

FENCING NOTES

- 1800mm HIGH FENCE FIXED TO POSTS AND PIERS TO MANUFACTURER'S SPECIFICATION.
- POST ANCHORAGE DETAIL DESIGNED FOR WIND LOADS BASED ON REGION A, TERRAIN CATEGORY 2 AS PER AS/NZS 1170.2
- FENCING DETAIL HAS BEEN CHECKED FOR LOADING WITH WIND LOADS COMBINED WITH:
 - 5kPa SURCHARGE
 - 15kPa SURCHARGE WITH SINGLE STOREY HOUSE 1000mm FROM FACE OF LIMESTONE WALL.
 - 3kPa SURCHARGE WITH DOUBLE STOREY HOUSE 1500mm FROM FACE OF LIMESTONE WALL.

BACKFILL COMPACTION TABLE *

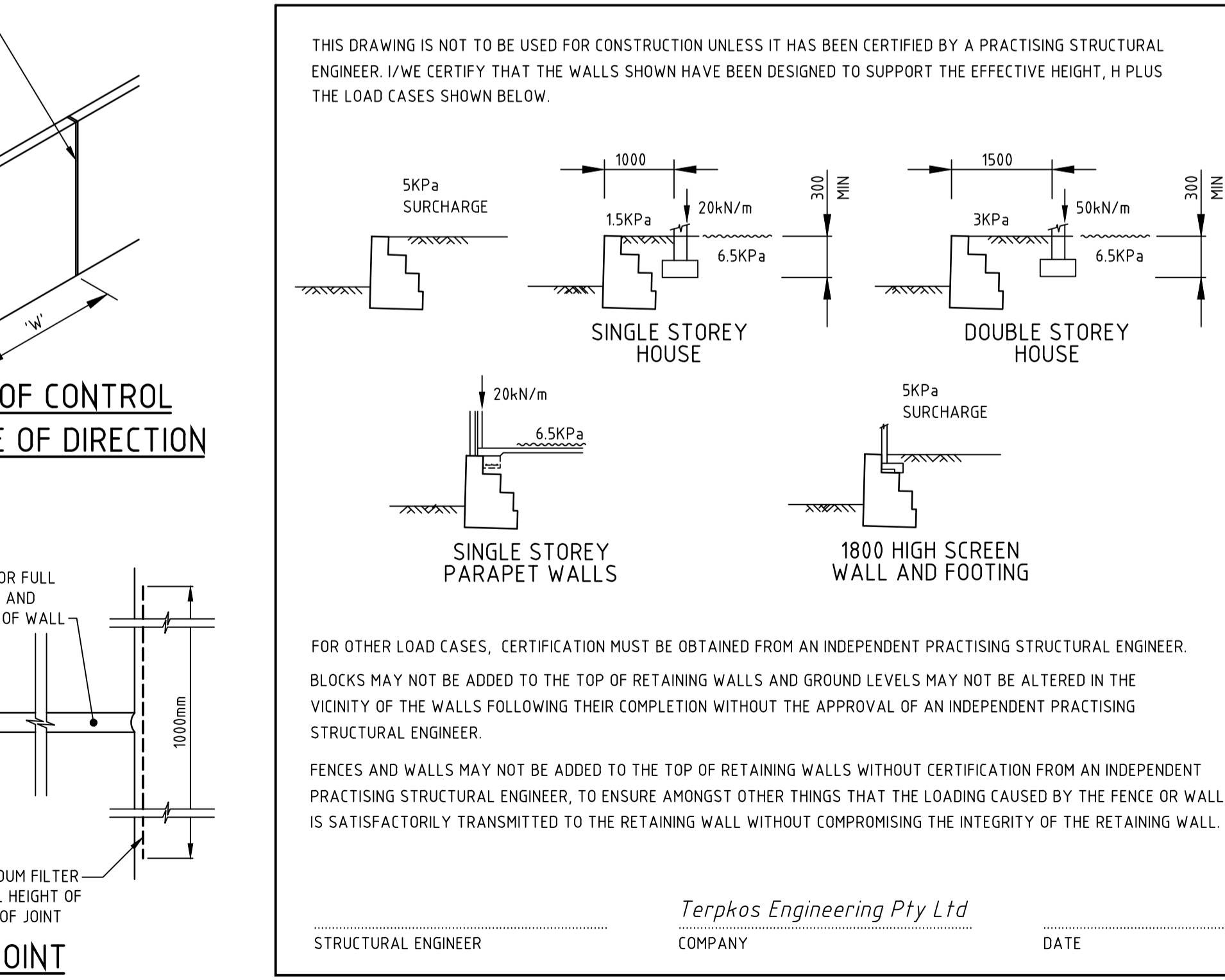
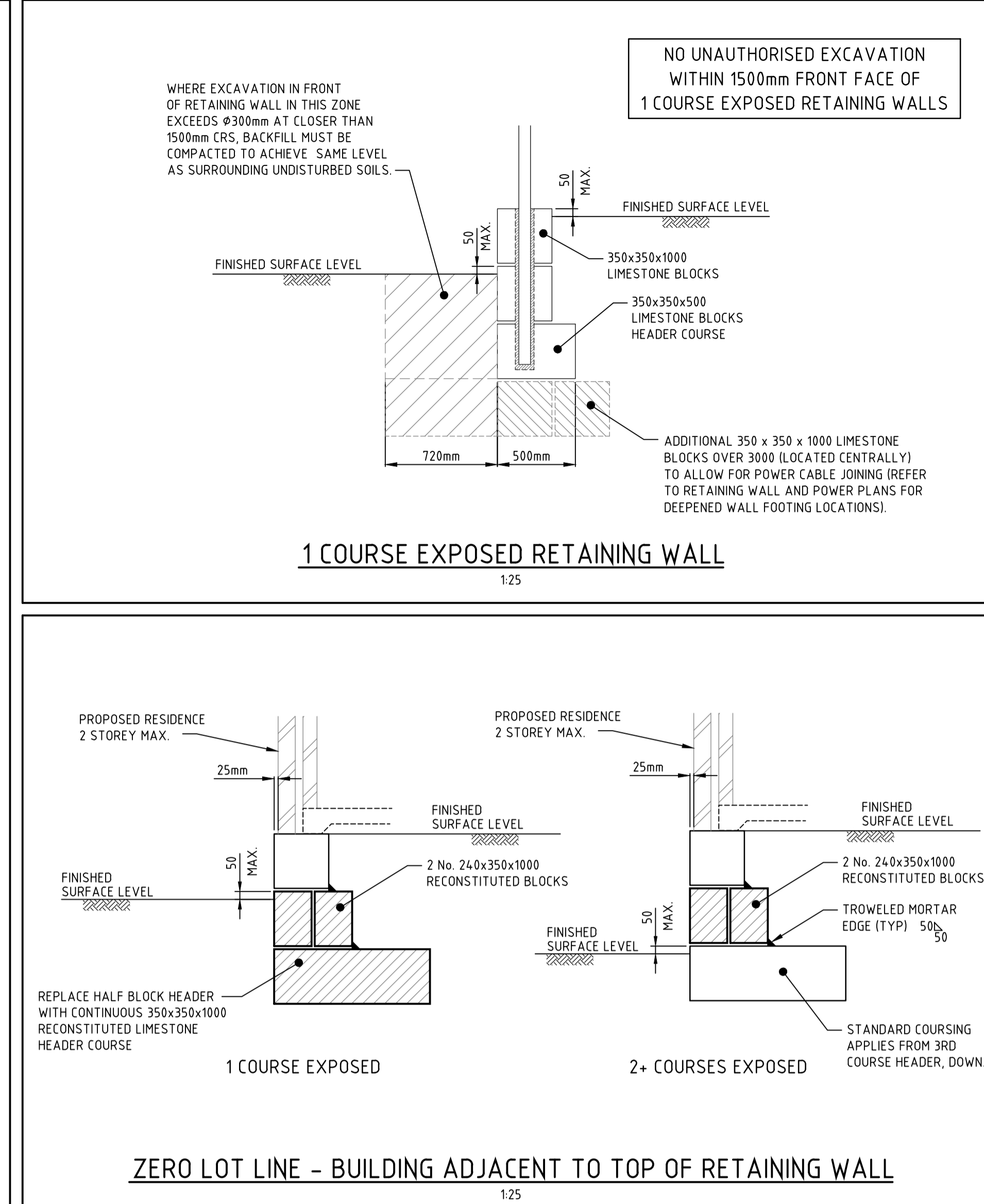
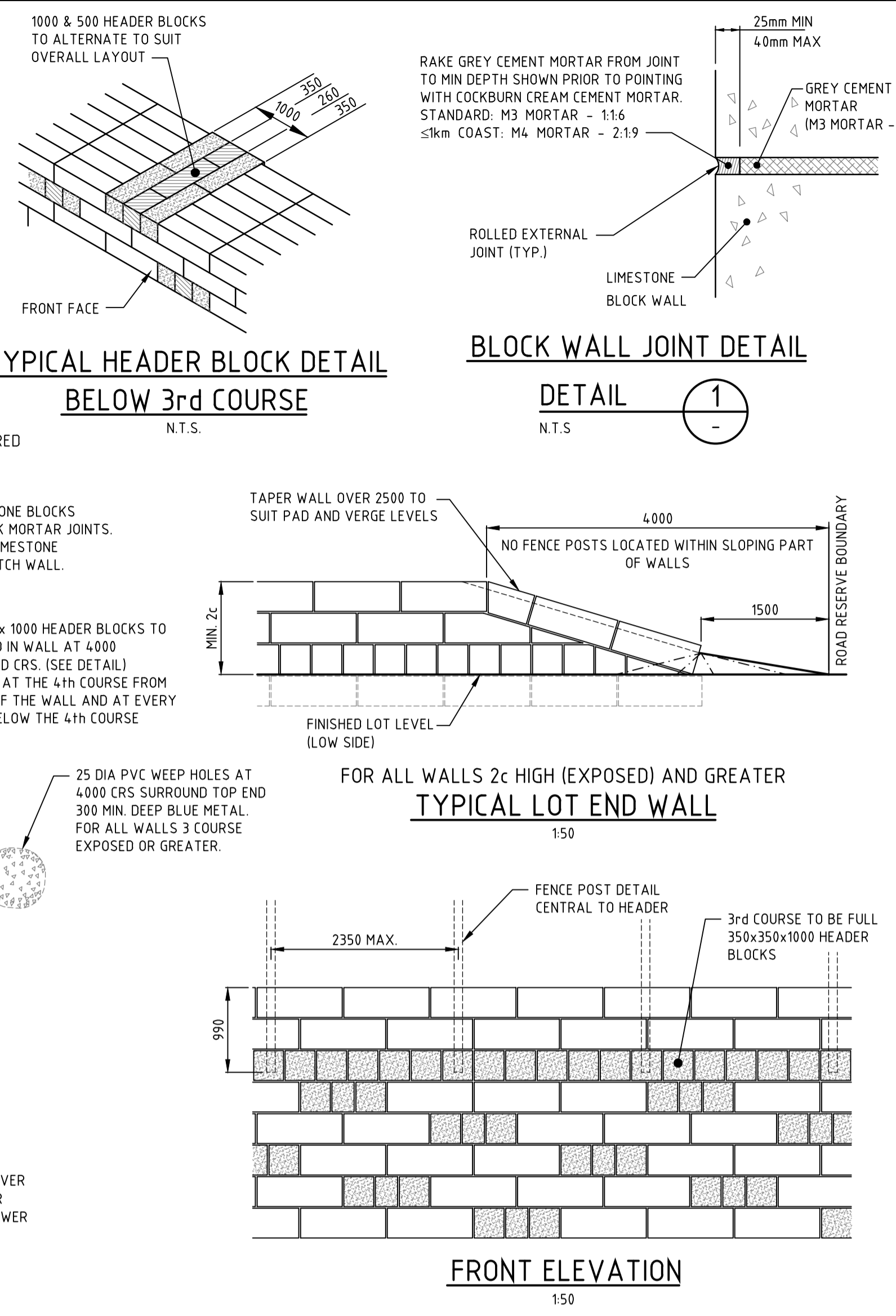
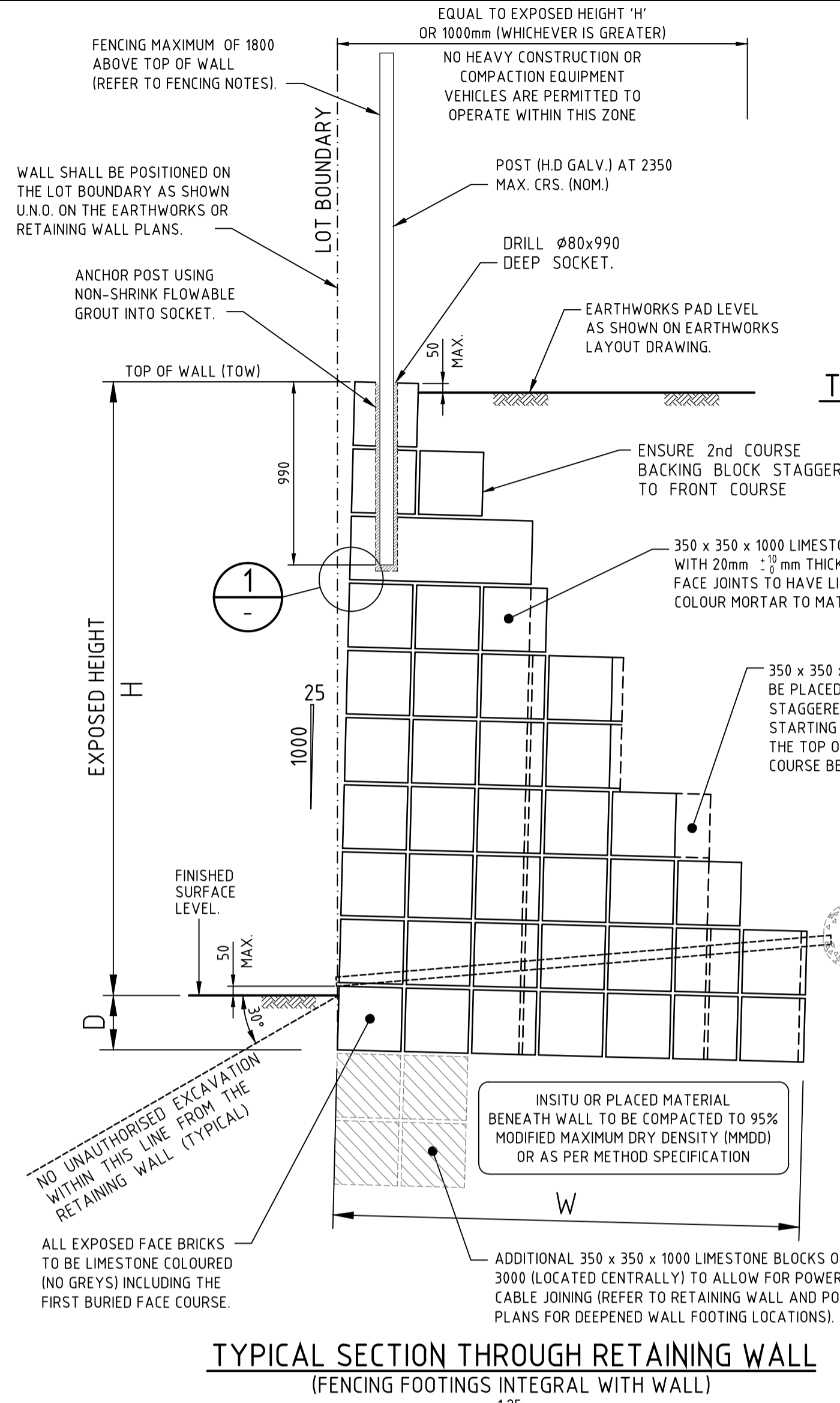
| PENETROMETER DEPTH (mm) | MINIMUM ACCEPTABLE No OF BLOWS PER 300mm |
|-------------------------|--|
| 150 to 450 | 8 |
| 450 to 750 | 10 |
| 750 to 1050 | 11 |
| 1050 to 1350 | 12 |
| 1350 to 1650 | 13 |
| 1650 to 1950 | 13 |
| 1950 to 2250 | 14 |
| 2250 to 2550 | 14 |
| 2550 to 2850 | 15 |

* AN ALTERNATIVE SITE SPECIFIC BACKFILL COMPACTION TABLE MAY BE ACCEPTABLE TO THE SUPERINTENDENT IF IT CAN BE DEMONSTRATED THAT COMPACTION EQUIVALENT TO 95% MODIFIED MAXIMUM DRY DENSITY IS ACHIEVED.

RETAINING WALL DIMENSIONS

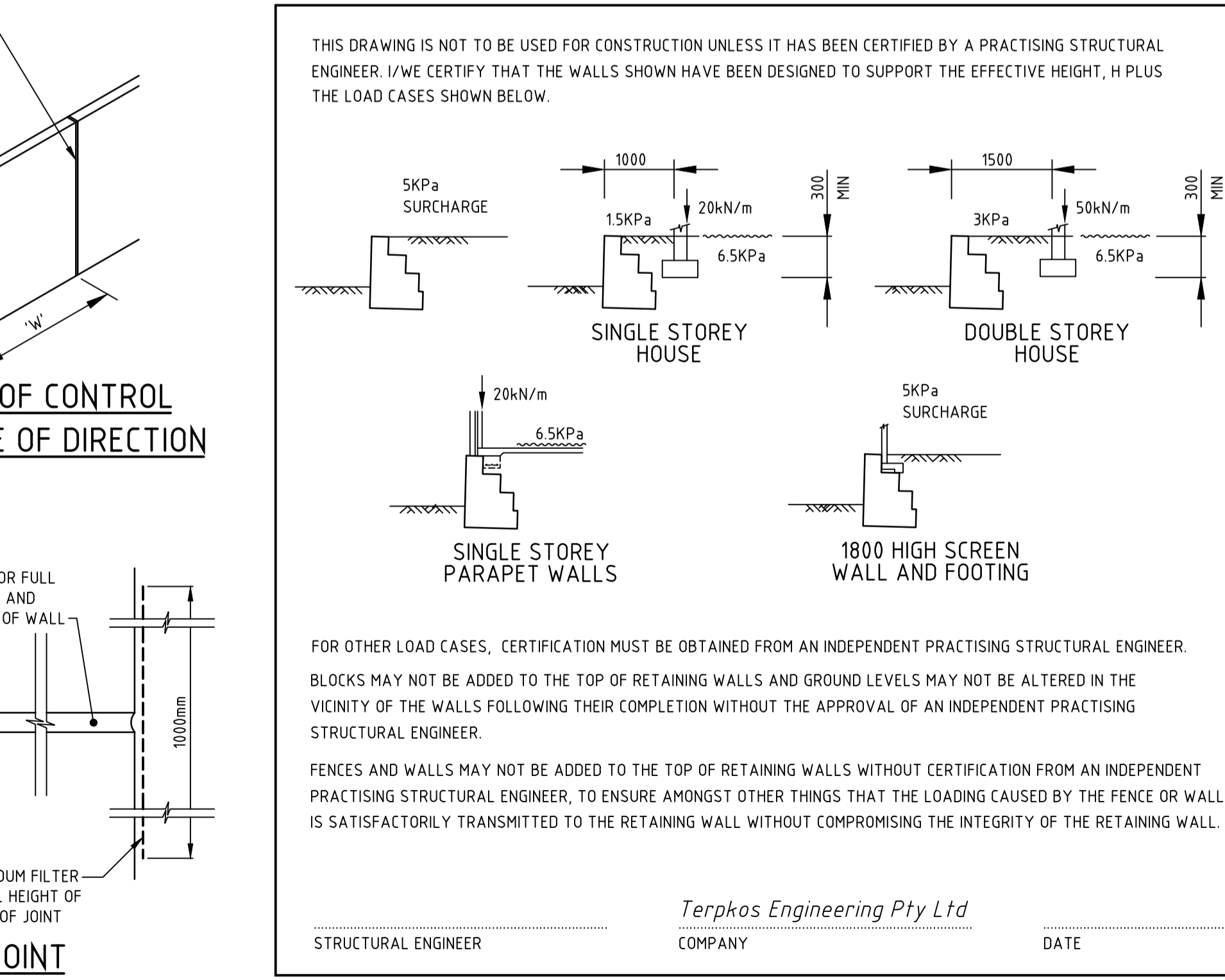
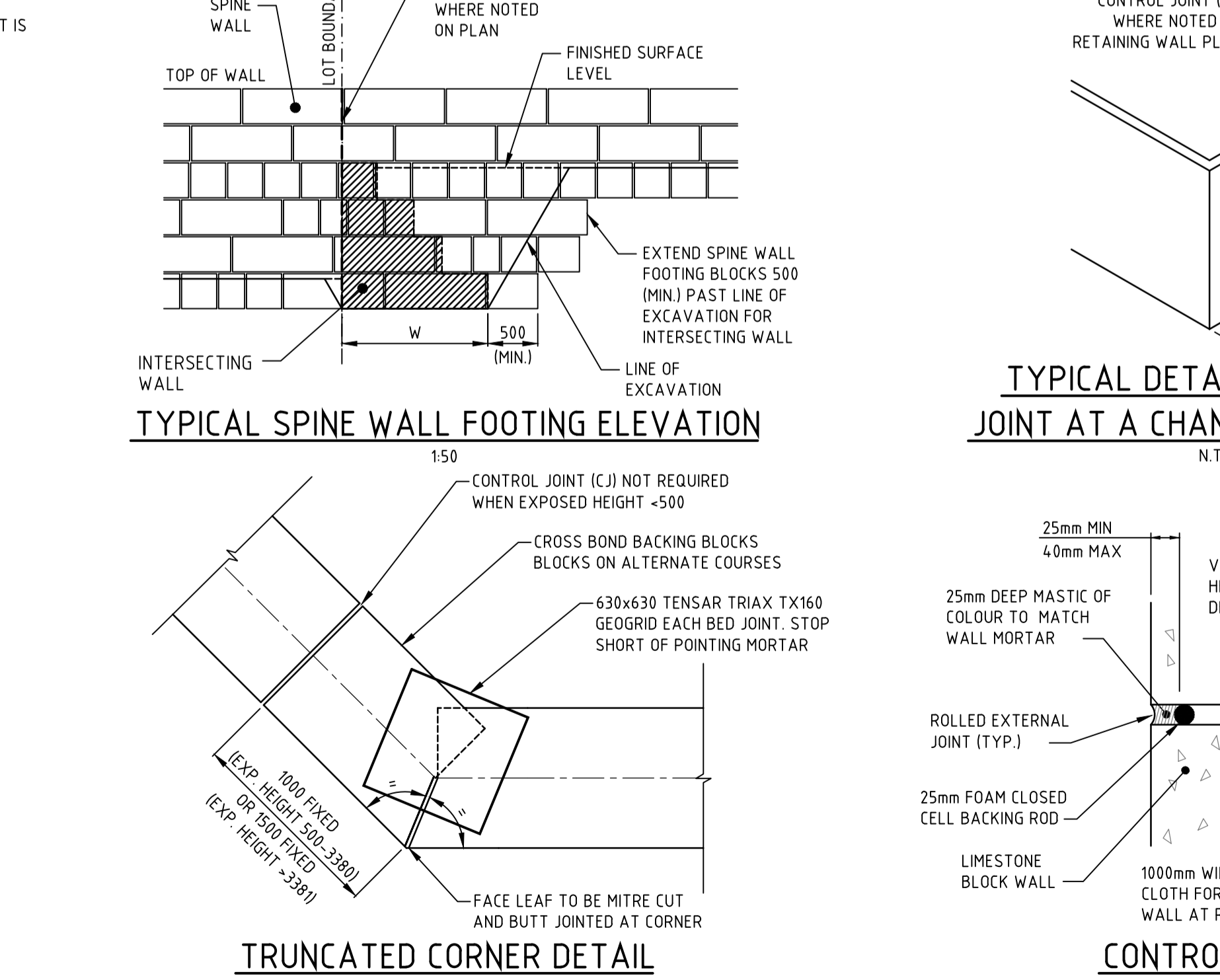
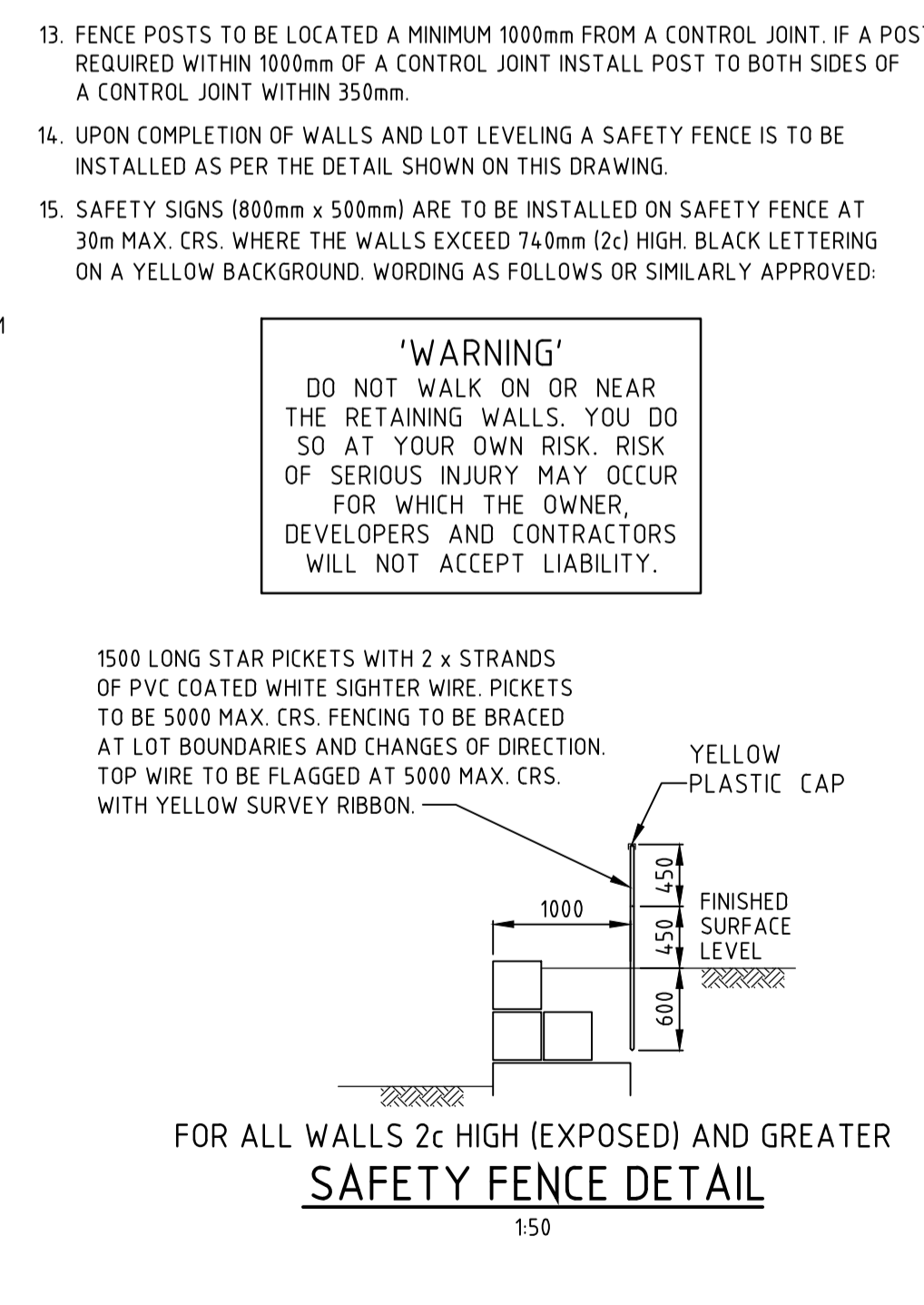
| TOTAL No. COURSES | H (EXPOSED) | D (MIN) | W (MIN) |
|-------------------|-------------|---------|---------|
| 3* | 0 - 420 | 670 | 500 |
| 3* | 421 - 790 | 300 | 1000 |
| 4 | 791 - 1160 | 300 | 1000 |
| 5 | 1161 - 1530 | 300 | 1460 |
| 6 | 1531 - 1900 | 300 | 1460 |
| 7 | 1901 - 2270 | 300 | 1830 |
| 8 | 2271 - 2640 | 300 | 2200 |
| 9 | 2641 - 3010 | 300 | 2570 |
| 10 | 3011 - 3380 | 300 | 2570 |
| 11 | 3381 - 3750 | 300 | 2940 |
| 12 | 3751 - 4120 | 300 | 2940 |

* 1 COURSE (1c) EXPOSED HEIGHT RETAINING WALL
 * 2 COURSE (2c) EXPOSED HEIGHT RETAINING WALL



GENERAL NOTES

- LIMESTONE (CREAM COLOURED) BLOCKS ARE TO BE USED. NO 'GREY' COLOURED BLOCKS ARE TO BE USED, UNLESS APPROVED BY THE SUPERINTENDENT.
- RECONSTITUTED LIMESTONE TO HAVE DRY DENSITY OF AT LEAST 1800 kg/m³ AND AN UNCONFINED CHARACTERISTIC COMPRESSIVE STRENGTH OF AT LEAST 5MPa.
- RUBBLE SHALL NOT BE USED TO FILL VOIDS.
- MORTAR TO BE 1:1:6 (CEMENT : LIME PUTTY : SAND). POINTING MORTAR WITHIN 1km OF COAST MUST BE 2:1:9 (CEMENT : LIME PUTTY : SAND).
- ALL BED AND PERPEND JOINTS TO BE FULLY MORTARED. POINTING UP OF ALL WALL FACES, INCLUDING THE REAR SIDE OF THE TOP COURSE IS TO BE COMPLETED TO A MINIMUM OF 150mm BELOW FINISHED SURFACE LEVELS.
- ALL BACK FILLING SHALL BE CARRIED OUT USING MATERIAL WHICH SHALL GENERALLY BE SANDY IN NATURE AND FREE FROM LARGE PIECES OF ROCK TO THE EXTENT THAT THE MATERIAL CAN BE COMPACTED USING A VIBRATING PLATE COMPACTOR TO MEET THE REQUIREMENTS OF THE SPECIFICATION.
- IN ALL CASES THE BACKFILL MATERIAL SHALL BE SELECTED SUCH THAT, ONCE COMPACTED, THE STANDARD OF COMPACTION CAN BE MEASURED USING A STANDARD PERTH PENETROMETER.
- FOR ALL RETAINING WALLS CONSTRUCTED UNDER THE CONTRACT THE STANDARD OF COMPACTION OF THE BACKFILL MATERIAL TO THE FRONT AND BACK OF THE WALL SHALL BE IN ACCORDANCE WITH THE BACKFILL COMPACTION TABLE SHOWN ON THIS DRAWING.
- THE CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION OF PRACTICAL COMPLETION THAT WALL CONSTRUCTION & BACKFILL COMPACTION HAS BEEN CARRIED OUT IN ACCORDANCE WITH THIS DRAWING AND THE SPECIFICATION.
- CONTROL JOINTS (CJ) SHALL BE CONSTRUCTED WITHIN THE RETAINING WALL WHERE NOTED BELOW (REFER TO RETAINING WALL PLAN FOR LOCATIONS).
 - AT ANY CHANGE IN DIRECTION CJ ARE TO BE LOCATED AT A DISTANCE AWAY FROM THE DIRECTION CHANGE EQUAL TO THE BASE WIDTH OF THE WALL 'W'.
 - WHERE THE STRAIGHT LENGTH OF ANY WALL EXCEEDS 50m CJ ARE TO BE SPACED AT NO GREATER THAN 50m. WHERE POSSIBLE THESE SHALL BE PLACED AT LOT BOUNDARIES COINCIDING WITH THE LOWER PROPERTY.
 - AT CORNER TRUNCATIONS CJ ARE TO BE LOCATED IN ACCORDANCE WITH THE TRUNCATED CORNER DETAIL SHOWN (THIS PAGE).
- WALL STABILITY BASED ON TERRAIN CATEGORY 2 REGION A WIND TO AS/NZS 1170.2
- NON-SACRIFICIAL ANTI-GRAFFITI COATING TO BE APPLIED TO WALLS EXPOSED TO ANY ROAD RESERVE, POS, PAW OR SCHOOL SITE.



| No. | DATE | DRAWN | APPROVED | AMENDMENT |
|-----|----------|-------|----------|--|
| 4 | 25.02.11 | NJW | xBBF | D (MIN) CHANGED FROM 350mm TO 300mm. PLAN AMENDED ACCORDINGLY. |
| 3 | 17.01.11 | NJW | xBMS | NOTE 16 ADDED. TYPES 'A' & 'B' LOCATION ADDED ON RETAINING WALL. |
| 2 | 24.11.10 | DSG | xBBF | NOTE ONE ADDED (LIMESTONE BLOCK COLOUR) |
| 1 | 18.11.09 | DSG | xBBF | ZERO LOT LINE DETAIL ADDED |
| 0 | 26.06.09 | DSG | xBMS | ISSUED FOR CONSTRUCTION |

| No. | DATE | DRAWN | APPROVED | AMENDMENT |
|-----|----------|-------|----------|---|
| 7 | 08.05.15 | DWP | xBBF | GENERAL NOTE 5 AMENDED. |
| 6 | 06.06.14 | DWP | xCCB | REVISED IN ACCORDANCE WITH STRUCTURAL ENGINEERS COMMENTS. |
| 5 | 02.12.11 | RDE | xBMS | NOTES ADDED TO 'TYPICAL LOT END WALL' DETAIL. |

CLIENT

DESIGNED

CHECKED

APPROVED

DATE

TABEC Civil Engineering Consultants

TABEC Pty Ltd ACN 090 796 204
 14 Wickham Street, East Perth WA 6004
 Telephone 9425 5900, Fax 9225 4188
 Email info@tabec.com.au

| PROJECT | TITLE | DRAWING NUMBER | ISSUE |
|------------------|--|----------------|-------|
| STANDARD DRAWING | LIMESTONE RETAINING WALL DETAILS IN SAND AREAS | TABEC-STD-W01 | 7 |

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