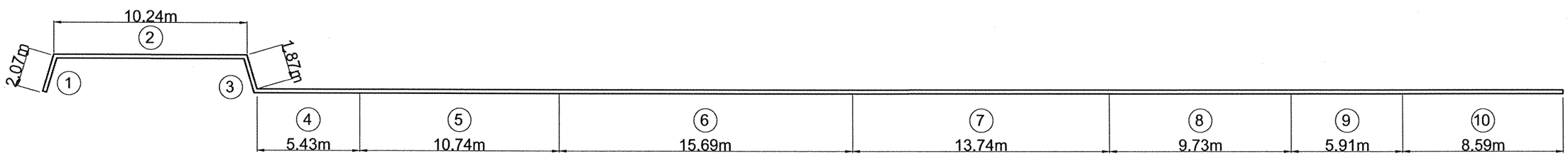

PLAN VIEW OF RETAINING WALL SCALE: NTS

PROJECT NOTES:

-WALL GRANDE BY PERMACON, SUPPLIER TO CONFIRM DESIGN FOR GRAVITY WALL

-SOIL BEARING 3125 lb/sq.ft. (150kpa)

-DESIGNED FOR FACTOR OF SAFETY 1.5 OR MORE

-GEOTECHNICAL ENGINEER ON SITE TO CONFIRM SOIL BEARING

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE UTILITY CLEARANCES AND CONSTRUCTION SITE SAFETY.

2. THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES

PROPERTY	RETAINED FILL	FOUNDATION MEDIUM
FRICTION ANGLE- Ø	38°	32°
UNIT WEIGHT- γ	22 kN/m3	18 kN/m3
COHESION- C	0	8 kPa
SOIL TYPE	OPSS GRANULAR B	BROWN SILTY CLAY

MATERIAL PROPERTIES ARE BASED ON REPORT BY LRJ DATED APRIL 2024. SEISMIC LOADING WAS EVALUATED ACCORDING TO THE CURRENT CANADIAN NATIONAL BUILDING CODE 2015 WITH A PEAK GROUND ACCELERATION VALUE OF 0.28

3. THIS DESIGN IS BASED ON THE CAD GRADING PLAN PROVIDED BY D.B. GRAY ENG. INC DATED JANUARY 9, 2025. THE WALL BASE DESIGN ASSUMES A BEARING RESISTANCE AT SLS OF 120kpa. THE SITE GEOTECHNICAL ENGINEER SHOULD OBSERVE THE BEARING CONDITIONS AND ADJUST THE THICKNESS OF THE GRANULAR BASE OR RECOMMEND CONCRETE BEDDING TO ACCOMODATE THE SITE CONDITIONS, IF NECESSARY

4. RETAINING WALL DESIGN WITH A GLOBAL STABILITY FACTOR GREATER THAN 1.5 UNDER STATIC CONDITIONS AND 1.1 UNDER SEISMIC CONDITIONS. WALL GEOMETRY AND GRADE ELEVATIONS ABOVE AND BELOW THE WALL SHOULD CONFORM WITH THE GRADING PLAN PROVIDED. IF ACTUAL SITE GRADES VARY SIGNIFICANTLY FROM THOSE SHOWN, WORK TO BE REVIEWED BY ENGINEER

5. PRECAST UNITS SHALL BE GRANDE RETAINING WALL UNITS MANUFACTURED UNDER LICENSE FROM PERMACON

6. THE WALL BASE SHALL CONSIST OF A MINIMUM OF 200mm OF OPSS GRANULAR B TYPE II. THE GRANULAR BEDDING LAYER SHOULD EXTEND AT LEAST 200mm BEYOND THE FRONT BLOCK FACE AND A MINIMUM OF 200mm BEYOND THE REAR BLOCK FACE. THE BASE SHALL BE SMOOTHED TO ENSURE COMPLETE CONTACT OF RETAINING WALL UNIT W/ BASE. SURFACE OF GRANULAR BASE MAY BE DRESSED WITH FINER AGGREGATE TO AID LEVELING. ENSURE GRADATION OF DRESSING MATERIAL IS SUCH AS TO PRECLUDE LOSS OF FINES INTO BASE. THE THICKNESS OF DRESSING LAYER SHOULD NOT EXCEED 3 TIMES THE MAXIMUM PARTICLE SIZE USED

7. THE WALL IS DESIGNED W/ A MIN. 200mm TOE EMBEDMENT W/ A GRADNULAR BEDDING LAYER EXTENDING A MINIMUM 200mm BEYOND THE FACE, AND A MINIMUM 200mm BEYOND THE HEEL OF THE BASE BLOCK

8. THE CONDITIONS WILL BE EVALUATED BY THE GEOTECHNICAL ENGINEER DURING PREPARATIONS FOR WALL CONSTRUCTION IN EACH AREA TO CONFIRM THE SUBSURFACE PROFILE INDICATED BY THE GEOTECHNICAL REPORT BY LRJ REPORT APRIL 2024 WITHIN THE FOOTPRINT OF THE PROPOSED WALL. WHERE GRANULAR BEDDING WILL NOT BE SUFFICIENT, THE USE OF CONCRETE BEDDING MAY BE REQUIRED AND WILL BE PROVIDED AS SITE INSTRUCTIONS

9. BACKFILL MATERIAL SHOULD CONSIST OF OPSS GRANULAR B TYPE II B FOLLOWED BY SUITABLE BACKFILL MATERIAL. ALL FILL WITHIN A 1H:1V ZONE UP AND BACK FROM THE HEEL SHOULD ALSO BE COMPACTED. BACKFILL SHALL BE PLACED IN MAXIMUM 300mm LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF SPMDD. MOISTURE CONTENT SHOULD BE CONTROLLED AND MAINTAINED WITHIN -3 TO +4 PERCENT OF OPTIMUM

10. MAINTAIN TEMPORARY GRADES TO DIVERT SURFACE WATER AWAY FROM THE RETAINING WALL EXCAVATION. SLOPE FINAL BACKFILL TO PROVIDE POSITIVE SURFACE DRAINAGE AND TO ELIMINATE PONDING

11. EXCAVATION SIDE SLOPE SHOULD BE PROTECTED TEMPORARILY DURING CONSTRUCTION FROM PRECIPITATION EVENTS BY PLACEMENT OF TARPS

12. ALL RETAINING WALL RELATED INSPECTIONS (BEARING SURFACE, COMPACTION, INSTALLATION, ETC) MUST BE COMPLETED BY CITY OR ENGINEER

13. ANY CUTTING OF BLOCKS TO SUIT SITE CONDITIONS OR WALL DESIGN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR

14. INSTALL 100Ø PERFORATED PIPE SUBDRAIN WRAPPED W/ GEOTEXTILE SOCK BEHIND THE RETAINING WALL. PROVIDE CLEAR STONE SURROUND TO PROTECT PIPE FROM CLOGGING AND PROVIDE OUTLETS THROUGH THE WALL TO DRAINAGE DITCH OR GROUND SURFACE AT MINIMUM INTERVALS OF 5.0m

15. USE MASONRY ADHESIVE RECOMMENDED BY THE SUPPLIER FOR ALL COURSES

16. PRELIMINARY PROFILE PROVIDE. PROFILE IS AT THE DISCRETION OF THE INSTALLER AND SHOULD FOLLOW MANUFACTURER'S RECOMMENDATIONS

17. THE CONTRACTER SHOULD REFER TO THE INSTALLATION MANUAL PROVIDED FOR THE RETAINING WALL BLOCK TYPE PROVIDED HEREIN FOR ADDITIONAL DETAILS ON ACCEPTABLE INSTALLATION PRACTISES

WALL GRANDE BY PERMACON, GRAVITY DESIGN VERTICAL

WALL #	HEIGHT [metric]	HEIGHT [imperial]
1	0.15m to 0.79m	6" to 32"
2	0.79m to 1.08m	32" to 42.5"
3	1.06	42"
4	1.08m to 0.98m	42.5" to 39"
5	0.98m to 0.76m	39" to 32"
6	0.76m to 0.51m	30" to 20"
7	0.51m to 0.73m	20" to 29"
8	0.73m to 0.48m	29" to 19"
9	0.48m to 0.30m	19" to 12"
10	0.30m to 0.15m	12" to 6"

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#	DATE	REVISION
1	02/11/2015	REVISED FOR WALL LENGTH

PROJECT TITLE:
2009-2013
PRINCE OF WALES DR

CLIENT:

WORK ORDER:
166-21

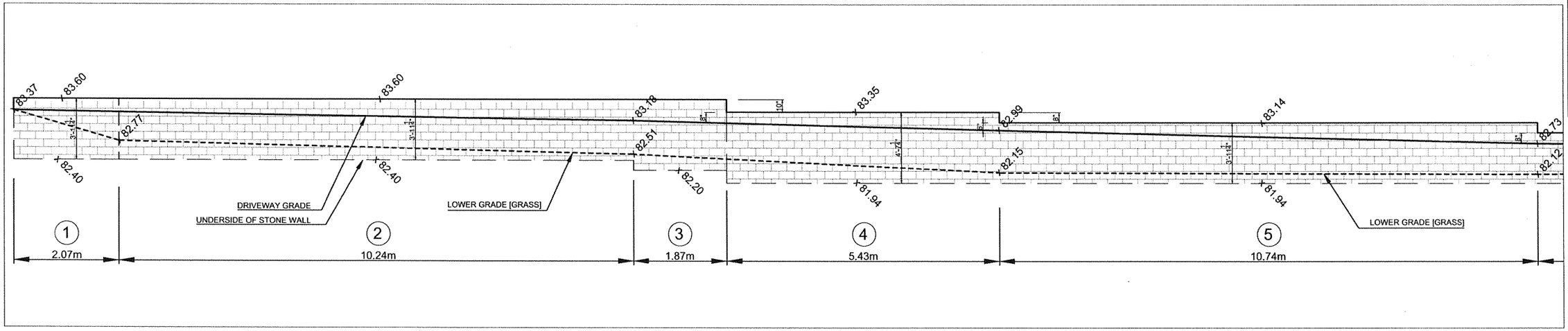
DRAWING TITLE:
RETAINING WALL DETAILS

DRAWN BY:
A. BOUTERAKOS

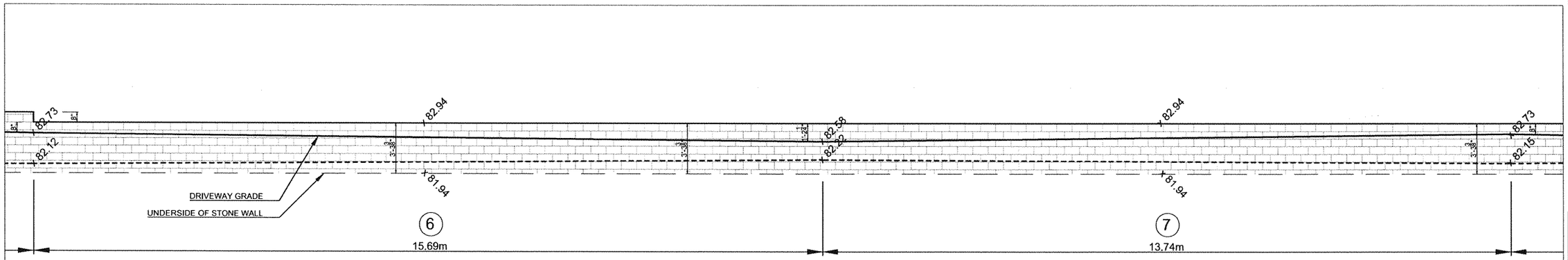
DATE:
02/11/2025

SCALE:
AS INDICATED

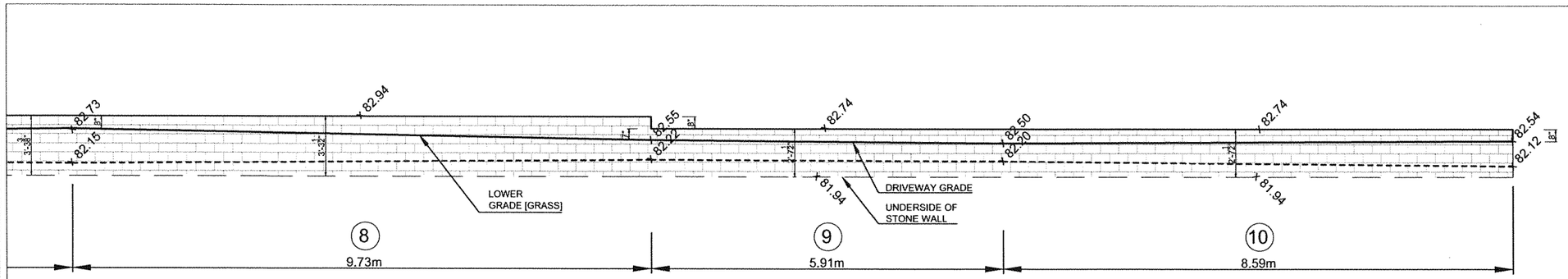
DRAWING NUMBER:
S1 / 5



ELEVATION VIEW OF RETAINING WALL [PART 1] SCALE: NTS



ELEVATION VIEW OF RETAINING WALL [PART 2] SCALE: NTS



ELEVATION VIEW OF RETAINING WALL [PART 3] SCALE: NTS

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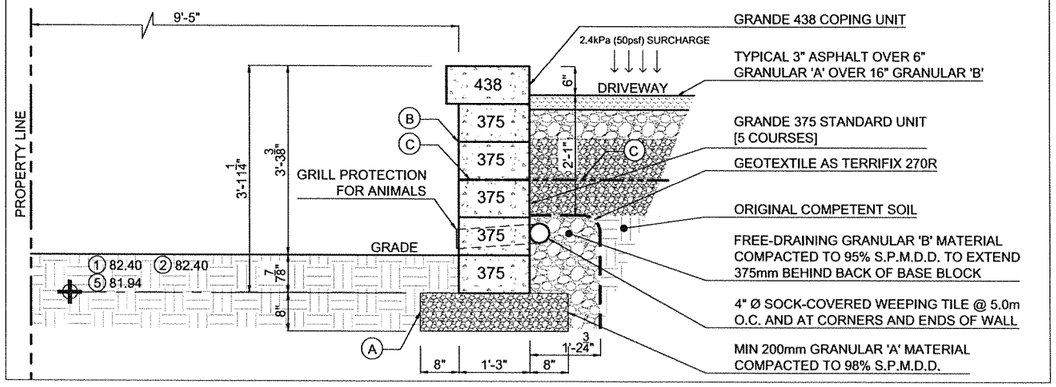
DRAWING NUMBER:
S2 / 5

WALL # (1) (2) (5)



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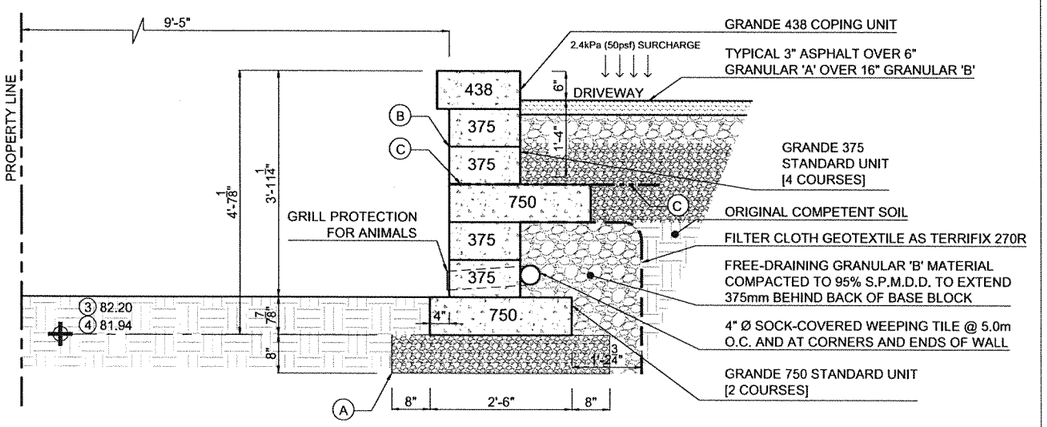


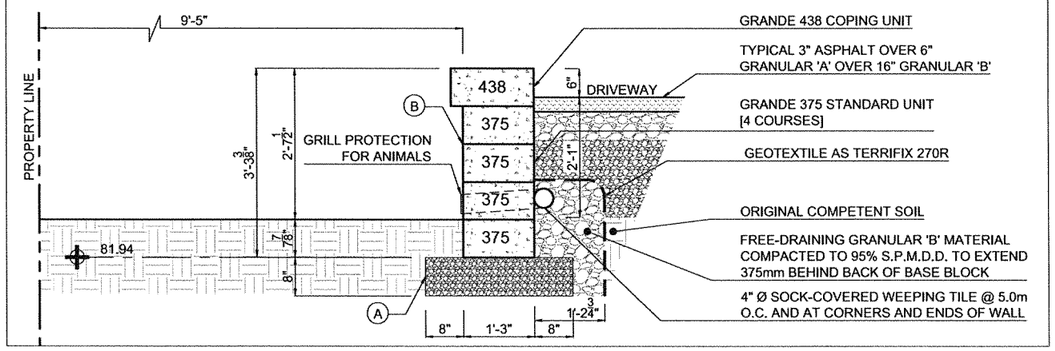
DRAWING NOTES:

(A.) MIN 200mm GRANULAR 'A' MATERIAL COMPACTED TO 98% S.P.M.D.D. TO HAVE MINIMUM CAPACITY 150kpa

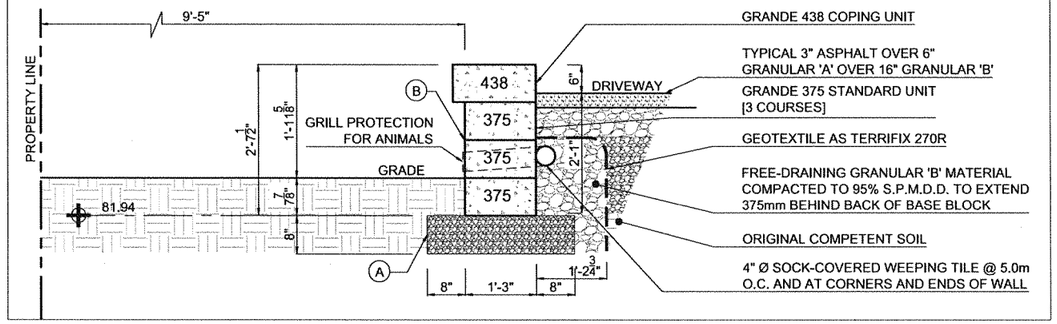
(B.) ALL JOINTS BETWEEN UNITS TO BE ATTACHED W/ MASONRY GLUE OR PL PREMIUM CAULKING

(C.) MIRAFI 3xT GEOGRID, MINIMUM 48" FROM FACE OF WALL

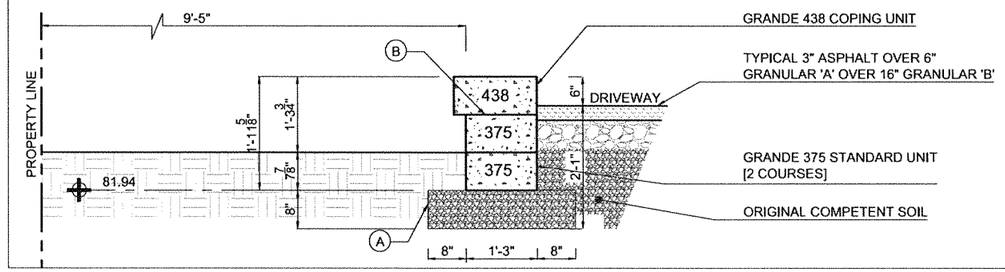
WALL # (6) (7) (8)



WALL # (9) (10)



SHORT WALL [IF APPLICABLE]



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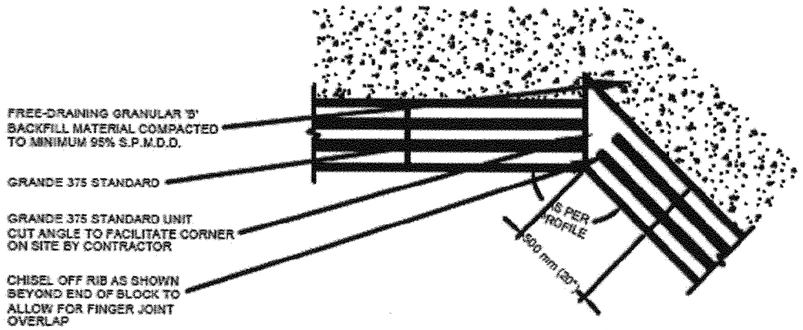
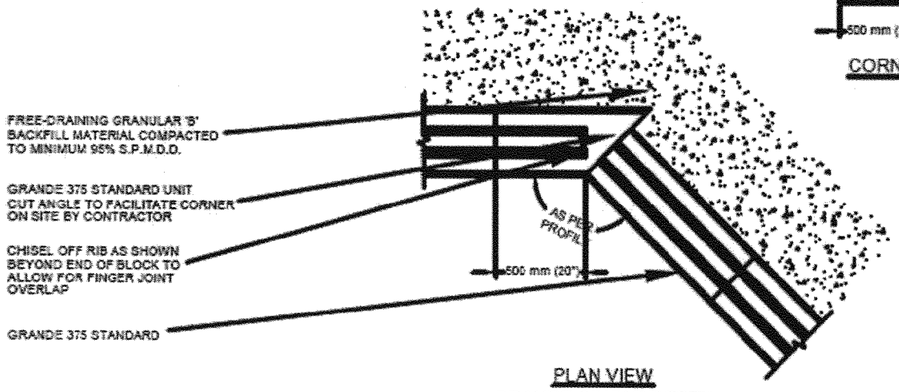
S3 / 5



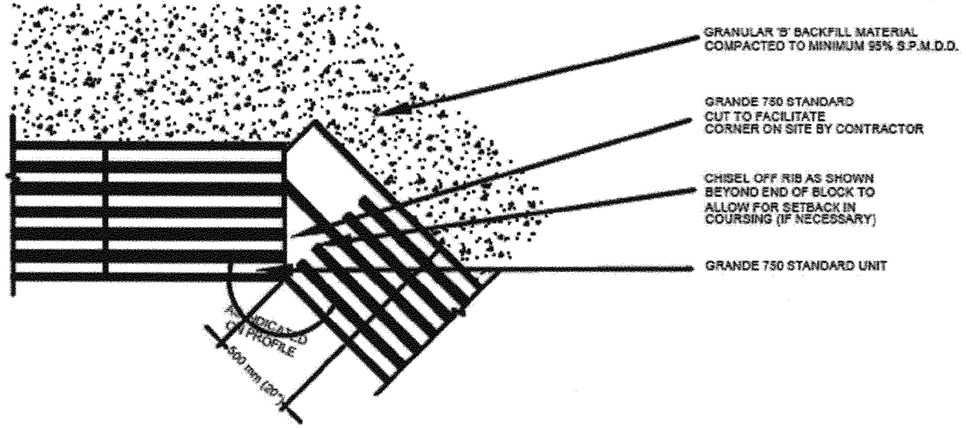
PLAN VIEW
GRANDE SINGLE DEPTH
ODD COURSE

CORNER UNIT DETAILS

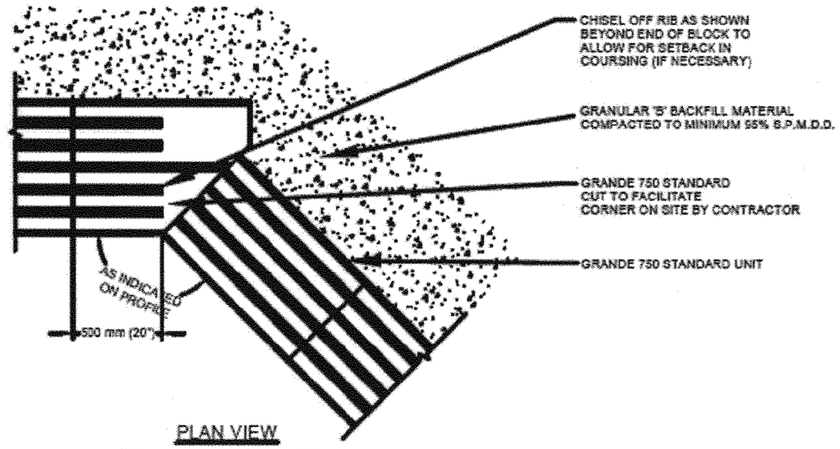


PLAN VIEW
GRANDE SINGLE DEPTH
EVEN COURSE

375 UNITS



PLAN VIEW
GRANDE SINGLE DEPTH
ODD COURSE



PLAN VIEW
GRANDE SINGLE DEPTH
EVEN COURSE

750 UNITS

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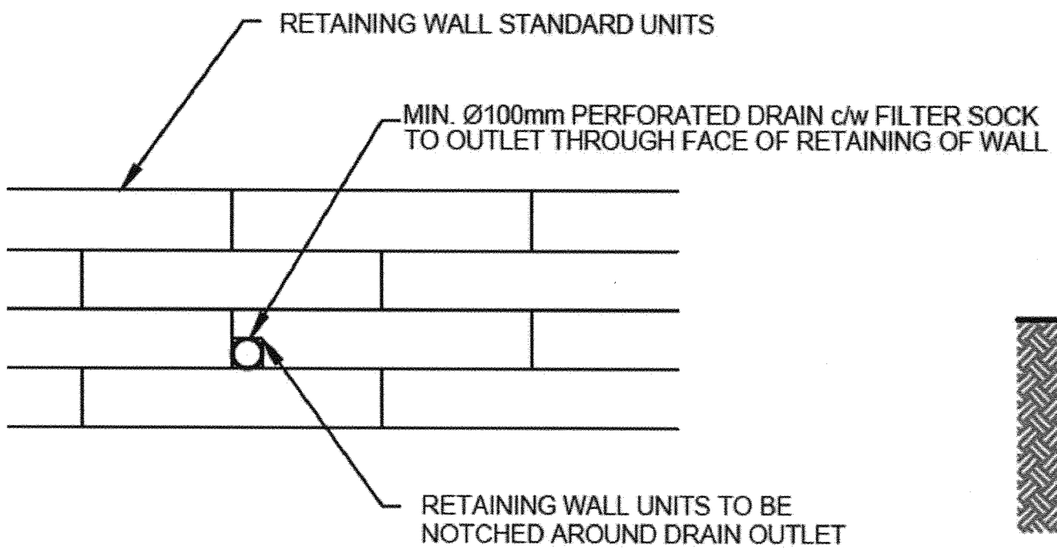

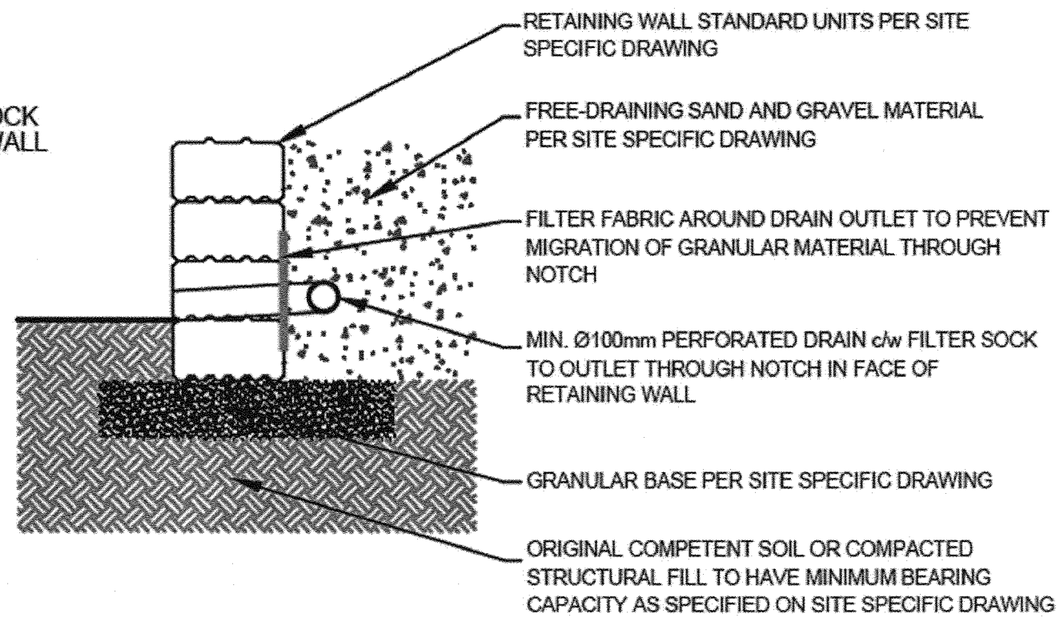

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