

GENERAL NOTES

- ## FOUNDATION & SITE PREPARATION

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- Diagram illustrating a new footing construction. A vertical wall is shown on the left, with a horizontal section labeled "BLINDING" at its base. To the right of the wall is a new footing, labeled "NEW FOOTING". The footing is shown in cross-section, with a 30° angle indicated between the vertical wall and the sloped side of the footing.

12. THE DRAINAGE SYSTEM FOR THE SITE SHALL BE COMPLETED BY THE FINISH OF CONSTRUCTION OF THE BUILDING. WATER RUN OFF DURING CONSTRUCTION SHALL BE COLLECTED AND CHanneLED AWAY FROM THE BUILDING SITE. WATER SHALL NOT BE ALLOWED TO POND IN TRENCHES.
13. EXCAVATIONS NEAR THE EDGE OF THE FOOTING SYSTEM SHALL BE BACKFILLED IN SUCH A WAY AS TO PREVENT ACCESS OF WATER TO THE FOUNDATION. TRENCHES SHALL BE SLOPED AWAY FROM THE BUILDING AND SHALL BE PLUGGED BY BACKFILLING WITH COMPACTED CLAY IN THE TOP 300mm WITHIN 150mm OF THE BUILDING.
14. WHERE PIPES PASS UNDER THE FOOTING SYSTEM, THE TRENCH SHALL BE BACKFILLED FULL DEPTH WITH CLAY OR CONCRETE.
15. CONCRETE IN BEAMS SHALL BE VIBRATED AND REINFORCEMENT SHALL BE FIXED IN POSITION BY BAR CHAIRS AND / OR LIGATURES.
16. THE SITE SHALL BE MAINTAINED AT ESSENTIALLY STABLE MOISTURE CONDITIONS AND EXTREMES OF WETTING AND DRYING PREVENTED.

REINFORCEMENT

- REINFORCEMENT SYMBOLS
- R - GRADE 230R PLAIN ROUND BARS TO AS/NZS 4671
N - GRADE 500 DEFORMED BARS TO AS/NZS 4671
L - GRADE 500 HARD DRAWN WELDED WIRE FABRIC TO AS/NZS 4671
W - HARD DRAWN PLAIN WIRE TO AS/NZS 4671
2. REINFORCEMENT IS SHOWN DIAGMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
3. REINFORCEMENT SHALL BE SUPPLIED AND BENT IN ACCORDANCE WITH AS 3600. REBENDING OF REINFORCEMENT WITH OR WITHOUT HEATING IS NOT PERMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
4. SPLICES TO REINFORCEMENT SHALL ONLY BE MADE IN POSITIONS SHOWN OR AS APPROVED OTHERWISE BY THE STRUCTURAL ENGINEER.
5. REINFORCEMENT SPLICES SHALL BE FULL STRENGTH TENSION SPLICES WITH LAPS AS FOLLOWS UNLESS NOTED OTHERWISE:
- | | f'c | N12 | N16 | N20 | N24 |
|--|-------|-----|-----|------|------|
| ALL HORIZONTAL AND VERTICAL BARS UNO. | 25MPa | 480 | 750 | 1030 | 1340 |
| | 32MPa | 390 | 590 | 840 | 1100 |
| | 40MPa | 350 | 530 | 750 | 990 |
| | 50MPa | 350 | 460 | 610 | 820 |
| | 25MPa | 630 | 970 | 1340 | 1740 |
| HORIZONTAL BARS WITH >300 CONCRETE BELOW BAR | 32MPa | 500 | 770 | 1090 | 1440 |
| | 40MPa | 450 | 650 | 930 | 1240 |
| | 50MPa | 450 | 600 | 800 | 1070 |
6. USE MECHANICAL SPLICES ONLY WHERE SPECIFIED OR APPROVED BY THE STRUCTURAL ENGINEER.
7. DO NOT WELD REINFORCEMENT WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
8. REINFORCING BARS SHALL NOT BE CUT TO CLEAR PENETRATIONS NOT DETAILED ON THE DRAWINGS BUT BE DISPLACED TO CLEAR THEM. ADDITIONAL REINFORCING CONSISTENT WITH THE REINFORCEMENT MAT SPACING IS TO BE PROVIDED IN LINE WITH THE BLOCKOUTS.
9. SUPPORT ALL REINFORCEMENT SECURELY IN ITS CORRECT POSITION DURING CONCRETING BY SECURELY TYING WITH 1.25mm WIRE TO APPROVED PLASTIC TIPPED BAR CHAIRS, SPACERS OR SUPPORT BARS. SUPPORT SPACINGS SHALL BE SUCH AS TO POSITION AND MAINTAIN THE REINFORCEMENT TO THE TOLERANCES OF AS 3600 AND SHALL BE AT 800mm MAXIMUM CENTRES IN SLABS. PLASTIC TIPPED STEEL BAR CHAIRS SHALL NOT BE USED FOR EXTERNAL WORK.
10. ALL REINFORCEMENT SHALL BE SOURCED FROM MILLS WITH A RELEVANT JAS ANZ ACCREDITED THIRD-PARTY CERTIFICATION SCHEME SUCH AS THE ACSRS SCHEME.
11. REINFORCEMENT CUT-OFF LOCATIONS IN BEAMS AND SLABS SHALL COMPLY WITH THE DEEMED TO SATISFY PROVISIONS OF AS 3600 UNLESS DIMENSIONED OTHERWISE.

CONCRETE

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH AS 3600 EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
2. CONCRETE ELEMENT SIZES ARE MINIMUM VALUES AND DO NOT INCLUDE APPLIED FINISHES.
3. BEAM DEPTHS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS IF ANY. CAST BEAMS AND SLABS TOGETHER UNLESS APPROVED OTHERWISE.
4. CONCRETE GRADES AND COVER TO REINFORCEMENT SHALL BE AS FOLLOWS UNLESS SPECIFIED OTHERWISE:

ELEMENT	EXPOSURE	COVER	GRADE	
FOOTINGS	- AGAINST GROUND	A2	50	N25
	- FORMED/FINISHED	A2	30	N25
	- GROUND BEAM	A2	50	N32
SLAB ON GROUND	-AGAINST GROUND	A2	45	S32
	- FORMED/FINISHED	B1	40	S32
5. S32 CONCRETE SHALL HAVE A MINIMUM 28 DAY CHARACTERISTIC STRENGTH OF 32 MPa AND SHALL COMPLY WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
5. ALL STRUCTURE CAST AGAINST GROUND SHALL BE LAID ON AN APPROVED VAPOUR BARRIER EXCEPT FOR FOOTINGS.
6. PROPERLY FORM ALL CONSTRUCTION JOINTS AND LOCATE THEM ONLY WHERE SHOWN OR SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER.
7. EMBEDDED FLEXIBLE CONDUITS SHALL HAVE OUTSIDE DIAMETERS NOT GREATER THAN ONE-THIRD OF THE DEPTH OF THE EMBEDDING CONCRETE ELEMENT. LOCATE THEM BETWEEN OPPOSING FACE REINFORCEMENT LAYERS WITH A MINIMUM COVER OF 50mm AND SPACED AT CENTRES NOT LESS THAN THREE TIMES THE LARGER CONDUIT DIAMETER AND AT LEAST 50mm CLEAR FROM PARALLEL REINFORCEMENT.
8. NO OTHER HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
9. ALL CONCRETE SUPPLIED SHALL HAVE A SLUMP OF 80+/-15mm AND A MAXIMUM NOMINAL AGGREGATE SIZE OF 20mm UNLESS SPECIFIED OTHERWISE.
10. NO ADMIXTURES SHALL BE USED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER EXCEPT IN STANDARD CONTROLLED GRADE CONCRETE. CALCIUM CHLORIDE ADMIXTURES WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
11. CONCRETE SAMPLING AND TESTING SHALL BE BY PROJECT ASSESSMENT TO AS 3600 AND AS 1379 UNLESS SPECIFIED OTHERWISE.
12. COMPACT ALL CONCRETE DURING PLACEMENT USING MECHANICAL VIBRATORS.
13. CURE ALL CONCRETE SURFACES EXPOSED WITHIN 7 DAYS OF INITIAL SET USING A METHOD APPROVED BY AS 3799 OR THE STRUCTURAL ENGINEER. COMMENCE CURING WITHIN 1 HOUR OF INITIAL SET OR FIRST EXPOSURE AND CONTINUE FOR AT LEAST 7 DAYS AFTER POURING CONCRETE.

DESIGN DATA

- | | |
|--|---|
| THE STRUCTURAL COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING LOADING REQUIREMENTS: | |
| IMPORTANCE LEVEL (REFER NCC) | 2 |
| <u>WIND LOADS:</u> | |
| ANNUAL PROBABILITY OF EXCEEDANCE | 1/500 |
| REGION | C |
| V_{01} - REGIONAL GUST WIND SPEED | 69.3 m/s |
| M_z - WIND DIRECTION MULTIPLIER | 1 |
| TERRAIN CATEGORY | 2 |
| $M_{z,cat}$ - HEIGHT MULTIPLIER | 0.91 |
| M_s - SHIELDING MULTIPLIER | 1.0 |
| M_t - TOPOGRAPHIC MULTIPLIER | 1.0 |
| $V_{des,0}$ - DESIGN WIND SPEED LIMIT STATE | 63.1 m/s |
| NET PRESSURE CO-EFFICIENT | -1.0 |
| <u>EARTHQUAKE LOADS:</u> | |
| ANNUAL PROBABILITY OF EXCEEDANCE | 1/500 |
| Z - HAZARD FACTOR | 0.08 |
| SUB-SOIL CLASS | Ce |
| K_p - PROBABILITY FACTOR | 1.00 |
| EARTHQUAKE DESIGN CATEGORY | I |
| <u>NOTE:</u> | |
| ALL STRUCTURAL AND NON-STRUCTURAL ITEMS SHALL BE DESIGNED TO SUIT THE ABOVE EARTHQUAKE DESIGN CATEGORY. | |
| <u>LIVE LOADS:</u> | |
| ROOF | 0.25 kPa |
| GROUND SLABS | 5kPa OR PRIVATE VEHICLES (NOT SUITABLE FOR COMMERCIAL VEHICLES) |

SAFETY IN DESIGN INFORMATION
THERE MAY BE ADDITIONAL
HAZARDS/RISKS NOT NORMALLY
ASSOCIATED WITH THE TYPES OF WORK
SHOWN ON THIS DRAWING. REFER TO
THE SAFETY IN DESIGN REPORT.

B	CONSTRUCTION ISSUE	DEJ	21/02/23
A	PRELIMINARY ISSUE	BS	09/12/22
EV	DESCRIPTION	APP'D	DATE

CONSTRUCTION



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DRAWING
COVER SHEET AND
CONSTRUCTION NOTES

JOB NUMBER	SHEET No.	REVISION
JCUA041	S0.01	B

DRAWING REGISTER	
DRG No.	DESCRIPTION
S0.01	COVER SHEET AND CONSTRUCTION NOTES
S0.02	SAFETY AND DESIGN NOTES
S1.01	FOOTINGS PLAN
S1.02	DETAILS