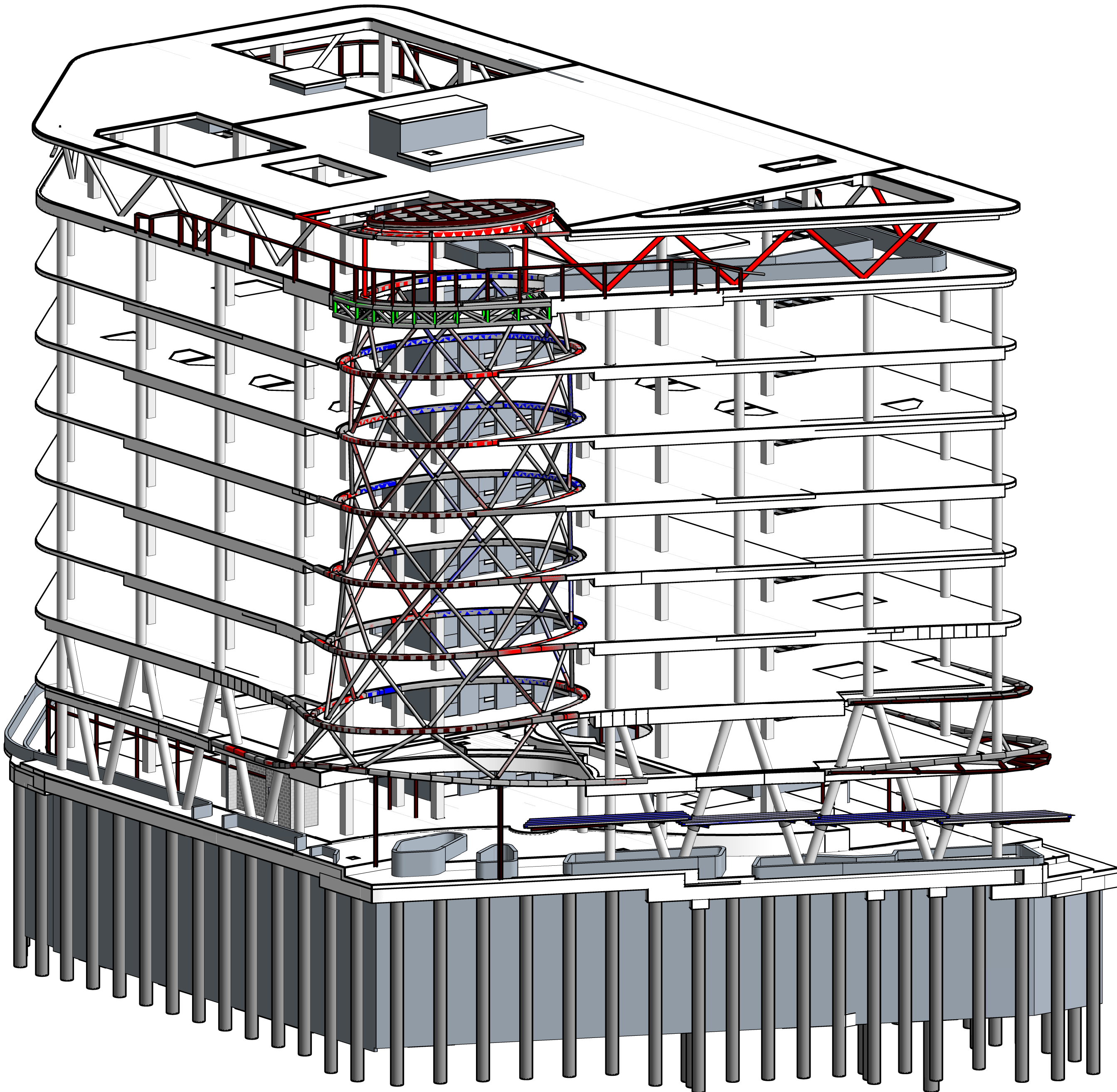


GOLD COAST HEALTH & KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT, QLD

DRAWING LIST	
DRG NUMBER	TITLE
S0.00.00	COVER SHEET AND DRAWING LIST
S0.00.01	CONSTRUCTION NOTES - SHEET 1
S0.00.05	STEEL WEIGHT SCHEDULES
S1.00.01	SHORING LAYOUT PLAN
S1.00.11	SHORING ELEVATIONS - SHEET 1
S1.00.12	SHORING WALL SECTIONS
S1.00.21	SHORING DETAILS - SHEET 1
S2.01.01	LEVEL B3 - FOOTING LAYOUT PLAN
S2.01.02	LEVEL B3 - SLAB ON GROUND PLAN
S2.01.11	LEVEL B3 - FOOTING DETAILS - SHEET 1
S2.01.12	LEVEL B3 - FOOTING DETAILS - SHEET 2
S2.01.21	LEVEL B3 - TYPICAL SLAB ON GROUND DETAILS - SHEET 1
S2.01.22	LEVEL B3 - TYPICAL SLAB ON GROUND DETAILS - SHEET 2
S2.01.23	LEVEL B3 - TYPICAL SLAB ON GROUND DETAILS - SHEET 3
S2.01.24	LEVEL B3 - SLAB ON GROUND DETAILS - SHEET 1
S3.00.01	CONCRETE COLUMN SCHEDULE - SHEET 1
S3.00.11	CONCRETE COLUMN DETAILS
S3.00.21	CONCRETE WALL ELEVATIONS - SHEET 1
S3.00.22	CONCRETE WALL ELEVATIONS - SHEET 2
S3.00.23	CONCRETE WALL ELEVATIONS - SHEET 3
S3.00.24	CONCRETE WALL ELEVATIONS - SHEET 4
S3.00.25	CONCRETE WALL ELEVATIONS - SHEET 5
S3.00.31	REINFORCED CONCRETE WALL DETAILS - SHEET 1
S3.00.41	BLOCKWORK WALL DETAILS - SHEET 1
S3.00.42	BLOCKWORK WALL DETAILS - SHEET 2
S3.00.51	NON-LOADBEARING BLOCKWORK DETAILS
S4.02.01	LEVEL B2 - GENERAL ARRANGEMENT PLAN
S4.02.02	LEVEL B2 - BOTTOM REINFORCEMENT PLAN
S4.02.03	LEVEL B2 - TOP REINFORCEMENT PLAN
S4.02.11	LEVEL B2 - SUSPENDED SLAB DETAILS - SHEET 1
S4.03.01	LEVEL B1 - GENERAL ARRANGEMENT PLAN
S4.03.11	LEVEL B1 - SUSPENDED SLAB DETAILS - SHEET 1
S4.10.01	LEVEL 0 - GENERAL ARRANGEMENT PLAN
S4.10.11	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 1
S4.10.12	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 2
S4.10.13	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 3

DRAWING LIST	
DRG NUMBER	TITLE
S4.10.14	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 4
S4.10.15	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 5
S4.10.16	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 6
S4.10.17	LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 7
S4.11.01	LEVEL 1 - GENERAL ARRANGEMENT PLAN
S4.12.01	LEVEL 2 - GENERAL ARRANGEMENT PLAN
S4.13.01	LEVEL 3 - GENERAL ARRANGEMENT PLAN
S4.14.01	LEVEL 4 - GENERAL ARRANGEMENT PLAN
S4.15.01	LEVEL 5 - GENERAL ARRANGEMENT PLAN
S4.16.01	LEVEL 6 - GENERAL ARRANGEMENT PLAN
S4.17.01	LEVEL 7 - GENERAL ARRANGEMENT PLAN
S4.18.01	LEVEL 8 - GENERAL ARRANGEMENT PLAN
S4.19.01	ROOF LEVEL - PLANT SLABS GENERAL ARRANGEMENT PLAN
S4.19.11	ROOF LEVEL - SUSPENDED SLAB DETAILS - SHEET 1
S4.20.01	SUSPENDED SLAB TYPICAL DETAILS - SHEET 1
S4.20.02	SUSPENDED SLAB TYPICAL DETAILS - SHEET 2
S4.20.03	SUSPENDED SLAB TYPICAL DETAILS - SHEET 3
S4.20.04	SUSPENDED SLAB TYPICAL DETAILS - SHEET 4
S4.20.05	SUSPENDED SLAB TYPICAL DETAILS - SHEET 5
S4.20.06	SUSPENDED SLAB TYPICAL DETAILS - SHEET 6
S4.20.11	TYPICAL FLOORS (LEVEL 1-8) SUSPENDED SLAB DETAILS - SHEET 1
S4.20.12	TYPICAL FLOORS (LEVEL 1-8) SUSPENDED SLAB DETAILS - SHEET 2
S4.20.13	TYPICAL FLOORS (LEVEL 1-8) SUSPENDED SLAB DETAILS - SHEET 3
S4.20.14	TYPICAL FLOORS (LEVEL 1-8) SUSPENDED SLAB DETAILS - SHEET 4
S4.20.15	TYPICAL FLOORS (LEVEL 1-8) SUSPENDED SLAB DETAILS - SHEET 5
S5.00.00	ROOF STEELWORK 3D VIEWS
S5.00.01	ROOF STEELWORK FRAMING PLAN
S5.00.02	ROOF STEELWORK PURLIN PLAN
S5.00.11	ROOF STEELWORK SCHEMATIC ELEVATIONS - SHEET 1
S5.00.12	ROOF STEELWORK SCHEMATIC ELEVATIONS - SHEET 2
S5.00.21	STEELWORK DETAILS - SHEET 1
S5.00.22	STEELWORK DETAILS - SHEET 2

DRAWING LIST	
DRG NUMBER	TITLE
S5.00.23	STEELWORK DETAILS - SHEET 3
S5.00.24	STEELWORK DETAILS - SHEET 4
S5.00.51	ATRIUM STEELWORK PLANS (LEVEL 1-7)
S5.00.52	ATRIUM STEELWORK PLANS - LEVEL 8
S5.00.53	ATRIUM STEELWORK DETAILS - SHEET 1
S5.10.01	GROUND FLOOR - PLANT PLATFORM MEZZANINE FRAMING PLANS
S5.10.02	GROUND FLOOR - GLAZING SUPPORT STEELWORK PLANS
S5.10.03	GROUND FLOOR - GLAZING SUPPORT FRAMING ELEVATIONS
S5.11.11	LEVEL 1 - CANOPY STEELWORK FRAMING PLANS
S5.12.01	LEVEL 1 & 2 - FACADE FRAMING PLANS
S5.18.01	LEVEL 8 - STEELWORK GLAZING FRAMING
S5.19.01	ROOF LEVEL - STEELWORK PLAN
S6.00.01	STAIR 1 PLANS & ELEVATIONS
S6.00.02	STAIR 2 PLANS & ELEVATIONS
S6.00.03	STAIR 3 & 4 PLANS & ELEVATIONS
S6.00.04	STAIR 5 & 6 - PLANS & ELEVATIONS
S6.00.11	STAIR DETAILS (CONCRETE)
S7.01.01	LINK BRIDGE - FOOTING LAYOUT PLAN
S7.05.01	LINK BRIDGE - STEELWORK FRAMING PLANS
S7.05.11	LINK BRIDGE - STEELWORK ELEVATIONS - SHEET 1
S9.01.00	BASEMENT 3 - LOADING PLAN
S9.02.00	BASEMENT 2 - LOADING PLAN
S9.03.00	BASEMENT 1 - LOADING PLAN
S9.10.00	GROUND FLOOR - LOADING PLAN
S9.11.00	LEVEL 1 - LOADING PLAN
S9.12.00	LEVEL 2 - LOADING PLAN
S9.13.00	LEVEL 3 - LOADING PLAN
S9.14.00	LEVEL 4 - LOADING PLAN
S9.15.00	LEVEL 5 - LOADING PLAN
S9.16.00	LEVEL 6 - LOADING PLAN
S9.17.00	LEVEL 7 - LOADING PLAN
S9.18.00	LEVEL 8 - LOADING PLAN
S9.19.00	ROOF LEVEL - LOADING PLAN



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



C	14.04.23	80% DO ISSUE	P.G.	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.
A	9.12.22	PRICING ISSUE	P.G.	R.B.
ISSUE DATE	AMENDMENT	BY	APP	

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CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

COVER SHEET AND DRAWING LIST

DESIGN	R.B.	DRAWN	P.G.	SCALES
CHKD		APPRD		DATE

mpn:038 DRAWING No: 9541 S0.00.00

REV C

PRELIMINARY

NOT FOR CONSTRUCTION

PRINT IN COLOUR

GENERAL NOTES

1. GENERAL
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF CONSTRUCTION. ALL DISCREPANCIES AND VARIATIONS SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
IF IN DOUBT, ASK!
ALL DIMENSIONS RELATIVE TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED IN THE DESIGN OF THE FABRICATION IS COMMENCED. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING STRUCTURAL DRAWINGS.
DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART TO BE OVERSTRESSED
2. DESIGN LOADS
THE STRUCTURAL ELEMENTS SHOWN ON THESE DRAWINGS HAVE BEEN DESIGNED FOR SUPERIMPOSED LOADS AS FOLLOWS:-
SUPERIMPOSED DEAD LOADS - REFER RELEVANT DWG
LIVE LOADS - REFER RELEVANT DWG
BCA BUILDING IMPORTANCE LEVEL:- 3
WIND LOADS - REGION: 8
TERRAIN CATEGORY: 3
REFER TO AS 1170.2 FOR ALL WIND VELOCITIES AND PRESSURE COEFFICIENTS
3. EARTHQUAKE LOADS
DESIGNED TO RESIST EARTHQUAKE LOADS AND THE PROBABILITY FACTOR: 1.3
HAZARD FACTOR: 0.08
SITE SUB SOIL CLASS: C₀
EARTHQUAKE DESIGN CATEGORY: II
REFER TO AS 1170.4 FOR DETAILS.
STRUCTURAL FRAMING SHOWN ON MPN DRAWINGS HAS BEEN DESIGNED TO RESIST EARTHQUAKE LOADS AND THE PERFORMANCE REQUIREMENTS NOMINATED IN AS1170.4. IN AN EARTHQUAKE EVENT, SOME DAMAGE TO THE STRUCTURE MAY OCCUR THAT WOULD REQUIRE REPAIRS OR PART DEMOLITION.
4. EXPOSURE CLASSIFICATION
CONCRETE ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING DURABILITY EXPOSURE CLASSIFICATIONS IN ACCORDANCE WITH AS 3600:-
EXTERNAL: B1
INTERNAL: A2
FOOTINGS: A2

IMPORTANT SAFETY NOTICE

MPN CONSULTING PTY LTD RECOGNISES THE IMPORTANCE OF OCCUPATIONAL HEALTH AND SAFETY. HOWEVER, MPN CONSULTING PTY LTD HAS NOT BEEN ENGAGED TO DEVELOP, CHECK, SUPERVISE OR CONTROL WORKERS OR METHODS OF WORK.
MPN CONSULTING PTY LTD DOES NOT HAVE THE CAPACITY OR AUTHORITY TO CONTROL WORKERS OR METHODS OF WORK.
NOTHING IN THESE DESIGNS SHOULD BE INTERPRETED AS GOING BEYOND THE STRUCTURAL INTEGRITY OF THE SUBJECT MATTER OF THE DESIGNS AND THEY SHOULD NOT BE USED AS AN INDICATOR OF THE APPROPRIATE METHODS OF WORK OR WORK AROUND THE SUBJECT MATTER.
CONCERNS ABOUT THE CONDUCT OF WORKERS OR METHODS OF WORK SHOULD BE RAISED WITH THE APPROPRIATE SAFETY OFFICIAL ON SITE.

ABBREVIATIONS

ARCH, ARCHITECTURAL	l.g	LONG
ARCHITECT	l.g	LIVE LOAD
BLDG BUILDING	MAX	MAXIMUM
BLK BLOCKWORK	MECH	MECHANICAL
BP BASE PLATE	MEZZ	MEZZANINE
BTM BOTTOM	MIN	MINIMUM
C.L. CENTERLINE	MISC	MISCELLANEOUS
C.P.B.W. COMPLETE PENETRATION	N.S.O.P.	NOT SHOWN ON PLAN
	NA	NOT APPLICABLE
	NOM	NOMINAL
COL COLUMN	O.C.	ON CENTER
CONC CONCRETE	PL	PLATE
CONT CONTINUOUS	PRELIM	PRELIMINARY
CTS CENTERS	REF	REFERENCE
DEG DEGREE	REINFT	REINFORCEMENT
DIA DIAMETER	REOD	REQUIRED
DIST DISTANCE	S.A.B.P.	SAFE ALLOWABLE BEARING PRESSURE
DL DEAD LOAD	SECT./SEC	SECTION
DWG DRAWINGS	SEM	SIMILAR
EF EACH FACE	STIF	STIFFENER
LEC ELECTRICAL	STRUCT	STRUCTURAL
EMBED EMBEDMENT	T&B	TOP AND BOTTOM
EQUIP EQUIPMENT	T.B.C.	TO BE CONFIRMED
EQUIV EQUIVALENT	THK	THICK OR THICKNESS
EW EACH WAY	TYP	TYPICAL
EX EXISTING	U.N.O.	UNLESS NOTED OTHERWISE
GALV GALVANIZED	ULT	ULTIMATE
HEF HORIZONTAL EACH FACE	VEF	VERTICAL EACH FACE
HORIZ HORIZONTAL		

STEELWORK ABBREVIATIONS

B BEAM	P PURLIN
CJ CEILING JOIST	PS PANEL SUPPORT
DH DOOR HEAD	R RAFTER
DP DROPPER	RB ROOF BRACE
EB EDGE BEAM	S STRUT
FB FLY BRACE	SC STEEL COLUMN
FP FASCIA PURLIN	STB STUB COLUMN
G GIRT	T TRUSS
H HEAD	TR TRANSFER BEAM
HC HANGING COLUMN	TR TRIMMING PURLIN
J JOIST	WB WALL BRACE
M MILLION	WH WALL HEAD
OR OUTRIGGER	WS WALL SILL

FOOTING NOTES

1. FOOTINGS
AN ALLOWABLE BEARING PRESSURE IN NATURAL GROUND OF 800 kPa HAS BEEN ASSUMED IN THE DESIGN OF THE FOOTINGS. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT THE GROUND IS CAPABLE OF CARRYING THIS PRESSURE.
FOR BORED PIERS AN ALLOWABLE BEARING PRESSURE OFkPa AND SKIN FRICTION OFkPa HAS BEEN ASSUMED IN THE DESIGN OF THE FOOTINGS. THE BUILDER SHALL ENGAGE A GEOTECHNICAL ENGINEER TO VERIFY THAT THE GROUND IS CAPABLE OF CARRYING THIS PRESSURE. SKIN FRICTION AND SHALL SUPPLY LINERS AS REQUIRED FOR SAFETY.
WHERE REQUIRED FOUNDATION MATERIAL DEEPER THAN THE UNDERSIDE OF FOOTINGS AS DETAILED. BACKFILL ADDITIONAL EXCAVATION WITH 100 CONCRETE WHERE EXCAVATION WORK IS TO BE CARRIED OUT ADJACENT TO EXISTING FOOTINGS. THE EXACT LEVEL OF THE UNDERSIDE OF THE FOOTINGS SHALL BE OBTAINED BY TESTS PRIOR TO EXCAVATION. UNDER PAVING AND SIKING SHALL BE CARRIED OUT AS DETAILED OR AS REQUIRED BY STRUCTURAL ENGINEER. THE EXISTING STRUCTURE SHALL BE MAINTAINED IN A STABLE AND UNCHANGED CONDITION.
ALL FOOTING EXCAVATIONS TO BE CLEARED OF LOOSE MATERIAL AND WATER.
SIDES OF FOOTING SHALL BE FORMED AS NECESSARY WHEN EXCAVATED FACE IS NOT STABLE.
ALL FLOORS AND COLUMNS SHALL BE CONCENTRIC WITH SUPPORTING FOOTINGS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

PILING NOTES

1. GENERAL
ALL PILING TO BE IN ACCORDANCE WITH THE PILING SPECIFICATIONS AND DETAILS SET OUT IN THE DOCUMENTATION.
PILE WORKING LOADS WHICH ARE NOTED ON THE PILING LAYOUT SHOULD NOT INCLUDE POSSIBLE DRAW DOWN LOADS REFER SOILS INVESTIGATION REPORT BY SOIL SURVEYS AND IN ADDITION, THE PILES SHALL BE DESIGNED TO WITHSTAND A CONSTRUCTION ECCENTRICITY OF 75mm.
ALL PILES SHALL BE DESIGNED FOR A 100 YEAR DESIGN LIFE IN ACCORDANCE WITH AS1519.
THE PILING CONTRACTOR IS TO SUBMIT THE FOLLOWING DETAILS TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION:-
- PROPOSED PILE TYPE
- METHOD OF CONSTRUCTION
- PILE SIZES, CALCULATIONS SUBSTANTIATING PILE LOAD CAPACITIES, PILE REINFORCEMENT REQUIREMENTS, PILE BORING REQUIREMENTS, MINIMUM FOUNDING DEPTHS, ALLOWANCE FOR DRAW DOWN LOADS AND ANY PILE CAP DETAILS REQUIRED IN ADDITION TO THOSE SHOWN ON THE DRAWINGS.
- PROPOSED TESTING METHODS TO PROVE PILE CAPACITIES IN ACCORDANCE WITH AS 2159 PILING CODE AND THE SPECIFICATION
2. INSTALLATION
PRIOR TO COMMENCEMENT OF ANY PILING WORK THE BUILDER SHALL LOCATE ALL NEW AND EXISTING SERVICES RELATIVE TO PILE LOCATIONS. THE ENGINEER IS TO BE NOTIFIED OF ANY POTENTIAL CLASHES.
PILES AT THE CUT OFF LEVEL TO HAVE THE FULL CROSS SECTION AND PILE REINFORCEMENT SHALL EXTEND A MINIMUM OF 500mm INTO THE FOOTING/PILE CAP.
PILES LESS THAN 3000 LONG ARE TO BE PRE-BORED 1000 MINIMUM INTO NEW ROCK TO ENSURE PILE STABILITY.
PILING CONTRACTOR IS TO MINIMISE ANY NOISE AND VIBRATION DUE TO PILE INSTALLATION ADJACENT TO EXISTING BUILDINGS AND SERVICES. REFER PILING SPECIFICATION FOR REQUIREMENTS.
PILE LOAD TESTS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT CODE AND SPECIFICATION
3. CERTIFICATION
AT COMPLETION OF PILE INSTALLATION THE PILING CONTRACTOR IS TO SUPPLY THE FOLLOWING:-
- INITIAL SURVEY OF "AS CONSTRUCTED" PILE POSITIONS AT PILE CUT OFF LEVEL, INCLUDING ANY ECCENTRICITIES.
- (B) CERTIFICATE CONFIRMING THE STRUCTURAL ADEQUACY OF THE PILES FOR THEIR PROPOSED USAGE AND THAT THE PILES COMPLY FULLY WITH THE REQUIREMENTS OF MPN CONSULTING DRAWINGS AND SPECIFICATIONS.

1. GENERAL
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 "CONCRETE STRUCTURES" EXCEPT AS VARIED BY CONTRACT DOCUMENTS.
CONCRETE STRENGTH GRADE FOR PARTICULAR ELEMENTS SHALL BE AS NOTED ON DRAWINGS.
SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES. BEAM SIZES ARE SHOWN DEPTH FIRST AND INCLUDE SLAB THICKNESS. UNLESS NOTED OTHERWISE ALL FORMED EDGES AND CORNERS OF CONCRETE MEMBERS SHALL HAVE 20mm CHAMFERS.
THE FACE OF ALL CONCRETE AGAINST WHICH NEW CONCRETE IS TO BE CAST IS TO BE THOROUGHLY MECHANICALLY SCABLED. FULLY EXPOSED AND THE AGGREGATE MATRIX UNLESS OTHERWISE NOTED.
SLABS AND BEAMS SHALL BEAR ONLY ON THE COLUMNS, WALLS, ETC. SHOWN SHADED ON PLANS. ALL OTHER NON LOADBEARING WALLS ELEMENTS INCLUDING WINDOW MULLIONS, ARCHITECTURAL ATTACHMENTS NON LOAD BEARING WALLS ETC. SHALL BE KEPT 20mm CLEAR FROM SOFFIT OF STRUCTURE. ALLOWANCE TO BE MADE IN ANY CONNECTIONS TO SLAB OR BEAM SOFFIT FOR 20mm UNCHANGED CONDITION.
WHERE SLABS OR BEAMS BEAR ON MASONRY THE TOP COURSE SHALL BE LEVEL, SMOOTH AND COVERED WITH APPROVED SLIDING JOINT MATERIAL UNLESS NOTED OTHERWISE.
NO MASONRY WALLS TO BE ERRECTED ON SUSPENDED SLABS AND BEAMS UNTIL ALL PROPPING HAS BEEN REMOVED.
REFER GENERAL ARRANGEMENT PLAN FOR GENERAL NOTES AND DESIGN LOADS.
DESIGNED TO RESIST EARTHQUAKE LOADS AND THE PERFORMANCE REQUIREMENTS NOMINATED IN AS1170.4. IN AN EARTHQUAKE EVENT, SOME DAMAGE TO THE STRUCTURE MAY OCCUR THAT WOULD REQUIRE REPAIRS OR PART DEMOLITION.
4. EXPOSURE CLASSIFICATION
CONCRETE ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING DURABILITY EXPOSURE CLASSIFICATIONS IN ACCORDANCE WITH AS 3600:-
EXTERNAL: B1
INTERNAL: A2
FOOTINGS: A2

CONCRETE NOTES

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INTERNAL: A2
FOOTINGS: A2

2. REINFORCEMENT
ALL REINFORCEMENT SHALL BE TO CURRENT EDITIONS OF AS 4671 U.N.O.
SYMBOLS:
E = DEFORMED RIBBED 800MPa EARTHQUAKE DUCTILITY BAR (D500L)
L = DEFORMED RIBBED 500MPa LOW DUCTILITY BAR (D500L)
N = DEFORMED RIBBED 500MPa NORMAL DUCTILITY BAR (D500L)
R = ROUND 250MPa NORMAL DUCTILITY BAR (R250N).
THE NUMBER FOLLOWING THE BAR IS THE NOMINAL BAR DIAMETER IN MILLIMETRES.
ALL WELDED MESH REINFORCEMENT SHALL BE FABRICATED FROM DEFORMED RIBBED 500MPa BAR (D500) U.N.O.
REINFORCEMENT SHALL BE BENT COLD IN ACCORDANCE WITH AS 3600 EXCEPT WHERE APPROVED BY THE STRUCTURAL ENGINEER.
PENETRATION LOCATIONS AND POSITIONS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL ON EXISTING STRUCTURAL DRAWINGS. DO NOT CUT REINFORCEMENT ON SITE TO CLEAR PENETRATIONS. DISPLACE REINFORCEMENT SLIGHTLY AS NECESSARY TO CLEAR BLOCK OUTS.
REINFORCEMENT IS SHOWN DIAGRAMMATIC. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
FOR LAPS AND COVERS REFER SCHEDULES ON REINFORCEMENT DRAWINGS.

3. PLACING
ALL CONCRETE IS TO BE MECHANICALLY VIBRATED DURING PLACING.
CONSTRUCTION JOINTS SHALL BE FORMED AND USED ONLY WHERE SHOWN ON THE DRAWINGS OR SPECIFICALLY APPROVED BY THE ENGINEER.
4. SURFACE FINISH
FORMWORK FOR CONCRETE UNLESS SPECIFIED OTHERWISE, CONCRETE IS TO BE A CLASS 3 FINISH WHERE EXPOSED TO VIEW IN THE FINAL PROJECT AND CLASS 4 ELSEWHERE.

1. GENERAL
ALL SURFACES SUBJECT TO PEDESTRIAN TRAFFIC SHALL MEET THE MINIMUM PENDULUM OR RAMP RECOMMENDATIONS CONTAINED IN TABLE 3 OF AUSTRALIAN STANDARD HANDBOOK HB197-1999 - AN INTRODUCTORY GUIDE TO THE SLIP RESISTANCE OF PEDESTRIAN SURFACE MATERIALS. COMPLIANCE WITH THE RECOMMENDATIONS SHALL BE VERIFIED BY TESTING TO EITHER:-
- ASINZS 4686:2004 - SLIP RESISTANCE CLASSIFICATIONS OF NEW PEDESTRIAN SURFACE MATERIALS, OR
- ASINZS 4663:2004 - SLIP RESISTANCE MEASUREMENT OF EXISTING PEDESTRIAN SURFACES AS APPROPRIATE. IN BOTH INSTANCES COMPLIANCE SHALL BE DEMONSTRATED BY APPLYING CLAUSE 5.3 - MEANS OF DEMONSTRATING COMPLIANCE OF ASINZS 4686:2004 - SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS.

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CONCRETE NOTES Cont.

7. CURING
ADEQUATE MEASURES SHALL BE TAKEN TO CONTROL DRYING SHRINKAGE OF CONCRETE DURING PLACEMENT, COMPACTION AND FINISHING.
ACCEPTABLE CURING METHODS ARE PONDING, ABSORPTIVE COVER, LOW PRESSURE STEAM, IMPERMEABLE SHEET MEMBRANE AND CURING COMPOUNDS AS PER AS3799 (PVA COMPOUNDS ARE NOT PERMITTED).
CONCRETE PLACEMENT AND COMPACTION IS TO BE COMPLETED WITHIN AN APPROPRIATE TIME.
NO WATER IS TO BE ADDED TO CONCRETE MIX ON SITE UNLESS APPROVED AND SPECIFIED BY ENGINEER.
USE ALIPHATIC ALCOHOL AS SOON AS SCREENING IS FINISHED AS NECESSARY.
CURING SHALL COMMENCE ONTO SLABS IMMEDIATELY AFTER INITIAL SET OF THE CONCRETE OR IMMEDIATELY AFTER REMOVAL OF FORMWORK.
HOT AND COLD WEATHER CURING PROCEDURES SHALL BE USED IF NECESSARY. REFER MPN SPECIFICATION FOR TEMPERATURE CONTROL LIMITS ETC.
IN WINDY CONDITIONS, WIND BREAKS SHALL BE ERRECTED TO SHIELD THE CONCRETE SURFACES DURING AND AFTER PLACEMENT.
WHENEVER THERE IS INTERFERENCE BETWEEN A TENDON AND ANY KIND OF CONDUIT, THE TENDON PROFILE GOVERNS.

8. STRIPPING
STRIPPING OF FORMS AND REMOVAL OF FORMWORK SHALL BE IN ACCORDANCE WITH AS 3600 "CONCRETE STRUCTURES" CLAUSE 17.5 UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
9. POST INSTALLED REINFORCEMENT
POST INSTALLED REINFORCEMENT IS NOT TO BE USED UNLESS SPECIFIED ON DRAWINGS.
ALL ANCHORS MUST COMPLY WITH THE REQUIREMENTS OF AS 3600 AND AS 5216:2018.
ALL ANCHORS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.
INSTALLATION SHOULD BE PERFORMED BY AN AFAEC CERTIFIED INSTALLER OR BY A PERSON TRAINED BY THE MANUFACTURER/SUPPLIER OF THE SPECIFIED PRODUCT.
ANCHORS ARE TO BE HAMMER DRILLED. HAMMER DRILLING IS NOT TO BE SUBSTITUTED WITH CORE DRILLING UNLESS APPROVED BY THE ENGINEER.
ALL CHEMICAL ANCHOR EPOXY USED TO FIX REINFORCEMENT INTO SOLID CONCRETE SHALL BE HILTI RE-SOUD3 OR APPROVED EQUIVALENT.

3. STRESSING
AFTER ALLOWANCE IS MADE FOR "DRAW-IN" AT THE ANCHORAGES THE AVERAGE OF ALL THE STRANDS IN A TENDON SHOULD NOT VARY BY NOT MORE THAN 5% FROM THE CALCULATED EXTENSIONS AT THE SPECIFIC JACKING LOAD.
THE TOTAL CALCULATED LOSSES DUE TO THE ELASTIC CREEP AND SHRINKAGE STRAINS IN THE CONCRETE, AND DUE TO STRAND RELAXATION AND COLUMN RESISTANCE ARE NOTED "DEFERRED STRAIN" LOSSES AND ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
RE-STRESSING OF TENDONS, EXAMINATION OF WEDGE GRIPS AND CALIBRATION CHECK ON JACK GAUGES MAY BE DIRECTED BY THE STRUCTURAL ENGINEER WHERE EXTENSION READINGS EXCEED THE LIMIT OF VARIATION. BEAM AND SLAB BRAND TENDONS ARE TO BE STRESSED PRIOR TO SLAB TENDONS U.N.O.
4. GROUTING
GROUTING OF TENDONS AND CUTTING OFF STRAND ENDS SHALL BE CARRIED OUT ONLY AFTER WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
GROUTING OF ENDS SHALL BE COMPLETED WITHIN 48 HOURS OF ENGINEERS GRANTING APPROVAL OF EXTENSIONS. WRITTEN CERTIFICATION OF COMPLETION OF GROUTING SHALL BE SUBMITTED TO CONSULTING ENGINEER.
ALL EXPOSED STEEL IN THE BLOCK OUTS SHALL BE PAINTED WITH A TAR-EPOXY PRIMER AND THE EXPOSED CONCRETE SURFACES WITH AN EPOXY BONDING AGENT. FILL THE BLOCK OUT WITH 1:1 COURSE SAND : CEMENT MIX (OR PREMIXED PACKS TO BE USED) AND FINISH TO A SURFACE CONSISTENT WITH THE SURROUNDING CONCRETE PROFILE.
THIS WORK SHALL BE COMPLETED BEFORE GROUTING OF TENDONS.
GROUT SHALL CONSIST OF A NET CEMENT, WATER, AIR ENTRAINING AGENT AND A WATER REDUCING AGENT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AT SEVEN DAYS AND A WATER CEMENT RATIO NOT EXCEEDING 0.5 WITH AN ANTI-BLEED MIXTURE. SUBMIT MIX FOR APPROVAL.

PRESTRESSED CONCRETE NOTES

1. GENERAL
ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CURRENT EDITION OF AS 3600 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
THE TYPE, SERIAL NUMBERS AND CURRENT CALIBRATION CERTIFICATES OF STRESSING JACKS DESIGNATED FOR STRESSING OPERATIONS ARE TO BE FORWARDED TO THE STRUCTURAL ENGINEER BEFORE COMMENCEMENT OF STRESSING WORK.
FOR DESIGN FACTORS AND TENDON INFORMATION REFER RELEVANT STRESSING DRAWINGS.
2. PLACING
THE TENDONS SHALL BE LOCATED AND FIXED IN ACCORDANCE WITH THE DRAWINGS AND PROVIDED TO A VERTICAL TOLERANCE OF PLUS OR MINUS 3mm. EACH TENDON SHALL BE SUPPORTED AT MAXIMUM 1000mm CENTRES ALONG ITS LENGTH ON SUBSTANTIAL SUPPORT CHAIRS SECURELY FIXED IN POSITION TO PREVENT VERTICAL AND LATERAL DISPLACEMENT DURING CONCRETING.
WHENEVER THERE IS INTERFERENCE BETWEEN A TENDON AND ANY KIND OF CONDUIT, THE TENDON PROFILE GOVERNS.

THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY STAGING AND SAFETY HARDWARE FOR STRESSING OPERATIONS. FORMWORK SHALL BE DESIGNED TO SUPPORT REACTIONS DURING STRESSING.
THE DUCTS ARE TO BE GALVANISED AND RIGID ENOUGH TO RETAIN THEIR SHAPE. JOINTS SHALL BE SECURELY TAPED TO PREVENT ENTRY OF SLURRY INTO DUCTS.
PARTICULAR ATTENTION IS TO BE PAID TO THE COMPACTION OF CONCRETE AROUND ANCHORAGES AND TENDON DUCTS. ENSURE THAT THE TENDON DUCTS, JOINT SEALS AND VENT PIPES ARE NOT DISPLACED OR DAMAGED DURING CONCRETING.

3. STRESSING
AFTER ALLOWANCE IS MADE FOR "DRAW-IN" AT THE ANCHORAGES THE AVERAGE OF ALL THE STRANDS IN A TENDON SHOULD NOT VARY BY NOT MORE THAN 5% FROM THE CALCULATED EXTENSIONS AT THE SPECIFIC JACKING LOAD.
THE TOTAL CALCULATED LOSSES DUE TO THE ELASTIC CREEP AND SHRINKAGE STRAINS IN THE CONCRETE, AND DUE TO STRAND RELAXATION AND COLUMN RESISTANCE ARE NOTED "DEFERRED STRAIN" LOSSES AND ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
RE-STRESSING OF TENDONS, EXAMINATION OF WEDGE GRIPS AND CALIBRATION CHECK ON JACK GAUGES MAY BE DIRECTED BY THE STRUCTURAL ENGINEER WHERE EXTENSION READINGS EXCEED THE LIMIT OF VARIATION. BEAM AND SLAB BRAND TENDONS ARE TO BE STRESSED PRIOR TO SLAB TENDONS U.N.O.

4. GROUTING
GROUTING OF TENDONS AND CUTTING OFF STRAND ENDS SHALL BE CARRIED OUT ONLY AFTER WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
GROUTING OF ENDS SHALL BE COMPLETED WITHIN 48 HOURS OF ENGINEERS GRANTING APPROVAL OF EXTENSIONS. WRITTEN CERTIFICATION OF COMPLETION OF GROUTING SHALL BE SUBMITTED TO CONSULTING ENGINEER.
ALL EXPOSED STEEL IN THE BLOCK OUTS SHALL BE PAINTED WITH A TAR-EPOXY PRIMER AND THE EXPOSED CONCRETE SURFACES WITH AN EPOXY BONDING AGENT. FILL THE BLOCK OUT WITH 1:1 COURSE SAND : CEMENT MIX (OR PREMIXED PACKS TO BE USED) AND FINISH TO A SURFACE CONSISTENT WITH THE SURROUNDING CONCRETE PROFILE.
THIS WORK SHALL BE COMPLETED BEFORE GROUTING OF TENDONS.
GROUT SHALL CONSIST OF A NET CEMENT, WATER, AIR ENTRAINING AGENT AND A WATER REDUCING AGENT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AT SEVEN DAYS AND A WATER CEMENT RATIO NOT EXCEEDING 0.5 WITH AN ANTI-BLEED MIXTURE. SUBMIT MIX FOR APPROVAL.

STEELWORK NOTES

1. GENERAL
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF A.S. CODES, AS 4100 AND AS 1554 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

IN ACCORDANCE WITH ASINZS 5131 THE CONSTRUCTION CATEGORIES FOR THIS PROJECT ARE DEFINED IN THE TABLE BELOW:

ELEMENT: ALL STRUCTURAL STEELWORK U.N.O.	
IMPORTANCE LEVEL	IL2
SERVICE CATEGORY	SC1
FABRICATION CATEGORY	FC1
CONSTRUCTION CATEGORY	CC2

ALL STEEL SHALL BE IN ACCORDANCE WITH AS 1163, AS 1554, AS 3678 AND AS 3679 AS APPROPRIATE.

MEMBER TYPE	GRADE
ALL PLATES	250
ROLLED SECTION	300
WELDED SECTION	300
SHS, RHS AND CHS	350

REFER TO ARCHITECTS FOR FIRE RATING REQUIREMENT.
THE CONTRACTOR SHALL PROVIDE AND EMPLOY ANY ADDITIONAL TEMPORARY BRACING ETC NECESSARY TO ADEQUATELY AND SAFELY HOLD STEELWORK IN POSITION DURING CONSTRUCTION.
SHOP DWGS SHALL BE SUBMITTED TO THE CONSULTING ENGINEER FOR PERUSAL BEFORE FABRICATION IS COMMENCED.
ALL STRUCTURAL STEEL FIXINGS ARE TO BE BASED ON A S.I. STRUCTURAL STEEL - SIMPLE CONNECTIONS UNLESS NOTED OTHERWISE.
SEAL THE ENDS OF ALL TUBULAR MEMBERS WITH 3mm THICK PLATES AND CONTINUOUS SEAL WELOS UNLESS NOTED OTHERWISE. PROVIDE VENT HOLES IF MEMBERS ARE NOT DIPPED GALVANISED.
VERTICAL SUPPORT IS REQUIRED TO HEAD AND SILL MEMBERS AT MID-SPAN IN THE FORM OF HANGERS OR POSTS WHERE SPANS EXCEED 4m UNLESS NOTED OTHERWISE.
BRACING MEMBERS SHALL BE SCREW FIXED OR SIMILARLY HUNG FROM PURLINS AT 3000 MAXIMUM CENTRES.
ALL MEMBERS HAVING A NATURAL CAMBER WITHIN THE STRAIGHTNESS TOLERANCE SHALL BE ERRECTED WITH THE CAMBER UP.
PURLIN SPACING SHOWN ON DRAWINGS ARE A MAXIMUM THEY ARE TO BE VARIED AS REQUIRED TO SUIT ROOF SHEETING.
PROPRIETARY ITEMS (E.G. PURLINS, ROOFWALL SHEETING, BOLTS, ETC) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

ALL SUSPENDED CEILINGS ARE TO COMPLY WITH THE REQUIREMENTS OF ASINZ 2795:2000.
ALL FIXINGS TO PURLINS SHALL BE WELD FIXED IN ACCORDANCE WITH PURLIN MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS. THE CONTRACTOR SHALL ENSURE THAT PURLINS ARE NOT OVERLOADED OR DISTORTED FROM THE FIXINGS OF SERVICES, CEILINGS WALKWAY, ROOF SAFETY SUPPORT SYSTEM, PLANT, ROOF MOUNTED PLATFORMS, etc.
THE CONTRACTOR SHALL PROVIDE CERTIFICATION FROM A REGISTERED ENGINEER FOR THE EARTHQUAKE ASSESSMENT AND FASTENING OF ALL NON-STRUCTURAL PARTS AND COMPONENTS IN COMPLIANCE WITH AS1170-2:2007 PART 8.

2. PROTECTIVE COATING
STEEL ELEMENTS SHALL HAVE PROTECTION AGAINST ATMOSPHERIC CORROSION BY USE OF PROTECTIVE COATINGS IN ACCORDANCE WITH ASINZS 2312.1 AND ASINZS 2312.2.

	YEARS TO FIRST MAINTENANCE	ATMOSPHERIC CORROSION CATEGORY
INTERNAL	15 TO 25 YEARS	C2
EXTERNAL	15 TO 25 YEARS	C3

THE MINIMUM SURFACE TREATMENT OF ALL STRUCTURAL STEELWORK SHALL BE AS FOLLOWS:-
ABRASIVE BLAST CLEAN TO 2.5 IN ACCORDANCE WITH AS 1627.4
APPLY ONE COAT OF GOOD QUALITY OXIDE ZINC PHOSPHATE PRIMER. MINIMUM DRY FILM THICKNESS OF 0.075mm.
ALL STRUCTURAL STEELWORK BELOW GROUND LEVEL TO BE PAINTED WITH FOSROC NITOCOTE EP410 OR APPROVED EQUIVALENT AND ENCASED IN N25 CONCRETE 75mm ALL ROUND U.N.O.
REFER TO ARCHITECT'S SPECIFICATION FOR ALL STEELWORK FINISHES.

3. WELDING
ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS, OR WHERE NOTED, COMPLETE PENETRATION BUTT WELDS (C.P.B.W.) USING E48XX ELECTRODES WITH CATEGORY 5P INSPECTION. ALL TO AS 1554 UNLESS NOTED OTHERWISE.
ALL WELDING SHALL BE PERFORMED BY A QUALIFIED WELDER IN ACCORDANCE WITH AS 1544 PART 1.
SITE WELDS WHERE NOTED IN THE DOCUMENTATION SHALL BE THOROUGHLY WIRE BRUSHED CLEANED AND PAINTED IN ACCORDANCE WITH THE SPECIFICATION.
COLD FORMED SECTIONS SHALL BE WORKSHOP WELDED USING MIG PROCESS WITH LW1 OR EQUIVALENT ELECTRODE. COLD FORMED SECTIONS SHALL NOT BE SITE WELDED WITHOUT THE APPROVAL OF THE SUPERINTENDENT.
WHERE HOT DIP GALVANISED STEELWORK IS TO BE SITE WELDED, PROTECTION SHOULD BE REPAIRED IN ACCORDANCE WITH CL 7.3.2.2 OF ASINZS 2312.2:2014.

4. BOLTS
ALL BOLTS, NUTS AND WASHERS, INCLUDING HOLD DOWN BOLTS, CAST IN FERRULES AND MASONRY ANCHORS ARE TO BE HOT DIPPED GALVANISED U.N.O. ALL GALVANISED COMPONENTS TO BE CAST INTO CONCRETE MUST BE PASIVATED.
B7 AND TF BOLTS TO BE INSTALLED USING APPROVED LOADING INDICATING WASHERS. BOLTING PROCEDURES ARE DENOTED IN THE FOLLOWING MANNER:

IDENTIFICATION MARK AS SHOWN	4.6s	8.8s	8.8TB	8.8TF
BOLT STRENGTH GRADE	4.6	8.8	8.8	8.8
BOLT TO AUSTRALIAN STANDARD	AS 1111	ASINZS 1252	ASINZS 1252	ASINZS 1252
METHOD OF INSTALLATION	SNUG TIGHTENED	SNUG TIGHTENED	FULLY TENSIONED	FULLY TENSIONED

ALL BOLT HOLES SHALL BE 2mm LARGER THAN THE NOMINAL BOLT DIAMETER UNLESS NOTED OTHERWISE.
SLOTTED HOLES FOR I.D. BOLTS SHALL BE 4mm OVERSIZE UNLESS NOTED OTHERWISE.
WHERE THREADED SLEEVES ARE USED FOR RHS AND SHS CONNECTIONS, THEY MUST BE WELDED TO BOTH WALLS OF THE MEMBER.

5. ANCHORS AND TESTING
ALL ANCHORS AND EPOXY MUST COMPLY WITH THE REQUIREMENTS OF AS 5216:2018.
ALL ANCHORS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS.
CONCRETE AROUND ANCHORAGES AND TENDON DUCTS, ENSURE THAT THE TENDON DUCTS, JOINT SEALS AND VENT PIPES ARE NOT DISPLACED OR DAMAGED DURING CONCRETING.

ALL ANCHORS ARE TO BE HAMMER DRILLED. HAMMER DRILLING IS NOT TO BE SUBSTITUTED WITH CORE DRILLING UNLESS APPROVED BY THE ENGINEER.
REINFORCEMENT/POST-TENSIONING IS NOT TO BE MECHANICALLY MIXED TO THE MORTAR COMPOSITIONS OF AS 3700 TABLE 11.1 AND SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AS 3700 TABLE 5.1.
PROVIDE MINIMUM M3 MORTAR GROUT.

3. GROUT
MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MECHANICALLY MIXED TO THE MORTAR COMPOSITIONS OF AS 3700 TABLE 11.1 AND SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AS 3700 TABLE 5.1.
PROVIDE MINIMUM M3 MORTAR GROUT.

4. RETAINING WALLS
BACKFILL RETAINING WALLS WITH CLEAN GRANULAR FILLING FREE FROM CLAY OR OTHER ORGANIC MATTER, OR AS DIRECTED BY THE ENGINEER.
RETAINING WALLS SHOULD NOT BE BACKFILLED UNTIL A MINIMUM 14 DAYS AFTER GROUT FILLING. PROPPED RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE SLAB OVER HAS BEEN CAST A MINIMUM OF 7 DAYS AND THE WALL HAS BEEN GROUT FILLING FOR A MINIMUM OF 14 DAYS.

PROVIDE AGRICULTURAL PIPES OR WEEPHOLES TO EARTH FACE OF ALL RETAINING WALLS AS NOTED IN THE DOCUMENTATION. ALL AGRICULTURAL PIPES OR WEEP HOLES TO BE PROTECTED FROM SILTATION BY THE USE OF GEOTECHNICAL FABRIC, WATERPROOF MEMBRANE AND D.P.C. AS REQUIRED BY ARCHITECTURAL SPECIFICATION.

BOLT SIZE	M12	M16	M20	M24
TEST LOAD	10kN	15kN	20kN	30kN

THE MINIMUM TEST LOAD DURATION SHALL BE 150 SECONDS
CHEMICAL ANCHORS
NUMBER OF CHEMICAL ANCHORS TO BE TESTED AS FOLLOWS:-
INSTALLATION: FROM ABOVE AND SIDE + 10% OF TOTAL NUMBER TO BE TESTED
INSTALLATION: FROM BELOW + 100% OF TOTAL NUMBER IS TO BE TESTED.

MECHANICAL ANCHORS
NUMBER OF MECHANICAL ANCHORS TO BE TESTED AS FOLLOWS:-
10% OF TOTAL NUMBER TO BE TESTED
CERTIFICATES OF ALL TEST RESULTS ARE TO BE FORWARDED TO MPN.
IF MORE THAN 1 ANCHOR FAILS UNDER TESTING THEN ALL ANCHORS SHALL BE TESTED AS SPECIFIED ABOVE AT THE CONTRACTORS EXPENSE.
6. STEEL SUPPLY EVIDENCE OF COMPLIANCE
THE CONTRACTOR IS TO SUBMIT THE FOLLOWING INFORMATION AS EVIDENCE OF STRUCTURAL STEEL SUPPLY COMPLIANCE WITH RELEVANT AUSTRALIAN STANDARDS:
A. STRUCTURAL STEEL (PLATES, ROLLED AND WELDED SECTIONS, SHS, RHS, CHS)
- STEEL SUPPLIER DETAILS
- CERTIFIED MILL TEST REPORTS OR TEST CERTIFICATES CONFIRMING COMPLIANCE WITH RELEVANT AUSTRALIAN STANDARDS
B. BOLTS AND BOLT ASSEMBLY (BOLTS, NUTS, WASHERS)
- BOLT AND BOLT ASSEMBLY SUPPLIER DETAILS
- CERTIFIED TEST REPORTS OR TEST CERTIFICATES CONFIRMING COMPLIANCE WITH RELEVANT AUSTRALIAN STANDARDS
C. PURLINS AND GIRTS
- PURLIN AND GIRT SUPPLIER DETAILS
- CERTIFIED MILL TEST REPORTS OR TEST CERTIFICATES CONFIRMING COMPLIANCE WITH AS1397

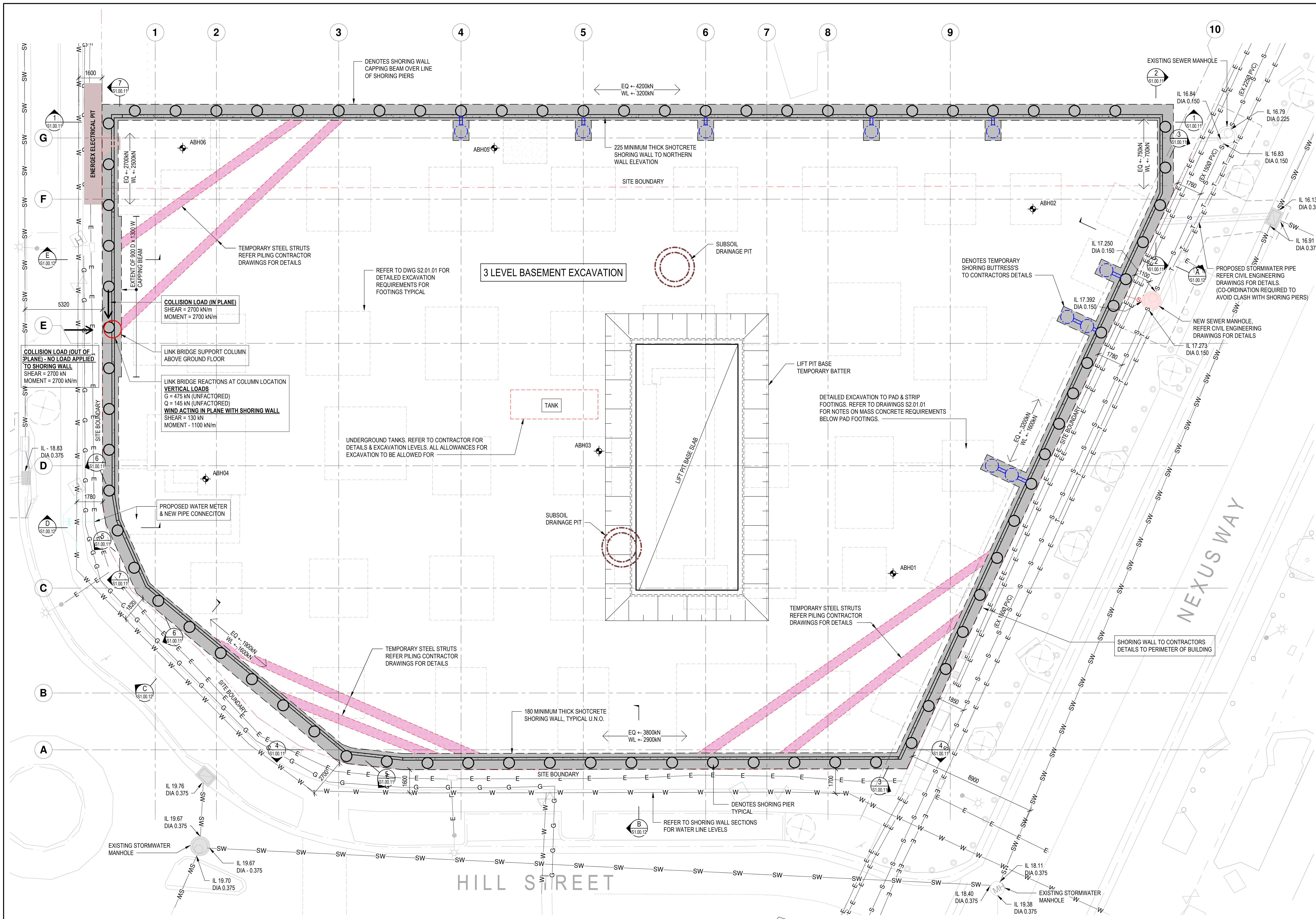
CONCRETE MASONRY NOTES

1. GENERAL
ALL BLOCKWORK, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH AS 3700. CONCRETE MASONRY UNITS SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AS 3700 TABLE 5.1 AND SHALL HAVE A MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF 15MPa IN ACCORDANCE WITH THE REQUIREMENTS OF ASINZS 4455.
PROVIDE TEMPORARY BRACING TO WALLS DURING CONSTRUCTION IN ACCORDANCE WITH AS 3700.
ALL BLOCKWORK SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE.
ALL WALLS SHOULD BE FULLY BONDED OR TIED AT THEIR INTERSECTIONS UNLESS DETAILED OTHERWISE.
HOLLOW BLOCKS SHALL HAVE A FULL FACE SHELL BED OF MORTAR. SOLID BLOCKS SHALL BE FULLY BEDDED IN MORTAR. MORTAR JOINTS AND PERPENDS SHALL BE 10mm THICK. REFER AS3700 FOR PERMITTED CONSTRUCTION TOLERANCES.
FOR UNREINFORCED MASONRY, REINFORCE AND GROUT FILL CORES ADJACENT TO DOORWAYS, OPENINGS AND CONTROL JOINTS WITH M16 CENTRALLY (DRILL AND GROUT STARTERS WITH 150 EMBEDMENT INTO SLAB AS REQUIRED) U.N.O. ON DOCUMENTATION.
ALL NON-LOADBEARING MASONRY SHALL BE KEPT CLEAR OF SLAB BEAM SOFFITS BY 20mm U.N.O. AND BE FIXED WITH FLEXIBLE MASONRY TIES AND HAVE VOID FILLED WITH AN APPROVED COMPRESSIVE FILLER.
WHERE SLABS OR BEAMS BEAR ON UNREINFORCED MASONRY THE TOP COURSE SHALL BE LEVEL, SMOOTH AND COVERED WITH 2 LAYERS OF ANNEALED ALUMINIUM FLASHING UNLESS NOTED OTHERWISE. NO MASONRY SHALL BE ERRECTED ON SUSPENDED SLABS UNTIL ALL PROPPING HAS BEEN REMOVED.

2. MORTAR
MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MECHANICALLY MIXED TO THE MORTAR COMPOSITIONS OF AS 3700 TABLE 11.1 AND SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AS 3700 TABLE 5.1.
PROVIDE MINIMUM M3 MORTAR GROUT.

3. GROUT
MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MECHANICALLY MIXED TO THE MORTAR COMPOSITIONS OF AS 3700 TABLE 11.1 AND SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AS 3700 TABLE 5.1.
PROVIDE MINIMUM M3 MORTAR GROUT.

4. RETAINING WALLS
BACKFILL RETAINING WALLS WITH CLEAN GRANULAR FILLING FREE FROM CLAY OR OTHER ORGANIC MATTER, OR AS DIRECTED BY THE ENGINEER.
RETAINING WALLS SHOULD NOT BE BACKFILLED UNTIL A MINIMUM 14 DAYS AFTER GROUT FILLING. PROPPED RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE SLAB OVER HAS BEEN CAST A MINIMUM OF 7 DAYS AND THE WALL HAS BEEN GROUT FILLING FOR A MINIMUM OF 14 DAYS.
PROVIDE AGRICULTURAL PIPES OR WEEPHOLES TO EARTH FACE OF ALL RETAINING WALLS AS NOTED IN THE DOCUMENTATION. ALL AGRICULTURAL PIPES OR WEEP HOLES TO BE PROTECTED FROM SILTATION BY THE USE OF GEOTECHNICAL FABRIC, WATERPROOF MEMBRANE AND D.P.C. AS REQUIRED BY ARCHITECTURAL SPECIFICATION.



SHORING NOTES:

- SHORING DESIGN TO D&C CONTRACTOR DETAILS
- 900 x 1100 CAPPING BEAM
- SHORING DESIGN TO D&C CONTRACTORS DETAILS

SHORING DESIGN TO COMPLY WITH:

MPN SHORING DRAWINGS, NOTES & SPECIFICATIONS

EDQ CONDITIONS INCLUDING:

- STRUCTURAL MONITORING & VIBRATION REPORT
- GEOTECHNICAL ENGINEERING COMPLIANCE ASSESSMENTS
- EXCAVATION & BASEMENT DESIGN - COMPLIANCE ASSESSMENT.

REPORT TO BE COMPLETED BY SHORING CONTRACTOR TO MEET THESE CONDITIONS

CONSTRUCTION DEWATERING REQUIREMENTS TO BE TO GROUNDWATER ASSESSMENT REPORT AND CONTRACTORS DETAILS

EARTH RETAINING FORCES:

SURCHARGE LOADING TO BE:

NORTHERN WALL:
25 kPa TEMPORARY CONSTRUCTION LOADING
30 kPa PERMANENT LOADING

ALL OTHER WALLS:
25 kPa TEMPORARY CONSTRUCTION LOADING
25 kPa PERMANENT LOADING

PERMANENT VERTICAL LOADS:

- SHORING WALL TO BE DESIGNED FOR PERMANENT (SWL) VERTICAL LOADS OF:

LINE LOADS (APPLIED AT CAPPING LEVEL)
G = 90 kN/m
Q = 60 kN/m

LINE LOADS (APPLIED AT B1 & B2)
G = 30kN/m
Q = 40kN/m

PERMANENT SHEAR LOADS:

SHORING WALL TO BE DESIGNED FOR THE PERMANENT IN PLANE SHEAR LOADS FROM THE BUILDING. REFER TO PLAN FOR LOADS.

ALLOWABLE MOVEMENTS:

- LATERAL MOVEMENTS NOT TO EXCEED 10mm
- SURVEY POINTS TO BE SET UP TO TOP OF SHORING WALLS AND MONITORED UNTIL AFTER GROUND FLOOR STRUCTURE HAS BEEN COMPLETED

SERVICES LEGEND

- S-S-S- EXISTING SEWER LINE
- SW-SW-SW- EXISTING STORMWATER LINE
- W-W-W- EXISTING WATER LINE
- E-E-E- EXISTING ELECTRICITY
- G-G-G- EXISTING GAS LINE
- T-T-T- EXISTING TEL/STRA CABLES
- S-S-S- PROPOSED SEWER LINE

NOTES

1. DESIGN LOADS
REFER RELEVANT FLOOR PLAN

2. CONCRETE
IN ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 'CONCRETE STRUCTURES' EXCEPT AS VARIED BY THE 'CONTRACT' DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER DRG S0.00.01 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:	
COMPONENT	STRENGTH (f _c)
CAPPING BEAM	N40

CONCRETE ATTRIBUTES

PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	SS32 - 650µ MEDIAN SS40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

3. FIRE RESISTANCE RATING
REFER ARCHITECT.

4. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
BEAMS	50mm BOTTOM 50mm TOP 50mm SIDES

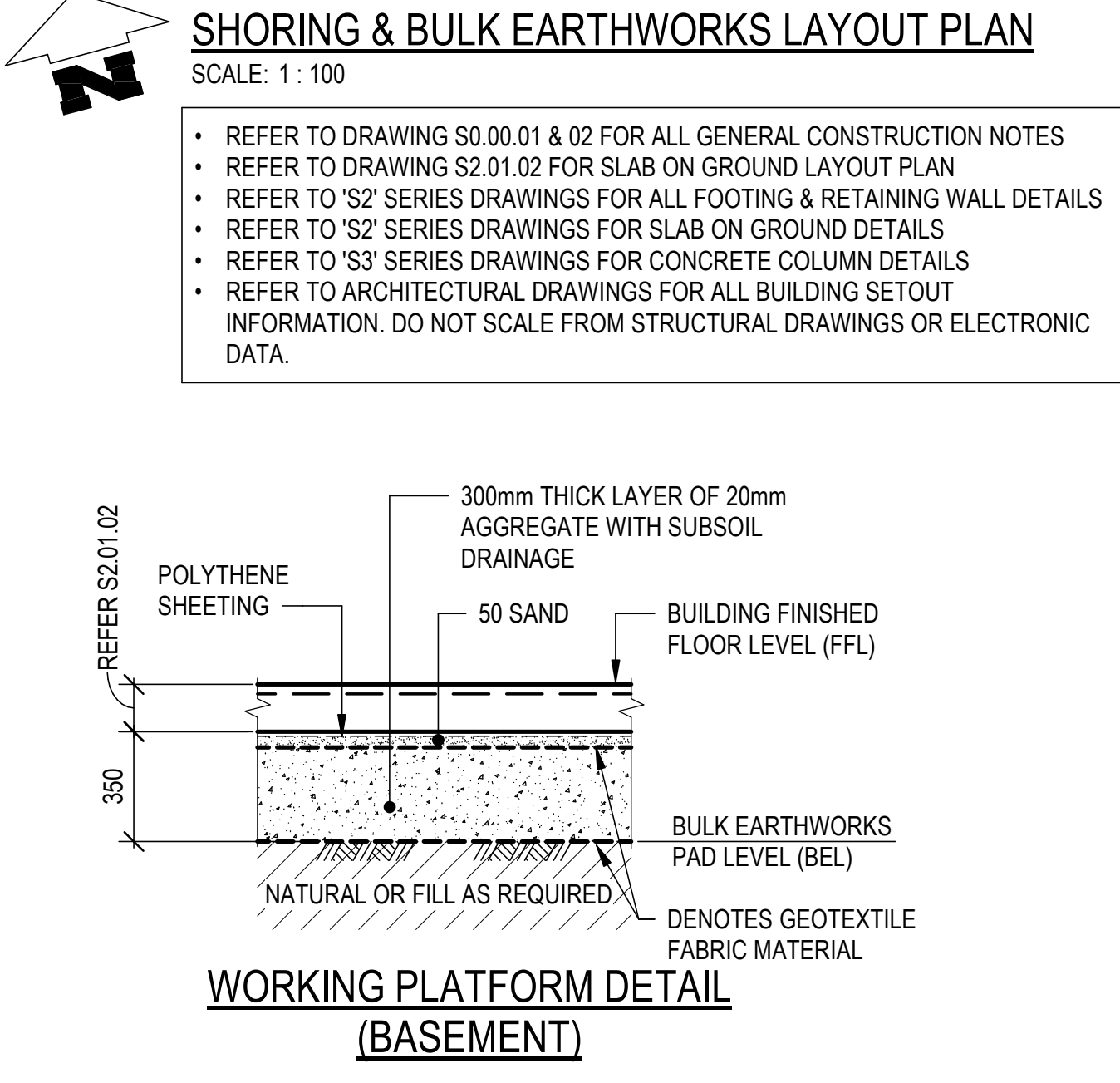
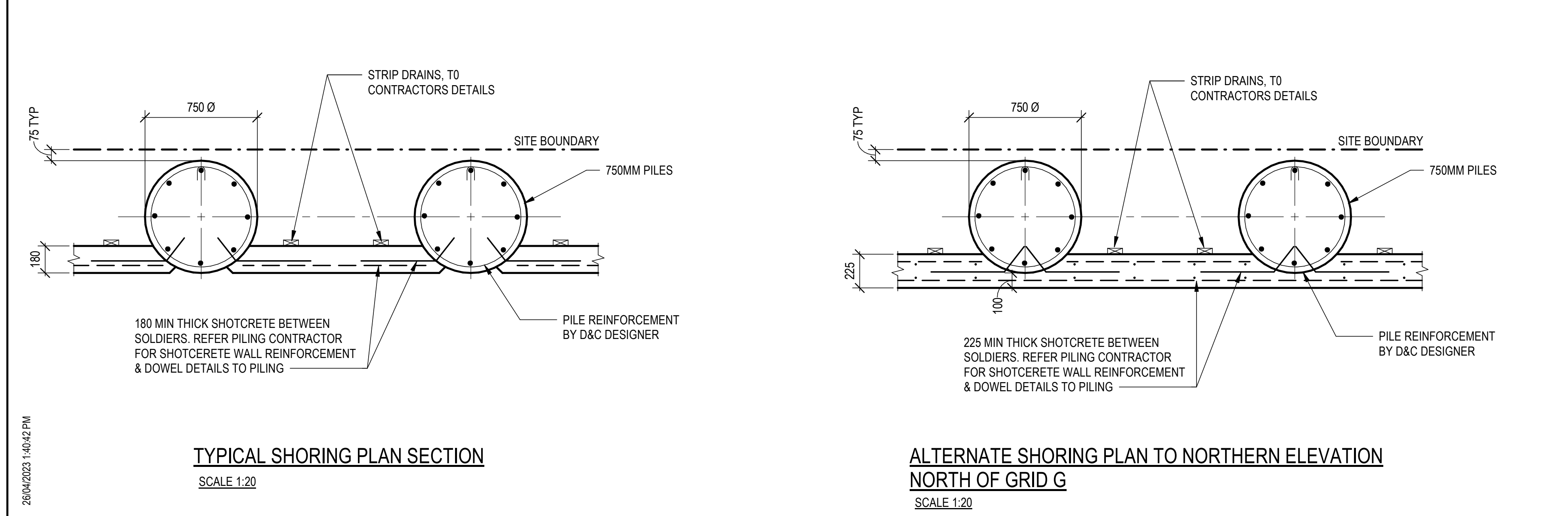
5. REINFORCEMENT BAR LAPS
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-

BAR LAPS FOR BEAMS AND SLABS		
BAR SIZE	TOP BAR	BOTTOM BAR
N12	600	500
N16	900	700
N20	1200	950
N24	1550	1200
N28	1950	1500
N32	2300	1800
N36	2700	2100

NOTE: A TOP BAR HAS 300mm OR MORE CONCRETE UNDER THE BAR

TYPICAL FABRIC LAP DETAIL

THE PROPOSED BUILDING CONSTRUCTION WILL IMPOSE NO LOAD ON THE EXISTING AUTHORITY SERVICES LOCATED IN NEXUS WAY & HILL STREET. ALL BUILDING LOADS ARE TRANSFERRED THROUGH THE SHORING WALL & BUILDING FOUNDATIONS FOUNDED BELOW BASEMENT B3 LEVEL. REFER TO ANORA DRAWINGS FOR SHORING WALL DETAILS & CERTIFICATION.



CONSULTANT: MPN CONSULTING PTY LTD
CONTACT: ROBERT BURNS
(RPEQ 12195)
TELEPHONE: (07) 3335 4595

DATE: 31.03.2023



PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026

CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT NEXUS WAY, SOUTHPORT QLD

SHORING LAYOUT PLAN

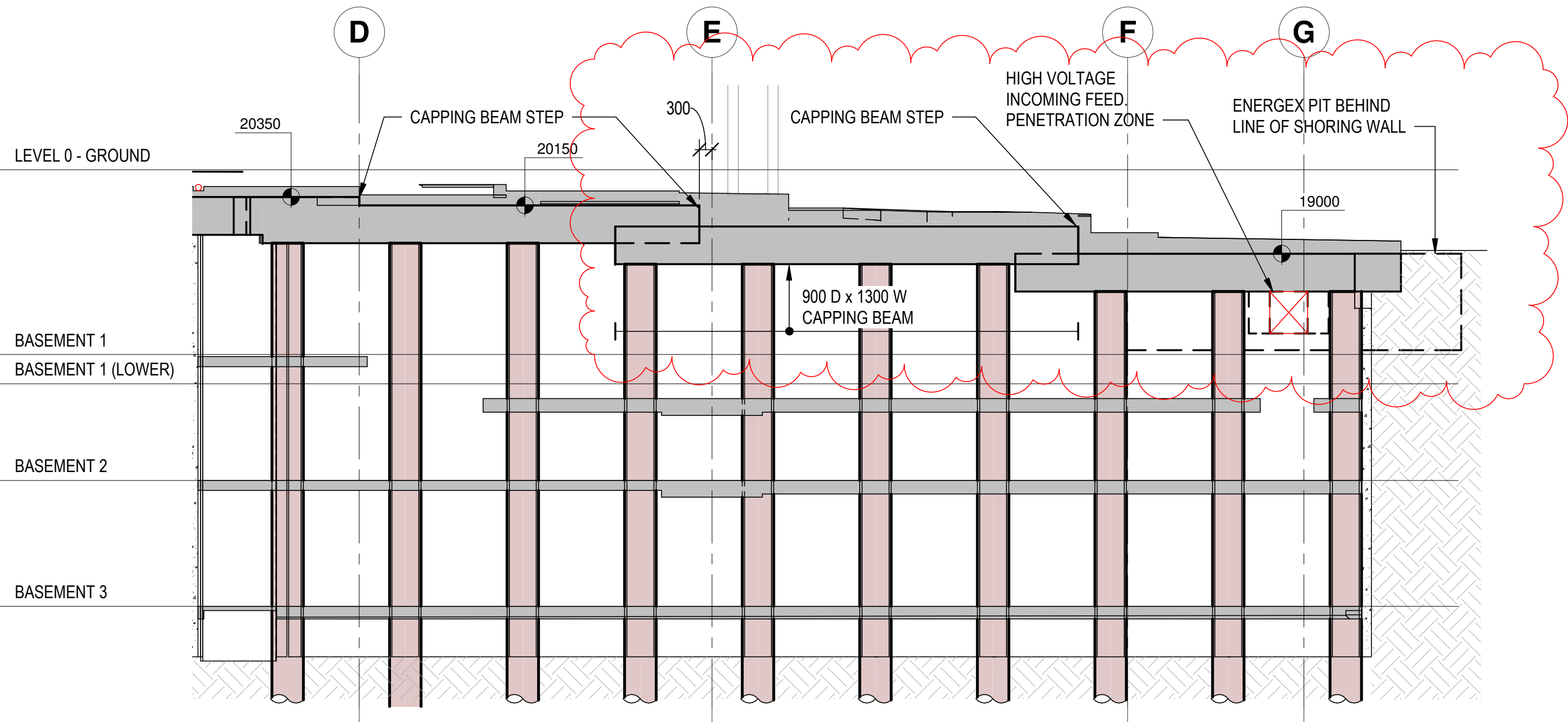
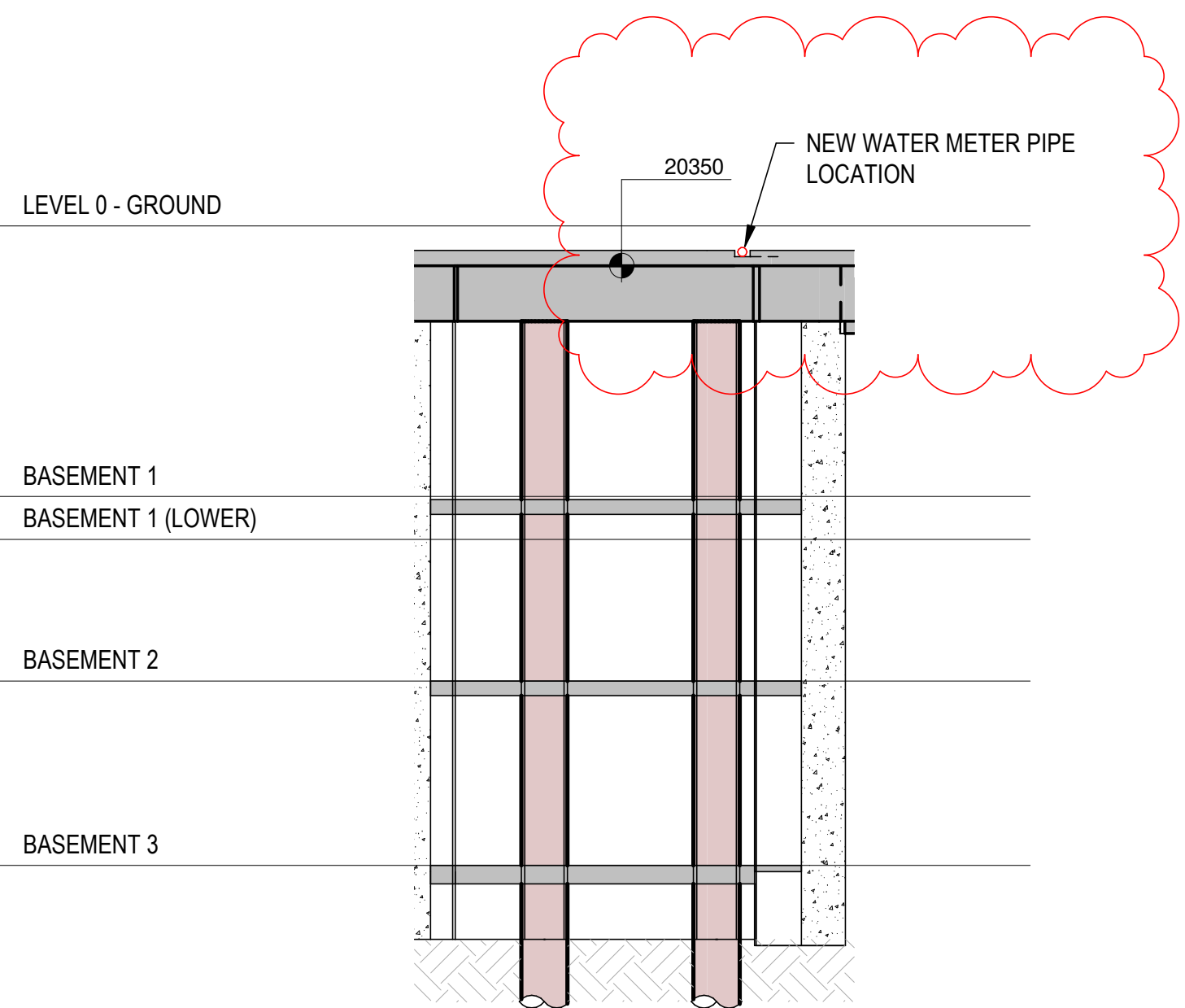
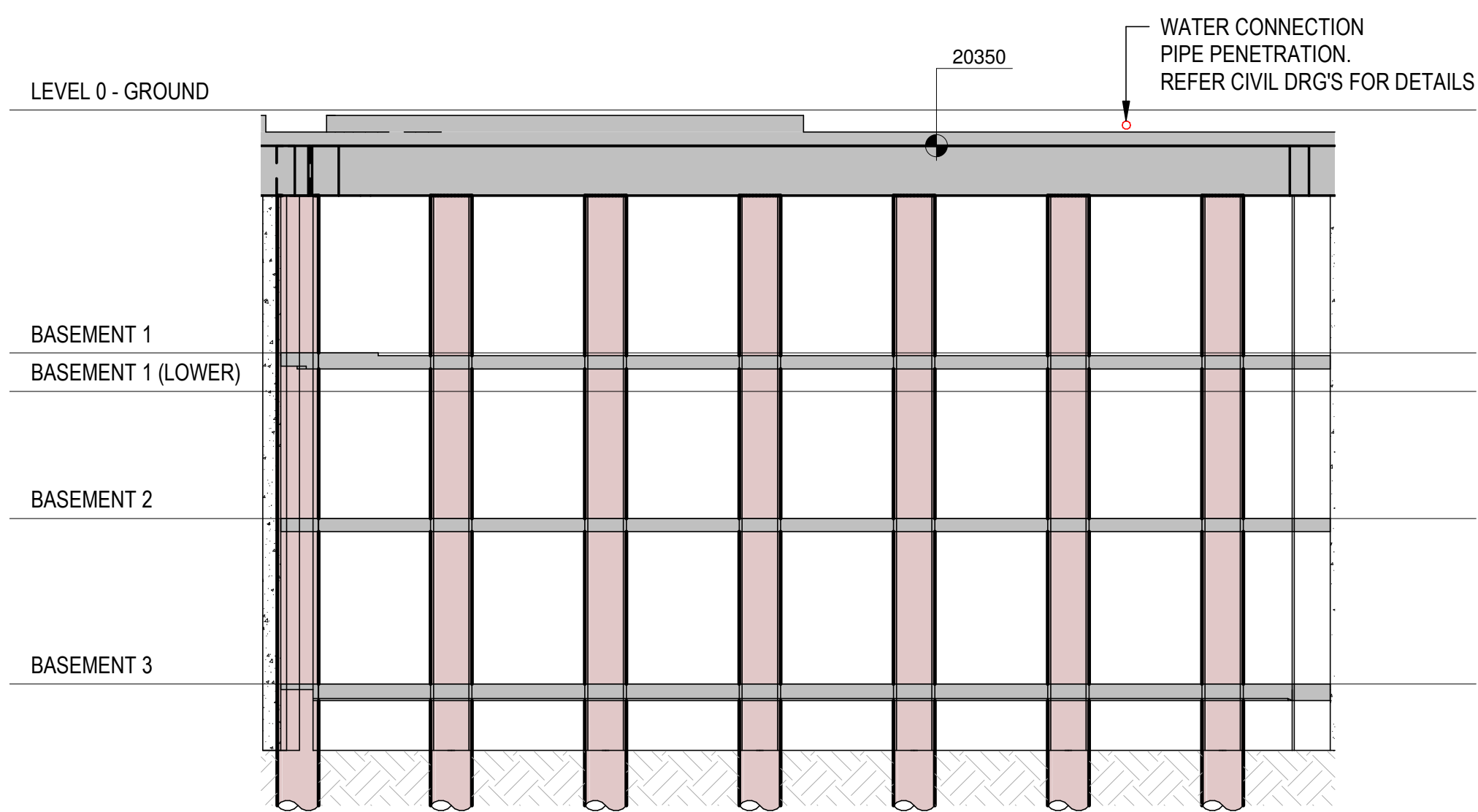
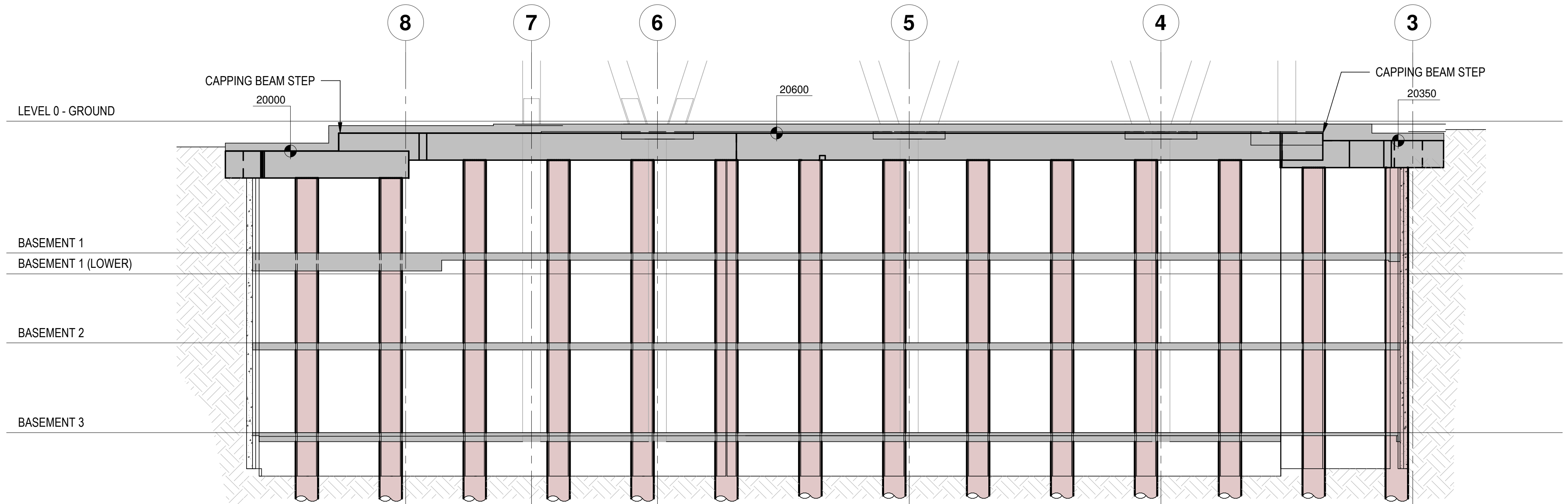
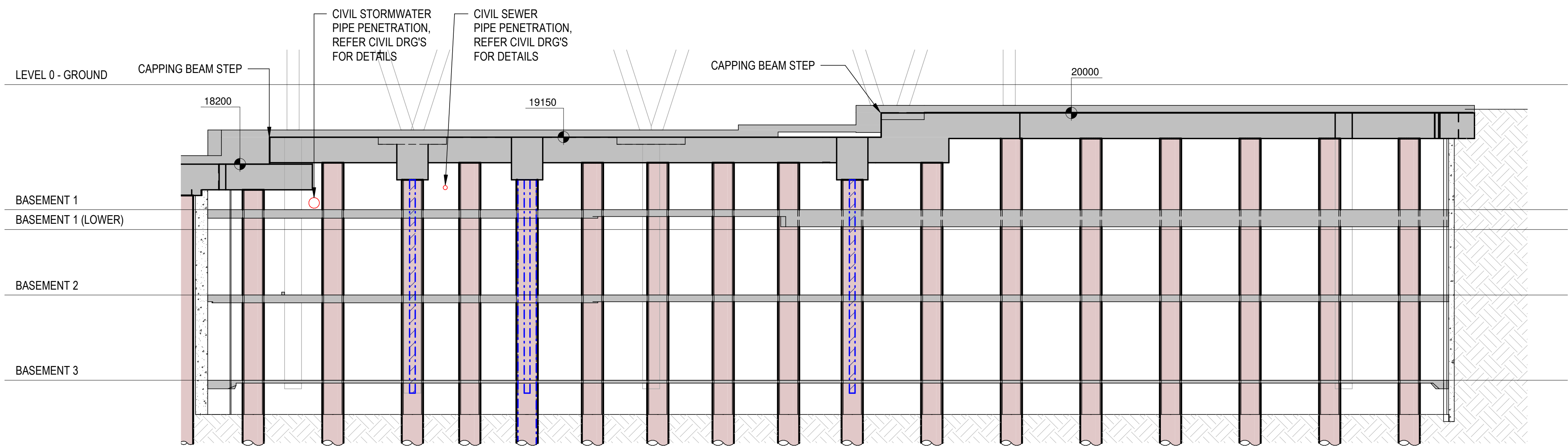
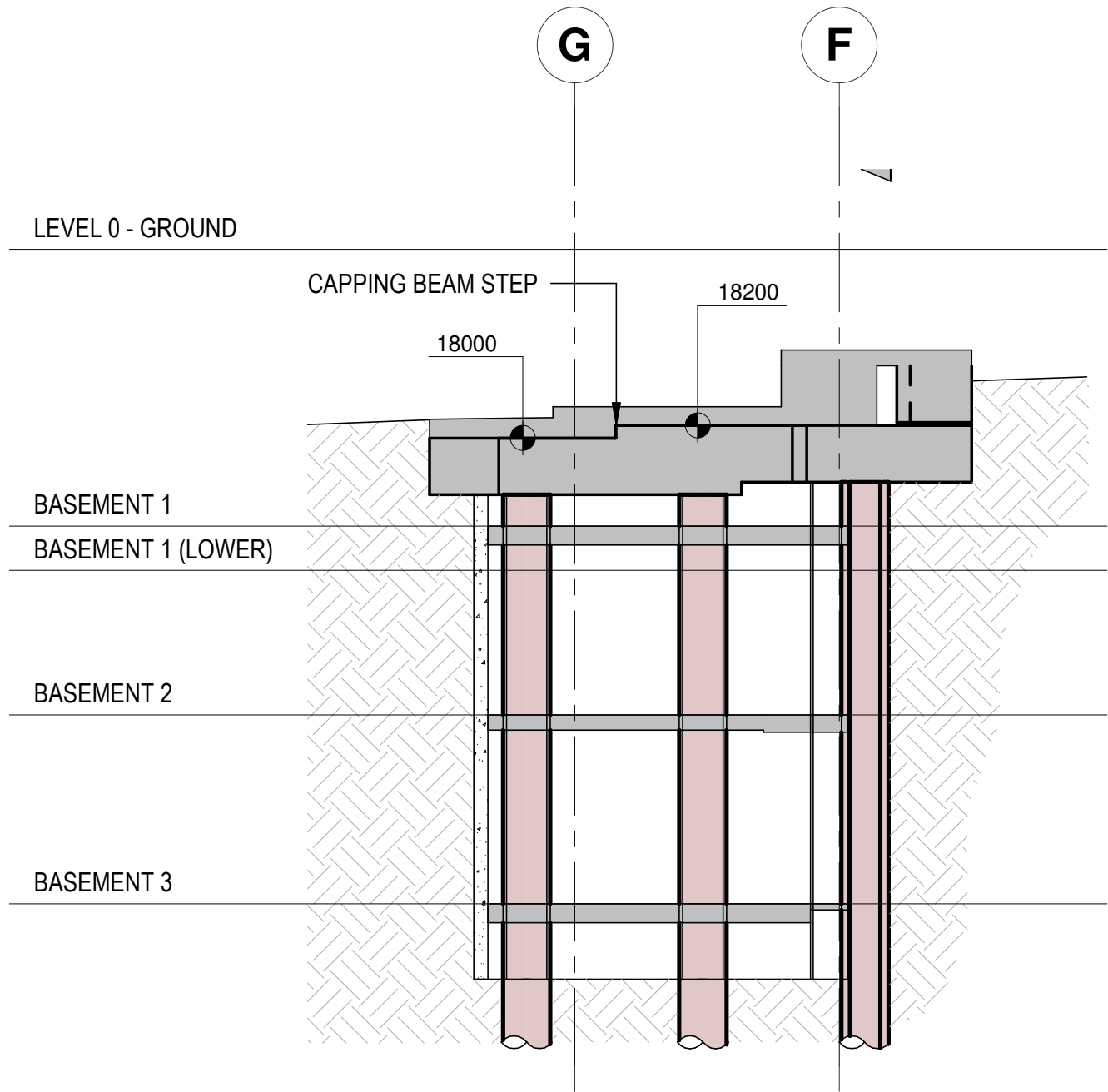
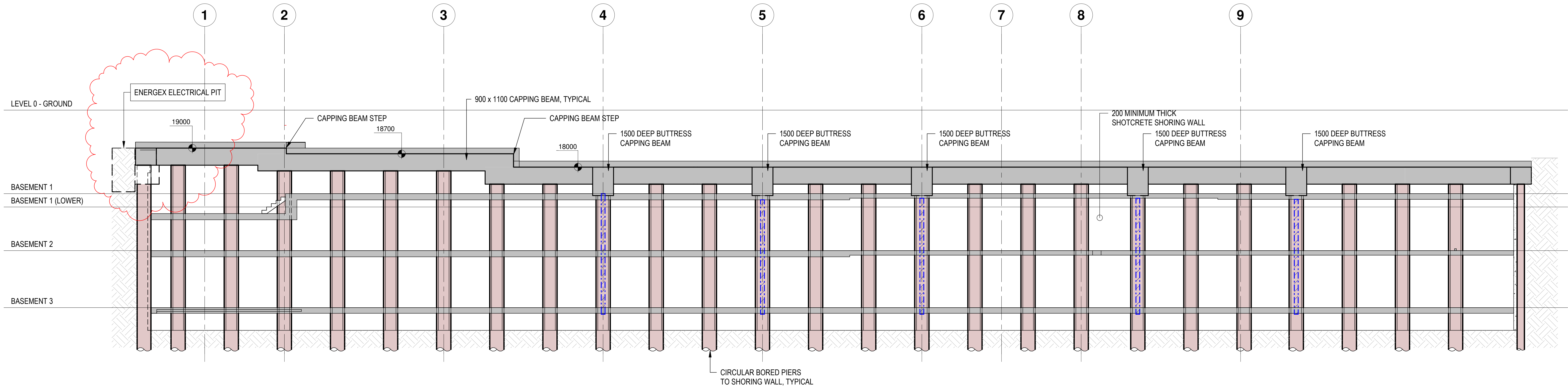
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CHKD	-	APPRD	-	DATE	-

mpn 038 DRAWING No: **9541** S1.00.01 REV **J**

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PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV20241481
Date: 14/04/2026

E	20.04.23	SHORING UPDATED	P.G.	R.B.
D	14.04.23	80% DD ISSUE	P.G.	R.B.
C	27.03.23	CO-ORDINATION UPDATES	P.G.	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.
A	9.12.22	PRICING ISSUE	P.G.	R.B.
ISSUE	DATE	REVISION	BY	APP

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CLIENT: **NORTHWEST**
HEALTHCARE PROPERTIES

**GOLD COAST HEALTH AND
KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

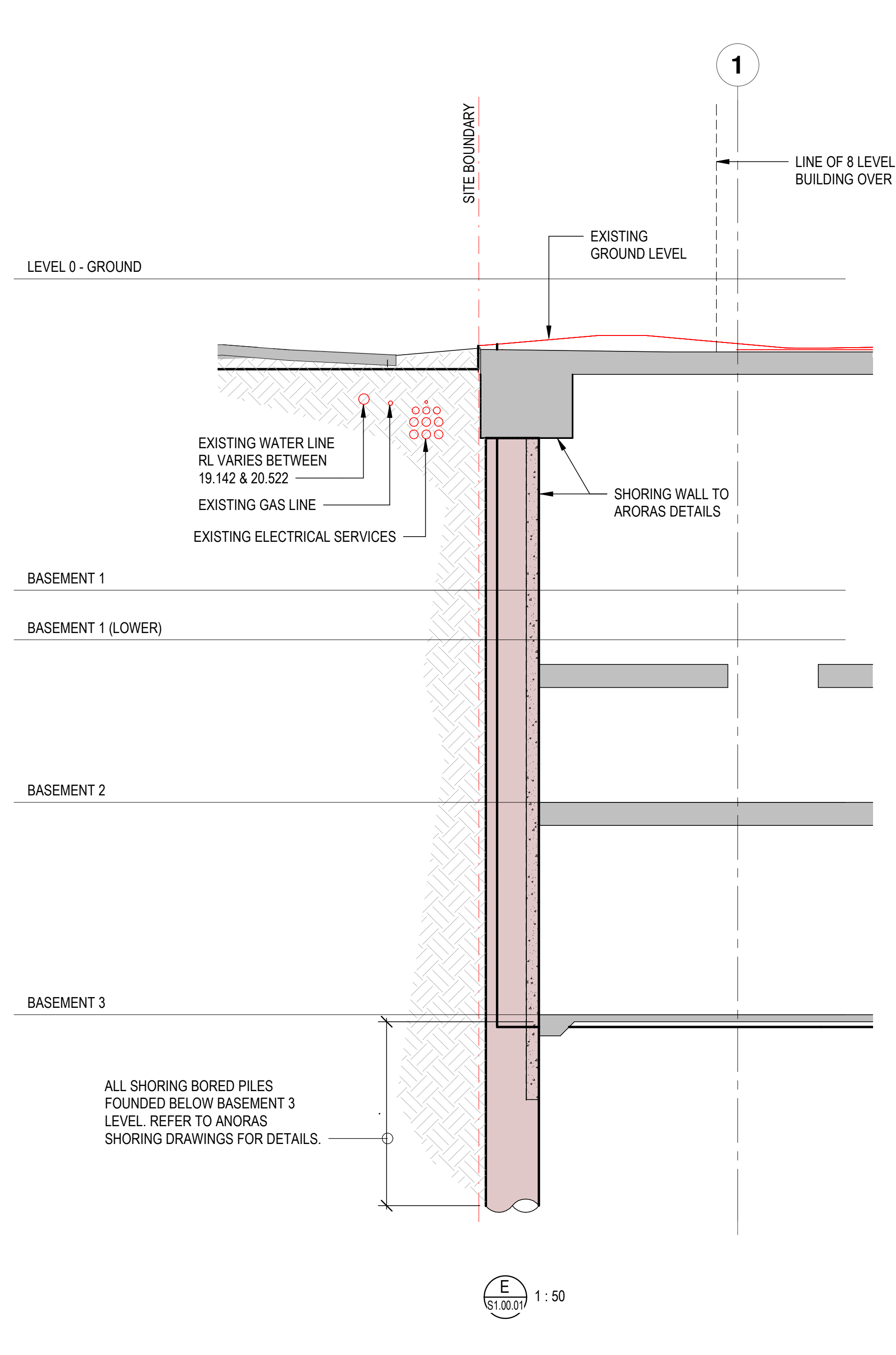
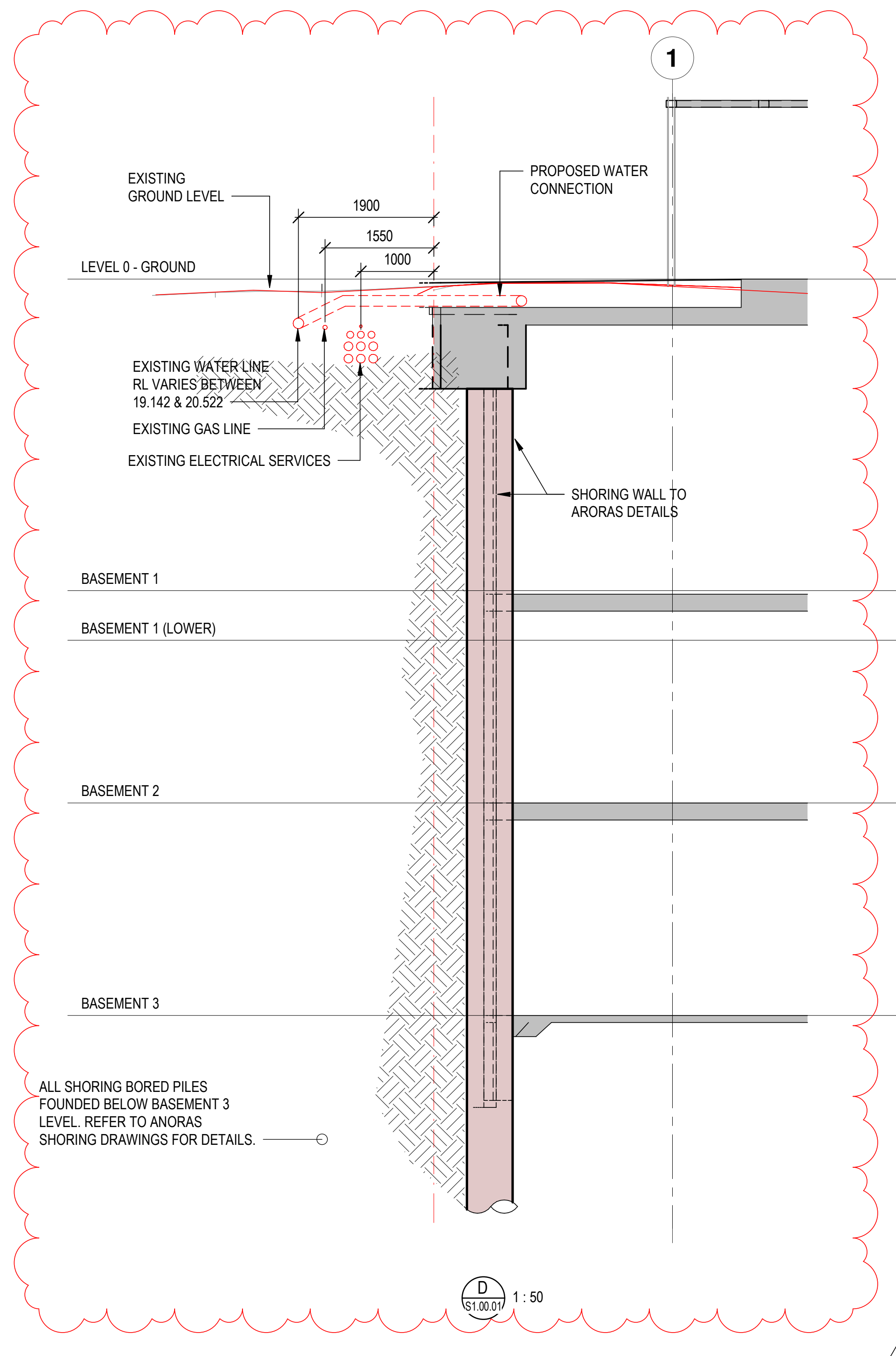
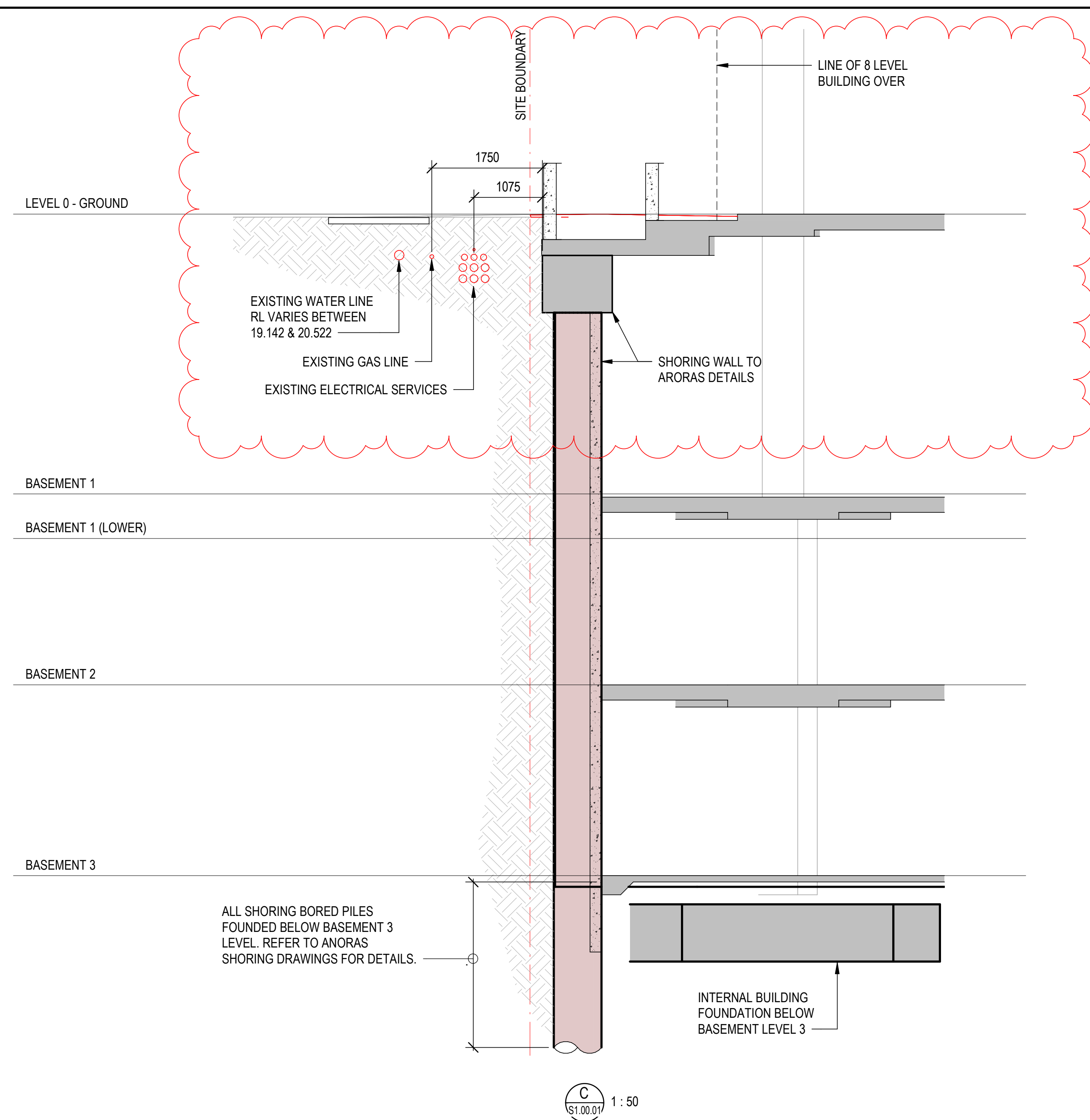
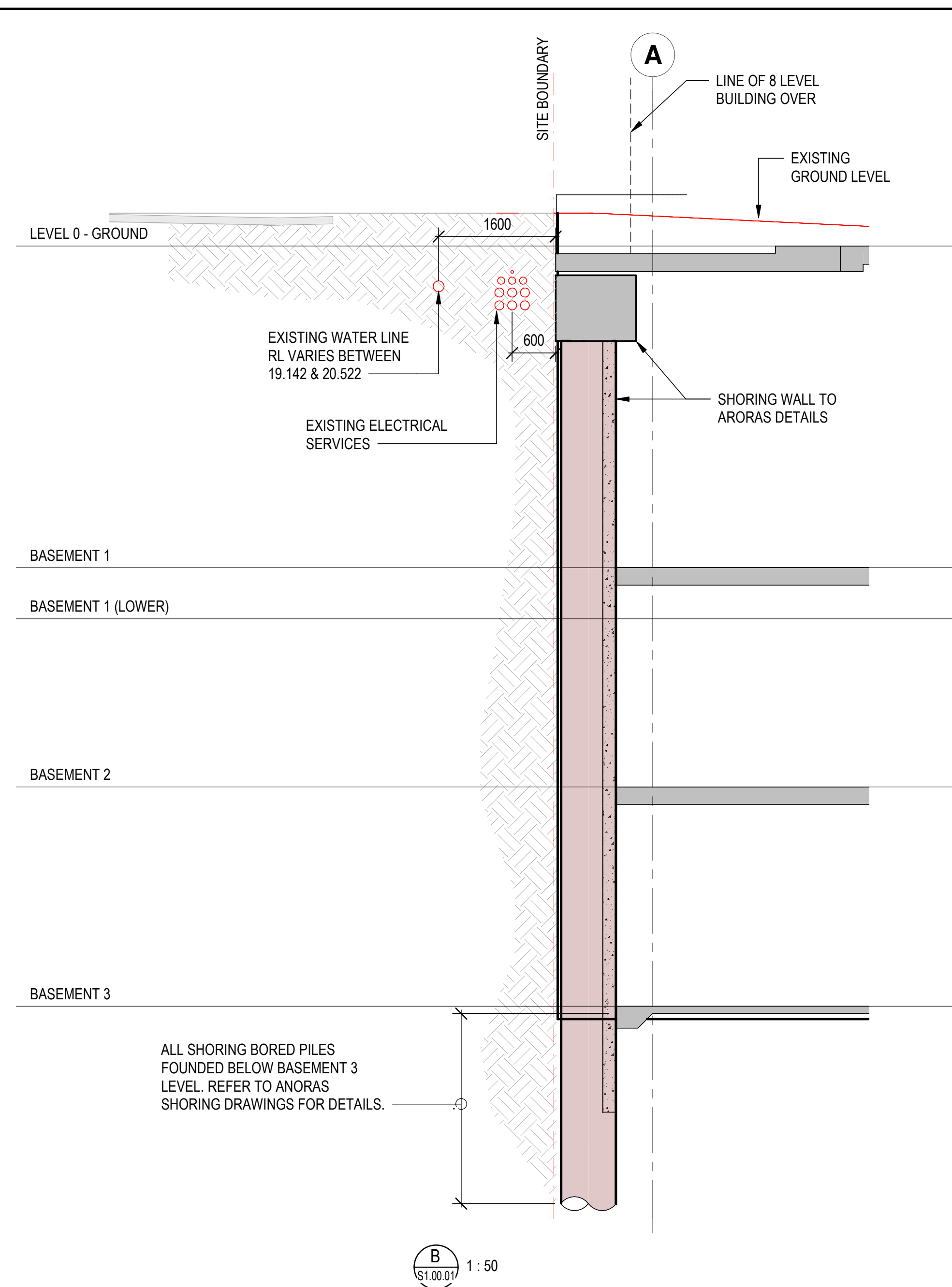
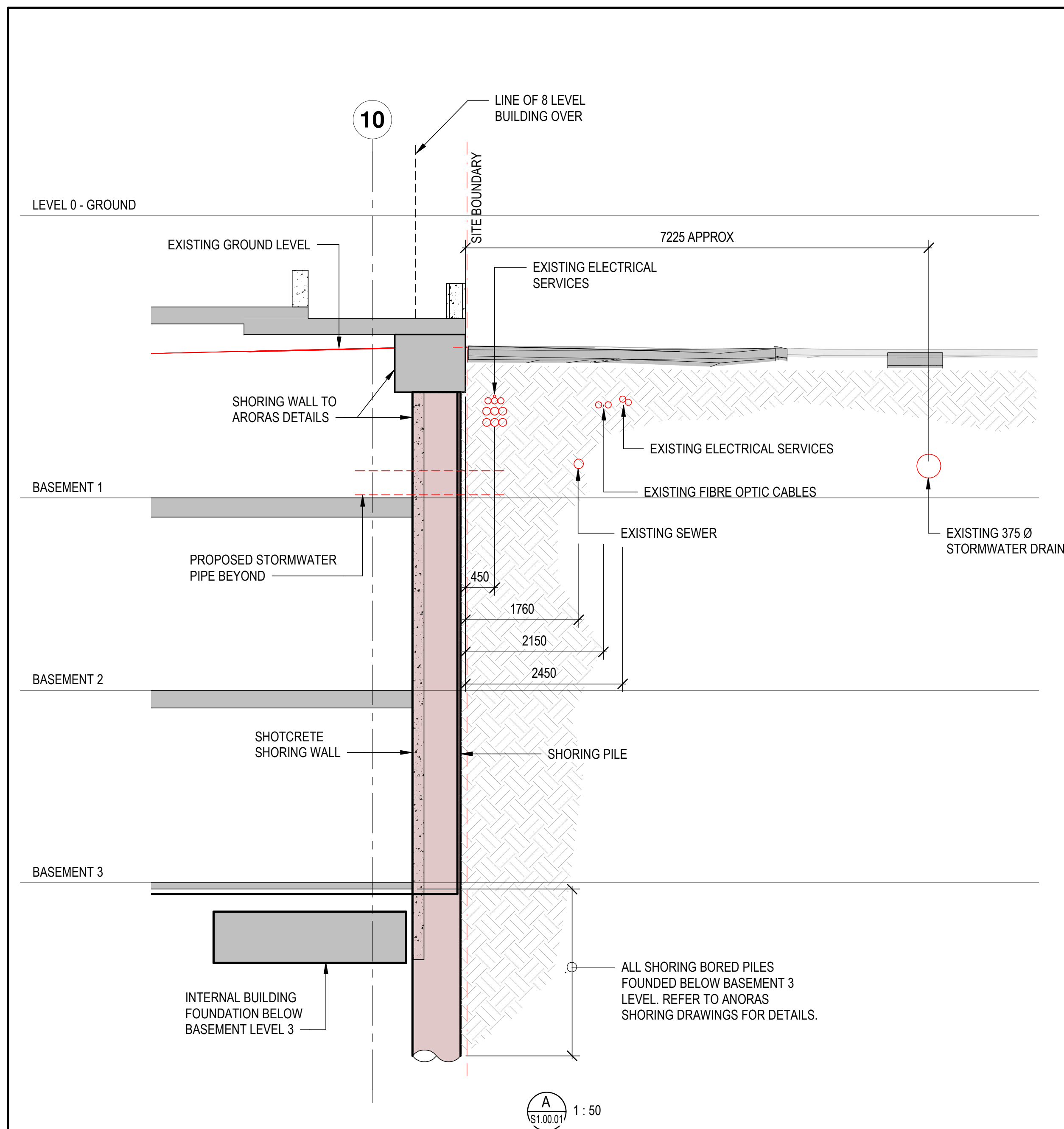
SHORING ELEVATIONS - SHEET 1

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPRD	-	DATE	-
mpn_038	DRAWING No:	9541	S1.00.11	REV	E

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PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

C	20.04.23	SHORING UPDATED	P.G.	R.B.
B	14.04.23	80% DD ISSUE	P.G.	R.B.
A	31.03.23	ISSUED FOR COUNCIL APPROVAL	P.G.	R.B.
ISSUE	DATE	AMENDMENT	BY	APP

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CLIENT: **NORTHWEST** HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

SHORING WALL SECTIONS

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:50
APPD	-	DATE	31.03.23	REV	

mpn 038 DRAWING No: **9541** S1.00.12

PRELIMINARY

CONSULTANT: MPN CONSULTING PTY LTD
CONTACT: ROBERT BURNS
(RPEQ 12195)
TELEPHONE: (07) 3335 4595

DATE: 31.03.2023

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BASEMENT 3 - FOUNDATION LAYOUT PLAN
SCALE: 1: 100

- REFER TO DRAWING S2.00.01 FOR ALL GENERAL CONSTRUCTION NOTES
- REFER TO DRAWING S2.01.02 FOR SLAB ON GROUND LAYOUT PLAN
- REFER TO S2 SERIES DRAWINGS FOR ALL FOOTING & RETAINING WALL DETAILS
- REFER TO S2 SERIES DRAWINGS FOR SLAB ON GROUND DETAILS
- REFER TO S3 SERIES DRAWINGS FOR CONCRETE COLUMN DETAILS
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING SETOUT INFORMATION. DO NOT SCALE FROM STRUCTURAL DRAWINGS OR ELECTRONIC DATA.

HATCHED FOUNDATIONS - DENOTES ALLOWANCE TO BE MADE FOR FOUNDATIONS ADJACENT IN-GROUND TANKS TO BE CONSTRUCTED AT BASE OF TANK LEVEL.

ALLOWANCE FOR AN AVERAGE 1 METRE OF 10MPa MASS CONCRETE BELOW ALL PAD FOOTINGS. ALLOWANCE TO BE CONFIRMED AFTER ADDITIONAL GEOTECHNICAL INVESTIGATION HAS BEEN COMPLETED.

FOOTING LEGEND

- CONCRETE COLUMN OVER, REFER 'S3' SERIES DWGS FOR DETAILS.
- PAD FOOTING TYPE, REFER 'S2' SERIES DRAWINGS FOR DETAILS.
- FOOTING BEAM TYPE, REFER 'S2' SERIES DRAWINGS FOR DETAILS.
- STRIP FOOTING TYPE, REFER 'S2' SERIES DRAWINGS FOR DETAILS.
- DENOTES SERVICE PIPE INDICATIVE
- DENOTES 1000 LONG x FOOTING WIDTH MASS CONCRETE BACKHOE PIT, FOUNDED TO INVERT LEVEL OF ADJACENT SERVICE PIPE.

NOTES

- PRIOR TO FOOTING CONCRETE POURS, GEOTECHNICAL ENGINEER TO INSPECT & PROVIDE CERTIFICATION OF FOUNDING MATERIAL CAPACITY. INSPECTION REPORTS & GEOTECHNICAL CERTIFICATION TO BE FORWARDED TO MPN CONSULTING.
- PILE DETAILS ARE TO BE DETERMINED BY THE PILING CONTRACTOR TO RESIST THE WORKING LOADS NOMINATED. ALL PILING IS TO COMPLY WITH THE PILING SPECIFICATION AND PILING NOTES ON DRAWING S0.00.01
- ALL PILES TO BE DESIGNED TO RESIST 2.5% OF NOMINATED WORKING LOAD AS A LATERAL LOAD APPLIED TO THE TOP OF THE PILE. LATERAL LOADS ARE NOT SHOWN ON PLAN.
- THE PILING CONTRACTOR IS TO REVIEW MULTI OR CLOSELY SPACED PILE GROUPS AND ADVISE IF LARGER PILE SPACINGS ARE REQUIRED TO ACHIEVE THE NOMINATED PILE DESIGN LOADS.
- AS CONSTRUCTED PILE POSITIONS AT CUT OFF LEVEL (INCLUDING ECCENTRICITIES) ARE TO BE SUBMITTED TO MPN CONSULTING PRIOR TO CONSTRUCTION OF ANY PILE CAPS, FOOTING BEAMS, SLABS ETC.
- ALL EXISTING IN-GROUND SERVICES ARE TO BE LOCATED PRIOR TO PILE INSTALLATION OR FOOTING EXCAVATION. SHOULD ANY CLASH EXIST, NOTIFY MPN CONSULTING FOR POSSIBLE ALTERNATIVE SOLUTION.

DENOTES BOREHOLE LOCATION. REFER SOIL SURVEYS GEOTECHNICAL REPORT. PROJECT No 2-15299 DATED FEBRUARY 2022

NOTES

1. DESIGN LOADS
REFER RELEVANT FLOOR PLAN

2. CONCRETE
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 'CONCRETE STRUCTURES' EXCEPT AS VARIED BY THE 'CONTRACT DOCUMENTS' FOR ALL RELEVANT CONSTRUCTION NOTES REFER DRG S0.00.01
CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:

COMPONENT	STRENGTH (f _c)
FOOTINGS	N40
COLUMNS	N50

CONCRETE ATTRIBUTES

PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	SS32 - 650µ MEDIAN SS40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

3. FIRE RESISTANCE RATING
REFER ARCHITECT.

4. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
FOOTINGS	50mm BOTTOM 50mm TOP 50mm SIDES

5. REINFORCEMENT BAR LAPS
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-

BAR LAPS FOR BEAMS AND SLABS

BAR SIZE	TOP BAR	BOTTOM BAR
N12	600	500
N16	900	700
N20	1200	950
N24	1550	1200
N28	1950	1500
N32	2300	1800
N36	2700	2100

NOTE: A TOP BAR HAS 300mm OR MORE CONCRETE UNDER THE BAR.

TYPICAL FABRIC LAP DETAIL

FOOTING SCHEDULE				
MARK	SIZE	REIN'T RATE	X-Bars	Y-Bars
SF1	600 DEEP x 400 WIDE	120 kg/m²		
SF2	600 DEEP x 800 WIDE	120 kg/m²		

PAD FOOTING SCHEDULE 550 kPa ALLOWABLE BEARING PRESSURE						
PAD NUMBER	"A"	"B"	"C"	REIN'T RATE	"X" BARS	"Y" BARS
PF1	3000	3000	800	120 kg/m²		
PF2	3500	3500	900	120 kg/m²		
PF3	4000	4000	1150	120 kg/m²		
PF4	4400	4400	1300	120 kg/m²		
PF5	5000	5000	1400	120 kg/m²		
PF7	4400	6500	1300	120 kg/m²		

ALLOWANCE TO BE MADE FOR INCREASE IN PAD FOOTING DEPTHS WITH 10MPa CONCRETE IF NECESSARY TO:

- OBTAIN AN ALLOWABLE BEARING PRESSURE OF 550 kPa TO BE APPROVED BY THE GEOTECHNICAL ENGINEER.
- HAVE A DISPERSION LINE OF 1 IN 2 FROM UNDERSIDE OF PAD PASSING TO LINE OF SERVICES TRENCHING.

PLANS AND DOCUMENTS referred to in the PCA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

ISSUE	DATE	REVISION	BY	APP'D
E	14.04.23	80% DO ISSUE	P.G.	R.B.
D	27.03.23	COORDINATION UPDATES	P.G.	R.B.
C	10.02.23	PRICING ISSUE	P.G.	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.
A	9.12.22	PRICING ISSUE	P.G.	R.B.

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CLIENT: **NORTHWEST HEALTHCARE PROPERTIES**

**GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

LEVEL B3 - FOOTING LAYOUT PLAN

DESIGN: R.B.	DRAWN: P.G.	SCALE: 1:100
CHKD: -	APPROD: -	DATE: -

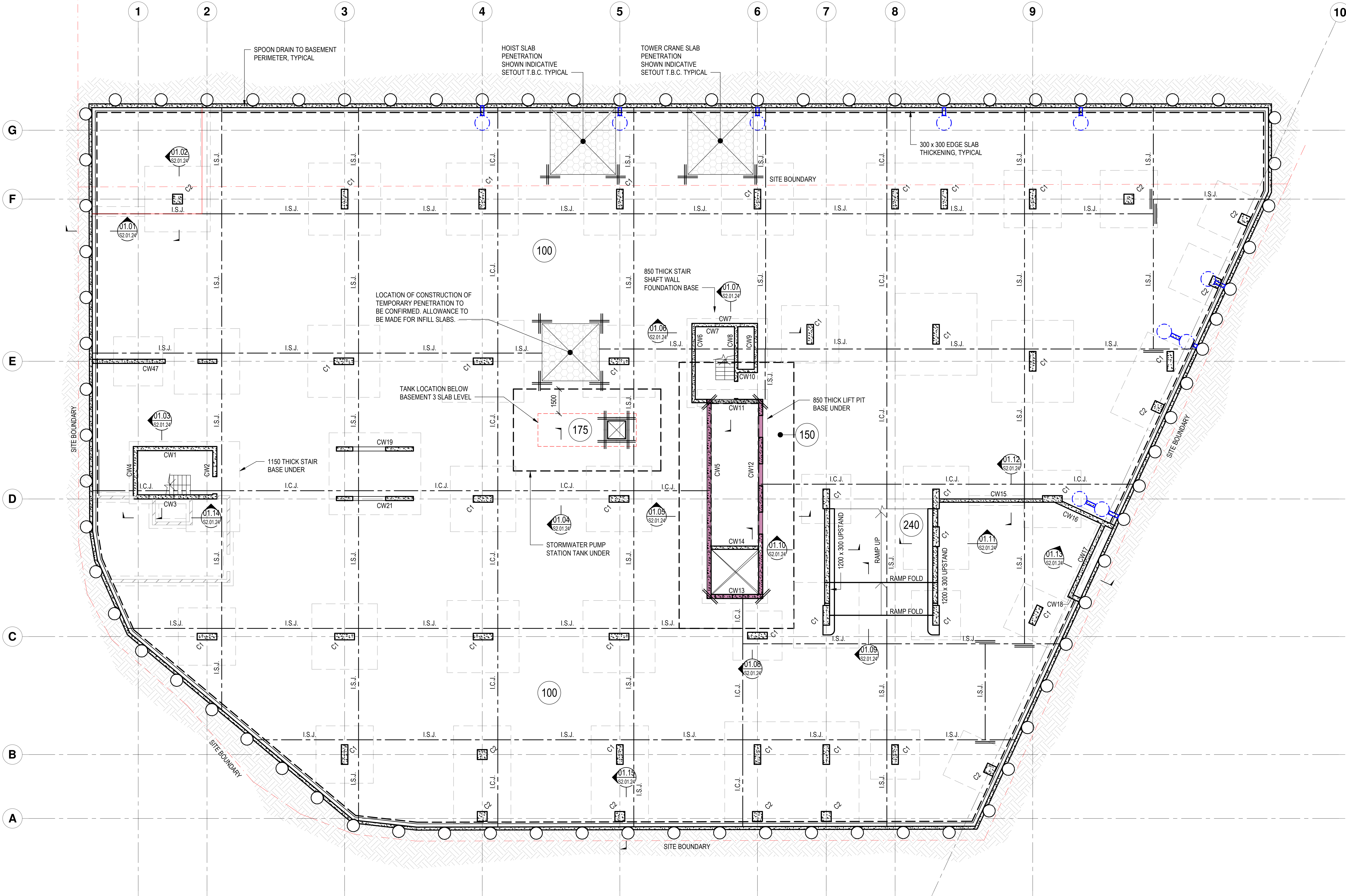
mpn JOB: 9541
DRAWING No: S2.01.01
REV: E

PRELIMINARY

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SCALE 1:100 AT A1

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BASEMENT 3 - SLAB ON GROUND PLAN
SCALE: 1:100

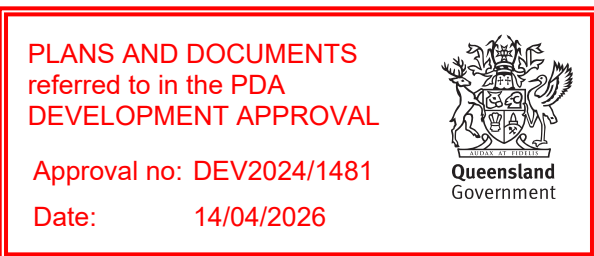
- SLAB ON GROUND TO BE 100mm THICK MIN, WITH SL82 MESH TOP (30mm COVER) U.N.O.
- LOCALLY THICKEN TO 120mm AS REQUIRED AT JOINT LOCATIONS TO ACHIEVE REQUIRED COVER TO DOWELS.
- REFER TO DRAWING S1.00.01 FOR WORKING PLATFORM DETAIL FOR UNDERSLAB BUILDUP.
- 175 THICK SLABS ON GROUND (WHERE NOTED ON PLAN) TO HAVE SL102 MESH TOP & BTM.
- REFER TO DRAWING S0.00.02 FOR ALL GENERAL CONSTRUCTION NOTES
- REFER TO DRAWING S1.00.01 FOR FOOTING LAYOUT PLAN
- REFER TO 'S1' SERIES DRAWINGS FOR ALL FOOTING & RETAINING WALL DETAILS
- REFER TO 'S2' SERIES DRAWINGS FOR SLAB ON GROUND DETAILS
- REFER TO 'S3' SERIES DRAWINGS FOR CONCRETE COLUMN DETAILS
- REFER ARCHITECTURAL DRAWINGS FOR ALL SLAB ON GROUND SETOUT DIMENSIONS, LEVELS, STEPS, REBATES, FALLS, SURFACE FINISHES, ECT.

- CONTROL OF DRYING SHRINKAGE & CONCRETE CURING:**
1. REFER CONCRETE NOTES FOR CURING CONSTRUCTION NOTES ON DRAWING No S0.00.01 & S0.00.02
 2. CURING COMPOUNDS SHALL BE USED (PVA COMPOUNDS ARE NOT PERMITTED).
 3. NO WATER IS TO BE ADDED TO CONCRETE MIX ON SITE UNLESS APPROVED AND SPECIFIED BY ENGINEER.
 4. USE ALIPHATIC ALCOHOL AS SOON AS SCREEDING IS FINISHED.
 5. REFER MPN SPECIFICATION FOR TEMPERATURE CONTROL LIMITS ETC.
 6. CONCRETE PLACEMENT AND CURING PROCEDURES ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

SLAB ON GROUND LEGEND	
CONSTRUCTION JOINT	DENOTES CONSTRUCTION JOINT IN SLAB
E.C.J.	DENOTES EXTERNAL DOWELED CONSTRUCTION JOINT
E.S.J.	DENOTES EXTERNAL SAWN DOWEL JOINT
G.J.	DENOTES SLAB GROOVE JOINT
I.C.J.	DENOTES INTERNAL DOWELED CONSTRUCTION JOINT
I.S.J.	DENOTES INTERNAL SAWN DOWEL JOINT
NOTE: REFER DRAWING S2.01.22 FOR INTERNAL & EXTERNAL SLAB JOINT DETAILS	
120	DENOTES SLAB STEP DIRECTION & HEIGHT CHANGE
50 STEP	DENOTES VOID IN STRUCTURAL SLAB
	DENOTES STRUCTURAL SLAB SETDOWN
	DENOTES 2N12 x 1500 Lg TIED TO UNDERSIDE OF TOP FACE SLAB MESH

WALL LEGEND	
B.C.J.	DENOTES 190 SERIES COREFILLED BLOCKWORK OVER STANDARD 190 SERIES BLOCKWORK REINFORCEMENT U.N.O. = N16-400 VERTICAL N12-400 HORIZONTAL
	DENOTES LOAD BEARING BLOCKWORK UNDER
	DENOTES LOAD BEARING BLOCKWORK UNDER & OVER
	DENOTES LOAD BEARING WALLS UNDER WITH SLIPJOINT - REFER TO DRG S3.00.41 FOR DETAILS
	DENOTES LOAD BEARING BLOCKWORK UNDER & OVER. WALL UNDER TO HAVE SLIPJOINT DETAIL - REFER TO DRG S3.00.41 FOR DETAILS
ALL BLOCKWORK ON PLAN TO BE 190 SERIES U.N.O.	
290	DENOTES 290 SERIES COREFILLED LOAD BEARING BLOCKWORK OVER. REFER DETAILS FOR REINFORCEMENT.
	DENOTES NON-LOAD BEARING AND/OR NON-STRUCTURAL WALLS. REFER ARCHITECT FOR DETAILS. REFER TO DRAWING S3.00.51 FOR TYPICAL NON-LOAD BEARING BLOCK WALL RESTRAINT DETAILS.
W1	DENOTES CONCRETE WALL No. 1
	DENOTES REINFORCED CONCRETE WALL. REFER TO 'S3' SERIES DRAWINGS FOR CONCRETE WALL ELEVATIONS & DETAILS.
	DENOTES REINFORCED CONCRETE WALL UNDER TO HAVE SLIPJOINT DETAIL - REFER TO DRG ???.?? FOR DETAILS
	DENOTES PRECAST CONCRETE WALLS. REFER S3 SERIES DRAWINGS FOR PRECAST CONCRETE WALL DETAILS.

NOTES		
1. DESIGN LOADS		LIVE LOAD: 5 kPa
SUPERIMPOSED DEAD LOAD:		2.5 kPa
2. CONCRETE		
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 "CONCRETE STRUCTURES" EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER S0.00.01 & S0.00.02. CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:		
28 DAY COMPRESSIVE STRENGTH:		
COMPONENT	STRENGTH (f _c)	
SLABS	N32	
CONCRETE ATTRIBUTES		
PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	≤S32 - 650µ MEDIAN ≤S40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5
3. FIRE RESISTANCE RATING		
REFER ARCHITECT		
4. REINFORCEMENT COVER		
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-		
COMPONENT	COVER (mm) U.N.O.	
SLABS	40mm BOTTOM 40mm TOP 40mm SIDES	
5. REINFORCEMENT BAR LAPS		
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-		
BAR LAPS FOR BEAMS AND SLABS		
BAR SIZE	TOP BAR	BOTTOM BAR
N12	600	500
N16	900	700
N20	1200	950
N24	1550	1200
N28	1950	1500
N32	2300	1800
N36	2700	2100
NOTE: A TOP BAR HAS 300mm OR MORE CONCRETE UNDER THE BAR.		
MINIMUM OVERLAP TO BE GREATER OF 'S1' OR 'S2' + 30mm		
TYPICAL FABRIC LAP DETAIL		



ISSUE	DATE	REVISION	BY
E	14.04.23	80% DO ISSUE	P.G. R.B.
D	27.03.23	COORDINATION UPDATES	P.G. R.B.
C	10.02.23	PRICING ISSUE	P.G. R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G. R.B.
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CLIENT: **NORTHWEST HEALTHCARE PROPERTIES**

**GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

LEVEL B3 - SLAB ON GROUND PLAN

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPRD	-	DATE	-

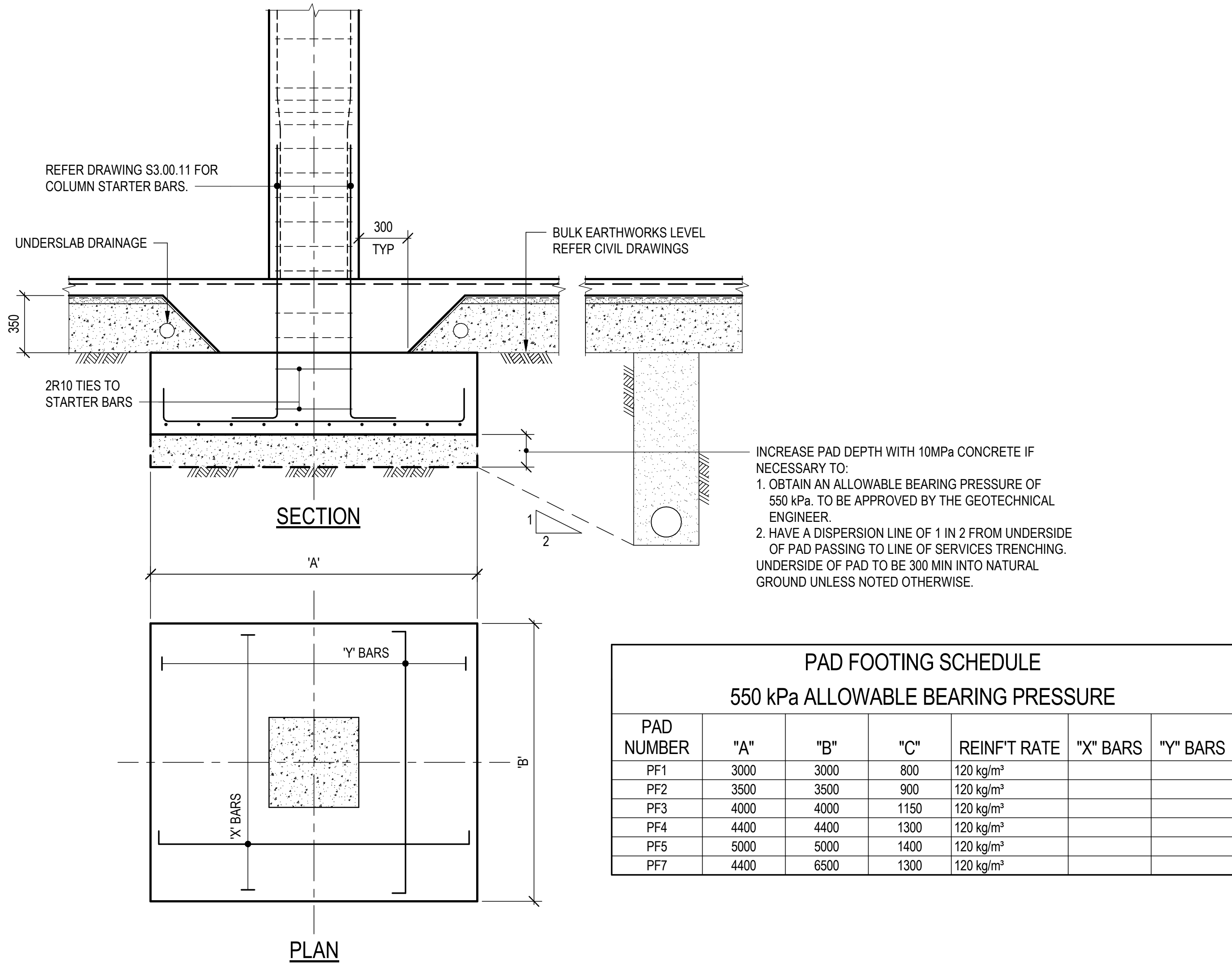
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PRELIMINARY

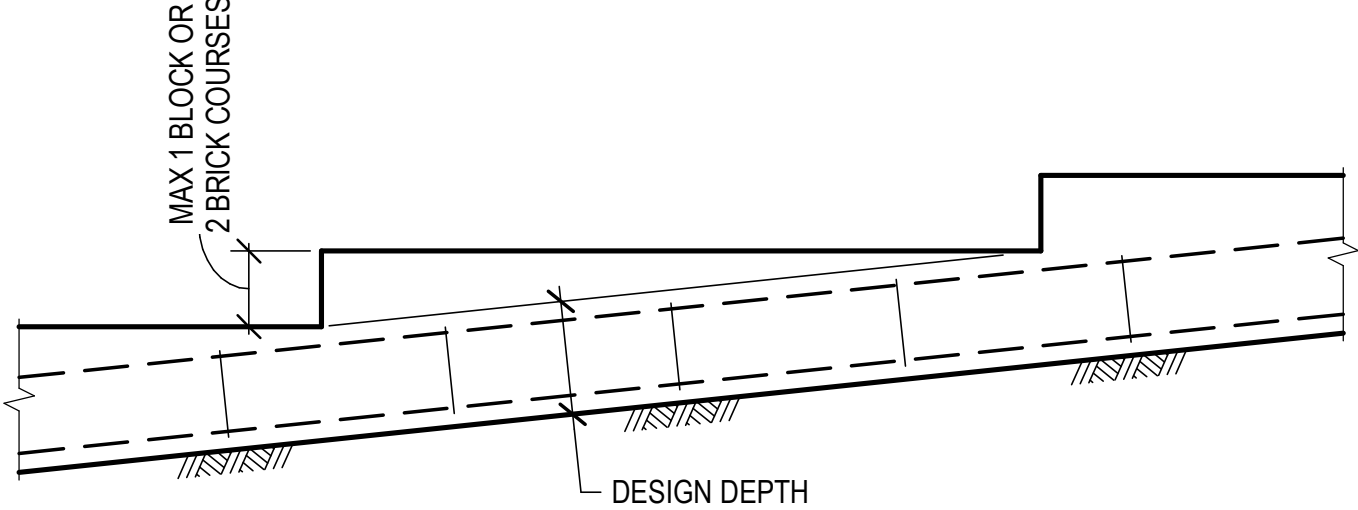
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NOT FOR CONSTRUCTION

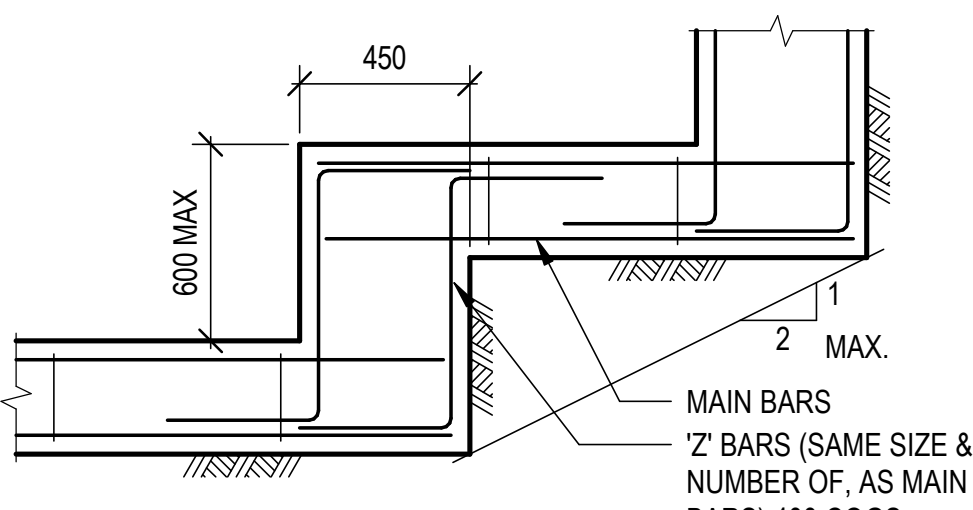
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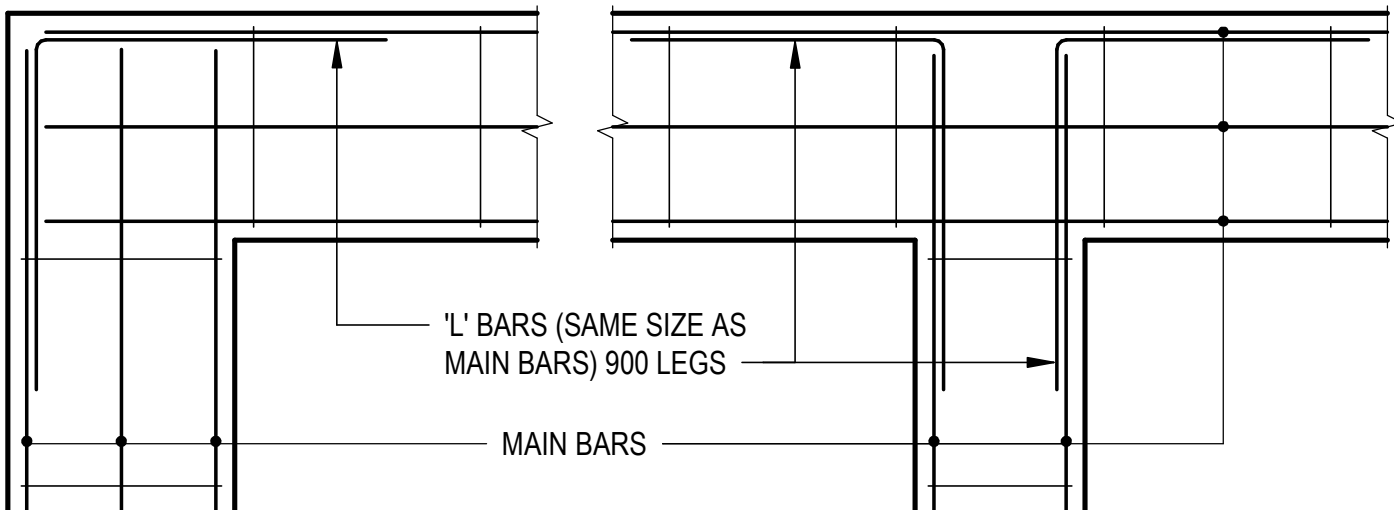
TYPICAL PAD FOOTING DETAILS



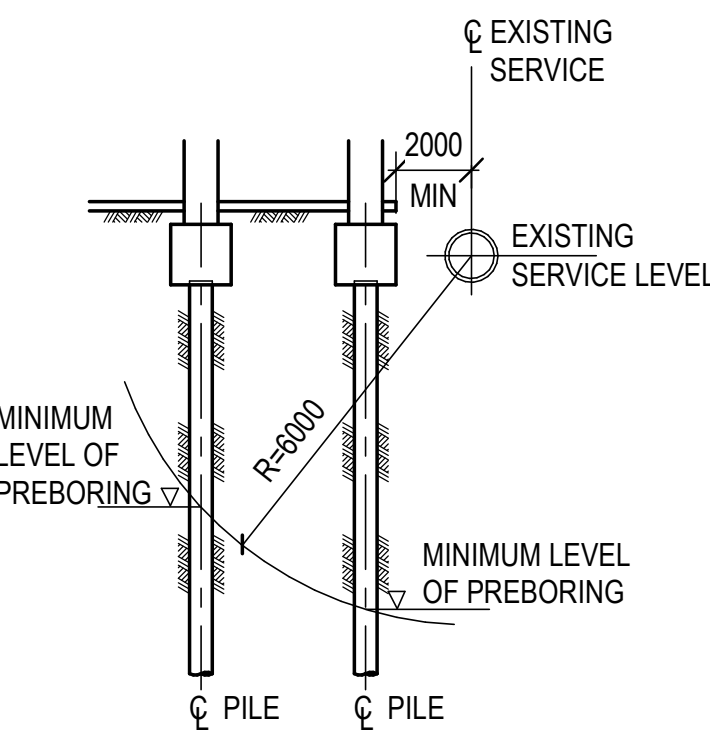
FOOTING STEPDOWN
AT GENTLE SLOPE 1 IN 10 MAX.



FOOTING STEPDOWN
AT STEEP SLOPE MORE THAN 1 IN 10

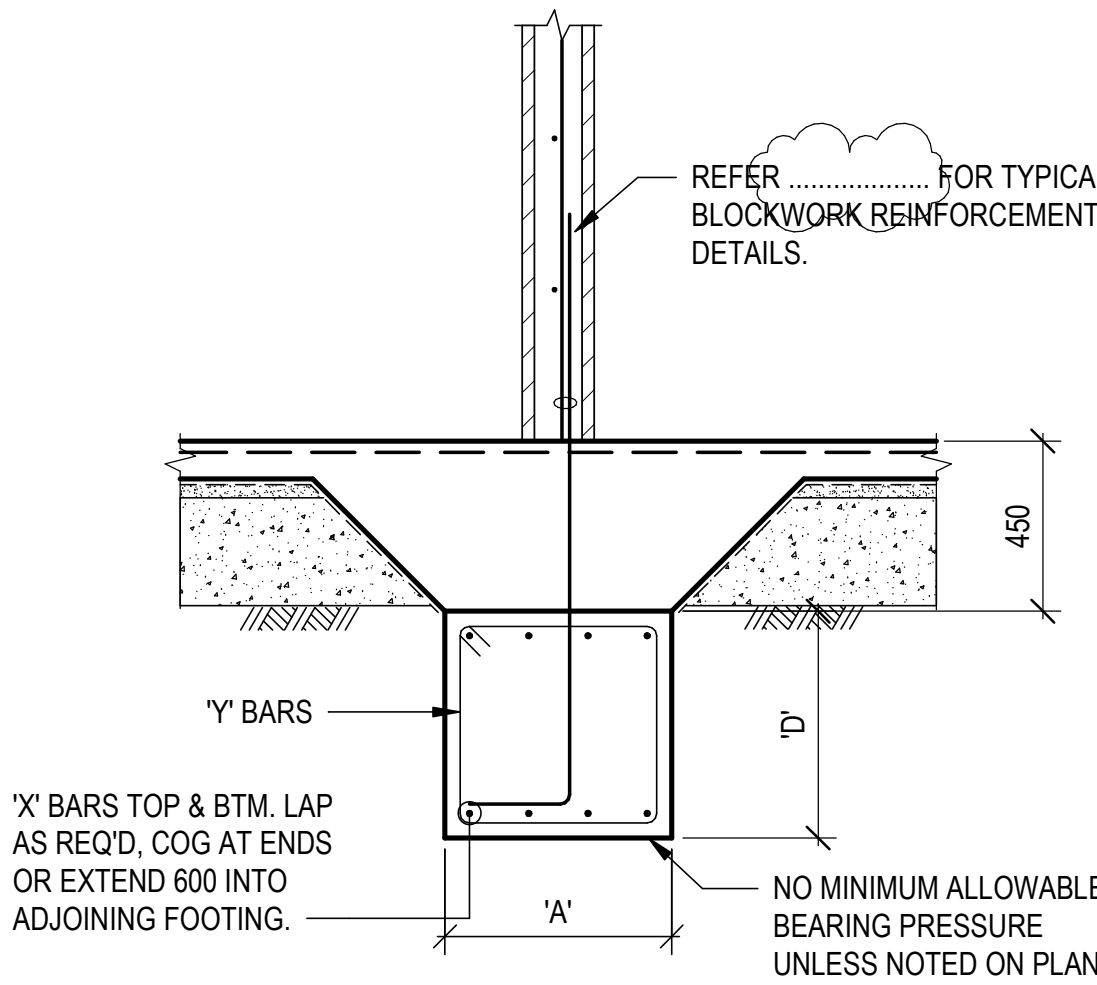


CORNER
FOOTING BEAM INTERSECTION DETAILS

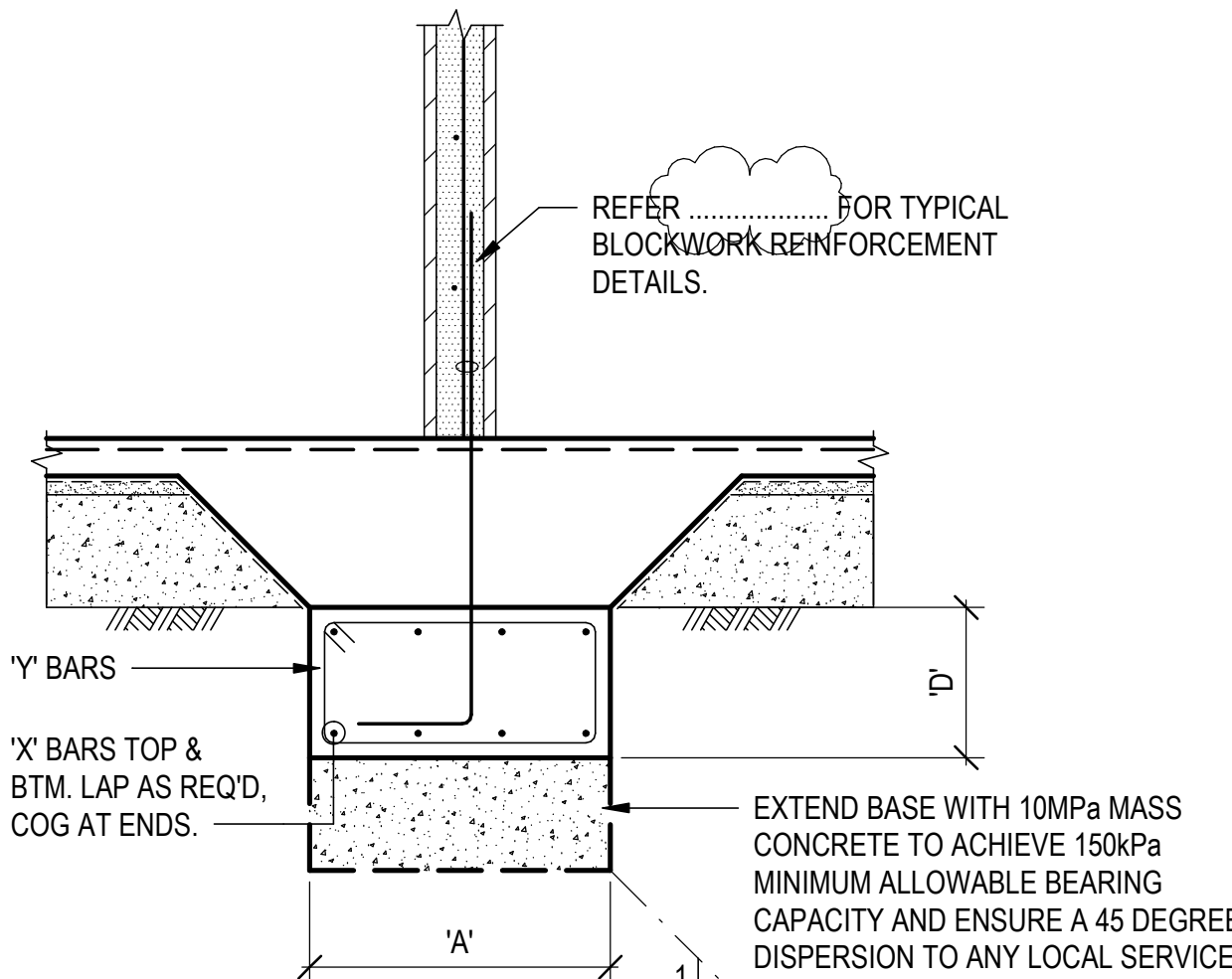


TYPICAL SERVICE
PROXIMITY DETAIL (N.T.S.)

PILES CLOSER THAN 1000mm SHALL
BE REFERRED TO ENGINEER.

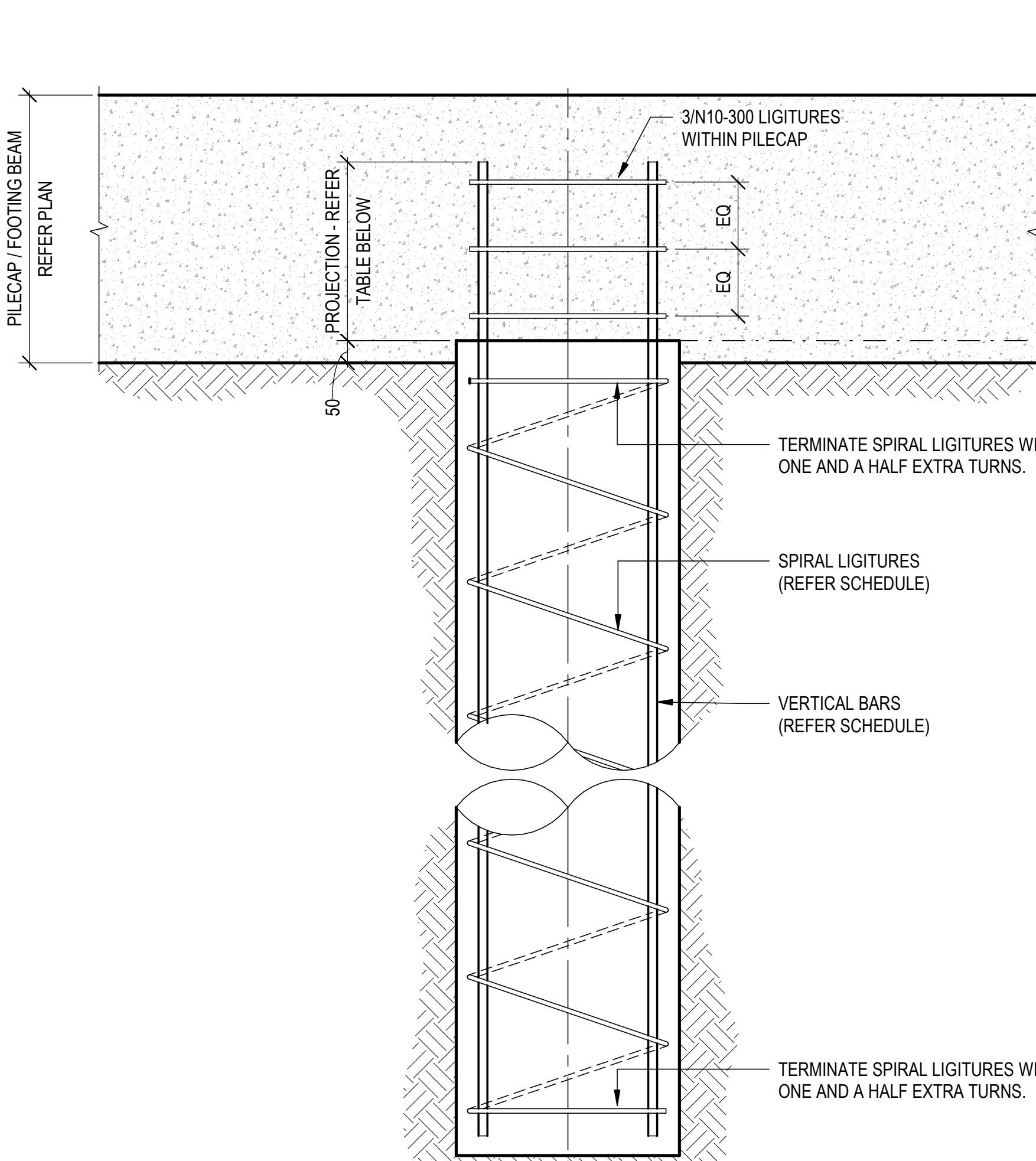


SECTION
TYPICAL FOOTING BEAM DETAIL



SECTION
TYPICAL STRIP FOOTING DETAIL

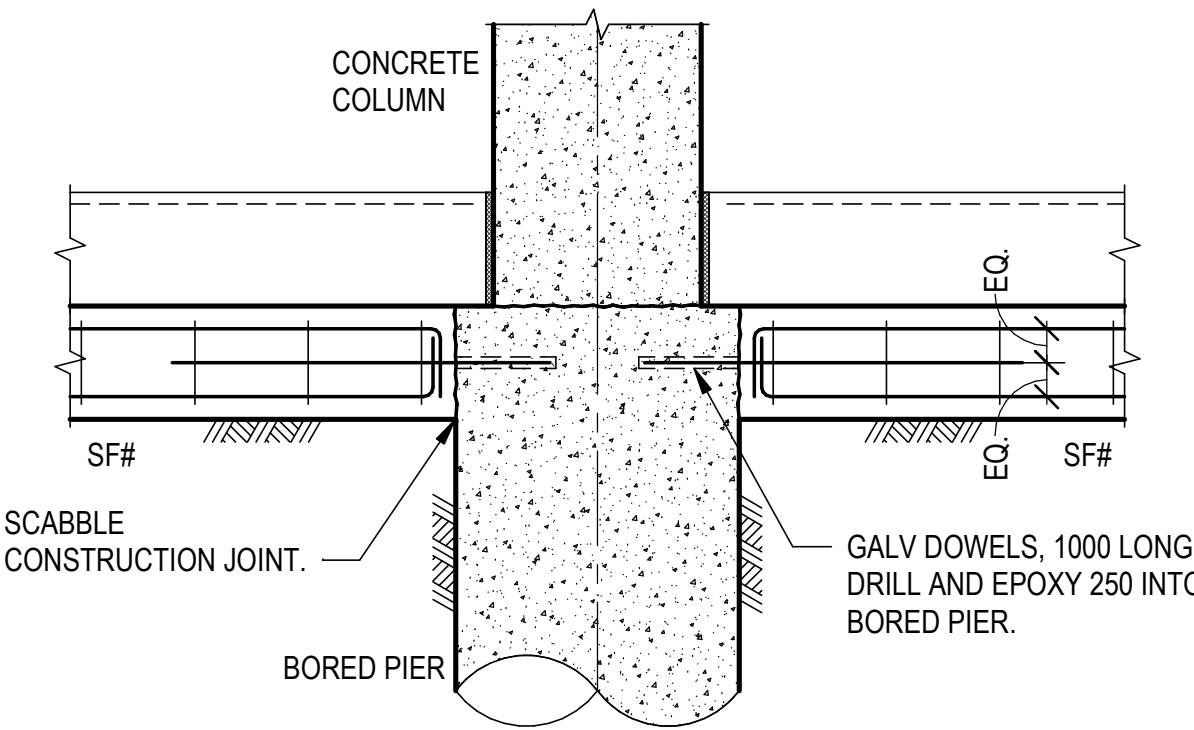
FOOTING SCHEDULE				
MARK	SIZE	REIN'T RATE	X-Bars	Y-Bars
SF1	600 DEEP x 400 WIDE	120 kg/m ²		
SF2	600 DEEP x 800 WIDE	120 kg/m ²		



TYPICAL PILE DETAIL

SCALE 1:10

PILE SCHEDULE				
PILE TYPE	PILE DIA	BAR NO / SIZE	PROJECTION	SPIRAL LIGS
P1	600	5N20	800	R10-300



TYPICAL STRIP FOOTING TO PIER

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



ISSUE DATE	AMENDMENT	P.G. R.B.	BY	APP
A	14.04.23	80% DO ISSUE		

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CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND
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NEXUS WAY, SOUTHPORT QLD

LEVEL B3 - FOOTING DETAILS -
SHEET 1

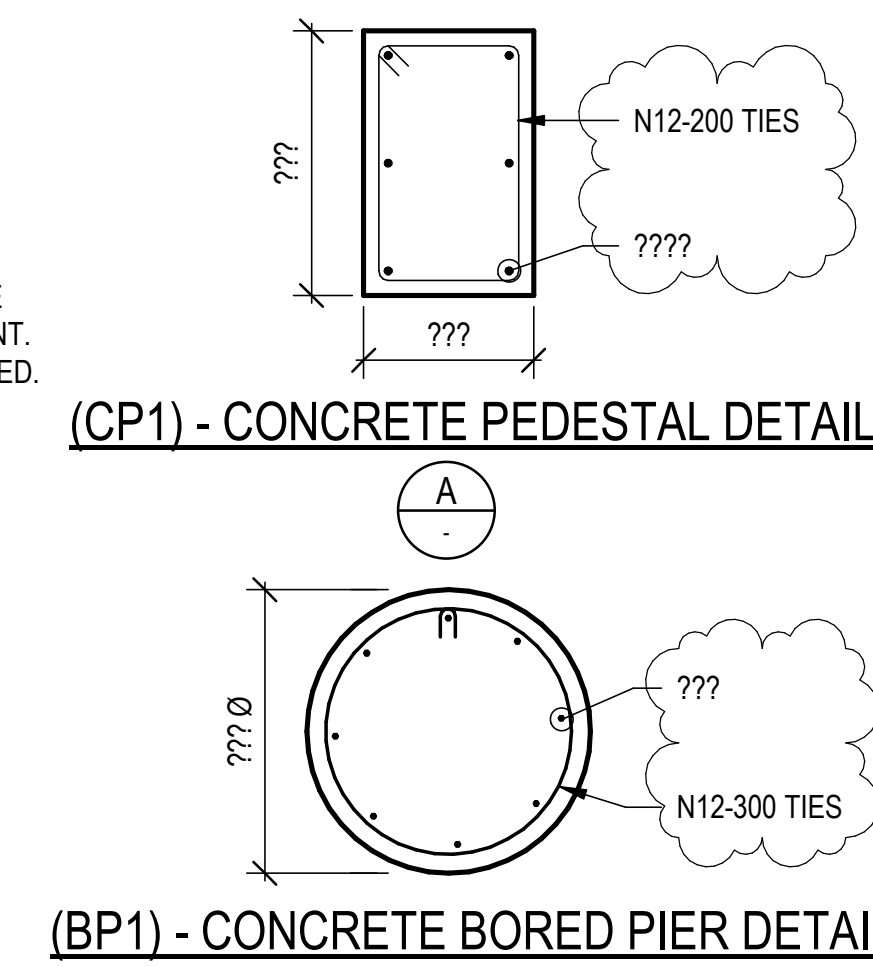
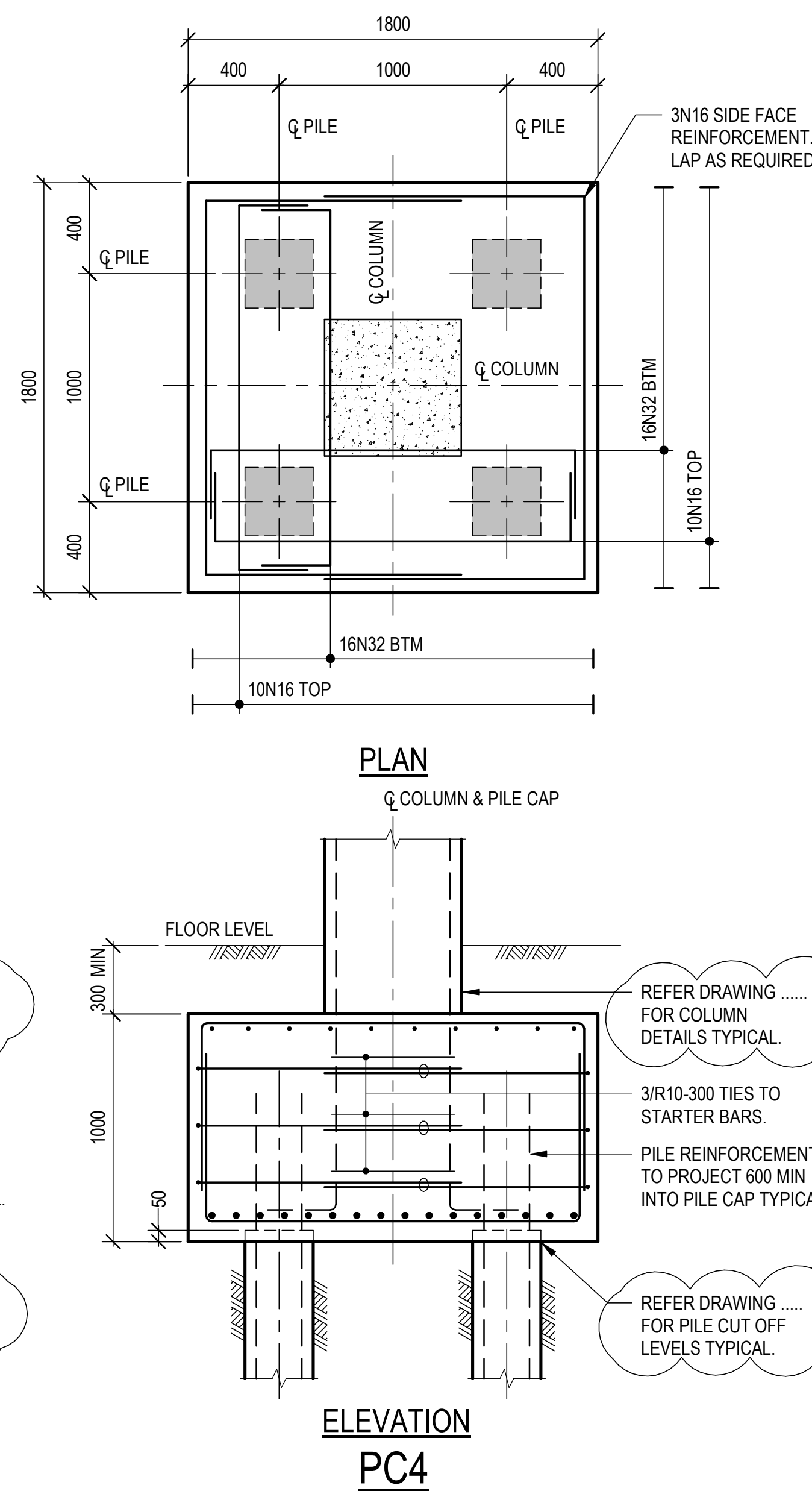
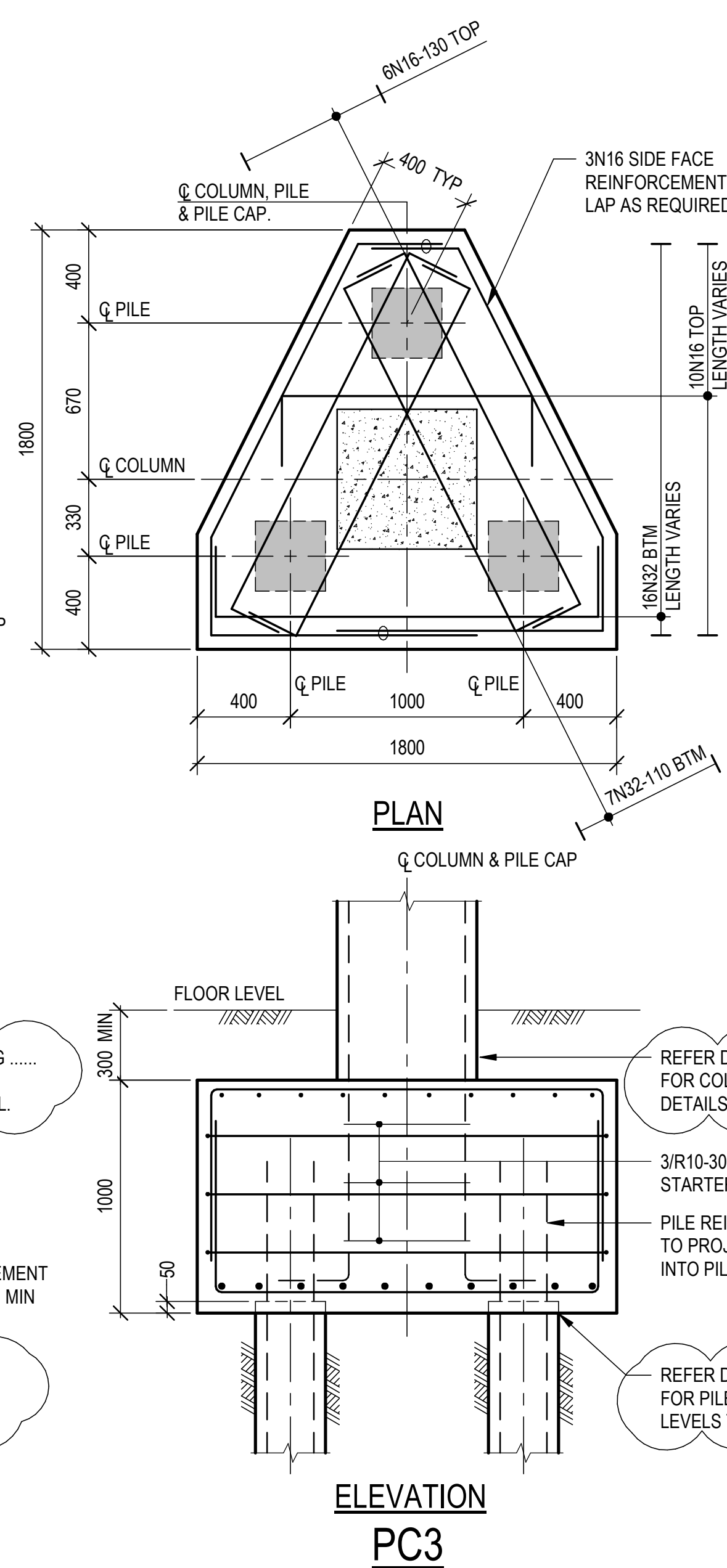
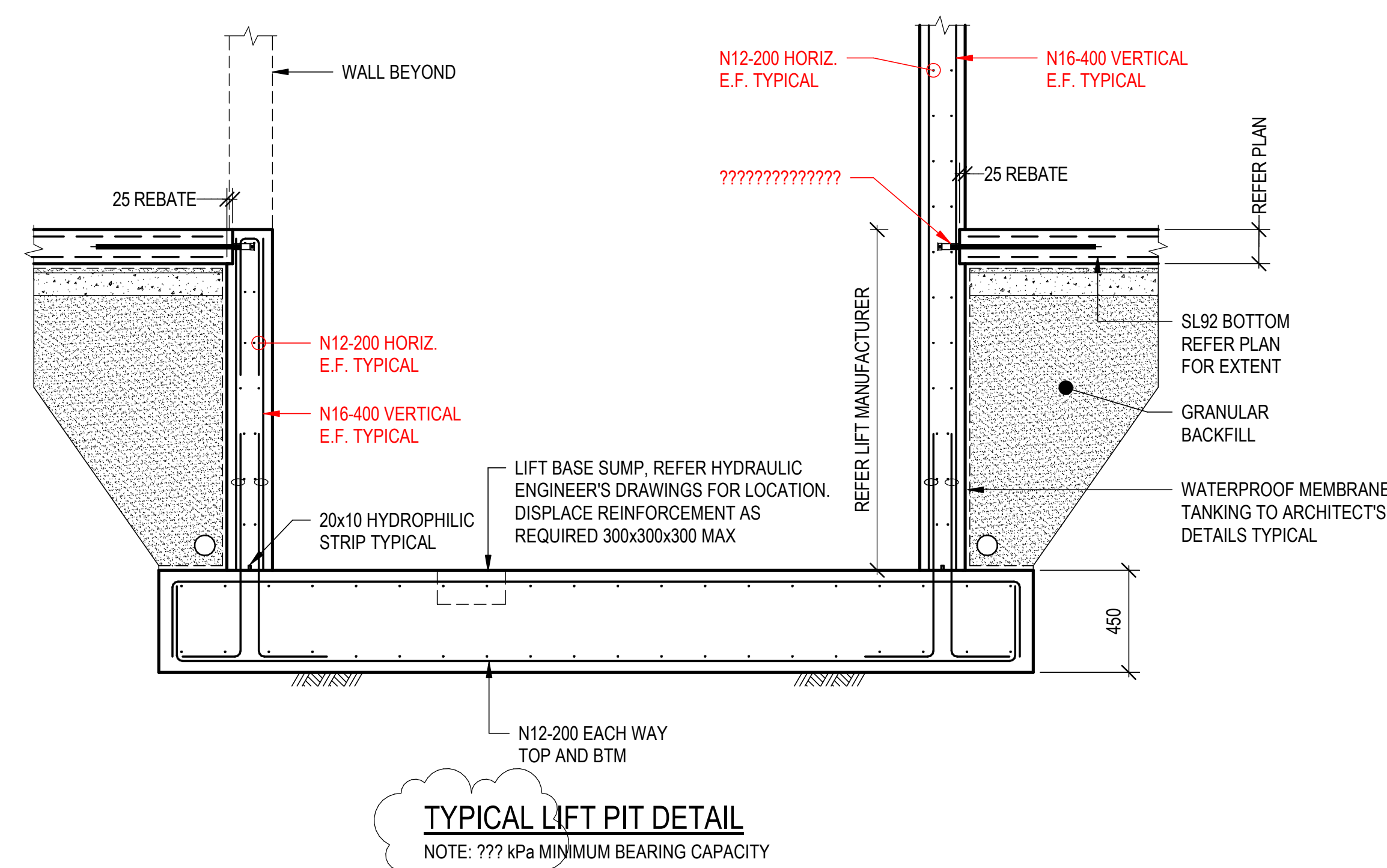
DESIGN	R.B.	DRAWN	P.G.	SCALE	1:20
CHKD	-	APPROD	-	DATE	-

mpn	038	DRAWING No:	9541	S2.01.11	REV
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PLANS AND DOCUMENTS
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DEVELOPMENT APPROVAL

Approval no: DEV2024/1481
Date: 14/04/2026

The logo of the Queensland Government, featuring the state crest and the text "Queensland Government".

A	14 04 23	80% DO ISSUE				P.G.	R.B.		
ISSUE	DATE	AMENDMENT				BY	APP		

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CLIENT:  **NORTHWEST**
HEALTHCARE

**GOLD COAST HEALTH AND
KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

LEVEL B3 - FOOTING DETAILS -
SHEET 2

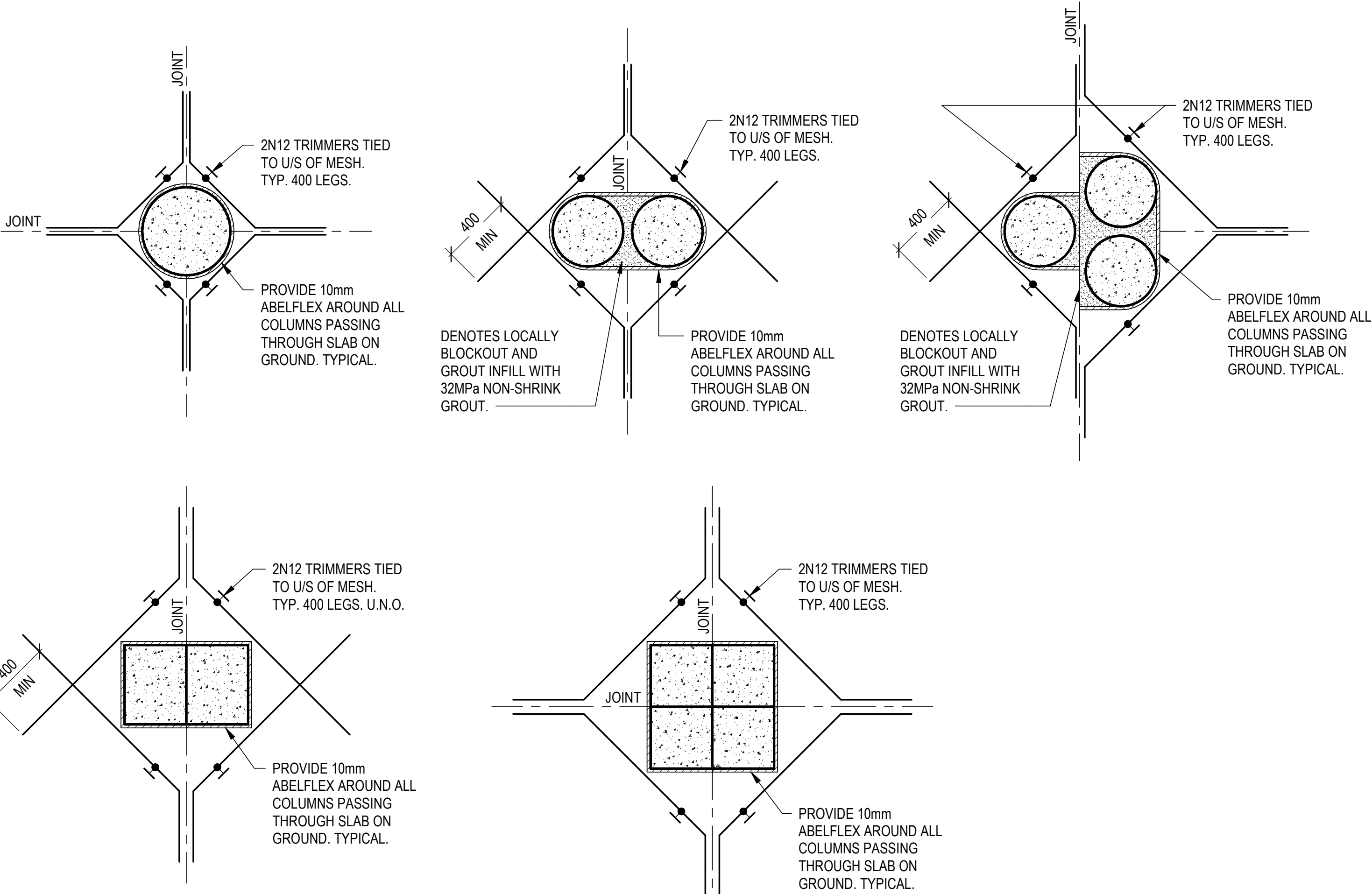
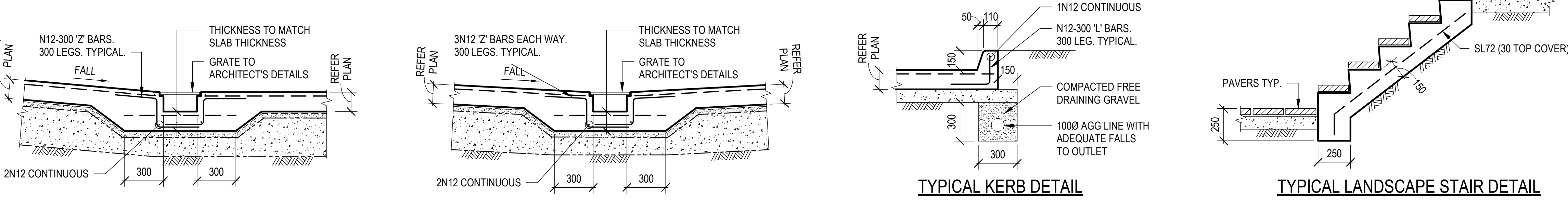
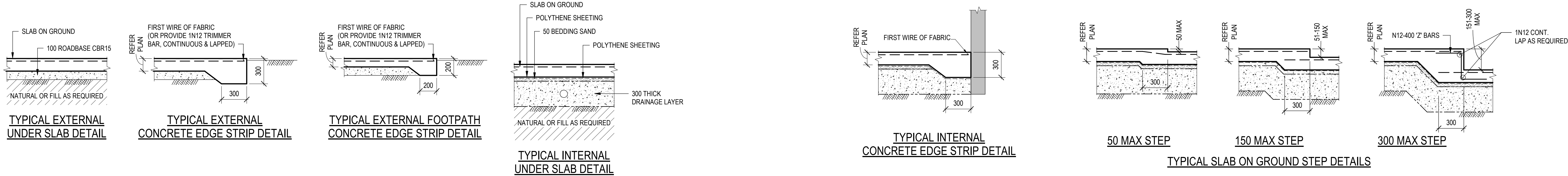
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CHKD: .	APPRD: .	DATE: .

mpn JOB	DRAWING No.	REV
9541	S2.01.12	A

PRELIMINARY

NOT FOR CONSTRUCTION

PRINT IN COLOUR



TYPICAL SLAB ON GROUND COLUMN TRIMMING DETAILS

PLANS AND DOCUMENTS referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026

C	14.04.23	80% DO ISSUE	P/G	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P/G	R.B.
A	0.12.22	PRICING ISSUE	P/G	R.B.
ISSUE DATE	AMENDMENT		BY	APP

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CLIENT: **NORTHWEST HEALTHCARE PROPERTIES**

**GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

LEVEL B3 - TYPICAL SLAB ON GROUND DETAILS - SHEET 1

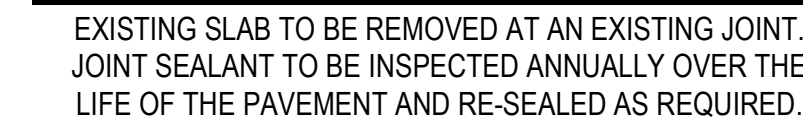
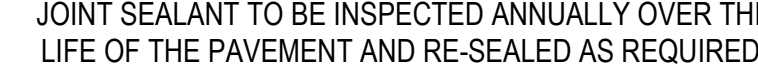
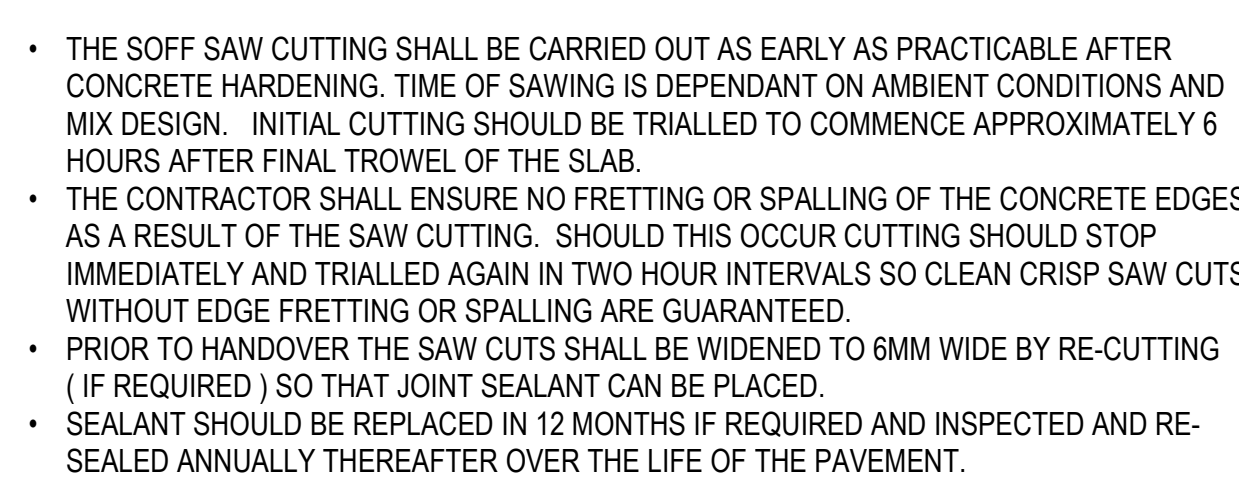
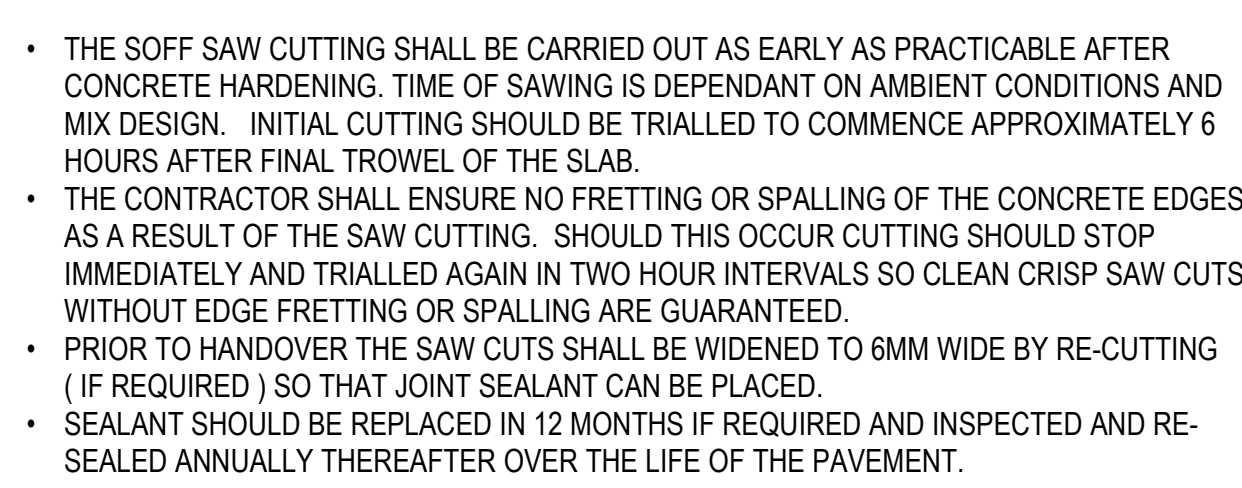
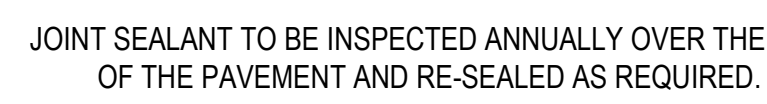
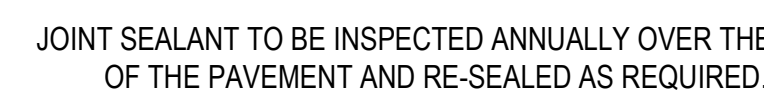
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CHKD	-	APPRD	-	DATE	-

mpn	038	DRAWING No:	9541	S2.01.21	REV
					C

PRELIMINARY

NOT FOR CONSTRUCTION

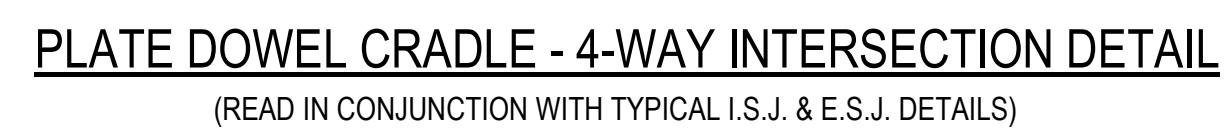
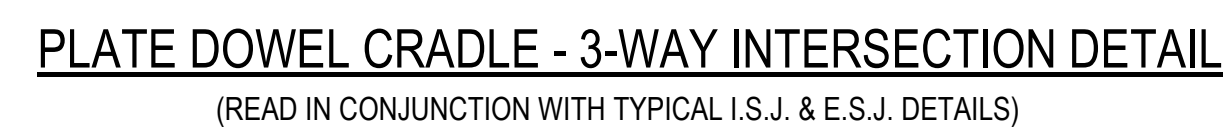
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PRELIMINARY

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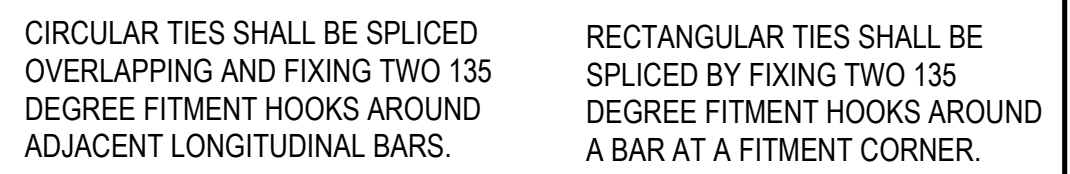


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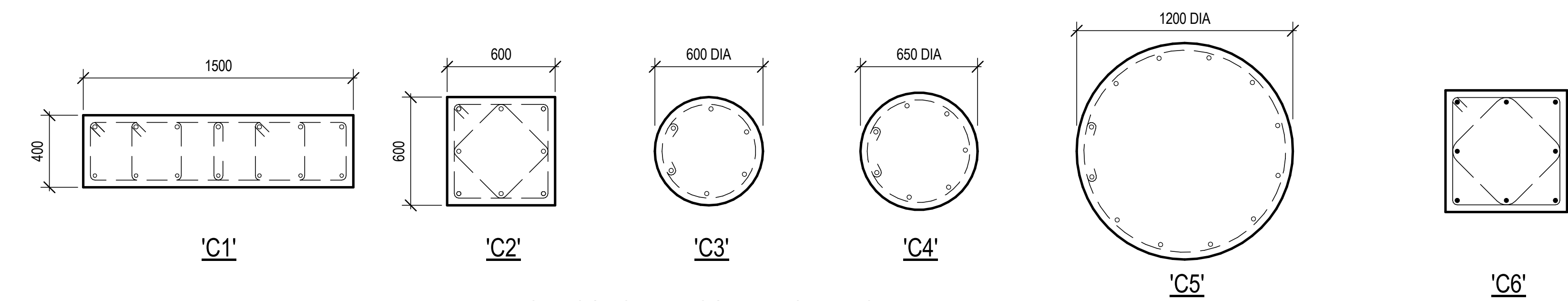
PRINT IN COLOUR



ALL STARTER BARS AND DOWEL BARS TO BE THE SAME
SIZE AS REINFORCEMENT IN COLUMNS OVER U.N.O.



TYPICAL COLUMN TIE ARRANGEMENT



TYPICAL CONCRETE COLUMN SHAPES

BASEMENT 03 - LEVEL 0:
CONCRETE STRENGTH - N50
LEVEL 0 - ROOF:
CONCRETE STRENGTH - N40

REINFORCEMENT RATE = 250kg/m³

D	14.04.23	80% DO ISSUE		P.G.	R.B.	
C	27.03.23	COLUMN BASE DETAILS UPDATED		P.G.	R.B.	
B	25.1.23	RE-ISSUED FOR PRICING		P.G.	R.B.	
A	9.12.22	PRICING ISSUE		P.G.	R.B.	
ISSUE	DATE	AMENDMENT		BY	APP	

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CLIENT: **NORTHWEST**

**GOLD COAST HEALTH AND
KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

CONCRETE COLUMN DETAILS

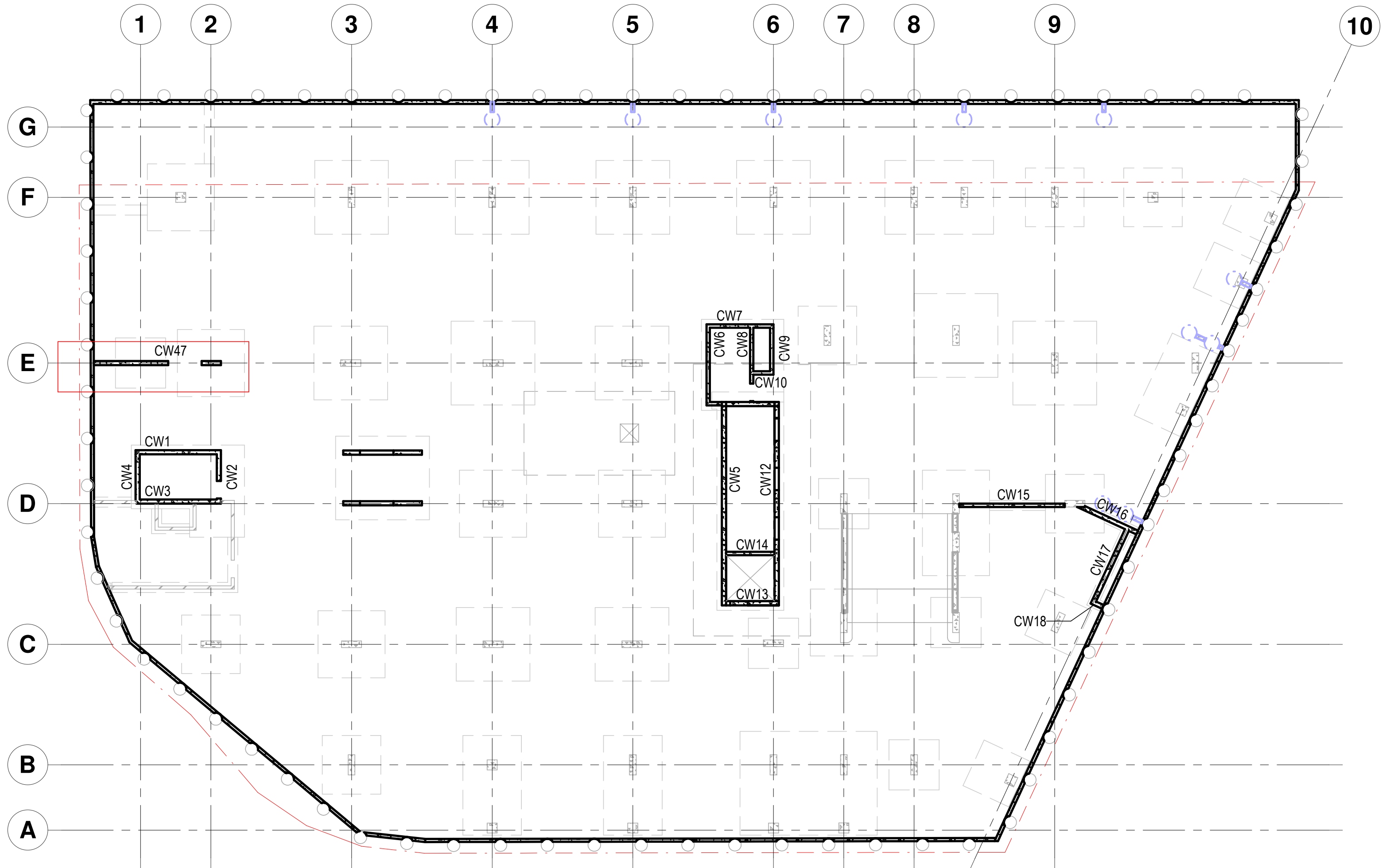
DESIGN: R.B.	DRAWN: P.G.	SCALES: 1:20
CHKD: -	APPRD: -	DATE: -

mpn JOB	DRAWING No.	REV
9541	S3.00.11	D

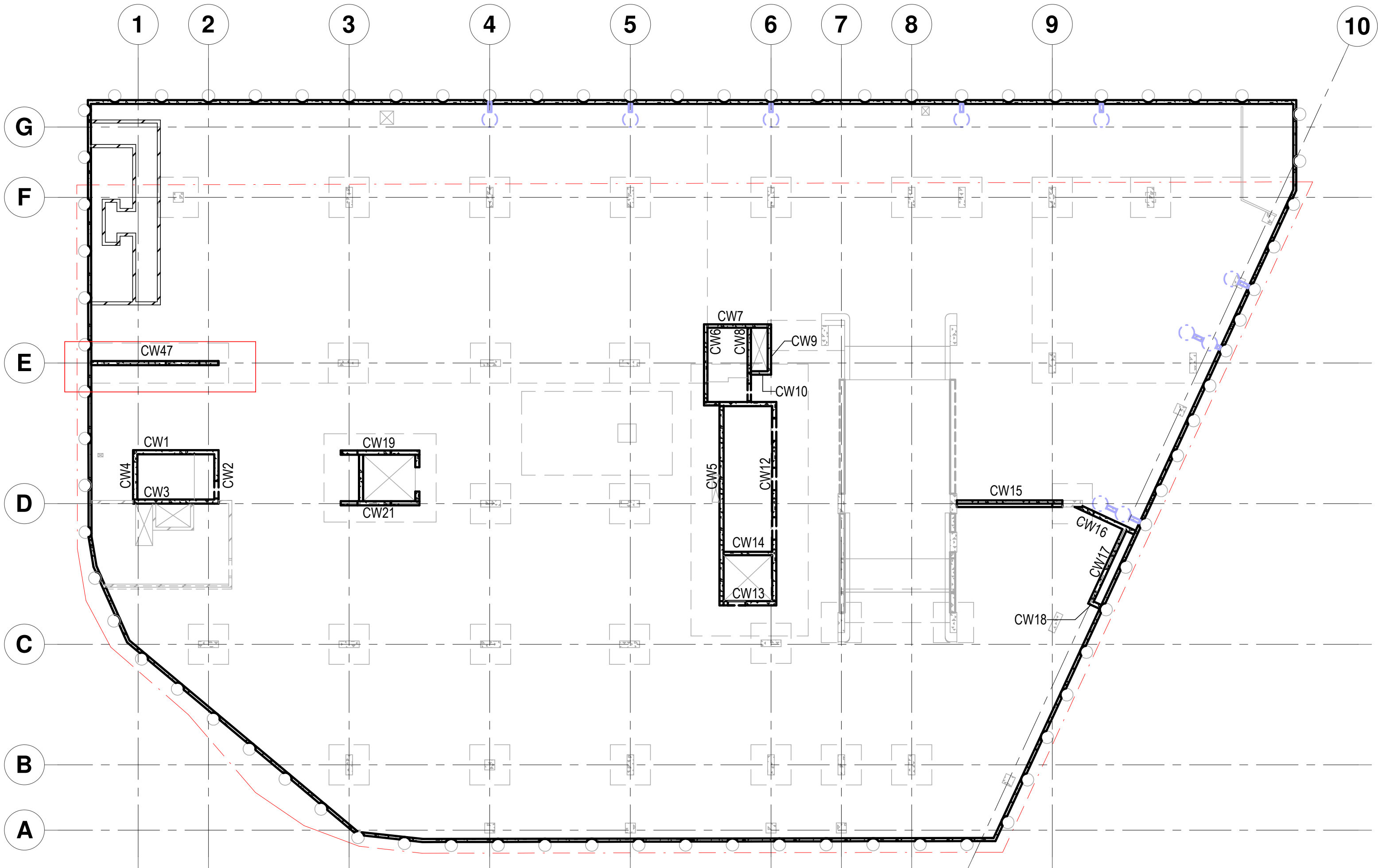
PRELIMINARY

NOT FOR CONSTRUCTION

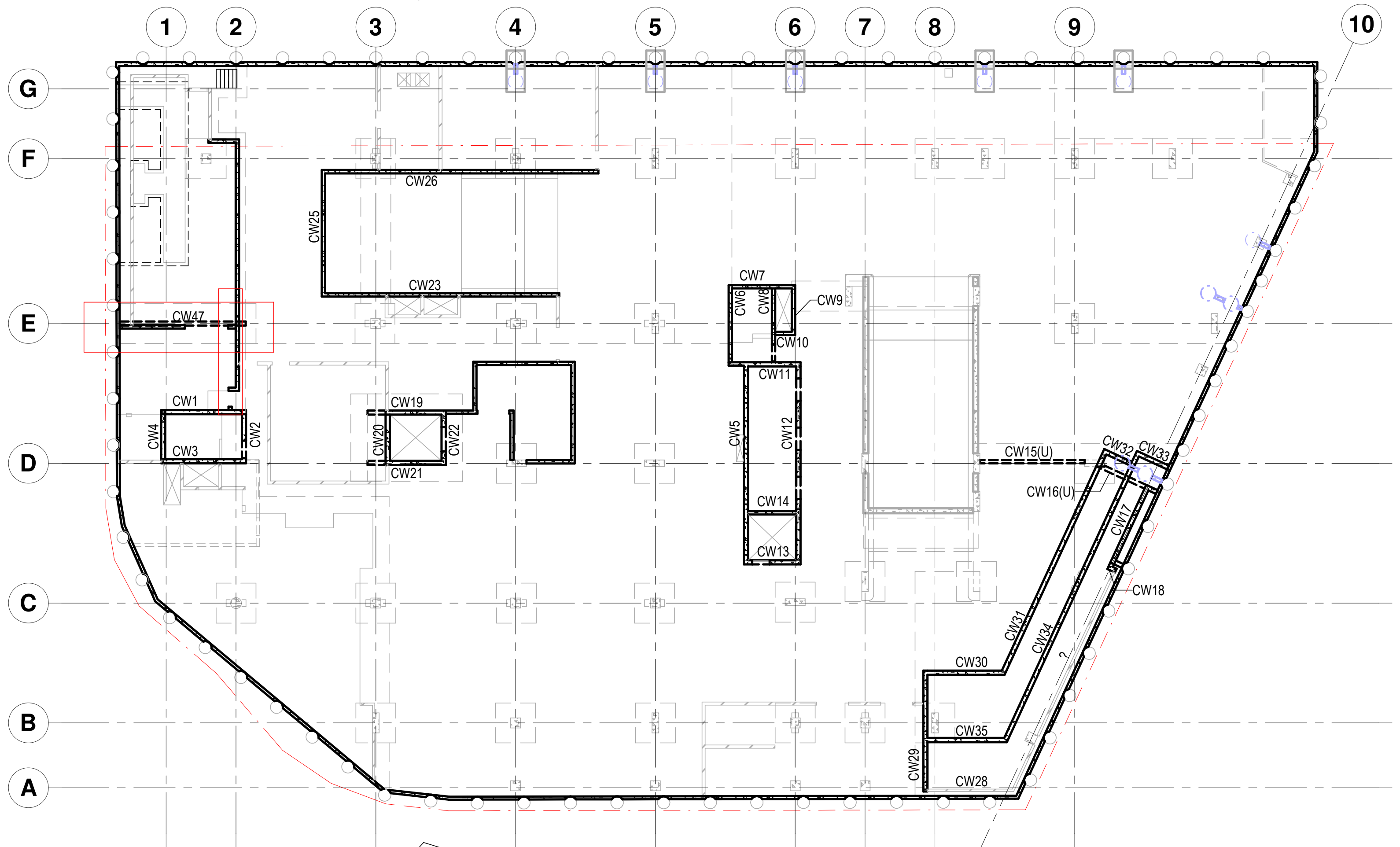
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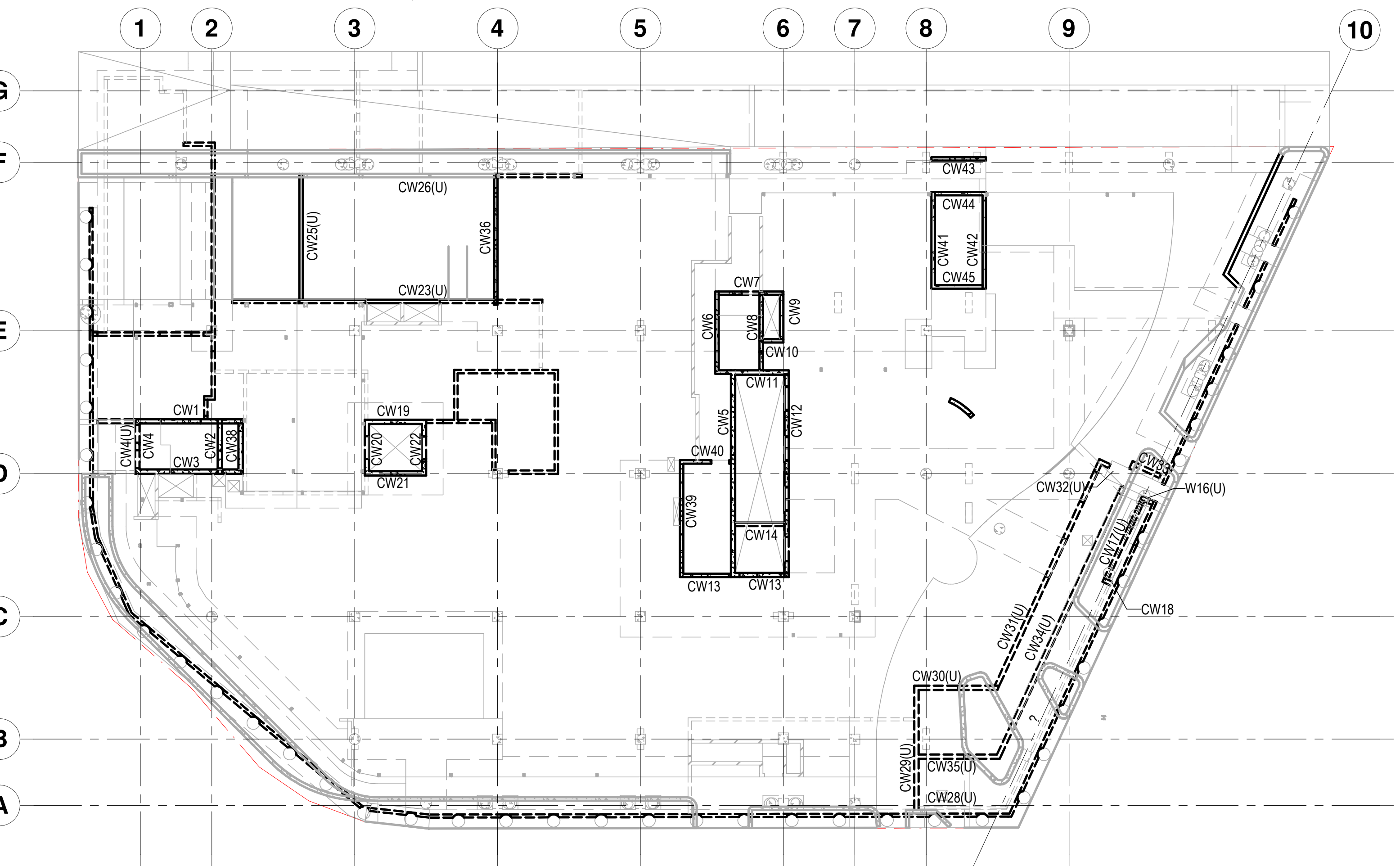
BASEMENT 3 - CONCRETE WALL KEYPLAN
SCALE: 1:200



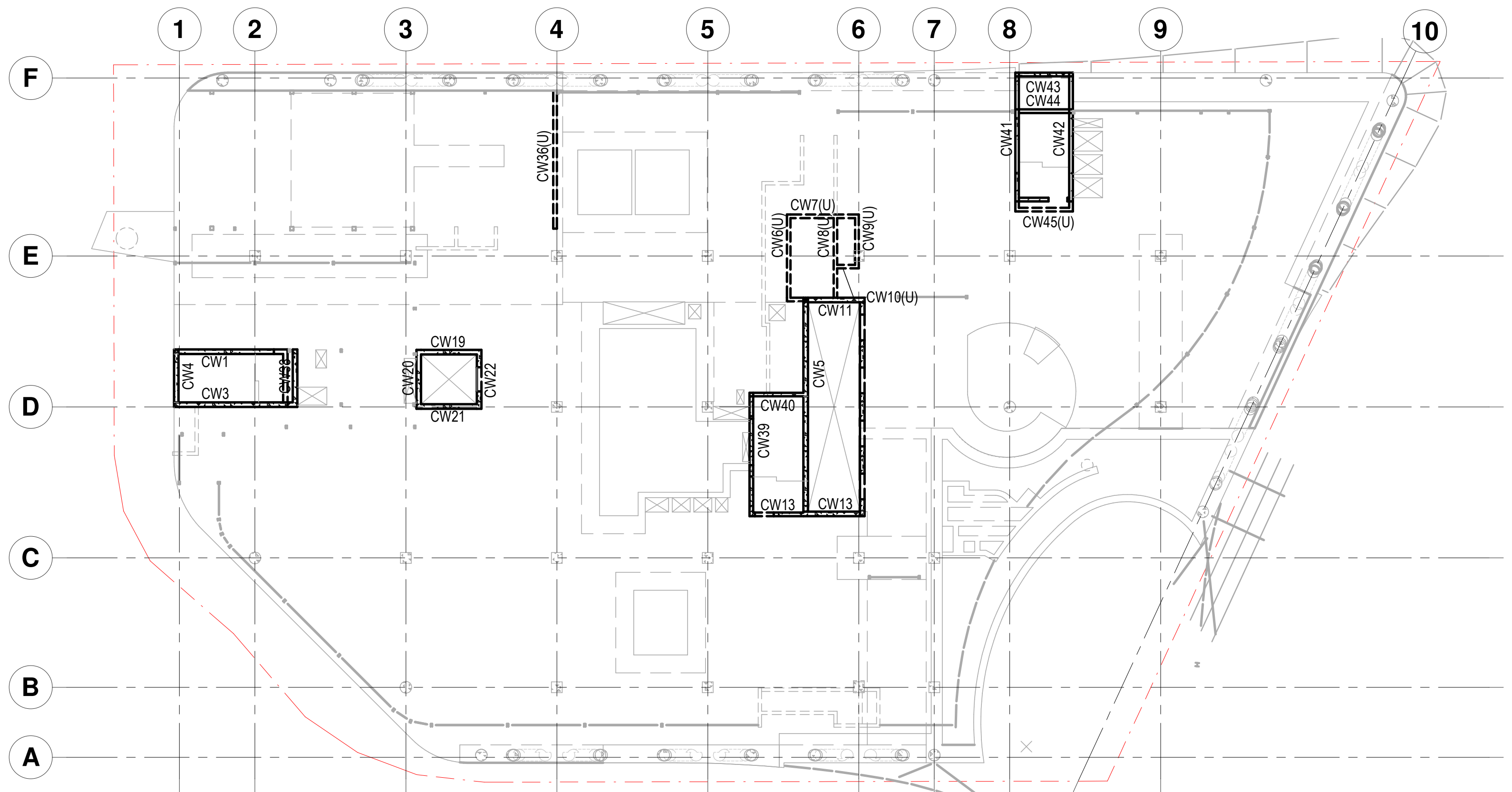
BASEMENT 2 - CONCRETE WALL KEYPLAN
SCALE: 1:200



BASEMENT 1 - CONCRETE WALL KEYPLAN
SCALE: 1:200



LEVEL 0 GROUND - CONCRETE WALL KEYPLAN
SCALE: 1:200



LEVEL 1 - CONCRETE WALL KEYPLAN
SCALE: 1:200

NOTES

1. CONCRETE
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 "CONCRETE STRUCTURES" EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER DWG S0.00.01 & S0.00.02. CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:		
COMPONENT	STRENGTH (f _c)	
WALLS	ROOF	
	LEVEL 8	N40
	LEVEL 7	N40
	LEVEL 6	N40
	LEVEL 5	N40
	LEVEL 4	N40
	LEVEL 3	N40
	LEVEL 2	N40
	LEVEL 1	N40
	LEVEL 0	N40
	LEVEL B1	N50
	LEVEL B2	N50
	LEVEL B3	N50

CONCRETE ATTRIBUTES		
PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	ES32 - 650µ MEDIAN ES40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

2. FIRE RESISTANCE RATING
REFER ARCHITECT.
3. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
WALLS	30mm ALL FACES

4. REINFORCEMENT BAR LAPS
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-

BAR LAPS FOR WALLS			
BAR SIZE	LAP	BAR SIZE	LAP
N12	500	N28	1500
N16	700	N32	1800
N20	950	N36	2100
N24	1200	N40	2450

REINFORCEMENT RATES:
UP TO LEVEL 4: 200kg/m³
ABOVE LEVEL 4: 150kg/m³

NOTE: ALL SUSPENDED SLAB TO CONCRETE WALL CONNECTIONS (LEVEL 0 TO ROOF LEVEL) TO HAVE TEMPORARY SLIP JOINTS

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2025

C	14.04.23	80% DO ISSUE	P.G. R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G. R.B.
A	9.12.22	PRICING ISSUE	P.G. R.B.
ISSUE DATE	AMENDMENT		BY

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CLIENT: **NORTHWEST**
HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

CONCRETE WALL ELEVATIONS - SHEET 1

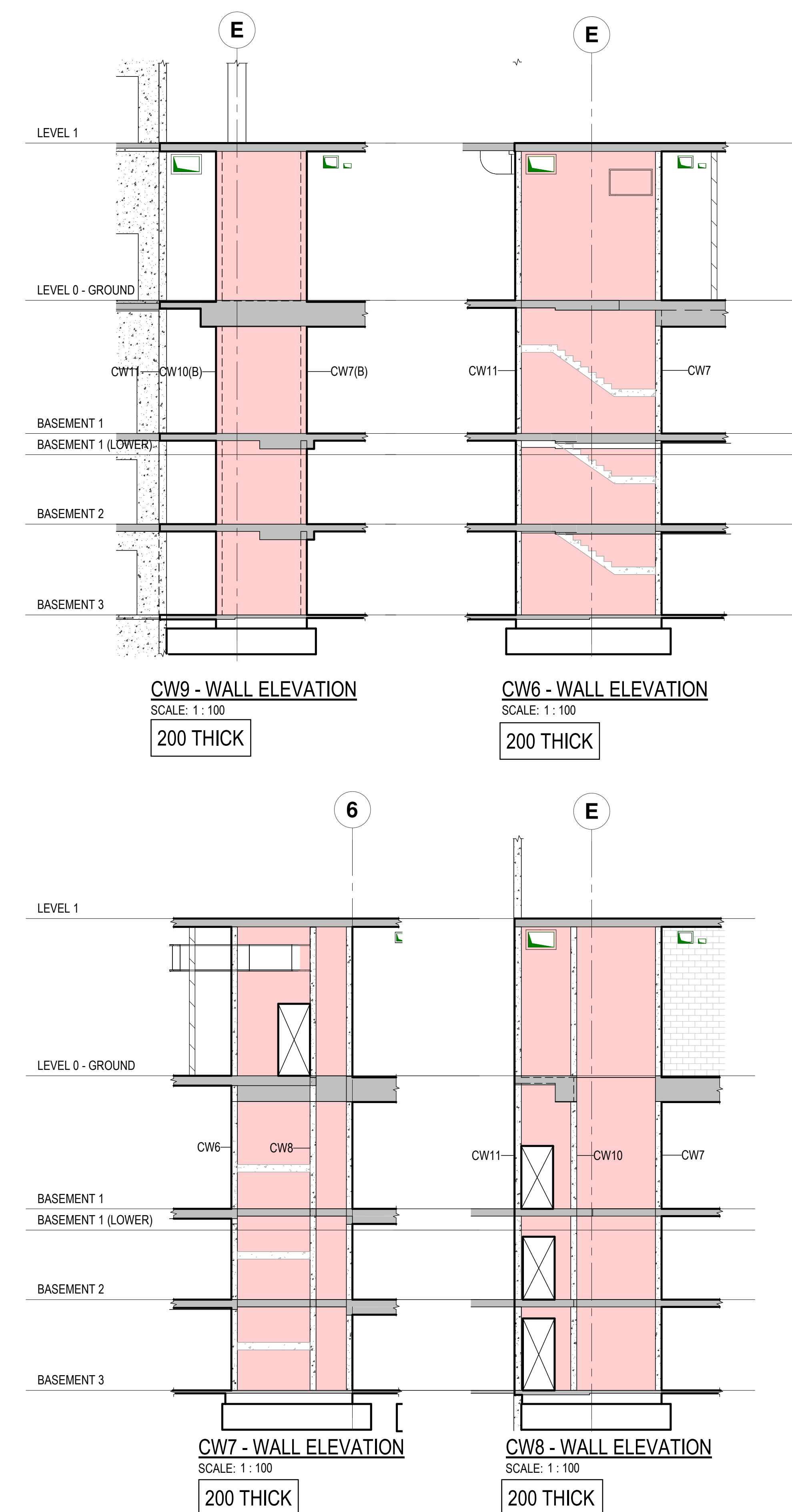
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CHKD	-	APPRD	-	DATE	-

mpn:038	DRAWING No:	REV
9541	S3.00.21	C

PRELIMINARY

NOT FOR CONSTRUCTION

PRINT IN COLOUR



NOTE: ALL SUSPENDED SLAB TO CONCRETE WALL CONNECTIONS (LEVEL 0 TO ROOF LEVEL) TO HAVE TEMPORARY SLIP JOINTS

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2024/1481
Date: 14/04/2026

C	14.04.23	80% DD ISSUE			P.G.	R	
B	25.1.23	RE-ISSUED FOR PRICING			P.G.	R	
A	9.12.22	PRICING ISSUE			P.G.	R	
ISSUE	DATE	AMENDMENT			BY	AF	

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CLIENT:  **NORTHWEST**

**GOLD COAST HEALTH AND
KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD**

**CONCRETE WALL ELEVATIONS -
SHEET 2**

DESIGN: R.B.	DRAWN: P.G.	SCALES: 1:100
CHKD:	APPR:	DATE:

5	mpn JOB	DRAWING No.	REV
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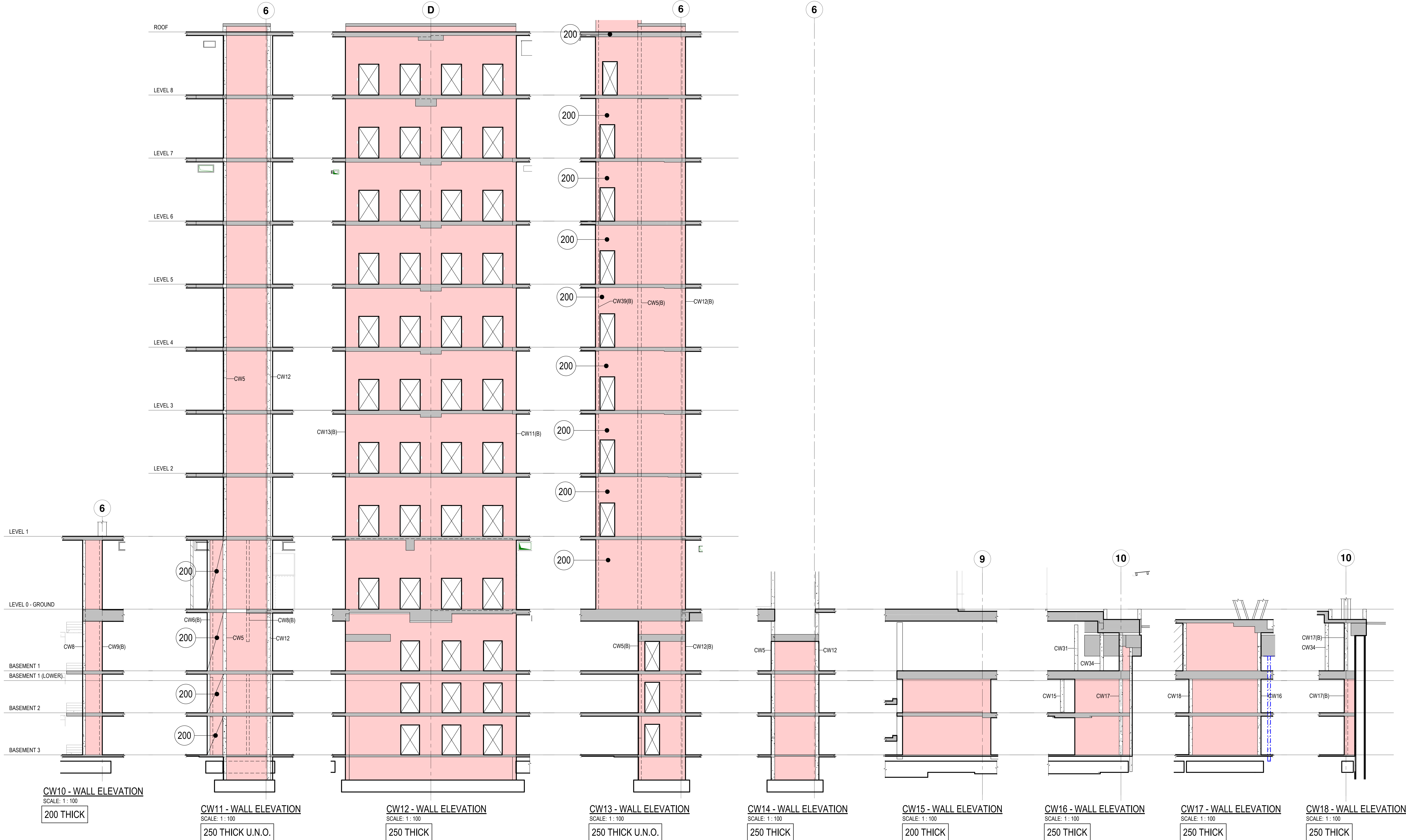
9541	S3.00.22	C
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PRELIMINARY

NOTE:
SHAFT PENETRATIONS & BLOCKOUTS NOT SHOWN.
AWAITING INFORMATION ON LOCATIONS & SIZES.

NOT FOR CONSTRUCTION

PRINT IN COLOUR



NOTES

1. CONCRETE

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 "CONCRETE STRUCTURES" EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER DWG S0.00.01 & S0.00.02 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:		
COMPONENT	STRENGTH (Fc)	
WALLS	ROOF	
	LEVEL 8	N40
	LEVEL 7	N40
	LEVEL 6	N40
	LEVEL 5	N40
	LEVEL 4	N40
	LEVEL 3	N40
	LEVEL 2	N40
	LEVEL 1	N40
	LEVEL 0	N40
	LEVEL B1	N50
	LEVEL B2	N50
	LEVEL B3	N50

CONCRETE ATTRIBUTES		
PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	≤S32 - 650µ MEDIAN ≥S40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

2. FIRE RESISTANCE RATING
REFER ARCHITECT.

3. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
WALLS	30mm ALL FACES

4. REINFORCEMENT BAR LAPS
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-

BAR LAPS FOR WALLS			
BAR SIZE	LAP	BAR SIZE	LAP
N12	500	N28	1500
N16	700	N32	1800
N20	950	N36	2100
N24	1200	N40	2450

REINFORCEMENT RATES:
UP TO LEVEL 4: 200kg/m³
ABOVE LEVEL 4: 150kg/m³

NOTE: ALL SUSPENDED SLAB TO CONCRETE WALL CONNECTIONS (LEVEL 0 TO ROOF LEVEL) TO HAVE TEMPORARY SLIP JOINTS

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

C	14.04.23	80% DO ISSUE	P.G.	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.
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ISSUE DATE	AMENDMENT	BY	APP	

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CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

CONCRETE WALL ELEVATIONS - SHEET 3

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPRD	-	DATE	

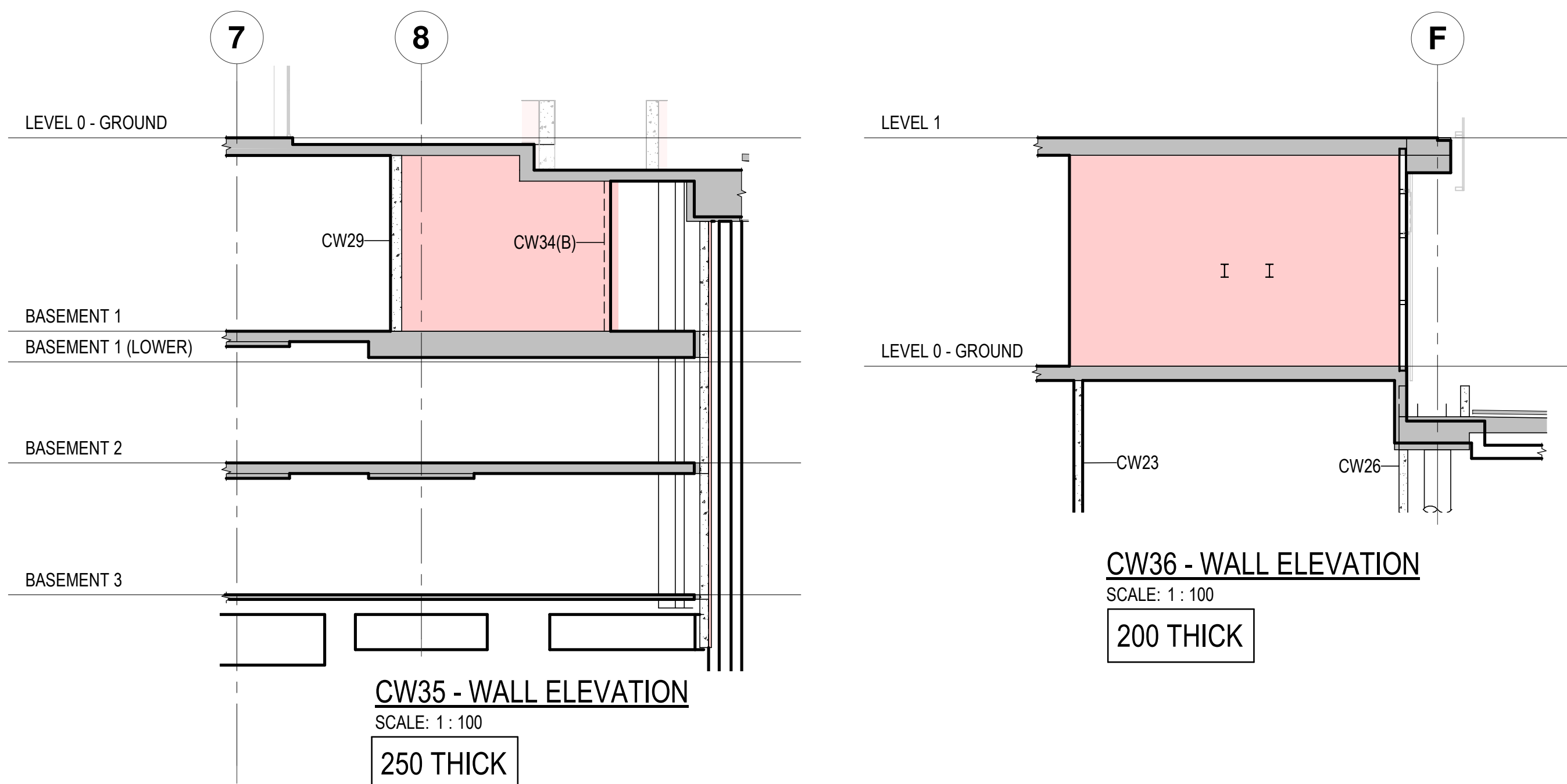
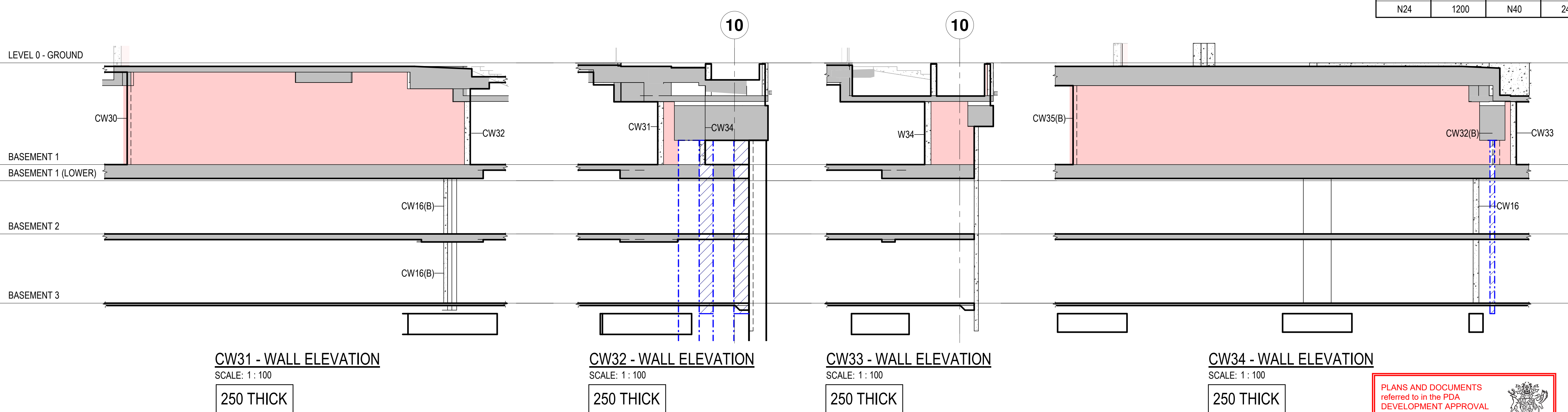
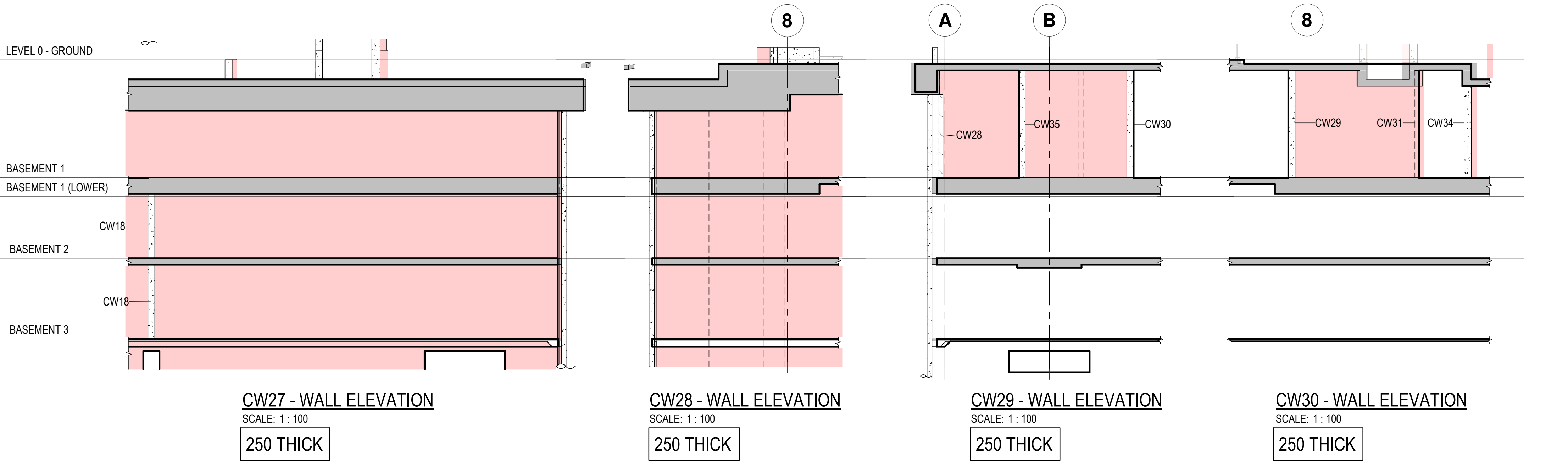
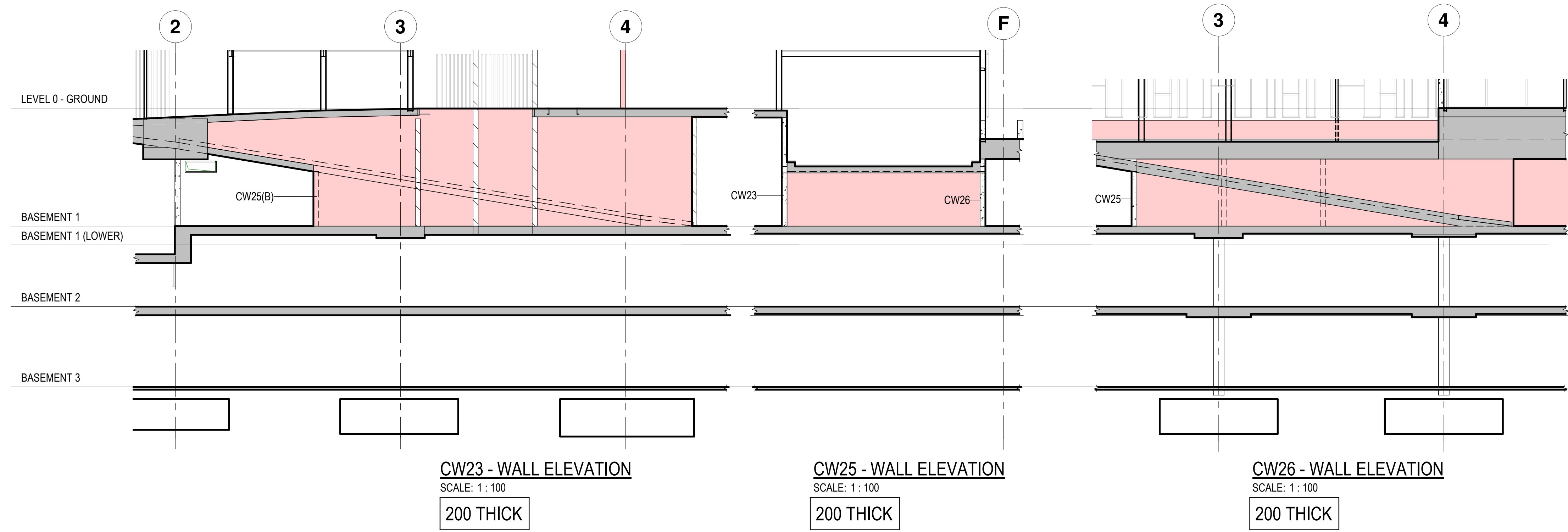
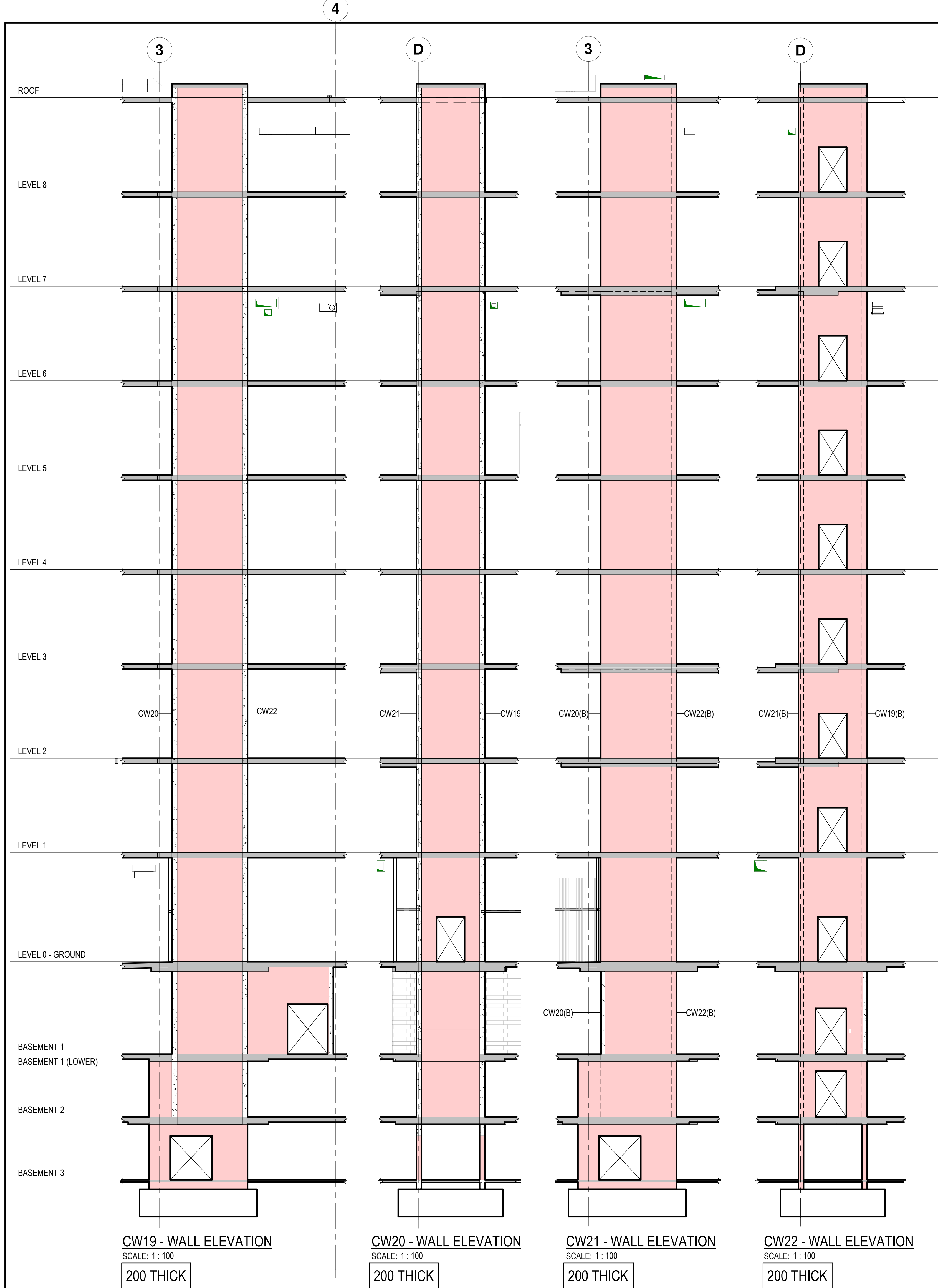
mpn 038	DRAWING No:	REV
9541	S3.00.23	C

PRELIMINARY

NOTE:
SHAFT PENETRATIONS & BLOCKOUTS NOT SHOWN.
AWAITING INFORMATION ON LOCATIONS & SIZES.

NOT FOR CONSTRUCTION

PRINT IN COLOUR



NOTES

1. CONCRETE

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 'CONCRETE STRUCTURES' EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER DWG S0.00.01 & S0.00.02 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:		
COMPONENT	STRENGTH (f _c)	
WALLS	ROOF	
	LEVEL 8	N40
	LEVEL 7	N40
	LEVEL 6	N40
	LEVEL 5	N40
	LEVEL 4	N40
	LEVEL 3	N40
	LEVEL 2	N40
	LEVEL 1	N40
	LEVEL 0	N40
	LEVEL B1	N50
	LEVEL B2	N50
LEVEL B3	N50	

CONCRETE ATTRIBUTES

PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	SS32 - 650µ MEDIAN SS40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

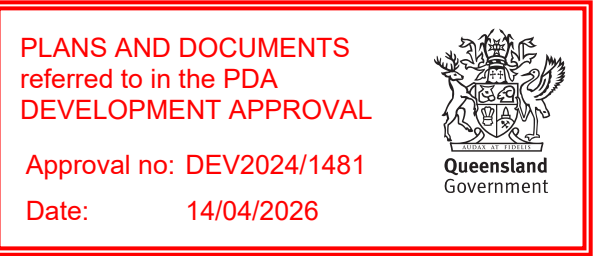
2. FIRE RESISTANCE RATING
REFER ARCHITECT.

3. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
WALLS	30mm ALL FACES

4. REINFORCEMENT BAR LAPS
U.N.O. BAR LAPS (mm) SHALL BE AS FOLLOWS:-

BAR LAPS FOR WALLS			
BAR SIZE	LAP	BAR SIZE	LAP
N12	500	N28	1500
N16	700	N32	1800
N20	950	N36	2100
N24	1200	N40	2450



DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPRD	-	DATE	-
mpn	038	DRAWING No	9541	REV	D

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CLIENT: **NORTHWEST**
HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

CONCRETE WALL ELEVATIONS - SHEET 4

9541 S3.00.24

PRELIMINARY

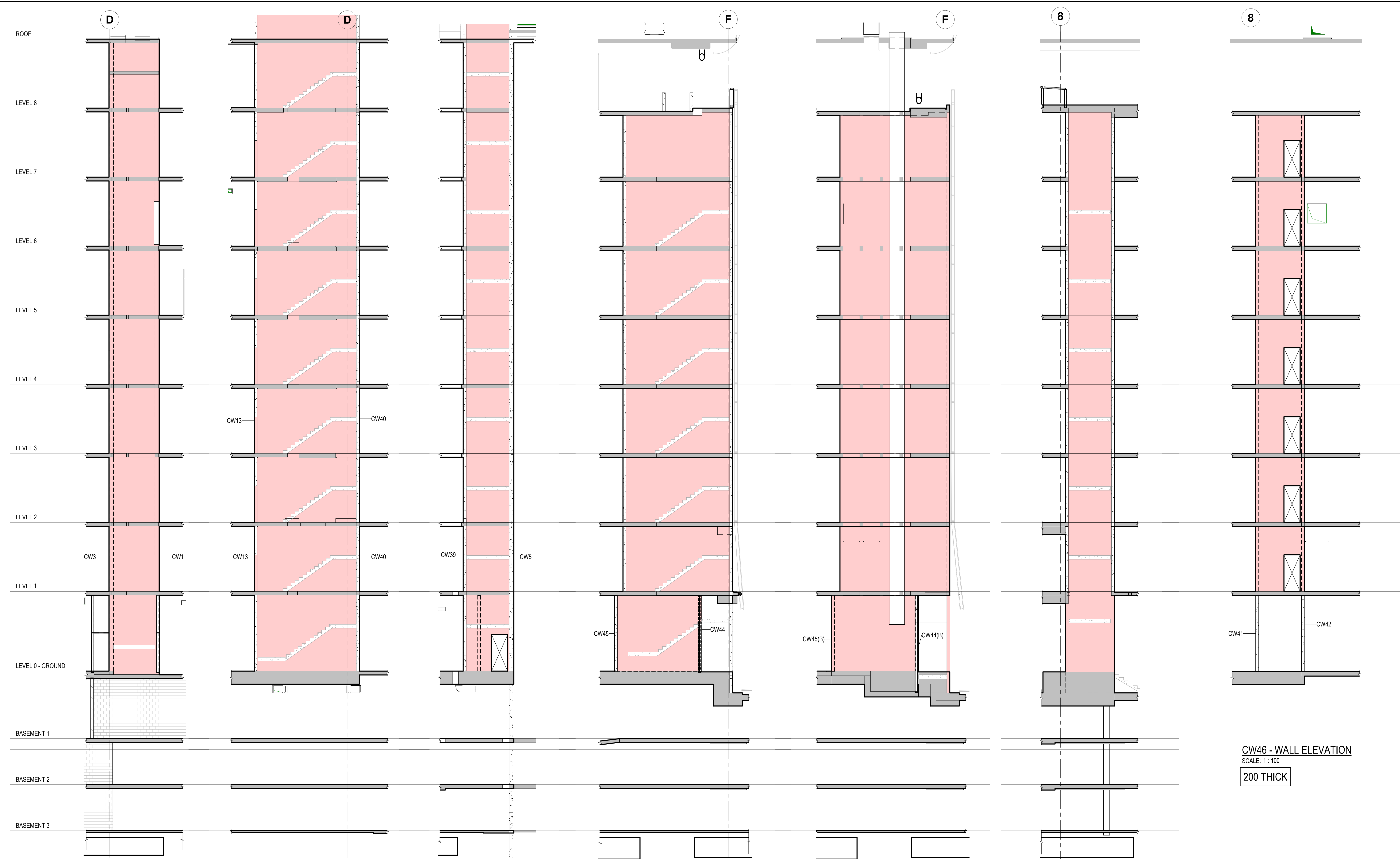
REINFORCEMENT RATES:
UP TO LEVEL 4: 200kg/m³
ABOVE LEVEL 4: 150kg/m³

NOTE:
SHAFT PENETRATIONS & BLOCKOUTS NOT SHOWN.
AWAITING INFORMATION ON LOCATIONS & SIZES.

NOTE: ALL SUSPENDED SLAB TO CONCRETE WALL CONNECTIONS (LEVEL 0 TO ROOF LEVEL) TO HAVE TEMPORARY SLIP JOINTS

NOT FOR CONSTRUCTION

PRINT IN COLOUR



CW38 - WALL ELEVATION
SCALE: 1:100
250 THICK

CW39 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW40 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW41 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW42 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW43 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW46 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW44 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW45 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW47 - WALL ELEVATION
SCALE: 1:100
200 THICK

CW48 - WALL ELEVATION
SCALE: 1:100
200 THICK

NOTES

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	LEVEL 5	N40
	LEVEL 4	N40
	LEVEL 3	N40
	LEVEL 2	N40
	LEVEL 1	N40
	LEVEL 0	N40
	LEVEL B1	N50
	LEVEL B2	N50
	LEVEL B3	N50

CONCRETE ATTRIBUTES		
PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	ES32 - 650µ MEDIAN ES40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

2. FIRE RESISTANCE RATING
REFER ARCHITECT.
3. REINFORCEMENT COVER
THE CLEAR CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:-

COMPONENT	COVER (mm) U.N.O.
WALLS	30mm ALL FACES

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BAR LAPS FOR WALLS			
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REINFORCEMENT RATES:
UP TO LEVEL 4: 200kg/m³
ABOVE LEVEL 4: 150kg/m³

NOTE: ALL SUSPENDED SLAB TO CONCRETE WALL CONNECTIONS (LEVEL 0 TO ROOF LEVEL) TO HAVE TEMPORARY SLIP JOINTS



C	14.04.23	80% DO ISSUE	P.G.	R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.
A	0.12.22	PRICING ISSUE	P.G.	R.B.
ISSUE DATE	AMENDMENT		BY	APP

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35 Elmwood Street, Toowoomba Qld 4306 E: info@mpnconsulting.com.au

CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

CONCRETE WALL ELEVATIONS - SHEET 5

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPRD	-	DATE	-
mpn:J08		DRAWING NO:		REV	
9541		S3.00.25		C	

PRELIMINARY

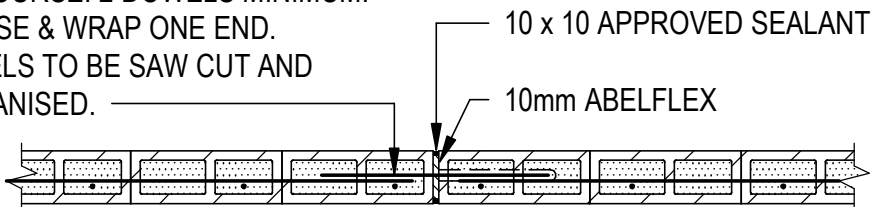
NOTE:
SHAFT PENETRATIONS & BLOCKOUTS NOT SHOWN.
AWAITING INFORMATION ON LOCATIONS & SIZES.

NOT FOR CONSTRUCTION

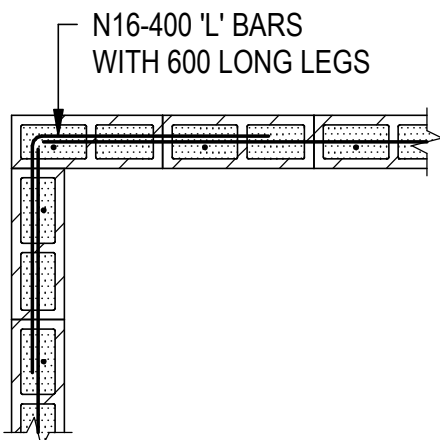
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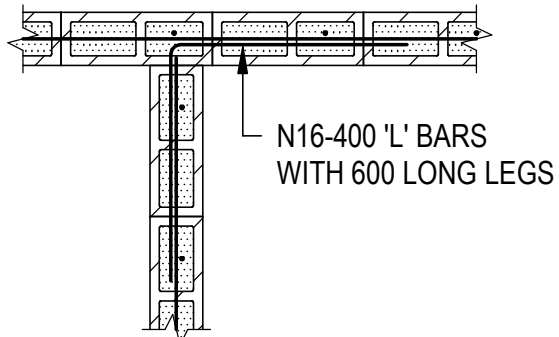
R16 DOWELS 600 LONG AT EVERY 2nd COURSE. 2 DOWELS MINIMUM. GREASE & WRAP ONE END. DOWELS TO BE SAW CUT AND GALVANISED.



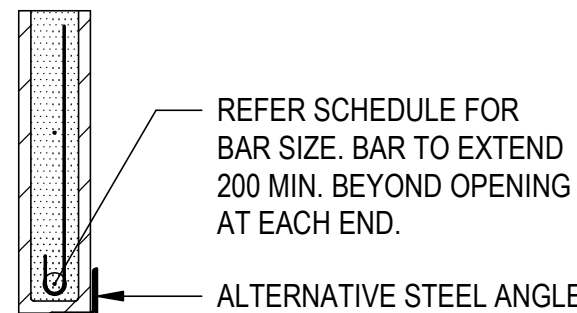
TYPICAL CONTROL JOINT - 'CJ'



TYPICAL CORNER DETAIL



TYPICAL INTERSECTION DETAIL

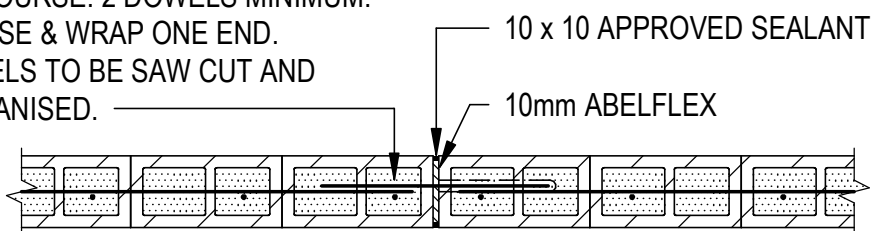


TYPICAL BLOCKWORK LINTEL DETAIL

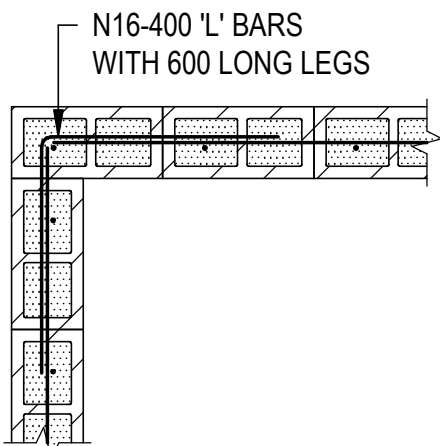
WALL THICKNESS	OPENING WIDTH (MAX)	'D'	REINFORCEMENT	ALTERNATIVE STEEL ANGLE
140	1200	200 MIN.	1N12	100 x 6 EA
140	2400	400 MIN.	1N16	100 x 8 EA
190	1200	200 MIN.	1N12	125 x 8 EA
190	2400	400 MIN.	1N16	125 x 8 EA
190	3000	600 MIN.	1N16	N.A.
190	4000	600 MIN.	2N16	N.A.

NOTE: ALL STEEL ANGLES TO BE HOT DIPPED GALVANISED AND HAVE 150mm MINIMUM BEARING LENGTH EACH SIDE OF OPENING OR CONNECT TO STEEL STIFFENERS.

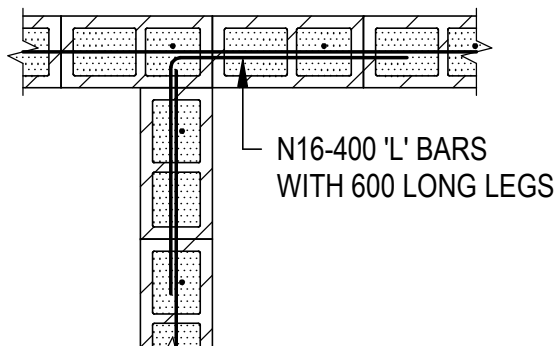
R16 DOWELS 600 LONG AT EVERY 2nd COURSE. 2 DOWELS MINIMUM. GREASE & WRAP ONE END. DOWELS TO BE SAW CUT AND GALVANISED.



TYPICAL CONTROL JOINT - 'CJ'

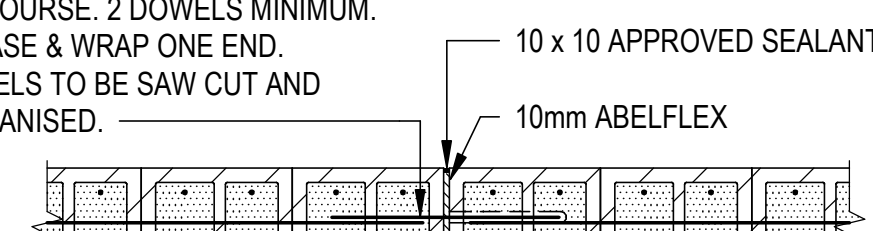


TYPICAL CORNER DETAIL

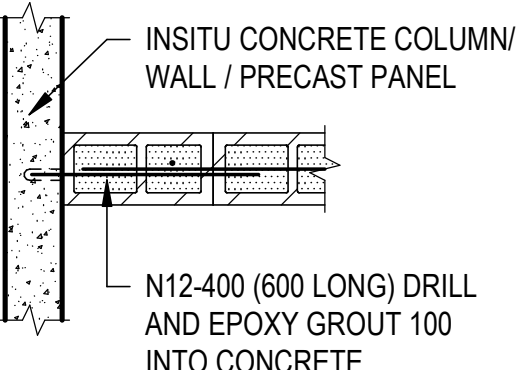


TYPICAL INTERSECTION DETAIL

R20 DOWELS 600 LONG AT EVERY 2nd COURSE. 2 DOWELS MINIMUM. GREASE & WRAP ONE END. DOWELS TO BE SAW CUT AND GALVANISED.

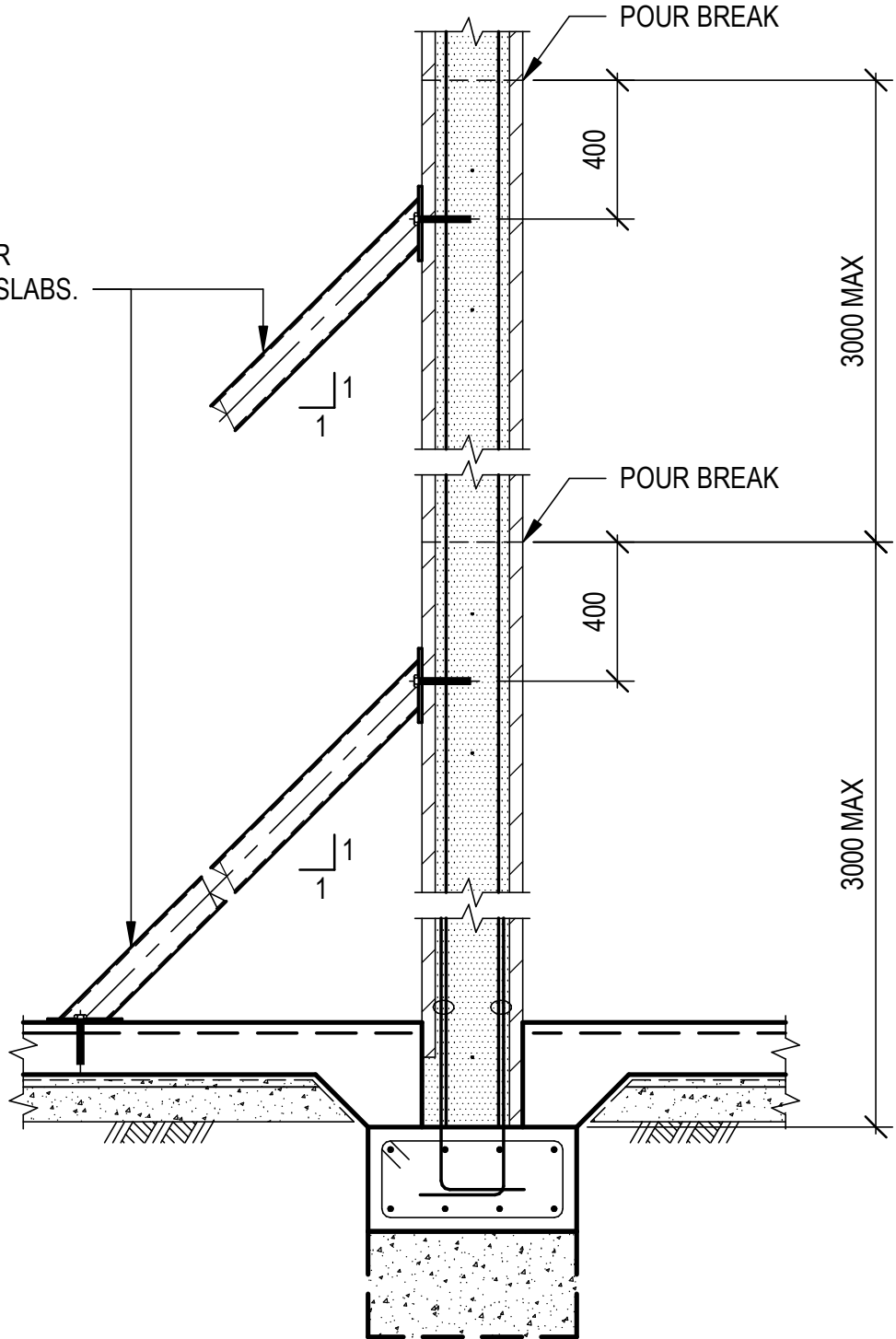


TYPICAL CONTROL JOINT - 'CJ'



TYPICAL CONNECTION TO INSITU CONCRETE

ALL BLOCKWALLS TO BE PROPPED DURING CONSTRUCTION. PROPS & FOOTINGS TO BE DESIGNED BY TEMPORARY WORKS CONTRACTOR. DESIGN TO BE SUBMITTED TO MPN FOR REVIEW PRIOR TO POURING GROUND SLABS.



TYPICAL TEMPORARY BLOCK PROPPING DETAIL

- NOTES:
- CONSTRUCT WALL IN STAGES TO 400 MAX ABOVE PROP LEVEL. INSTALL PROPS PRIOR TO NEXT STAGE OF CONSTRUCTION
 - PROPS TO REMAIN IN PLACE UNTIL PERMANENT CONDITION IS ACHIEVED
 - REFER WORKPLACE HEALTH & SAFETY QUEENSLAND (MASONARY WALL SAFETY DURING CONSTRUCTION WORK - JANUARY 2010) FOR UNSUPPORTED WALL HEIGHTS & CONSTRUCTION GUIDELINES.

QUEENSLAND PROJECTS ONLY.
ENGINEER TO CONFIRM IF OTHERWISE

PLANS AND DOCUMENTS
referred to in the PUA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



DESIGN	R.B.	DRAWN	P.G.	SCALES	1:20
CHKD.	-	APPRD.	-	DATE	-
mpn	038	DRAWING No.	9541	S3.00.41	REV A
PRELIMINARY					

NOT FOR CONSTRUCTION

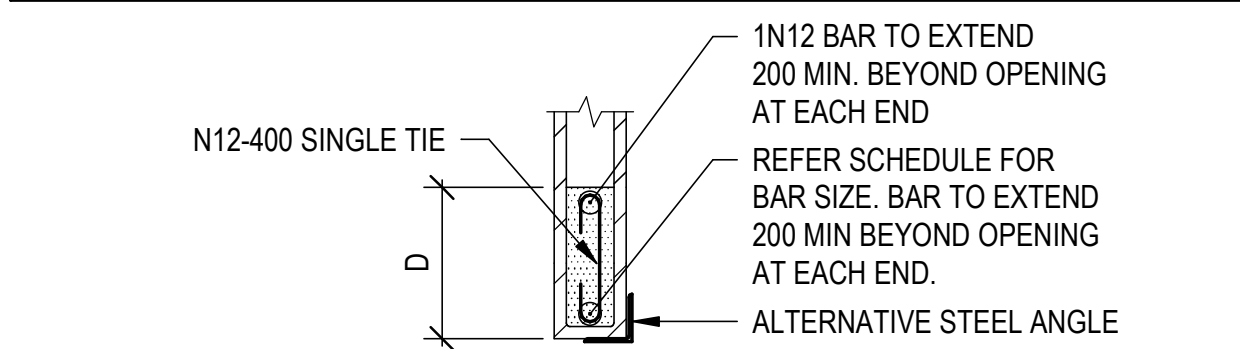
PRINT IN COLOUR

INTERNAL NON-LOAD BEARING BLOCK WALLS

- NOTES:
1. REFER ARCHITECT FOR WALL STIFFENER LOCATIONS.
 2. REFER ARCHITECT FOR WALL BLOCK TYPES.
 3. ALL CHS AND RHS MEMBERS TO BE 350 GRADE U.N.O.
 4. ALL WELDS TO BE 6mm FILLET WELDS U.N.O.

DESIGN ULTIMATE WIND PRESSURES:

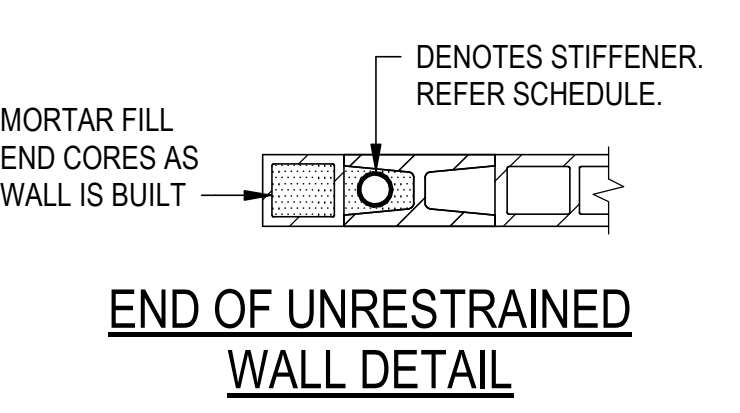
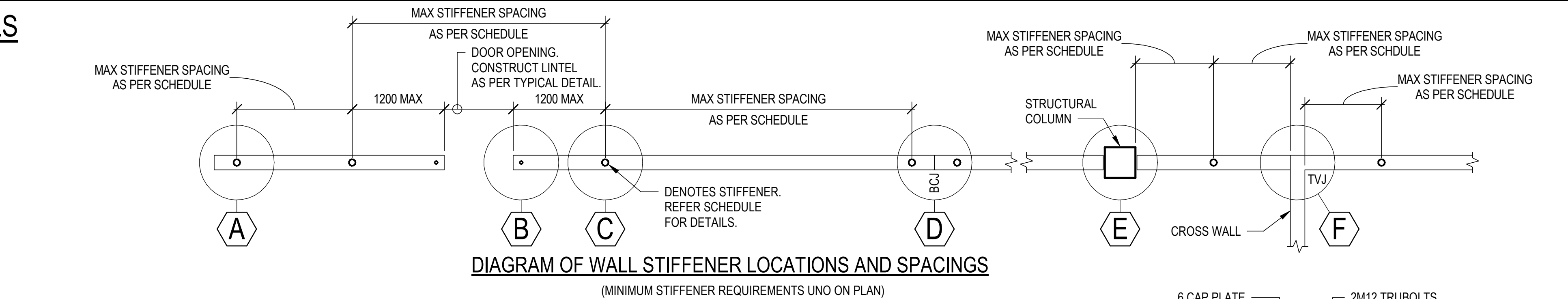
STIFFENER SCHEDULE FOR INTERNAL WALLS				
WALL TYPE	MAXIMUM HEIGHT TO STRUCTURE OVER	MAXIMUM STIFFENER SPACING	STIFFENER	TOP STIFFENER HOLDER
140 HOLLOW BLOCK (UNREINFORCED)	UP TO 3000	3200	48 x 2.9 CHS	40 x 3.0 CHS
	UP TO 3500	2400	48 x 2.9 CHS	40 x 3.0 CHS
	UP TO 5500	2200	50 x 5.0 SHS	35 x 3.0 SHS
190 HOLLOW BLOCK (UNREINFORCED)	WALL UP TO 3000, STIFFENERS UP TO 5500	3200	50 x 5.0 SHS	35 x 3.0 SHS
	UP TO 2400	NO STIFFENERS REQUIRED		
	UP TO 5500	4000	88.9 x 3.2 SHS	76 x 2.3 CHS



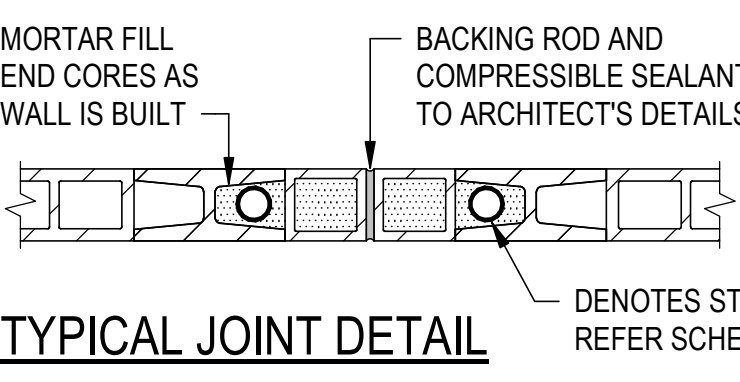
TYPICAL NON-LOADBEARING BLOCKWORK LINTEL DETAIL

WALL THICKNESS	OPENING WIDTH (MAX.)	D	REINFORCEMENT	ALTERNATIVE STEEL ANGLE
140	1200	200 MIN.	1N12	100 x 6 EA
140	2400	400 MIN.	1N16	100 x 8 EA
190	1200	200 MIN.	1N12	125 x 8 EA
190	2400	400 MIN.	1N16	125 x 8 EA
190	3000	600 MIN.	1N16	N.A.
190	4000	600 MIN.	2N16	N.A.

NOTE: ALL STEEL ANGLES TO BE HOT DIPPED GALVANISED AND HAVE 150mm MINIMUM BEARING LENGTH EACH SIDE OF OPENING OR CONNECT TO STEEL STIFFENERS.

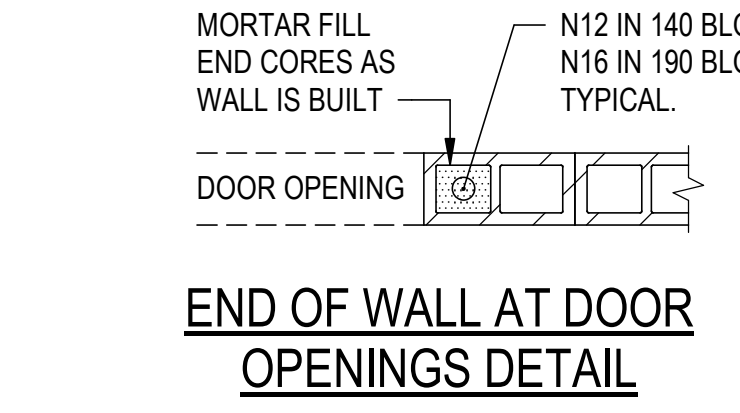


END OF UNRESTRAINED WALL DETAIL

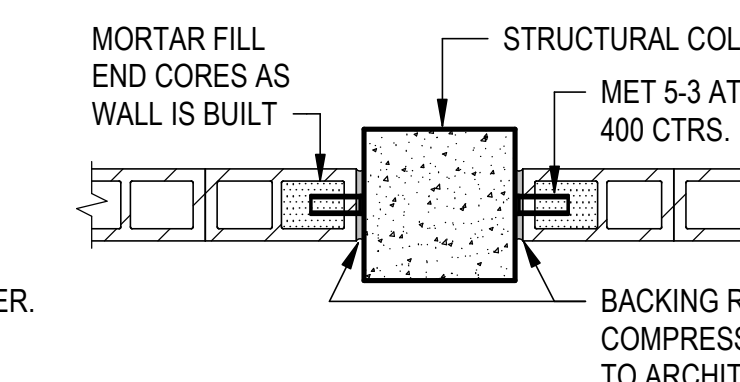


TYPICAL JOINT DETAIL

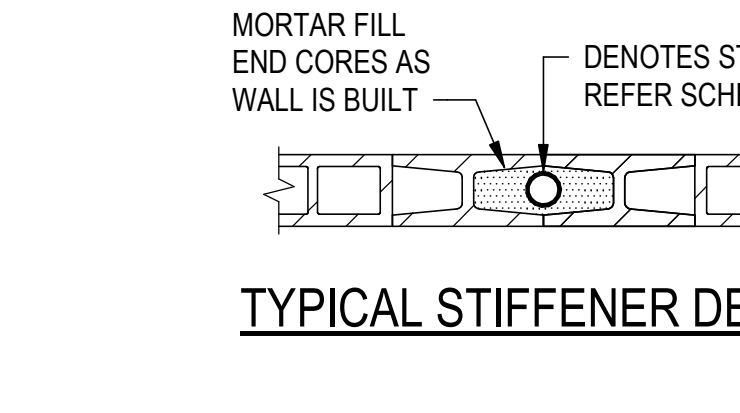
- JOINT LOCATIONS SHALL ALIGN WITH ANY CONTROL JOINTS IN SLABS OR AT 8000 MAX CTS
- JOINTS SHALL NOT BE LOCATED WITHIN 400 OF OPENINGS



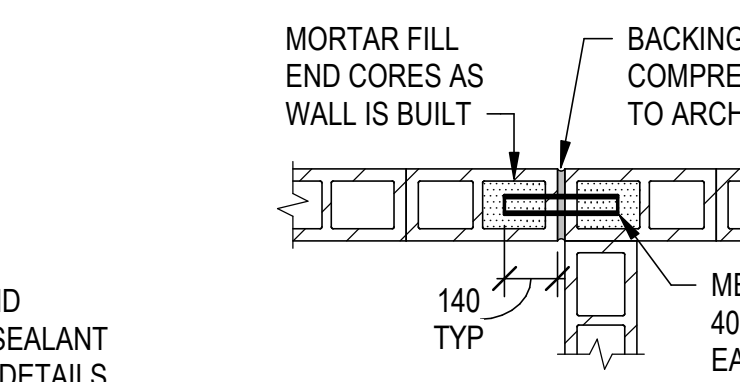
END OF WALL AT DOOR OPENINGS DETAIL



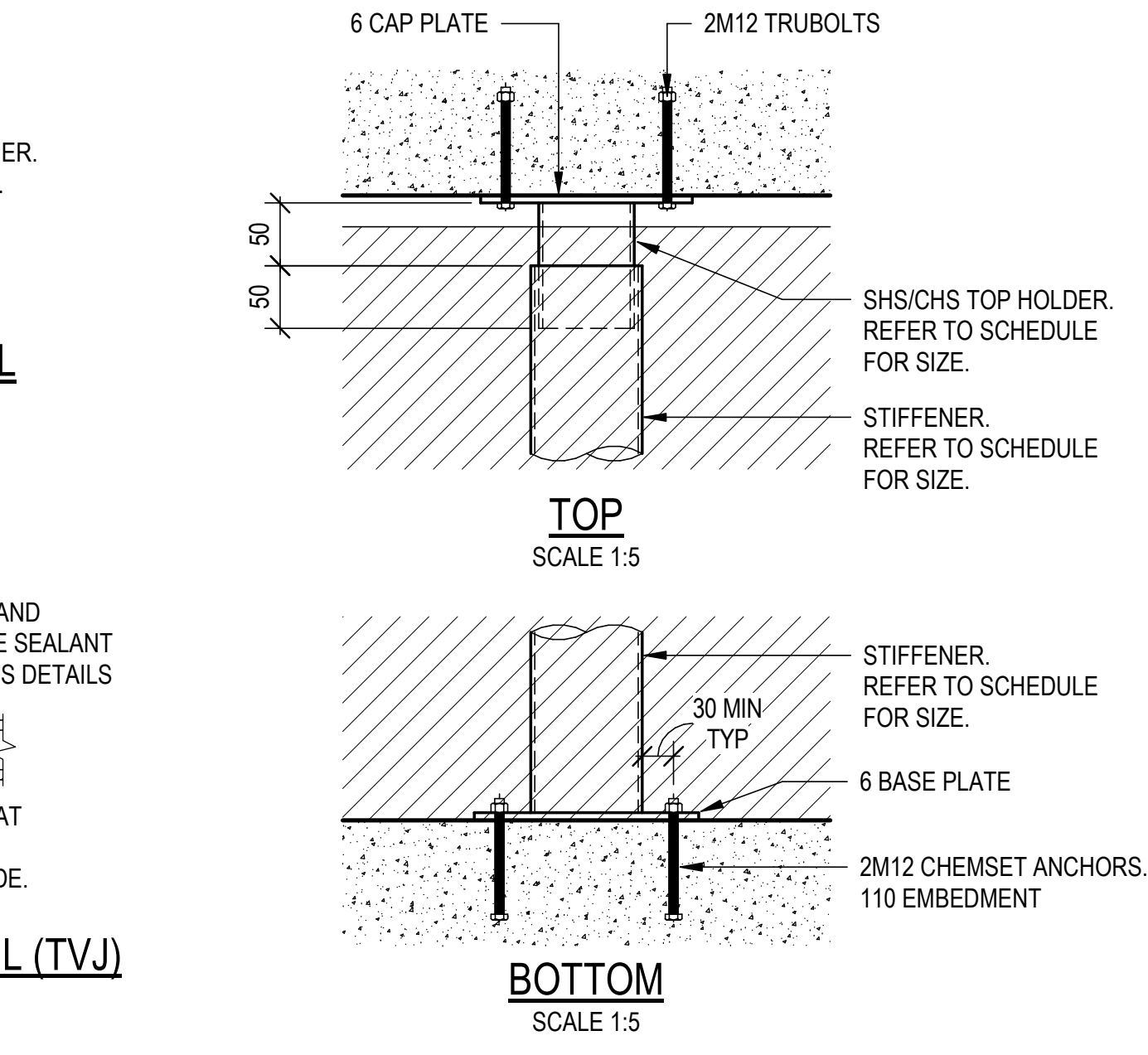
TYPICAL DETAIL AT COLUMN



TYPICAL STIFFENER DETAIL



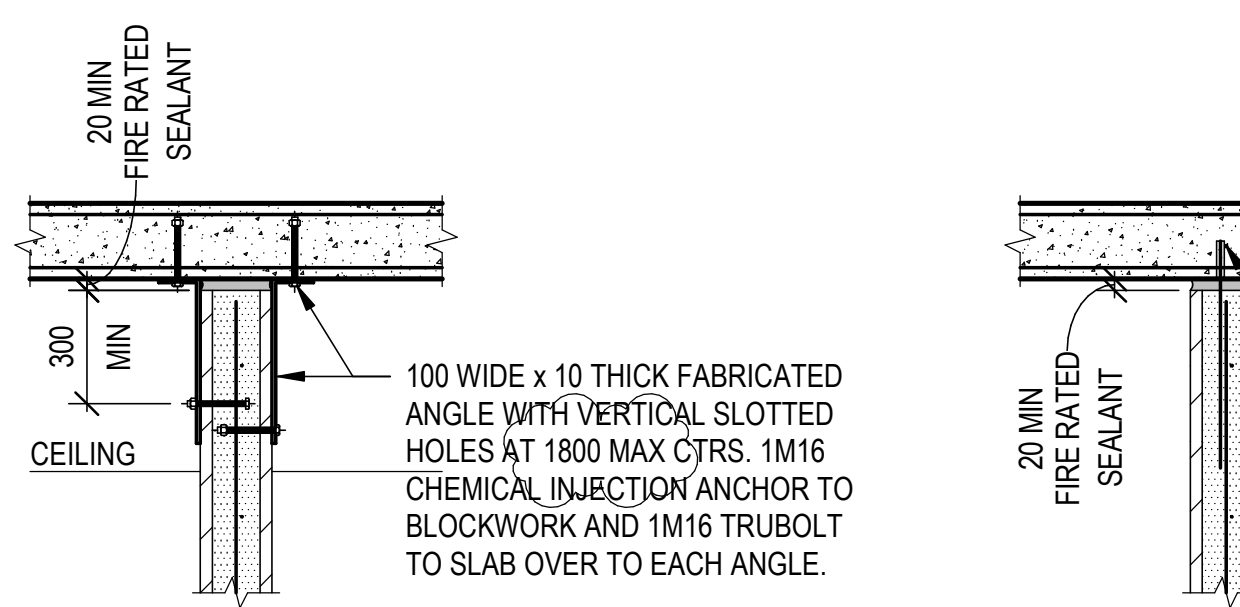
TYPICAL TIED VERTICAL DETAIL (TVJ)



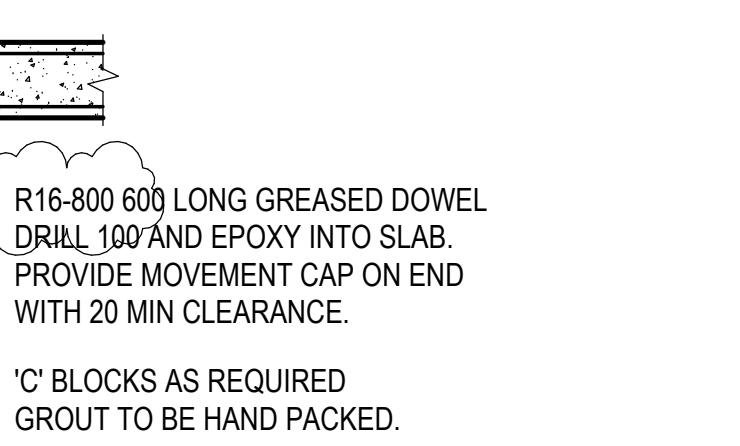
WALL STIFFENER FIXING DETAILS

FIRE RATED NON-LOAD BEARING BLOCK WALLS

- NOTES:
1. ALL FIRE RATED WALLS TO BE REINFORCED AND CORE FILLED.
 2. ALL EXTERNAL WALL RESTRAINTS AND CONNECTIONS ARE TO BE GALVANISED.
 3. ALL RESTRAINTS TO BE FIRE RATED TO ARCHITECTURAL REQUIREMENTS.
 4. REFER ARCHITECT FOR EXTENT OF FIRE RATED NON-STRUCTURAL WALLS.
 5. FOR WALL RESTRAINT LOCATIONS REFER ARCHITECT (1800 MAX CTRS).
 6. ALL WELDS TO BE 6mm FILLET WELDS U.N.O.
 7. ALL REINFORCEMENT TO BE 500 GRADE.



TYPICAL FIRE RATED BLOCKWALL DETAIL



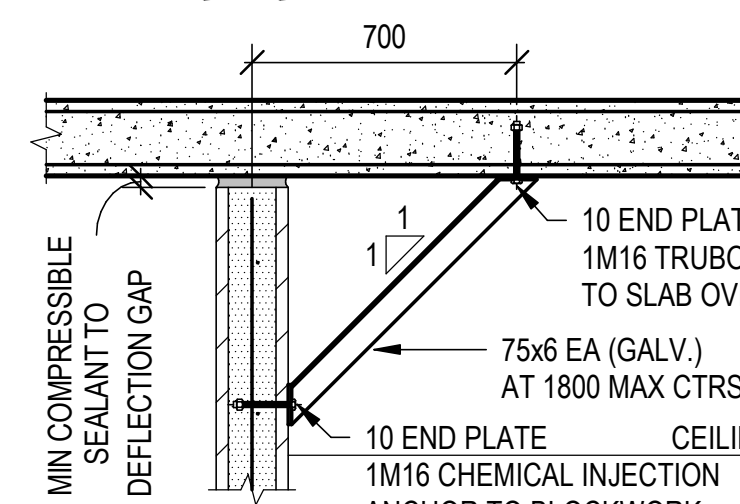
TYPICAL DETAIL AT COLUMN

EXTERNAL NON-LOAD BEARING BLOCK WALLS

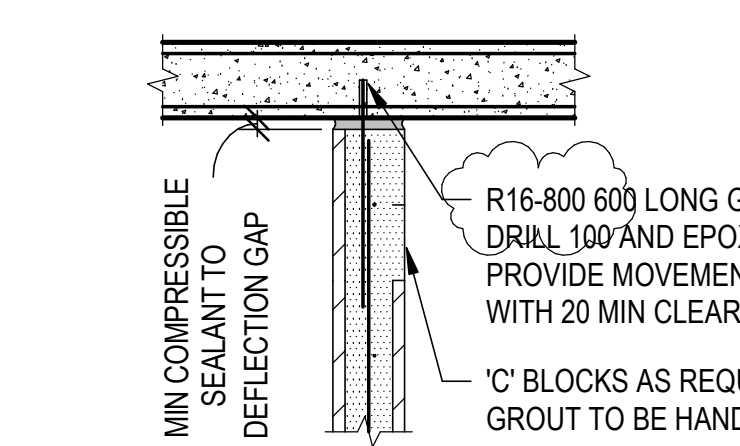
- NOTES:
1. ALL EXTERNAL WALLS TO BE 190 THICK MIN. REINFORCED AND CORE FILLED.
 2. ALL EXTERNAL WALL RESTRAINTS AND CONNECTIONS ARE TO BE GALVANISED.
 3. FOR WALL RESTRAINT LOCATIONS REFER ARCHITECT (1800 MAX CTRS).
 4. ALL WELDS TO BE 6mm FILLET WELDS U.N.O.
 5. EXTERNAL BLOCKWORK IS DEFINED AS BLOCKWORK SUBJECTED TO EXTERNAL WIND PRESSURE.
 6. ALL REINFORCEMENT TO BE 500 GRADE.

DESIGN ULTIMATE WIND PRESSURES:

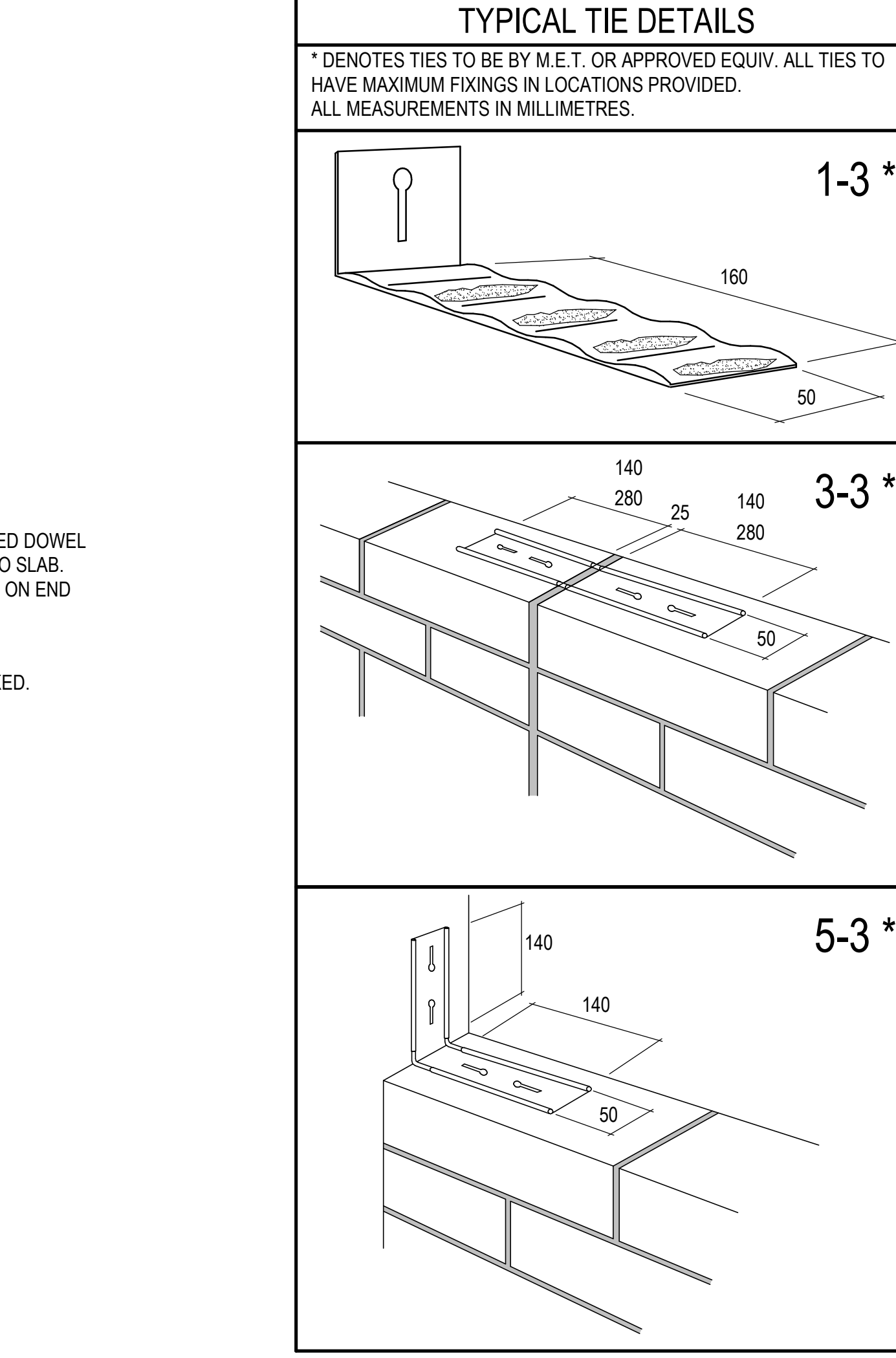
EXTERNAL 1.60 kPa



TYPICAL EXTERNAL BLOCKWALL DETAIL



TYPICAL EXTERNAL BLOCKWALL DETAIL



TYPICAL TIE DETAILS



ISSUE	DATE	BY	APP'D
A	14.04.23	80% DO ISSUE	P.G. R.B.

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CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT

NEXUS WAY, SOUTHPORT QLD

NON-LOADBEARING BLOCKWORK DETAILS

DESIGN: R.B. DRAWN: P.G. SCALES: 1:20

CHKD: - APP'D: - DATE: -

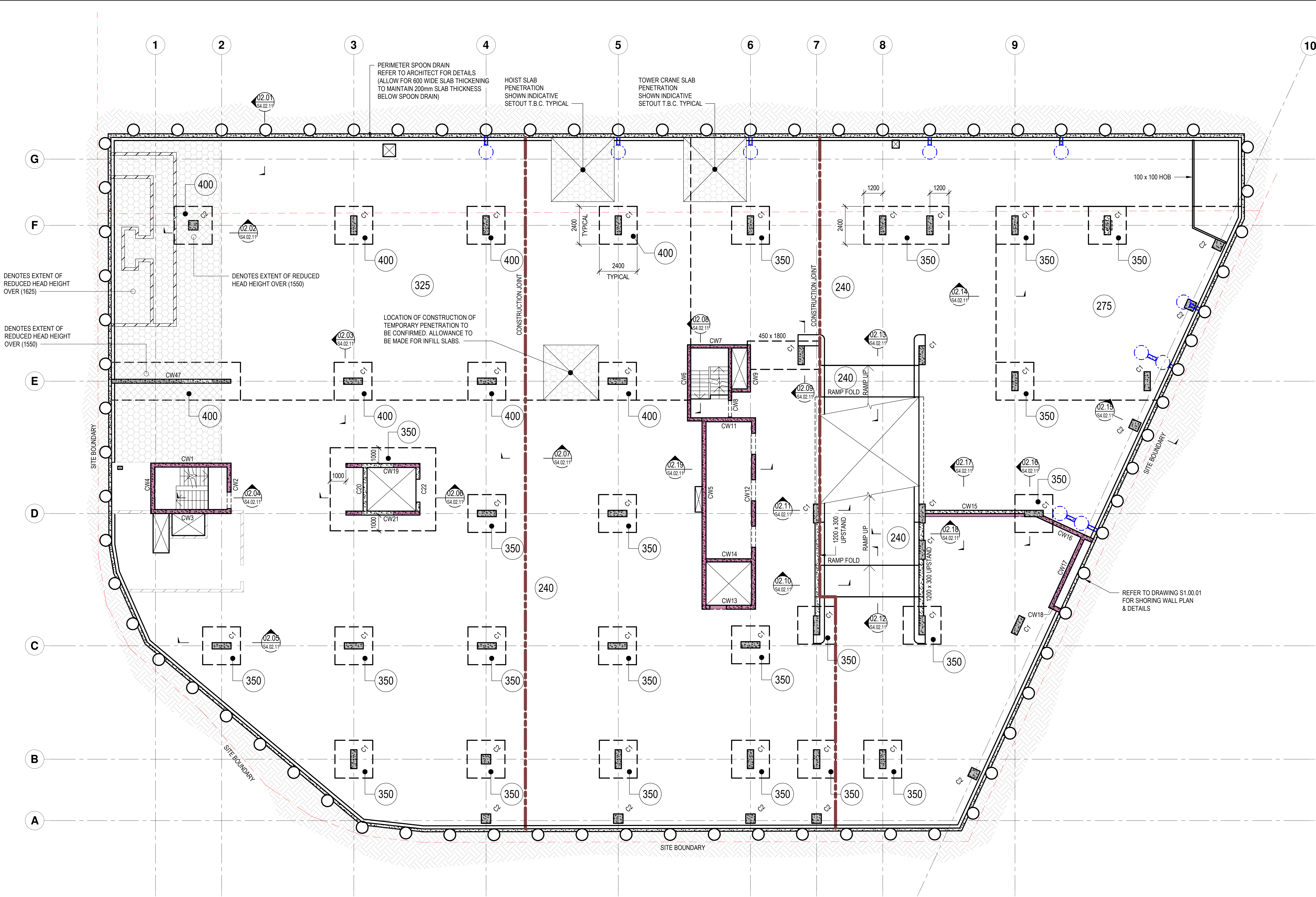
mpn:038 DRAWING No: 9541 S3.00.51

REV: A

PRELIMINARY

NOT FOR CONSTRUCTION

PRINT IN COLOUR



WALL LEGEND

- DENOTES BLOCKWORK CONTROL JOINT. PROVIDE IN WALLS AT MAXIMUM 8 METRE CENTRES OR WHERE INDICATED ON DRAWINGS. REFER TYPICAL DETAIL.
- DENOTES 190 SERIES CORREILLED BLOCKWORK OVER.
- DENOTES 190 SERIES BLOCKWORK REINFORCEMENT U.N.O. = N16-400 VERTICAL N12-400 HORIZONTAL
- DENOTES LOAD BEARING BLOCKWORK UNDER & OVER
- DENOTES LOAD BEARING WALLS UNDER WITH SLIP JOINT - REFER TO DRG S3.00.41 FOR DETAILS
- DENOTES LOAD BEARING BLOCKWORK UNDER & OVER. WALL UNDER TO HAVE SLIP JOINT DETAIL - REFER TO DRG S3.00.41 FOR DETAILS
- DENOTES 290 SERIES CORREILLED LOAD BEARING BLOCKWORK OVER. REFER DETAILS FOR REINFORCEMENT
- DENOTES NON-LOAD BEARING AND/OR NON-STRUCTURAL WALLS. REFER ARCHITECT FOR DETAILS. REFER TO DRAWING S3.00.51 FOR TYPICAL NON-LOAD BEARING BLOCK WALL RESTRAINT DETAILS.
- DENOTES CONCRETE WALL No.
- DENOTES REINFORCED CONCRETE WALL. REFER TO 'S3' SERIES DRAWINGS FOR CONCRETE WALL ELEVATIONS & DETAILS.
- DENOTES REINFORCED CONCRETE WALL UNDER TO HAVE SLIP JOINT DETAIL - REFER TO DRG ??,??,?? FOR DETAILS
- DENOTES PRECAST CONCRETE WALLS. REFER S3 SERIES DRAWINGS FOR PRECAST CONCRETE WALL DETAILS.

ALL BLOCKWORK ON PLAN TO BE 190 SERIES U.N.O.

NOTES

1. DESIGN LOADS
LIVE LOAD: 2.5 kPa

2. CONCRETE
ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 'CONCRETE STRUCTURES' EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER S0.00.01 & S0.00.02 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:

28 DAY COMPRESSIVE STRENGTH:	
COMPONENT	STRENGTH (f _c)
SLABS	S40

CONCRETE ATTRIBUTES

PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	≤S32 - 650µ MEDIAN ≤S40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

3. FIRE RESISTANCE RATING
REFER ARCHITECT.

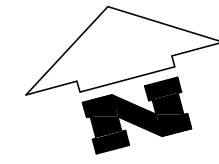
SUSPENDED SLAB LEGEND

CONSTRUCTION JOINT DENOTES SUSPENDED SLAB CONSTRUCTION JOINT

- CONCRETE COLUMN UNDER
- CONCRETE COLUMN OVER
- CONCRETE COLUMN UNDER & OVER

NOTE: REFER 'S3' SERIES DWGS FOR ALL CONCRETE COLUMN DETAILS.

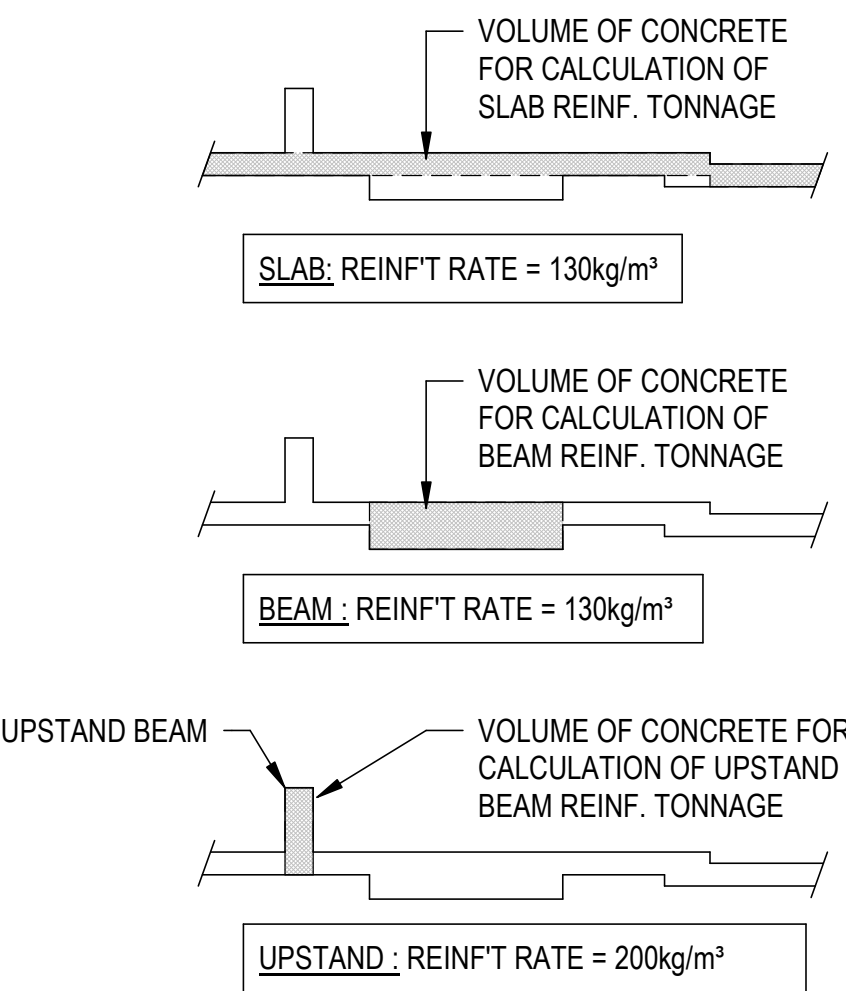
- 200 DENOTES SUSPENDED SLAB THICKNESS
- 450 x 1200 DENOTES STRUCTURAL BEAM DIMENSIONS (DEPTH x WIDTH)
- 150 STEP DENOTES SLAB STEP DIRECTION & HEIGHT CHANGE
- DENOTES VOID IN STRUCTURAL SLAB
- DENOTES STRUCTURAL SLAB SETDOWN



S4.02.01 - BASEMENT 2 G.A.
SCALE: 1:100

- REFER TO DRAWING S4.02.02 FOR BOTTOM REINFORCEMENT LAYOUT PLAN
- REFER TO DRAWING S4.02.03 FOR BOTTOM REINFORCEMENT LAYOUT PLAN
- REFER TO 'S4' SERIES DRAWINGS FOR TYPICAL SUSPENDED SLAB DETAILS
- SLAB AND BEAM THICKNESS SHOWN ARE MINIMUM U.N.O. AND FALLS ARE TO BE ACHIEVED WITH EXTRA CONCRETE THICKNESS IF A HORIZONTAL FORMWORK SYSTEM IS USED.
- REFER ARCHITECTURAL DRAWINGS FOR SLAB LEVELS, STEPS, FALLS, KERBS, DRIP GROOVES AND ALL NON-STRUCTURAL ITEMS.

SLAB AND BEAM REINFORCEMENT RATES



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

E	14.04.23	80% DO ISSUE	P.G.	R.B.	
D	27.03.23	COORDINATION UPDATES	P.G.	R.B.	
C	10.02.23	PRICING ISSUE	P.G.	R.B.	
B	25.1.23	RE-ISSUED FOR PRICING	P.G.	R.B.	
A	9.12.22	PRICING ISSUE	P.G.	R.B.	
ISSUE DATE		AMENDMENT	BY	APP	

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35 Riverside Street, Toowoomba, Qld 4300 E: info@mpnconsulting.com.au

CLIENT: **NORTHWEST HEALTHCARE PROPERTIES**

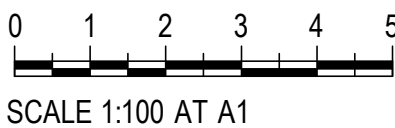
GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

LEVEL B2 - GENERAL ARRANGEMENT PLAN

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
CHKD	-	APPROD	-	DATE	-

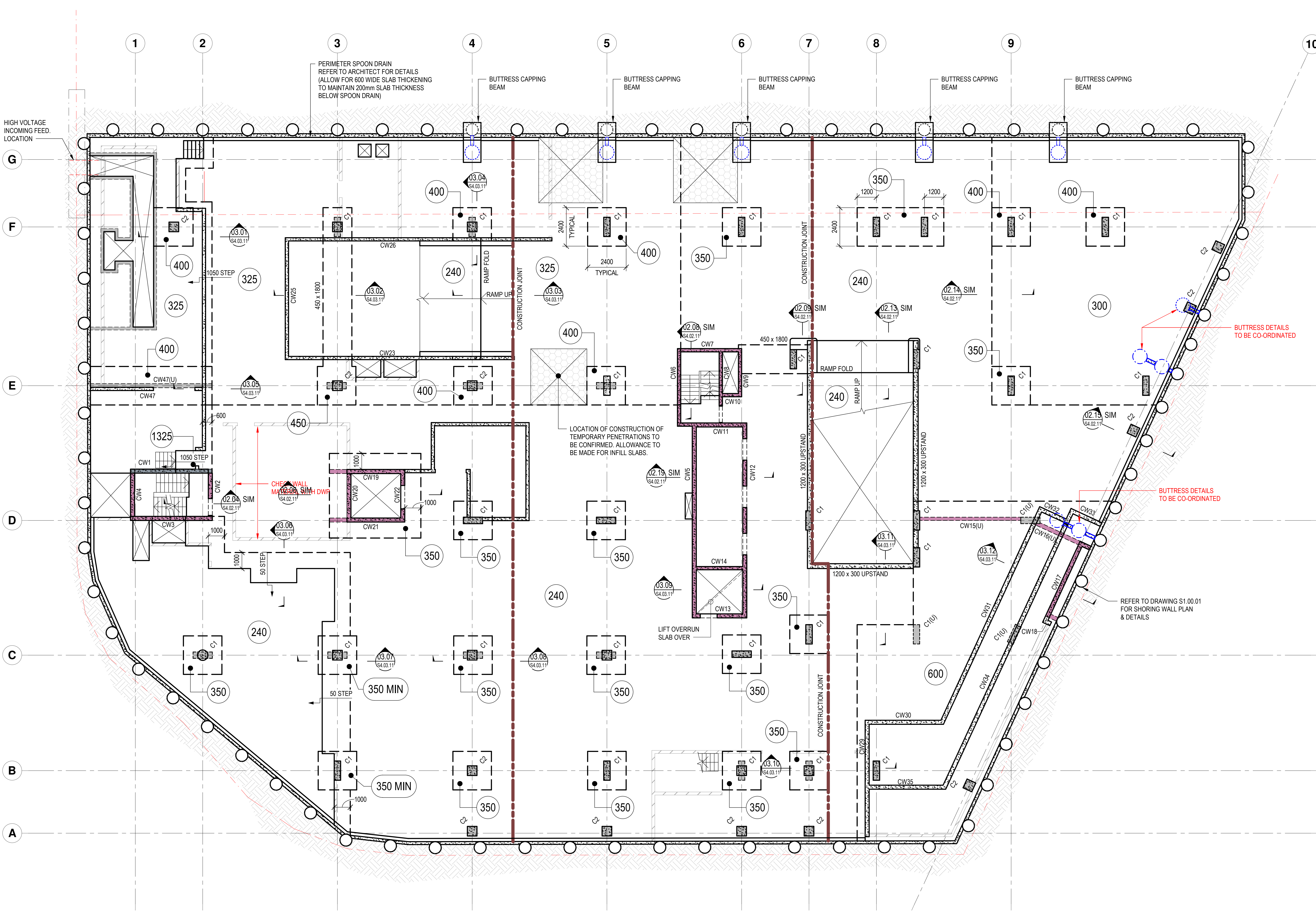
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PRELIMINARY



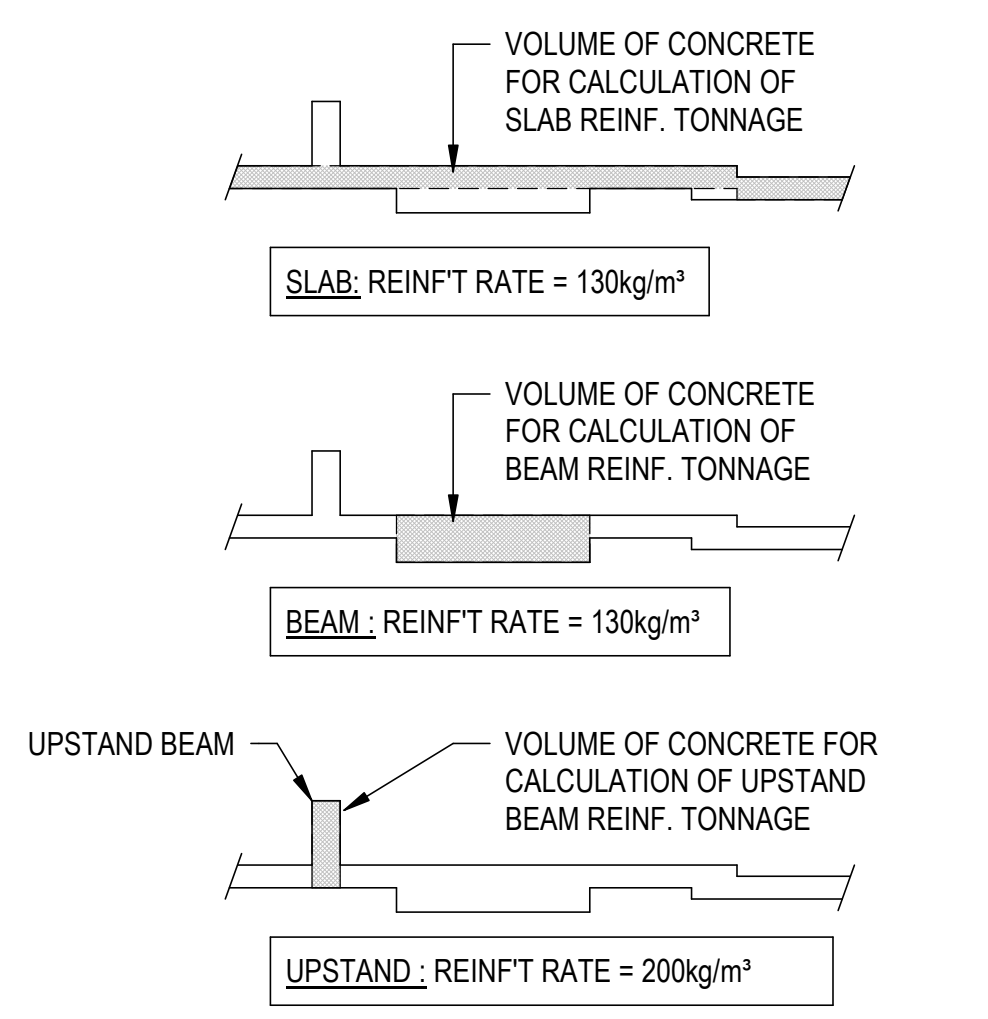
NOT FOR CONSTRUCTION

PRINT IN COLOUR



BASEMENT 1 GENERAL ARRANGEMENT PLAN
SCALE: 1:100

SLAB AND BEAM REINFORCEMENT RATES



WALL LEGEND	
	DENOTES BLOCKWORK CONTROL JOINT. PROVIDE IN WALLS AT MAXIMUM 8 METRE CENTRES OR WHERE INDICATED ON DRAWINGS. REFER TYPICAL DETAIL
	DENOTES 190 SERIES COREFILLED BLOCKWORK OVER. STANDARD 190 SERIES BLOCKWORK REINFORCEMENT U.N.O. = N16-400 VERTICAL N12-400 HORIZONTAL
	DENOTES LOAD BEARING BLOCKWORK UNDER & OVER
	DENOTES LOAD BEARING WALLS UNDER WITH SLIPJOINT - REFER TO DRG S3.00.41 FOR DETAILS
	DENOTES LOAD BEARING BLOCKWORK UNDER & OVER WALL UNDER TO HAVE SLIPJOINT DETAIL - REFER TO DRG S3.00.41 FOR DETAILS
ALL BLOCKWORK ON PLAN TO BE 190 SERIES U.N.O.	
	DENOTES 290 SERIES COREFILLED LOAD BEARING BLOCKWORK OVER. REFER DETAILS FOR REINFORCEMENT
	DENOTES NON-LOAD BEARING AND/OR NON-STRUCTURAL WALLS. REFER ARCHITECT FOR DETAILS. REFER TO DRAWING S3.00.51 FOR TYPICAL NON-LOAD BEARING BLOCK WALL RESTRAINT DETAILS
	DENOTES CONCRETE WALL No.
	DENOTES REINFORCED CONCRETE WALL REFER TO 'S3' SERIES DRAWINGS FOR CONCRETE WALL ELEVATIONS & DETAILS
	DENOTES REINFORCED CONCRETE WALL UNDER TO HAVE SLIPJOINT DETAIL - REFER TO DRG ???.?? FOR DETAILS
	DENOTES PRECAST CONCRETE WALLS. REFER S3 SERIES DRAWINGS FOR PRECAST CONCRETE WALL DETAILS

NOTES

1. DESIGN LOADS

LIVE LOAD: 2.5 kPa

2. CONCRETE

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT EDITIONS OF AS 3600 'CONCRETE STRUCTURES' EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS. FOR ALL RELEVANT CONSTRUCTION NOTES REFER S0.00.01 & S0.00.02 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS:-

28 DAY COMPRESSIVE STRENGTH:	
COMPONENT	STRENGTH (f _c)
SLABS	S40

CONCRETE ATTRIBUTES

PARAMETER	'N' CLASS	'S' CLASS
56 DAY DRYING SHRINKAGE	REFER AS1379	≤S32 - 650µ MEDIAN ≤S40 - 700µ MEDIAN
MAXIMUM AGGREGATE SIZE	20mm	20mm
SLUMP	80 ± 15mm	80 ± 15mm
CEMENT TYPE	REFER AS1379	GP
CONTROL TESTING TYPE	PROJECT TO AS1379 CLAUSE 6.5	PROJECT TO AS1379 CLAUSE 6.5

3. FIRE RESISTANCE RATING

REFER ARCHITECT.

SUSPENDED SLAB LEGEND

CONSTRUCTION JOINT	DENOTES SUSPENDED SLAB CONSTRUCTION JOINT
	CONCRETE COLUMN UNDER
	CONCRETE COLUMN OVER
	CONCRETE COLUMN UNDER & OVER

NOTE: REFER 'S3' SERIES DWGS FOR ALL CONCRETE COLUMN DETAILS.

	DENOTES SUSPENDED SLAB THICKNESS
	DENOTES STRUCTURAL BEAM DIMENSIONS (DEPTH x WIDTH)
	DENOTES SLAB STEP DIRECTION & HEIGHT CHANGE
	DENOTES VOID IN STRUCTURAL SLAB
	DENOTES STRUCTURAL SLAB SETDOWN

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026

ISSUE	DATE	REVISION	BY
E	14.04.23	80% DO ISSUE	P.G. R.B.
D	27.03.23	COORDINATION UPDATES	P.G. R.B.
C	10.02.23	PRICING ISSUE	P.G. R.B.
B	25.1.23	RE-ISSUED FOR PRICING	P.G. R.B.
A	9.12.22	PRICING ISSUE	P.G. R.B.

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CLIENT: **NORTHWEST HEALTHCARE PROPERTIES**

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

LEVEL B1 - GENERAL ARRANGEMENT PLAN

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:100
APPROVED		DATE			

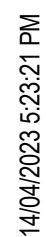
9541 S4.03.01 E

PRELIMINARY

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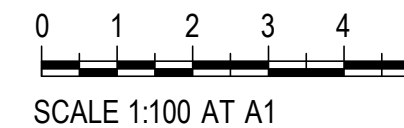
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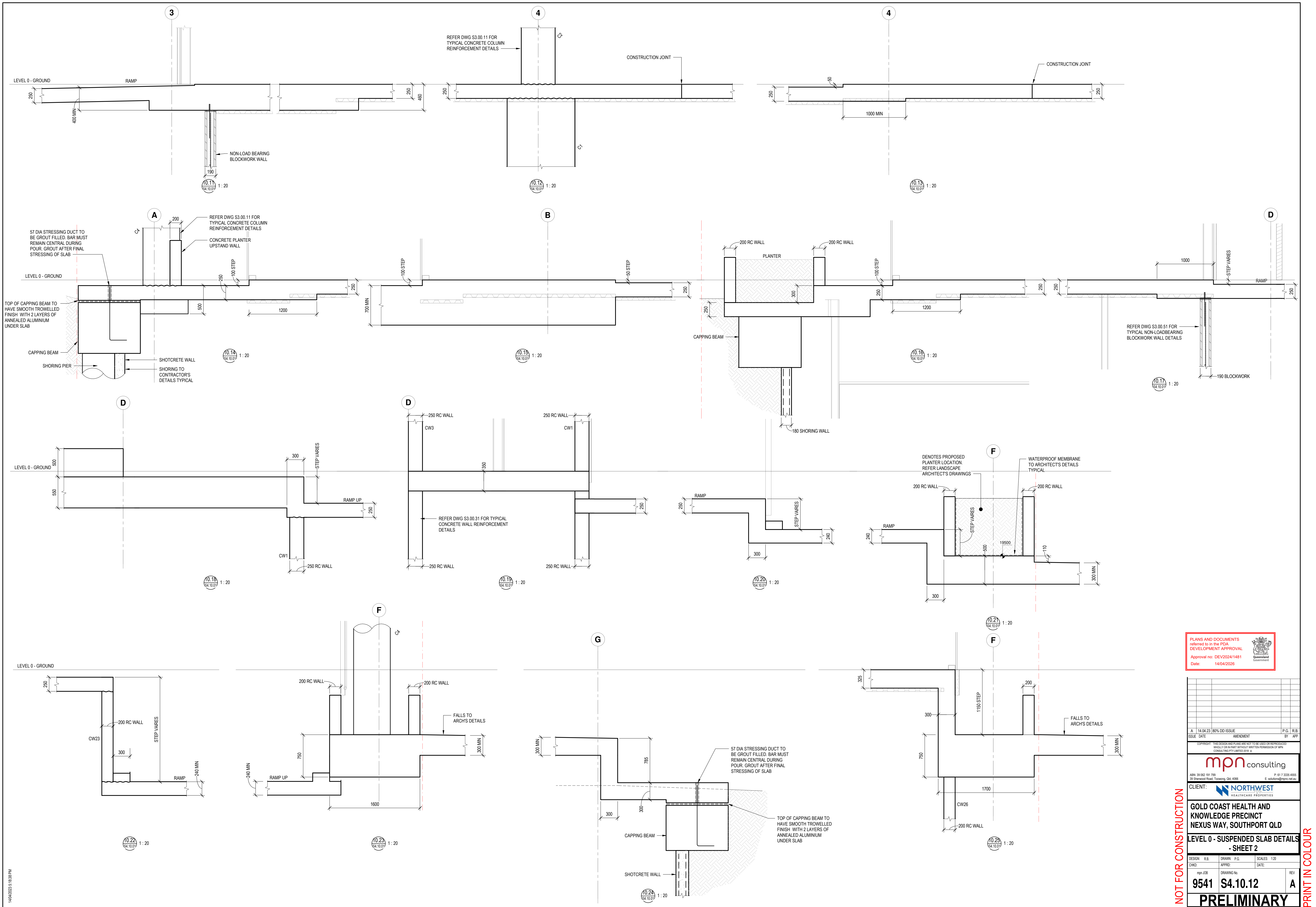


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PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



DESIGN	R.B.	DRAWN	P.G.	SCALE	1:20
APPROVED		DATE			
ISSUE	DATE	AMENDMENT	BY	R.B.	APP
A	14.04.23	80% DO ISSUE			

mpn consulting
ABN: 30 082 191 719
38 Elwood Street, Toowoomba, Qld 4306
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E: info@mpnconsulting.com.au

CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND
KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

LEVEL 0 - SUSPENDED SLAB DETAILS
- SHEET 2

DESIGN	R.B.	DRAWN	P.G.	SCALE	1:20
APPROVED		DATE			
mpn:038		DRAWING No:		REV	
9541	S4.10.12			A	
PRELIMINARY					

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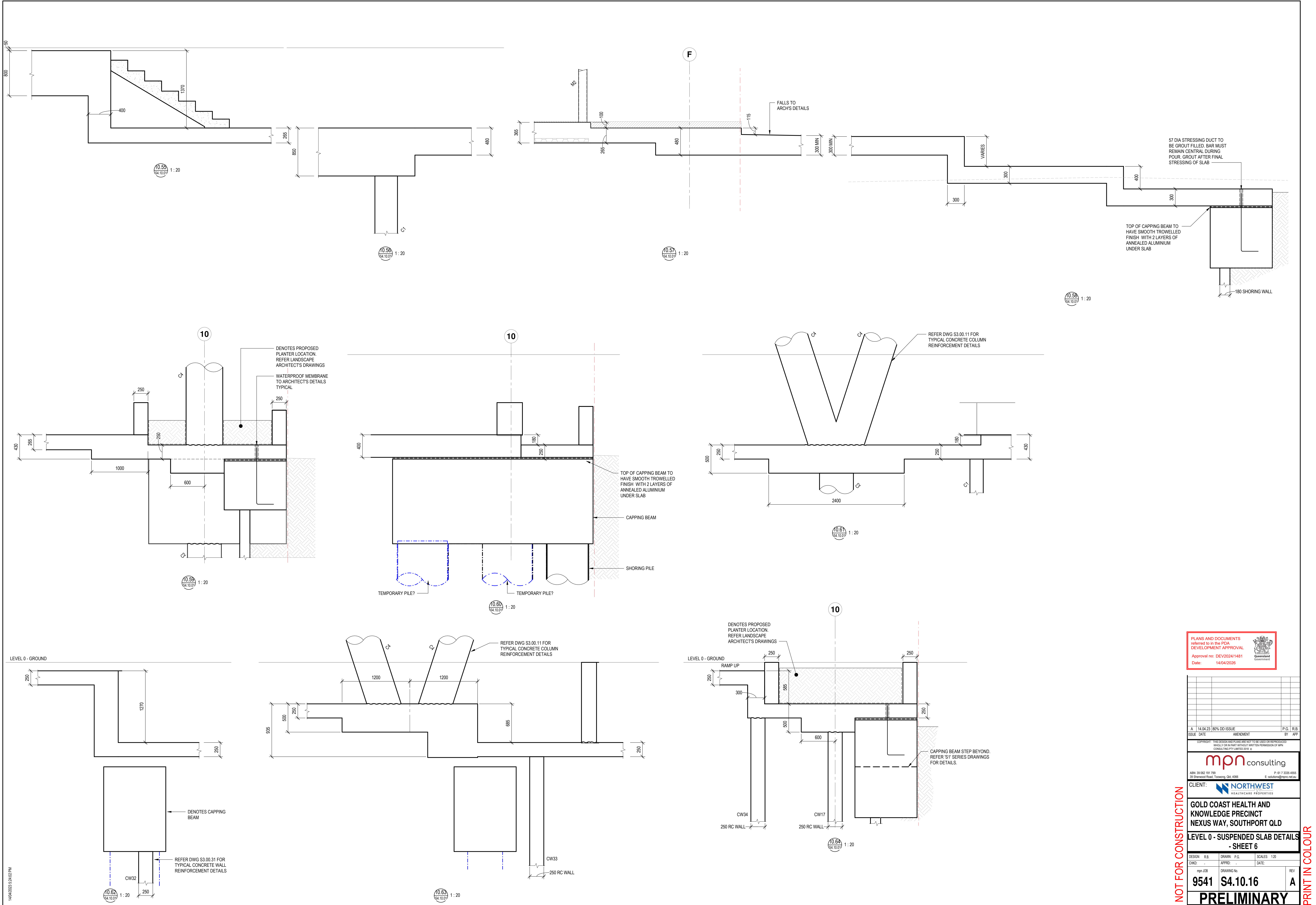
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CLIENT:  **NORTHWEST**
HEALTHCARE PROPERTIES

LEVEL 0 - SUSPENDED SLAB DETAILS
- SHEET 5

mpn JOB 9541	DRAWING No. S4.10.15	REV A
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PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL Approval no: DEV2024/1481 Date: 14/04/2025



DESIGN	R.B.	DRAWN	P.G.	SCALE	1:20
CHKD	-	APPRD	-	DATE	-
mpn	103	DRAWING No	9541	REV	A
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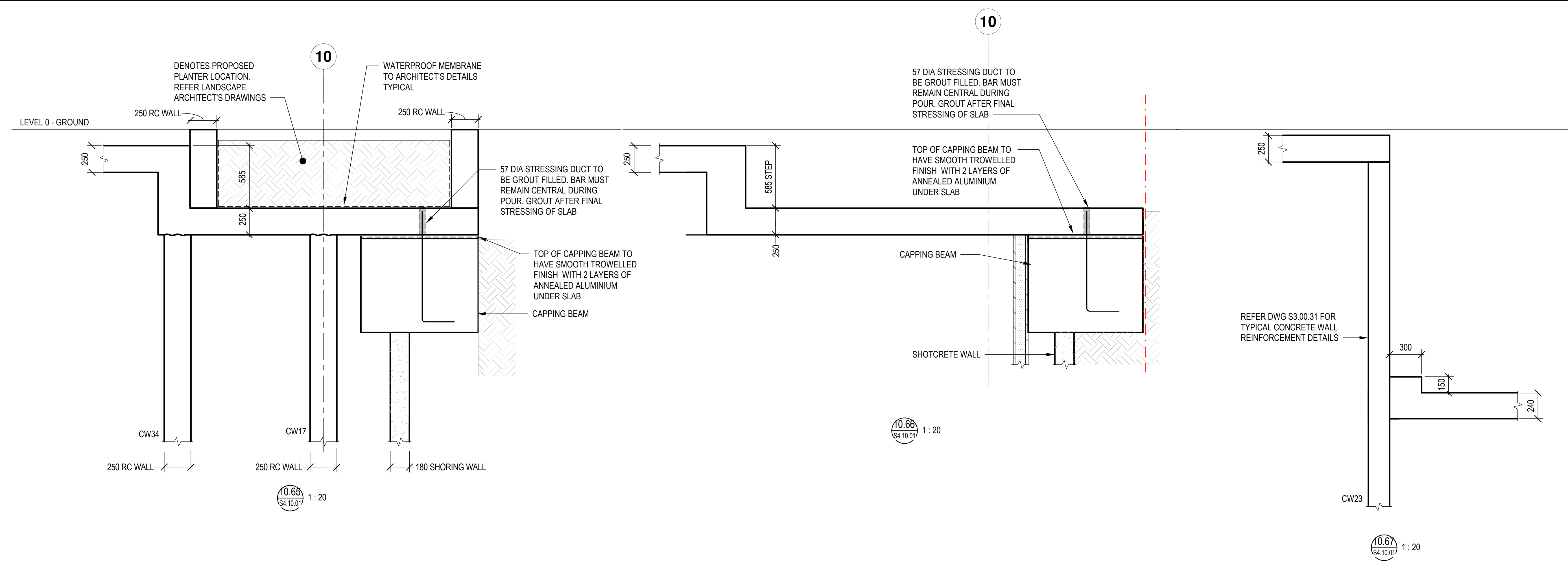
CLIENT: NORTHWEST HEALTHCARE PROPERTIES

GOLD COAST HEALTH AND KNOWLEDGE PRECINCT
NEXUS WAY, SOUTHPORT QLD

LEVEL 0 - SUSPENDED SLAB DETAILS - SHEET 6

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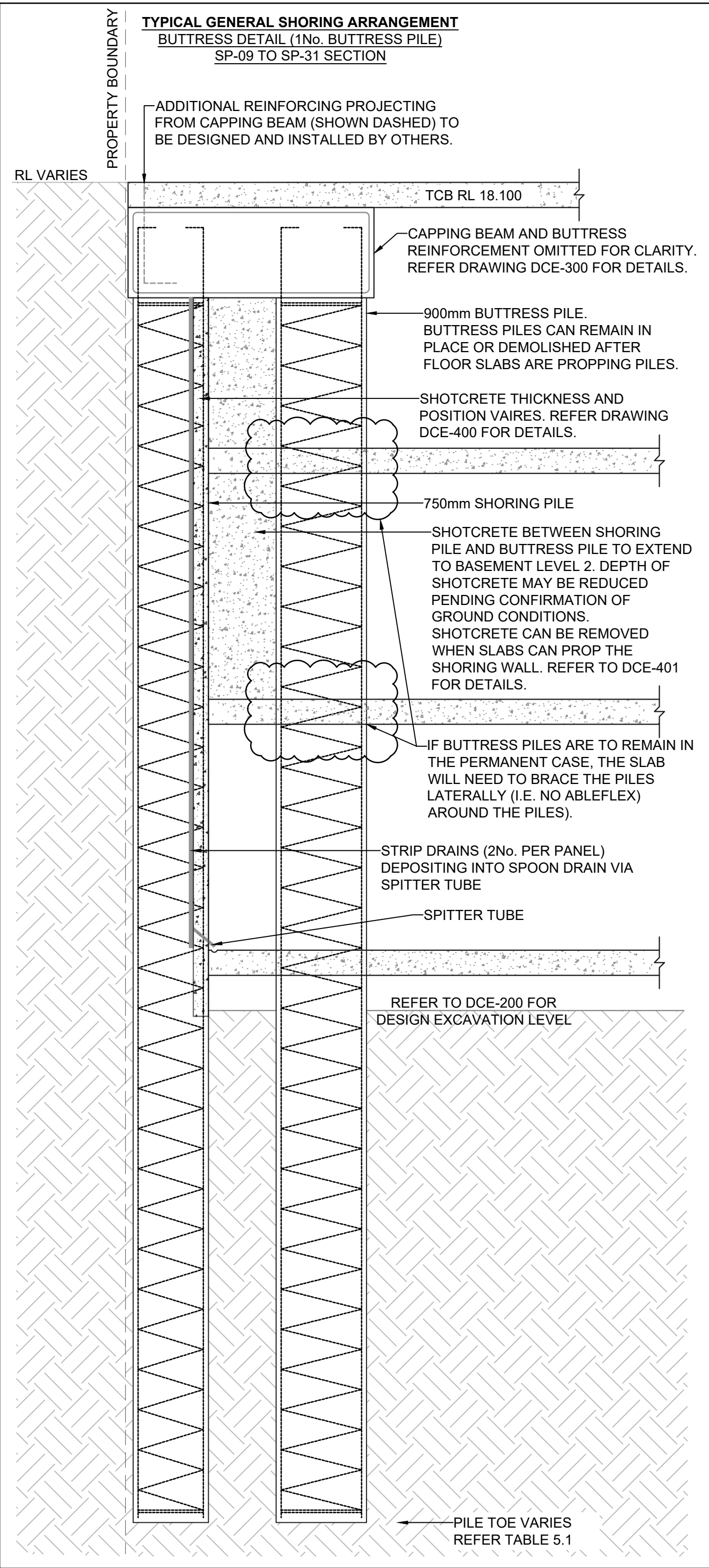
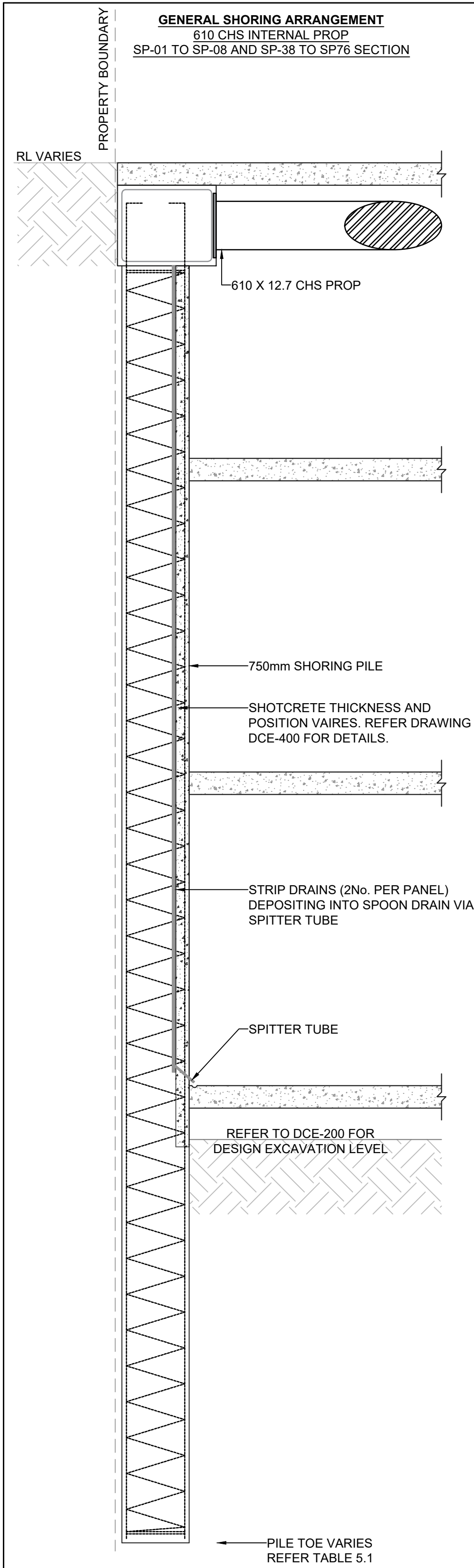
PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



DESIGN	R.B.	DRAWN	P.G.	SCALE	1:20
CHKD	-	APPRD	-	DATE	-
mpn	108	DRAWING No	9541	REV	A
PRELIMINARY					

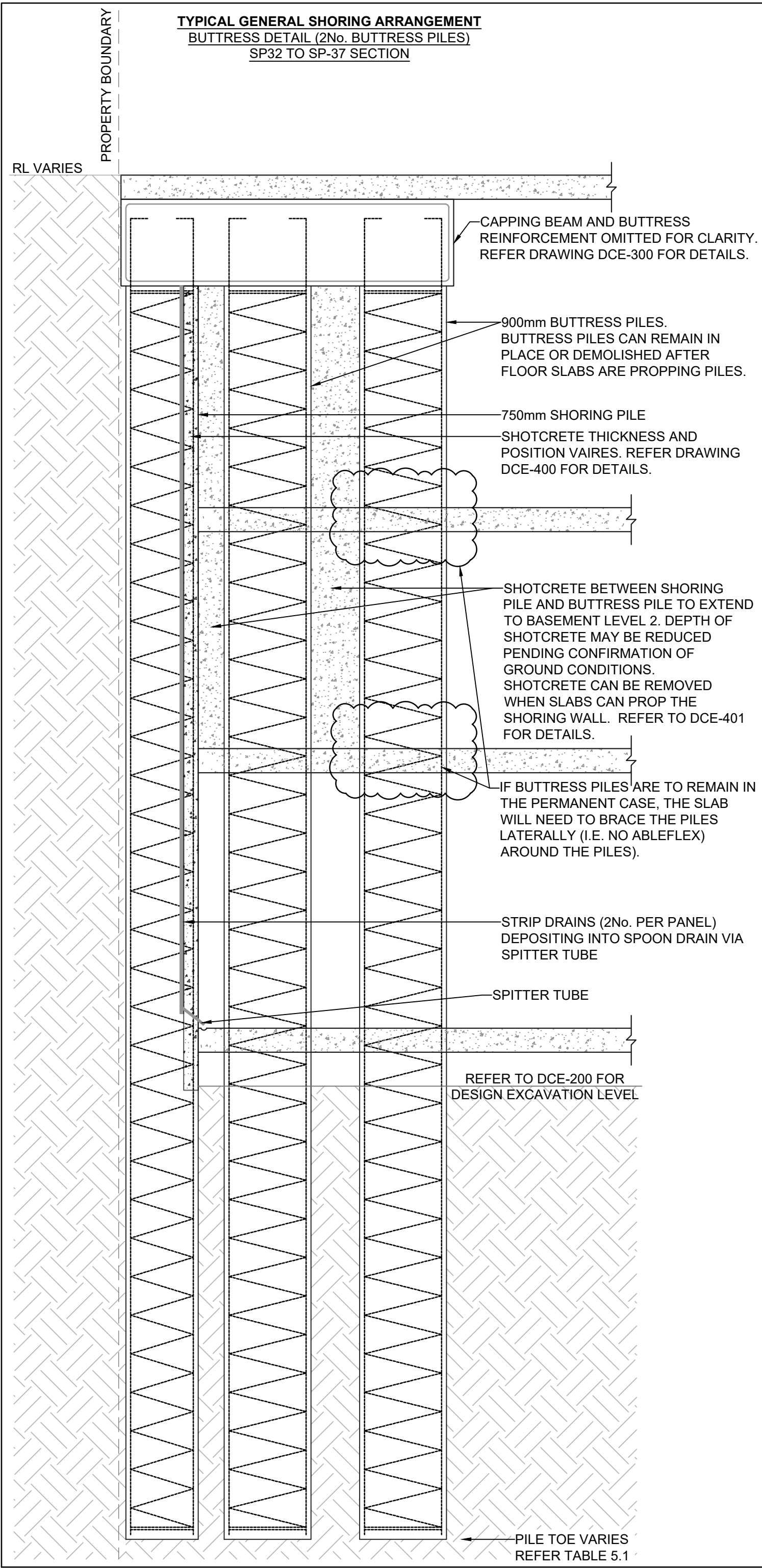
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PROPPING NOTES

1. IT HAS BEEN ASSUMED IN THE DESIGN THAT THE PILES ARE PROPPED BY THE FLOOR SLABS IN THE PERMANENT CASE.
2. DESIGN OF THE DOWEL CONNECTIONS BETWEEN SLABS AND SHORING PILES BY OTHERS.



GENERAL NOTES

1. GEOTECHNICAL INSPECTION TO BE CONDUCTED BY ANORA OF BORED PIER CUTTINGS AND EXPOSED FACES BETWEEN THE PIERS. INSPECTION TO BE SUPPLEMENTED WITH IS50 TESTING. FREQUENCY OF INSPECTION AND TESTING TO BE DETERMINED BY ANORA AND IS TO BE SUFFICIENT TO ALLOW ANORA TO CERTIFY.
2. SEE ANORA DESIGN SUBMISSION FOR DETAILS OF CONCRETE PLACEMENT TECHNIQUE.

CONSTRUCTION SEQUENCE

1. INSTALL PERIMETER SHORING AND BUTTRESS PILES (LOCATIONS SHOWN ON DRAWING DCE-200). ANORA ENGINEER TO VERIFY PILE LENGTHS.
 2. INSTALL CAPPING BEAM BLINDING LAYER
 3. INSTALL STEEL PROPS INCLUDING END PLATES.
 4. INSTALL CAPPING BEAM TO REQUIRED LEVELS AS PER DCE-200 AND DETAILS AS PER DCE-300.
 5. EXCAVATE TO THE BOTTOM OF FIRST SHOTCRETE DROP.
 6. FIX AND SPRAY SHOTCRETE, MESH, STRIP DRAINS TO FIRST DROP (INCLUDING BETWEEN SHORING PILE AND BUTTRESS PILE AS SHOWN ON DRAWING DCE-200 AND DCE-401).
 7. REPEAT STEPS 5 AND 6 UNTIL DESIGN EXCAVATION LEVEL IS REACHED.
 - 8*. CONSTRUCT ALL PERMANENT SLABS TO PROP PILES IN THE PERMANENT CASE.
 - 9*. REMOVE TEMPORARY STEEL PROPS AND DEMOLISH BUTTRESS PILES AND BUTTRESS CAPPING BEAM.
- *REMOVAL OF SOME PROPS/BUTTRESS MAYBE RESEQUENCED, PENDING CONFIRMATION OF GEOTECHNICAL GROUND CONDITIONS AND PERFORMANCE OF SHORING WALL VIA SURVEY MONITORING.

NOTE:
EXPOSED FACES FOR SHOTCRETE AND CAPPING BEAMS SHOULD NOT BE LEFT UNSUPPORTED FOR MORE THAN 72 HOURS IN DRY CONDITIONS, AND SHOULD BE CONCRETED AS SOON AS POSSIBLE AFTER EXCAVATION. FACES SHOULD NOT BE EXPOSED DURING PERIODS OF INCLEMENT WEATHER.

ADDITIONAL SHOTCRETE DROPS CAN BE INTRODUCED IF REQUIRED. IT IS RECOMMENDED THAT SHOTCRETE BE CONDUCTED IN APPROXIMATELY 2.5m VERTICAL DROPS.

SHORING GENERAL ARRANGEMENT

1. SHORING PILES TO BE DESIGNED, CONSTRUCTED AND CERTIFIED BY ANORA.
2. PILE SPACING = 1500mm-2800mm GENERALLY.
3. BULK EXCAVATION LEVELS ADJACENT TO THE SHORING WALLS ARE NOTED ON DRAWING DCE-200. NO ADDITIONAL OVER EXCAVATION HAS BEEN ALLOWED FOR ADJACENT TO THE WALL. ANY EXCAVATION DEEPER THAN THE ABOVE SHOULD BE SUBMITTED TO ANORA FOR APPROVAL PRIOR TO PROCEEDING.
4. PILE CONCRETE $F'c=40MPa$, EXCEPT WHERE NOTED OTHERWISE IN ANORA TABLE 5.1, CONCRETE TESTING PER AS3600.
5. DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH AS2159 AND AS3600. ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH AS3600.
6. THE PROPOSED SHORING WALL IS NOT A WATERPROOF SYSTEM. ANY REQUIRED WATERPROOFING TO BE DESIGNED AND INSTALLED BY OTHERS.
7. THE PROPOSED SHORING SYSTEM HAS BEEN DESIGNED FOR A NOMINAL FACTORED SURCHARGE OF 25 KPA (IN ADDITION TO BUILDING LOADS AND CONSTRUCTION BATTER SLOPES). **ANY SURCHARGE IN EXCESS OF THIS VALUE SHOULD BE SUBMITTED TO ANORA FOR APPROVAL PRIOR TO PROCEEDING.**
8. PRIOR TO COMMENCEMENT, THE PRINCIPAL CONTRACTOR SHOULD VERIFY THE POSITION OF ALL EXISTING SERVICES. ANY POTENTIAL CLASHES BETWEEN SHORING AND SERVICES SHOULD BE SUBMITTED TO ANORA PRIOR TO COMMENCEMENT.
9. THE FOLLOWING REDUCED LEVELS ARE VARIABLE:
 - NATURAL SURFACE
 - TOP OF CAPPING BEAM
 - BASEMENT EXCAVATION
10. REFER TO DRAWING DCE-300 FOR CAPPING BEAM DETAILS.
11. REFER TO DRAWING DCE-400 FOR SHOTCRETE DETAILS.
12. REFER TO TABLE 5.1 FOR DESIGN SUMMARY.
13. LOADS FROM STRUCTURE OVER TO BE ACTING CONCENTRICALLY TO THE PILES.
14. PILE TOLERANCE; 75mm AT CUT OFF LEVEL (IN ANY DIRECTION) + 1:100 VERTICALITY.
15. A DILAPIDATION REPORT SHALL BE PREPARED BY THE PRINCIPAL CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK ON SITE AND KEPT ON FILE.
16. SURFACE DRAINAGE TO BE DESIGNED (BY OTHERS) TO ENSURE ADEQUATE FLOW AWAY FROM THE SHORING SYSTEM. SURFACE PROTECTION AND CATCH DRAIN MAY BE REQUIRED TO PREVENT EROSION AND PONDING. THE SURFACE DRAINAGE AND SUB-SOIL DRAINAGE SYSTEMS MUST BE SEPARATED AS RECOMMENDED IN AS4678 APPENDIX G1.

SAFETY IN DESIGN

1. ANORA CARRY OUT A 'SAFETY IN DESIGN' RISK ASSESSMENT DURING DETAILED DESIGN, WHICH NOMINATES HAZARDS AND ASSOCIATED MITIGATION MEASURES IDENTIFIED AT TIME OF DESIGN.
2. THIS DOCUMENT IS PROVIDED TO THE MAIN CONTRACTOR ALONG WITH OUR SAFE WORK PLAN.
3. ANORA HAVE NOT BEEN ENGAGED TO DEVELOP WORK METHODS FOR OTHERS OR TO SUPERVISE PERSONNEL EXECUTING THE WORK (EXCEPT FOR PILING WORKS). NOR DOES ANORA HAVE THE CAPACITY OR AUTHORITY TO SUPERVISE OR INSTRUCT SUBCONTRACTORS NOT ENGAGED BY ANORA REGARDING THEIR WORK METHODS.
4. IF ANY DETAIL CONTAINED WITHIN THESE DRAWINGS CAUSES CONCERN WITH REGARDS TO SAFETY, RAISE THE ISSUE WITH THE APPROPRIATE SAFETY OFFICIAL ON SITE. IF NO SUITABLE METHOD CAN BE DEvised TO EXECUTE THE WORK SAFELY THEN CONTACT ANORA, DETAILING THE ISSUE ALONG WITH A PROPOSED ALTERNATIVE SOLUTION FOR CONSIDERATION BY ANORA DESIGNER.
5. ANORA WOULD REQUIRE SUITABLE TIME TO REDESIGN THE ASSOCIATED ELEMENT IN ACCORDANCE WITH THE AGREED REVISED APPROACH AND RE-DOCUMENT ACCORDINGLY.

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

Queensland Government

REV	DESCRIPTION	DATED
A	ISSUED FOR REVIEW	22/02/23



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PROJECT:	GCHKP- RESEARCH DEVELOPMENT CENTER OF EXCELLENCE
ADDRESS:	LOT 6A, NEXUS WAY SOUTHPORT
TITLE:	GENERAL ARRANGEMENT AND NOTES
CLIENT:	ICON
COPYRIGHT	COPYRIGHT ANORA FOUNDATIONS PTY LTD 2023

JOB No:	22234
DRAWING No:	DCE-100
SCALE:	N.T.S.
DRAWN BY:	W.L.

ENG.: SaM(RPEQ9188)

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DEFLECTION MONITORING PERFORMANCE CRITERIA			
WALL SECTION	DESCRIPTION	ALERT LEVEL	TOTAL HORIZONTAL MOVEMENT
ALL WALLS	FOOTPATH & ROAD PAVEMENT ADJACENT PROPERTY		mm
		GREEN	0 - 22mm
		AMBER	22 - 25mm
		RED	25+ mm
NOTES:			
1) MOVEMENT MEASURED AT CAPPING BEAM			
2) MOVEMENT LIMITS NOTED ABOVE MAKE NO ALLOWANCE FOR SITE MEASUREMENT ACCURACY. THE LEVEL OF ACCURACY FOR SITE MEASUREMENT METHODS MUST BE CONSIDERED WHEN ASSESSING WALL DEFLECTIONS IN RELATION TO THE LIMITS PROVIDED. DATA ACQUISITION USING HIGH ACCURACY TECHNIQUES IS RECOMMENDED. ANORA RECOMMEND CONSIDERING DATA TRENDS - RATHER THAN INDIVIDUAL RESULTS - AND FROM MULTIPLE SOURCES WHEN ASSESSING THE ABOVE.			
3) DRAWING MUST BE READ IN CONJUNCTION WITH DCE-200			
4) REFER TO HEILIG & PARTNERS PTY LTD STRUCTURAL MONITORING AND VIBRATION MANAGEMENT ASSESSMENT PLAN FOR GCHKP- RESEARCH DEVELOPMENT CENTER OF EXCELLENCE LOT6A NEXUS WAY, SOUTHPORT DATED 18/04/2023 FOR VIBRATION MONITORING REGIME AND CRITERIA.			

STATUS UPDATES			
STATUS	DESCRIPTION	ASSESSMENT	HOLD POINT
GREEN STATUS	MEASURED DEFLECTIONS ARE LESS THAN PREDICTED.	PERFORMANCE OF WALL IS IN ACCORDANCE WITH DESIGN	NONE- CARRY ON WITH BASEMENT EXCAVATION.
AMBER STATUS	MEASURED DEFLECTIONS EXCEED PREDICTION BUT ARE LESS THAN DEFLECTION LIMITS	ANORA RPEQ TO ASSESS WALL SURCHARGES AND WALL INTEGRITY. DETERMINE CAUSE OF EXCESSIVE DEFLECTIONS. ADVISE REMEDIAL MEASURES (IF ANY) AND FUTURE MONITORING FREQUENCY.	CONTINUE WORK ON-SITE BUT SUSPEND FURTHER EXCAVATION ADJACENT TO SHORING WALL WITHIN 10m OF THE MONITORING STATION IN QUESTION. WAIT FOR ADVICE FROM ANORA RPEQ TO PROCEED WITH EXCAVATION.
RED STATUS	MEASURED DEFLECTIONS EXCEED DEFLECTION LIMITS	ANORA RPEQ TO ASSESS WALL SURCHARGES AND WALL INTEGRITY. DETERMINE CAUSE OF EXCESSIVE DEFLECTIONS. ADVISE REMEDIAL MEASURES (IF ANY) AND FUTURE MONITORING FREQUENCY.	STOP WORK WITHIN 10m OF THE MONITORING STATION IN QUESTION. STABILIZE WALL WITH PLACEMENT OF SOIL BERM AT BASE OF EXCAVATION. WAIT FOR MEASURES (IF ANY) AND FUTURE MONITORING FREQUENCY.

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026



REV	DESCRIPTION	DATED		ANORA FOUNDATION PTY LTD		PROJECT:	GCHKP- RESEARCH DEVELOPMENT CENTER OF EXCELLENCE	JOB No:	22234	 ENG.: SaM(RPEQ9188)
A	ISSUED FOR REVIEW	19/04/23		P: (07) 3279 7966 F: (07) 3279 6612 E: INFO@ANORA.COM.AU W: WWW.ANORA.COM.AU BSA: 1160763 ABN: 91 063 140 009 MEMBER: AGS, ADSC-IAFD ADDRESS: 170 BELLWOOD ST DARRA, QLD 4076 PO BOX: 3282 DARRA, QLD 4076	ADDRESS:	LOT 6A, NEXUS WAY SOUTHPORT	DRAWING No:	DCE-110		
					TITLE:	DEFLECTION MONITORING CRITERIA	SCALE:	N.T.S.		
					CLIENT:	ICON	DRAWN BY:	W.L.		
							© COPYRIGHT ANORA FOUNDATIONS PTY LTD 2023		CONFIDENTIAL THIS DRAWING NOT TO BE PASSED ON TO OTHERS WITHOUT THE WRITTEN PERMISSION OF ANORA FOUNDATIONS PTY LTD	

THIS DRAWING ONLY TO BE USED FOR SETOUT ONCE PILE POSITIONS ARE APPROVED BY THE ARCHITECT. PILE POSITIONS SHOWN ON THIS DRAWING HAVE BEEN ADJUSTED TO ACCOUNT FOR PILE INSTALLATION TOLERANCES AS NOMINATED ON DRAWING DCE-100.

LEGEND:

TCB: TOP OF CAPPING BEAM

STEP LOCATION AT TOP OF CAPPING BEAM
DASHED LINE DENOTES STEP IN CAPPING BEAM SOFFIT

DEL: DESIGN EXCAVATION LEVEL

DEFLECTION MONITORING ON SHORING WALL -SIDE FACE OF CAPPING BEAM (BY OTHERS).

SHOTCRETE BETWEEN SHORING PILE AND BUTTRESS PILE SHOWN RED.
REFER TO DCE-401 FOR DETAILS

NOTES:

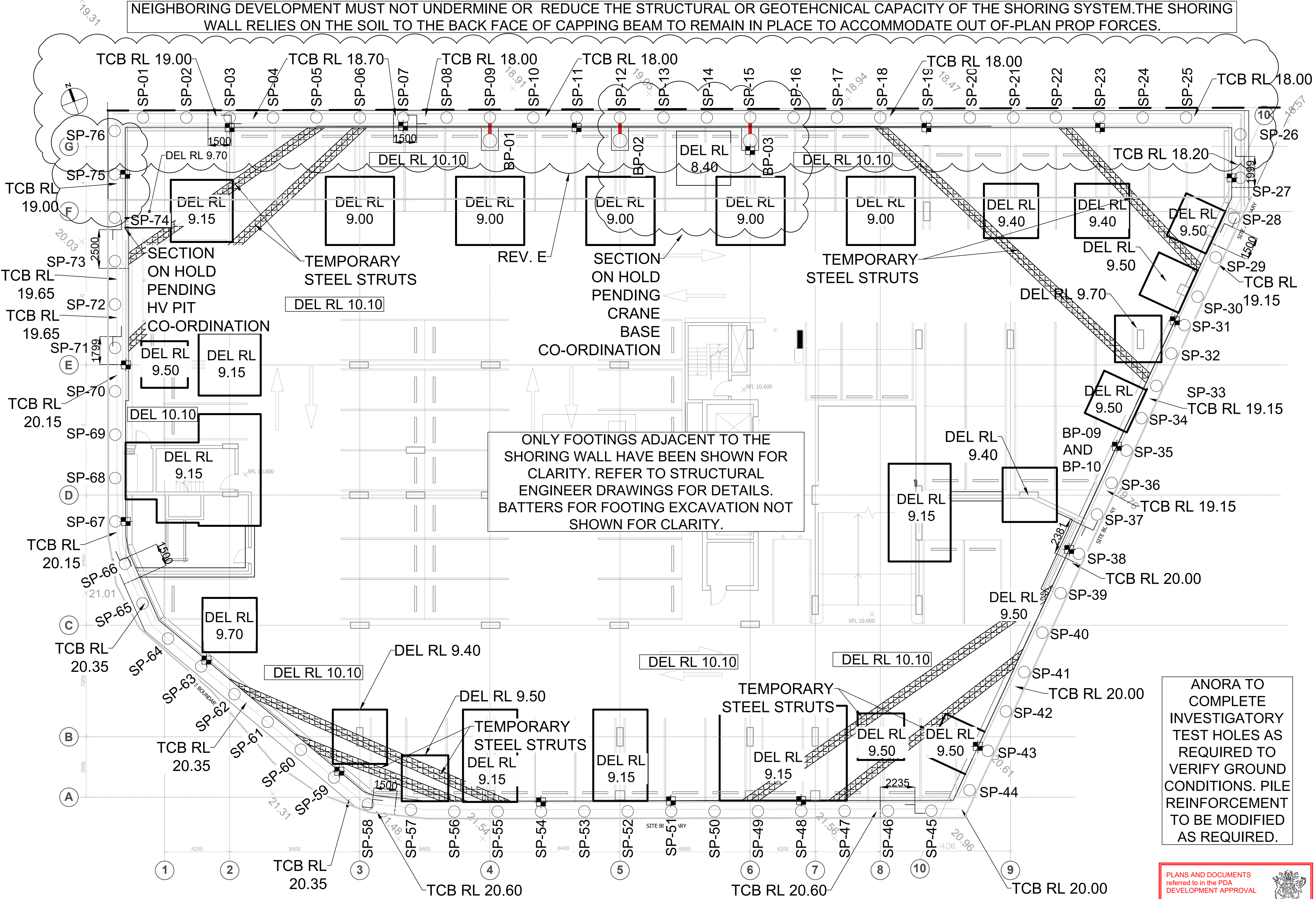
1. THE TOP OF CAPPING BEAM LEVELS SHOWN ARE SUBJECT TO CHANGE PENDING CO-ORDINATION WITH ARCHITECT AND STRUCTURAL ENGINEER.
2. REFER DRAWING DCE-300 FOR CAPPING BEAM DETAILS
3. DO NOT SCALE OFF THIS DRAWING
4. TEMPORARY SHORING/BATTERS ABOVE CAPPING BEAM BY OTHERS IF REQUIRED (NOT IN ANORA SCOPE).

DEFLECTION MONITORING

1. DEFLECTIONS ARE TO BE MONITORED VIA SURVEY MONITORING POINTS AT APPROXIMATELY 11m INTERVALS ON THE VISIBLE SIDE OF THE CAPPING BEAM.
2. FREQUENCY OF DEFLECTION MONITORING TO BE AS OUTLINED BELOW;
 - 2.1. SURVEY - GENERALLY WEEKLY, OR AT EACH CONSTRUCTION STAGE UNTIL B2 SLAB IS CONSTRUCTED. THEN, GENERALLY FORTNIGHTLY UNTIL THE PERMANENT FLOOR SLABS OR MASONRY WALL BACKFILL PROP THE SHORING PILES.
3. DEFLECTION MONITORING CAN BE CURTAILED ONCE GROUND FLOOR SLAB IS CONSTRUCTED.
4. SURVEY POINTS MUST BE KEPT VISIBLE AND ACCESSIBLE UNTIL THE SHORING SYSTEM IS PROPPED BY THE STRUCTURE.

THE SHORING SYSTEM HAS BEEN DESIGNED TO ACCOMMODATE PERMANENT BUILDING LOADS NOMINATED ON MPN ENGINEERING DRAWING S1.00.01. LATERAL GEOTECHNICAL FORCES BASED ON RECOMMENDATIONS IN SOIL SURVEYS GEOTECHNICAL REPORT 2-15299-A DATED 17th JANUARY 2023, AND METHODOLOGY OUTLINED IN ANORA SHORING DESIGN REPORT DATED 4TH APRIL 2023

NEIGHBORING DEVELOPMENT MUST NOT UNDERMINE OR REDUCE THE STRUCTURAL OR GEOTECHNICAL CAPACITY OF THE SHORING SYSTEM.THE SHORING WALL RELIES ON THE SOIL TO THE BACK FACE OF CAPPING BEAM TO REMAIN IN PLACE TO ACCOMMODATE OUT OF-PLAN PROP FORCES.



ANORA TO COMPLETE INVESTIGATORY TEST HOLES AS REQUIRED TO VERIFY GROUND CONDITIONS. PILE REINFORCEMENT TO BE MODIFIED AS REQUIRED.

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026

REV	DESCRIPTION	DATED
A	ISSUED FOR CO-ORDINATION	31/01/23
B	ISSUED FOR REVIEW	22/02/23
C	ISSUED FOR REVIEW	01/03/23
D	ISSUED FOR REVIEW	04/03/23
E	ISSUED FOR REVIEW	19/04/23
F	ISSUED FOR REVIEW	28/04/23



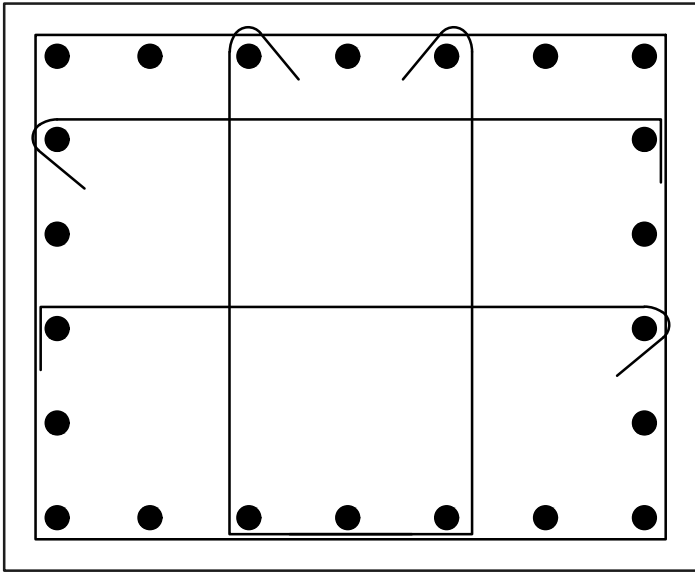
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PO BOX: 3282
DARRA, QLD 4076

PROJECT: GCHKP- RESEARCH DEVELOPMENT CENTER OF EXCELLENCE
ADDRESS: LOT 6A, NEXUS WAY SOUTHPORT
TITLE: SHORING GENERAL ARRANGEMENT PLAN
CLIENT: ICON
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JOB No: 22234
DRAWING No: DCE-200
SCALE: N.T.S.
DRAWN BY: W.L.

ENG.: SaM(RPEQ9188)

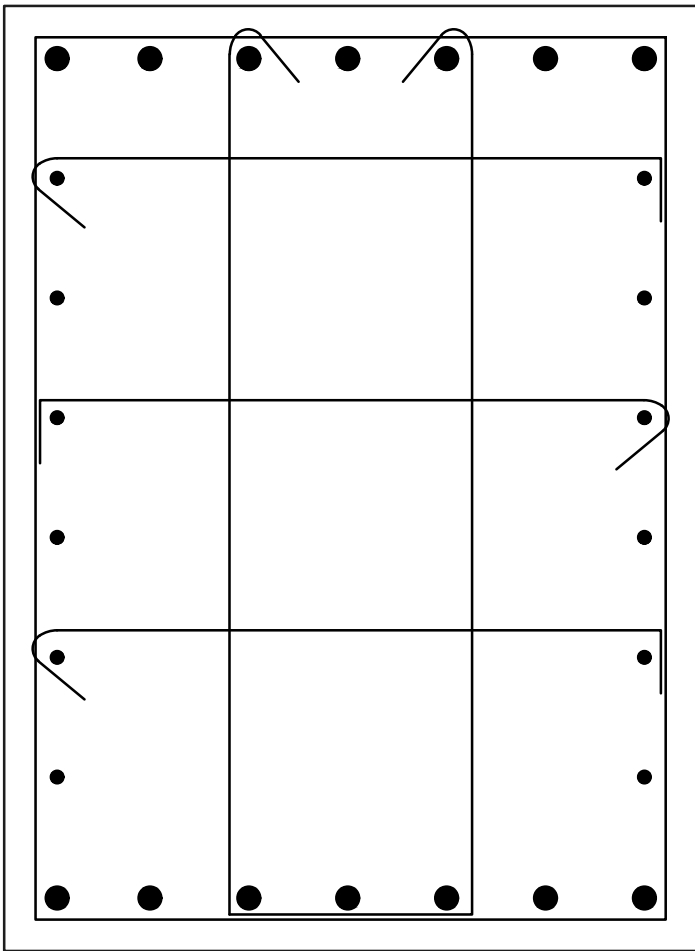
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CAPPING BEAM TYPE A
1100w X 900d CAPPING BEAM DETAILS

22N36 MAIN REINFORCEMENT
2N16@200 OUTER LIGS (BUNDLED)
HANGING LIGS 1N16@200 (AS SHOWN)
2N16@200 CROSS LIGS (AS SHOWN)
(END TYPES OF ADJACENT CROSS FITMENTS TO ALTERNATE)

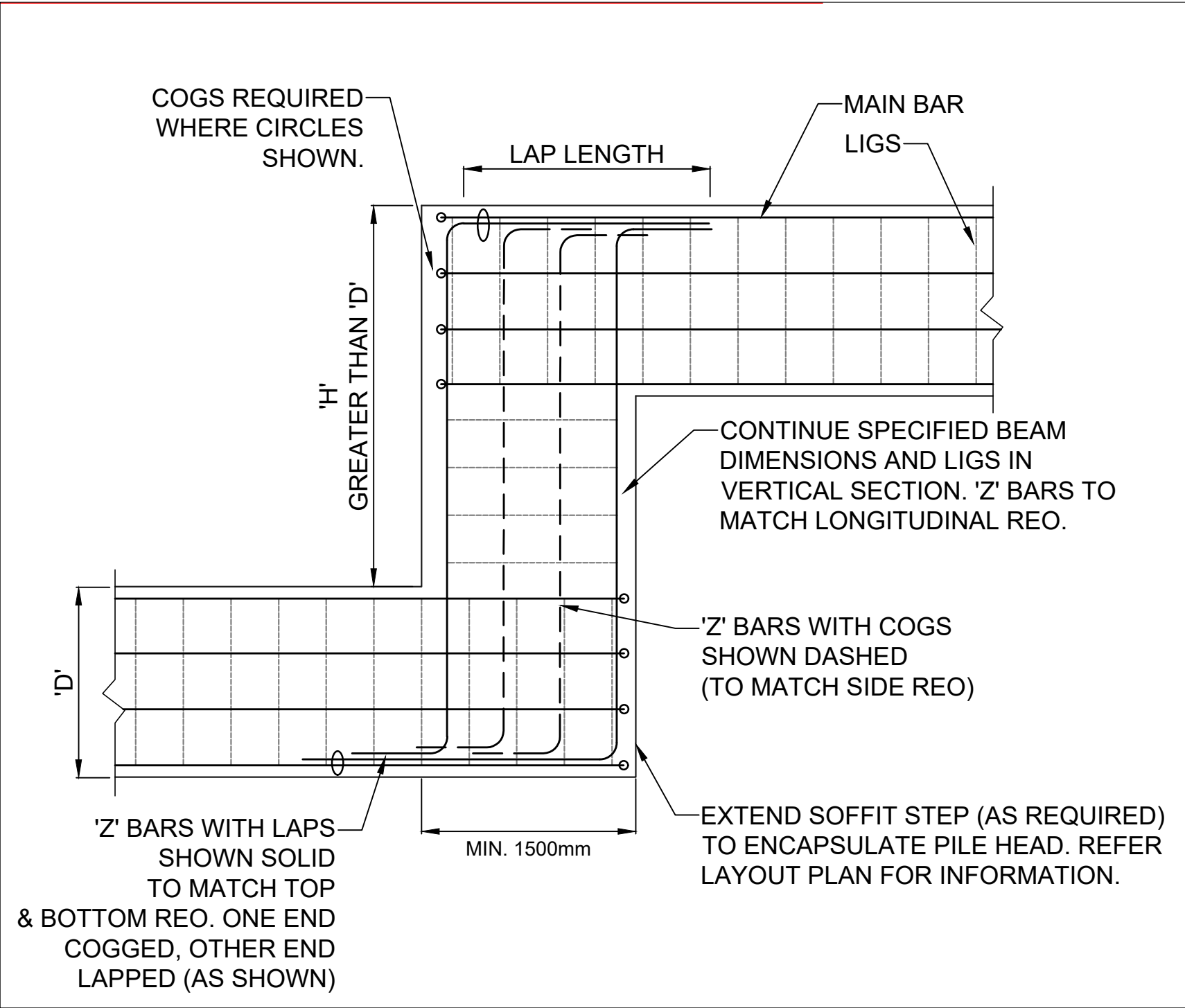
F'C = 65 MPA
50MM COVER



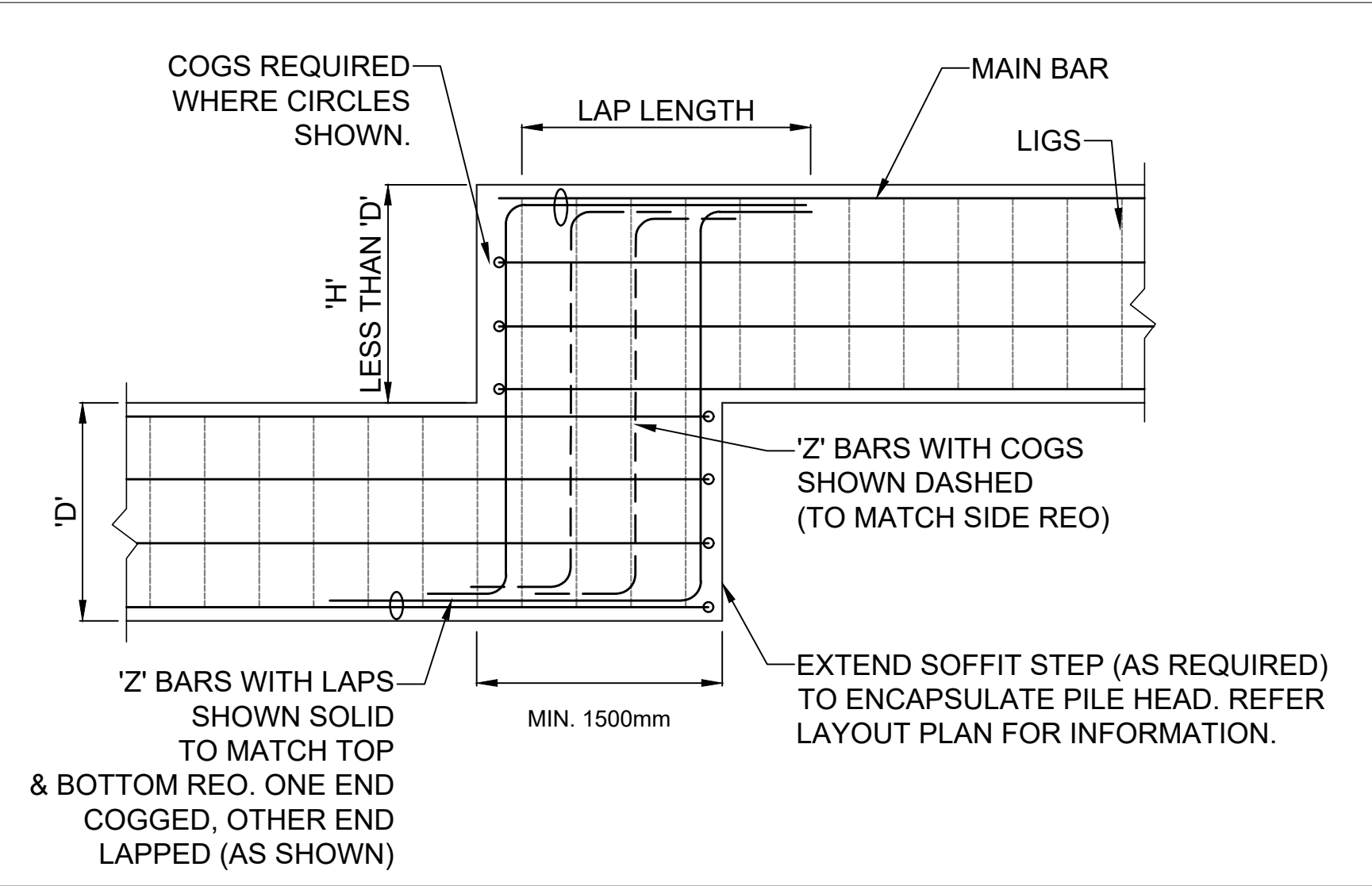
BUTTRESS CAPPING BEAM
1100w X 1500d CAPPING BEAM DETAILS

7N36 TOP AND BOTTOM
6N20 EACH SIDE FACE
2N16@200 OUTER LIGS (BUNDLED)
HANGING LIGS 1N16@200 (AS SHOWN)
2N16@200 CROSS LIGS (AS SHOWN)
(END TYPES OF ADJACENT CROSS FITMENTS TO ALTERNATE)

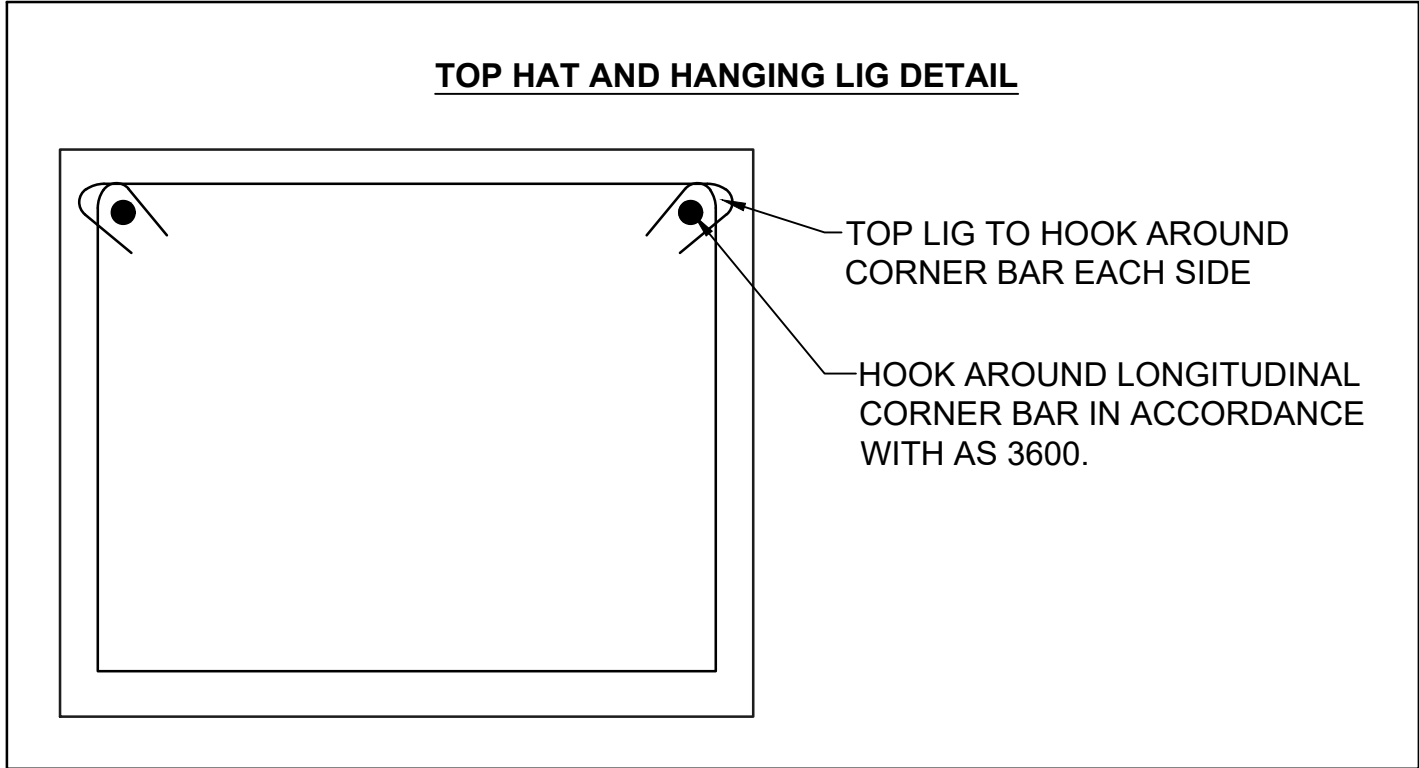
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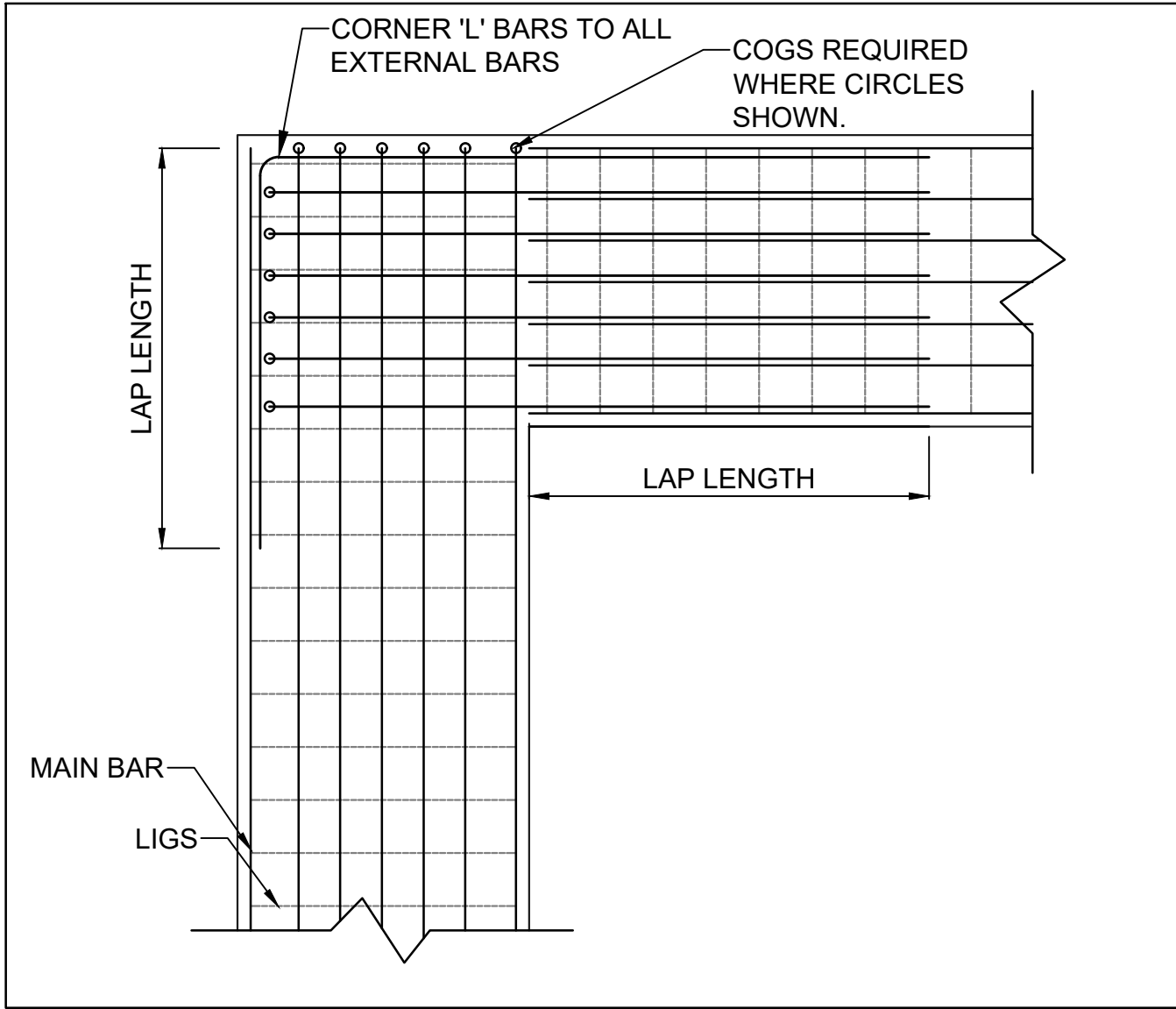
GENERAL STEP IN CAPPING BEAM HEIGHT 'H' GREATER THAN STEP DEPTH 'D' ELEVATION VIEW



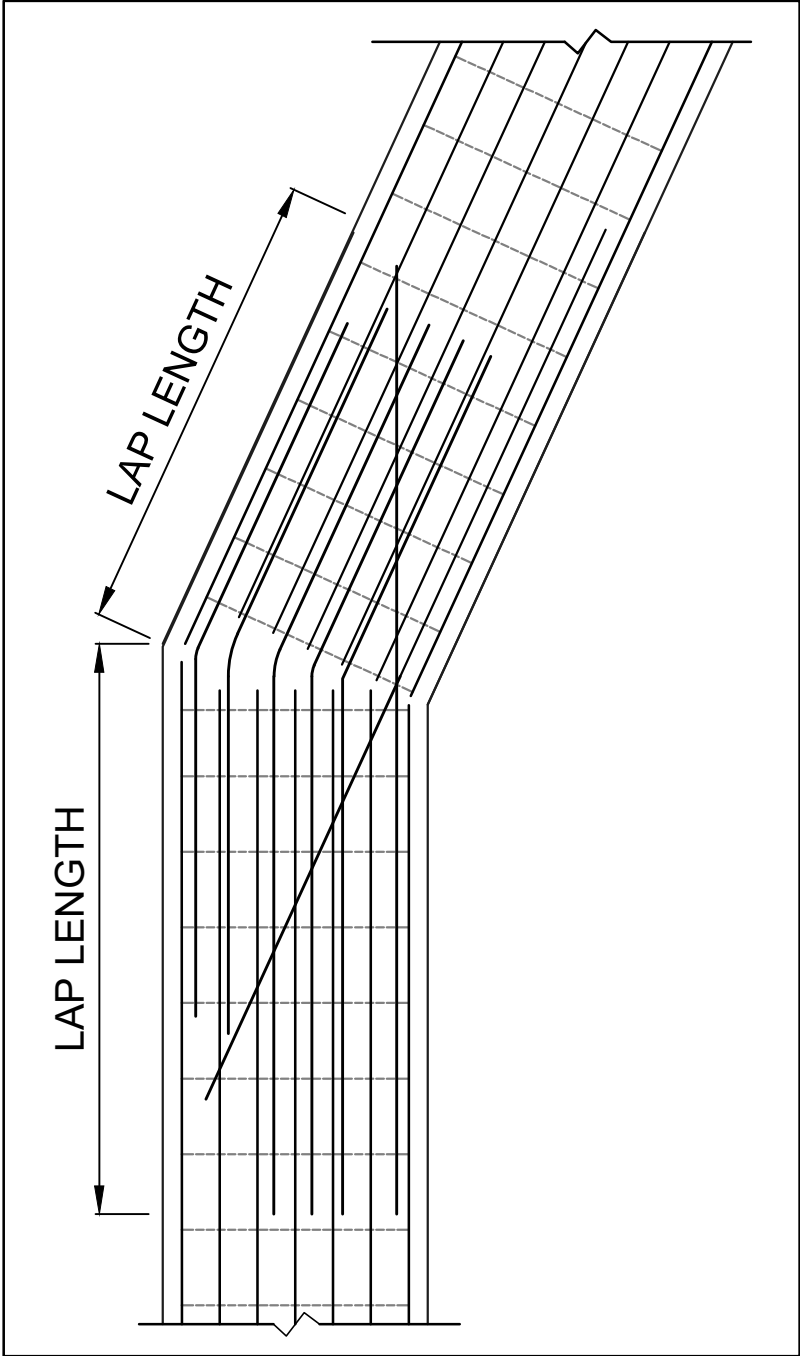
GENERAL STEP IN CAPPING BEAM HEIGHT 'H' IS LESS THAN CAPPING BEAM DEPTH 'D' ELEVATION VIEW



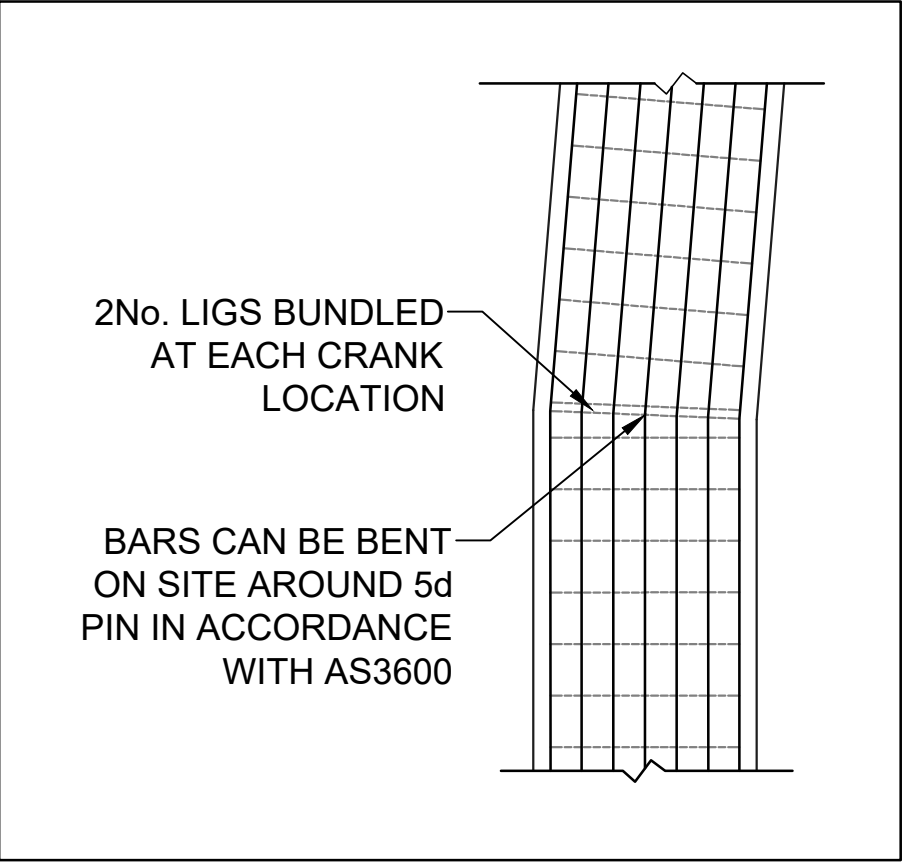
TOP HAT AND HANGING LIG DETAIL



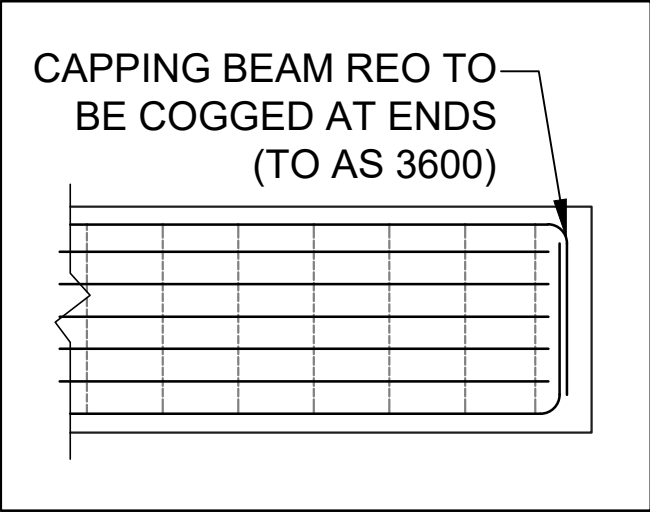
CAPPING BEAM CORNER DETAIL PLAN VIEW



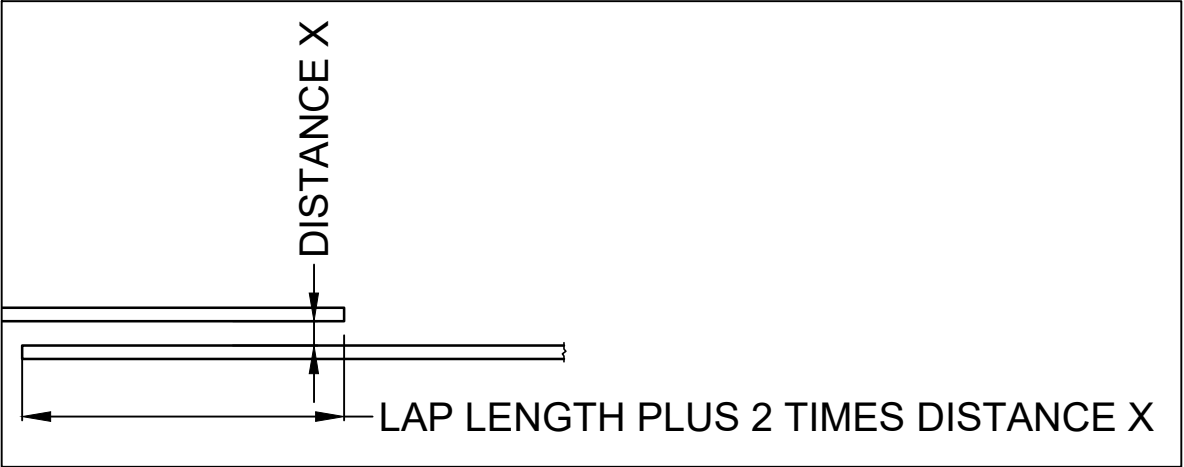
CAPPING BEAM CRANK DETAIL GREATER THAN 10° PLAN VIEW



CAPPING BEAM CRANK DETAIL LESS THAN 10° PLAN VIEW



CAPPING BAM END DETAIL ELEVATION VIEW



LAP LENGTH REQUIRED FOR NON CONTACT LAP

BAR SIZE	LAP LENGTH REQUIRED (mm)	NON-CONTACT LAP LENGTH (mm)
N16	650	650 + 2x CLEAR SPACING
N20	800	800 + 2x CLEAR SPACING
N24	1000	1000 + 2x CLEAR SPACING
N28	1150	1150 + 2x CLEAR SPACING
N32	1300	1300 + 2x CLEAR SPACING
N36	1450	1450 + 2x CLEAR SPACING
N40	1600	1600 + 2x CLEAR SPACING

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481
Date: 14/04/2026

Queensland Government

REV	DESCRIPTION	DATED
A	ISSUED FOR REVIEW	22/03/23



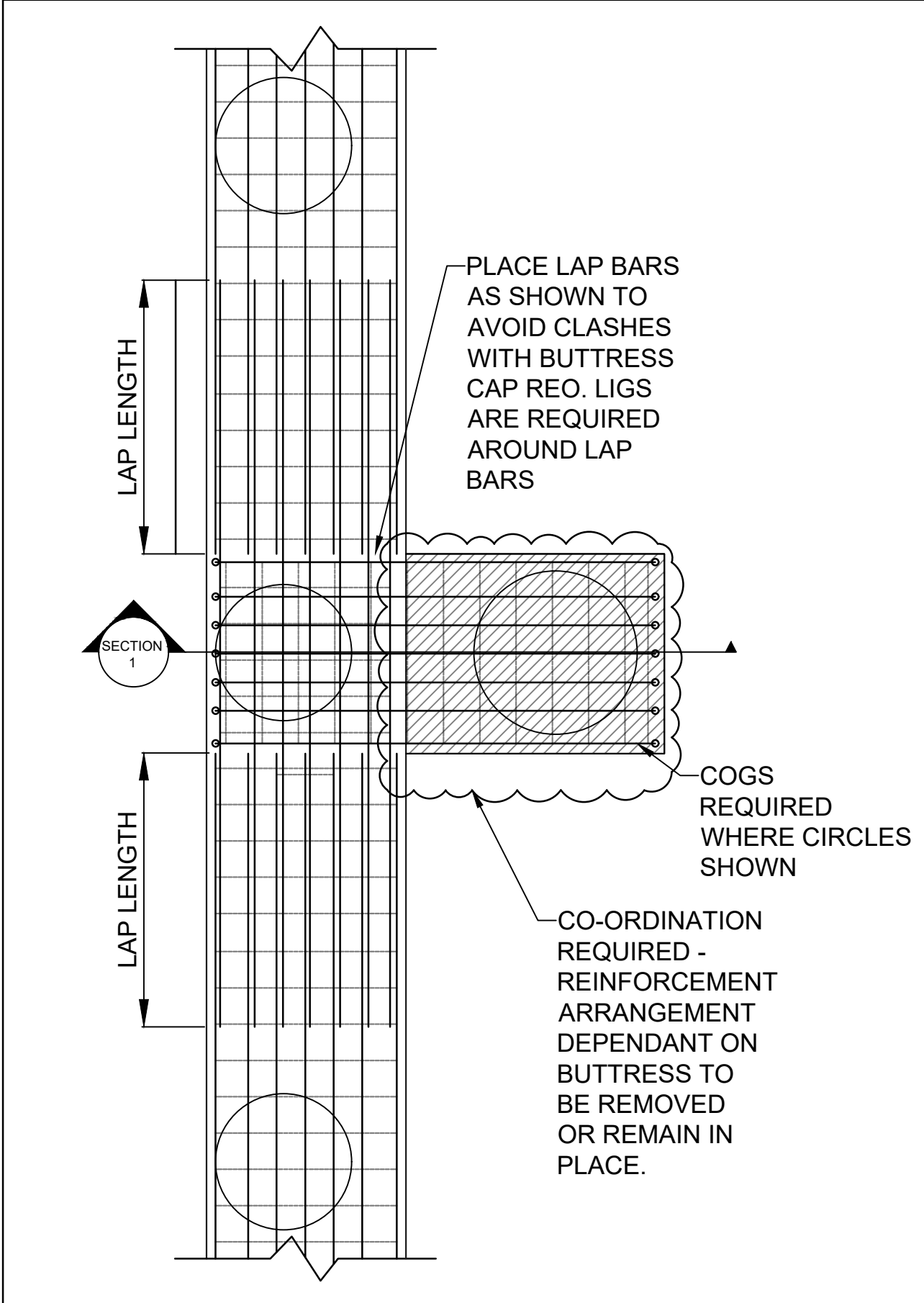
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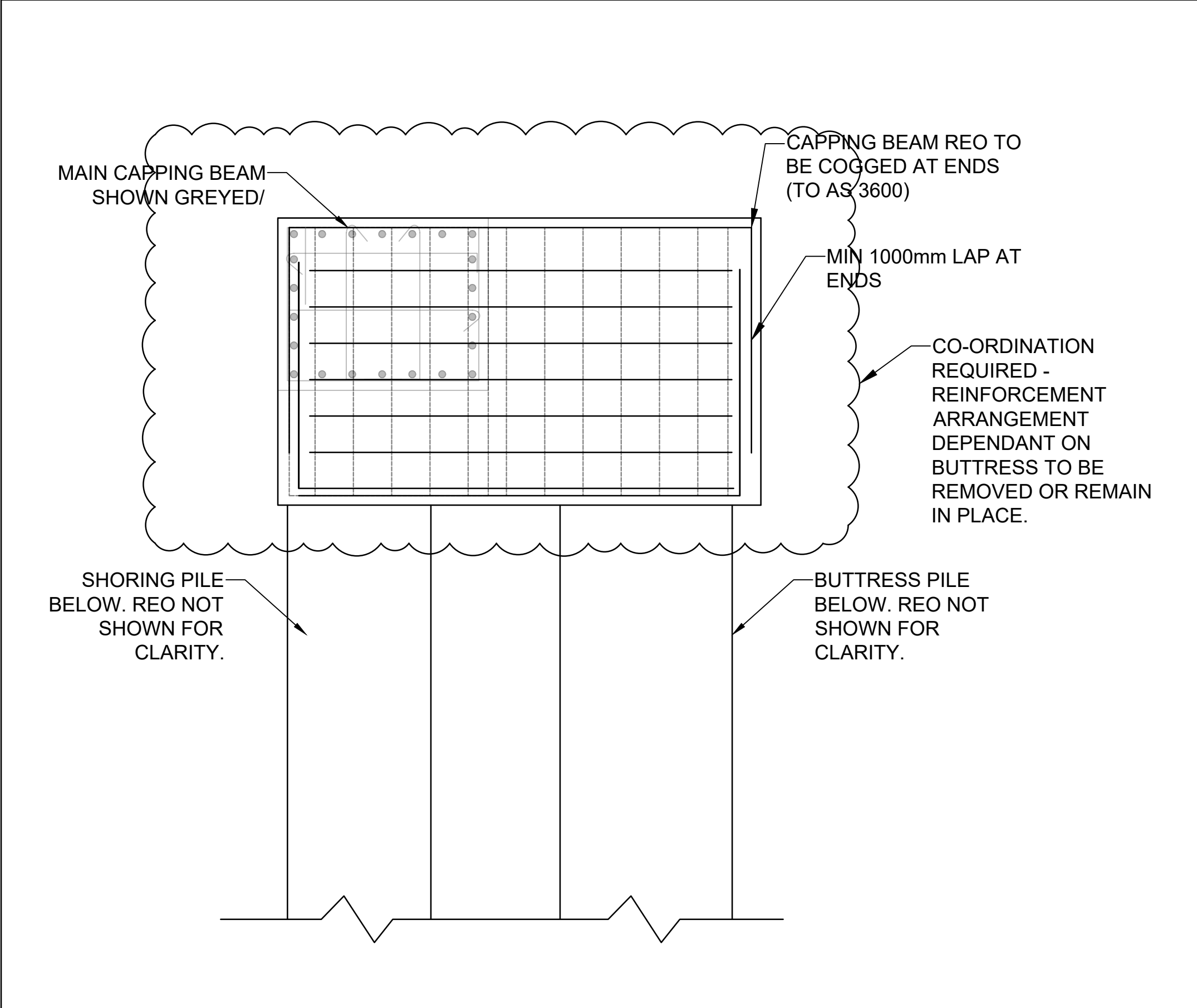
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DARRA, QLD 4076

PROJECT:	GCHKP- RESEARCH DEVELOPMENT CENTER OF EXCELLENCE
ADDRESS:	LOT 6A, NEXUS WAY SOUTHPORT
TITLE:	CAPPING BEAM DETAILS AND NOTES (1 OF 2)
CLIENT:	ICON
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JOB No:	22234	 ENG.: SaM(RPEQ9188)
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SCALE:	N.T.S.	
DRAWN BY:	W.L.	
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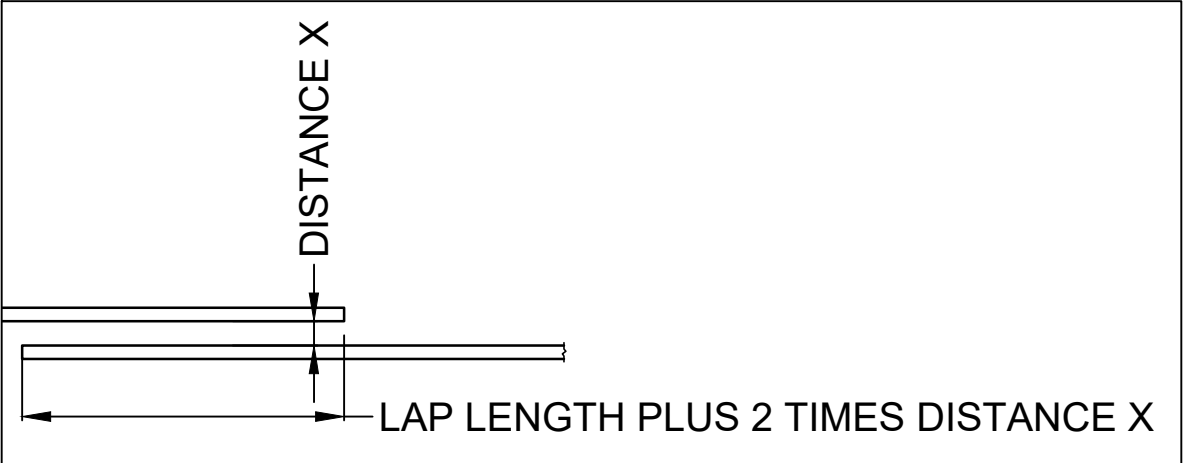


CAPPING BEAM BUTTRESS DETAIL
PLAN VIEW



CAPPING BEAM BUTTRESS DETAIL
SECTION 1

CAPPING BAM END DETAIL
ELEVATION VIEW



LAP LENGTH REQUIRED FOR
NON CONTACT LAP

BAR SIZE	LAP LENGTH REQUIRED (mm)	NON-CONTACT LAP LENGTH (mm)
N16	650	650 + 2x CLEAR SPACING
N20	800	800 + 2x CLEAR SPACING
N24	1000	1000 + 2x CLEAR SPACING
N28	1150	1150 + 2x CLEAR SPACING
N32	1300	1300 + 2x CLEAR SPACING
N36	1450	1450 + 2x CLEAR SPACING
N40	1600	1600 + 2x CLEAR SPACING

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL
Approval no: DEV2024/1481
Date: 14/04/2026



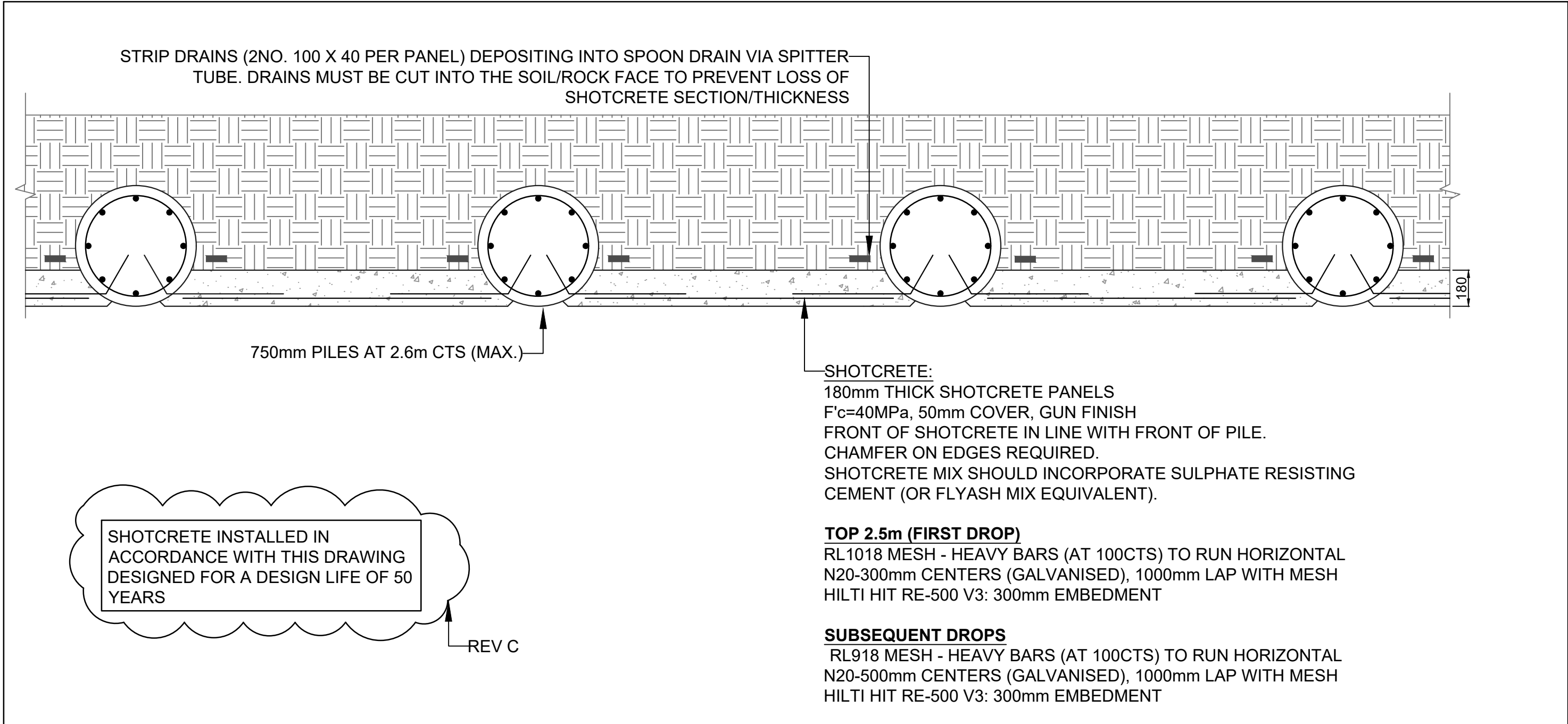
REV	DESCRIPTION	DATED
A	ISSUED FOR REVIEW	22/03/23



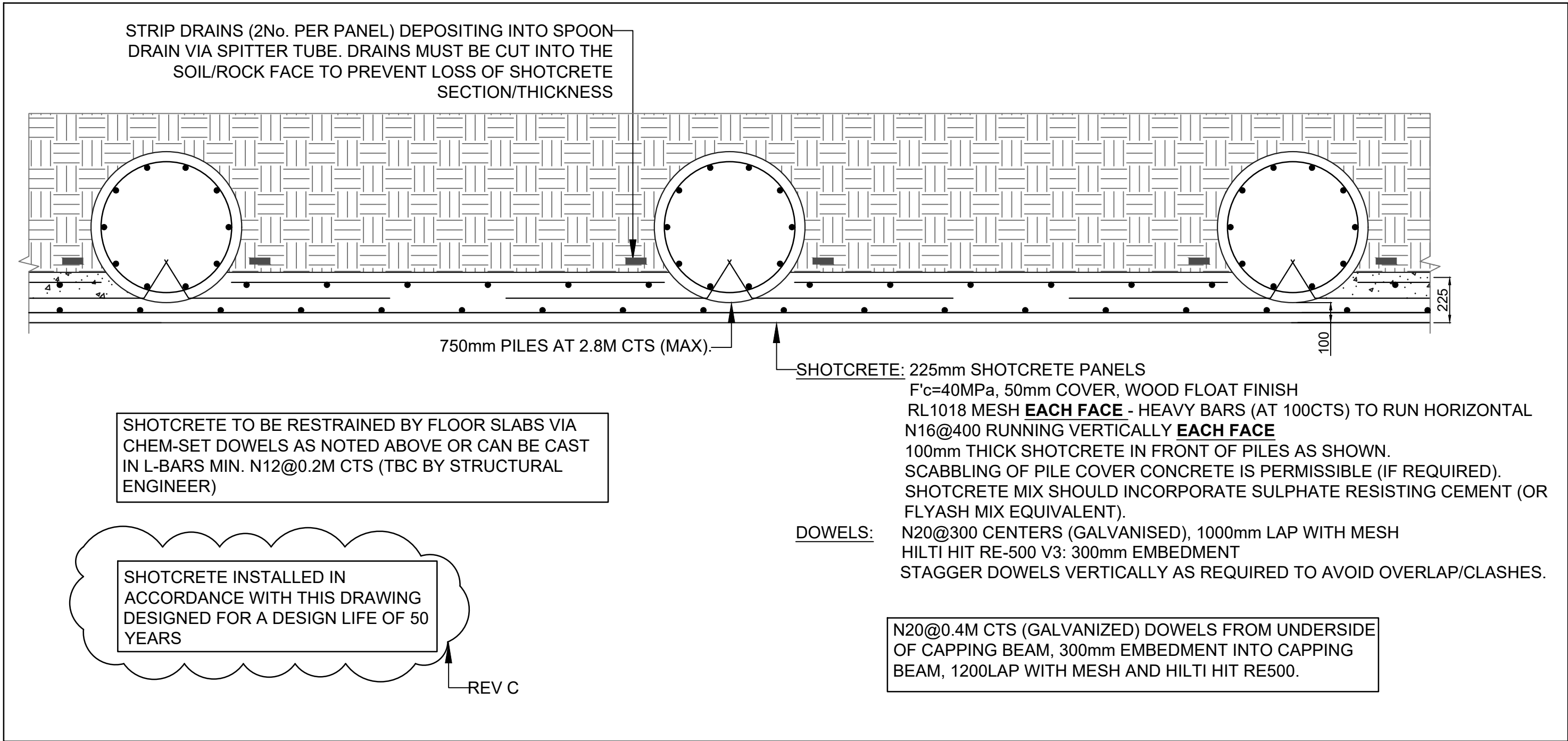
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TITLE: CAPPING BEAM DETAILS AND NOTES (2 OF 2)
CLIENT: ICON
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TYPICAL 180mm BACK OF PILE SHOTCRETE
SP-26 TO SP76
PLAN VIEW



TYPICAL 225mm THICK FRONT OF PILE SHOTCRETE
SP-01 TO SP-25
PLAN VIEW

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2024/1481

Date: 14/04/2026

Queensland Government

NOTE: SHOTCRETE TO FOLLOW THE LINE OF THE PILES. LARGER OVERBREAKS ARE TO BE EXPECTED WHERE SHOTCRETE FACE DOES NOT FOLLOW PILES.

CHEMICAL ANCHOR/POST-INSTALLED REBAR NOTES

- ALL CHEMICAL ANCHORS/POST-INSTALLED REBAR TO USE HILTI HIT-RE 500 INJECTION MORTAR SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, WITH PARTICULAR ATTENTION TO THE FOLLOWING;
- ALL HOLES TO BE HAMMER DRILLED. SETTING REBAR INTO CORED HOLES IS NOT ACCEPTABLE. WHERE REQUIRED TO CUT THROUGH EXISTING REBAR, CORE DRILL PILOT HOLE UNDERSIZED BY 4-6MM THEN HAMMER DRILL HOLE TO REQUIRED DIAMETER AND EMBEDMENT (TO ENSURE ROUGH SIDEWALL).
- JUST BEFORE SETTING CHEMICAL ANCHOR, THE BOREHOLE MUST BE FREE OF DUST AND DEBRIS BY COMPRESSED AIR CLEANING (OR MANUAL CLEANING FOR BOREHOLES UP TO 20MM AND 160MM EMBEDMENT) AS SPECIFIED BY THE MANUFACTURER.
- CLEANING OF BOREHOLE MUST BE DONE WITH ROUND STEEL BRUSH TO SAME DIAMETER AS THE BOREHOLE WITH ADEQUATE LENGTH TO REACH BACK OF THE HOLE. IF THE BRUSH DOES NOT PRODUCE NATURAL RESISTANCE AS IT ENTERS THE BOREHOLE, REPLACE WITH A NEW BRUSH OR LARGER DIAMETER BRUSH.
- DIAMETER OF HAMMER DRILLED HOLES AS OUTLINED BELOW;

DRILL BIT FOR CHEMICAL ANCHORS	
REBAR SIZE	HAMMER DRILL BIT DIA.
N12	16
N16	20
N20	25
N24	32
N28	35
N32	40
N36	45
N40	55

- ALL CHEMICAL ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE RELEVANT MANUFACTURES INSTRUCTIONS.

SHOTCRETE NOTES

- SHOTCRETE / PILE INTERFACE TO BE THOROUGHLY CLEANED AND ROUGHENED PRIOR TO SPRAYING. ANY WATER INGRESS THROUGH JOINT TO BE SEALED WITH AN APPROVED CHEMICAL INJECTION METHOD IF REQUIRED (BY OTHERS).
- DRAINS TO BE CONTINUOUS FOR FULL HEIGHT OF WALL AND ARE TO BE SECURELY FIXED TO THE ROCK FACE.
- ALL SHOTCRETE TO CONFORM TO AS3600.
- SHOTCRETE CONTRACTOR TO ADOPT CONSTRUCTION TECHNIQUES TO ENSURE THAT HOMOGENEOUS SHOTCRETE RESULTS (FREE FROM DEFECTS INCLUDING BUT NOT LIMITED TO WATER DAMAGE AND SOIL INCLUSIONS)
- IT IS RECOMMENDED THAT SHOTCRETE BE CONDUCTED IN APPROXIMATELY 2.5m VERTICAL DROPS. EXPOSED FACES SHOULD BE SHOTCRETED AS SOON AS POSSIBLE AFTER EXCAVATION AND SHOULD NOT BE LEFT EXPOSED DURING PERIODS OF WET WEATHER. WHERE LESS FAVOURABLE GROUND CONDITIONS ARE ENCOUNTERED, SMALLER DROP HEIGHTS MAY BE REQUIRED TO ENSURE PANEL STABILITY.
- THE BUILDER SHOULD KEEP THE PANELS STABLE UNTIL SHOTCRETE IS SPRAYED. THIS MAY INVOLVE SACRIFICIAL SHOTCRETE SPRAYS IMMEDIATELY AFTER EXCAVATION, PLANKING, DEWATERING AND OTHER SIMILAR MEANS. THE CIVIL CONTRACTOR/BUILDER IS RESPONSIBLE FOR FORMULATING APPROPRIATE METHODOLOGY TO KEEP PANELS STABLE.
- ANORA RECOMMENDS THAT DRAINAGE BEHIND SHOTCRETE DEPOSITS INTO DISH DRAINS AT THE BASE OF WALL VIA SPITTER TUBES. IT MAY BE POSSIBLE TO ACCOMMODATE SUB-FLOOR DRAINAGE FOLLOWING WRITTEN APPROVAL BY ANORA, HOWEVER THIS TENDS TO BE LESS RELIABLE AND MAY INCREASE THE LIKELIHOOD OF WATER INGRESS INTO THE BASEMENT. SUB-FLOOR DRAINAGE MUST BE DESIGNED (BY OTHERS) SUCH THAT IT IS SELF-CLEANING, OR PROVISIONS MADE SO THAT CLEANING CAN BE OTHERWISE FACILITATED.
- UNLESS NOTED OTHERWISE, SHOTCRETE IS DESIGNED FOR SOIL LOADS ONLY. ADDITIONAL DOWELS WILL BE REQUIRED IF SHOTCRETE IS REQUIRED TO CARRY VERTICAL LOAD FROM THE STRUCTURE.
- IF SUB-FLOOR / SUB-SOIL DRAINAGE EXTENDS BELOW SLAB LEVEL, ALL DRAINAGE PATHS / LAYERS MUST BE KEPT WITHIN THE DESIGN EXCAVATION LEVEL NOMINATED IN DRAWING XXX-200.

SHOTCRETE CURING NOTES

- SHOTCRETE HAS BEEN DESIGNED WITH MINIMAL REINFORCEMENT FOR SHRINKAGE CONTROL IN ORDER TO PROVIDE AN ECONOMIC SHOTCRETE SOLUTION. SOME SHRINKAGE CRACKING IN THE SHOTCRETE IS TO BE EXPECTED, HOWEVER THIS CAN BE REDUCED IF SHOTCRETE IS CURED BY ONE OF THE METHODS OUTLINED BELOW.
 - WET CURING APPLIED TO SHOTCRETE SURFACE IMMEDIATELY AFTER THE APPLICATION AND FINISHING OF SHOTCRETE AND MAINTAINED FOR THREE DAYS. WATER USED FOR CURING SHOULD COMPLY WITH AS1379.
 - LIQUID MEMBRANE-FORMING CURING COMPOUNDS SHALL COMPLY WITH THE REQUIREMENTS OF AS3799. WHERE A SUBSEQUENT LAYER OF SHOTCRETE IS TO BE APPLIED, THE CURING COMPOUND SHOULD BE REMOVED VIA WATER JETTING PRIOR TO THE APPLICATION OF THE NEXT LAYER.
 - INTERNAL CURING AGENTS CONFORMING TO AS1379.
 - NATURAL CURING, PROVIDED RELATIVE HUMIDITY IS NO LESS THAN 85% AND CONCRETE SURFACE TEMPERATURE IS MAINTAINED AT MORE THAN 5 DEGREES CELSIUS THROUGHOUT THE NATURAL CURING PERIOD OF 7 DAYS. CARE SHOULD BE TAKEN TO ENSURE THAT THE CONCRETE DOES NOT DRY OUT DUE TO REDUCED RELATIVE HUMIDITY, HIGHER AIR TEMPERATURE OR INCREASED WIND SPEED. PLASTIC SHEETS OR OTHER SIMILAR MATERIAL FORM AN EFFECTIVE BARRIER AGAINST HUMIDITY LOSS, PROVIDED THEY ARE KEPT SECURELY IN PLACE AND TAPED TO LIMIT MOISTURE LOSS OR WIND DRAUGHTS.
- FAILURE TO CURE CONCRETE BY ANY OF THESE METHODS MAY RESULT IN INCREASED CRACKING. THIS CRACKING IS OF NO STRUCTURAL CONSEQUENCE HOWEVER MAY AFFECT THE AESTHETICS OR DURABILITY OF THE SHOTCRETE.

REV	DESCRIPTION	DATED
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B	ISSUED FOR REVIEW	01/03/23
C	ISSUED FOR REVIEW	04/04/23



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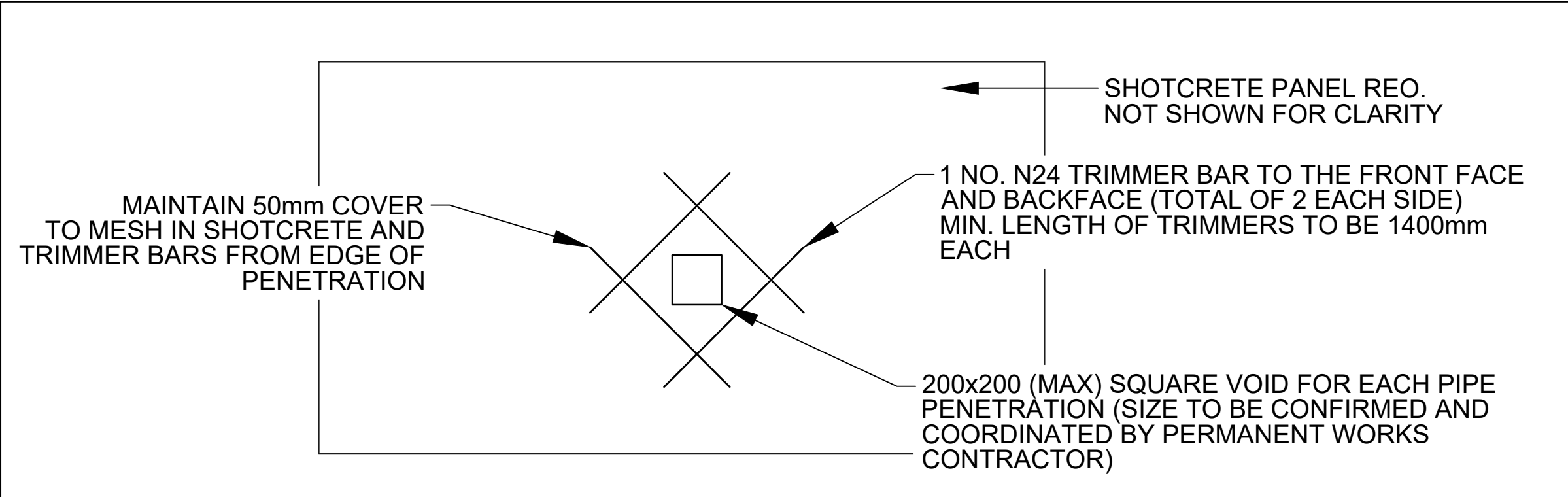
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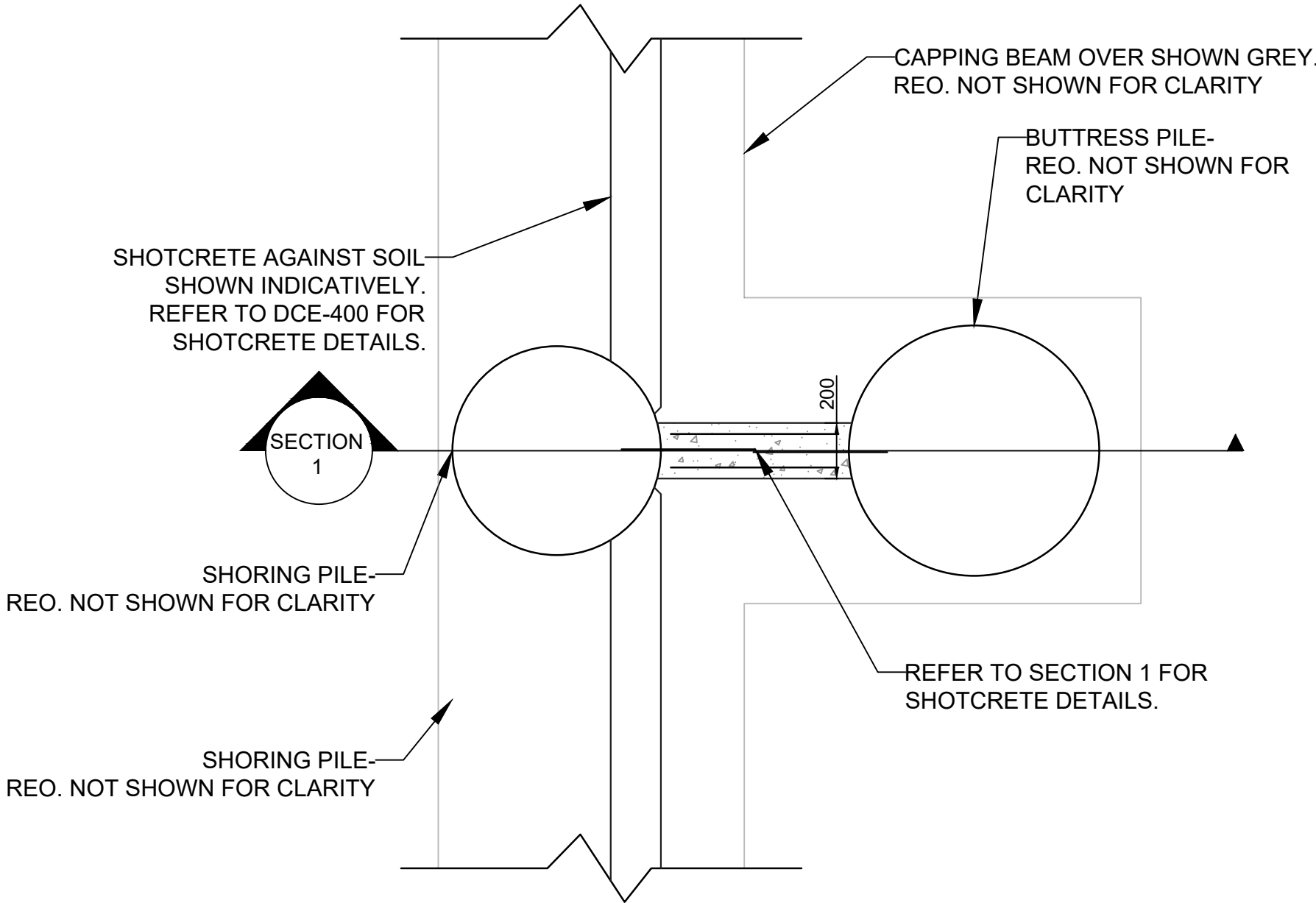
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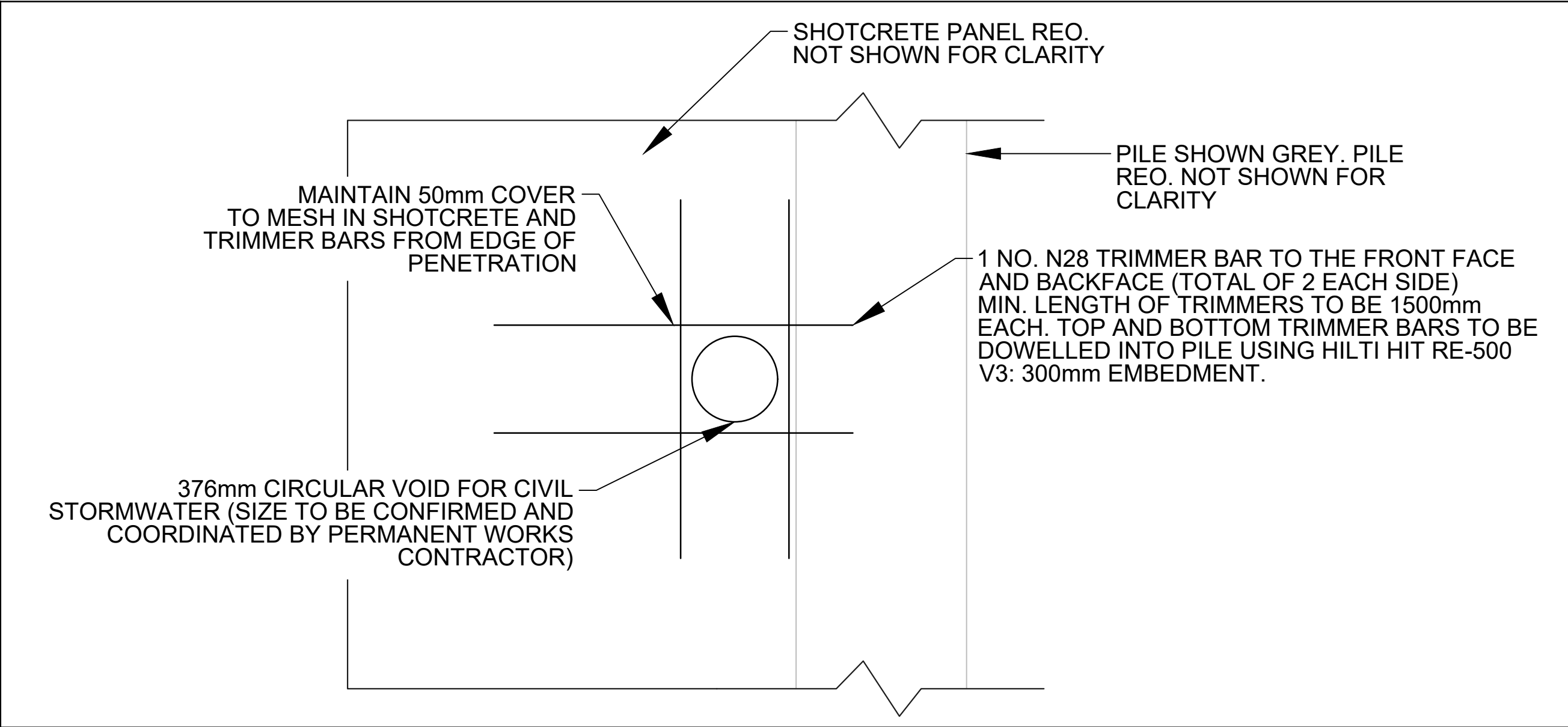
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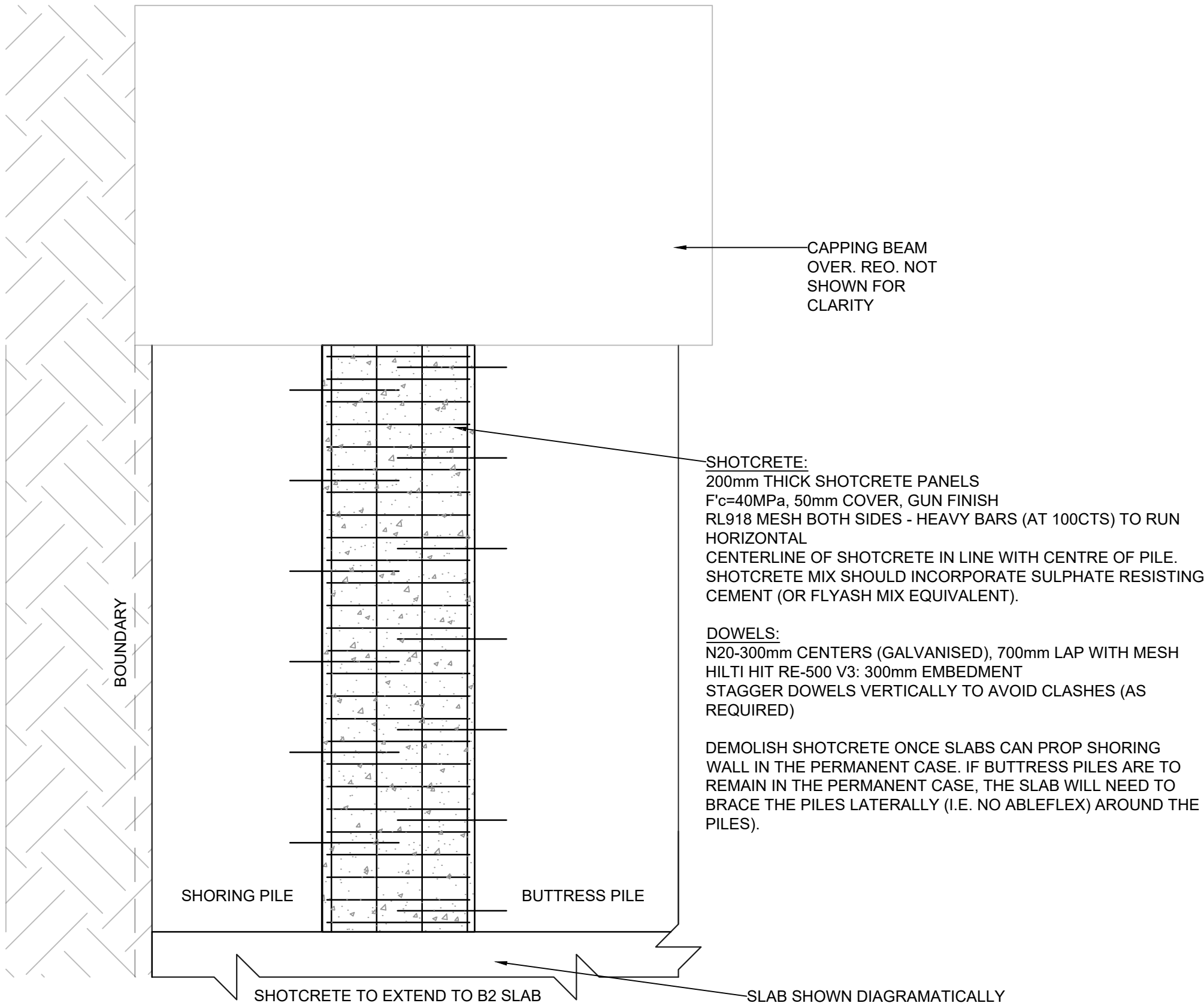
TYPICAL SHOTCRETE PENETRATION DETAIL
ELEVATION VIEW



SHOTCRETE DETAIL BETWEEN SHORING
PILE AND BUTTRESS PILE
PLAN VIEW



SHOTCRETE PENETRATION DETAILS
ELEVATION VIEW



SHOTCRETE DETAIL BETWEEN SHORING
PILE AND BUTTRESS PILE
SECTION 1

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