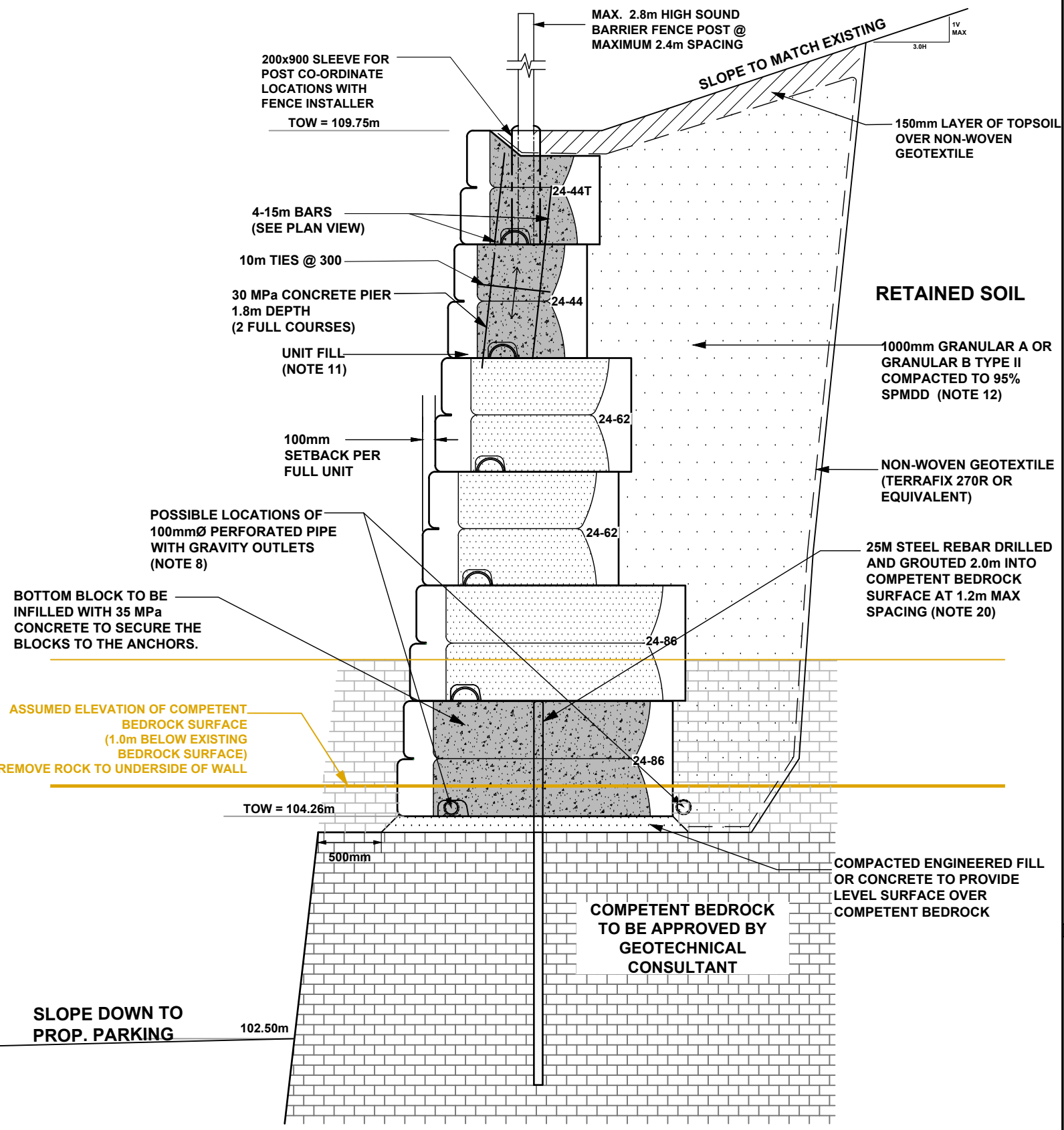


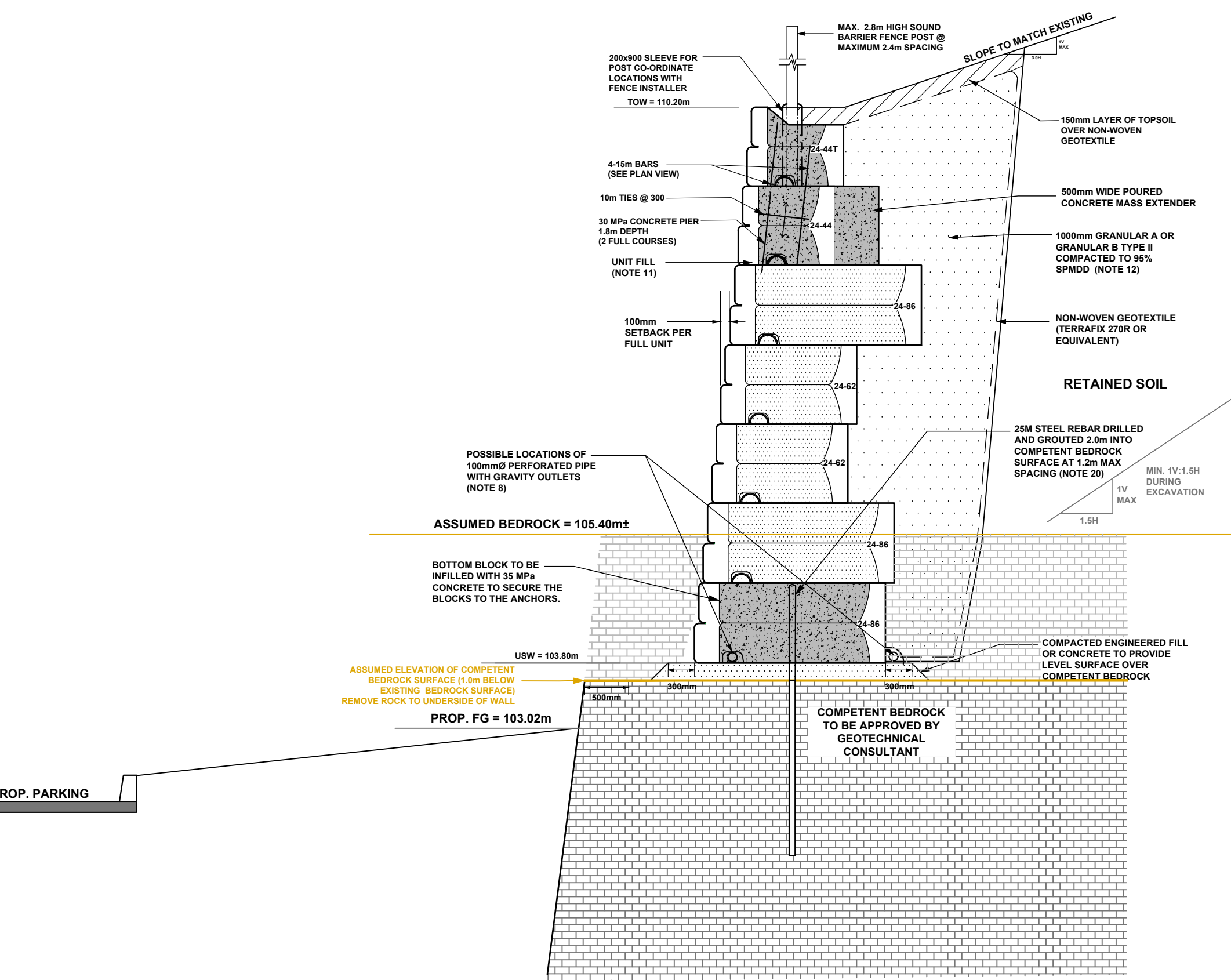
SECTION A-A

SCALE 1:40



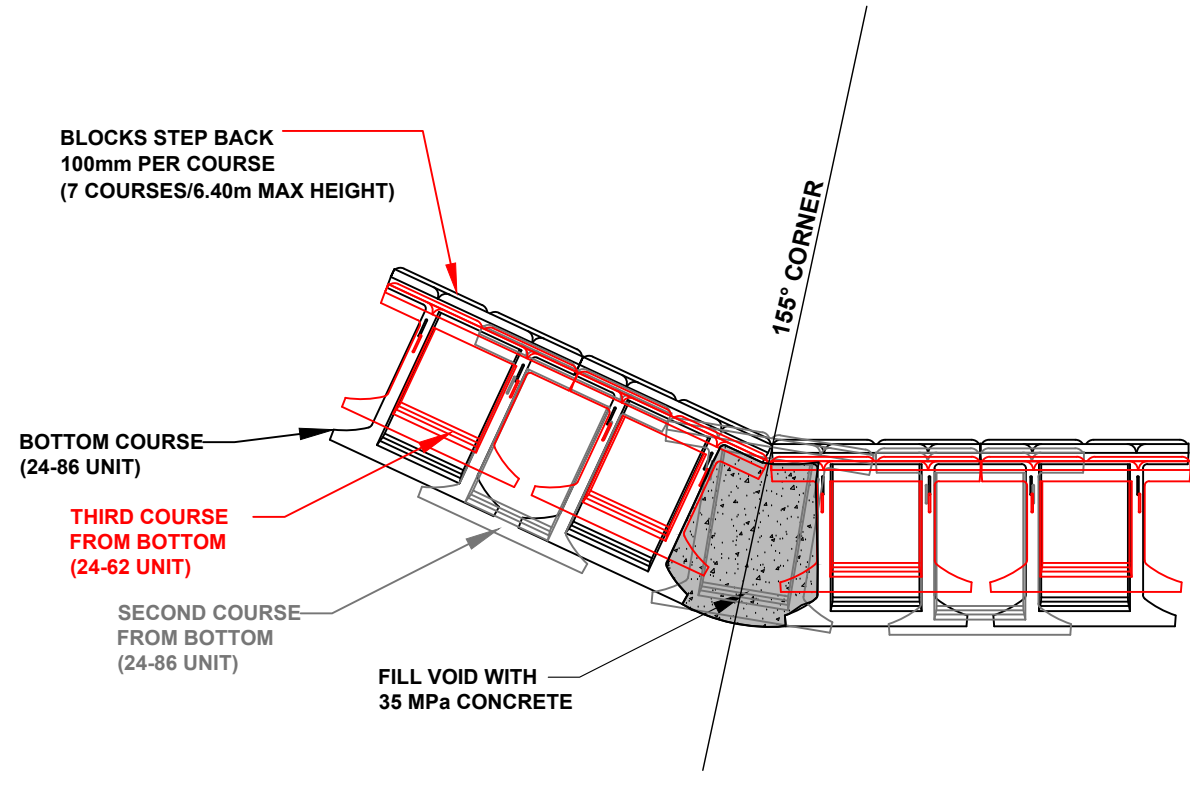
SECTION B-B

SCALE 1:50

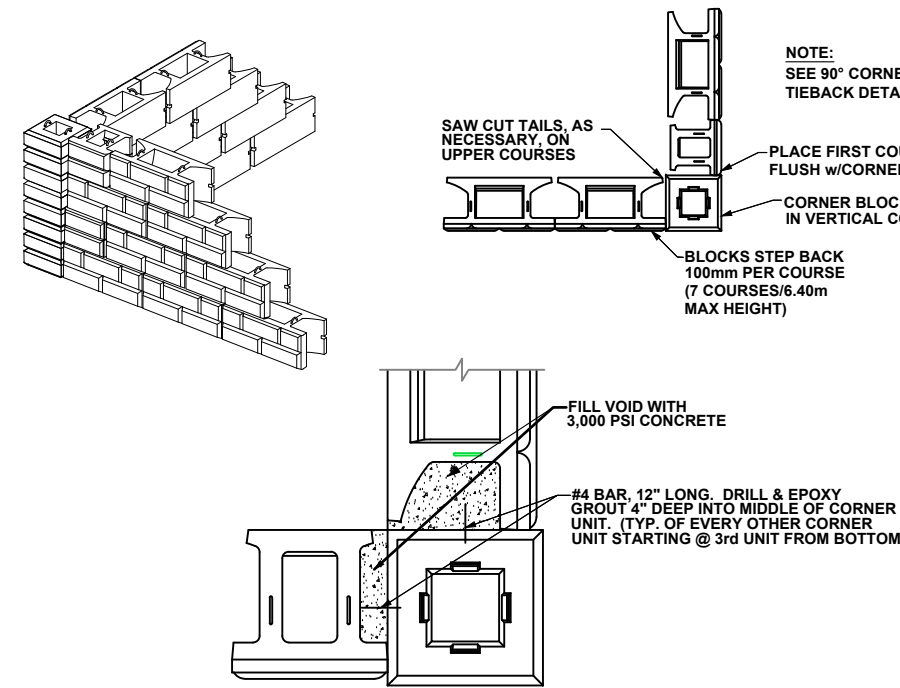


ISSUED FOR CONTRUCTION

155° CORNER DETAIL

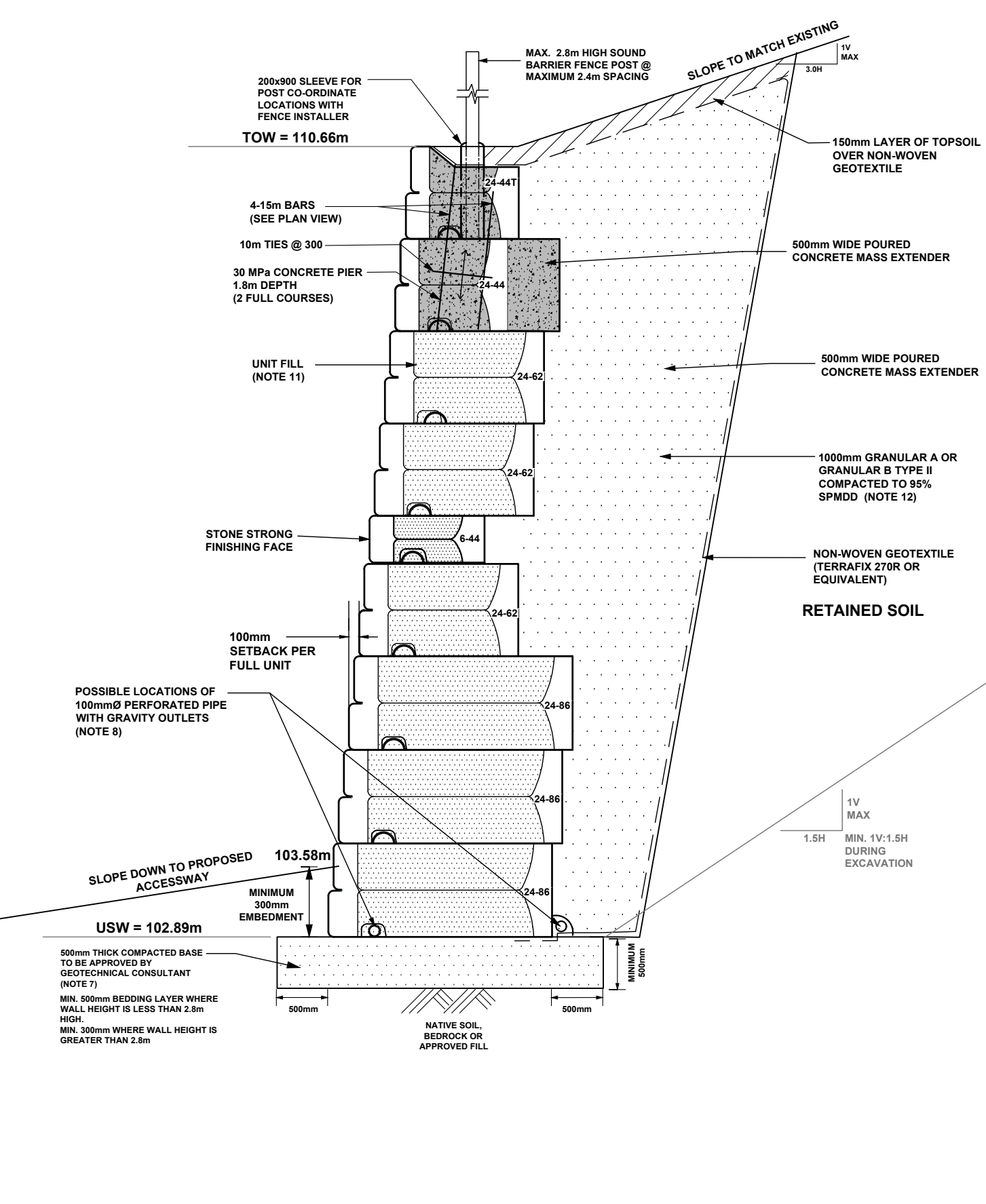


90° CORNER DETAIL



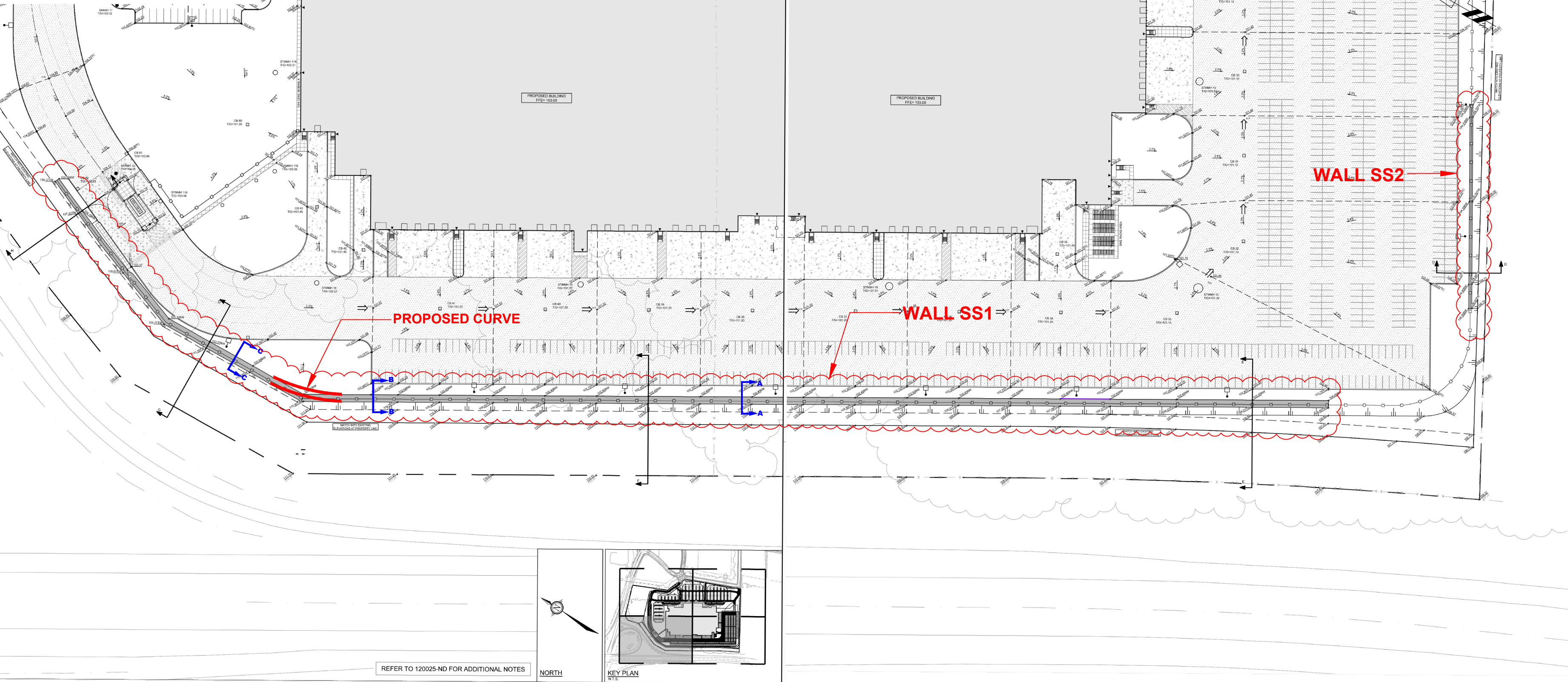
SECTION C-C

SCALE 1:50



GRADING PLAN

SCALE 1:1250



STONE STRONG 3-44 UNIT	STONE STRONG 3-44 TOP UNIT
NUMBER OF UNITS REQUIRED: 28	NUMBER OF UNITS REQUIRED: 16
STONE STRONG 4-44 TOP UNIT	STONE STRONG 4-44 UNIT
NUMBER OF UNITS REQUIRED: 199	NUMBER OF UNITS REQUIRED: 131
STONE STRONG 24-44 UNIT	STONE STRONG 24-44 TOP UNIT
NUMBER OF UNITS REQUIRED: 244 49 Mass extension blocks	NUMBER OF UNITS REQUIRED: 130 3 Mass extension blocks
STONE STRONG 24-86 UNIT	STONE STRONG 24-86 UNIT
NUMBER OF UNITS REQUIRED: 965 1 Mass extension block	NUMBER OF UNITS REQUIRED: 346
STONE STRONG END UNIT	DUAL FACE UNIT
NUMBER OF UNITS REQUIRED: 36 UNITS	NUMBER OF UNITS REQUIRED: 4 UNITS

- NOTES:
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY CLEARANCES AND CONSTRUCTION SITE SAFETY. PATERSON GROUP SHALL NOT BE RESPONSIBLE FOR MEANS OR METHODS OF CONSTRUCTION OR FOR SAFETY OF WORKERS OR OF THE PUBLIC.
 - THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES:

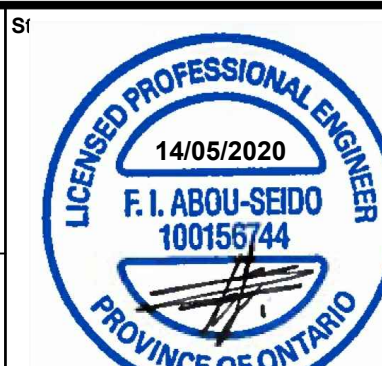
PROPERTY	RETAINED FILL	FOUNDATION MEDIUM(1)
FOUNDATION MEDIUM(2)		
FRICITION ANGLE - ϕ	40°	35°
UNIT WEIGHT - γ	22 kN/m ³	20 kN/m ³
COHESION - c	0	2 kPa
SOIL TYPE	OPSS GRANULAR B Type II	GLACIAL TILL BEDROCK
 - MATERIAL PROPERTIES ARE BASED ON SITE EVALUATION BY PATERSON GROUP AND DISCUSSIONS WITH THE CONTRACTOR. SEISMIC LOADING WAS EVALUATED ACCORDING TO THE CURRENT CANADIAN HIGHWAY AND BRIDGE DESIGN CODE WITH A PEAK GROUND ACCELERATION VALUE OF 0.28.
 - THE WALL BASE DESIGN ASSUMES A BEARING RESISTANCE AT SLS OF 200kPa. PATERSON GROUP ENGINEER SHOULD OBSERVE THE BEARING CONDITIONS AND ADJUST THE THICKNESS OF THE GRANULAR BASE TO ACCOMMODATE THE SITE CONDITIONS. IF NECESSARY, FILL MATERIAL WILL BE REMOVED TO NATIVE BEARING SURFACE INSPECTED AND APPROVED BY PATERSON AT THE TIME OF CONSTRUCTION.
 - THIS DESIGN HAS CONFIRMED THE RETAINING WALL SYSTEM STABILITY AS WELL AS THE GLOBAL STABILITY WITH A FACTOR OF SAFETY GREATER THAN 1.5 FOR STATIC CONDITIONS AND 1.1 FOR SEISMIC CONDITIONS OF THE RETAINING WALL BASED ON THE GRADING PROVIDED. IF ACTUAL SITE GRADIES VARY SIGNIFICANTLY FROM THOSE SHOWN OR IF THE BACK SLOPES DO NOT CONFORM, INSTALLATION SHALL NOT PROCEED UNTIL THE WALL DESIGN IS VERIFIED OR MODIFIED IN THE APPLICABLE AREA.
 - PRECAST UNITS SHALL BE STONE STRONG RETAINING WALL UNITS MANUFACTURED UNDER LICENSE FROM MCON PRODUCTS.
 - THE WALL BASE FOR THE WALL SHALL CONSIST OF A MIN. 300mm THICK OPSS GRANULAR B TYPE II COMPACTED TO MIN. 98% OF THE MATERIALS SPMD AND TESTED BY PATERSON GROUP GEOTECHNICAL PERSONNEL AT THE TIME OF CONSTRUCTION. SURFACE OF GRANULAR BASE MAY BE DRESSED WITH FINER AGGREGATE TO AID LEVELLING. 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.
 - CONCRETE LEVELING PAD CONSTRUCTED FROM 35 MPa COMPRESSIVE STRENGTH CONCRETE CAN BE USED TO LEVEL THE BLOCKS THE INSTALLATION ON THE BEDROCK SURFACE.
 - WALL IS DESIGNED WITH A MIN. 300mm TOE EMBEDMENT WITH A MIN. HORIZONTAL LEDGE WITH A GRANULAR BEDDING LAYER EXTENDING A MIN. 300mm BEYOND THE FACE AND HEEL OF THE BASE BLOCK.
 - INSTALL 150mm DIAMETER PERFORATED PIPE WRAPPED WITH A GEOSOCK DRAIN BEHIND HEEL OF WALL. PROVIDE CLEAR STONE SURROUND TO PROTECT PIPE FROM CLOGGING AND DAMAGE. PROVIDE OUTLETS THROUGH WALL. NO FURTHER APART THAN 15.0m ON CENTRES.
 - THE CONDITIONS WILL BE EVALUATED BY THE GEOTECHNICAL ENGINEER DURING PREPARATION FOR WALL CONSTRUCTION IN EACH AREA WHERE GRANULAR BEDDING WILL NOT BE SUFFICIENT THE USE OF CONCRETE BEDDING MAY BE REQUIRED.
 - ALIGNMENT OF THE BOTTOM WALL UNIT COURSE SHOULD BE PLANNED TO CONSIDER THAT A NOMINAL 100mm AUTOMATIC SETBACK WILL OCCUR WITH EACH 0.90m INCREMENT OF HEIGHT.
 - BACKFILL MATERIAL SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO USE AND SHOULD CONSIST OF OPSS GRANULAR B TYPE II B FOLLOWED BY SUITABLE BACKFILL MATERIAL. ALL FILL WITHIN A 10m 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 98% OF SPMD. MOISTURE CONTENT SHOULD BE CONTROLLED AND MAINTAINED WITHIN -3 TO +4 PERCENT OF OPTIMUM.
 - MAINTAIN TEMPORARY GRADES TO DIVERT SURFACE WATER AWAY FROM THE RETAINING WALL. EXCAVATION SLOPE FINAL BACKFILL TO PROVIDE POSITIVE DRAINAGE AND TO ELIMINATE PONDING.
 - BACKSLOPE SHOULD BE CUT BACK TO A MINIMUM OF 3H:1V TO MAINTAIN A LONG TERM SAFE SLOPE BEHIND THE RETAINING WALL. IT SHOULD BE NOTED THAT WHERE TREES ARE PRESENT WITHIN THE TOP OF SLOPE, A MINIMUM 1.0m SET BACK IS REQUIRED FOR EXCAVATION FROM THE EDGE OF THE TREE.
 - EXCAVATION SIDE SLOPE SHOULD BE PROTECTED TEMPORARILY DURING CONSTRUCTION FROM PRECIPITATION EVENTS BY PLACEMENT OF TARPS.
 - ALL RETAINING WALL RELATED INSPECTIONS (BEARING SURFACE, COMPACTION, BLOCK INSTALLATION, ETC.) MUST BE COMPLETED BY PATERSON GROUP. ONCE THE WALL CONSTRUCTION IS COMPLETED AND REVIEWED BY PATERSON DURING CONSTRUCTION, A CERTIFICATE LETTER WILL BE ISSUED BY PATERSON GROUP.
 - ANY CUTTING OF BLOCKS TO SUIT SITE CONDITIONS OR WALL DESIGN WILL BE RESPONSIBILITY OF THE CONTRACTOR.
 - CONCRETE MASS EXTENDER POURED BEHIND THE WALL SHOULD CONSIST OF MINIMUM 25MPa COMPRESSIVE STRENGTH CONCRETE. THE MASS EXTENDER SHOULD BE ANCHORED TO THE BACK TAIL OF THE RETAINING WALL BLOCK USING A 19M REBAR ANCHOR EXTENDING A MINIMUM 300mm INTO THE MASS EXTENDER AND BORED THROUGH THE BACK TAIL OF THE BLOCK PLACED AT 1.0m INTERVALS.
 - SOUND BEDROCK SURFACE WILL NEED TO BE CONFIRMED DURING CONSTRUCTION. PATERSON WILL COMPLETE THE REQUIRED ADJUSTMENT TO THE DESIGN BASED ON THE SITE FINDINGS. IT IS EXPECTED THAT THE UPPER WEATHERED LAYER OF BEDROCK WILL BE REMOVED.
 - WHERE THE ROCK IS PLACED DIRECTLY ON THE BEDROCK SURFACE, THE BOTTOM COURSE SHOULD BE ANCHORED TO THE ROCK. ROCK ANCHORS SHOULD BE PLACED AT A MAXIMUM SPACING OF 1.2m. THE ANCHORS SHOULD CONSIST OF 25M STEEL REBAR DRILLED AND GROUTED USING NONSHRINK GROUT 2m INTO THE BEDROCK SURFACE. THE BOTTOM BLOCK SHOULD BE INFILLED WITH 35 MPa CONCRETE TO SECURE THE BLOCKS TO THE ANCHORS.
 - THE PROPOSED FENCING ON TOP OF THE RETAINING WALL SHOULD BE SPECIFIED TO ENSURE THE DESIGN PROVIDED HEREIN IS SUFFICIENT.

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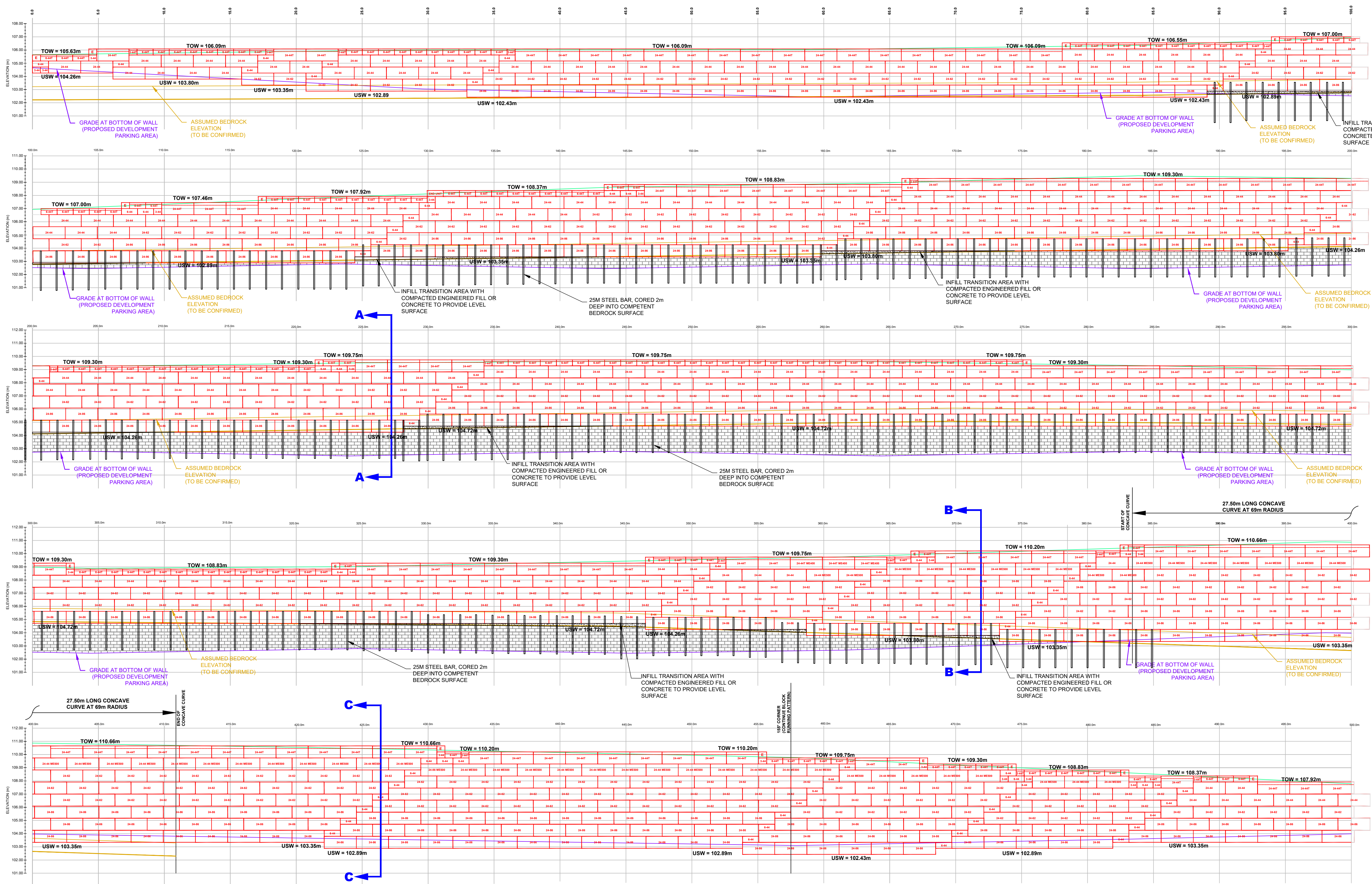
1	ISSUED FOR CONSTRUCTION	14/05/2020	FA		
NO.	REVISIONS	DATE	INITIAL		

PYTHON LP.
PROPOSED DEVELOPMENT - PROPOSED RETAINING WALL
HIGHWAY 416 AT FALLOWFIELD ROAD
OTTAWA, ONTARIO
Title: **STONE STRONG RETAINING WALL DESIGN - WALL SS1 AND SS2**



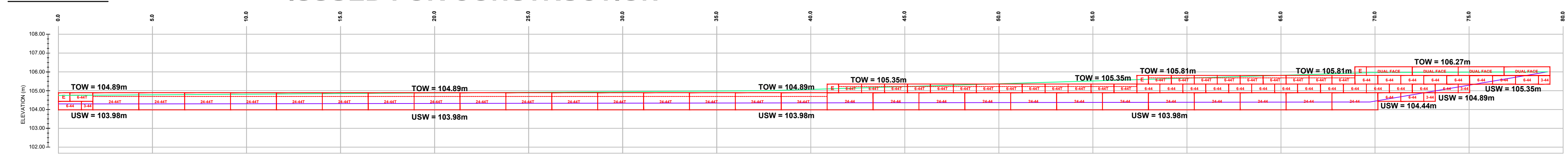
Scale:	AS SHOWN	Report No.:	PG5284
Drawn by:	RCG	Drawing No.:	
Checked by:	JV		
Approved by:	FA		PG5284-3
Date:	04/2020	Revision No.:	0

WALL SS1



WALL SS2

ISSUED FOR CONSTRUCTION



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NO.	REVISIONS	DATE	INITIAL
1	ISSUED FOR CONSTRUCTION	14/05/2020	FA

PYTHON LP.
PROPOSED DEVELOPMENT - PROPOSED RETAINING WALL
HIGHWAY 416 AT FALLOWFIELD ROAD
OTTAWA, ONTARIO

Title: **STONE STRONG RETAINING WALL PROFILE - SS1 AND SS2**

Stamp:

Stamp:

Scale: AS SHOWN
Drawn by: RCG
Checked by: JV
Approved by: FA
Date: 04/2020

Report No.: PG5284
Drawing No.: PG5284-2
Revision No.: 0