STRIPPING NOTES

1. THE DESIGN AND FIELD REVIEW OF FORMWORK, SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR. RESHORING DRAWINGS SHALL BE SUBMITTED TO RJC FOR THE EFFECT ON THE BASE BUILDING STRUCTURE ONLY.
2. NO COLUMN OR WALL FORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 10 MPa FOR ARCHITECTURAL CONCRETE OR 8 MPa FOR OTHER COLUMNS OR WALLS.
3. NO SLABFORMS OR BEAMFORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 17 MPa. FOR PARKING SLABS THE CONCRETE SHALL REACH 75% OF THE 28 DAY STRENGTH BEFORE STRIPPING.
4. STRENGTH OF CONCRETE FOR STRIPPING TO BE DETERMINED BY FIELD-CURED CYLINDERS. ALTERNATE METHODS, IF ACCEPTABLE TO RJC, MAY BE USED.
5. ALL SLABS, BEAMS, GIRDERS ETC. TO BE SHORED UNTIL CONCRETE REACHES DESIGN STRENGTH.
6. SOME MULTI LEVEL OR HANGER ASSEMBLIES REQUIRE FULL SHORING FOR A NUMBER OF LEVELS. SEE STRUCTURAL DRAWINGS FOR SPECIAL SHORING REQUIREMENTS.

CONCRETE CONSTRUCTION TOLERANCES

(TOLERANCES AS PER CAN/CSA-A23.1 CLAUSE 10, EXCEPT AS NOTED BELOW.)

CLOSER TOLERANCES SHALL BE MAINTAINED WHERE ARCHITECTURAL DETAILS OR OTHERS REQUIRE.

WHERE ANY DEVIATION OCCURS, AND IT IS ACCEPTABLE TO THE ENGINEER AND ARCHITECT, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF OTHER BUILDING ELEMENTS TO ACCOMMODATE SUCH DEVIATION. COSTS FOR REMEDIAL WORK FOR DEVIATIONS NOT ACCEPTED SHALL BE BOURNE BY THE CONTRACTOR.

1. VARIATION FROM THE PLUMB.
    - A. IN THE LINES AND SURFACES OF COLUMNS, PIERS, WALLS AND IN ARRISES: 0.25% OF HEIGHT (1 IN 400), MAXIMUM 40 mm OVER THE ENTIRE HEIGHT OF THE STRUCTURE.

      ONLY ONE CURVATURE ALLOWED PER 3000 mm.

      THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM A PLUMB LINE.

      ALL MEASUREMENTS SHALL BE TO THE SAME SIDE OF THE PLUMB LINE.
    - B. UNLESS SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS - THE TOLERANCES FOR EXPOSED CORNER COLUMNS, CONTROL-JOINTS GROOVES, AND OTHER CONSPICUOUS LINES SHALL BE: (SEE ALSO ELEVATOR SHOP DRAWINGS ETC.)

      0.125% OF HEIGHT (1 IN 800), MAXIMUM 20 mm.

      ONLY ONE CURVATURE ALLOWED PER 6000 mm.

      MAXIMUM VARIATION IN WINDOW BAYS 0.2% OF OPENING.
2. VARIATION FROM THE LEVEL OR FROM THE GRADES OR CAMBERS INDICATED ON THE DRAWINGS:
    - A. UNLESS SPECIFIED ELSEWHERE, FLOOR FINISHES SHALL BE CLASS A "INSTITUTIONAL AND COMMERCIAL FLOOR" ± 8 mm PER 3000 mm.

      ONLY ONE CURVATURE ALLOWED IN 3000 mm.

      TOLERANCES GIVEN ARE MAXIMUM DISTANCE FROM SPECIFIED LEVELS.

      CLOSER TOLERANCES MAY BE REQUIRED TO GIVE THE QUALITY OF FINISH FLOOR SURFACES CALLED FOR ELSEWHERE IN THE CONTRACT DOCUMENTS.
3. LOCATION OF COLUMNS AND WALLS: AS FOR COLUMNS IN CAN/CSA-A23.1.
4. VARIATION IN CROSS-SECTIONAL DIMENSIONS OF COLUMNS AND BEAMS AND IN THE THICKNESS OF SLABS AND WALLS: AS IN CAN/CSA-A23.1.

   ONLY ONE CURVATURE ALLOWED PER 3000 mm.
5. FOOTINGS:
    - A. VARIATION IN DIMENSIONS IN PLAN:

      MINUS ------------------------------------ 10 mm

      PLUS ------------------------------------ 50 mm
    - B. MISPLACEMENT OR ECCENTRICITY:

      TWO (2) PERCENT OF THE FOOTING WIDTH IN THE DIRECTION OF MISPLACEMENT BUT NOT MORE THAN --------------- 50 mm
    - C. REDUCTION IN THICKNESS:

      MINUS ---------------------- 5% OF SPECIFIED THICKNESS
6. THE ABOVE REQUIREMENTS DO NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY OF MEETING MORE RIGID REQUIREMENTS SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS OR AS REQUIRED BY EQUIPMENT SHOP DRAWINGS OR SPECIFICATIONS SUCH AS THOSE FOR ELEVATORS ETC.

CONCRETE REINFORCING

1. REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS:

A.	CAN/CSA-G30.18R	- GRADE 400 MPa - 10M AND LARGER (U.N.O.)
B.	CSA STANDARD G30.5	- GRADE 400 MPa - WELDED WIRE MESH
C.	CAN/CSA-G30.18W	- GRADE 400 MPa - ALL REINFORCING THAT WILL BE WELDED OR IS PART OF THE SEISMIC RESISTING ELEMENTS: REINFORCING FOR SHEAR WALLS, HEADERS AND ZONES (INCLUDING ZONE TIES AND HEADER TIES/STIRRUPS) AND MOMENT FRAME COLUMNS AND BEAMS (INCLUDING COLUMN TIES AND BEAM STIRRUPS).
D.	CSA STANDARD G279	- PRESTRESSING STRANDS
E.	EPOXY REINFORCING	- ASTM A775M AND ASTM D3963

   (NOTE: G30.18W MAY BE SUBSTITUTED FOR G30.18R)

2. UNLESS OTHERWISE NOTED CONCRETE COVER TO REINFORCEMENT SHALL BE:
    - A. FOR FIRE RATINGS

		FIRE RATINGS	
		0-2 HRS	3 HRS
i) BEAMS, GIRDERS, COLUMNS, (TO TIES OR STIRRUPS)		40	40
ii) SLABS AND SLAB BANDS (NON-PARKING), ZONE TIES, NON RETAINING WALLS.		25 (30M=30)	35
iii) SLABS AND SLAB BANDS: (PARKING WITH MEMBRANE)	TOP BARS	40	40
	BOT. BARS	30	35
iv) RETAINING WALLS:	INSIDE FACE	25	35
	GROUND OR EARTH SIDE	40	40

   B. CONCRETE CAST AGAINST EARTH OR GROUND ------ 75

   NOTES:

   LARGEST COVER REQUIRED GOVERNS.

   SEE ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS FOR AREAS WHICH MAY REQUIRE 3 HOUR RATINGS.

   SEE STRUCTURAL DRAWINGS FOR AREAS CLASSIFIED AS (C) or (D) ABOVE FOR WEATHER EXPOSURE.

3. DESIGNATION OF REINFORCING BARS:
    - A. BARS SHOWN THUS —— —— —— IN BOTTOM OF BEAMS AND SLABS OR IN FAR FACE OF WALL.

      BARS SHOWN THUS ———————— IN TOP OF BEAMS AND SLABS OR IN NEAR FACE OF WALL.

B.	STRAIGHT BARS:	E.G. 6-10M4200 MEANS 6-10M BARS 4200 LONG. E.G. 15M3800 + 15M3200 ALT. @ 300 MEANS 1-15M3800 BAR THEN 1-15M3200 BAR SPACED 300 AWAY
	BENT BARS:	E.G. 13-A20M4000 MEANS 13-20M BARS 4000 H.1.E. 180°. E.G. 3-C25M3000 MEANS 3-25M BARS 3000 LONG H.1.E. 90°.

4. DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL OF THE RJC.
5. SUPPORT REINFORCING WITH CHAIRS, ACCESSORIES, OR REINFORCING BARS AS REQUIRED. BARS USED AS SUPPORT BARS SHALL BE CONSIDERED AS ACCESSORIES.
6. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN CONCRETE PROTECTION AS SPECIFIED. ALL SUPPORTS AND BARS MUST BE TIED TOGETHER TO MAINTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.

   TEMPERATURE BARS MAY BE DROPPED AND USED TO SUPPORT THE MAIN REBAR ON ONE WAY SLABS. FOR TWO WAY SLABS, DROPPED BARS USED TO SUPPORT THE MAIN TWO WAY REINFORCING STEEL SHALL BE IN ADDITION TO THE REINFORCING SHOWN ON PLAN.
7. IN SUSPENDED PARKING SLABS:
    - A. BAR SUPPORT CHAIRS SHALL BE PLASTIC, PLASTIC COATED, OR PRECAST CONCRETE BLOCKS EQUAL IN QUALITY TO THE CONCRETE SPECIFIED FOR THE STRUCTURE.
8. TESTING OF REINFORCING STEEL SHALL CONFORM TO THE SPECIFICATIONS.

CONCRETE NOTES

1. CEMENT SHALL BE PORTLAND CEMENT TYPE 10 (U.N.O). CONCRETE SHALL BE STONE CONCRETE WITH A UNIT WEIGHT OF 23.6 kN/m^3 (150 PCF).
2. CONCRETE PROPERTIES

ELEMENT	MIN. 28 DAY STRENGTH (MPa)	SLUMP (mm)	MAX. AGG. (mm)	EXPOSURE CLASS
PILES	25 MPa	150	40	NO REQUIREMENT
PARKING SLABS	35 MPa	70	20	C-1
SLAB ON GRADE (INTERIOR PARKING)	25 MPa	70	20	C-4
SLAB ON GRADE (INTERIOR NO PARKING)	20 MPa	70	20	NO REQUIREMENT
SLAB ON GRADE (EXTERIOR)	32 MPa	70	20	C-2
SLAB AND BEAMS	30 MPa U.N.O.	70	20	NO REQUIREMENT
FOOTINGS	25 MPa	80	40	NO REQUIREMENT
PERIMETER FOUNDATION WALLS	25 MPa	80	20	NO REQUIREMENT
CORE WALLS	30 MPa	80	20	NO REQUIREMENT
OTHER WALLS	25 MPa	80	20	NO REQUIREMENT
COLUMNS	30/40 MPa SEE SCHEDULE	80	20	NO REQUIREMENT

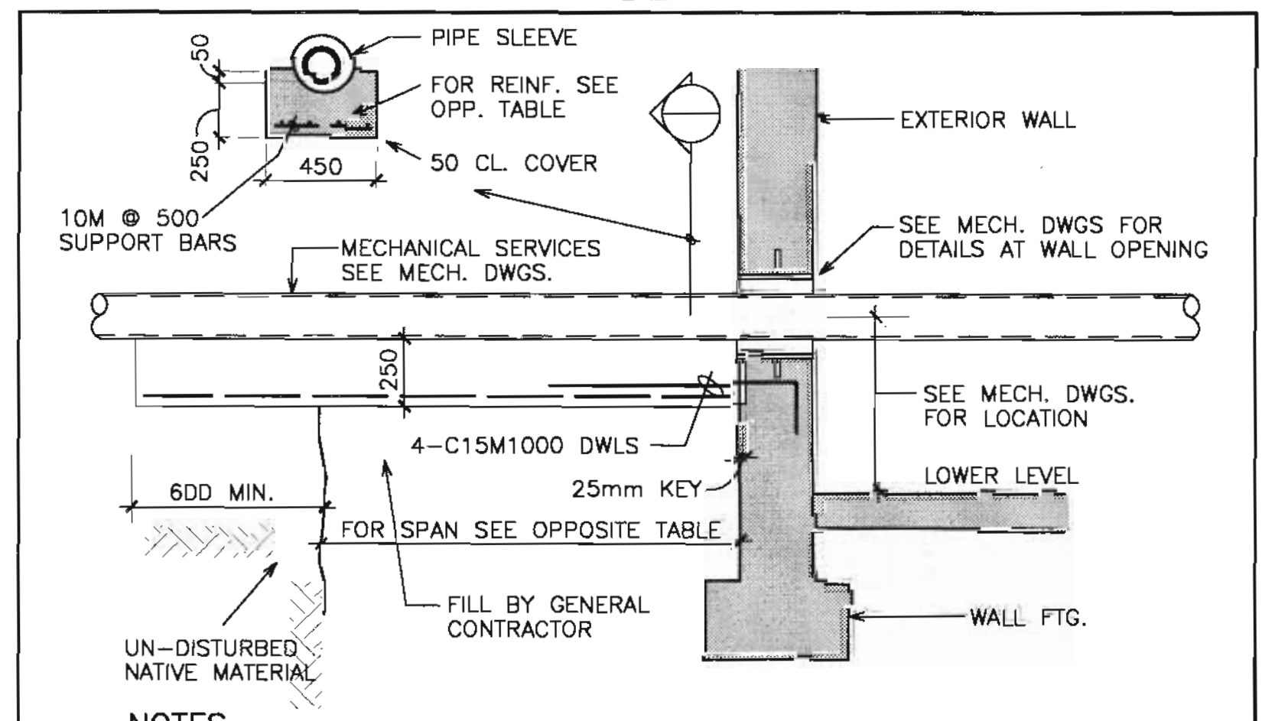
* CORROSION INHIBITOR "DAREX" BY GRACE OR APPROVED EQUAL. 10L/m^3 MIN. AS PER MANUFACTURER'S SPECIFICATIONS IN SHADED AREAS. SEE DRAWING S1.2

NOTES:

- PUMP MIX SLUMPS ALSO AS ABOVE.
- WATER CEMENT RATIOS AND AIR CONTENTS FOR EXPOSURE CLASSES AND AGGREGATE SIZES AS TABLES 10, 11, 12, AND 14 CAN/CSA-A23.1.
- SLUMP TOLERANCES: 20 mm FOR SLUMPS LESS THAN 80 mm, OTHERWISE 30 mm.
- AGGREGATE SIZES SHOWN ARE MAXIMUMS. SMALLER SIZES MAY BE USED (UNLESS NOTED OTHERWISE).
- LOWER SLUMPS MAY BE USED SUBJECT TO APPROVAL BY R.J.C.
- MIX DESIGNS SHALL STATE THE ELEMENT FOR WHICH THEY ARE INTENDED.

3. SUSPENDED PARKING SLABS REQUIRE 3 DAYS OF WET CURING AS PER CAN/CSA-S413. CURING COMPOUNDS SHALL NOT BE USED ON SUSPENDED PARKING SLABS.
4. ALL BOTTOM EDGES OF EXPOSED SLABS AND BEAMS, AND EXPOSED COLUMN AND WALL EDGES TO BE BEVELLED 20 mm X 20 mm. ALL TOP EDGES OF EXPOSED SLABS, BEAMS, UPSTANDS AND STAIRS TO BE TOOLED UNLESS NOTED OTHERWISE. SEE ALSO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. NO CALCIUM CHLORIDE, IN ANY FORM, IS PERMITTED IN ANY CONCRETE MIX, WITHOUT THE WRITTEN PERMISSION OF READ JONES CHRISTOFFERSEN.
6. CURING AND PROTECTION OF CONCRETE FOR HOT, COLD OR DRY WEATHER AS PER CAN/CSA-A23.1 - CHAPTER 21, EXCEPT FOR COLD WEATHER, SEE ALSO "COLD WEATHER REQUIREMENTS" ON STRUCTURAL DRAWINGS.

EXTERIOR PIPE SUPPORT DETAIL



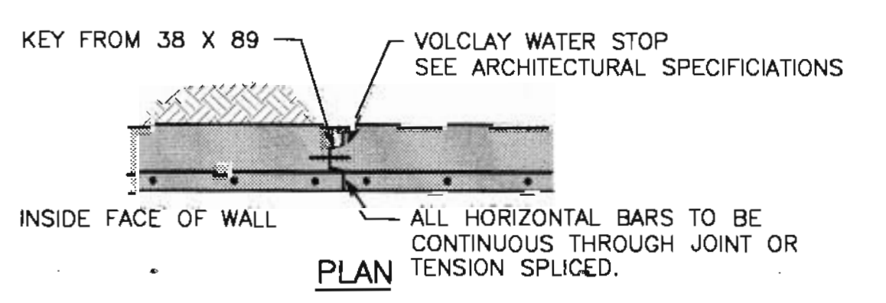
NOTES

1. MECHANICAL CONTRACTOR SHALL SET PIPE SLEEVES WHERE REQ'D & SHALL CO-OPERATE WITH GENERAL CONTRACTOR TO LOCATE CHECK IN FOUNDATION WALL TO SUIT PIPE BRIDGE SUPPORT AS DETAILED.
2. THIS DETAIL APPLIES TO ALL SERVICE PIPING PASSING THROUGH FOUNDATION WALLS BELOW GRADE, INCLUDING SEWER LINES, WATER MAINS, GAS LINES ETC.

SPANS	
UP TO 2400	4-15M
2425 TO 2850	4-20M
2875 TO 3150	4-25M

WALL CONSTRUCTION JOINT

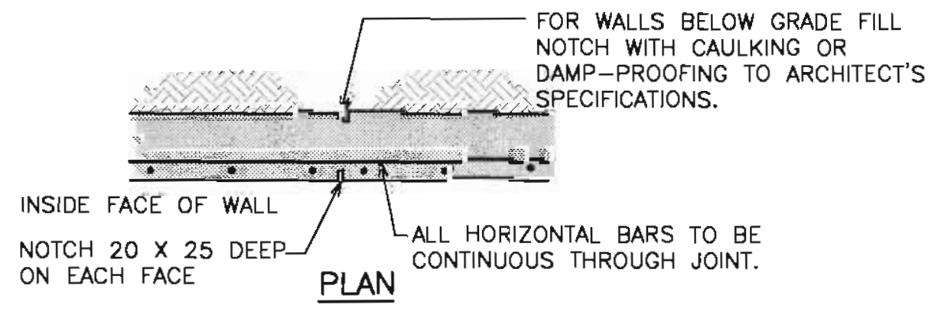
(CONSTRUCTION JOINT CAN REPLACE CONTROL JOINT)



WALL CONTROL JOINT

UNLESS NOTED OTHERWISE FOR EXTERIOR WALLS BELOW GRADE AND EXTERIOR WALLS EXPOSED TO WEATHER ABOVE GRADE.

SPACE AT 6000 CENTERS MAXIMUM UNLESS OTHERWISE NOTED ON PLAN.



CONCRETE COLD WEATHER REQUIREMENTS

(SEE ALSO CAN/CSA-A23.1, CLAUSE 21, EXCEPT THE FOLLOWING MINIMUM REQUIREMENTS MUST ALSO BE MET)

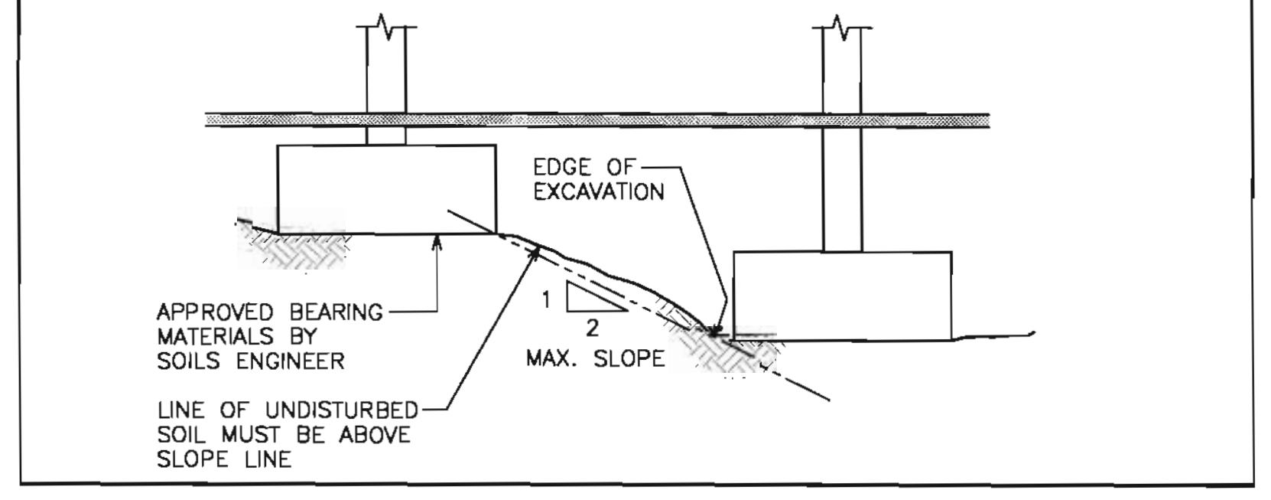
1. FORECASTED AIR TEMPERATURE NOT BELOW 2°C
    - A. IF CONCRETE TEMPERATURE DROPS BELOW 5°C AT POINT OF POURING, THE MIXING WATER SHALL BE HEATED TO MAINTAIN A MINIMUM CONCRETE TEMPERATURE OF 10°C.
    - B. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WHICH IS AT A TEMPERATURE LESS THAN 5°C.
    - C. CONTRACTOR SHALL BE PREPARED TO COVER SLAB IF UNEXPECTED DROP IN AIR TEMPERATURE SHOULD OCCUR.
    - D. CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C FOR AT LEAST 7 DAYS OR UNTIL THE CONCRETE REACHES 70% OF SPECIFIED STRENGTH.
2. FORECASTED AIR TEMPERATURE BELOW 2°C BUT NOT BELOW -4°C

   (NOTE - FOR THESE CONDITIONS STRUCTURAL CONCRETE TOPPINGS ON METAL DECK SHALL SATISFY THE REQUIREMENTS OF 3).
    - A. FORMS AND STEEL SHALL BE FREE FROM ICE AND SNOW.
    - B. MIXING WATER SHALL BE HEATED TO GIVE A MINIMUM CONCRETE TEMPERATURE OF 10°C AT POINT OF POUR.
    - C. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WHICH IS AT A TEMPERATURE OF LESS THAN 5°C.
    - D. SLABS SHALL BE COVERED WITH CANVAS OR SIMILAR, KEPT A FEW INCHES CLEAR OF SURFACE.
    - E. IN WINDY WEATHER, STOREY BELOW SLAB SHALL BE ENCLOSED.
    - F. PROTECTION SHALL BE MAINTAINED FOR AT LEAST 3 DAYS.
    - G. CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C FOR AT LEAST 3 DAYS OR UNTIL THE CONCRETE REACHES 7 MPa.
3. FORECASTED AIR TEMPERATURE BELOW -4°C

   A, B, C, D, AS UNDER POINT 2.
    - E. STOREY BELOW SHALL BE ENCLOSED AND ARTIFICIAL HEAT PROVIDED. HEATING TO BE STARTED AT LEAST ONE HOUR AHEAD OF POURING AND MAINTAINED FOR A MINIMUM OF 3 DAYS AFTER.
    - F. TEMPERATURE OF THE CONCRETE AT ALL SURFACES SHALL BE KEPT AT A MINIMUM OF 20°C FOR 3 DAYS, OR 10°C FOR 7 DAYS. CONCRETE SHALL BE KEPT ABOVE FREEZING TEMPERATURES UNTIL IT REACHES 7 MPa STRENGTH.
    - G. ENCLOSURE MUST BE CONSTRUCTED SO THAT AIR CAN CIRCULATE OUTSIDE THE OUTER EDGES AND MEMBERS.

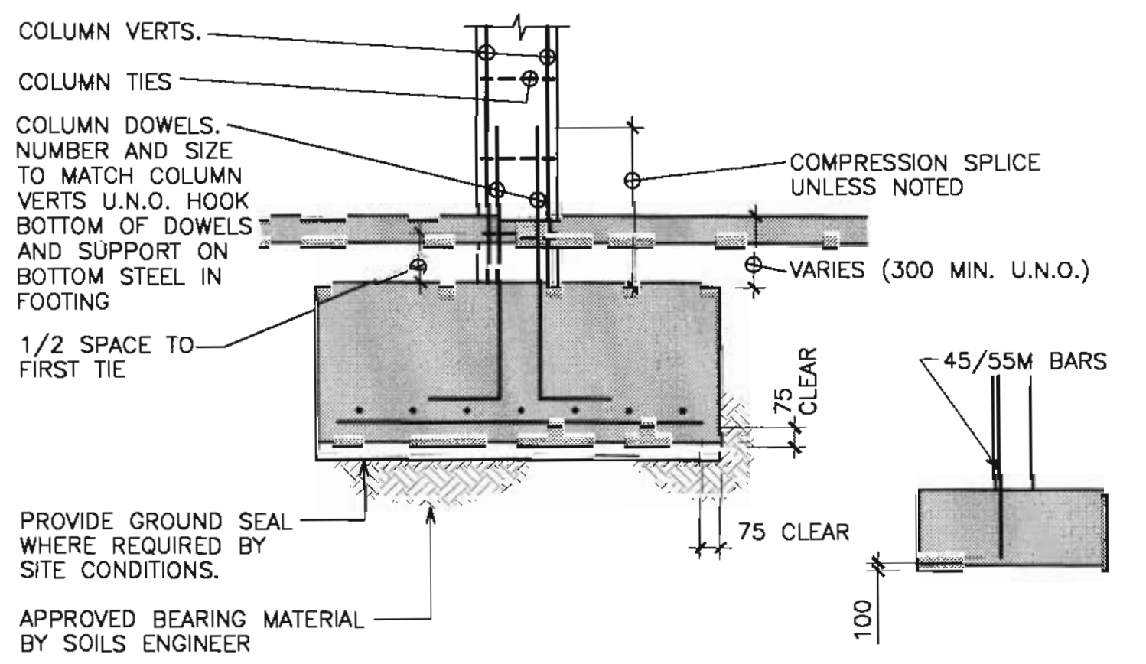
TYPICAL FOOTING ADJACENT TO EXCAVATION

EDGE OF ADJACENT EXCAVATION FOR FOOTINGS, SUMPS, BASEMENT, SITE SERVICES, ETC.

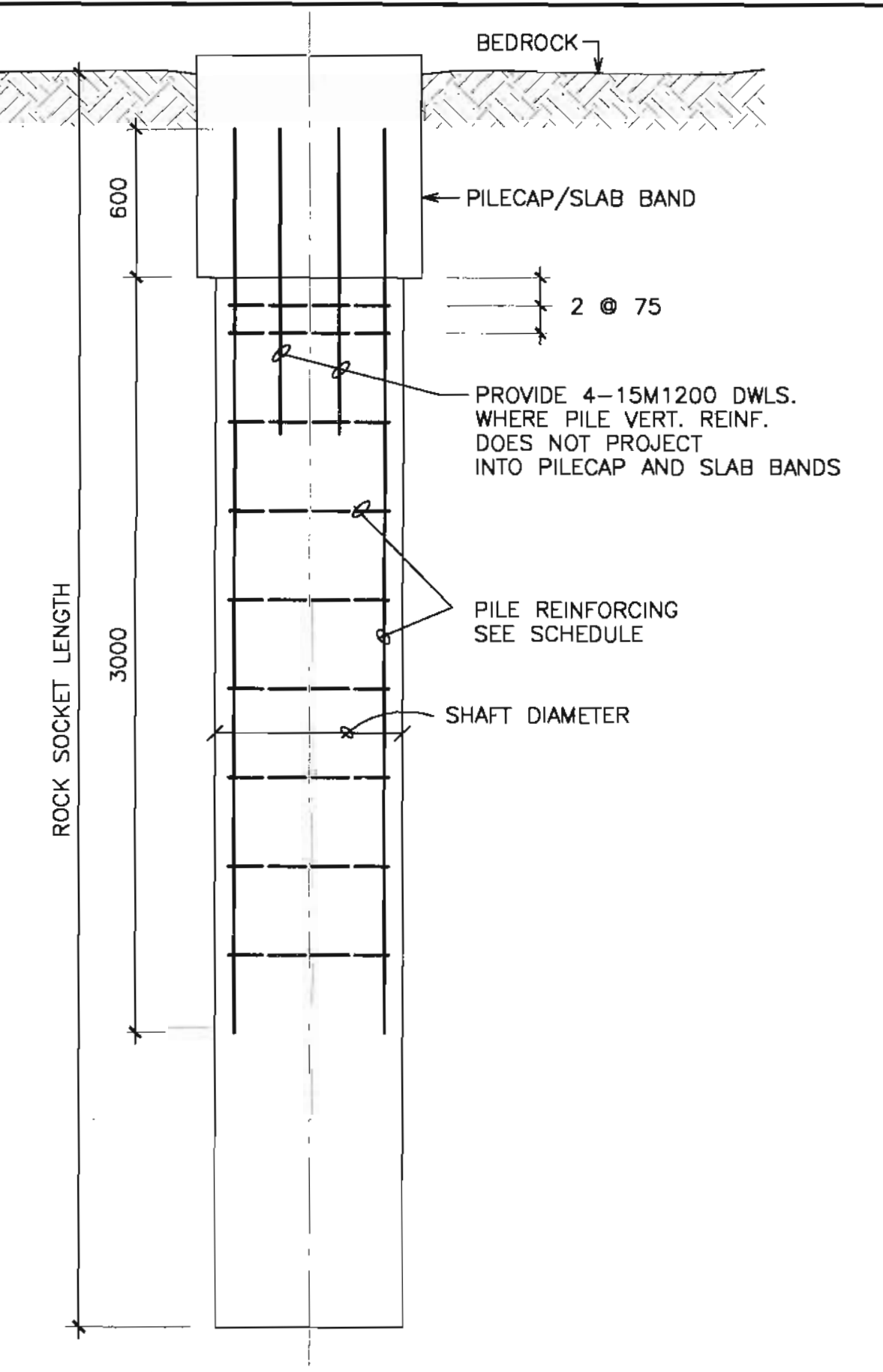


TYPICAL COLUMN FOOTING

EXCEPT AS NOTED:
- FOR SPLICE LENGTHS, SEE TABLES ON STRUCTURAL DRAWINGS.
- FOOTING SHALL BE CENTRED UNDER COLUMN U.N.O.



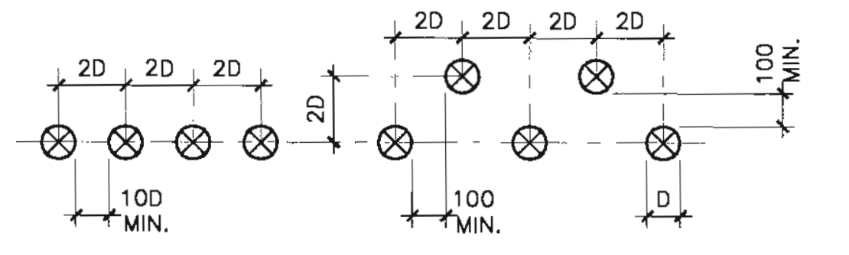
TYPICAL ROCK SOCKET PILE DETAIL



CONDUITS, PIPES AND SLEEVES EMBEDDED IN CONCRETE

EXCEPT WHEN APPROVED BY RJC, PIPES, CONDUITS, AND SLEEVES EMBEDDED IN CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH CAN/CSA-A23.1 - CLAUSE 13.5 AND THE FOLLOWING GUIDELINES:

1. GENERAL
    - A. NOT WITHSTANDING THE SATISFYING OF THESE GUIDELINES, THE CONDUIT, SLEEVES, PIPES, ETC. SHALL NOT IMPAIR THE STRUCTURAL STRENGTH AND SHALL BE MOVED IF SO DIRECTED BY RJC.
    - B. CENTRELINE SPACING TO BE NOT LESS THAN 3 DIAMETERS, UNLESS NOTED OTHERWISE
    - C. CENTRELINE SPACING BETWEEN PARALLEL CONDUIT AND REINFORCING BARS TO BE 3 DIAMETERS-UNLESS NOTED OTHERWISE
    - D. ADD REINFORCING AT POINTS OF CONGESTION AS DIRECTED BY THE STRUCTURAL ENGINEER.
    - E. NO CONDUITS, IN-SLAB DUCTS, SLEEVES, ETC., SHALL BE PLACED NEAR POST-TENSIONING ANCHORAGES
    - F. METAL CONDUIT, PIPES, ETC., SHALL NOT BE PLACED IN PARKING SLABS. NO CONDUIT, PIPES, ETC. SHALL BE PLACED IN PARKING TOPPING.
    - G. FOR TOPPINGS ON STEEL DECK, THE CONCRETE THICKNESS IS MEASURED FROM THE TOP OF THE DECK FLUTE.
2. FOR SLABS - CONDUITS IN THE PLANE OF THE SLAB:
    - A. LOCATE BETWEEN TOP AND BOTTOM REINFORCING.
    - B. MAXIMUM SIZE IN ONE LAYER TO BE NOT MORE THAN 1/4 CONCRETE THICKNESS.
    - C. THREE LAYERS OR MORE CROSSING WILL NOT BE PERMITTED.
3. FOR COLUMNS - ELECTRICAL BOXES, CONDUIT, SLEEVES OR EMBEDDED PIPES ARE NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF RJC.
4. FOR BEAMS - THE TOTAL MAXIMUM SIZE OF HORIZONTAL CONDUIT PARALLEL TO THE BEAM NOT TO EXCEED 4% OF THE AREA. NO SLEEVES THROUGH ANY BEAMS OR SLABBANDS UNLESS APPROVED IN WRITING BY RJC.
5. FOR SHEAR WALLS - ELECTRICAL BOXES, CONDUIT, SLEEVES OR EMBEDDED PIPES ARE NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF RJC.
6. FOR NON-SHEAR WALLS - CONDUIT, SLEEVES OR EMBEDDED PIPES:
    - MAXIMUM DIAMETER = 1/4 WALL THICKNESS
    - NO HORIZONTAL RUNS PERMITTED
    - VERTICAL RUNS TO HAVE MINIMUM 50 mm CONCRETE COVER AND SHALL HAVE A MINIMUM CLEAR SPACING OF 4 DIAMETERS.
7. SPACING OF SLEEVES THROUGH SLABS TO BE NOT LESS THAN THE FOLLOWING:

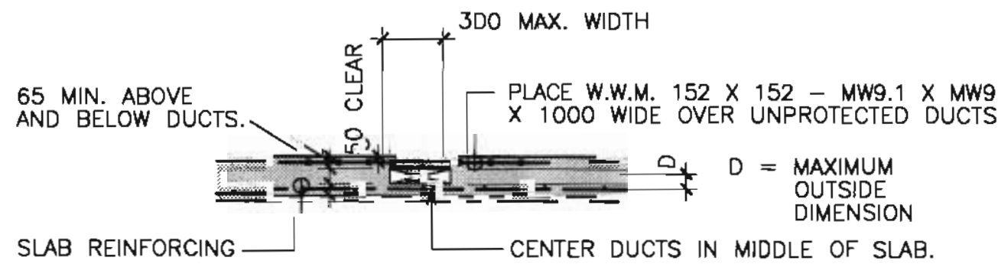


GUIDELINES FOR SLEEVES

- SLEEVES IN FLAT SLABS AND FLAT PLATES NOT TO BE LOCATED NEXT TO COLUMNS UNLESS APPROVED BY RJC IN WRITING.
- CLEAR DIMENSION FOR SLEEVES TO COLUMNS TO BE 1200 MINIMUM UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

GUIDELINES FOR INSLAB DUCTS

- MAXIMUM SIZE IN 165 SLAB = 38 mm OUTSIDE DIMENSION
- MAXIMUM SIZE IN 180 SLAB = 50 mm OUTSIDE DIMENSION
- MINIMUM CLEAR SPACING = 600 BETWEEN DUCTS.
- MINIMUM CLEAR SPACING TO COLUMNS AND WALLS = 900 mm UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.



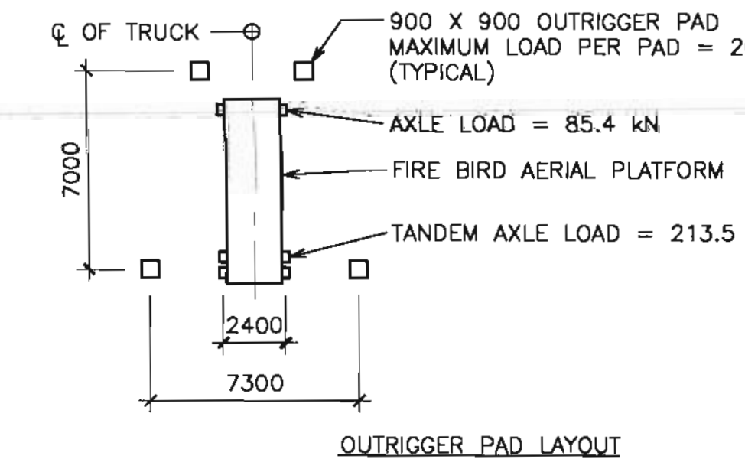
TYPICAL DETAIL AT IN-SLAB DUCTS
(NON-POST-TENSIONED SLABS)

DESIGN LOADS

1. SPECIFIED UNIFORM LOADS kN/m^2

		LIVE LOAD	SUPERIMPOSED DEAD LOAD (S.D.L.)
A.	ROOF - BASED ON A GROUND SNOW LOAD OF -	1.0	1.0
	PLUS A RAIN LOAD OF ---------	0.1	
B.	LANDSCAPED 3rd. LEVEL ------------	4.8	14.6
C.	COMMERCIAL 2nd LEVEL ------------	4.8	1.3
D.	MAIN FLOOR - INTERIOR ------------	4.8	1.3
E.	MAIN FLOOR - EXTERIOR ------------	12.0	6.3
F.	PARKING LEVELS ------------------	2.4	0.3
G.	MAIN FLOOR - MECH. ROOMS ----------	4.8	0.3
H.	MAIN FLOOR - LOADING AND GARBAGE AREAS --	12.0	0.3

NOTE: AREAS ACCESSIBLE TO FIRE TRUCKS ARE INDICATED ON THE PLANS. THESE AREAS HAVE BEEN DESIGNED FOR THE LOADING SHOWN BELOW:



OUTRIGGER PAD LAYOUT

CONTRACTORS CONSTRUCTION LOADS MUST NOT EXCEED THE ABOVE DESIGN LOADS. DESIGN LOADS MAY ONLY BE APPLIED AFTER CONCRETE REACHES ITS DESIGN STRENGTH.

SUPERIMPOSED DEAD LOADS (S.D.L.) ARE NON-STRUCTURE DEAD LOADS DUE TO ARCHITECTURAL TOPPINGS, FINISHES, PARTITIONS, ROOFING MATERIALS, PAVERS, SOIL, ETC.

STRUCTURAL DEAD LOADS (D.L.) ARE DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. THEY VARY WITH THE STRUCTURAL SYSTEM AND INCLUDE CONCRETE TOPPINGS ON STEEL DECK.

2. UNLESS NOTED OTHERWISE, SPECIFIED CONCENTRATED LOADS ARE:

A.	ROOFS -------------------------------	1.3 kN
B.	TYPICAL FLOORS ------------------------	9.0 kN
C.	FLOORS - PARKING ----------------------	11.0 kN
D.	LOADING DOCKS AND SUSPENDED ROADWAYS WITH TRUCK ACCESS (TANDEM AXLE LOADS) ------------------	250 kN

3. WIND UPLIFT LOADS ON STEEL OR WOOD ROOFS SHALL BE 1 kN/m^2 NET FACTORED UNLESS NOTED OTHERWISE.
4. SEISMIC AND WIND DESIGN:

   THE LATERAL SYSTEM FOR THIS PROJECT CONSISTS OF SHEAR WALLS AND IS DESIGNED FOR:
   $Za = 0$, $Zv = 1$
   $v = 0.05$
   $I = 1.0$
   $F = 1.0$
   $R = 2.0$

   AND THE FOLLOWING WIND LOADS: $q30 = 0.46\ kN/m^2$, $q10 = 0.40\ kN/m^2$

STRUCTURAL MOVEMENTS/TOLERANCES

THIS STRUCTURE WILL UNDERGO NORMAL TYPES OF MOVEMENT AND DEFLECTION, AND THE FOLLOWING ARE ESTIMATES FOR THIS STRUCTURE. NON-STRUCTURAL COMPONENTS MUST BE DETAILED TO ACCOMMODATE THIS. DESIGN, DETAILING, AND FIELD REVIEW OF THESE NON-STRUCTURAL ELEMENTS IS BY OTHERS, AND NOT READ JONES CHRISTOFFERSEN LTD.

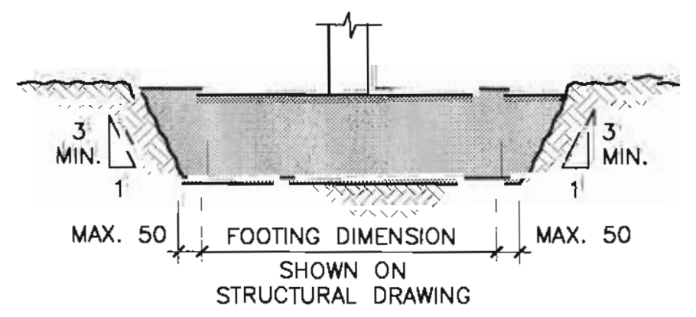
1. DIFFERENTIAL VERTICAL MOVEMENTS BETWEEN ADJACENT COLUMNS AND BETWEEN ADJACENT COLUMNS AND WALLS = APPROXIMATELY 20 mm.
2. VERTICAL DEFLECTION OF COLUMNS AND WALLS DUE TO SHRINKAGE AND CREEP = APPROXIMATELY 3.5 mm PER 3600 mm OF HEIGHT.
3. VERTICAL DEFLECTIONS OF EDGE BEAMS AND EDGES OF SLABS = APPROXIMATELY 25 mm.
   DIFFERENTIAL DEFLECTIONS OF EDGE BEAMS AND EDGES OF SLABS = ± 16 mm.
4. VERTICAL DEFLECTIONS AT INTERIOR OF FLOORS = APPROXIMATELY 25 mm.
   DIFFERENTIAL DEFLECTIONS AT INTERIOR OF FLOORS = ± 16 mm.
5. HORIZONTAL DRIFT DURING WIND AND EARTHQUAKE BETWEEN FLOORS:
    - A. ± 13 mm DRIFT WITHOUT DAMAGE TO NON-STRUCTURAL COMPONENTS.
    - B. ± 50 mm DRIFT WITHOUT COLLAPSE OF NON-STRUCTURAL COMPONENTS. .
6. MOVEMENT AT EXPANSION JOINTS:
    - A. ± 50 mm PERPENDICULAR
    - B. ± 50 mm PARALLEL
    - C. ± 25 mm VERTICAL
7. HORIZONTAL SHRINKAGE MOVEMENTS OF POST-TENSIONED SLABS = APPROXIMATELY 10 mm PER 30000 mm OF LENGTH.

   ALL STRUCTURES ARE ALSO SUBJECT TO CONSTRUCTION TOLERANCES. THIS SHOULD BE ALLOWED FOR IN DETAILING NON-STRUCTURAL COMPONENTS.

FOUNDATION NOTES - FOOTINGS

1. FOOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING ALLOWABLE (WORKING STRESS) BEARING PRESSURES IN ACCORDANCE WITH THE SOILS REPORT.

   PREPARED BY: THURBER ENGINEERING LTD.
   DATED: JUNE 2004, AND LETTER DATED NOVEMBER 2005
    - A. STRIP FOOTINGS: 800kPa
    - B. SPREAD FOOTINGS: 800kPa
2. BEARING SURFACES MUST BE APPROVED BY THE SOILS ENGINEER IMMEDIATELY BEFORE FOOTING CONCRETE IS PLACED. RJC IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
3. REFER TO SOILS REPORT FOR OTHER SPECIFIC DESIGN REQUIREMENTS FOR FOOTINGS, SOIL SLOPES, FROST PROTECTION, MINIMUM COVER, ETC.
4. UNLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS AND WALLS.
5. DOWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS.
6. PROVIDE 50 mm GROUND SEAL UNDER FOOTINGS AS REQUIRED BY SOIL CONDITIONS.
7. FOR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECT'S DRAWINGS.
8. VARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH DETAIL FOR "TYPICAL STEPPED FOOTING", SHOWN ON STRUCTURAL DRAWINGS.
9. FOOTINGS MAY HAVE TO BE LOWERED TO ACCOMMODATE MECHANICAL OR ELECTRICAL SERVICES. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ELEVATIONS OF SAME. FOOTINGS ARE NOT TO BE UNDERMINED BY EXCAVATIONS FOR SERVICES, PITS, ETC.
10. BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.
11. SUB-BASE DESIGN OF SOIL UNDER THE SLAB ON GRADE SHALL BE IN ACCORDANCE WITH THE SOIL REPORT.
12. CONCRETE PLACED UNDER WATER SHALL CONFORM TO CAN/CSA-A23.1.
13. FOOTINGS CAST DIRECTLY INTO EXCAVATIONS (WITHOUT SIDE FORMS) SHALL NOT BE LARGER THAN SHOWN BELOW:



FOUNDATION NOTES - ROCK SOCKET PILES

1. ROCK SOCKET PILES HAVE BEEN DESIGNED FOR THE FOLLOWING ALLOWABLE (WORKING STRESS) BEARING PRESSURES IN ACCORDANCE WITH THE SOILS REPORT.
2. ENSURE THAT THE REQUIREMENTS OUTLINED IN THIS REPORT ARE READ AND UNDERSTOOD PRIOR TO COMMENCING WITH PILE WORK.
3. ROCK SOCKET PILES HAVE BEEN DESIGNED ON THE BASIS OF THE FOLLOWING ALLOWABLE STRESSES:

DEPTH BELOW GRADE	SKIN FRICTION	END BEARING
0m - 1.0m	0 kPa	-
1.0m PLUS	75 kPa	1500

4. PRIOR TO PLACING CONCRETE FOR PILE FOUNDATIONS, BEARING STRATA FOR PILES SHALL BE INSPECTED BY A GEOTECHNICAL CONSULTANT TO CONFIRM BEARING STRATA. READ JONES CHRISTOFFERSEN LTD. IS NOT RESPONSIBLE FOR CONFIRMING FOUNDATION CAPACITIES OF SOILS.
5. UNLESS OTHERWISE SHOWN, CENTRE PILES UNDER COLUMNS AND WALLS.
6. ALL DOWELS SHALL BE PLACED BEFORE CONCRETE IS POURED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF ANCHOR BOLTS.
7. UNLESS OTHERWISE INDICATED, PROVIDE A MINIMUM OF 4-15M DOWELS INTO WALL ABOVE.
8. PILES SHALL BE PLACED WITH THE FOLLOWING TOLERANCES:
    - .1 NOT MORE THAN 2% OF IT'S LENGTH OUT OF PLUMB FOR VERTICAL PILES.
    - .2 NOT MORE THAN 75mm OFF CENTRE AT THE TOP.

LIST OF STRUCTURAL DRAWINGS

S0.1	GENERAL NOTES & TYPICAL DETAILS
S0.2	GENERAL NOTES & TYPICAL DETAILS
S0.3	GENERAL NOTES & TYPICAL DETAILS
S1.1	PARKING LEVEL P2 / FOUNDATION PLAN
S1.2	PARKING LEVEL P1 PLAN
S1.3	MAIN FLOOR FRAMING PLAN
S1.4	SECOND FLOOR FRAMING PLAN
S1.5	THIRD FLOOR/ROOF FRAMING PLAN
S2.1	PARKADE SECTIONS & DETAILS
S2.2	PARKADE SECTIONS & DETAILS
S2.3	MAIN FLOOR SECTIONS & DETAILS
S2.4	SECOND FLOOR SECTIONS & DETAILS
S2.5	THIRD FLOOR SECTIONS & DETAILS
S2.6	THIRD FLOOR SECTIONS & DETAILS
S4.1	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.2	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.3	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.4	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.5	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.6	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.7	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.8	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S4.9	MISCELLANEOUS STEEL SECTIONS AND DETAILS
S6.1	COLUMN SCHEDULE

GENERAL

1. SECTION MARK SHOWN THUS $\frac{4}{3}$ MEANS SECTION #4 ON DRAWING S-3.
2. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC., TO BE ENCASED IN CONCRETE.
3. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, ETC.
4. THE GENERAL CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION.
5. CONCRETE WORK
   SHALL CONFORM TO CAN/CSA-A23.1, A23.2, A23.3 AND REFERENCED DOCUMENTS.
6. STRUCTURAL STEEL WORK
   SHALL CONFORM TO CSA STANDARD S16 AND REFERENCED DOCUMENTS.
7. FIRE RESISTANCE RATINGS
   SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRECISE LOCATION OF REQUIRED FIRE RESISTANCE RATINGS.
8. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION OF R.J.C.
9. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND LANDSCAPE DRAWINGS FOR LOCATIONS, CONFIGURATIONS, EXTENT, AND SIZES OF ALL CURBS, UPSTANDS, DOWNTURNS; AND FOR OPENINGS THROUGH FLOORS AND WALLS FOR DUCTS, CONDUIT AND PIPING. PROVIDE FOR SAME.
10. ABBREVIATIONS:

A.B. ----	ANCHOR BOLT	L.L.B.B. --	LONG LEGS BACK TO BACK
ALT. ----	ALTERNATE	L.L.H. ---	LONG LEG HORIZONTAL
ARCH. ---	ARCHITECTURAL	L.L.V. ---	LONG LEG VERTICAL
B.C.E. ---	BOTTOM CHORD EXTENSION	LS.H. ---	LONG SIDE HORIZONTAL
BOT. ----	BOTTOM	L.S.V. ---	LONG SIDE VERTICAL
CANTIL.---	CANTILEVER	L.W. ----	LONG WAY
C.I.P. ---	CAST IN PLACE	MAX. ----	MAXIMUM
C.J. ----	CONTROL JOINT	MECH. ---	MECHANICAL
CL. ----	CENTER LINE	MIN. ----	MINIMUM
CLR. ----	CLEAR	N.I.C.----	NOT IN CONTRACT
CONC. ---	CONCRETE	N.S. ----	NEAR SIDE
CONT. ---	CONTINUOUS	N.T.S. ---	NOT TO SCALE
C.P. ----	COMPLETE PENETRATION	O.C. ----	ON CENTRE
CTRS. ---	CENTRES	O/C ----	ON CENTRE
C/W ----	COMPLETE WITH	OPP. ----	OPPOSITE
DET. ----	DETAIL	O.W.S.J. --	OPEN WEB STEEL JOIST
D.L. ----	DEAD LOAD	P.P. ----	PARTIAL PENETRATION
D.O. ----	DO OVER - (DITTO)	P/T ----	POST-TENSIONING
DP. ----	DEEP (I.E. DEPTH OF BEAM)	R.D. ----	ROOF DRAIN
DWG. ----	DRAWING	RTN. ----	RETURN
DWLS. ---	DOWELS	R/W ----	REINFORCED WITH
E.E. ----	EACH END	S.D.L. ---	SUPERIMPOSED DEAD LOAD
E.F. ----	EACH FACE	SIM. ----	SIMILAR
EL. ----	ELEVATION	S.L.B.B. --	SHORT LEGS BACK TO BACK
ELEV. ---	ELEVATION	S.O.G. ---	SLAB ON GRADE
ELEC. ---	ELECTRICAL	SPEC. ---	SPECIFICATIONS
E.S. ----	EACH SIDE	STAG. ---	STAGGER
E.WAY ---	EACH WAY	STIR. ----	STIRRUP
E.W. ----	EACH WAY	S.W. ----	SHORT WAY
EXIST. ---	EXISTING	SYM. ----	SYMMETRICAL
EXT. ----	EXTERIOR	THK. ----	THICK
F.D. ----	FLOOR DRAIN	THRU ---	THROUGH
F.S. ----	FAR SIDE	T.O. ----	TOP OF
GALV. ---	GALVANIZED	T.O.C. ---	TOP OF CONCRETE
G.L. ----	GRID LINE	T.O.S. ---	TOP OF STEEL
H.1.E. ---	HOOK ONE END	TYP. ----	TYPICAL
H.2.E. ---	HOOK 2 ENDS	T & B ---	TOP AND BOTTOM
H & V --	HORIZONTAL AND VERTICAL	T & C ---	TENSION AND COMPRESSION
HORL. ---	HORIZONTAL	T & G ---	TONGUE AND GROOVE
HORZ. ---	HORIZONTAL	T.J. ----	TIE JOIST
HORIZ. ---	HORIZONTAL	T.O.S. ---	TOP OF SLAB/STEEL
INT. ----	INTERIOR	U.N.O. ---	UNLESS NOTED OTHERWISE
JT. ----	JOINT	U/S ----	UNDERSIDE
LG. ----	LONG	VERT. ---	VERTICAL
L.L. ----	LIVE LOAD	W.P. ----	WORK POINT

11. DEFINITIONS:
    - A. RJC: READ JONES CHRISTOFFERSEN OR ITS REPRESENTATIVE.
    - B. SPECIALTY STRUCTURAL ENGINEER: A STRUCTURAL ENGINEER REGISTERED AND LICENSED TO PRACTICE BY THE PROFESSIONAL ENGINEERING ASSOCIATION HAVING JURISDICTION IN THE AREA WHERE THE STRUCTURE IS TO BE BUILT AND WHO IS RESPONSIBLE FOR THE DESIGN AND FIELD REVIEW OF:
        - STRUCTURAL ELEMENTS DESIGNED BY THE CONTRACTOR OR SUBCONTRACTORS, SUCH AS OPEN WEB STEEL JOISTS, PRECAST CONCRETE, STRUCTURAL STEEL CONNECTIONS,
        - SECONDARY STRUCTURAL ELEMENTS AND NON-STRUCTURAL ELEMENTS. SEE ALSO "NON-STRUCTURAL ELEMENTS" GENERAL NOTES,
    - C. CONTINUOUS: FULL TENSION SPLICE AND EMBEDMENT.

FIELD REVIEW BY READ JONES CHRISTOFFERSEN (RJC)

1. READ JONES CHRISTOFFERSEN PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS A PERIODIC REVIEW AT THE SOLE DISCRETION OF READ JONES CHRISTOFFERSEN'S ENGINEERS IN ORDER TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY READ JONES CHRISTOFFERSEN. FIELD REVIEW BY READ JONES CHRISTOFFERSEN IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE READ JONES CHRISTOFFERSEN GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. RJC SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

   RJC WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON RJC'S DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF RJC'S ENGINEER AND IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN CONCEPT. THE REVIEW IS NOT AN APPROVAL OF THE DESIGN, DETAILS, AND DIMENSIONS INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR OR SUBCONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTOR OF HIS OR HER RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
2. PROVIDE 24 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. FIELD REVIEWS SHALL BE SCHEDULED TO BE CARRIED OUT DURING NORMAL BUSINESS HOURS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH RJC.
3. THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETE.

EXCAVATION NOTE

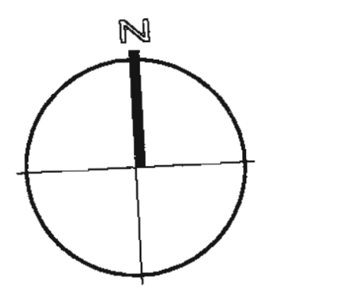
1. DESIGN AND FIELD REVIEW OF EXCAVATION, SHORING, AND BACKFILL IS NOT DONE BY READ JONES CHRISTOFFERSEN.

BKDI
ARCHITECTS
300 640-8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
Web: www.bkdi.com

seal

consultants

rjc
Read Jones Christoffersen
Consulting Engineers
Vancouver · Victoria · Nanaimo · Calgary · Edmonton · Toronto
Suite 500, 1816 Crowchild Trail NW, Calgary, AB T2M 3Y7 Canada
Office 403 283-5073 **Fax** 403 270-8402 www.rjc.ca



This drawing must not be scaled.
The contractor shall verify all levels, datums and dimensions prior to commencement of work. All errors and omissions must be reported to the Architects immediately.
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$\frac{1}{2}$
1. Detail, Section or Elevation Number
2. Sheet Number Where Detailed or Referenced

Revision No.	Date:	Description
E	APR. 25/06	ISSUED FOR CONSTRUCTION TO U/S MAIN
D	FEB. 14/06	ISSUED FOR CONCRETE TENDER
C	DEC. 2/05	ISSUED FOR SHORING AND PILING TENDER
B	NOV. 28/05	ISSUED FOR BUILDING PERMIT
A	NOV. 9/05	ISSUED FOR 90% REVIEW

client

TORODE Residential LTD.
arriva

project title

VICTORIA SCHOOL
CONDOMINIUMS
PHASE 1A

439, 11 AVE. S.E.
CALGARY, ALBERTA

drawing title

GENERAL NOTES &
TYPICAL DETAILS

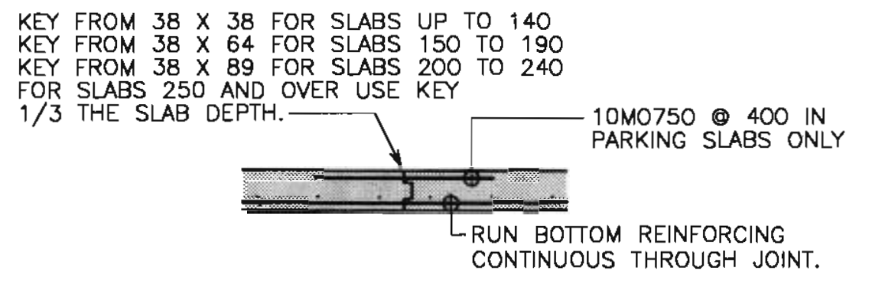
scale: AS SHOWN
drawn by: G.M.D.
checked by: J.A.C.
project no: 28168-06
date:
activity date:

re-issue no: E
sheet no: S0.1

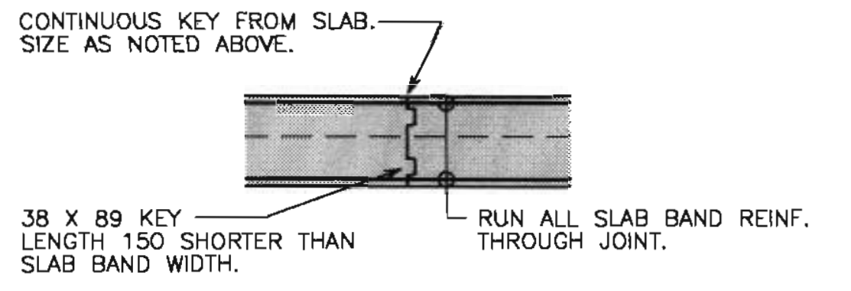
SHEET SIZE: 30 x 42

CONSTRUCTION JOINTS THROUGH SLABS, SLAB BANDS, AND BEAMS

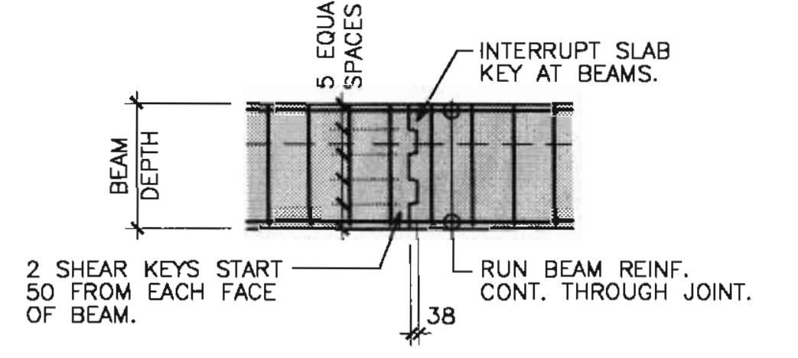
LOCATIONS TO BE APPROVED BY RJC.



THROUGH SLABS

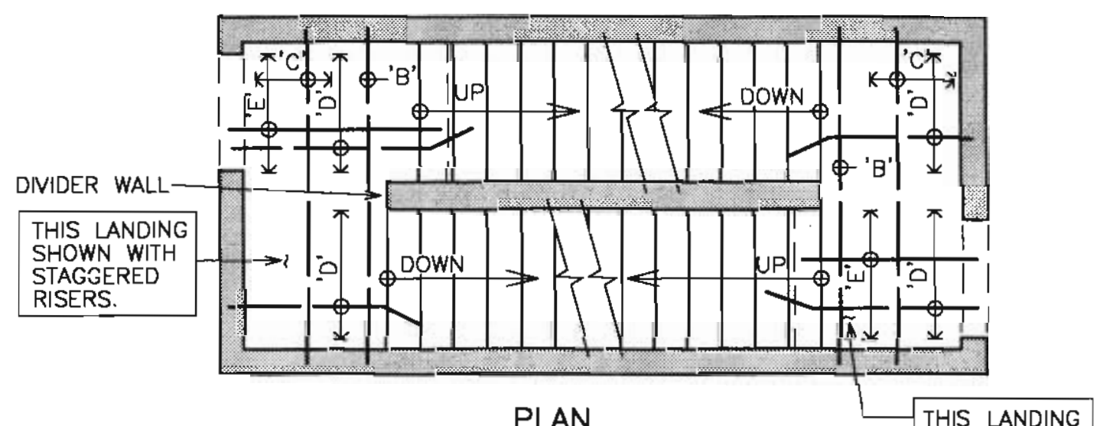


THROUGH SLAB BANDS



THROUGH BEAMS

CAST INSITU SCISSOR STAIRS



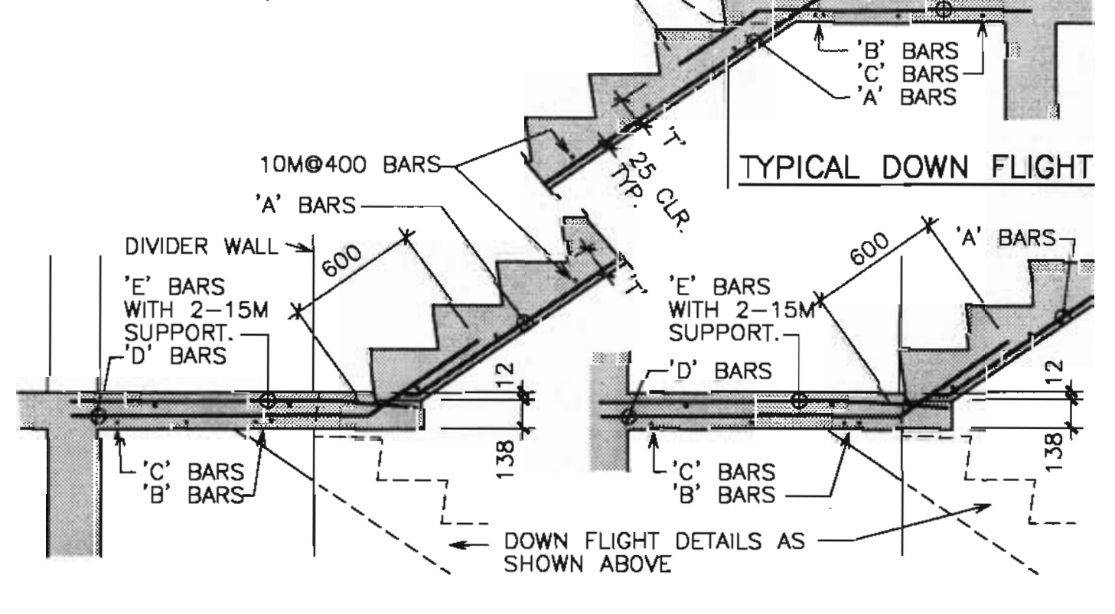
PLAN

RISERS \ BARS	'A'	'B'	'C'	'D'	'E'	'T'
UP TO 14	7–15M	3–20M	10M @ 300	5–10M	6–15M	150
15 TO 16	7–15M	3–20M	10M @ 300	5–10M	7–15M	175
17 TO 19	6–20M	4–20M	10M @ 300	5–10M	8–15M	200

SEE ARCHITECTURAL DRAWINGS FOR LAYOUT AND EXACT NUMBER OF RISERS.

DESIGN ASSUMPTIONS

FLOOR TO FLOOR HEIGHT VARIES 2550 TO 3660 (MAXIMUM).
FLIGHT WIDTH = 1100.
LIVE LOAD = 4.8 KN/m²

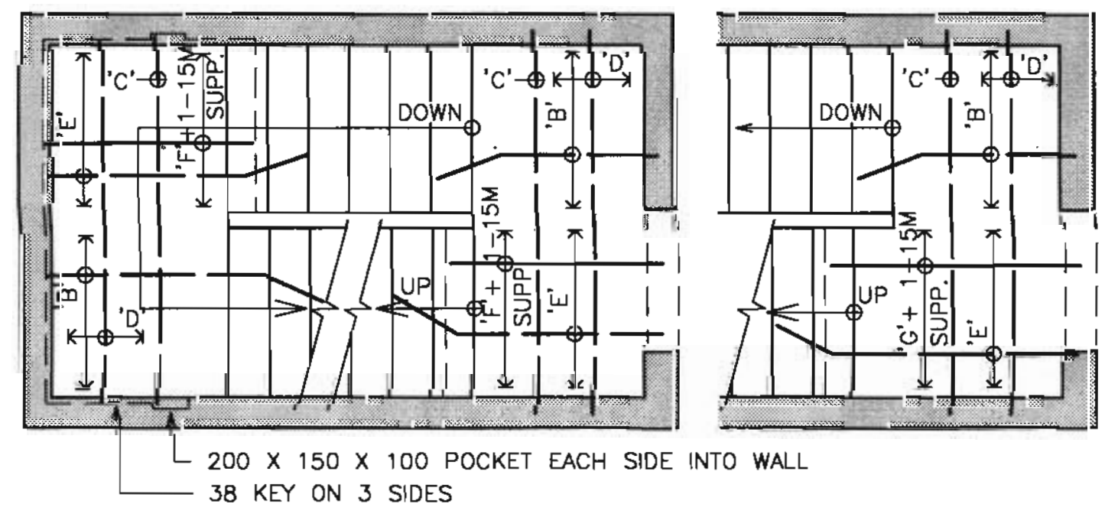


TYPICAL DOWN FLIGHT

UP FLIGHT STAGGERED RISERS

UP FLIGHT EVEN RISERS

CAST INSITU STAIRS – HALF FLIGHT AND LANDING



TYPICAL PLAN
(EVEN RISERS)

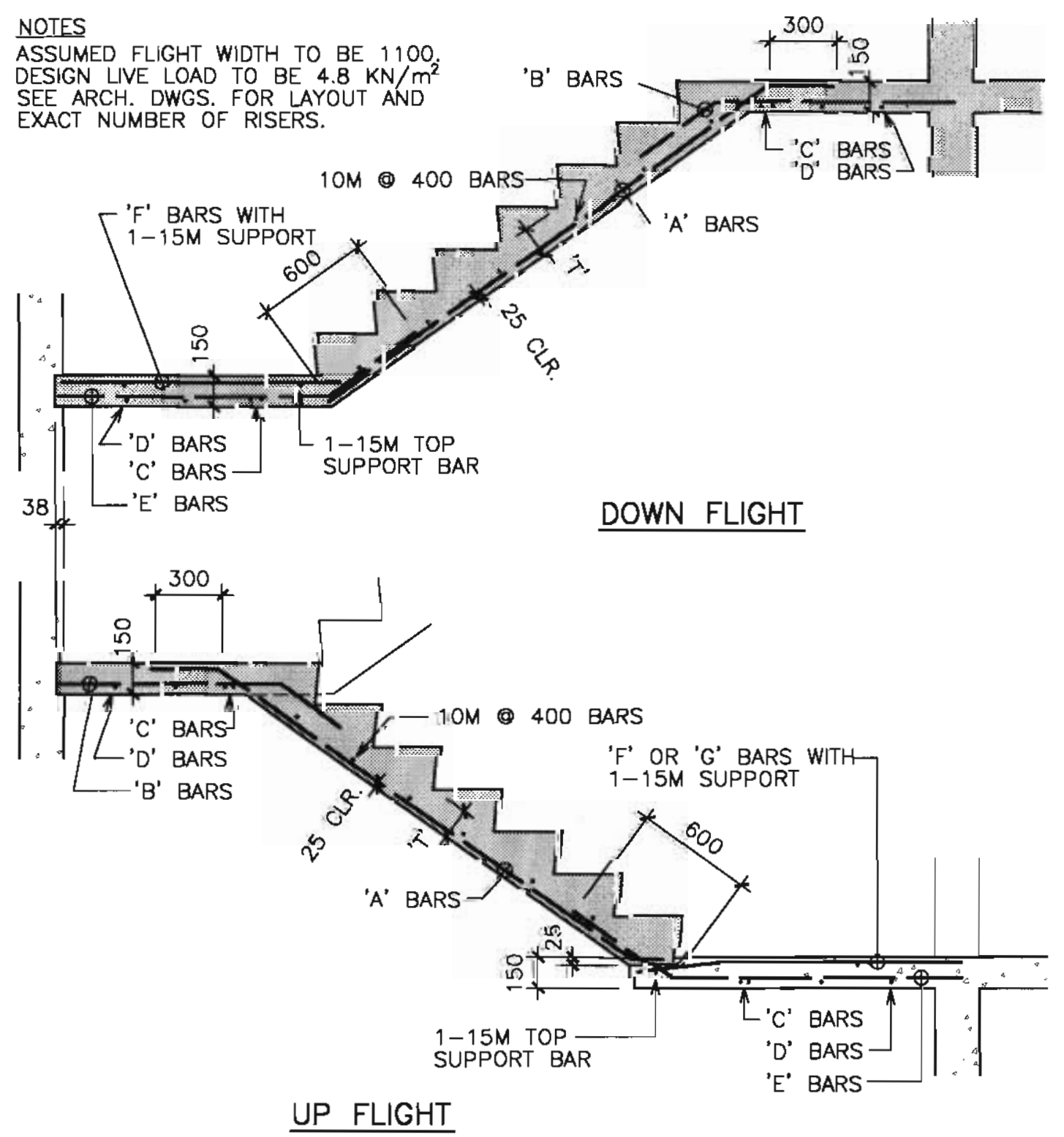
SEE ARCH. DWGS. FOR STAIR DIMS. ETC.

PART PLAN
(STAGGERED RISERS)

RISERS	'A'	'B' 'E'	'C'	'D'	'T'	'F'	'G'
7 TO 8	4–15M	5–10M	2–20M	10M @ 300	125	3–15M	4–15M
9 TO 11	5–15M	5–10M	3–20M	10M @ 300	150	4–15M	5–15M
12 TO 13	6–15M	5–10M	3–20M	10M @ 300	150	4–15M	6–15M

NOTES

ASSUMED FLIGHT WIDTH TO BE 1100.
DESIGN LIVE LOAD TO BE 4.8 KN/m²
SEE ARCH. DWGS. FOR LAYOUT AND EXACT NUMBER OF RISERS.

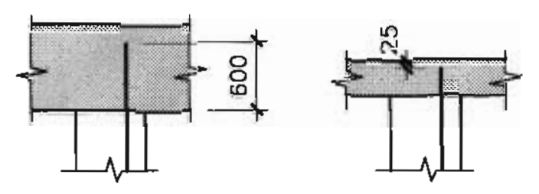


DOWN FLIGHT

UP FLIGHT

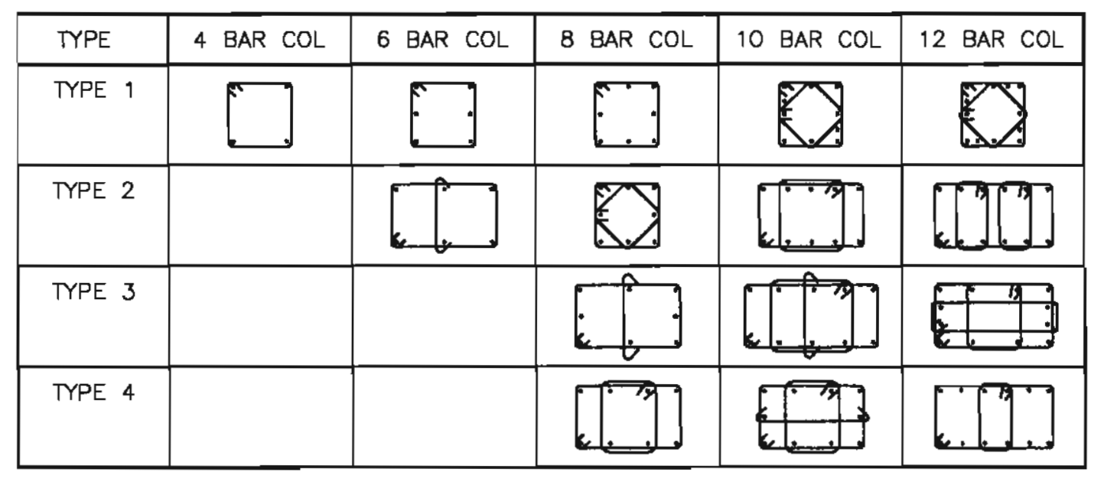
COLUMN NOTES – U.N.O.

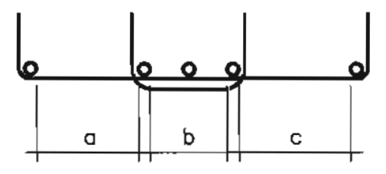
1. CONCRETE STRENGTH IN COLUMNS IS INDICATED IN COLUMN SCHEDULE.
2. TIE COLUMN CAGES TO FORMS AND SQUARE BEFORE PLACING CONCRETE.
3. CONDUITS, BOXES OR OTHER INSERTS MAY NOT BE PLACED IN COLUMNS UNLESS OTHERWISE APPROVED BY RJC.
4. UNLESS OTHERWISE NOTED ON COLUMN SCHEDULE, ALL COLUMN SPLICES SHALL BE AS STANDARD DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.
5. HOOKS ON TIES SHALL BE BENT AT LEAST 135°. MULTIPLE TIES ARRANGED AS ON STANDARD DETAILS OR COLUMN SCHEDULE.
6. UNLESS OTHERWISE NOTED, PARKADE COLUMNS SHALL BE CHAMFERED (20 X 20).
7. UNLESS OTHERWISE NOTED, ALL COLUMN SPLICES SHALL BE COMPRESSION SPLICES.
8. WHERE COLUMNS DO NOT EXTEND OVER, EXTEND VERTICAL REINFORCING 600 INTO UNDERSIDE OF BEAMS OR TO WITHIN 25 mm OF TOP OF SLABS. DO NOT BEND U.N.O.



9. UNLESS NOTED OTHERWISE, COLUMNS SHOULD BE CENTRED ON COLUMNS BELOW.
10. UNLESS NOTED OTHERWISE, COLUMNS SHALL BE CENTRED ON GRID LINES.

COLUMN TIE ARRANGEMENTS – U.N.O.





a, c = 500 MAX.
b = 300 MAX.
TYPICAL AT ALL TIES – ANY SIDE OF COLUMN.

NOTE:

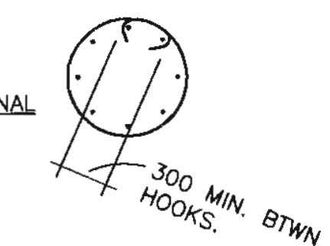
MAXIMUM CLEAR DISTANCE BETWEEN VERTICAL BARS ENCLOSED BY THE CORNER OF A TIE, AND WITHOUT AN INTERMEDIATE BAR, IS 500.

MAXIMUM ONE BAR MAY BE PLACED BETWEEN TIED BARS. MAXIMUM CLEAR DISTANCE BETWEEN TIED VERTICAL BARS FOR THIS CASE IS 300.

ALL TIES TO HAVE 135° HOOKS.

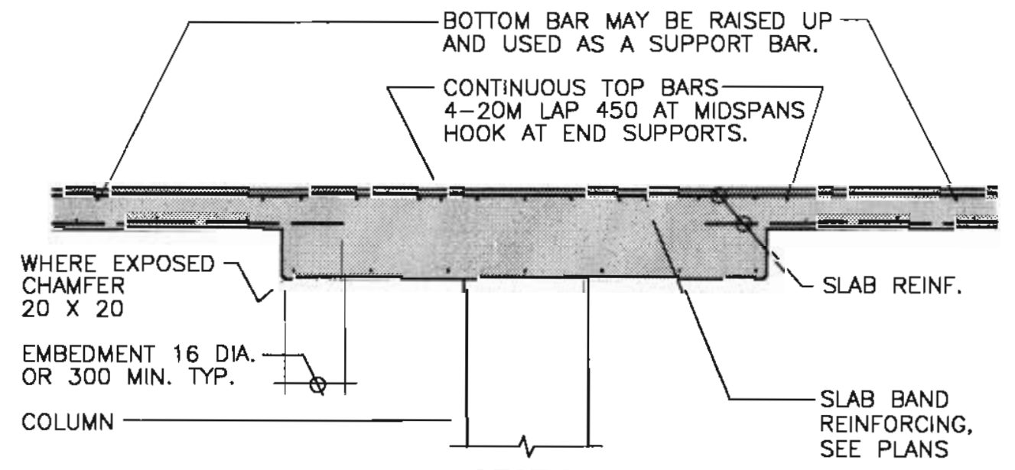
CLOSED TIES MAY ALWAYS BE SUBSTITUTED FOR CROSS–TIES.

TYPICAL ROUND OR OCTAGONAL COLUMN TIES
6 VERTICAL BARS MIN.

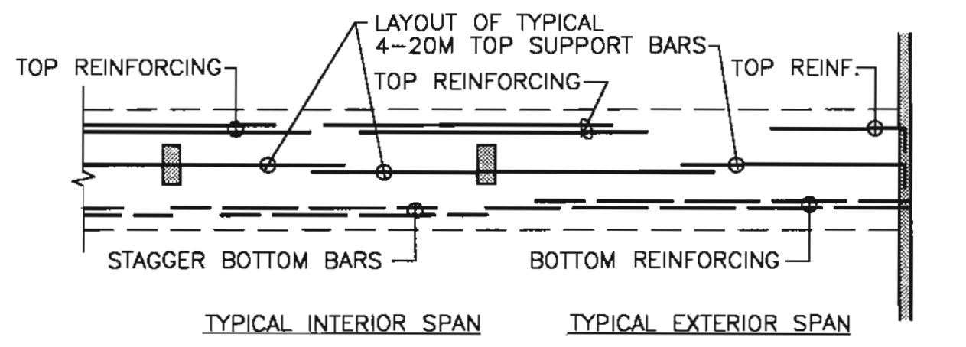


TYPICAL SLAB BAND – U.N.O.

NOTE: ALL SLAB BANDS TO HAVE 4–20M TOP CONT. LAP 450 AT MIDSPAN AND HOOK 90° AT FAR FACE OF END SUPPORT IN ADDITION TO REINFORCEMENT SHOWN ON PLAN.



SECTION

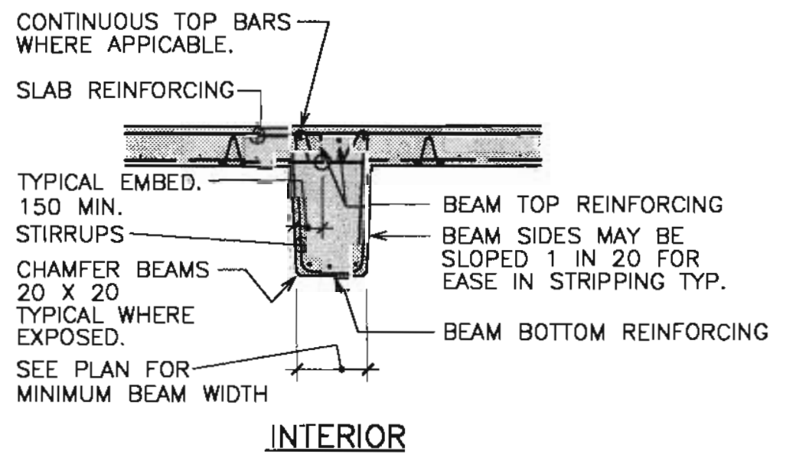


TYPICAL INTERIOR SPAN

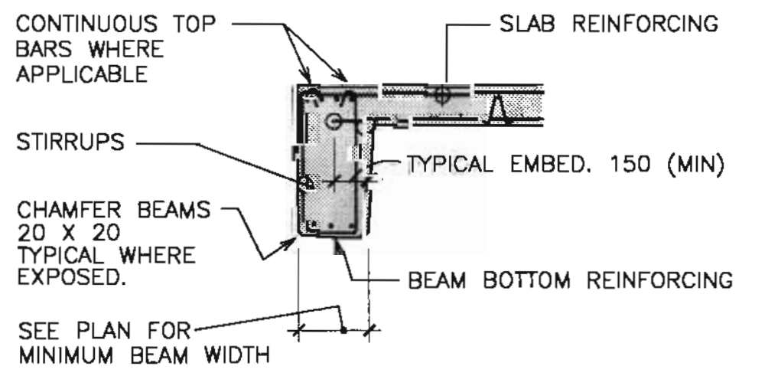
TYPICAL EXTERIOR SPAN

PLAN OF TYPICAL SLAB BAND REINFORCING

TYPICAL BEAM – U.N.O.



INTERIOR



EXTERIOR

SLAB TEMPERATURE REINFORCING

MINIMUM BOTTOM UNLESS NOTED OTHERWISE.

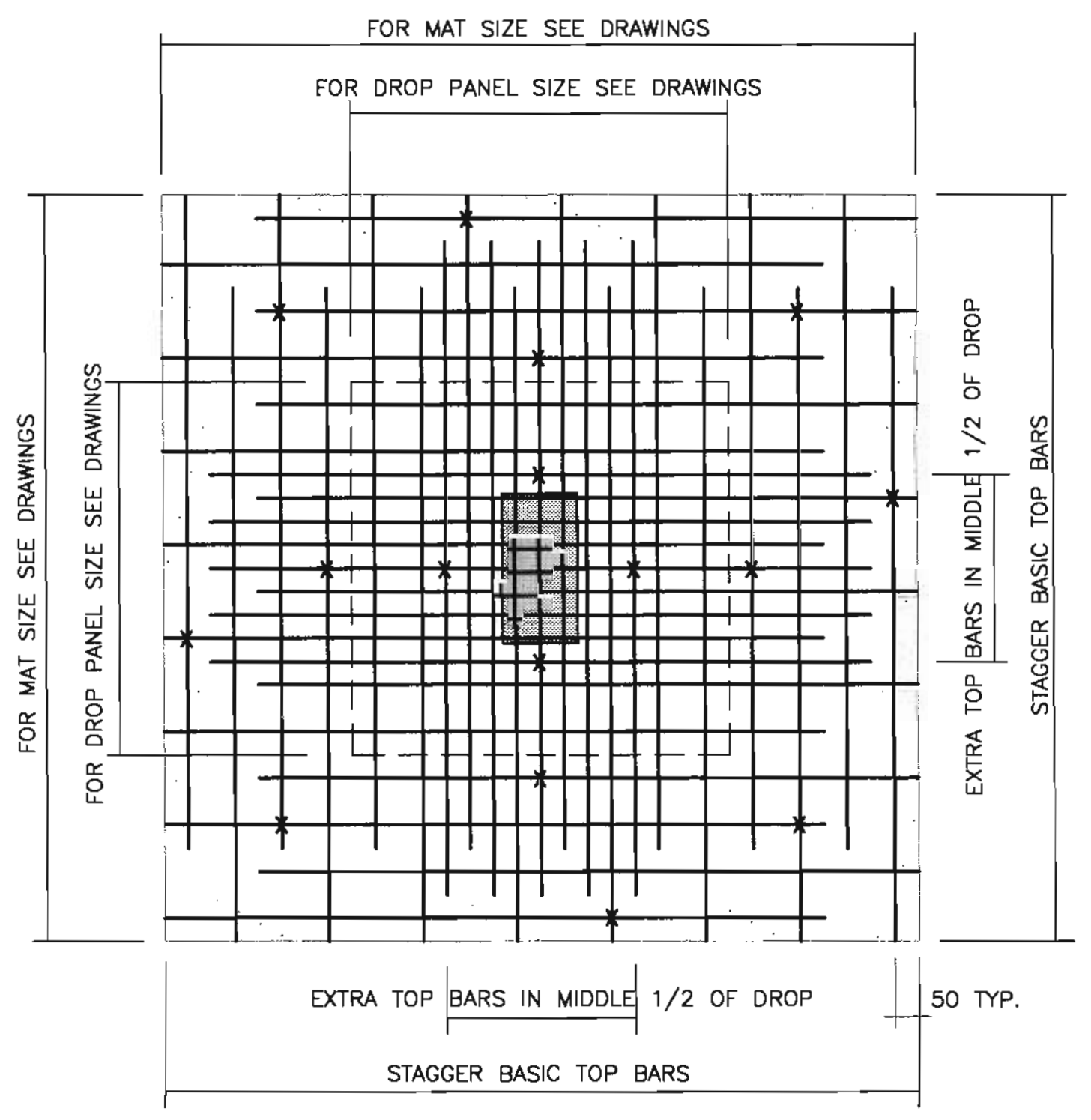
SLAB THICKNESS (mm)	TEMPERATURE REINFORCING
125	10M @ 400
140	10M @ 350
150	10M @ 325
165	10M @ 300
180	10M @ 275
190	15M @ 500
200	15M @ 475
215	15M @ 450
225	15M @ 425
250	15M @ 400
275	15M @ 350
300	15M @ 325

- FOR OTHER THICKNESSES REINFORCEMENT TO BE PROPORTIONAL TO ABOVE.
- BASED ON CAN/CSA–A23.3: 0.002 X AREA.
- 15M AT 500 MAY BE SUBSTITUTED FOR 10M @ 275

TYPICAL MAT LAYOUT WITH DROP PANELS

DO NOT STAGGER EXTRA TOP BARS, CENTER OVER COLUMNS.

'X' INDICATES POSITION AND MINIMUM NUMBER OF HIGH CHAIRS TO BE PLACED PER MAT.



TYPICAL MAT LAYOUT WITH DROP PANELS

DO NOT STAGGER EXTRA TOP BARS, CENTER OVER COLUMNS.

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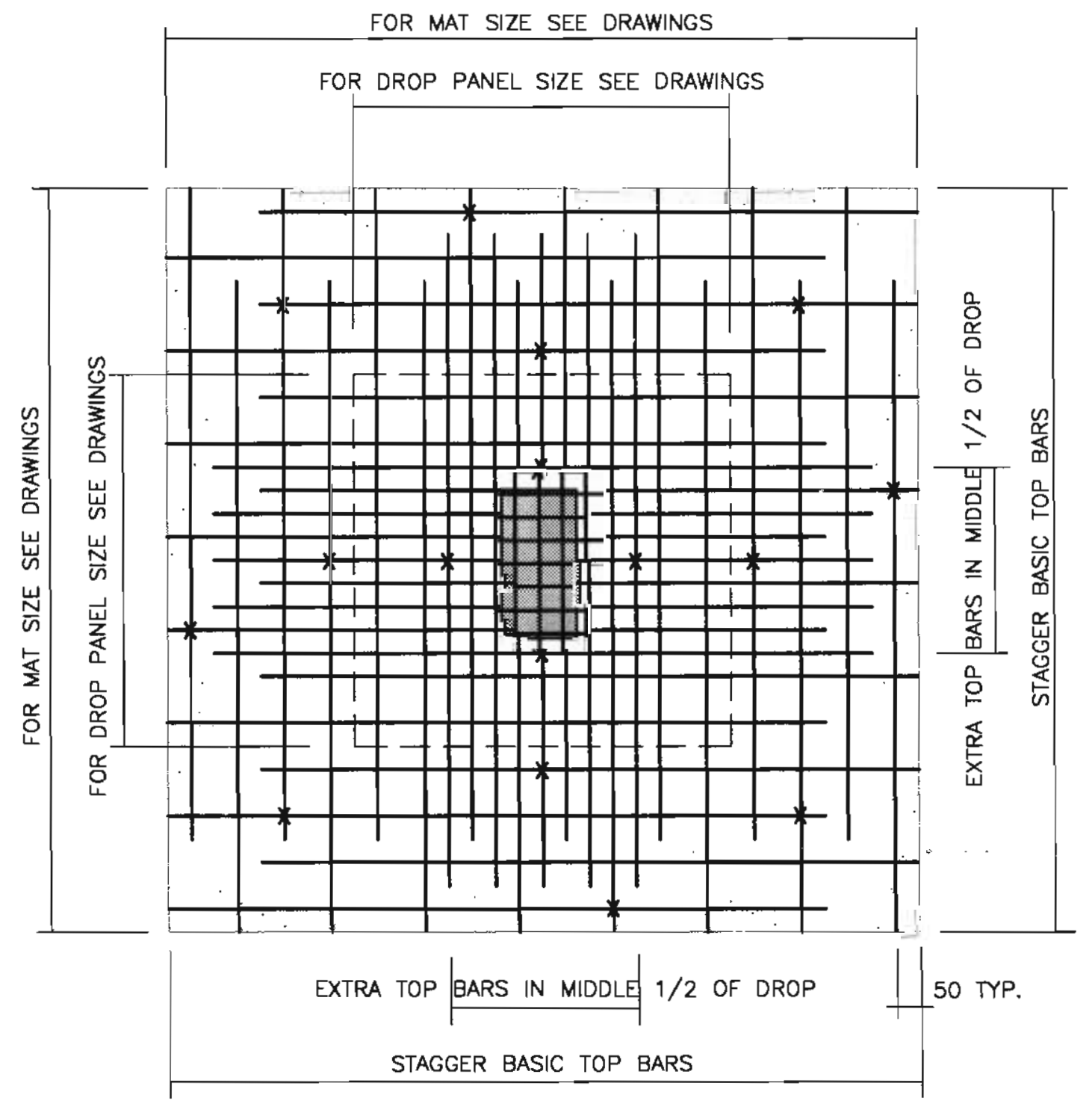
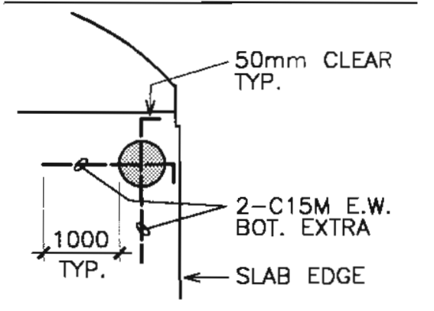
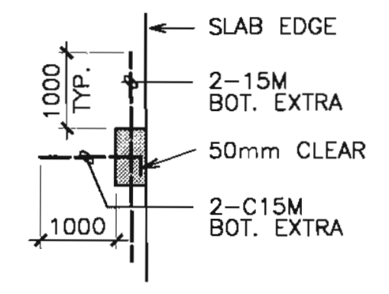


TYPICAL INTEGRITY REINFORCING DETAILS

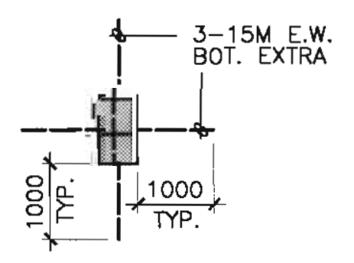
TYP. CORNER COLUMN



TYP. EDGE COLUMN



TYP. INTERIOR COLUMN



WALLS

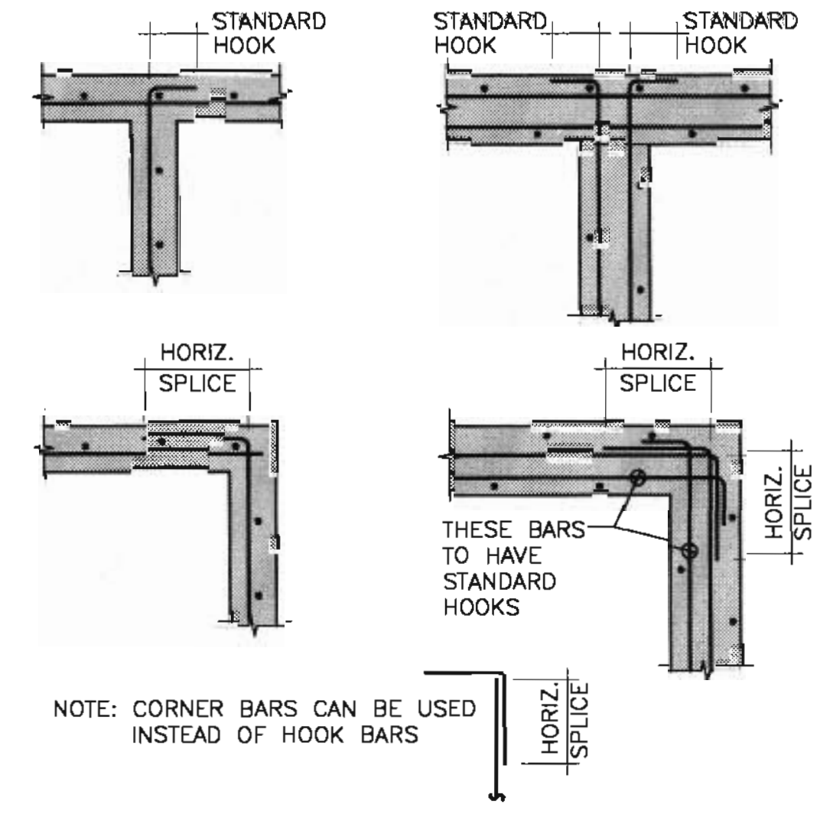
1. UNLESS OTHERWISE NOTED, WALLS SHALL BE REINFORCED AS FOLLOWS:

   150 mm 10M@450 VERT. ––––––––––– 10M@330 HORIZ.
   200 mm 10M@330 VERT. ––––––––––– 10M@250 HORIZ. OR 15M@500
   250 mm 10M@250 VERT. OR 15M@500 ––– 10M@200 HORIZ. OR 15M@400
   300 mm 10M@450 VERT. E.F. STAG. ––––– 10M@330 HORIZ. E.F. STAG.
   350 mm 10M@380 VERT. E.F. STAG. ––––– 10M@280 HORIZ. E.F. STAG.

   FOR OTHER THICKNESSES, REINFORCEMENT TO BE PROPORTIONAL TO ABOVE.

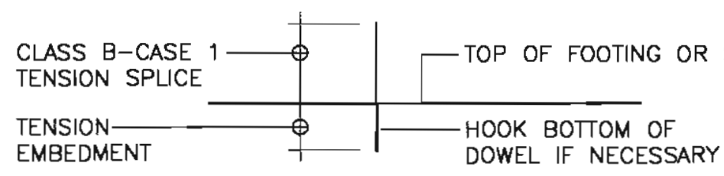
   15M @ 500 MAY BE SUBSTITUTED FOR 10M @ 330 ONLY WITH THE APPROVAL OF RJC. FOR WALLS WITH A SINGLE LAYER OF STEEL, THE WALL REINFORCING SHALL BE PLACED IN THE CENTRE OF THE WALL U.N.O.

2. ALL WALL REINFORCING SHALL BE CONTINUOUS, WITH HOOKS OR CORNER BARS USED AT ALL WALL JUNCTIONS. EXTEND HOOKS TO FAR FACE OF WALL. CORNER BARS TO BE LOCATED ON OUTSIDE FACE OR CENTRE OF WALL.
3. HORIZONTAL AND VERTICAL SPLICES SHALL BE CLASS B–CASE 1 TENSION SPLICES. U.N.O. HORIZONTAL BARS NEED NOT BE CONSIDERED TOP BARS.

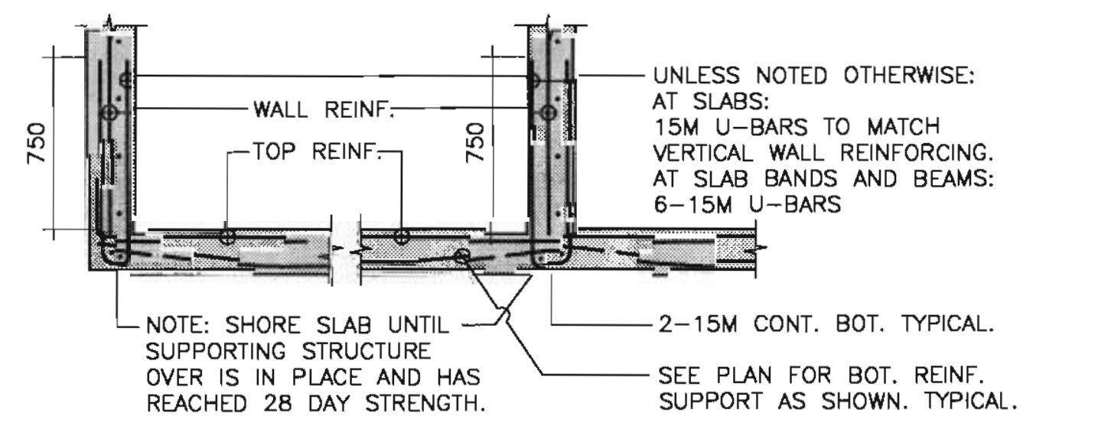


DETAILS OF HORIZONTAL REINFORCEMENT AT CORNERS
(SEE ALSO ZONE REINFORCING DETAILS)

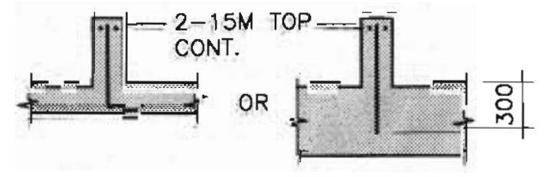
4. ENDS OF ALL WALLS SHALL HAVE 2–15M VERTICAL LAPPED 625 UNLESS OTHERWISE NOTED ON DRAWINGS.
5. ADD 2–15M PARALLEL TO ALL EDGES AND EXTENDING 625 BEYOND CORNERS AT OPENINGS IN WALLS.
6. UNLESS NOTED OTHERWISE, PROVIDE DOWELS AT BOTTOM OF WALLS (I.E. AT FOOTINGS OR WHEREVER WALL BEGINS) AS SHOWN BELOW. DOWELS TO MATCH VERTICAL STEEL.



7. UNLESS NOTED OTHERWISE, PROVIDE U–BARS AS SHOWN WHERE FLOORS ARE SUPPORTED FROM THE BOTTOM OF WALLS.



8. SEE ARCHITECTURAL DRAWINGS FOR EXTENT AND LOCATION OF CONCRETE UPSTAND WALLS, PLANTER WALLS AND CURBS. UNLESS NOTED OTHERWISE, PROVIDE REINFORCING AS GIVEN IN ITEM 1. VERTICAL BARS TO BE EMBEDDED IN MAIN STRUCTURE AS SHOWN BELOW:



9. UNLESS NOTED OTHERWISE, ALL RETAINING WALLS BELOW GRADE AND ALL EXTERIOR WALLS EXPOSED TO THE WEATHER ABOVE GRADE SHALL HAVE CONTROL JOINTS. SEE CONTROL JOINT DETAIL. CONSTRUCTION JOINT MAY REPLACE CONTROL JOINT WHERE REQUIRED. THE LOCATION OF CONTROL JOINTS IN EXPOSED CONCRETE WALLS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW.

SLAB NOTES

1. UNLESS OTHERWISE NOTED, THE MINIMUM BOTTOM REINFORCING IN BOTH DIRECTIONS IN SLABS SHALL BE AS SHOWN ON SLAB TEMPERATURE REINFORCING NOTES. THIS DOES NOT APPLY TO POST–TENSIONED SLABS IN THE DIRECTION OF POST–TENSIONING.
2. UNLESS OTHERWISE NOTED, EDGES OF ALL SLABS SHALL HAVE 2–15M BOTTOM CONTINUOUS LAPPED 625. AT RE–ENTRANT CORNER EXTEND 625 BEYOND THE CORNER.
3. ALL OPENINGS IN SLAB SHALL HAVE 2–15M BARS PARALLEL TO ALL EDGES EXTENDING 625 BEYOND CORNERS.
4. UNLESS OTHERWISE NOTED, SLAB REINFORCING SHALL NOT BE CUT AT PLUMBING OR OTHER OPENINGS. SPREAD REINFORCING AROUND OPENINGS.
5. SUPPORT SLAB BOTTOM REINFORCING ON SUFFICIENT SLAB BOLSTERS OR EQUIVALENT TO MAINTAIN CONCRETE PROTECTION AS SPECIFIED.
6. SUPPORT SLAB TOP REINFORCING ON HIGH CHAIRS AND/OR 15M SUPPORT BARS WHERE REQUIRED. ALL BARS AND CHAIRS MUST BE SECURELY TIED TOGETHER. 15M BARS USED AS SUPPORT BARS SHALL BE CONSIDERED AS ACCESSORIES.

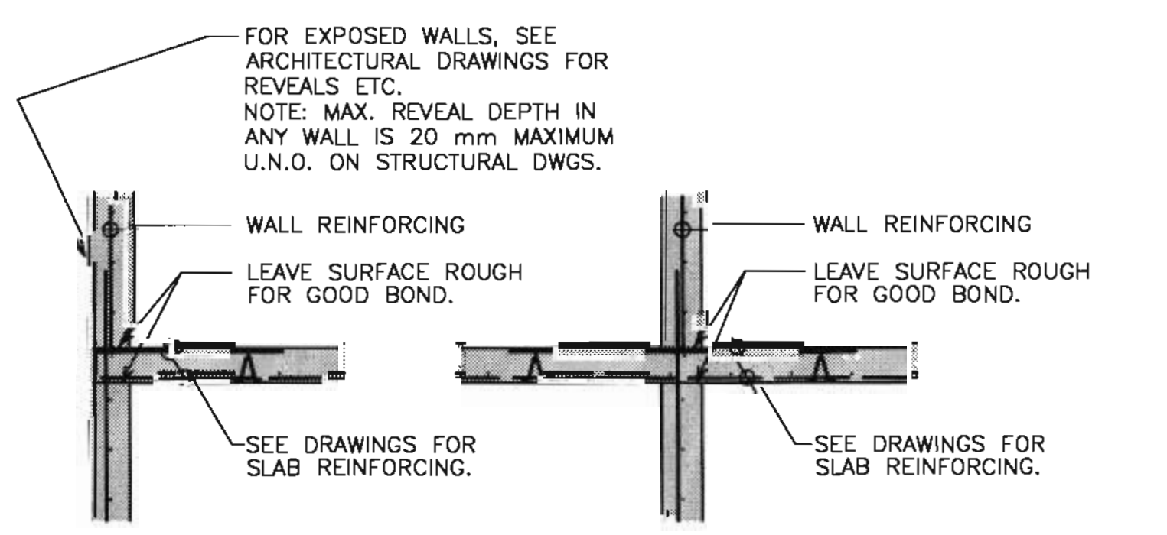
   PROVIDE SUFFICIENT CHAIRS AND SUPPORT BARS TO MAINTAIN CONCRETE PROTECTION AS SPECIFIED, AND TO MAINTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.

   TEMPERATURE BARS MAY BE DROPPED AND USED TO SUPPORT THE MAIN REBAR ON ONE WAY SLABS. FOR TWO WAY SLABS, DROPPED BARS USED TO SUPPORT THE MAIN TWO WAY REINFORCING STEEL SHALL BE IN ADDITION TO THE REINFORCING SHOWN ON PLAN.

7. CAMBERS: FOR SLABS, BEAMS, GIRDERS
   - A. CIRCLED NUMBERS, E.G. ⑯ INDICATES POSITION AND MAGNITUDE OF POINTS WHERE SLABS SHALL BE CAMBERED.
   - B. FOR SPANS OVER 4500 mm WHEN CAMBERS ARE NOT INDICATED ON DRAWINGS, SPANS SHALL BE CAMBERED 0.002 OF SPAN.
   - C. U.N.O. – POST–TENSIONED SLABS AND BEAMS NEED NOT BE CAMBERED.
8. LOCATIONS AND DETAILS OF CONSTRUCTION JOINTS TO BE SUBMITTED TO RJC FOR REVIEW AND APPROVAL, PRIOR TO CONSTRUCTION.
9. UNLESS OTHERWISE NOTED, SLAB TEMPERATURE REINFORCING SHALL BE SPLICED USING A CLASS B TENSION SPLICE.

SLAB POUR JOINTS

(UNLESS NOTED OTHERWISE)

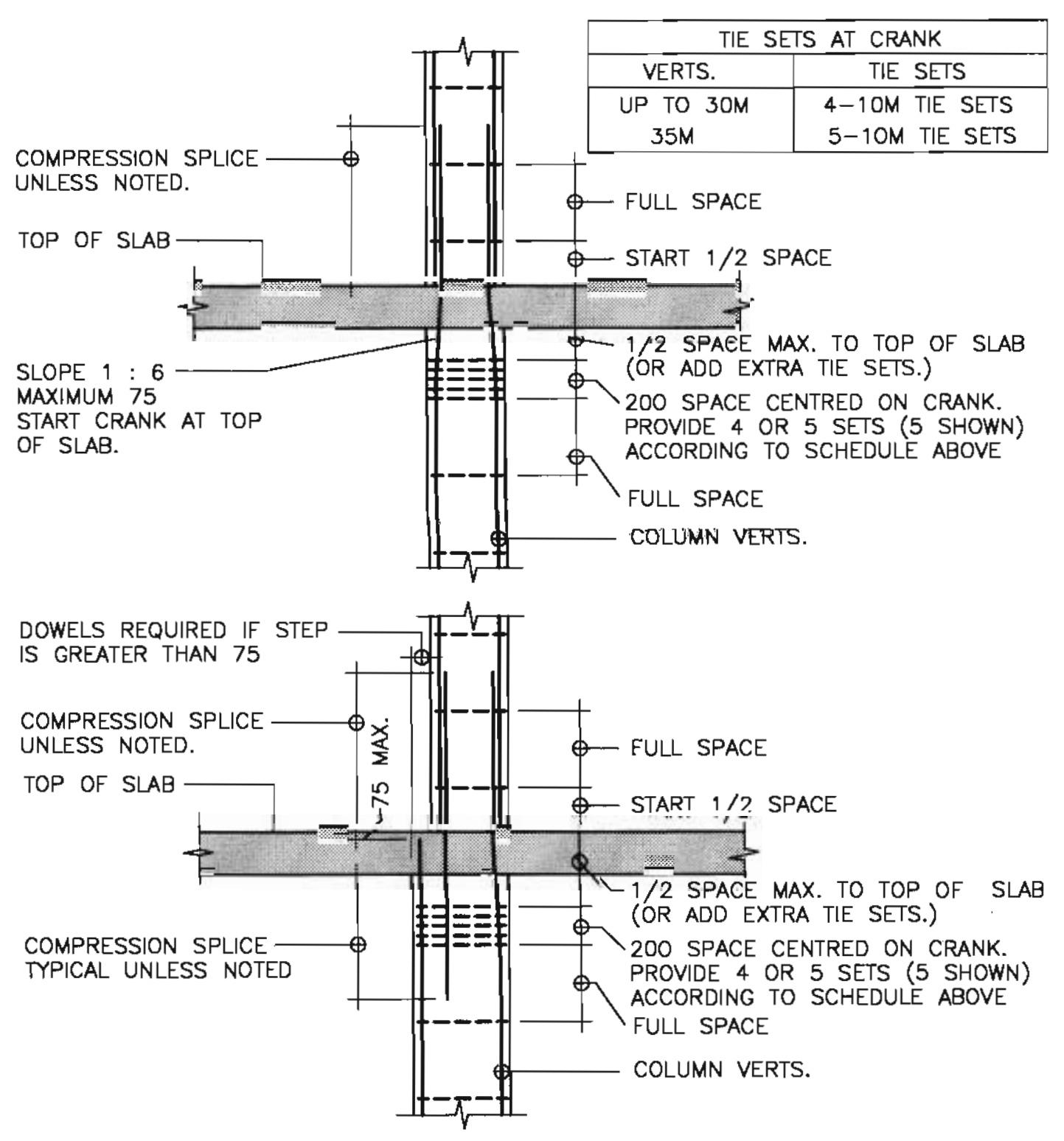


EXTERIOR

INTERIOR

COLUMN SPLICE DETAILS – U.N.O.

TIE SETS AT CRANK	
VERTS.	TIE SETS
UP TO 30M	4–10M TIE SETS
35M	5–10M TIE SETS



EMBEDMENT AND SPLICE LENGTHS

BASED ON CAN/CSA–A23.3–M94

WHERE EMBEDMENT OR SPLICES ARE DIMENSIONED ON THE DRAWINGS, SUCH DIMENSION SHALL APPLY.

WHERE THE DRAWINGS INDICATE COMPRESSION EMBEDMENT IT SHALL BE AS NOTED BELOW.

WHERE NO EMBEDMENT OR EMBEDMENT TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION EMBEDMENT, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION EMBEDMENT.

WHERE NO SPLICE OR SPLICE TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION SPLICE, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION SPLICE.

IN TABLES BELOW, EMBEDMENT LENGTHS ARE SHOWN WITHOUT BRACKETS, AND SPLICE LENGTHS ARE SHOWN IN BRACKETS.

ALL LENGTHS ARE FOR Fy = 400 MPa REBAR.

ALL TENSION SPLICE LENGTHS ARE CLASS "B".

COMPRESSION EMBEDMENT AND SPLICE LENGTHS

REBAR DESIGNATION	FUNCTION	CONCRETE STRENGTH		
		20MPa	25MPa	30MPa & GREATER
10M	EMBEDMENT	240	220	200
	(SPLICE)	(330)	(330)	(330)
15M	EMBEDMENT	340	310	280
	(SPLICE)	(470)	(470)	(470)
20M	EMBEDMENT	420	370	340
	(SPLICE)	(570)	(570)	(570)
25M	EMBEDMENT	540	480	440
	(SPLICE)	(740)	(740)	(740)
30M	EMBEDMENT	640	570	530
	(SPLICE)	(870)	(870)	(870)
35M	EMBEDMENT	770	690	630
	(SPLICE)	(1040)	(1040)	(1040)

TENSION EMBEDMENT AND SPLICE LENGTHS

CASE 1 CONDITIONS

TENSION EMBEDMENT AND SPLICE LENGTHS ARE TO BE AS PER THE FOLLOWING TABLE FOR:

- COLUMNS.
- BEAM AND GRIDER TOP AND BOTTOM BARS.
- SLAB BAND TOP BARS.
- TWO WAY SLAB TOP AND BOTTOM BARS.
- ONE WAY SLAB BOTTOM BARS.
- WALL HORIZONTAL AND VERTICAL DISTRIBUTED REINFORCING.
- SEE ALSO NOTES ON TOP BARS.
- MEMBERS WHICH DO NOT SATISFY THE ABOVE CONDITIONS SHALL HAVE TENSION EMBEDMENTS AND SPLICES AS PER CASE 2 TABLE BELOW.

REBAR DESIGNATION	FUNCTION	CONCRETE STRENGTH				
		20 MPa	25 MPa	30 MPa	35 MPa	40 MPa
10M	EMBEDMENT	320	300	300	300	300
	(SPLICE)	(420)	(390)	(390)	(390)	(390)
15M	EMBEDMENT	480	430	390	370	340
	(SPLICE)	(630)	(560)	(510)	(480)	(440)
20M	EMBEDMENT	640	580	530	490	460
	(SPLICE)	(840)	(750)	(680)	(630)	(590)
25M	EMBEDMENT	1010	900	820	760	710
	(SPLICE)	(1310)	(1170)	(1070)	(990)	(930)
30M	EMBEDMENT	1210	1080	990	910	850
	(SPLICE)	(1570)	(1400)	(1280)	(1190)	(1110)
35M	EMBEDMENT	1410	1200	1150	1070	1000
	(SPLICE)	(1830)	(1640)	(1500)	(1380)	(1300)

NOTE: "TOP BAR" VALUES ARE 1.3 TIMES THE ABOVE LENGTHS.

"TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 300 mm OR MORE OF CONCRETE BELOW THE BAR.

CASE 2 CONDITIONS

TENSION EMBEDMENT AND SPLICE LENGTHS ARE TO BE AS PER THE FOLLOWING TABLE FOR MEMBERS NOT SATISFYING CASE 1 CONDITIONS AS SET OUT ABOVE. FOR EXAMPLE:

- ONE WAY SLAB TOP BARS (SEE TOP BAR NOTE).
- SLAB BAND BOTTOM BARS.
- BARS (EXCLUDING THE SPLICE) SPACED CLOSER TOGETHER THAN 2 BAR DIAMETERS.
- STIRRUPS IN BEAMS AND GIRDERS.

REBAR DESIGNATION	FUNCTION	CONCRETE STRENGTH				
		20 MPa	25 MPa	30 MPa	35 MPa	40 MPa
10M	EMBEDMENT	430	380	350	330	300
	(SPLICE)	(560)	(500)	(460)	(420)	(400)
15M	EMBEDMENT	640	580	530	490	460
	(SPLICE)	(840)	(750)	(680)	(630)	(590)
20M	EMBEDMENT	860	770	700	650	610
	(SPLICE)	(1120)	(1000)	(910)	(840)	(790)
25M	EMBEDMENT	1340	1200	1100	1010	950
	(SPLICE)	(1740)	(1560)	(1420)	(1320)	(1230)
30M	EMBEDMENT	1610	1440	1320	1220	1140
	(SPLICE)	(2090)	(1870)	(1710)	(1580)	(1480)
35M	EMBEDMENT	1880	1680	1530	1420	1330
	(SPLICE)	(2440)	(2180)	(1990)	(1850)	(1730)

NOTE: "TOP BAR" VALUES ARE 1.3 TIMES THE ABOVE LENGTHS.

"TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 300 mm OR MORE OF CONCRETE BELOW THE BAR.

BKDI
ARCHITECTS
300 640–8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
Web: www.bkdi.com

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consultants

rjc Read Jones Christoffersen
Consulting Engineers
Vancouver · Victoria · Nanaimo · Calgary · Edmonton · Toronto
Suite 500, 1816 Crowchild Trail NW, Calgary, AB T2M 3Y7 Canada
Office 403 283-5073 Fax 403 270-8402 www.rjc.ca

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client

TORODE Residential LTD.
arriva

project title

VICTORIA SCHOOL
CONDOMINIUMS
PHASE 1A

439, 11 AVE. S.E.
CALGARY, ALBERTA

drawing title

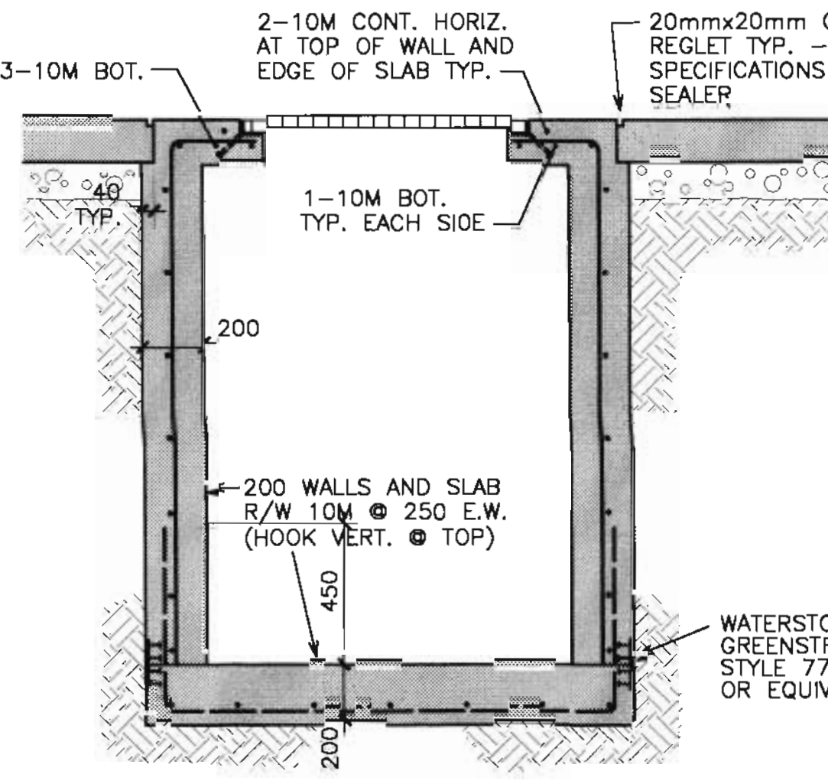
GENERAL NOTES &
TYPICAL DETAILS

scale: AS SHOWN
drawn by: G.M.D.
checked by: J.A.C.
project no: 28168–06
date:
activity date:

re-issue no: D
sheet no: S0.2

SHEET SIZE: 30 x 42

TYPICAL SUMP PIT



NOTE:
COVERS AND ANGLES TO BE HOT DIPPED GALVANIZED

SEE MECH. DWGS FOR SIZE OF SUMP PITS AND ADD'L. REQUIREMENTS

MASONRY

1. VERTICAL CORE FILL AND REINFORCE WITH 1–15M @ 1200 ALL EXTERIOR WALLS UNLESS NOTED OTHERWISE AND @ 2400 ALL INTERIOR WALLS UNLESS NOTED OTHERWISE. ALSO SEE SPECIFICATIONS.
2. PROVIDE BOND BEAMS AT TOP OF WALLS AND AT NO GREATER THAN 4000 O/C VERTICALLY UNLESS NOTED OTHERWISE. ALSO SEE SPECIFICATIONS.

EXTERIOR WALLS:

A. GROUT PREPARED OFF SITE SHALL BE COURSE PREPARED BY PROPERTY SPECIFICATION IN ACCORDANCE WITH CSA STANDARD A179.

- MINIMUM 28 DAY COMPRESSIVE STRENGTH –12.5 MPa
- SLUMP 200 mm MINIMUM TO 250 mm MAXIMUM.
- GROUT SHALL BE FINE WHERE MAXIMUM GROUT SPACE IS LESS THAN 50 mm IN ANY DIRECTION.
- TESTING SHALL BE IN ACCORDANCE WITH CSA STANDARD A179 AND ITS APPENDIX.

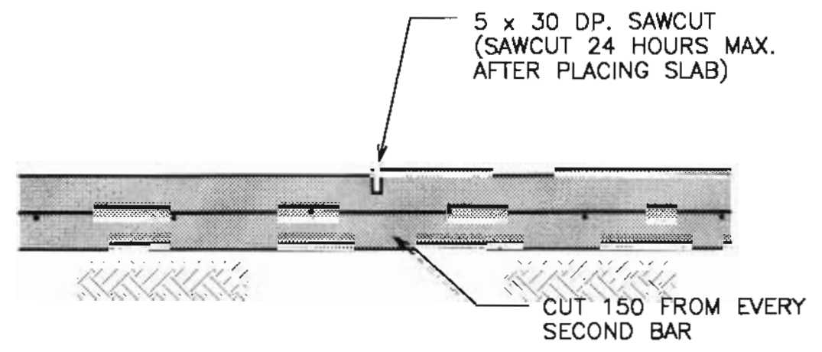
B. GROUT PREPARED ON SITE SHALL BE PREPARED BY PROPORTION SPECIFICATION IN ACCORDANCE WITH CSA STANDARD A179.

C. MORTAR SHALL BE TYPE S PREPARED BY PROPORTION SPECIFICATION IN ACCORDANCE WITH CSA A179.

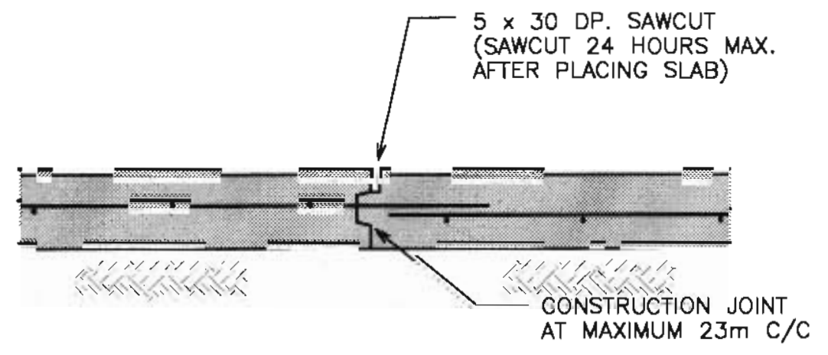
- PORTLAND CEMENT–LIME MIX FORMULATION
- TYPE 10 PORTLAND CEMENT
- TYPE S HYDRATED LIME.

D. PROVIDE 10M STARTER DOWELS AT ALL VERTICAL REINFORCING, UNLESS NOTED OTHERWISE. EMBED 300 mm MINIMUM, UNLESS NOTED OTHERWISE.

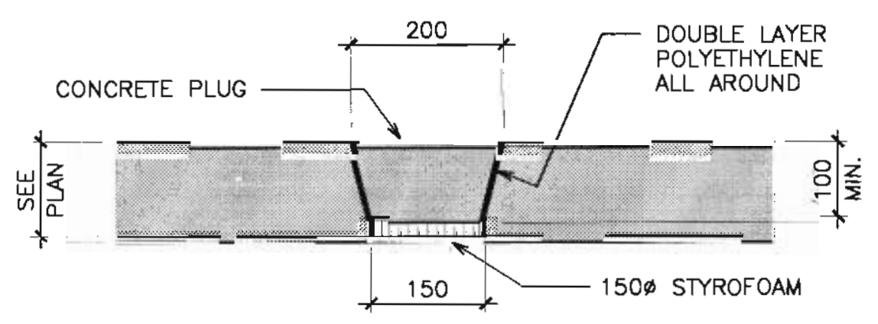
SLAB–ON–GRADE CONTROL JOINT



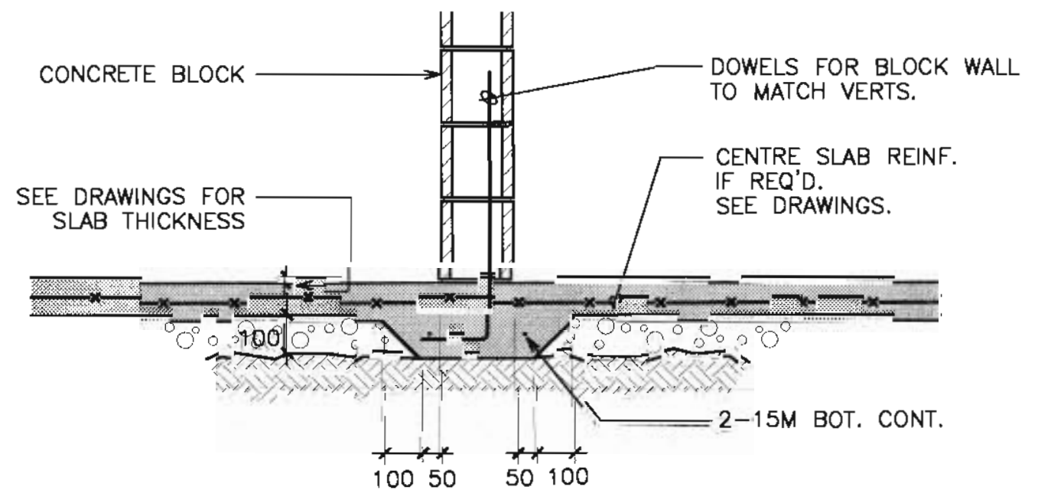
SLAB–ON–GRADE CONSTRUCTION JOINT



PRESSURE RELIEF PLUG DETAIL

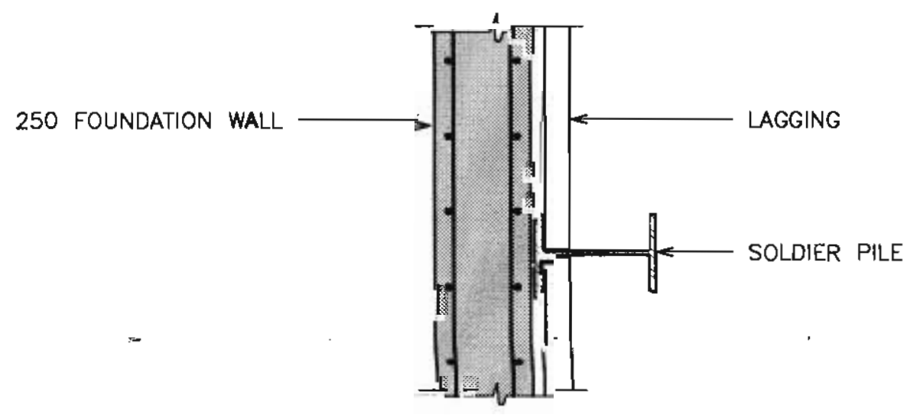


LOCATIONS OF PRESSURE RELIEF PLUGS SHOWN THUS ⊗ ON PLAN.

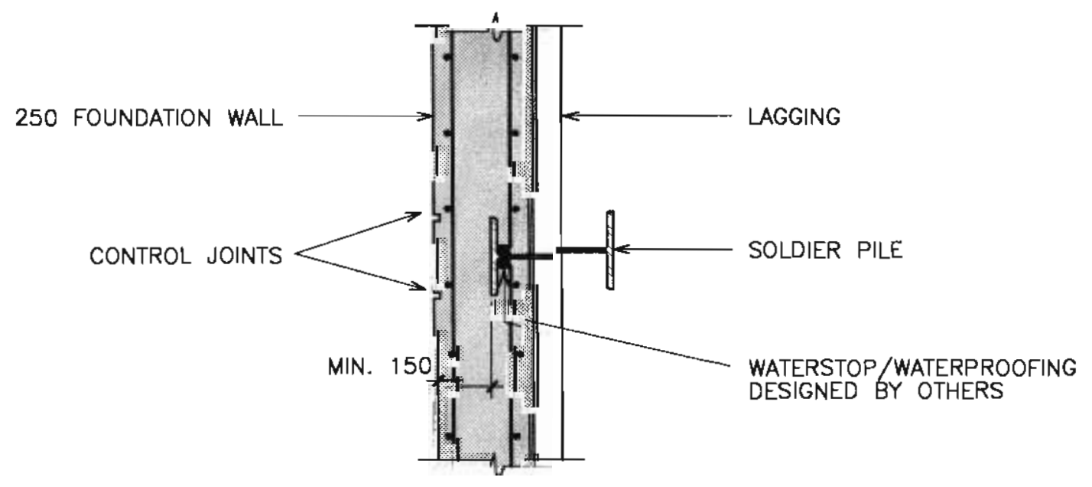


TYPICAL THICKENED SLAB UNDER BLOCK PARTITION WALLS U.N.O.

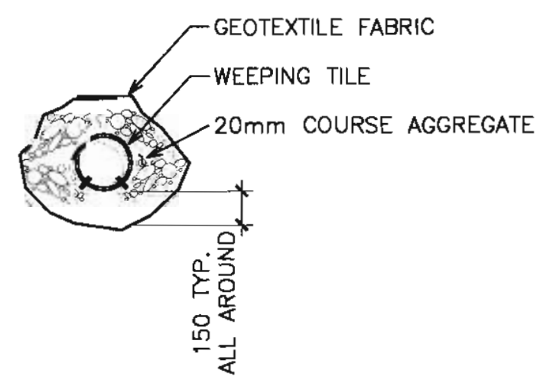
FOUNDATION WALL SOLDIER PILE CONDITION #1



FOUNDATION WALL SOLDIER PILE CONDITION #2



TYPICAL WEEPING TILE



BKDI
ARCHITECTS
300 640–8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
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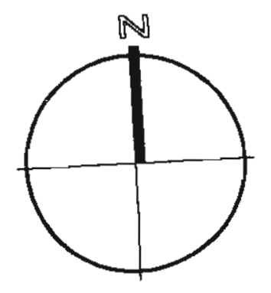

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checked by:	J.A.C.
project no:	28168–06
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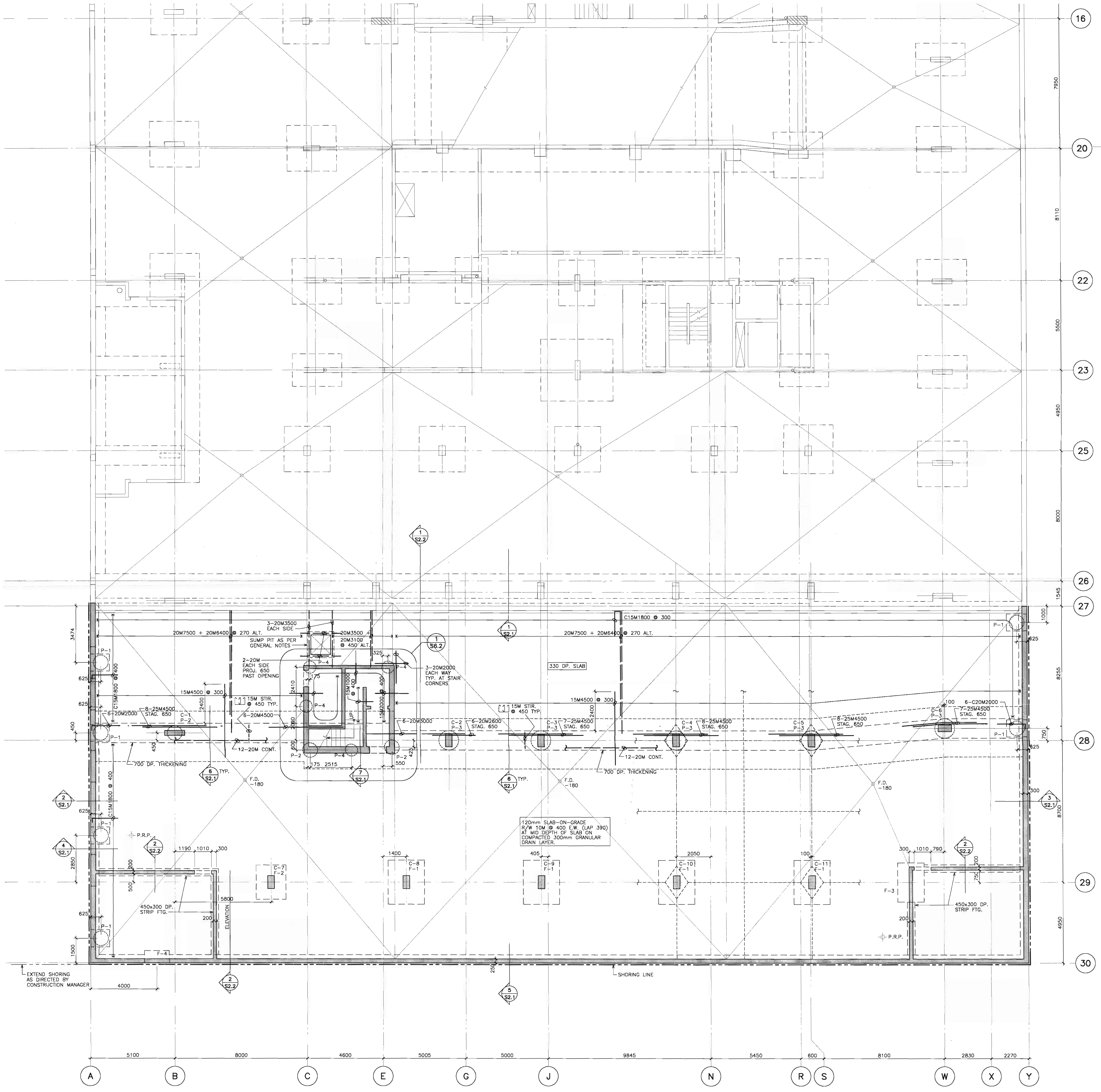
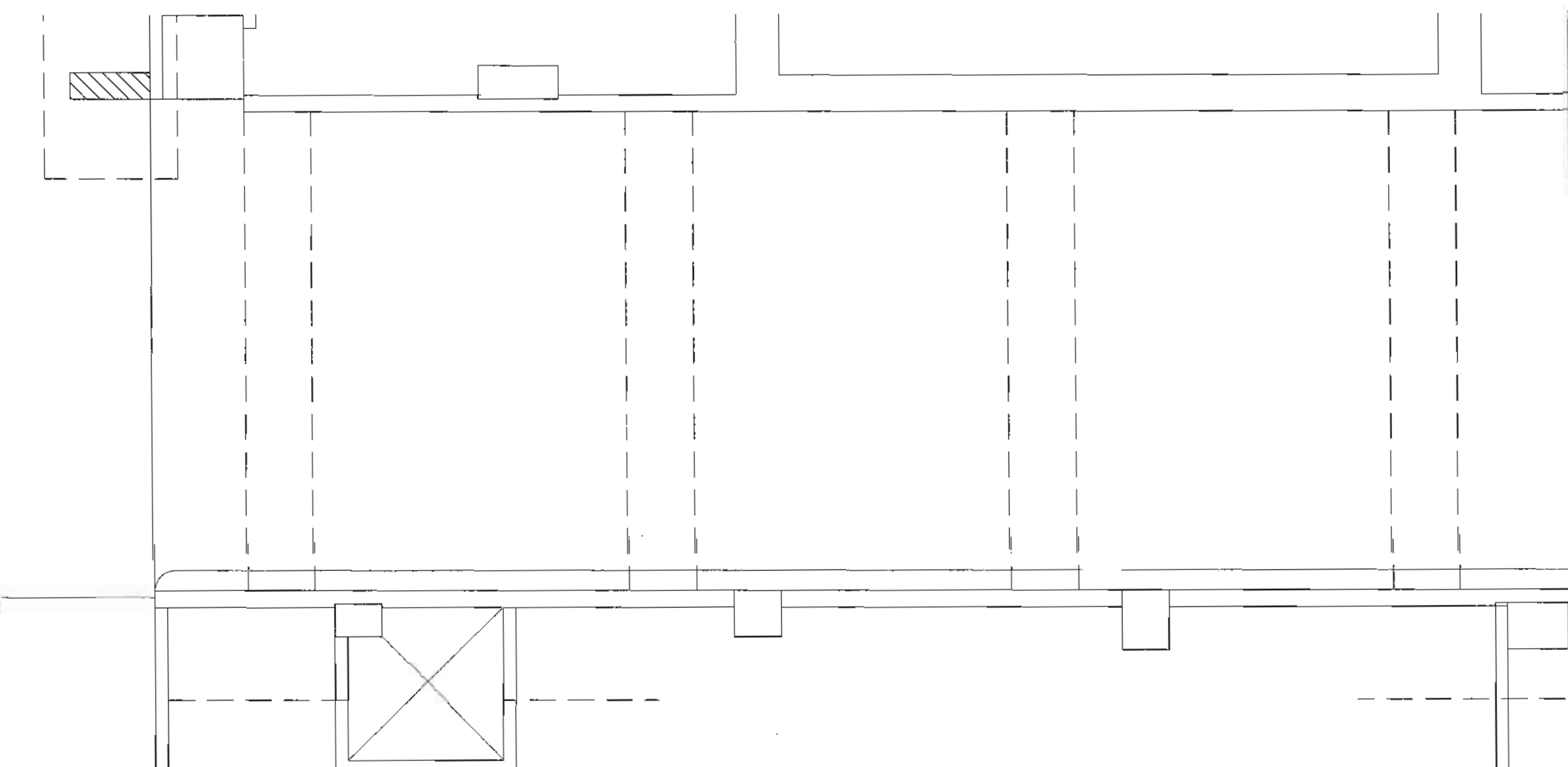
re–issue no:	sheet no:
D	S0.3

SHEET SIZE: 30 x 42



1
S1.1
PARKING LEVEL P2/FOUNDATION PLAN
SCALE: 1:100



PILE SCHEDULE

MARK	SHAFT DIA.	ROCK SOCKET LENGTH (m)	LOAD SERVICE	REINFORCING
P-1	900	2.0m BELOW U/S FUTURE PHASE 2 STRIP FTG. OR BOT. OF TEMP. SOLDIER PILE WHICHEVER IS DEEPER	1200 kN	12-20M VERT. 10M @ 450 TIES + 6-C25M4000 ADD'L. VERT. SEE 4/S2.1
P-2	900	8.0	2400 kN	12-20M VERT. 10M @ 450 TIES
P-3	1200	11.5	4700 kN	20-20M VERT. 10M @ 450 TIES
P-4	750	4.0	1200 kN	8-20M VERT. 10M @ 450 TIES

NOTE:
ROCK LEVEL MAY BE BELOW LEVEL P2. ALSO REFER TO 1/S1.1. INCREASE PILE LENGTH ACCORDINGLY TO ACHIEVE ROCK SOCKET LENGTH INDICATED.

FOOTING SCHEDULE

MARK	DIMENSIONS	REINFORCING
F-1	2200x2700x800 DP.	10-25M2550 B.L.L. 11-25M2050 B.U.L.
F-2	1800x2100x600 DP.	10-20M1950 B.L.L. 11-20M1650 B.U.L.
F-3	1600x2400x600 DP.	12-20M2250 B.L.L. 14-20M1450 B.U.L.
F-4	750x1500x600 DP.	4-20M1350 B.L.L. 8-20M0500 B.U.L.

NOTES

1. WATER PRESSURE RELIEF PLUGS SHOWN THUS – ⌖ P.R.P.
2. ALL TOP OF FTG. ELEVATIONS ARE LOCATED -420 FROM TOP OF P2 S.O.G. U.N.O. BY U/S OF FTG. ELEVATIONS.
3. U/S FTG. ELEVATIONS ARE REFERENCED FROM TOP OF P2 S.O.G. ALL U/S OF FTG. ELEVATIONS ARE APPROXIMATE AND MUST BE CONFIRMED AT TIME OF EXCAVATION BY THE CONTRACTOR BASED ON SOIL CONDITIONS.
4. SEE DRAWING S6.1 FOR COLUMN SCHEDULE

BAR PLACING ORDER

⟷	T.U.L.	(TOP UPPER LAYER)
↕	T.L.L.	(TOP LOWER LAYER)
↕	B.U.L.	(BOTTOM UPPER LAYER)
⟷	B.L.L.	(BOTTOM LOWER LAYER)

BKDI
ARCHITECTS
300 640-8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
Web: www.bkdi.com

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consultants

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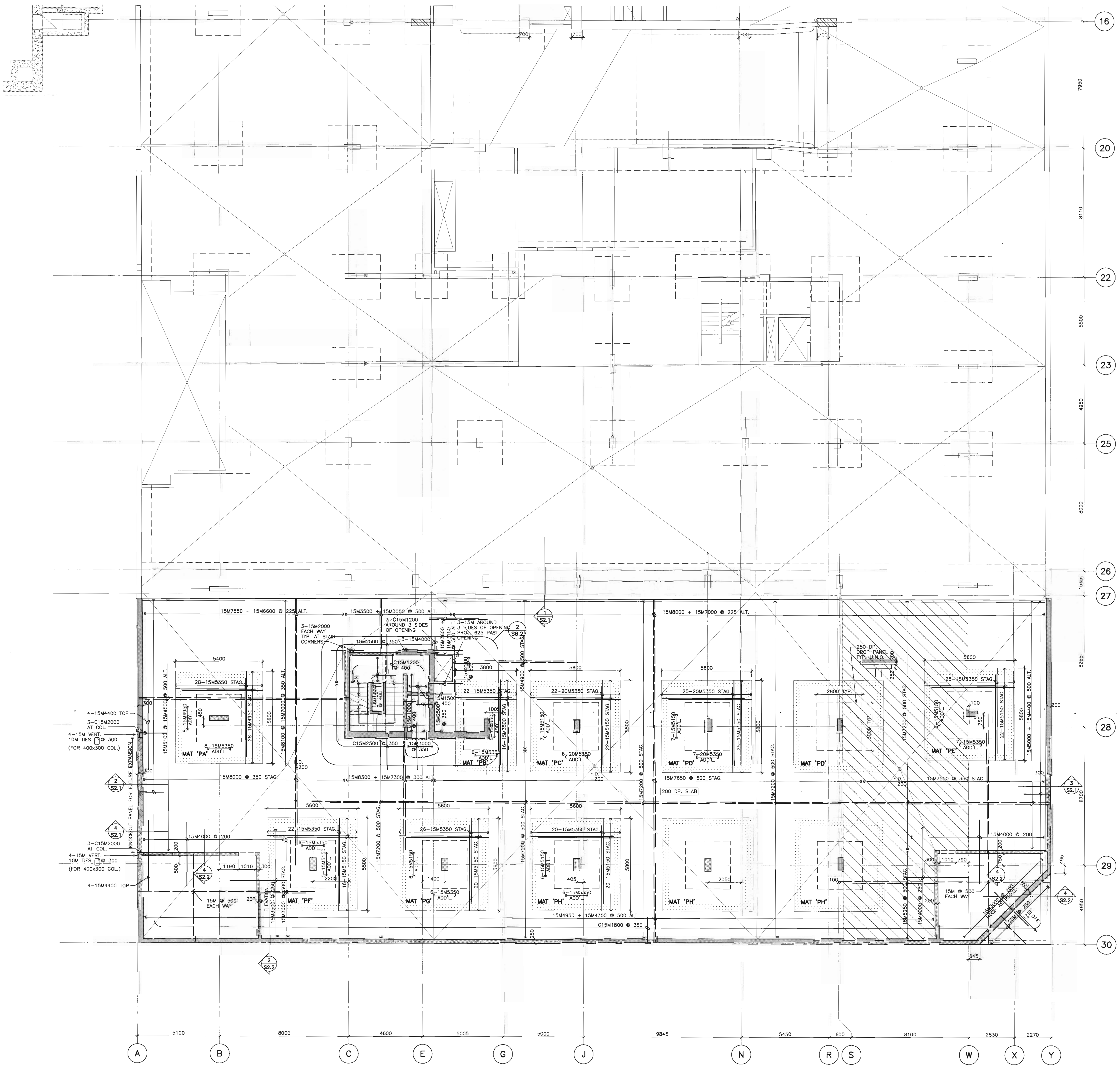
SHEET SIZE: 30 x 42



1 / S1.2 PARKING LEVEL P1 FRAMING PLAN

SCALE: 1:100

NOTES

1. SLAB SOFFIT TO MATCH SLOPE OF CONCRETE TOP SURFACE, TYP. (UNIFORM CONCRETE THICKNESS)
2. SEE DRAWING S0.2 FOR TYPICAL "SLAB NOTES"
3. SEE S0.2 FOR INTEGRITY STEEL
4. MEMBRANE TO BE APPLIED TO SUSPENDED PARKING LEVELS.
5. SEE DRAWING S6.1 FOR COLUMN SCHEDULE
6. SEE PLAN FOR EXTENT ▨ OF DAREX DCI CORROSION INHIBITOR TO P1 SLAB. ALSO PROVIDE INHIBITOR TO P1 TO P2 RAMP

BAR PLACING ORDER

↔	T.U.L.	(TOP UPPER LAYER)
↕	T.L.L.	(TOP LOWER LAYER)
↕	B.U.L.	(BOTTOM UPPER LAYER)
↔	B.L.L.	(BOTTOM LOWER LAYER)

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ARCHITECTS
300 640-8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
Web: www.bkdi.com

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C	FEB. 14/06	ISSUED FOR CONCRETE TENDER
B	NOV. 28/05	ISSUED FOR BUILDING PERMIT
A	NOV. 9/05	ISSUED FOR 90% REVIEW

client

TORODE Residential LTD.

artiva

project title

VICTORIA SCHOOL
CONDOMINIUMS
PHASE 1A

439, 11 AVE. S.E.
CALGARY, ALBERTA

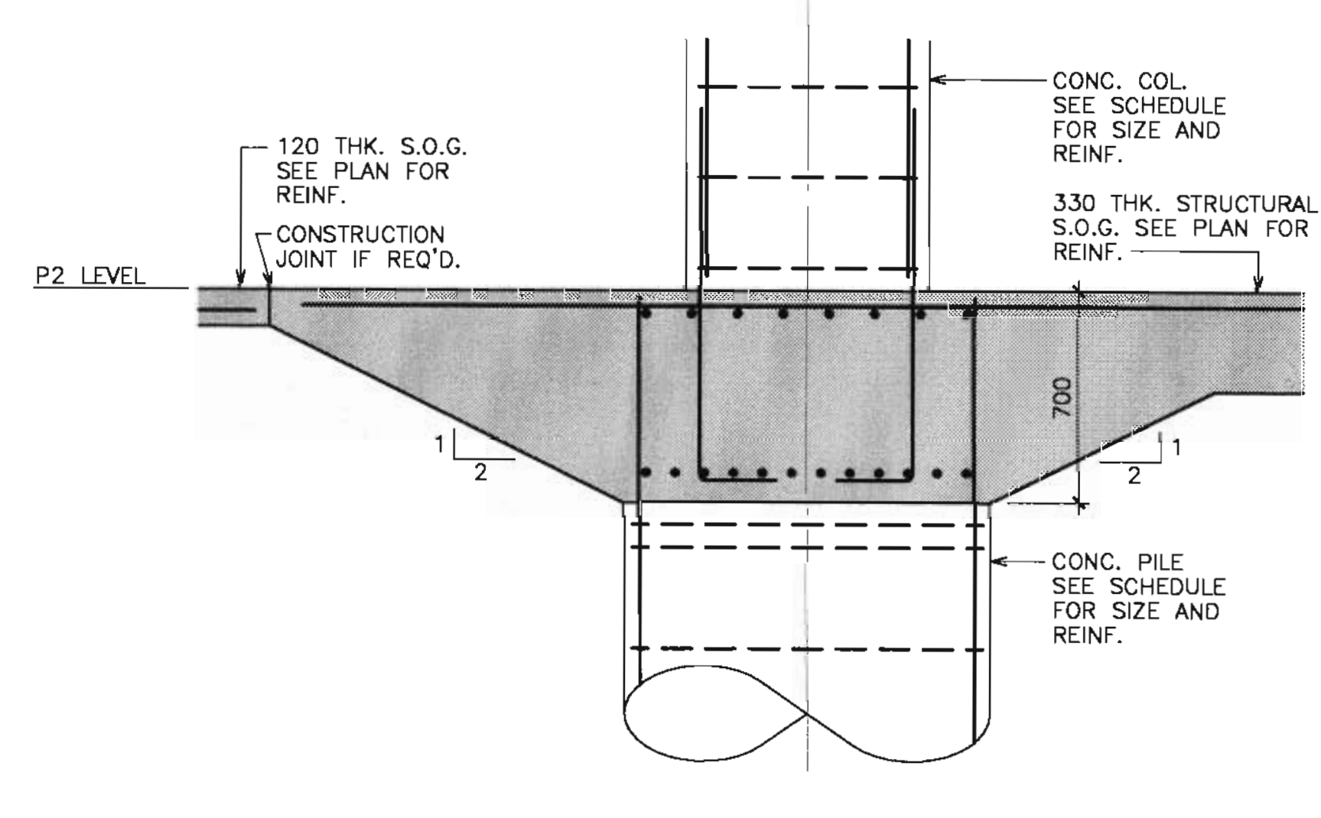
drawing title

PARKING LEVEL
P1 PLAN

scale: AS SHOWN
drawn by: G.M.D.
checked by: J.A.C.
project no: 28168-06
date:
activity date:

re-issue no: D
sheet no: S1.2

SHEET SIZE: 30 x 42



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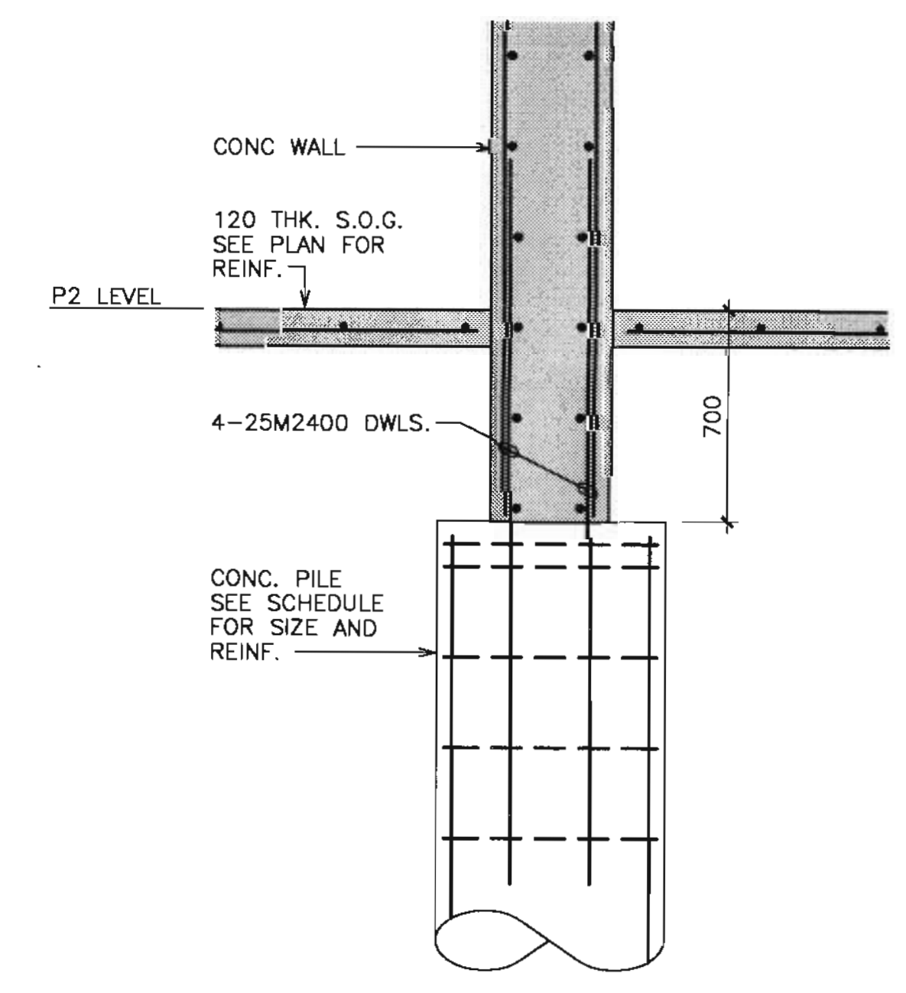

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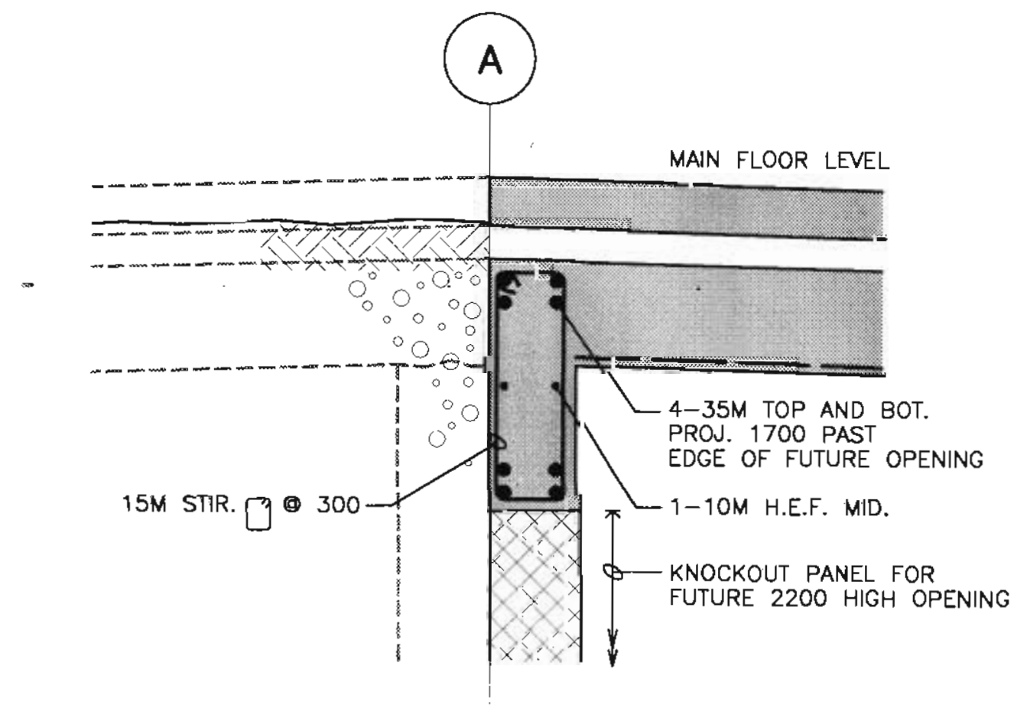

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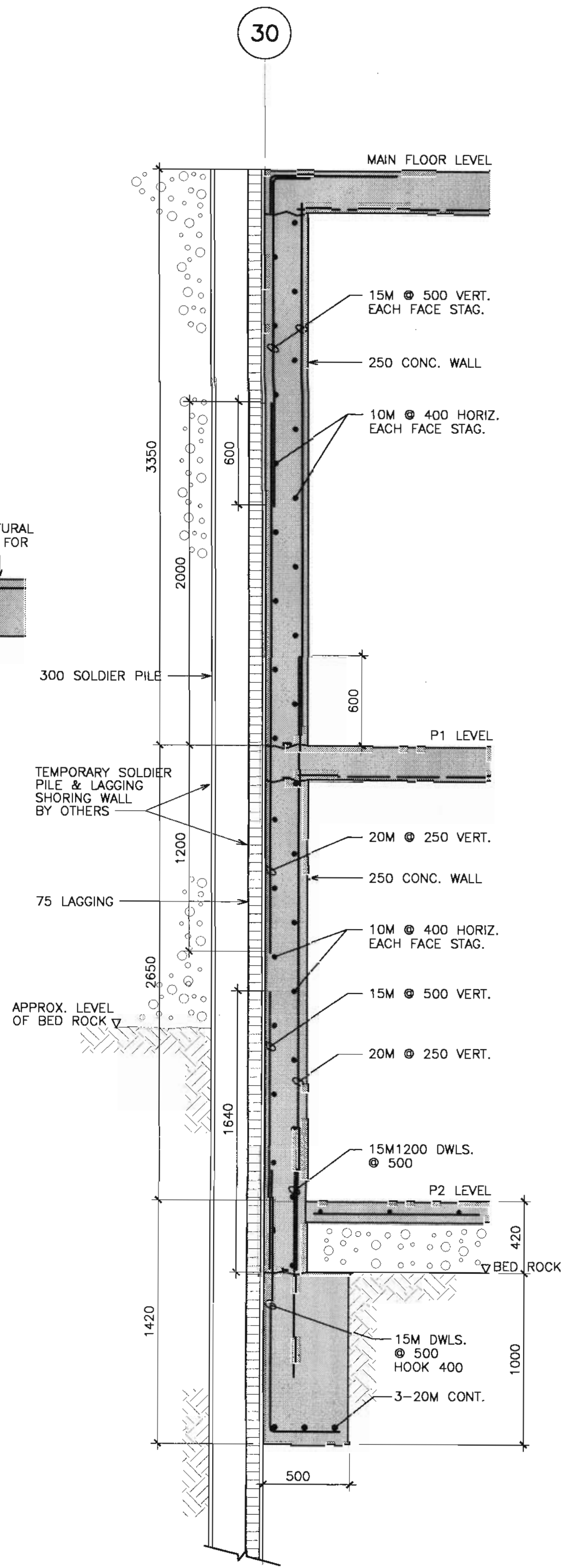

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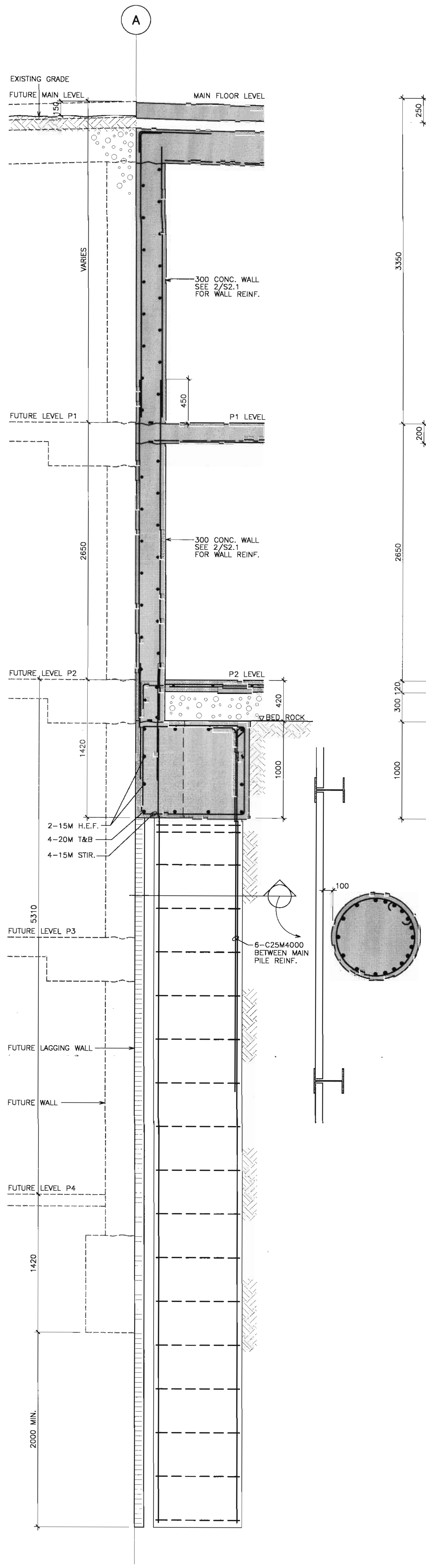

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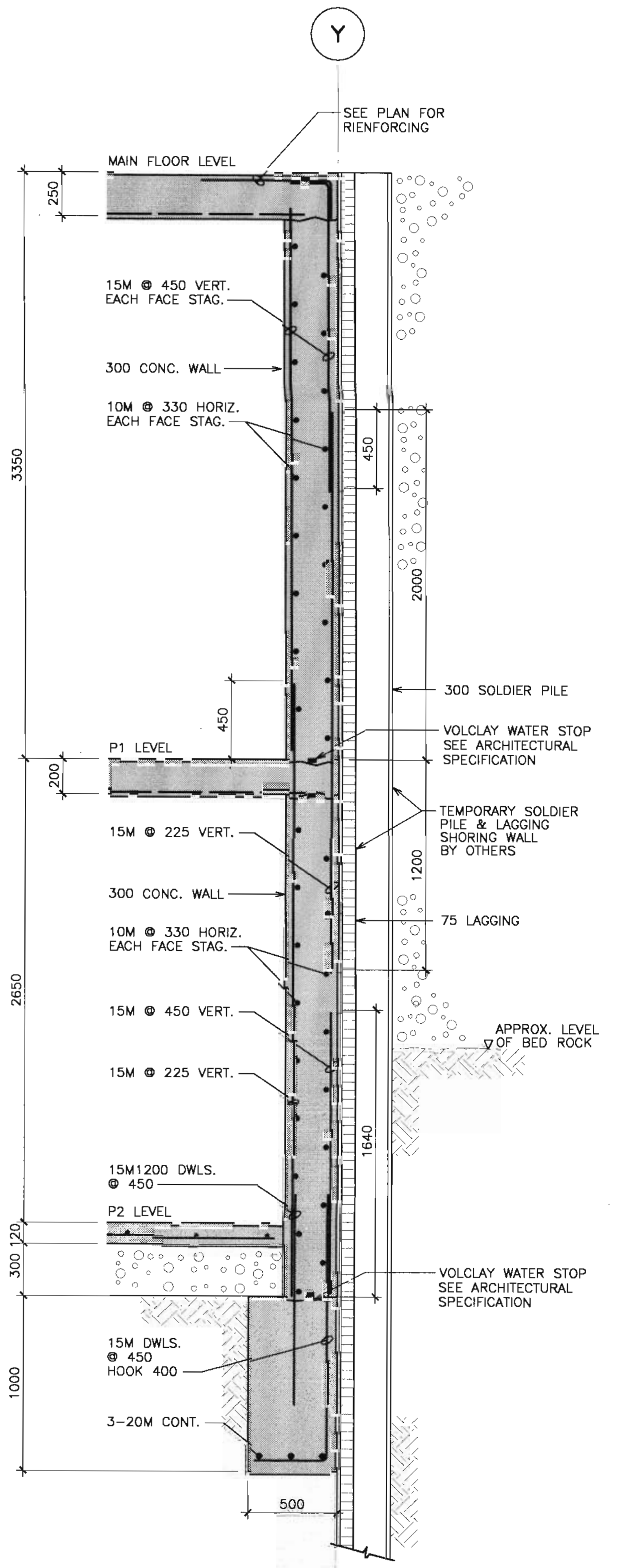

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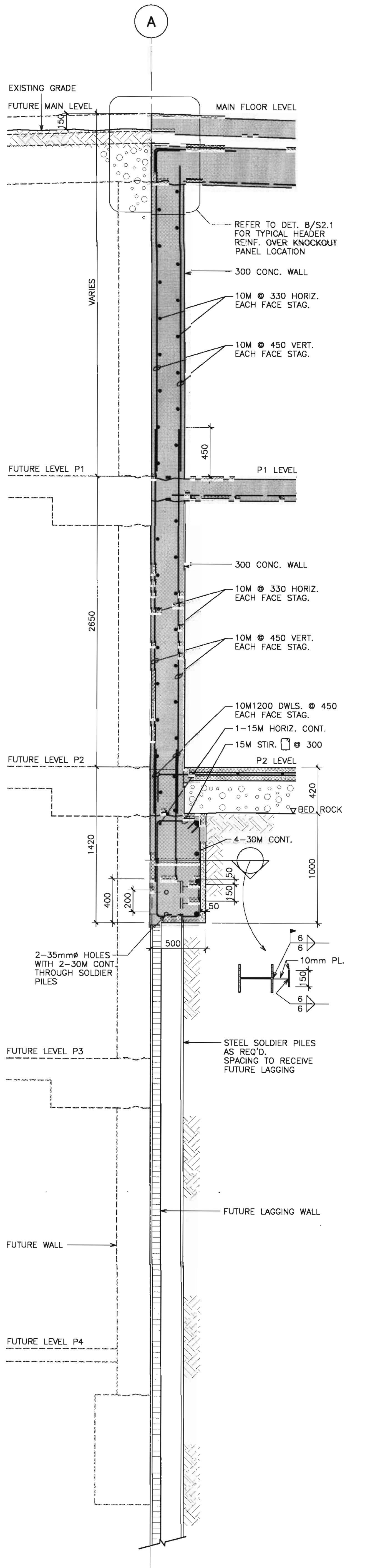

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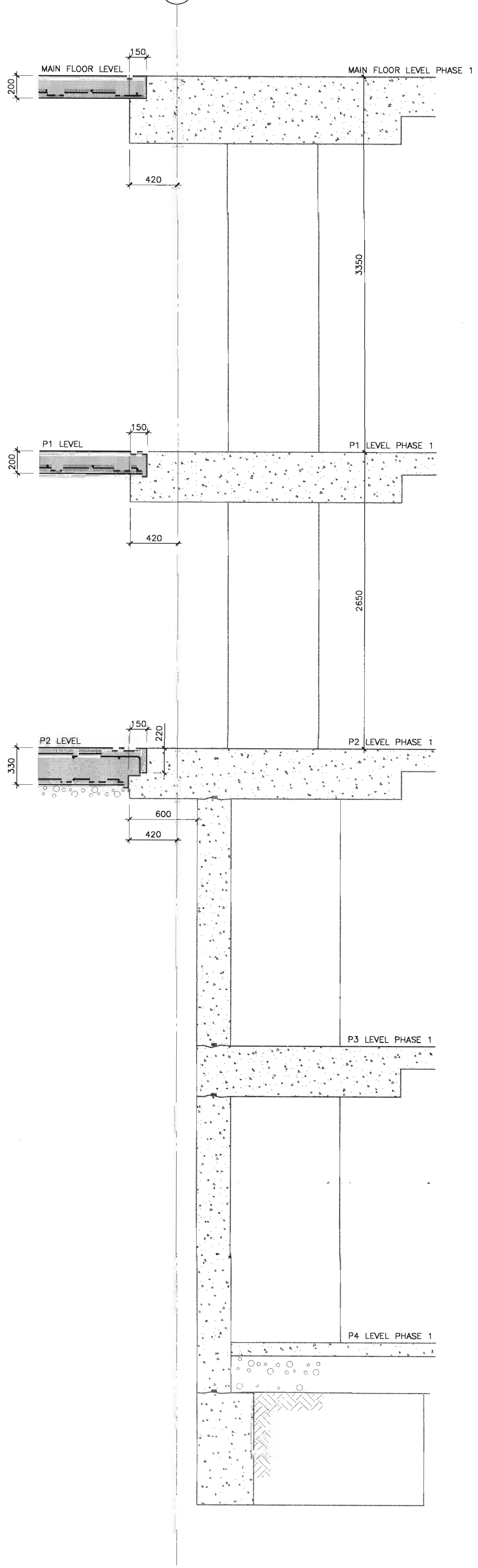

1
S2.1
1 : 25

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ARCHITECTS
300 640–8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
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C	DEC. 2/05	ISSUED FOR SHORING AND PILING TENDER
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A	NOV. 9/05	ISSUED FOR 90% REVIEW

client

TORODE Residential LTD.
arriva

project title

VICTORIA SCHOOL
CONDOMINIUMS
PHASE 1A

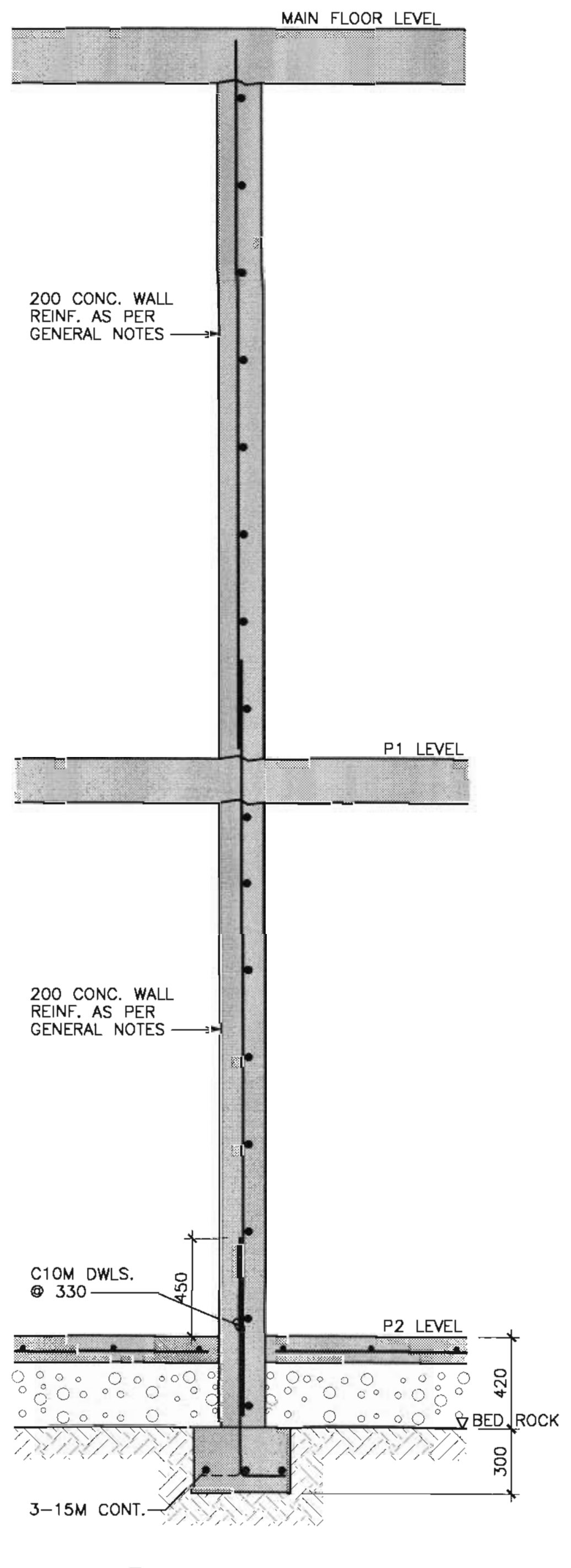
439, 11 AVE. S.E.
CALGARY, ALBERTA

drawing title

PARKADE
SECTIONS AND DETAILS

scale:	AS SHOWN
drawn by:	G.M.D.
checked by:	J.A.C.
project no:	28168–06
date:	
activity date:	
re-issue no:	E
sheet no:	S2.1

SHEET SIZE: 30 x 42



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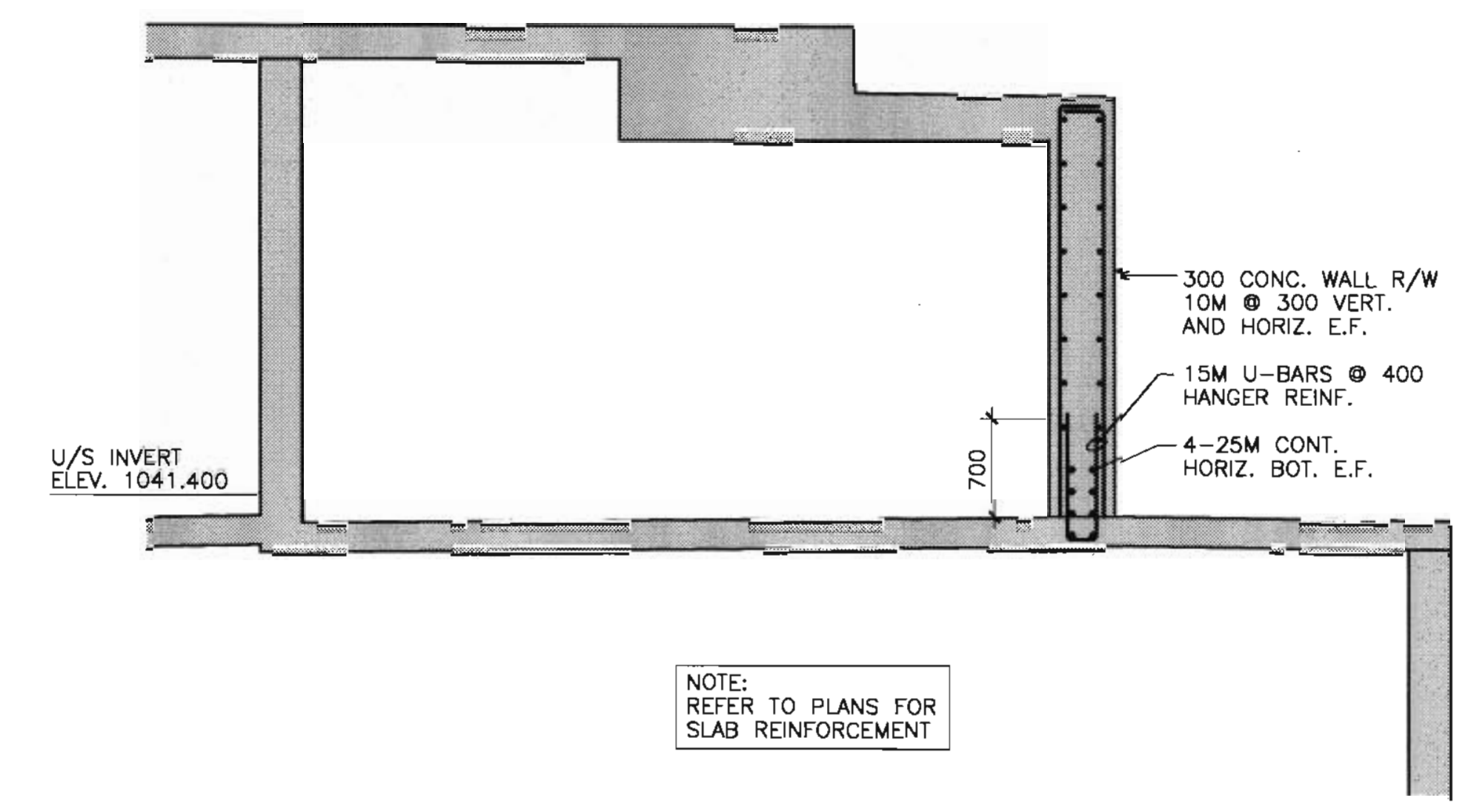

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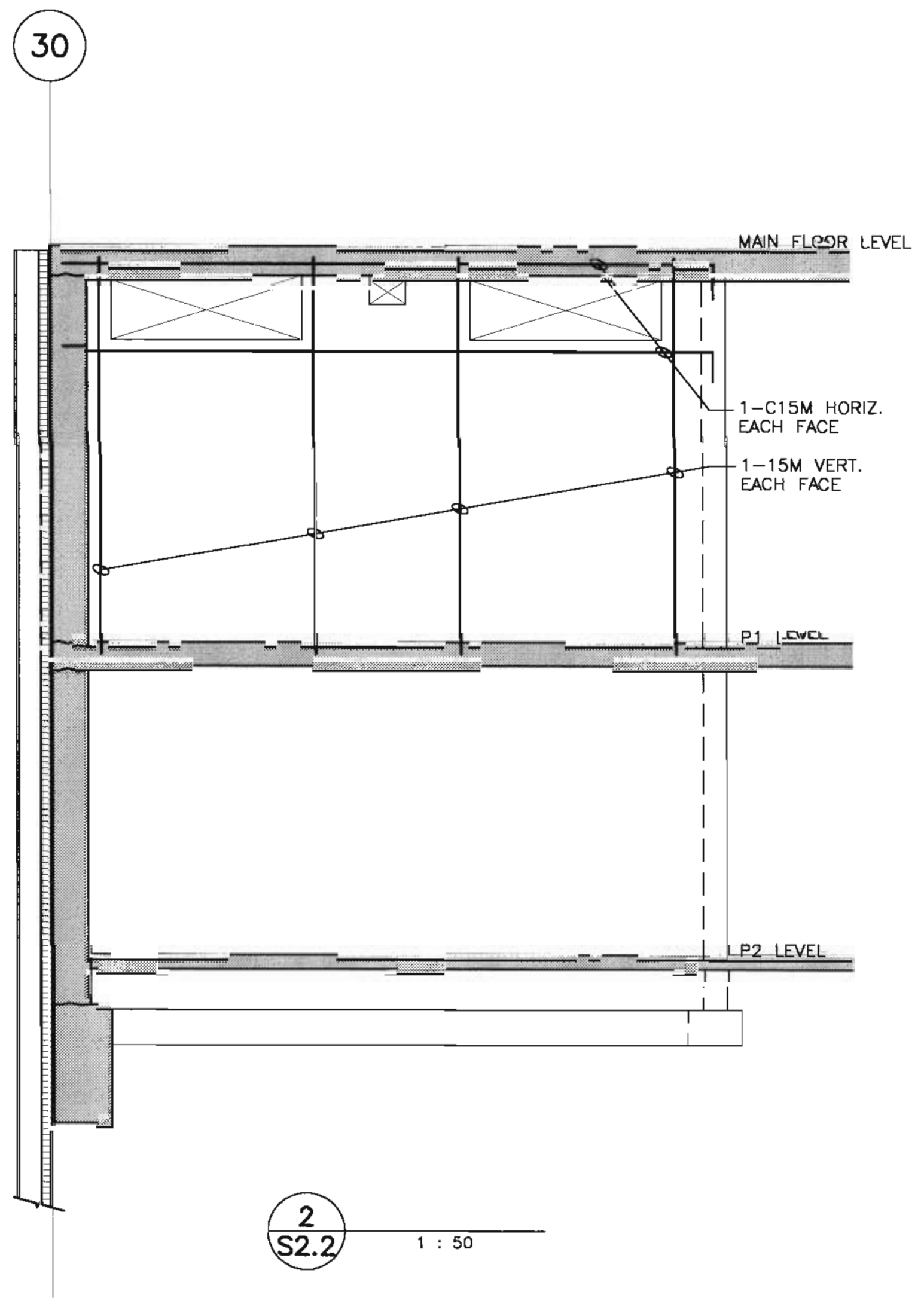

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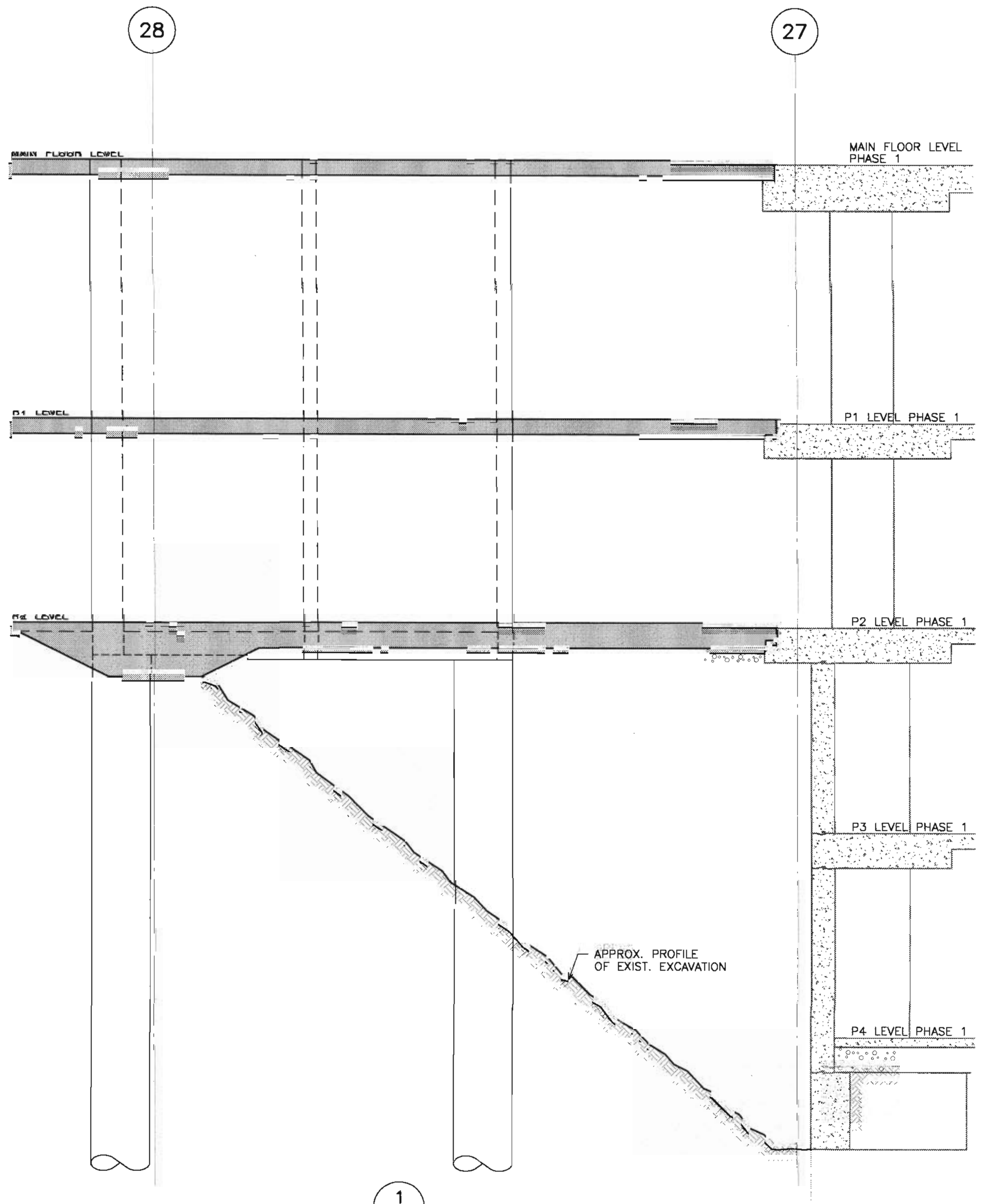

1
S2.2
1 : 50

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ARCHITECTS

300 640-8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
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CONDOMINIUMS
PHASE 1A

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CALGARY, ALBERTA

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PARKADE
SECTIONS AND DETAILS

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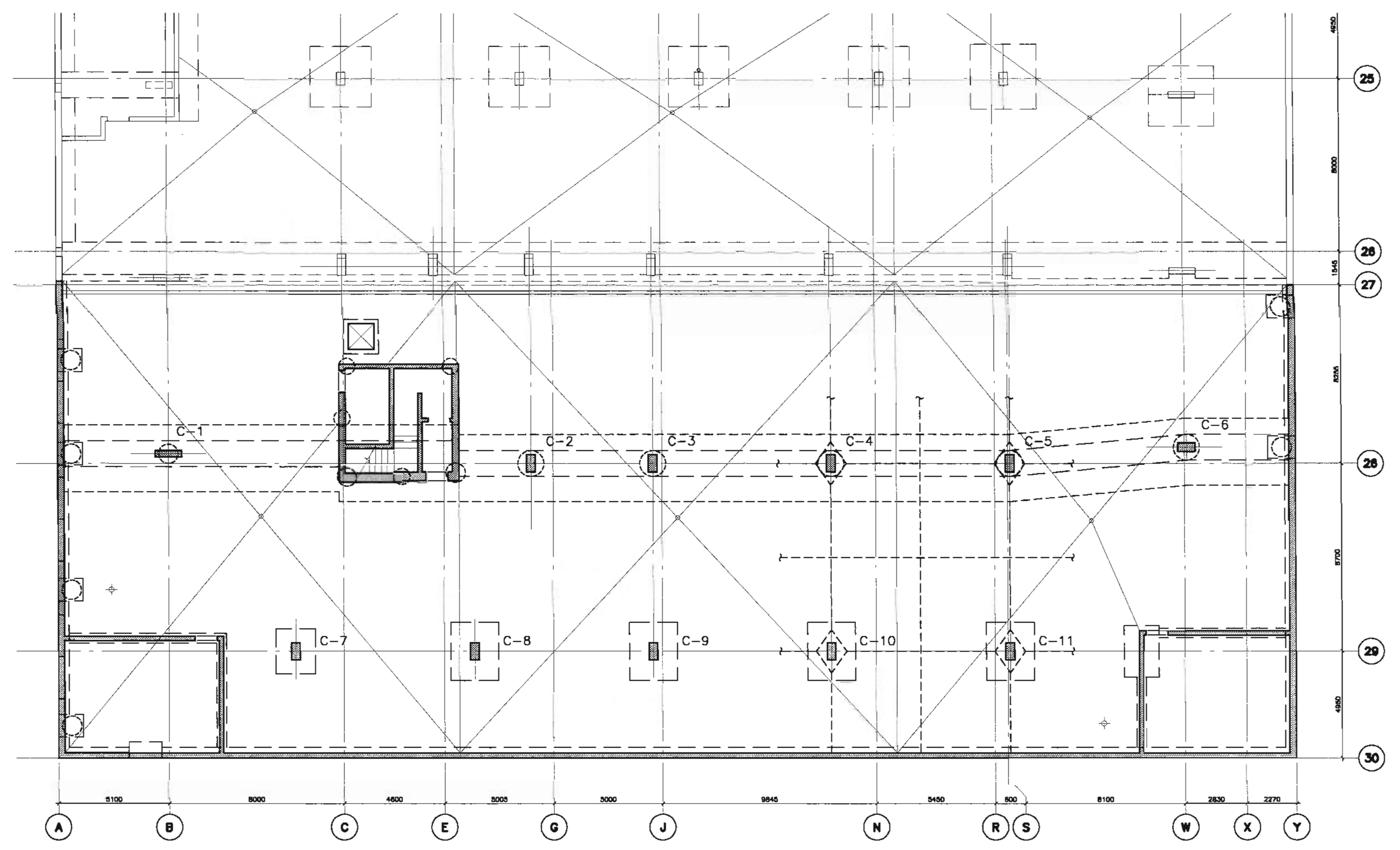
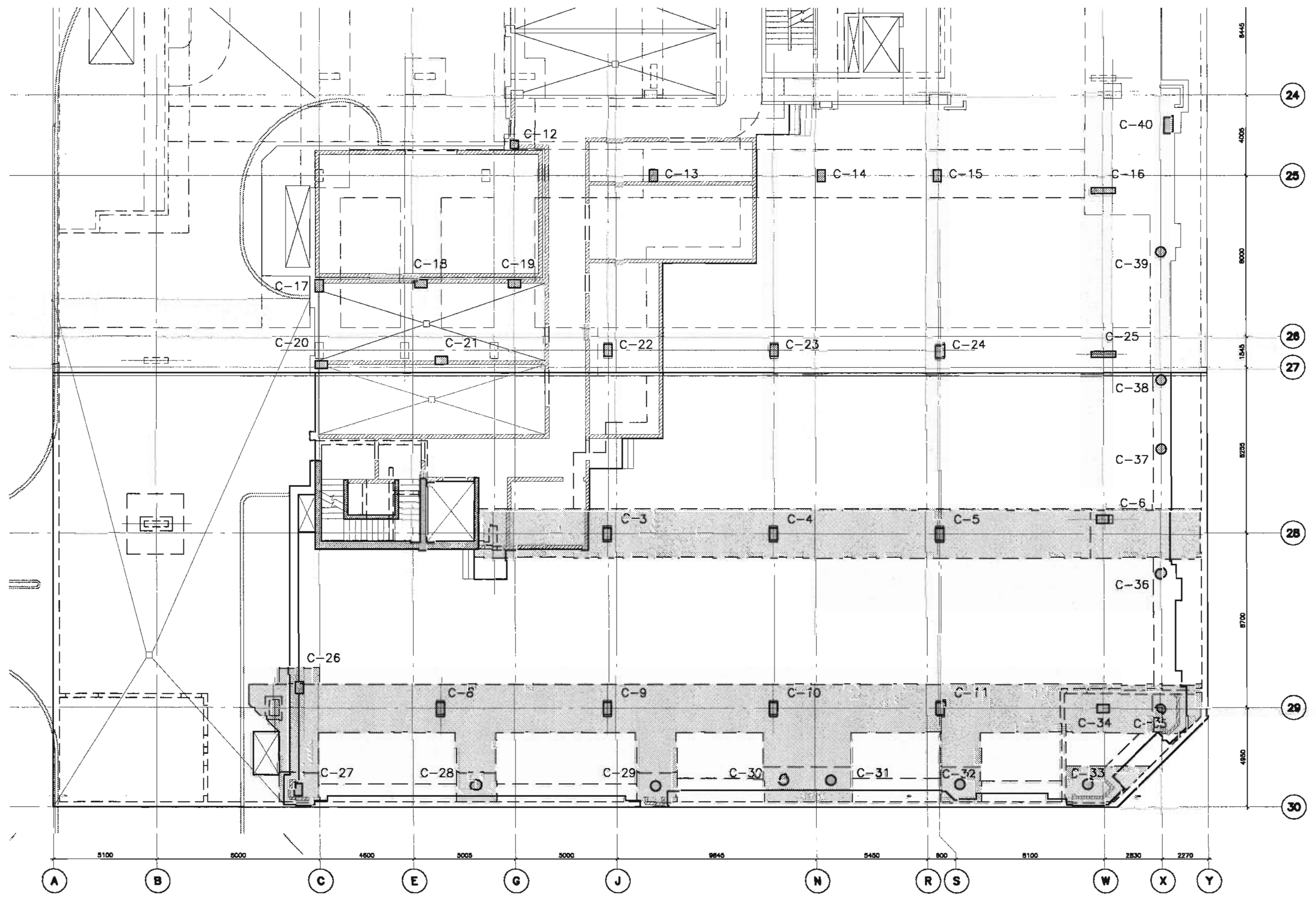
sheet no: S2.2

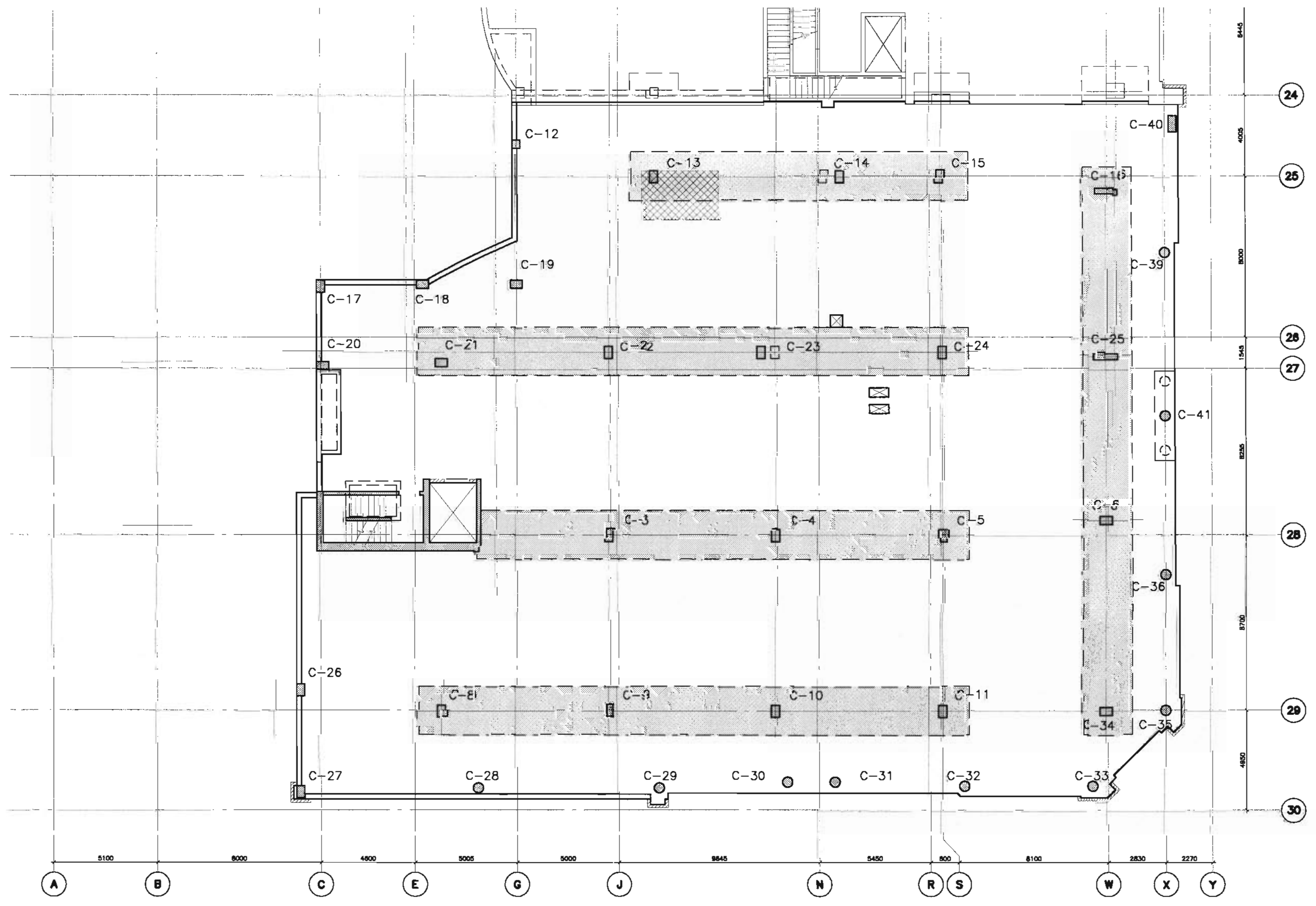
SHEET SIZE: 30 x 42



KEY PLAN – PARKING LEVEL P2
N.T.S.



KEY PLAN – LEVEL 1 MAIN
N.T.S.



KEY PLAN – LEVEL 2
N.T.S.

COLUMN SCHEDULE

	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	CONCRETE STRENGTH f'c (MPa)
MEZZ. LEVEL 1A											40 MPa UNLESS NOTED OTHERWISE
3rd. FLOOR	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
2nd. FLOOR	☒	☒	↑	↑	↑	↑	☒	↑	↑	↑	
MAIN FLOOR	☒	☒	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	☒	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	
PARKING LEVEL P1	↑	400x1200 12-35M VERT. 10M TIES @ 400	↑	↑	↑	↑	↑	↑	↑	↑	
PARKING LEVEL P2	300x900 10-25M VERT. 10M TIES @ 300	400x800 12-35M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 8-25M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	400x800 12-30M VERT. 10M TIES @ 400	
FOOTING											

COLUMN SCHEDULE

	C-11	C-12	C-13	C-14	C-15	C-16	C-17	C-18	C-19	C-20	CONCRETE STRENGTH f'c (MPa)
MEZZ. LEVEL 1A											40 MPa UNLESS NOTED OTHERWISE
3rd. FLOOR	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
2nd. FLOOR	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
MAIN FLOOR	400x600 8-25M VERT. 10M TIES @ 400	400x400 fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	300x1200 12-20M VERT. 10M TIES @ 300	400x600 8-20M VERT. 10M TIES @ 400	400x600 8-20M VERT. 10M TIES @ 400	400x600 8-20M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	
PARKING LEVEL P1	↑	☒	☒	☒	☒	☒	☒	☒	☒	☒	
PARKING LEVEL P2	400x800 12-30M VERT. 10M TIES @ 400	☒	☒	☒	☒	☒	☒	☒	☒	☒	
FOOTING											

COLUMN SCHEDULE

	C-21	C-22	C-23	C-24	C-25	C-26	C-27	C-28	C-29	C-30	CONCRETE STRENGTH f'c (MPa)
MEZZ. LEVEL 1A											40 MPa UNLESS NOTED OTHERWISE
3rd. FLOOR	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
2nd. FLOOR	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	
MAIN FLOOR	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	300x1200 12-20M VERT. 10M TIES @ 300	400x600 8-25M VERT. 10M TIES @ 400	400x600 8-20M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	
PARKING LEVEL P1	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
PARKING LEVEL P2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
FOOTING											

COLUMN SCHEDULE

	C-31	C-32	C-33	C-34	C-35	C-36	C-37	C-38	C-39	C-40	CONCRETE STRENGTH f'c (MPa)
MEZZ. LEVEL 1A											40 MPa UNLESS NOTED OTHERWISE
3rd. FLOOR	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
2nd. FLOOR	↑	↑	↑	↑	↑	↑	↑	☒	☒	↑	
MAIN FLOOR	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	400x600 8-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400	400x600 fc'= 30 MPa 8-20M VERT. 10M TIES @ 400	
PARKING LEVEL P1	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
PARKING LEVEL P2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
FOOTING											

COLUMN SCHEDULE

	C-41										CONCRETE STRENGTH f'c (MPa)
MEZZ. LEVEL 1A											40 MPa UNLESS NOTED OTHERWISE
3rd. FLOOR	☒										
2nd. FLOOR	500 ø fc'= 30 MPa 4-25M VERT. 10M TIES @ 400										
MAIN FLOOR	☒										
PARKING LEVEL P1	☒										
PARKING LEVEL P2	☒										
FOOTING											

BKDI
ARCHITECTS

300 640-8th Ave. S.W.
Calgary Alberta
Canada T2P 1G7
Tel: 403.233.2525
Fax: 403.262.2055
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client

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CONDOMINIUMS
PHASE 1A

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CALGARY, ALBERTA

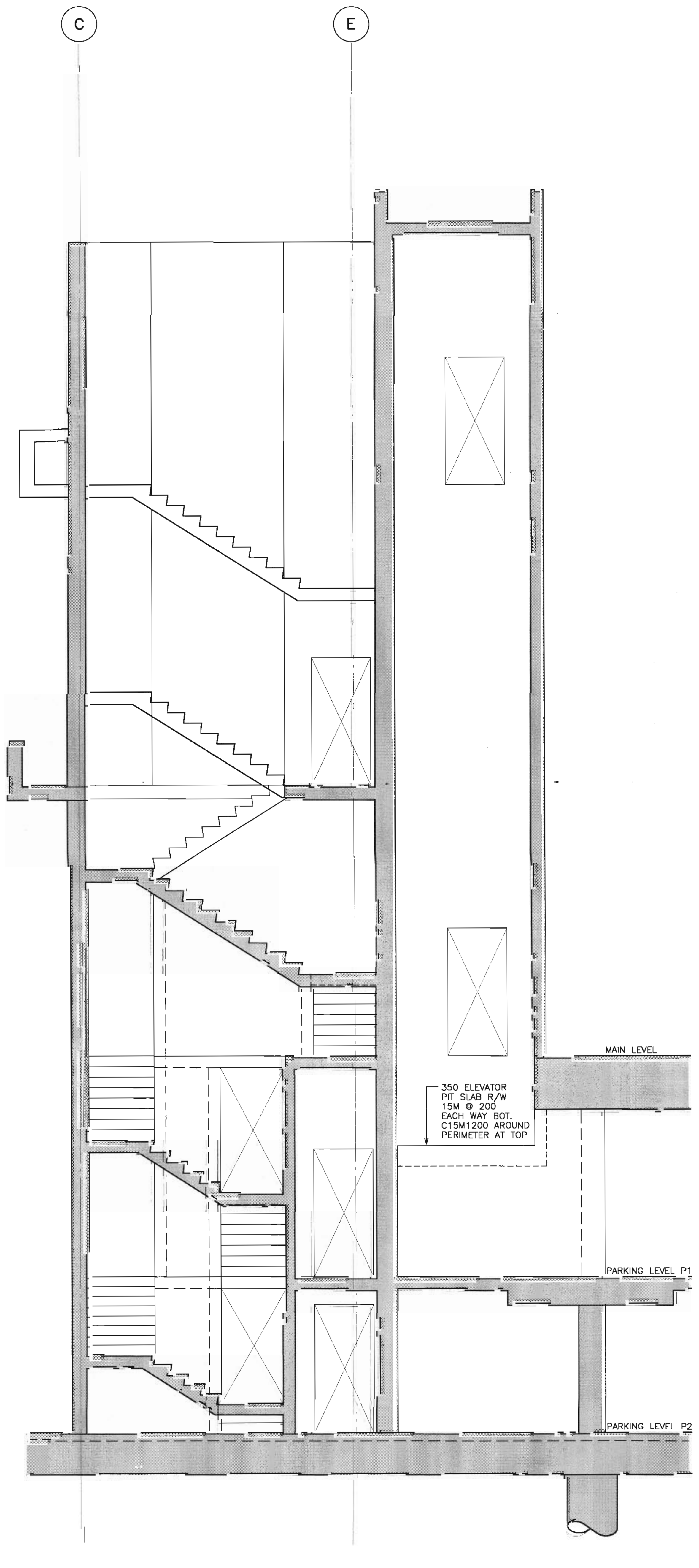
drawing title

COLUMN SCHEDULE

scale: AS SHOWN
drawn by: G.M.D.
checked by: J.A.C.
project no: 28168-06
date:
activity date:

re-issue no: D
sheet no: S6.1

SHEET SIZE: 30 x 42



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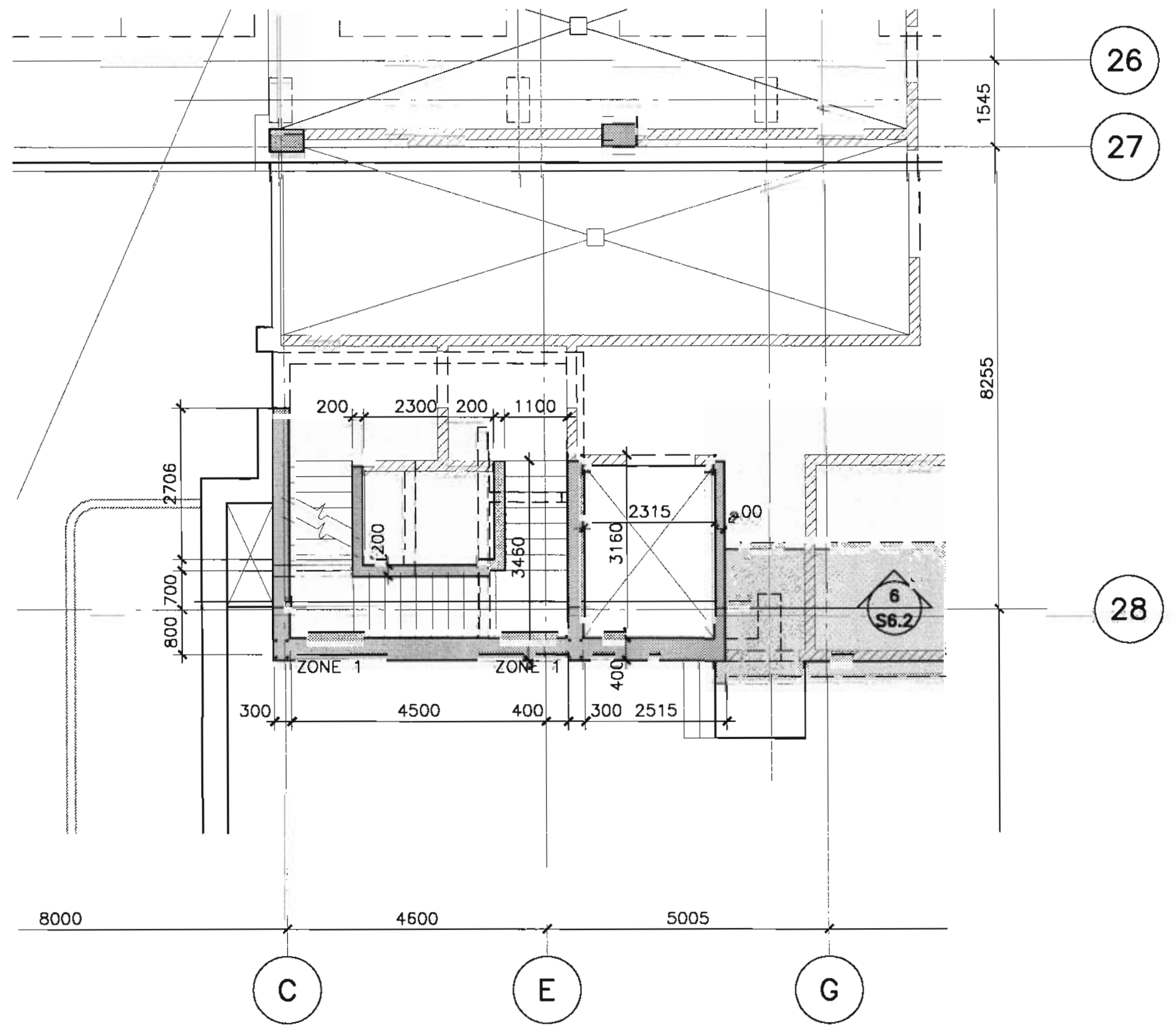

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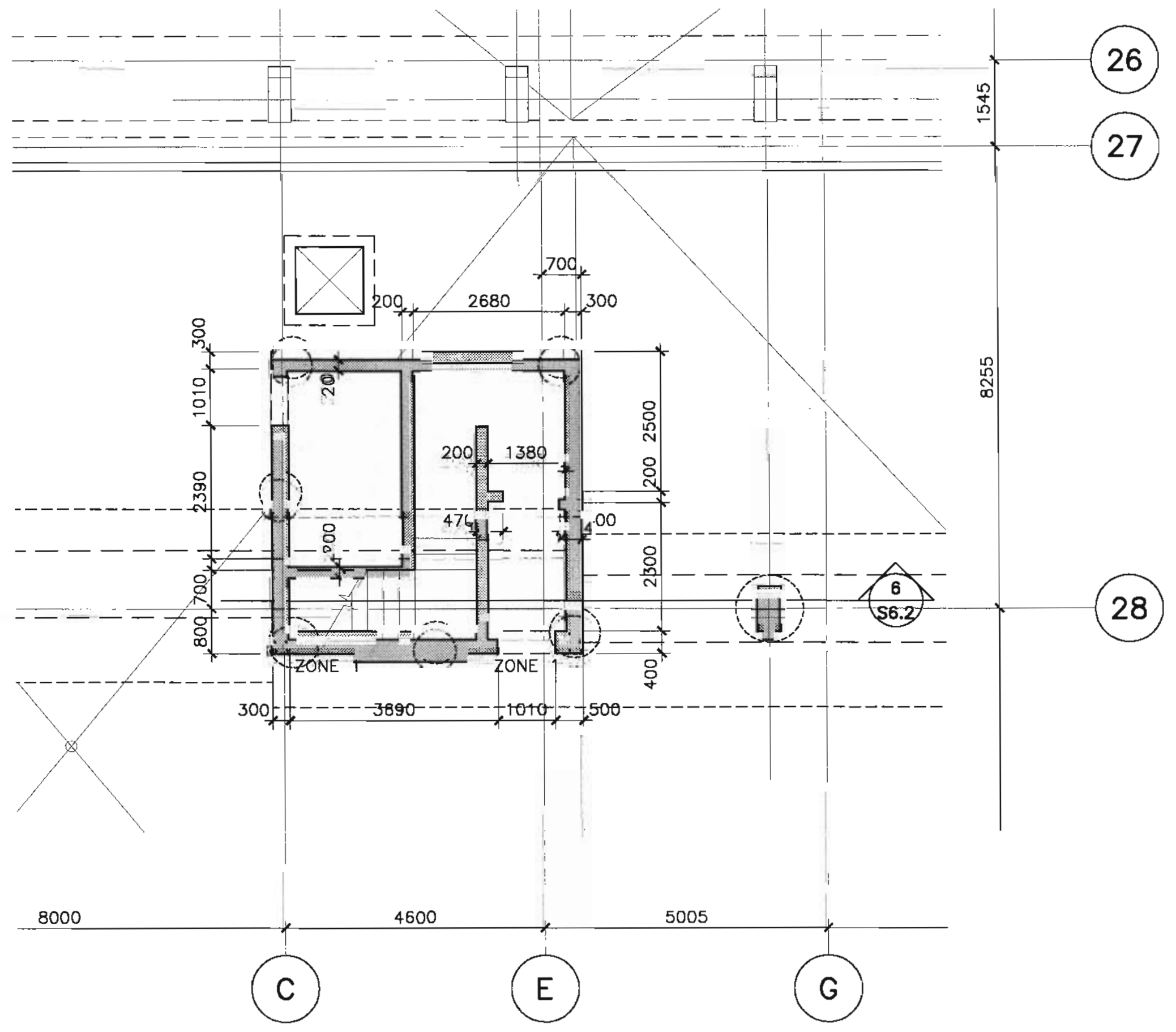

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S6.2 PARKING LEVEL P2/FOUNDATION
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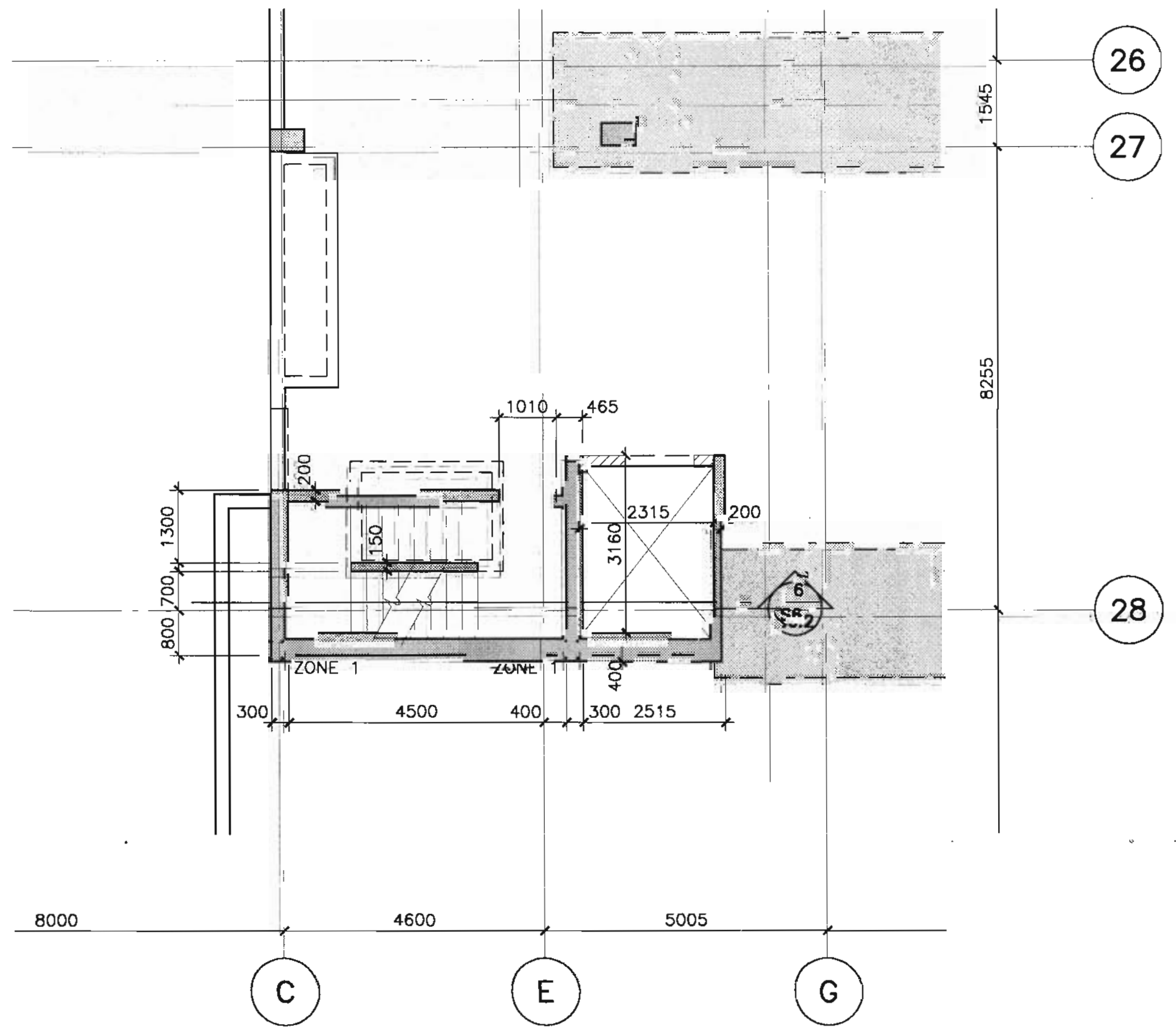

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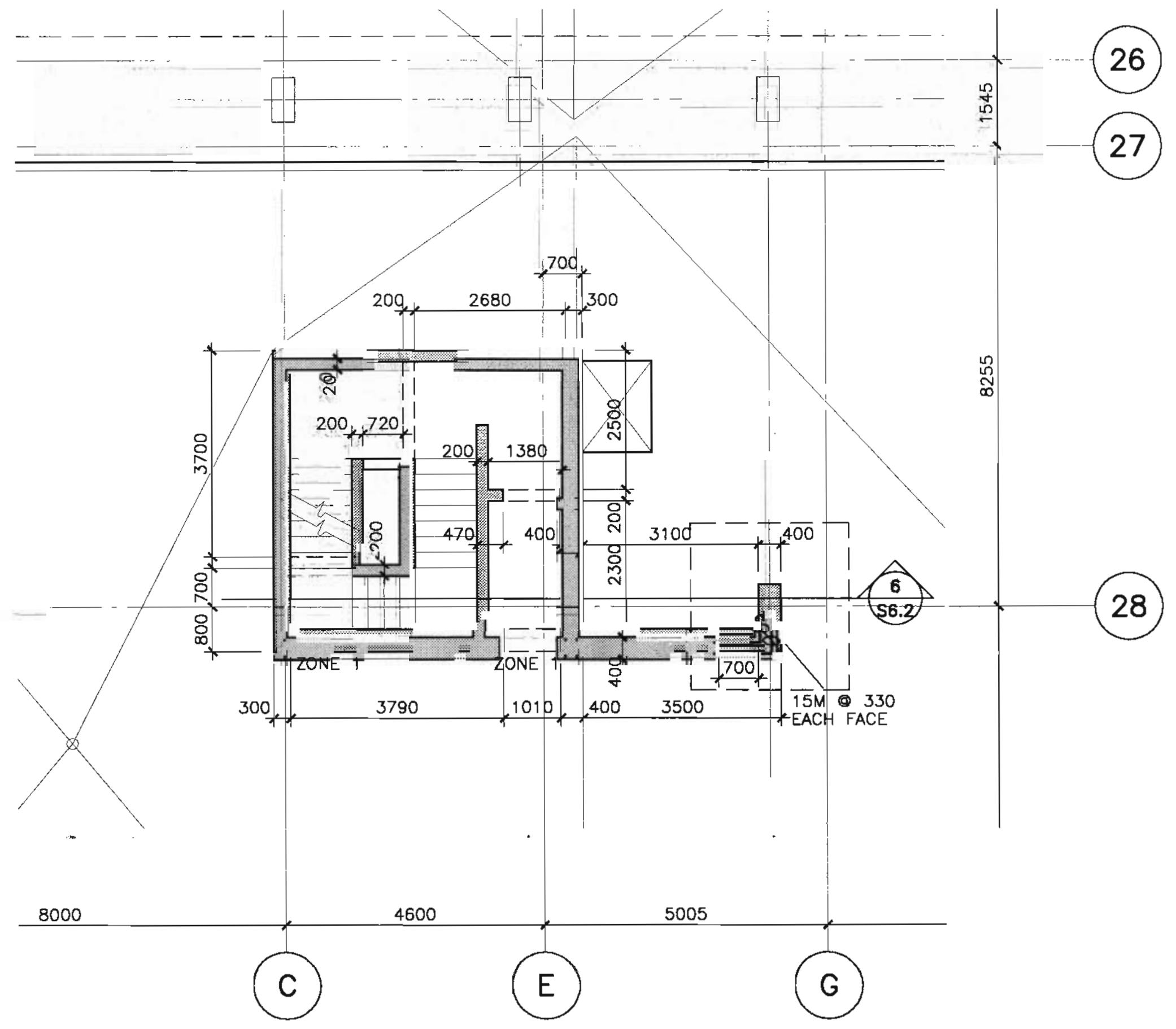

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S6.2 PARKING LEVEL P1
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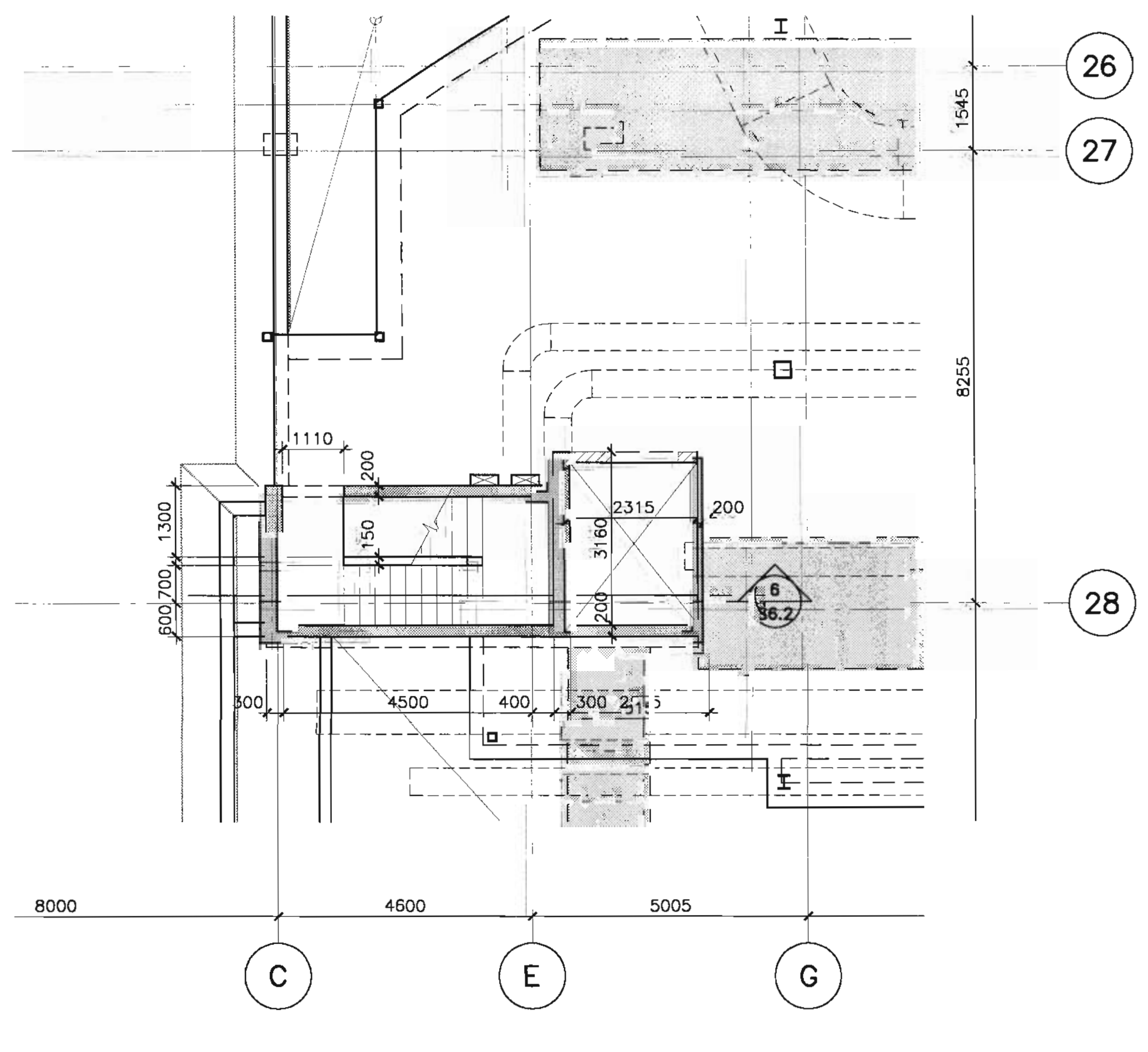

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S6.2 LEVEL 3
SCALE: 1:100

SHEAR WALL NOTES

1. HOOK DISCONTINUOUS ZONE REINFORCING 800 INTO SLABS, U.N.O.
2. DO NOT CRANK BARS. AT OFFSETS OR WHERE VERTICAL REINFORCING TERMINATES, PROVIDE DOWELS OF SAME SIZE AND SPACING TO MATCH REINFORCING ABOVE, U.N.O.
3. PROVIDE TENSION EMBEDMENT AND CASE '2' SPLICES FOR ALL VERTICAL AND HORIZONTAL REINFORCING IN CORE WALLS.
4. PROVIDE TENSION LAP SPLICES FOR ALL ZONE REINFORCING. EXTEND ALL DOWELS FOR ZONE REINFORCING TO BOTTOM OF FOOTINGS.
5. SEE DRAWING S1.3 FOR ADDITIONAL NOTES AND DETAILS.

CORE WALL SCHEDULE

WALL THICKNESS	REINFORCING
200	15M @ 500 VERT. 10M @ 330 HORIZ.
300	15M @ 250 VERT. E.F. 10M @ 440 HORIZ. E.F.
400	15M @ 500 VERT. E.F. 10M @ 330 HORIZ. E.F.

ZONE TIES

WALL	TIES & SPACING
400	10M TIES @ 400

ZONE SCHEDULE

	ZONE 1	CONCRETE STRENGTH f'c (MPa)
3rd. FLOOR		30 MPa
2nd FLOOR		
MAIN FLOOR		
PARKING LEVEL P1		
	4–25M VERT.	
PARKING LEVEL P2		
FOOTING		
	HOOKED DWLS. TO MATCH WALL VERTS.	

BKDI
ARCHITECTS
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