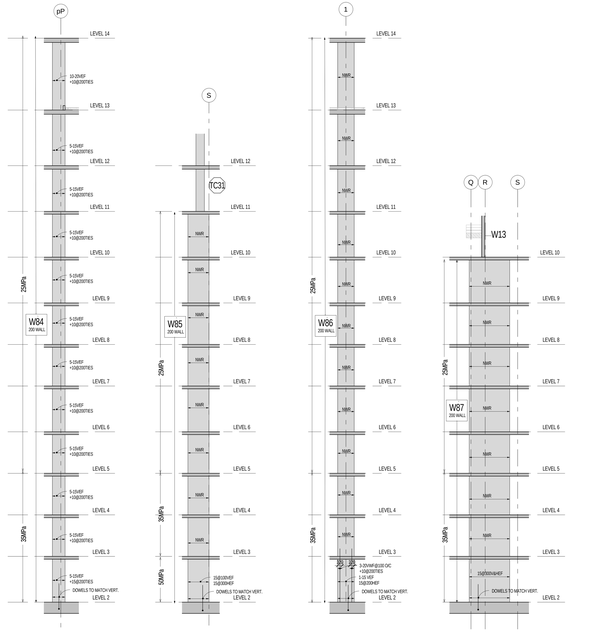
AQUAVISTA
AT BAYSIDE TORONTO

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	Checker
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S3-07

Plot Date: 6/11/2015 12:05:42 PM

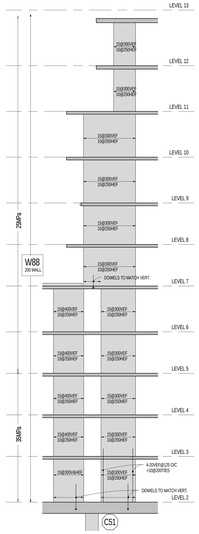


W84 WALL ELEVATION
S3-08 1 : 100

W85 WALL ELEVATION
S3-08 1 : 100

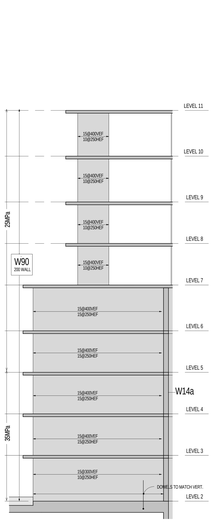
W86 WALL ELEVATION
S3-08 1 : 100

W87 WALL ELEVATION
S3-08 1 : 100



W88 WALL ELEVATION
S3-08 1 : 100

W89 WALL ELEVATION
S3-08 1 : 100



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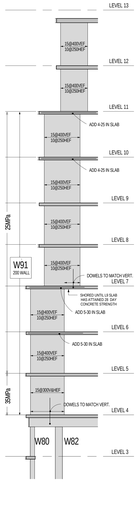
S3-08 1 : 100



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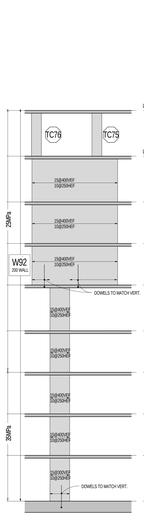
S3-08 1 : 100



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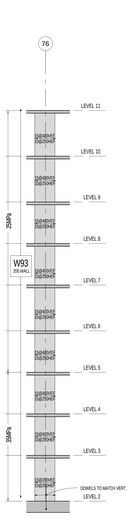

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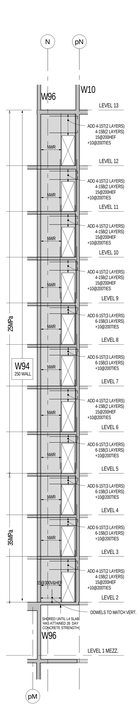
S3-08 1 : 100



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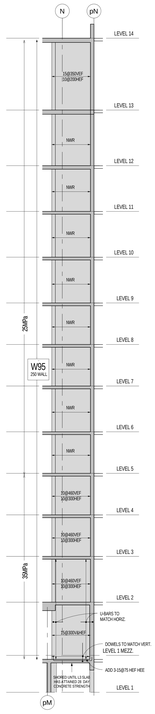
S3-08 1 : 100



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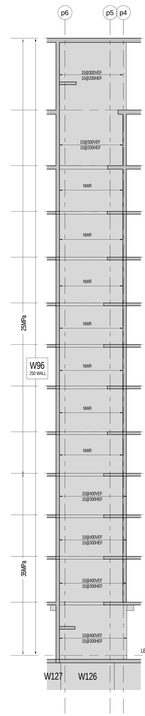
S3-08 1 : 100



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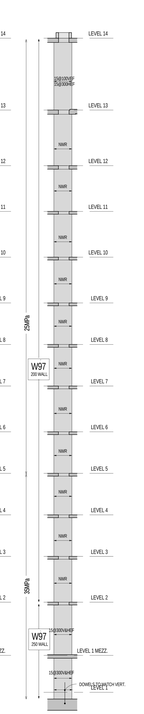
S3-08 1 : 100



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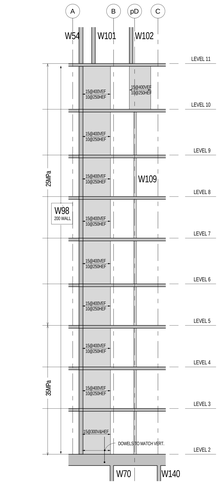
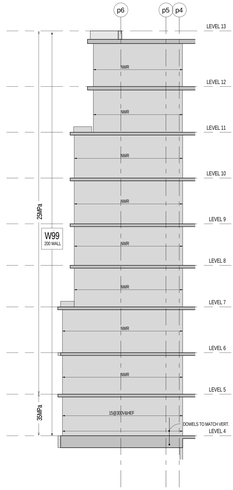
S3-08 1 : 100



W98 WALL ELEVATION
S3-08 1 : 100



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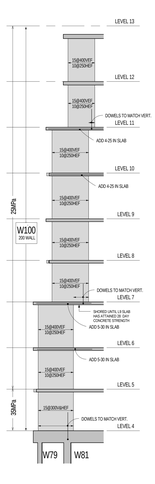
S3-08 1 : 100



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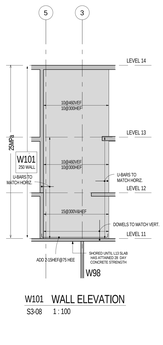
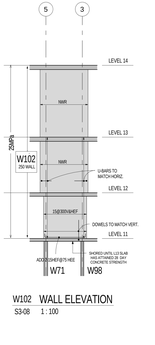
S3-08 1 : 100



W101 WALL ELEVATION
S3-08 1 : 100



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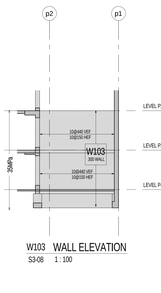
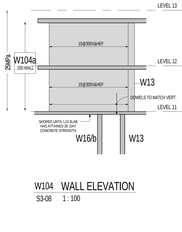
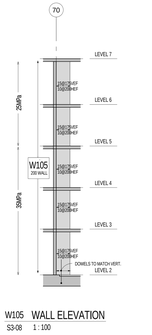
S3-08 1 : 100



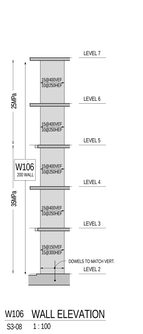
W103 WALL ELEVATION
S3-08 1 : 100



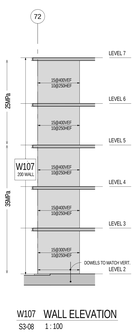
W104 WALL ELEVATION
S3-08 1 : 100



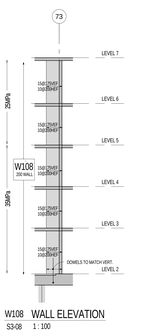
W105 WALL ELEVATION
S3-08 1 : 100



W106 WALL ELEVATION
S3-08 1 : 100



W107 WALL ELEVATION
S3-08 1 : 100



W108 WALL ELEVATION
S3-08 1 : 100

REFER TO NOTES ON SHEET S3-01

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Date

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No	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

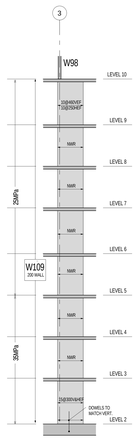
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

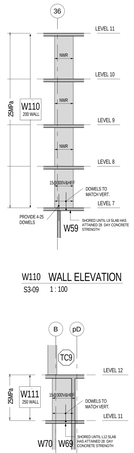
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	1 : 100
Drawn by	DC
Checked by	BK/BBS
Project No	2014003I
Date	JUNE 12,2015
Drawing No	S3-08

Plot Date: 6/12/2015 12:05:48 PM



W109 WALL ELEVATION
S3-09 1 : 100



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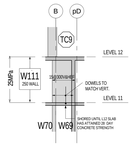
S3-09 1 : 100



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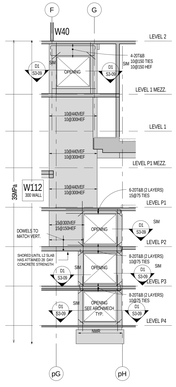
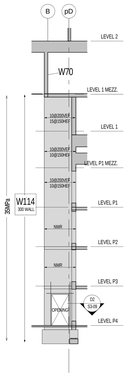
S3-09 1 : 100



W112 WALL ELEVATION
S3-09 1 : 100

W113 WALL ELEVATION
S3-09 1 : 100



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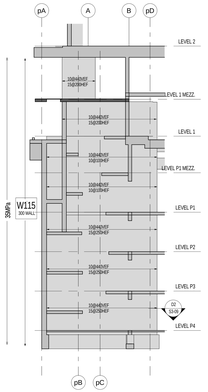
S3-09 1 : 100



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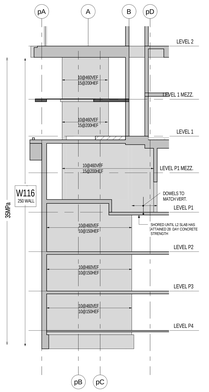
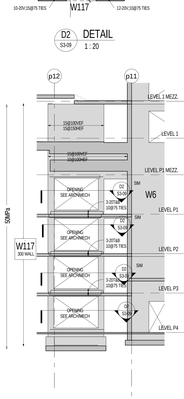
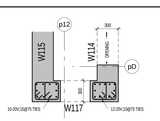
S3-09 1 : 100



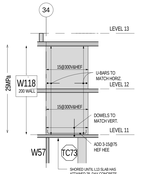
W116 WALL ELEVATION
S3-09 1 : 100



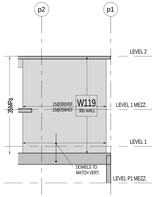
W117 WALL ELEVATION
S3-09 1 : 100



D2 DETAIL
S3-09 1 : 20



W118 WALL ELEVATION
S3-09 1 : 100



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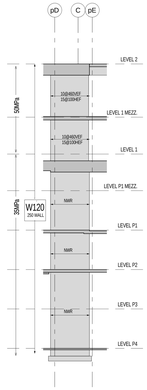
S3-09 1 : 100



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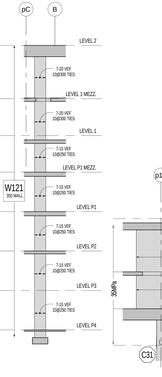

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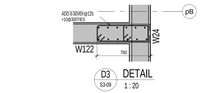
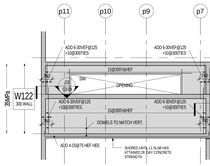


D3 DETAIL
S3-09 1 : 20



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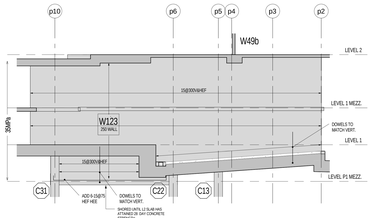
S3-09 1 : 100



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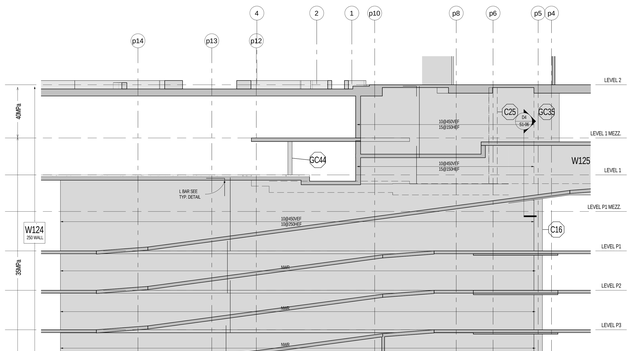
S3-09 1 : 100



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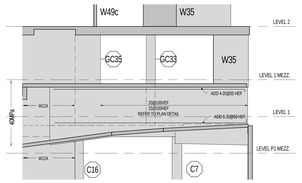
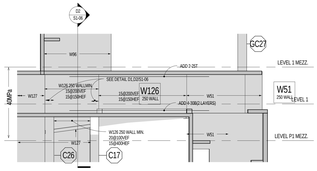
S3-09 1 : 100



W125 WALL ELEVATION
S3-09 1 : 100



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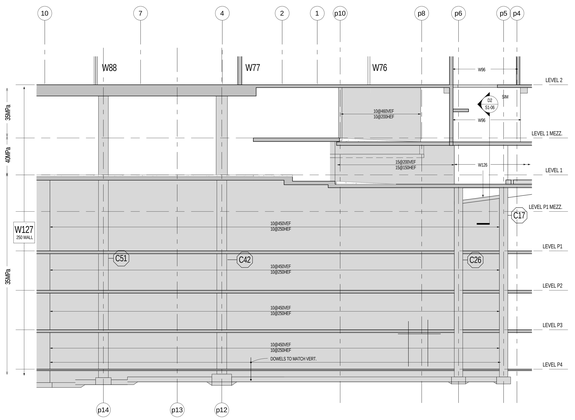

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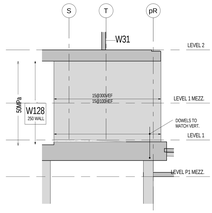
S3-09 1 : 100



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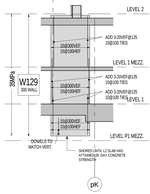

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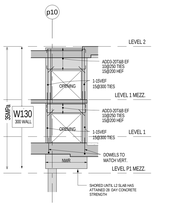
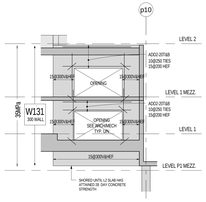
S3-09 1 : 100



W130 WALL ELEVATION
S3-09 1 : 100



W131 WALL ELEVATION
S3-09 1 : 100

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Date:

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

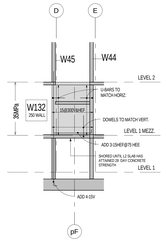
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

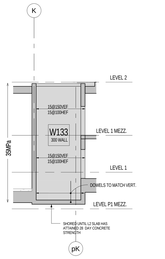
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S3-09

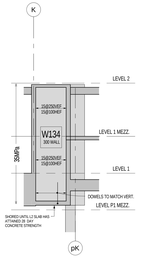
Plot Date: 6/11/2015 12:05:53 PM



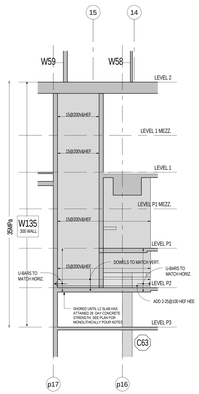
W132 WALL ELEVATION
S3-10 1 : 100



W133 WALL ELEVATION
S3-10 1 : 100



W134 WALL ELEVATION
S3-10 1 : 100



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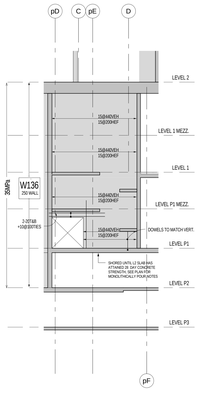
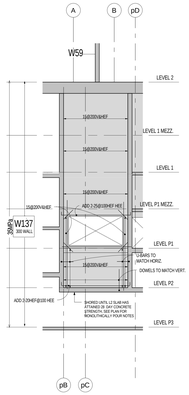
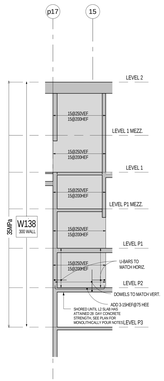
S3-10 1 : 100



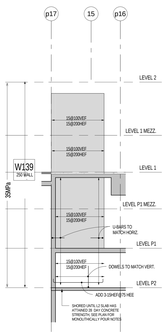
W136 WALL ELEVATION
S3-10 1 : 100



W137 WALL ELEVATION
S3-10 1 : 100



W138 WALL ELEVATION
S3-10 1 : 100



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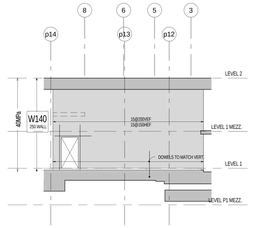

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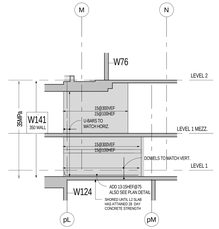
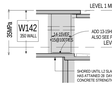
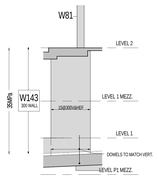
S3-10 1 : 100



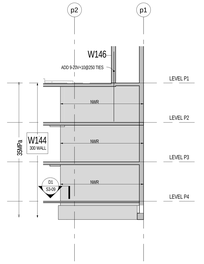
W141 WALL ELEVATION
S3-10 1 : 100



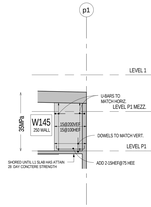
W142 WALL ELEVATION
S3-10 1 : 100



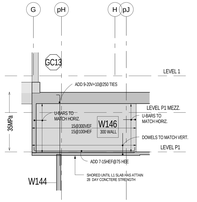
W143 WALL ELEVATION
S3-10 1 : 100



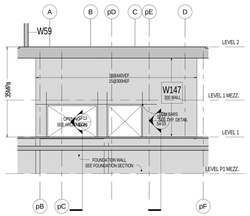
W144 WALL ELEVATION
S3-10 1 : 100



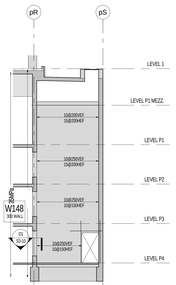
W145 WALL ELEVATION
S3-10 1 : 100



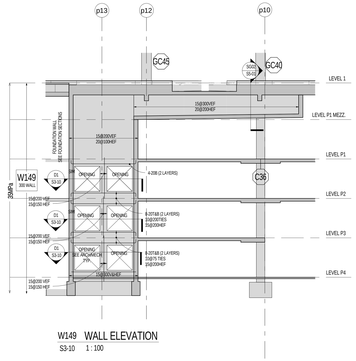
W146 WALL ELEVATION
S3-10 1 : 100



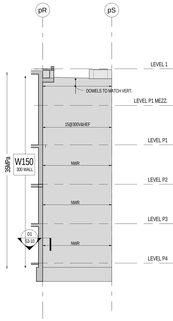
W147 WALL ELEVATION
S3-10 1 : 100



W148 WALL ELEVATION
S3-10 1 : 100



W149 WALL ELEVATION
S3-10 1 : 100



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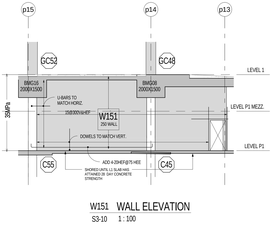

W151 WALL ELEVATION
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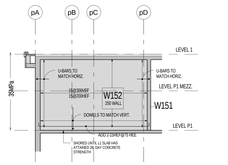
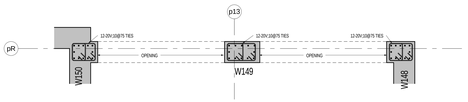


W152 WALL ELEVATION
S3-10 1 : 100



D1 DETAIL
S3-10 1 : 20

REFER TO NOTES ON SHEET S3-01

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

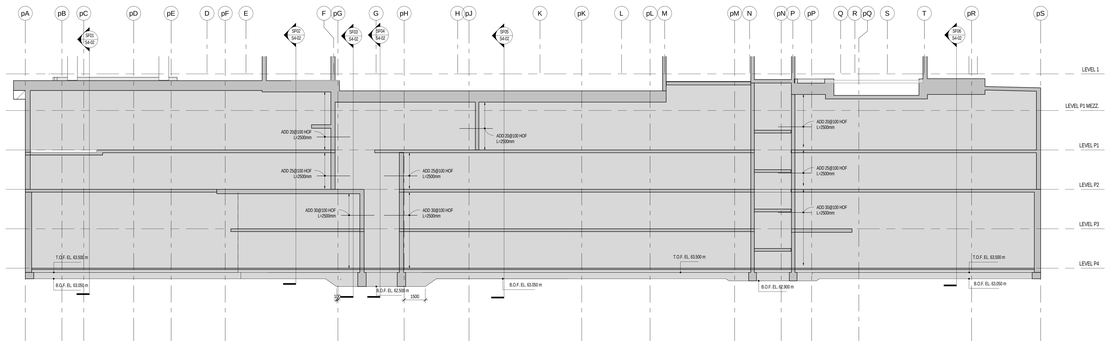
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
WALL ELEVATIONS

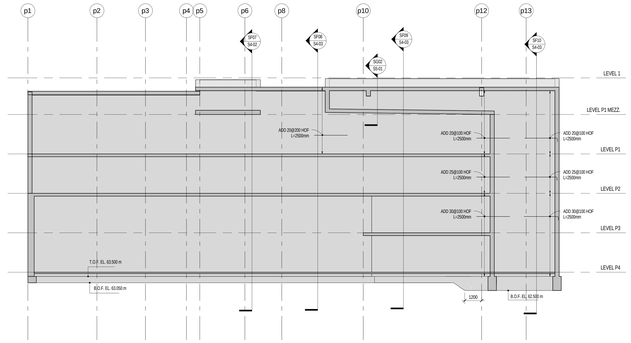
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	Author
Checked by	Checker
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S3-10

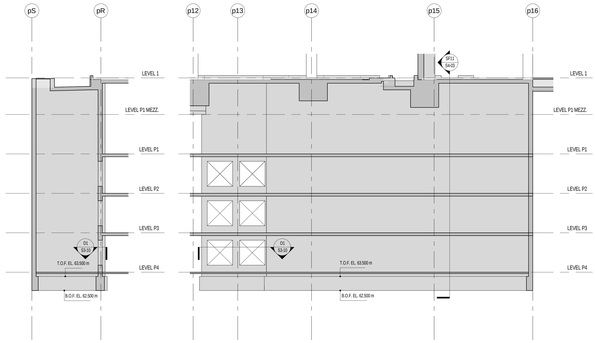
Plot Date: 6/11/2015 12:05:58 PM



WEST FOUNDATION ELEVATION
1 : 100

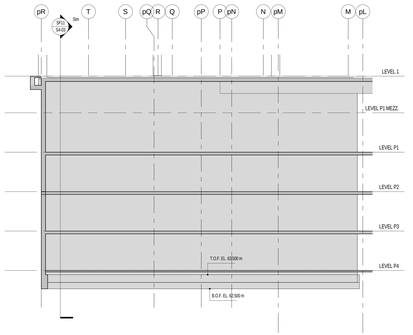


NORTH FOUNDATION ELEVATION 1
1 : 100



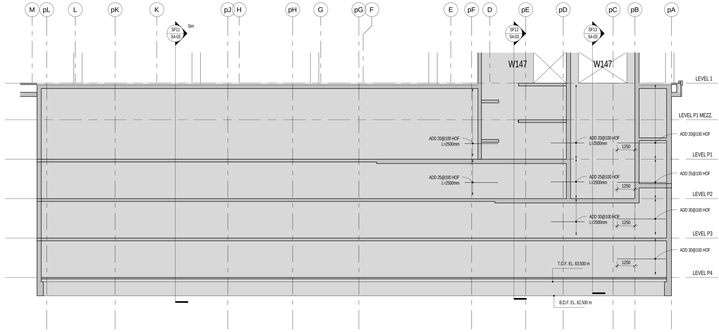
NORTH FOUNDATION ELEVATION 2
1 : 100

NORTH FOUNDATION ELEVATION 3
1 : 100

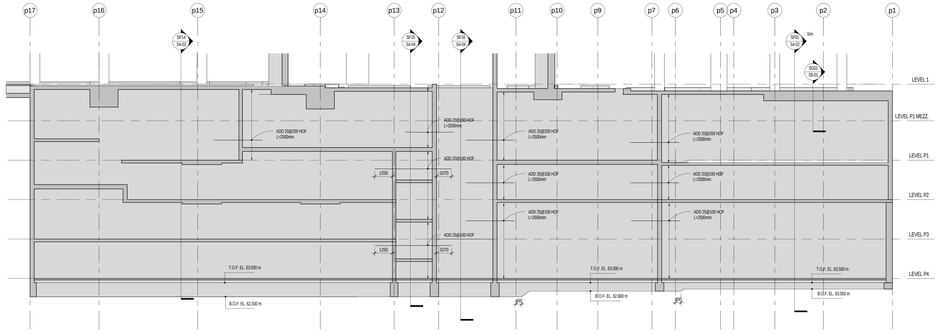


EAST FOUNDATION ELEVATION 1
1 : 100

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.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

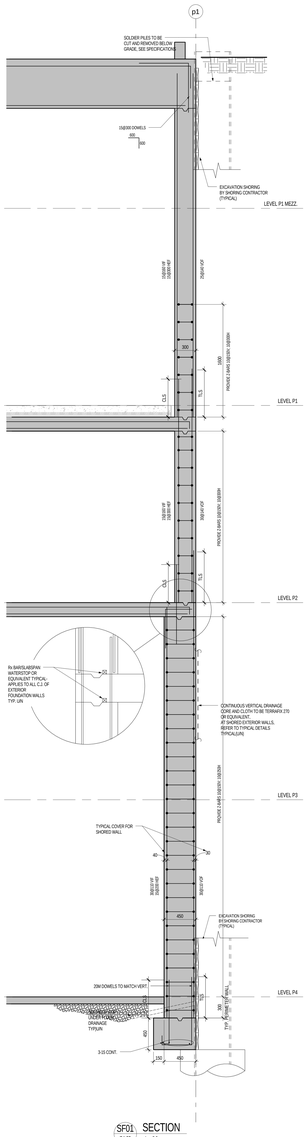
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
FOUNDATION ELEVATIONS

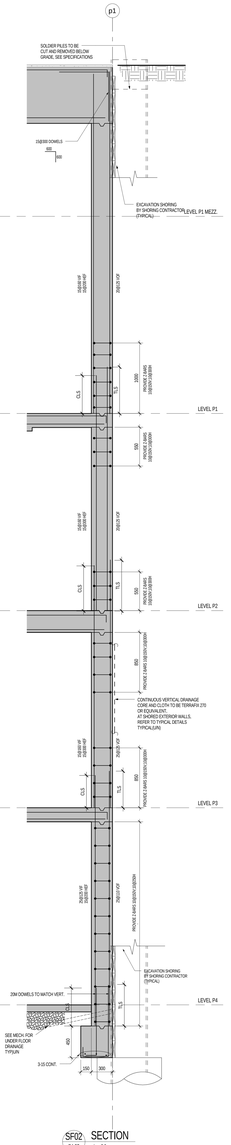
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	DC
Checked by	BK/BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S4-01

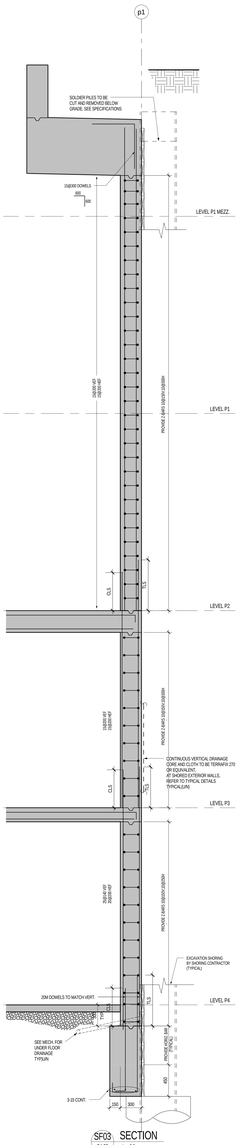
1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
2. OVERALL LENGTH OF REINFORCEMENT SHOULD ACCOUNT FOR VARIATIONS IN TOP OF FOOTING ELEVATION WHILE STILL MEETING THE MINIMUM LAP SPLICES INDICATED. VARIATIONS IN FOOTING ELEVATION DURING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



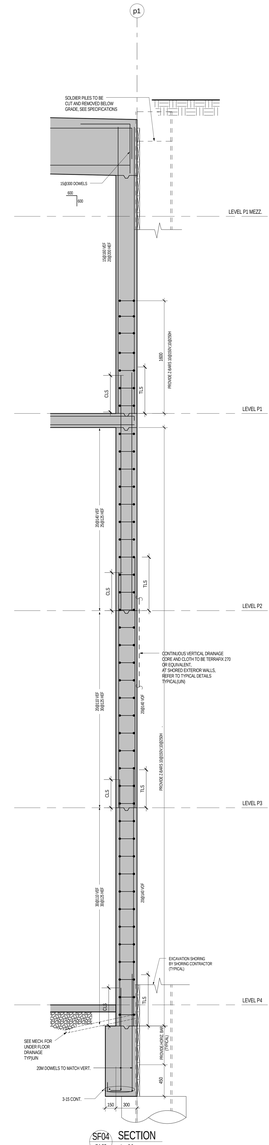
SF01 SECTION
S4-02 1 : 20



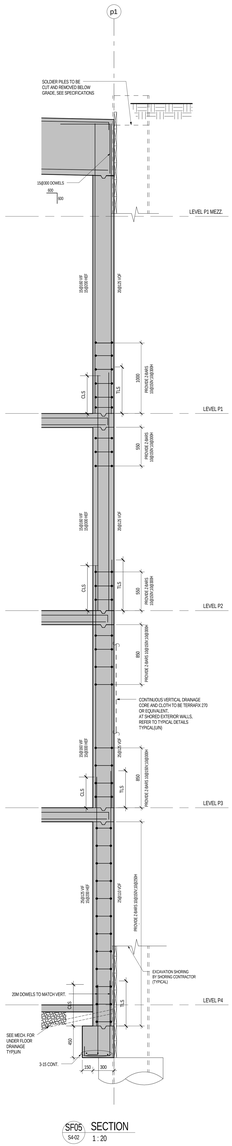
SF02 SECTION
S4-02 1 : 20



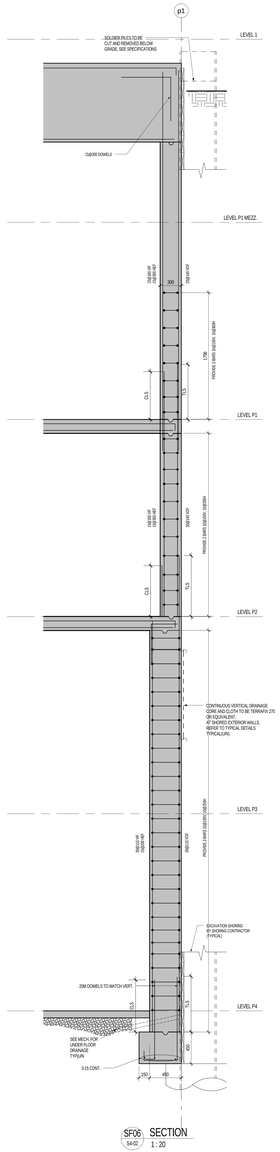
SF03 SECTION
S4-02 1 : 20



SF04 SECTION
S4-02 1 : 20



SF05 SECTION
S4-02 1 : 20



SF06 SECTION
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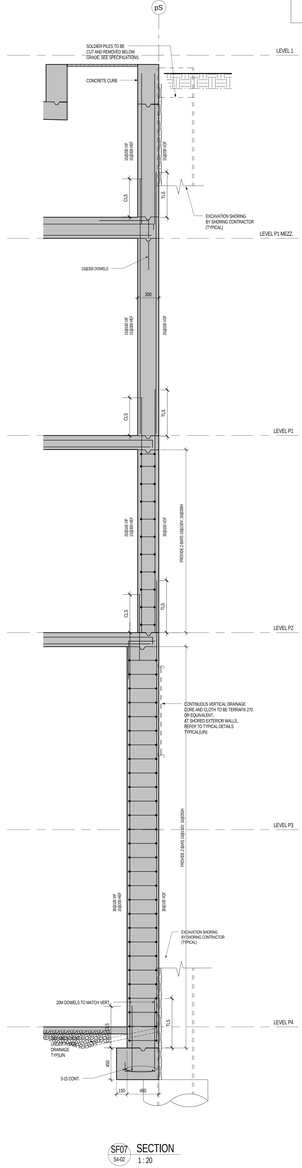

SF07 SECTION
S4-02 1 : 20

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No	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

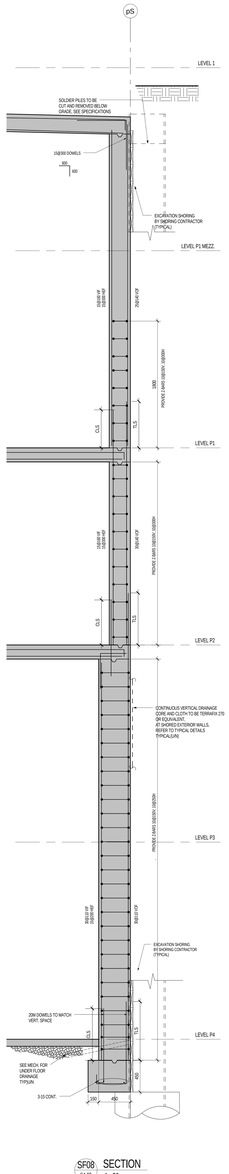
AQUAVISTA
AT BAYSIDE TORONTO

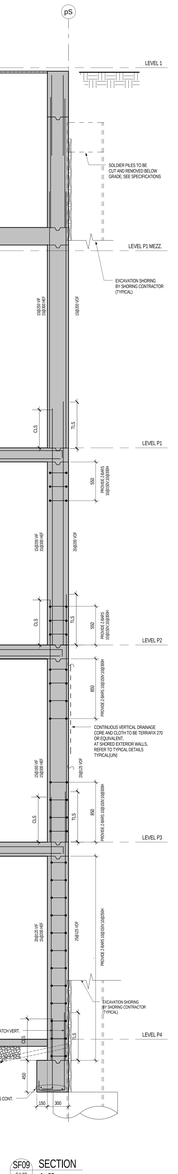
Drawing Title
FOUNDATION SECTIONS

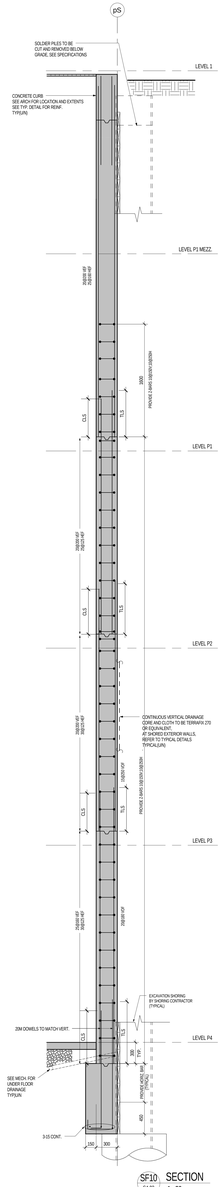
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

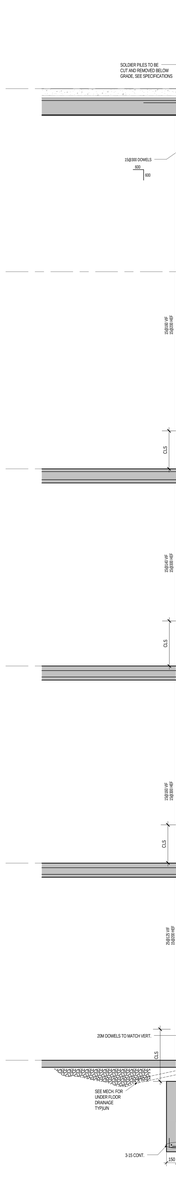
Scale	As indicated
Drawn by	DC
Checked by	BBS
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S4-02

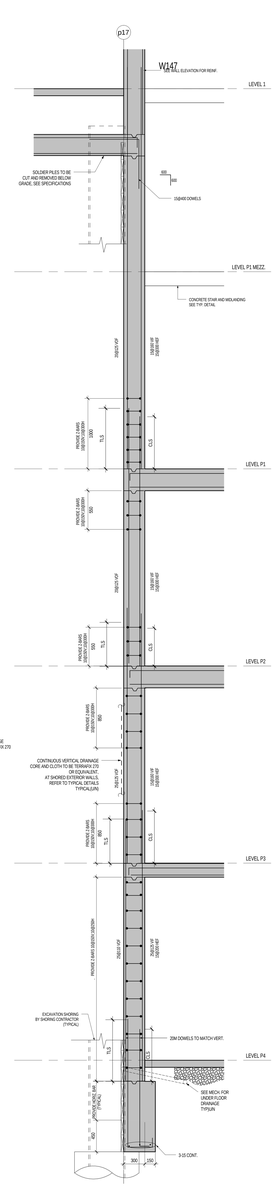
Plot Date: 6/11/2015 12:52:12 PM

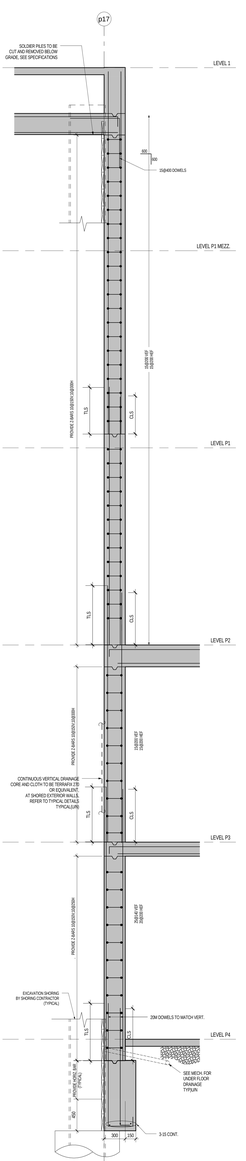


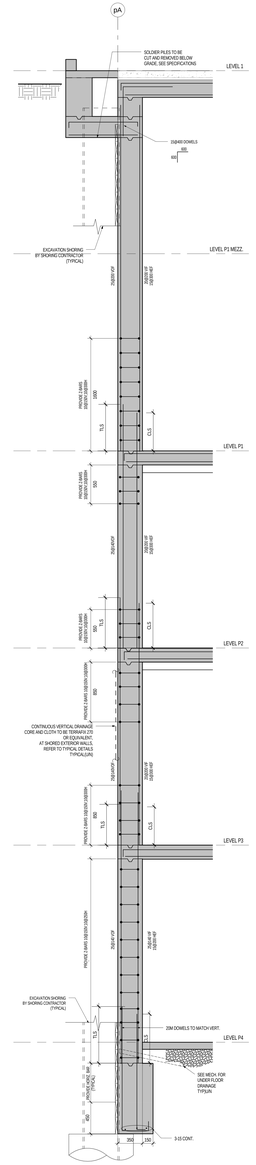












1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
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No	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

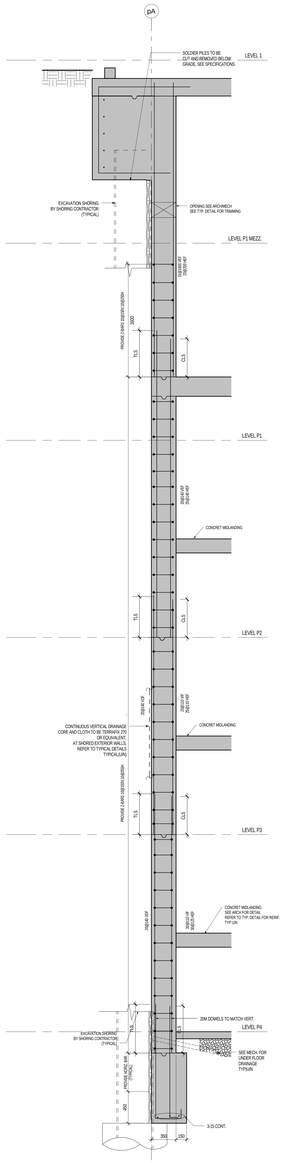
AQUAVISTA
AT BAYSIDE TORONTO

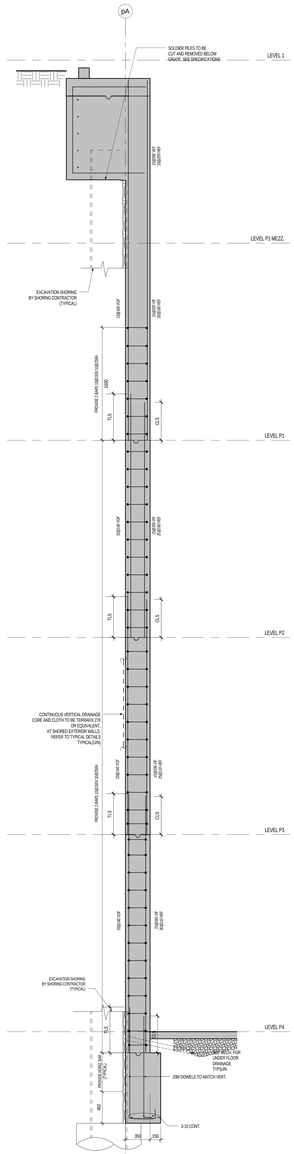
Drawing Title
FOUNDATION SECTIONS

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

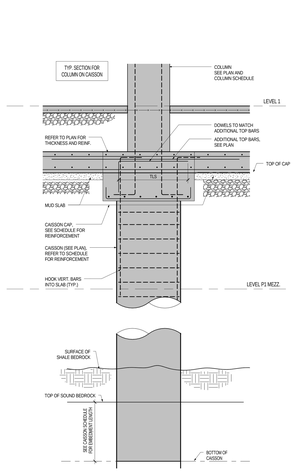
Scale	As indicated
Drawn by	DC
Checked by	Checker
Project No.	2014003
Date	JUNE 12,2015
Drawing No.	S4-03

Plot Date: 6/11/2015 12:52:16 PM

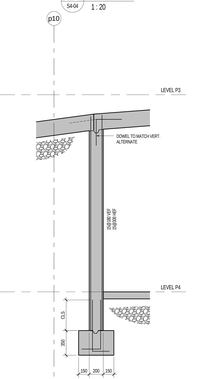




1. REFER TO TYPICAL DETAILS T-C56A AND TC56B FOR TLS (TENSION LAP SPLICE) AND CLS (COMPRESSION LAP SPLICE) LENGTHS.
2. OVERALL LENGTH OF REINFORCEMENT SHOULD ACCOUNT FOR VARIATIONS IN TOP OF FOOTING ELEVATION WHILE STILL MEETING THE MINIMUM LAP SPLICES INDICATED. VARIATIONS IN FOOTING ELEVATION DURING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



SF17 SECTION
S4-04 1 : 20



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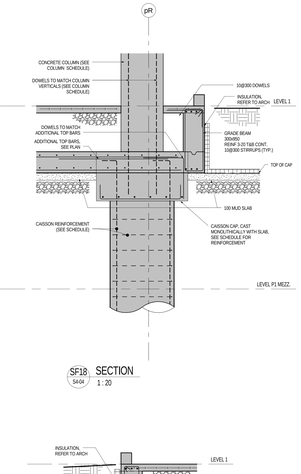
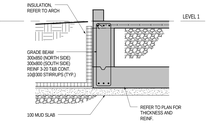
S4-04 1 : 20



SF18 SECTION
S4-04 1 : 20



SF19 SECTION
S4-04 1 : 20

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No.	Issued For	Date
2	BUILDING PERMIT SUBMISSION	JUNE 12,2015
1	ISSUED FOR MT REVIEW	May 01,2015

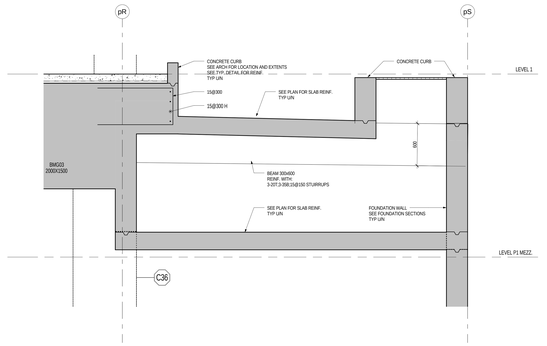
AQUAVISTA
AT BAYSIDE TORONTO

Drawing Title
FOUNDATION SECTIONS

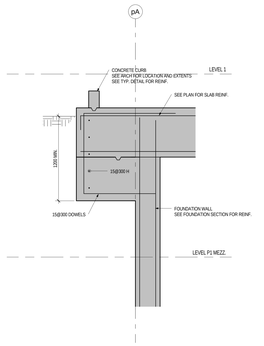
Project
Hines TRIDEL
AQUAVISTA
Block 3 - R3 & R4
Merchant's Wharf
Toronto, ON

Scale	As indicated
Drawn by	Author
Checked by	Checker
Project No.	2014/0031
Date	JUNE 12,2015
Drawing No.	S4-04

Plot Date: 6/11/2015 12:52:19 PM



SG02 SECTION
S5-01 1 : 20



SG01 SECTION
S5-01 1 : 20

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No.	Issued For	Date
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: 2014/0031
Date: JUNE 12,2015
Drawing No: S5-01

Plot Date: 6/11/2015 12:08:44 PM

GENERAL NOTES T-A01

1.1. GENERAL
1.1. DESIGN AND CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE, THE ONTARIO HIGHWAY BRIDGE DESIGN CODE, THE CANADIAN HIGHWAY BRIDGE DESIGN CODE, AND TO THE SPECIFICATION, ALL CODES, MANUALS, STANDARDS AND SPECIFICATIONS REFERRED TO SHALL BE THE LATEST EDITIONS INCLUDING ALL REVISIONS AND ADDENDA. ALL DIMENSIONS, OTHER THAN PURELY STRUCTURAL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE CHECKED AGAINST THE ARCHITECTURAL DRAWINGS AND ANY INCONSISTENCIES REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS.
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 INDICATED ON THE STRUCTURAL DRAWINGS. UNLESS SPECIFICALLY NOTED OTHERWISE, THE ABOVE ITEMS 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 OPENINGS HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED FOR STRESSES AND INSTABILITY OCCURRING WHICH MAY CAUSE DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH BRACING AND SHORING, AS SO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORING, AND TEMPORARY PLING OR OTHER TEMPORARY SUPPORTS TO SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES AFFECTED BY THIS WORK. CONSTRUCTION PROCESS, SHOP DRAWINGS FOR CONTRACTOR'S REVIEW.
2. SHOP DRAWINGS, PLACING DRAWINGS AND BAR LISTS:
2.1. SHOP DRAWINGS SHALL BE PREPARED FROM 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. REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL CONSULTANT IS ONLY TO ASSESS THAT THE SUBMITTED SHOP DRAWINGS REFLECT THE INTENT OF THE STRUCTURAL DESIGN.
2.3. REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR SHOWING 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 INSPECTIONS:
3.1.1. BEARING SOIL - REFER TO NOTES ON STRUCTURAL DRAWINGS AND TO THE SOIL REPORT.
3.1.2. PILE LENDER SLAB-ON-GRADE - CONFIRM THAT FILL MATERIAL USED IS SATISFACTORY AND THAT THE REQUIRED DEGREE OF COMPACTION HAS BEEN ATTAINED.
3.1.3. CAST-IN-PLACE AND PRECAST CONCRETE - ROUTINE INSPECTION OF MATERIALS, INCLUDING SLUMP, AIR CONTENT AND COMPRESSIVE STRENGTH TESTS. REINFORCING ROD TESTS WHEN REQUIRED, OR DIRECTED BY THE CONSULTANT OR CSA STANDARD A23.1.
3.2. THE PROJECT SUPERINTENDENT IS TO ADVISE THE STRUCTURAL CONSULTANT AT A MINIMUM OF 24 HOURS IN ADVANCE OF A CONCRETE POUR FOR A REVIEW OF PREPARATIONS.
3.3. STRUCTURAL STEEL - ROUTINE SHOP AND FIELD INSPECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA STANDARD S16.
3.4. SOILS, DECK - SEE STEEL DECK NOTES.
3.5. MASONRY - WHEN REQUIRED OR DIRECTED, CONCRETE BLOCKS SHALL BE TESTED IN ACCORDANCE WITH ASTM C140 BRICKS IN ACCORDANCE WITH CAN/CSA-A82 AND MORTAR AND/OR GROUT IN ACCORDANCE WITH CSA A179.
3.6. ALL INSPECTION AND TESTING SERVICES ARE TO BE PERFORMED BY COMPANIES CERTIFIED BY THE CANADIAN STANDARDS ASSOCIATION AND FOR WELDING, INSPECTORS ARE TO BE 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 SHALL BE PLACED AT LEAST 1.2m BELOW FINISHED GRADE UNLESS OTHERWISE NOTED. FOOTINGS FORMED IN TRENCHES SHALL HAVE VERTICAL SIDES. UNLESS FOOTINGS ARE POURED AGAINST UNDISTURBED SOIL, CONSTRUCTION SHALL BE PROTECTED BY A MINIMUM OF 100mm (4") OF EARTH OR ITS EQUIVALENT SUFFICIENT TO PREVENT FREEZING.
4.2. THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR ALONG STEPPED FOOTINGS SHALL NOT BE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL UNLESS OTHERWISE NOTED.
4.3. CAP SUITABLE ROCK EXCAVATION SHALL BE PERFORMED BY METHODS AND TECHNIQUES BASED UPON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THE STRUCTURAL DRAWINGS.
4.4. IF ACTUAL JOB SITE OR SOIL CONDITIONS VARY FROM THOSE ASSUMED, THEN WRITTEN DIRECTIONS MUST BE OBTAINED FROM THE STRUCTURAL CONSULTANT BEFORE PROCEEDING WITH THE WORK.
4.5. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED NATURAL SOIL OR ON COMPACTED FILL APPROVED BY THE SOILS CONSULTANT. ALL LOOSE OR SOFT MATERIAL SHALL BE EXCAVATED TO THE SATISFACTION OF THE SOILS CONSULTANT AND THE FOOTINGS LOWERED TO SUIT.
5. BACKFILLING AND COMPACTION:
5.1. SLABS-ON-GRADE - AND ALL STRUCTURAL ELEMENTS FRAMING INTO WALLS WHICH RETAIN EARTH MUST BE BACKFILLED AS FOLLOWS:
5.1.1. FULL HEIGHT WALLS - WITH GRANULAR BATH SOILS, UNLESS ADEQUATELY HELD BY TEMPORARY BRACING, AND COMPACT EACH SIDE OF WALL SIMULTANEOUSLY.
5.1.2. UNDER SLAB-ON-GRADE, REMOVE SOFT SPOTS, ORGANIC AND FOREIGN MATTER IN THE SUB-GRADE. WHERE SUB-GRADE CONSISTS OF COMPACTED FILL, REFER TO SPECIFIC NOTES ON THE DRAWINGS.
5.1.3. ALL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATTER AND SHALL BE PLACED IN LAYERS AS CAREFULLY AS POSSIBLE UNLESS SPECIFICALLY NOTED OTHERWISE, BACKFILL SHALL BE CARRIED OUT A MINIMUM OF 200mm (8") INCH LIFTS OF LOOSE. FILL EACH COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
5.2. UNLESS OTHERWISE NOTED, PROVIDE IMMEDIATELY UNDER SLABS-ON-GRADE A MINIMUM OF 200mm (8") OF GRANULAR FILL MATERIAL. GRANULAR MATERIAL, COMPACTED TO ACHIEVE A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DENSITY.

STANDARD ABBREVIATIONS T-A11

@	at	H (HOR)	Horizontal	PSL	Parallel Strand Lumber
A, B (TA,B,)	Anchor Bolt	HEF	Horizontal Each Face	PT	Pressure Treated
ABV	Above	HP	Asphalt Impregnated Fibre Board	R	Reaction
AFB	Asphalt Impregnated Fibre Board	HP	Horizontal Inside Face	RAD	Radius
ALT	Alternate	HOF	Horizontal Outside Face	REF	Reference
ARCH	Architectural	HSL	Horizontal Stability Slotted	REINF	Reinforced
ASL	Unbalanced Snow Loading	HSS	Connector	REQ'D	Required
B (BOT)	Bottom		Hollow Structural Section	REV	Revision/Revised
BEW	Bottom Each Way			RF	Factored Vertical Reaction
BF	Bottom Face	IF	Inside Face	RW	Reinforced Web
BLL	Bottom Lower Layer	INT	Interior	S	Standard Beam
BM	Beam	INV	Invert	SDD	Slotted Drain Footing
BML	Bottom Middle Layer			SHD	Superimposed Dead Load
BNT	Base Nominal Thickness	JT	Joint	SOL	Solid
BP	Baseplate	kg	Kilogram	SECT	Section
BSMT	Basement	kN-m	Kilo Newton Metres	SL	Slab
BUL	Bottom Upper Layer	kN/m²	Kilo Newton per Square Metre	SQ	Square
C	Standard Channel	kN/m	Kilo Newton per Linear Metre	SOG	Slab on Grade
CA	Column Above	kPa	Kilo Pascals	SPEC	Specifications
CANT	Cantilever			ST	Steel
CC (sc)	Centre to Centre	L	Angle	STD	Standard
CJ	Control Joint	LL	Live Load	STR	Straight
CL	Centreline	LLL	Long Lay	STRUCT	Structural
CLG	Compression Lap	LLL	Lower Lower / Lower Layer	T	Top
COL	Column	LLH	Long Leg Horizontal	TEMP	Temperature - Factored Tension
COMB	Combustible	LLV	Long Leg Vertical	TF	Top Flange
CONC	Concrete	LSG	Long Span Steel Joists	TJ	Top Joint
CONST	Construction	LVL	Laminated Veneer Lumber	TLL	Top Lower Layer
CONST JT (CJT)	Construction Joint			TNF	Factored Tensile Force
CONT (CONTIN)	Continuous		Moment		
CW	Complete Web	m	Metre	TML	Top Middle Layer
D.FIR	Douglas Fir	MAX	Maximum	TOC, TD	Top of Deck
DET	Detail	MECH	Mechanical	TOS, TS	Top of Slab
DIAG	Diagonal	MEZZ	Mezzanine	TOST	Top of Steel
DIM	Dimension	MIN	Minimum	TP	Tension per Square Foot
DIMEN	Dimension	MISC	Miscellaneous	TW	Top Web
DJ	Double Joist	ML	Middle Layer	TUL	Top Upper Layer
DL	Dead Load	MLL	Middle Lower Layer	TYPICAL	Typical
DO	Ditto	MM	Millimetre	TLS	Class B Tension Splice
DOWN	Downspout	MUL	Middle Upper Layer	U	Upper Layer
DWL	Dowel	MPa	Mega Pascals	UN	Unless Noted Otherwise
DT	Double Tee	MUL	Middle Upper Layer	UNO	Unless Noted Otherwise
E-W	East-West	N	Newton	UON	Underside of Deck
EA	Each	NAT	Natural Grade	US	Underside of Deck
EE	Each End	NF	Near Face	UTD	Underside of Deck
EF	Each Face	NIC	Not in Contract	V (VERT)	Vertical
ELECT	Electrical	NUM	Number	VIF	Verify on Site
ELEV (EL)	Elevation / Elevator	NTS	Not to Scale	VSF	Vertical Each Face
EN	Each Side			VSP	Vertical Inside Face
EO	Each Side	OWSJ	Open Web Steel Joist	VOF	Vertical Outside Face
EW	Each Way			VSS	Vertically Slotted Connection
EXIST	Existing	P	Pile	W	Wide Flange Beam
EXP. JT.	Expansion Joint	Pa	Pascal	WP	Wall Plate
EXT	Exterior	PC	Precast	WWF (WWM)	Welded Wire Fabric/ Mesh
FDN	Foundation	PL/F	Plate		
FF	Far Face		Pounds per Linear Foot		
FIN	Finished	PREL	Preliminary		
FL	Floor	PREFAB	Prefabricated		
FMC	Full Moment Connection	PSF	Pounds per Square Foot		
FT	First / Free	PSI	Pounds per Square Inch		
FTG	Footing				
GA	Gauge				
GALV	Galvanized				
GBN	Gobbin				

STRUCTURAL STEEL NOTES T-A03A

G.1.1 GENERAL
1.1. STRUCTURAL STEEL DESIGN DETAILS AND CONNECTIONS SHALL CONFORM TO CSA STANDARD S16 AND SHALL BE DESIGNED BY A LICENCED PROFESSIONAL ENGINEER 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. STRUCTURAL STEELWORK 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.
1.5. ALL STEEL OUTSIDE OF VAPOUR BARRIER SHALL BE HOT DIP GALVANIZED.
2. PRODUCTS
2.1. STRUCTURAL STEEL SHALL CONFORM TO CSA-G40.20/G40.21.
2.1.1. WF SHAPES, S SHAPES, CHANNELS, ANGLES, PLATES AND WOODS - GRADE 300 W
2.1.2. HSS SECTIONS - GRADE 350W (CLASS C,UR.)
2.1.3. W SHAPES - GRADE 350W
2.2. BOLTS, NUTS AND WASHERS FOR CONNECTIONS TO CONFORM TO ASTM A325 UNLESS NOTED OTHERWISE. USE HEAVY HEX NUTS AND WASHERS FOR BASE PLATES. BEARING AND WELD PLATES TO CONFORM TO ASTM A307 UNLESS NOTED.
2.3. SHEAR STUDS WHERE REQUIRED TO CONFORM TO ASTM A108. WELDING TO CONFORM TO CSA W59.
2.4. PRIMER PAINT TO CONFORM TO CAN/CGSB-1.40 OR CISC/CPMA 1 OR CISC/CPMA 2.
2.5. PRIMER PAINT TO BE COMPATIBLE WITH FIRE PROTECTIVE COATING OF 900g/m².
2.6. UNLESS OTHERWISE SPECIFIED.
3. EXECUTION
3.1. FABRICATION, HANDLING AND ERECTION TO CONFORM TO CAN / CSA - S16.
3.2. PROVIDE A MINIMUM OF 3.2 mm (1/7") DIAMETER BY 250 (10") LONG WELL ANCHORS FOR ALL BEAM BEARING PLATES. WELD ANCHORS TO BEARING PLATES. BEARING PLATES ARE TO BE WELDED TO BEAMS AND JOIST SHOES TO BEAM WELDS PLATES.
3.3. PROVIDE ADJUSTABLE ANCHORS TO ALL STEEL TO BE BUILT INTO, AFFIXED BY, OR FACED WITH MASONRY (REFER ALSO TO TYPICAL DETAILS IF SHOWN). SPACING TO BE:
FOR VERTICAL SPACING ..... 600 (24") MAX. CENTRES.
3.4. WHERE STEEL PROVIDES LATERAL BRACING ONLY TO MASONRY (I.E. DOES NOT SUPPORT MASONRY) ANCHORS SHALL PERMIT DIFFERENTIAL MOVEMENT BETWEEN STRUCTURAL MEMBERS AND MASONRY.
3.5. CLEAN, PREPARE SURFACES AND SHOP PRIME STRUCTURAL STEEL WITH ONE COAT OF PRIMER PAINT EXCEPT AT AREAS WHERE FIELD WELDING IS REQUIRED. SURFACES ARE TO BE ENCASED IN CONCRETE, OR TO RECEIVE SPRAY-APPLIED FIRE PROOFING, FIELD TOUCH-UP BOLTS, WELDS, BURNED OR SCRAPED SURFACES AFTER ERECTION.
3.6. PROVIDE ALL NECESSARY TEMPORARY BRACING TO KEEP STRUCTURE SAFE AND PLUMB. BRACING SHOWN ON STRUCTURAL DRAWINGS IS PERMANENT FOR FINISHED BUILDING ONLY.
3.7. DETAILING, FABRICATION AND ERECTION OF THE STEEL STRUCTURE SHALL CONFORM TO THE 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 MM. 25 mm (1") MAX. OTHER PIECES ..... 1:500 (1/4" in 10'-0")
3.9. ERECTION TOLERANCE SHALL NOT EXCEED THOSE SHOWN IN CISC 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.

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 TO GENERAL NOTES, NOTES UNDER PLANS AND 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 ADDITIVE IN ALL CONCRETE. PROVIDE AN APPROVED AIR ENTRAINING ADMIXTURE IN ALL CONCRETE EXPOSED TO THE WEATHER. DO NOT USE CALCIUM CHLORIDE THE ACTION OF OR USING SALT, ADMIXTURES SHALL CONFORM TO CSA STANDARD A23.1.
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 DESIGN FOR THE FORMWORK SHALL BE SUBMITTED FOR REVIEW BEFORE CONSTRUCTION. FORMWORK DRAWINGS AND DESIGN SHALL BE SEALED BY A LICENSED 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 ON ALL CANTILEVERED SLAB AND BEAM FORMS 3 mm/1000 mm (1/4" PER 8'-0") OF CANTILEVER LENGTH.
2.6. PROVIDE CHAMFERED ADJUSTABLE MASONRY ANCHOR SLOTS FOR ALL MASONRY FACING OR ABUTTING CONCRETE FACES.
2.7. PROVIDE ANCHOR INSTALL STANDARD ADJUSTABLE INSERTS AND ALL OTHER CAST IN INSERTS AS REQUIRED BY THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATION.
2.8. REINFORCING STEEL UNLESS SPECIFICALLY NOTED, SHALL BE DEFORMED BARS CONFORMING TO CSA STANDARD G30.18 GRADE 400 MPa.
2.9. WELDED WIRE FABRIC TO BE SUPPLIED IN FLAT 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 FOR DETAILING OF THE REINFORCING STEEL INSTITUTE OF CANADA.
2.11. NON-SHRINK GROUT TO BE 1 PART PORTLAND CEMENT TO 1 1/2 PARTS SAND TO 2 PARTS OF 6 mm PEA GRAVEL WITH ONLY SUFFICIENT WATER TO DAMPEN MIXTURE, COMPRESSIVE STRENGTH 50MPA AT 28 DAYS.
2.12. NON-SHRINK GROUT TO BE AN APPROVED PRE-MIXED PROPRIETARY PRODUCT.
2.13. PROVIDE APPROVED EXTRUDED PVC WATERSTOPS AT ALL CONSTRUCTION JOINTS IN CONCRETE WALLS AND FOOTINGS AND FOR CONNECTIONS BETWEEN PRE-CAST AND PRE-MELDED CORNERS AND INTERSECTIONS. SEE ALSO TYPICAL DETAILS.
2.14. CONCRETE MIX DESIGN SHALL BE BASED ON THE EXPOSURE CLASS AS SET TO CONFORM TO ASTM STANDARD C309. GENERALLY ALL CONCRETE SURFACES ARE TO BE SEALED 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 STUDRAILS® AS MANUFACTURED BY DECON®. THE COMPLETE AND FINISHED STUDRAILS® SHALL BE SUPPLIED BY A CERTIFIED STUDRAILS® PLANT. THE STUDRAILS® SHALL BE MANUFACTURED IN A CERTIFIED STUDRAILS® SHALL CONFORM TO THE LATEST EDITION OF ICC-ES AC310.
3. EXECUTION
3.1. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE @ 28 DAYS SHALL BE AS NOTED ON THE DRAWINGS (28MPa MINIMUM).
3.2. LOCATION OF POINT OF DISCHARGE SHALL BE CONSISTENT AT 80 mm ±30mm (3" ±1 1/8") UNLESS NOTED OTHERWISE GREATER SLUMPS ARE NOT ALLOWED.
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 10000 mm (32'-0"). UNLESS CONTROL JOINTS ARE PROVIDED AS PER DETAIL 17 C16. TOTAL LENGTH OF POUR BETWEEN CONSTRUCTION JOINTS SHALL NOT EXCEED 30m.
3.5. CONSTRUCTION JOINTS FOR WALLS, SLABS, AND BEAMS NOT 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 FIXING.
3.6. INSERTS, PRIME OUTS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES, SHALL BE INSTALLED AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT WILL NOT IMPAIR THE STRUCTURAL STRENGTH OF THE SYSTEM. BE SO INSTALLED THAT THEY SHALL NOT REQUIRE THE CUTTING, BENDING, OR DISPLACEMENT OF THE REINFORCING STEEL FROM THE POSITIONS SHOWN ON THE DRAWINGS.
3.7. ELECTRICAL SCHEDULE 40 PVC CONDUITS PASS THROUGH CONCRETE SLABS SHALL BE OF OUTSIDE DIAMETER LESS THAN 1/3 OF THE SLAB THICKNESS AND SHALL BE PLACED BETWEEN TOP AND BOTTOM REINFORCEMENT. CONDUITS LARGER THAN 3 DIAMETERS ON CENTRE UNLESS APPROVED. HAVE A MINIMUM CONCRETE COVER OF 25 mm (1") AND UNLESS SPECIFICALLY PERMITTED OTHERWISE, SHALL NOT RUN HORIZONTALLY IN A CONCRETE WALL.
3.8. OPENINGS AND OPENINGS FOR PIPES, DUCTS AND CONDUITS THROUGH CONCRETE IS PLACED SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE PROCEEDING.
3.9. FINISH OF CONCRETE SURFACES SHALL BE AS SPECIFIED ON THE DRAWINGS FOR REQUIRED FINISH TO EXPOSED CONCRETE ALL HONEYCOMBING SHALL BE CUT OUT TO SOUND CONCRETE. FLOOR FINISHES SHALL BE AS REQUIRED BY THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS AND SHALL CONFORM TO CSA STANDARD A23.1 CONCRETE FINISHES AND FINISHING METHODS.
3.10. TOLERANCES FOR FLOOR SLOTS CONSTRUCTION, FORMWORK, PRESTRESSING 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 WALL TO BE AS SHOWN ON TYPICAL DETAILS FOR CONCRETE WALLS.
3.12. MINIMUM REINFORCING FOR ANY SUSPENDED SLAB SHALL BE TEMPERATURE BARS BOTTOM EACH WAY PLUS ADDITIONAL BARS OVERLS 6-M30M (1-0" x 2-0") TOP AROUND PERIMETER. REFER TO TYPICAL DETAIL OF ONE WAY SLABS.
4. QUALITY CONTROL
4.1. FOR INSPECTION AND TESTING, SEE GENERAL NOTES AND/OR SPECIFICATION.

SHORING NOTES T-A13

1.0 DESIGN
1.1. REFER TO 2007 SOILS REPORT #WHA-0001976-023 DATED NOVEMBER 29, 2013 BY DESIGN PARAMETERS.
1.2. TIE-BACK DESIGN BASED ON AN ANCHORAGE CONSISTENT W/ N-1 BAND THE CANADIAN FOUNDATION REINFORCEMENT MANUAL 3rd EDITION.
1.3. DESIGN COMPLIES WITH THE LATEST EDITIONS OF THE ONTARIO BUILDING CODE AND THE ONTARIO HIGHWAY BRIDGE DESIGN CODE.
2.0 MATERIALS
2.1. STRUCTURAL STEEL SHALL BE NEW OR SOUND USED MATERIAL CONFORMING TO C.S.A. G40.21, GRADE 300.
2.2. ALTERNATIVE SECTIONS OR GRADES OF EQUIVALENT STRENGTH, MAY BE SUBSTITUTED SUBJECT TO APPROVAL OF ENGINEER
2.3 CONCRETE STRENGTHS TO BE AS FOLLOWS:
a) FOOTINGS ..... 20 MPa
b) CANTILEVERED PILE TOES ..... 20 MPa
c) BACKFILL TO GRADE ..... 4 MPa
d) FREE ZONES ..... SEE CONCRETE SLAB
2.4 TIMBER LAGGING TO BE 75 mm MIN. (TRUE THICKNESS) HARDWOOD UNLESS NOTED OTHERWISE.
2.5 ALL STEEL SHALL CONFORM TO C.S.A. W59 AND BE PERFORMED BY QUALIFIED WELDERS.
3.0 PROCEDURES
3.1 DRILL HOLES TO SIZE AND DEPTHS INDICATED. INSTALL PILES PLUMB AND TO LINE.
3.2 FOR SPECIFIED CONCRETE TOES AND BACKS, SEE DETAILS.
3.3 EXCAVATE IN 1200mm MAX. LIFTS INSTALLING LAGGING AS EXCAVATION PROCEEDS. CUT SOIL FACES NEATLY AND TRIM BACK ANY LOOSE OR OVERHANGING MATERIAL. MEDGE AT PILES AS REQUIRED. FILL VOIDS BEHIND LAGGING WITH GRANULAR FILL RAMMED IN PLACE.
3.4 WHEN EXCAVATION REACHES 300mm MAX. BELOW TIE-BACK ELEVATIONS NOTED, DRILL AND INSTALL TIE-BACKS. LOCK-IN LOADS BEFORE EXCAVATING BELOW.
3.5 PROVIDE 2 TEST TIE-BACKS. TEST TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN FOUNDATION REINFORCEMENT MANUAL. TEST LOAD TO BE 1.5 TIMES DESIGN LOAD AND HOLD FOR 10 MINUTES.
3.6 PROOF TEST REMAINING TIE-BACKS TO 1.3 TIMES DESIGN LOAD AND HOLD LOAD FOR 10 MINUTES. IF NO APPRECIABLE CREEP OCCURS, REDUCE LOAD TO 1 TIMES DESIGN LOAD AND LOCK-IN.
4.0 GENERAL CONTRACTOR
4.1 GENERAL CONTRACTOR TO PROVIDE THE FOLLOWING:
a) ADEQUATE SPACE FOR ERECTION OF SHORING & STRUCT. ENGG. PRIOR TO PILE INSTALLATION.
b) LAYOUT STAKED FOR ALL PILES.
c) ADEQUATE PROTECTION TO SHORING SYSTEM AGAINST THE EFFECTS OF WEATHER, WATER OR FREEZING.
d) MONITORING OF ALL PILES FOR ANY LATERAL MOVEMENTS. REPORT ANY MOVEMENT GREATER THAN 10mm IMMEDIATELY TO ENGINEER.
e) LOCATE AND IDENTIFY ALL BELOW AND ABOVE GROUND SERVICES OR UTILITIES THAT MAY INTERFERE WITH PILE INSTALLATION. REMOVE OR RELOCATE AS NECESSARY.
f) DEWATER SITE AS NECESSARY.

LINTEL NOTES T-A06

UNLESS OTHERWISE SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS, PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:
1. FOR OPENINGS UP TO 1200 mm (4') CLEAR:
1.1. ONE ANGLE 90 x 90 x 6.1 (3 1/2" x 3 1/2") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
2. FOR OPENINGS FROM 1200mm (4') CLEAR TO 1800mm (6'-0") CLEAR:
2.1. ONE ANGLE 125 x 90 x 8 LONG LEG VERTICAL (5"x 3 1/2" x 5/16") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
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 200mm (8") MINIMUM AT EACH END ON SOLID MASONRY, UNLESS SHOWN OTHERWISE.
4. ALL ANGLE LINTELS ARE TO BE BOLTED OR WELDED TOGETHER, PRIOR TO ASSEMBLY, AT MAXIMUM 900mm (36") CENTRES.
5. MASONRY LINTEL BLOCKS MAY ONLY BE USED IN LOAD-BEARING WALLS WITH PERMISSION AND MUST BE FILLED WITH 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 CONTRACTOR.
7. STEEL CONTRACTOR TO SUPPLY ALL NECESSARY DIRECTIONS REQUIRED FOR PLACING STEEL LINTELS.
8. WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ON THE STRUCTURAL DRAWINGS EACH AND EVERY LINTEL OVER DOORS, MECHANICAL AND ELECTRICAL SERVICES, STOREFRONTS AND POCKETS ETC., THROUGH MASONRY WALLS, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND SUPPLY ALL LINTELS REQUIRED. ANY LINTELS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL CONSULTANT BEFORE CONSTRUCTION.

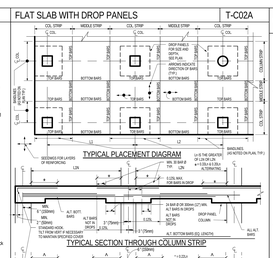
COLD WEATHER CONCRETING T-A14

FOR FORECASTED AIR TEMPERATURES AT OR BELOW 5°C

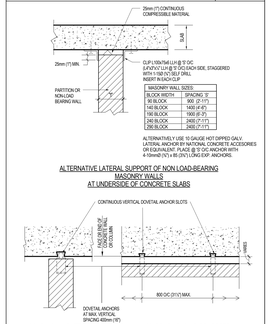
1. ALL MATERIALS AND EQUIPMENT NEEDED FOR HEATED ENCLOSURE AND CONCRETE CURING PROTECTION SHALL BE ON THE JOB SITE PRIOR TO THE START OF CONCRETE PLACEMENT IS STARTED.
2. AIR TEMPERATURE INSIDE ENCLOSURE IS TO BE HEATED TO A MINIMUM OF 5°C. CONCRETE SHALL NOT BE PLACED ON ANY SURFACE BELOW 5°C.
3. FORMS 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. THE TEMPERATURE OF CONCRETE AS PLACED SHALL BE MAINTAINED BETWEEN 10°C AND 25°C. TEMPERATURE OF CONCRETE AT THE TIME OF POURING IS TO BE 10°C. FOR SLABS LESS THAN 1000mm THICK THE MINIMUM CONCRETE TEMPERATURE AT TIME OF POURING IS TO BE 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 CASE THE CONCRETE SHALL BE KEPT ABOVE A MINIMUM TEMPERATURE 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 SLAB.
7. IF THE FORECASTED AIR TEMPERATURE IS TO FALL BELOW 0°C WITH REASONABLY HIGH WINDS THE CONCRETE SHALL BE PROTECTED FROM WIND. THE MINIMUM TEMPERATURE OF THE CONCRETE AND ITS PROTECTION MUST REMAIN IN PLACE UNTIL TOP OF SLAB PROTECTION HAS BEEN INSTALLED AS PER NOTE #6.

* SEE ALSO CSA A23.1-09/A23.2-09 CLAUSES 7.4.1.5 AND 7.4.2 FOR ADDITIONAL INFORMATION WITH RESPECT TO COLD WEATHER CONCRETING AND CURING.

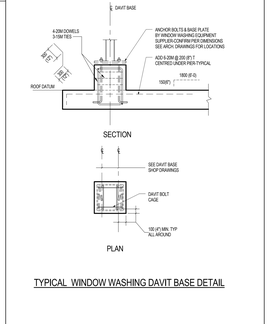
FLAT SLAB WITH DROP PANELS T-C02A



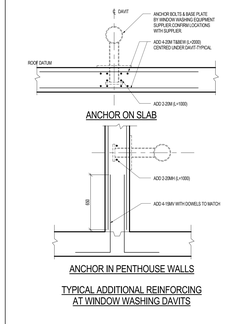
DETAILS OF NON LOAD-BEARING MASONRY WALLS AT CONCRETE SLAB AND WALL — T-C29



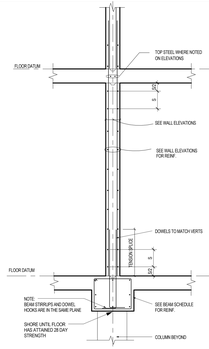
TYPICAL WINDOW WASHING DAVIT BASE DETAIL — T-C30



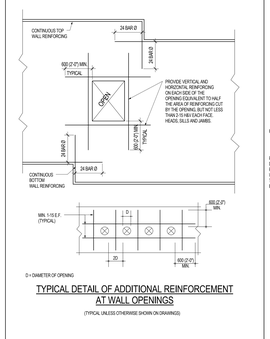
TYPICAL ADDITIONAL REINFORCING AT WINDOW WASHING DAVITS — T-C32



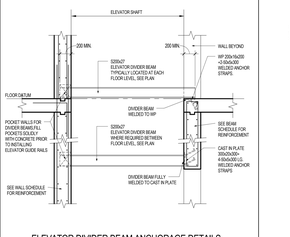
TYPICAL SHEAR WALL TO TRANSFER BEAM — T-C35



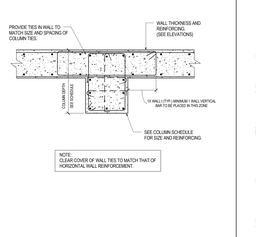
TYPICAL DETAIL OF OPENINGS IN CONCRETE WALL — T-C36



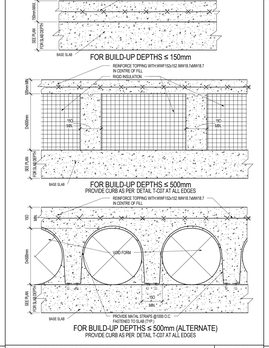
TYPICAL ELEVATOR DIVIDER BEAM DETAIL — T-C37



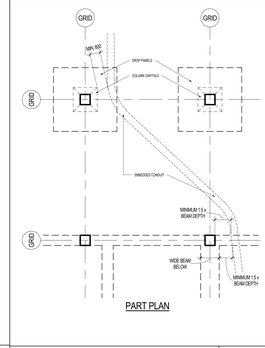
COLUMN CAST INTEGRALLY WITH SHEAR WALLS — T-C41



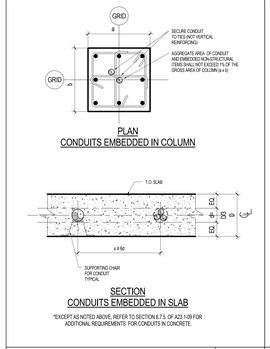
TYPICAL CONCRETE BUILD-UP DETAIL (Ds≤500mm) — T-C42



EMBEDDED CONDUITS IN SLAB — T-C43

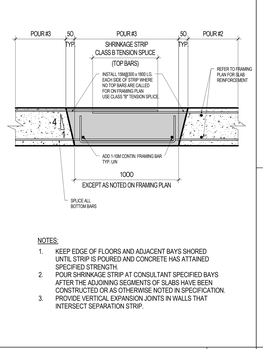


EMBEDDED CONDUITS AND PIPES — T-C44



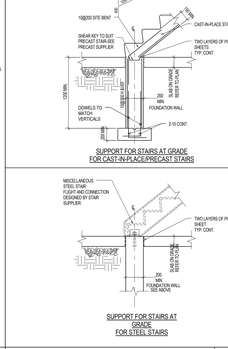
*EXCEPT AS NOTED ABOVE, REFER TO SECTION 6.7.5. OF A23.1-09 FOR ADDITIONAL REQUIREMENTS FOR CONDUITS IN CONCRETE.

SHRINKAGE STRIP DETAIL — T-C45

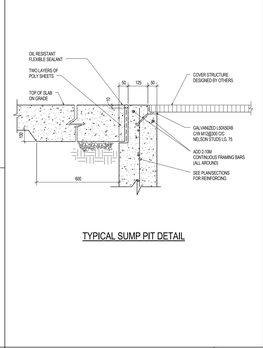


NOTES:
1. KEEP EDGE OF FLOORS AND ADJACENT BAYS SHORED UNTIL STRIP IS POURED AND CONCRETE HAS ATTAINED SPECIFIED STRENGTH.
2. POUR SHRINKAGE STRIP AT CONSULTANT SPECIFIED BAYS AFTER THE ADJOINING SEGMENTS OF SLABS HAVE BEEN CONSTRUCTED OR AS OTHERWISE NOTED IN SPECIFICATION.
3. PROVIDE VERTICAL EXPANSION JOINTS IN WALLS THAT INTERSECT SEPARATION STRIP.

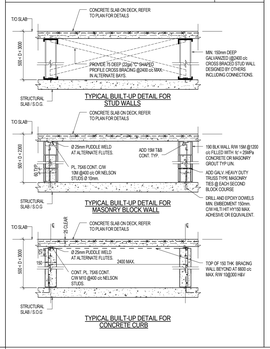
SUPPORT FOR EXTERIOR STAIRS AT GRADE — T-C50



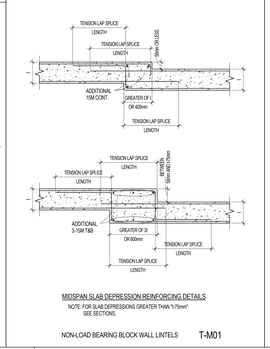
TYPICAL SUMP PIT DETAIL — T-C51



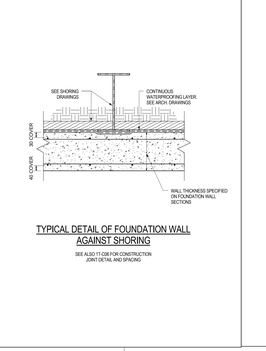
BUILT-UP FLOOR DETAILS - CONCRETE ON DECK (FILL DEPTH (D) > 500mm) — T-C52


CONCRETE SLAB ON DECK. REFER TO PLAN FOR DETAILS
T.O.SLAB
MIN. 150mm DEEP CONCRETE FILL OVER METAL DECK SLAB CROSS BRACED STUD WALL DESIGNED BY OTHERS INCLUDING CONNECTIONS
PROVIDE ½ DEEP CONCRETE SHAPES PROFILE CROSS BRACING @2400 c/c MAX.- ALTERNATE BAYS.
300 +D+ 2000
STRUCTURAL SLAB / S.O.G
TYPICAL BUILT-UP DETAIL FOR STUD WALLS
CONCRETE SLAB ON DECK. REFER TO PLAN FOR DETAILS
T.O.SLAB
Ø 25mm PUDDLE HELD AT ALTERNATE FLUTES.
ADD 15M T&B CONT. TYP.
300 +D+ 2000
PL 75X6 CONT. C/W 10M @400 c/c OR NELSON STUDS @ 50mm
DOUBLE WALL R/W 15M @1200 c/c FILLED WITH 'A' + 25MPa CONCRETE OR MASONRY GROUT TYP c/c
ADD GALV. HEAVY DUTY TRUSS TYPE MASONRY WALL REINFORCING BLOCK COURSE
DRILL AND EPOXY DOWELS MIN. EMBEDMENT 100mm C/W HILTI HIT HY150 MAX. ADHESIVE OR EQUIVALENT
STRUCTURAL SLAB / S.O.G
TYPICAL BUILT-UP DETAIL FOR MASONRY BLOCK WALL
CONCRETE SLAB ON DECK. REFER TO PLAN FOR DETAILS
T.O.SLAB
Ø 25mm PUDDLE WELD AT ALTERNATE FLUTES.
2400 MAX.
TOP OF 150 THK. BRACING WALL BETWEEN 4" BEED c/c MAX. R/W 10@300 HEV
300 +D+ 2000
CONT. PL 75X6 CONT. C/W M/T @400 c/c NELSON STUDS
STRUCTURAL SLAB / S.O.G
TYPICAL BUILT-UP DETAIL FOR CONCRETE CURB

MIDSPAN SLAB DEPRESSION REINFORCING DETAILS — T-C53

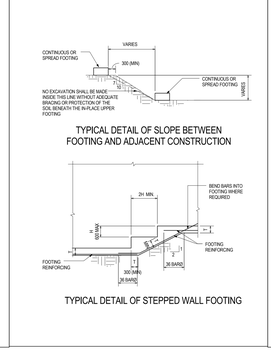


TYPICAL FOUNDATION WALL AGAINST SHORING — T-F02

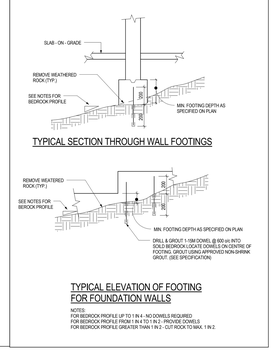


SEE ALSO T-F10A FOR CONSTRUCTION JOINT DETAIL AND SPACING

TYPICAL STEPPED FOOTING DETAILS — T-F09



TYPICAL FOOTING ON BEDROCK — T-F10



NOTES:
FOR BEDROCK PROFILE UP TO 1 IN 4 - NO DOWELS REQUIRED.
FOR BEDROCK PROFILE FROM 1 IN 4 TO 1 IN 2 - PROVIDE DOWELS
FOR BEDROCK PROFILE GREATER THAN 1 IN 2 - CUT ROCK TO MAX. 1 IN 2

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	55M
	330	415	570	740	890	1090	1280	1650

CDL: COMPRESSION DEVELOPMENT LENGTH

	UNCOATED BLACK BAR			
f'c	10M	15M	20M	25M	30M	35M	45M	55M
20MPa	230	345	460	640	840	770	940	1150
25MPa	230	345	460	640	840	770	940	1150
30MPa	230	280	345	440	535	630	770	980
35MPa	230	280	345	440	535	630	770	980
40MPa	230	280	340	440	535	630	770	980
> 40 MPa	SEE MINIMUM VALUES IN NOTA ABOVE							

NOTES:
1. DOWELED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES)
b. MULTIPLY BY 1.2 (THREE BAR BUNDLES)
c. MULTIPLY BY 1.33 (FOUR BAR BUNDLES)

HEL: STANDARD HOOK TENSION EMBEDMENT LENGTHS

	UNCOATED BLACK BAR					
f'c	10M	15M	20M	25M	30M	35M
20MPa	260	360	440	570	700	840
25MPa	230	320	390	510	620	720
30MPa	210	290	360	470	580	690
35MPa	200	280	330	430	510	610
40MPa	190	260	310	400	480	570
45MPa	170	240	300	380	450	540
50MPa	160	230	280	360	430	510
55MPa	160	220	270	340	410	490

NOTES:
1. EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN 3 BAR DIAMETER)
b. MULTIPLY BY 1.2 (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 30MPa LIGHTWEIGHT CONCRETE)
b. MULTIPLY BY 1.3 (FOR LOW DENSITY CONCRETE)
3. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES) AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 (FOR 30MA LOW 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 FOLLOW
TLS - TENSION LAP SPLICE
TDL - TENSION DEVELOPMENT LENGTH

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

TLS: TENSION LAP SPLICE LENGTH (CLASS B)

	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
f'c	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	820	480	880	670	1270	830	1720	1320	2040	1560	2430	1970
25MPa	540	430	780	600	950	740	1320	1180	1820	1400	2170	1660
30MPa	510	390	720	550	870	670	1400	1080	1660	1280	1980	1500
35MPa	470	360	660	510	810	625	1300	1000	1540	1190	1840	1420
40MPa	440	340	620	480	760	590	1210	940	1440	1110	1720	1330
45MPa	410	320	580	450	710	550	1140	880	1350	1050	1620	1250
50MPa	390	300	550	430	680	520	1090	840	1290	990	1540	1190
55MPa	360	280	520	400	640	500	1020	790	1220	940	1470	1130
60MPa	350	300	510	390	620	480	990	770	1180	910	1450	1090
65MPa	330	300	490	380	590	460	950	740	1130	870	1350	1040
> 65 MPa	SEE MINIMUM VALUES IN NOTA ABOVE											

TDL: TENSION DEVELOPMENT LENGTH

	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
f'c	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	490	360	670	520	830	630	1020	1000	1200	1210	1670	1440
25MPa	430	320	600	470	740	570	1140	910	1340	1080	1860	1290
30MPa	390	300	550	430	670	520	1060	830	1250	990	1530	1190
35MPa	360	280	510	400	630	490	980	770	1150	910	1420	1090
40MPa	340	300	480	370	590	450	940	720	1110	880	1330	1020
45MPa	320	300	450	350	560	430	890	690	1050	810	1250	960
50MPa	300	300	430	330	530	400	840	650	990	770	1190	910
55MPa	300	300	410	320	510	390	810	620	960	730	1130	870
60MPa	300	300	390	300	490	375	770	595	910	700	1080	830
65MPa	300	300	390	300	460	360	740	570	870	680	1040	800

NOTES:
1. EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN 3 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.2 (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 30MPa LIGHTWEIGHT CONCRETE)
b. MULTIPLY BY 1.3 (FOR LOW DENSITY CONCRETE)
3. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES) AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 (FOR 30MA LOW 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	55M
	490	680	630	1080	1290	1520	1940	2400

CDL: COMPRESSION DEVELOPMENT LENGTH

	UNCOATED BLACK BAR			
f'c	10M	15M	20M	25M	30M	35M	45M	55M
20MPa	230	345	460	640	840	770	940	1150
25MPa	230	345	460	640	840	770	940	1150
30MPa	230	280	345	440	535	630	770	980
35MPa	230	280	345	440	535	630	770	980
40MPa	230	280	340	440	535	630	770	980
> 40 MPa	SEE MINIMUM VALUES IN NOTA ABOVE							

NOTES:
1. DOWELED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES)
b. MULTIPLY BY 1.2 (THREE BAR BUNDLES)
c. MULTIPLY BY 1.33 (FOUR BAR BUNDLES)

HEL: STANDARD HOOK TENSION EMBEDMENT LENGTHS

	UNCOATED BLACK BAR					
f'c	10M	15M	20M	25M	30M	35M
20MPa	260	360	440	570	700	840
25MPa	230	320	390	510	620	720
30MPa	210	290	360	470	580	690
35MPa	200	280	330	430	510	610
40MPa	190	260	310	400	480	570
45MPa	170	240	300	380	450	540
50MPa	160	230	280	360	430	510
55MPa	160	220	270	340	410	490

NOTES:
1. EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN 3 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.2 (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 30MPa LIGHTWEIGHT CONCRETE)
b. MULTIPLY BY 1.3 (FOR LOW DENSITY CONCRETE)
3. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES) AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 (FOR 30MA LOW 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 FOLLOW
TLS - TENSION LAP SPLICE
TDL - TENSION DEVELOPMENT LENGTH

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

TLS: TENSION LAP SPLICE LENGTH (CLASS B)

	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
f'c	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	820	480	880	670	1270	830	1720	1320	2040	1560	2430	1970
25MPa	540	430	780	600	950	740	1320	1180	1820	1400	2170	1660
30MPa	510	390	720	550	870	670	1400	1080	1660	1280	1980	1500
35MPa	470	360	660	510	810	625	1300	1000	1540	1190	1840	1420
40MPa	440	340	620	480	760	590	1210	940	1440	1110	1720	1330
45MPa	410	320	580	450	710	550	1140	880	1350	1050	1620	1250
50MPa	390	300	550	430	680	520	1090	840	1290	990	1540	1190
55MPa	360	280	520	400	640	500	1020	790	1220	940	1470	1130
60MPa	350	300	510	390	620	480	990	770	1180	910	1450	1090
65MPa	330	300	490	380	590	460	950	740	1130	870	1350	1040
> 65 MPa	SEE MINIMUM VALUES IN NOTA ABOVE											

TDL: TENSION DEVELOPMENT LENGTH

	UNCOATED BLACK BAR											
	10M		15M		20M		25M		30M		35M	
f'c	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom
20MPa	490	360	670	520	830	630	1020	1000	1200	1210	1670	1440
25MPa	430	320	600	470	740	570	1140	910	1340	1080	1860	1290
30MPa	390	300	550	430	670	520	1060	830	1250	990	1530	1190
35MPa	360	280	510	400	630	490	980	770	1150	910	1420	1090
40MPa	340	300	480	370	590	450	940	720	1110	880	1330	1020
45MPa	320	300	450	350	560	430	890	690	1050	810	1250	960
50MPa	300	300	430	330	530	400	840	650	990	770	1190	910
55MPa	300	300	410	320	510	390	810	620	960	730	1130	870
60MPa	300	300	390	300	490	375	770	595	910	700	1080	830
65MPa	300	300	390	300	460	360	740	570	870	680	1040	800

NOTES:
1. EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED:
a. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN 3 BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
b. MULTIPLY BY 1.2 (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 30MPa LIGHTWEIGHT CONCRETE)
b. MULTIPLY BY 1.3 (FOR LOW DENSITY CONCRETE)
3. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED
a. MULTIPLY BY 1.1 (TWO BAR BUNDLES) AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES
a. MULTIPLY BY 1.33 (FOR 30MA LOW DENSITY CONCRETE)
b