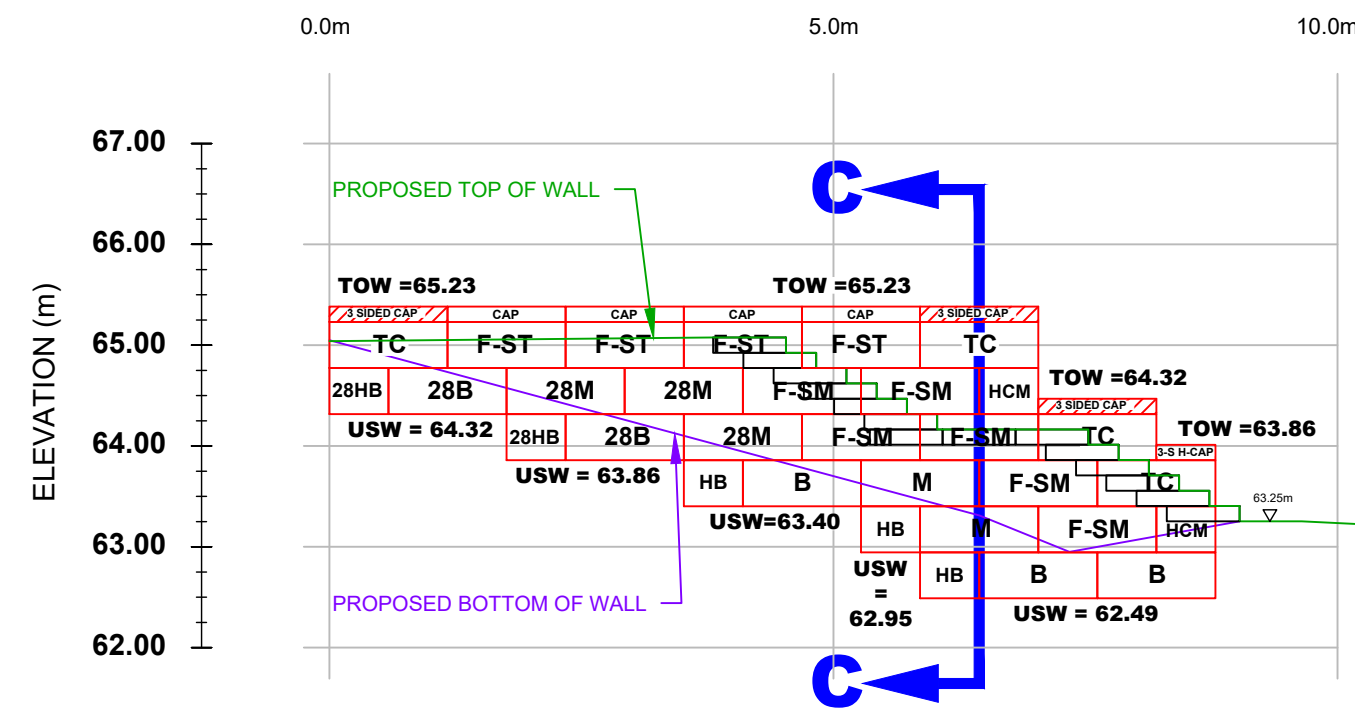
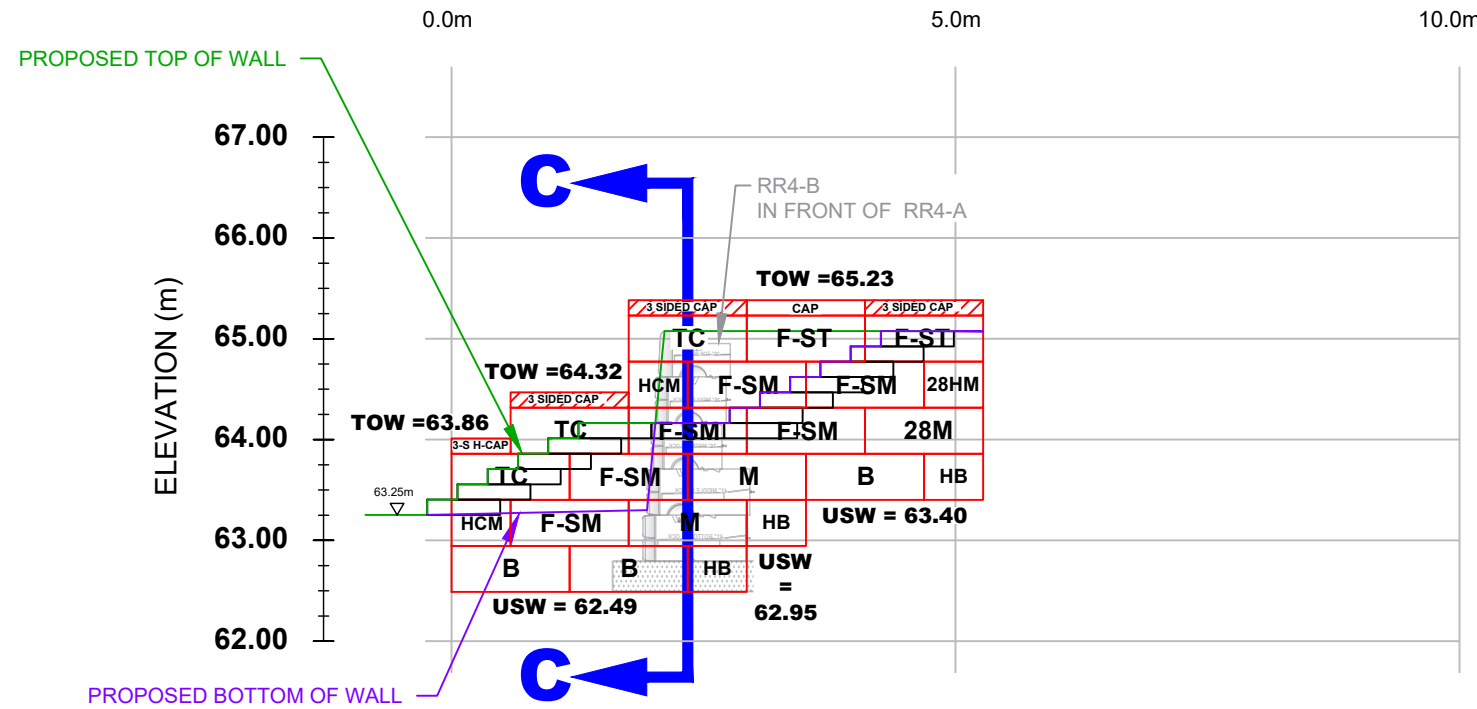


**NOTE:VERTICAL WALL**



**NOTE:VERTICAL WALL**



The diagram shows a cross-section of a bridge structure. On the left, a vertical scale indicates ELEVATION (m) from 62.00 to 67.00. The structure includes a central pier with a cross-section labeled 'TOW = 65.08' and a width of '28T'. The pier is flanked by two side walls, each labeled 'WALL TO ABUT RR4-A SEE DETAIL 3'. The right wall is also labeled 'WALL TO ABUT SOLID STRUCTURE (PARKWAY HOUSE A1) SEE DETAIL 3'. The structure is supported by a foundation labeled 'RR4-A'. The overall width of the structure is 'USW = 62.80'. The structure is divided into sections labeled '28HM', '28M', '28HT', 'HM', 'M', and 'HB'. The structure is shown in a cross-section view with a blue arrow pointing to the right.

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY CLEARANCES AND FOUNDATION SITE SAFETY. PATERSON GROUP SHALL NOT BE RESPONSIBLE FOR MEANS OR METHODS OF CONSTRUCTION OR FOR SAFETY OF WORKERS OR OF THE PUBLIC.

2. THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES:

<u>PROPERTY</u>	<u>RETAINED FILL</u>	<u>FOUNDATION MEDIUM</u>
FRICION ANGLE - $\phi$	38°	35°
UNIT WEIGHT - $\gamma$	22 kN/m3	19 kN/m3
COHESION - C	0	0 kPa
SOIL TYPE	OPSS GRANULAR B TYPE II	GLACIAL TILL

MATERIAL PROPERTIES ARE BASED ON SITE EVALUATION BY PATERSON GROUP AND DISCUSSIONS WITH CONTRACTOR. SEISMIC LOADING WAS EVALUATED ACCORDING TO THE CURRENT CHBDC WITH A PEAK GROUND ACCELERATION VALUE OF 0.269.

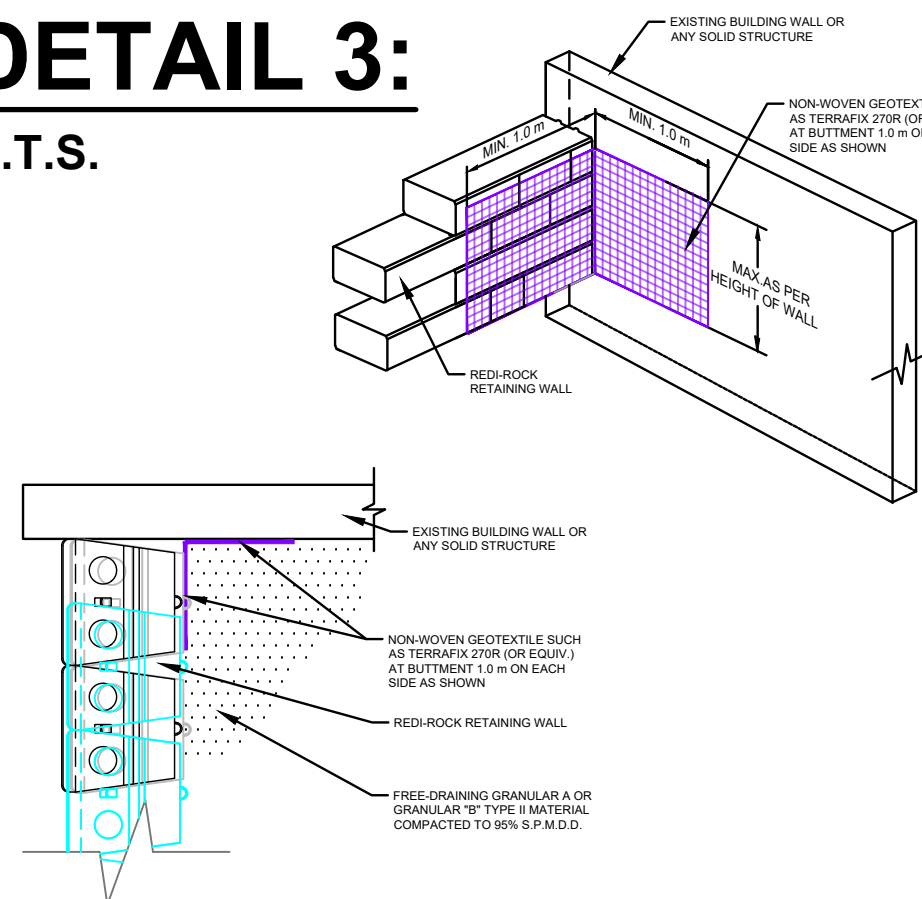
3. THE DESIGN ELEVATIONS USED WERE BASED ON A GRADING PLAN PROVIDED BY WINDMILL DEVELOPMENTS ON 16 JANUARY 2025, FILE NAME: ACAD-160401689-DB-export-2024-12-09-GP.dwg AND THE WALL CONFIGURATION IS BASED ON A LANDSCAPE PLAN SENT BY WINDMILL ON 05 FEBRUARY 2025, FILE NAME: 160410375\_LandscapePlan-L1. THE WALL BASE DESIGN ASSUMES A BEARING RESISTANCE AT SLS OF 200 kPa ON GLACIAL TILL. PATERSON GROUP ENGINEER SHOULD OBSERVE THE BEARING CONDITIONS AND ADJUST THE THICKNESS OF THE GRANULAR BASE TO ACCOMMODATE THE SITE CONDITIONS, IF NECESSARY.

**N.T.S.**

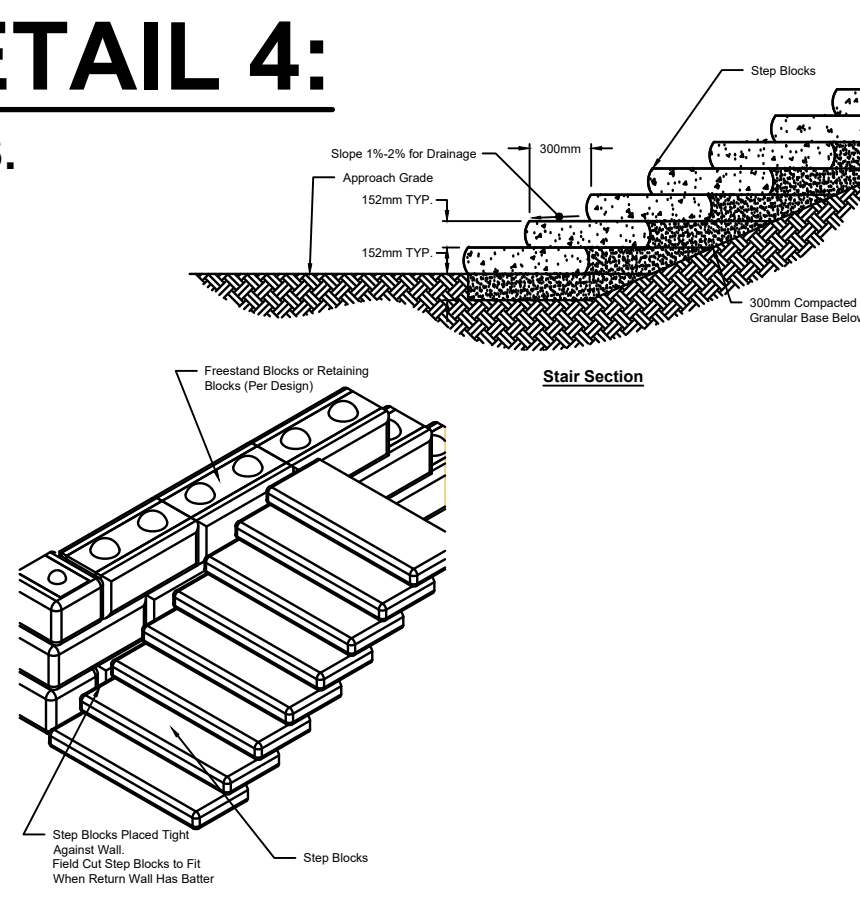
<p><b>Top Corner -24" (TC)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>7</b></p>	<p><b>Free-Standing Top -24" (F-ST)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>6</b></p>	<p><b>Free-Standing Middle -24" (F-M)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>12</b></p>	<p><b>Half Corner Middle -24" (HCM)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>4</b></p>	<p><b>Top -28" (28 T)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>2</b></p>	<p><b>Half Top -28" (28 HT)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>1</b></p>	<p><b>3-Sided Cap -28.5"</b></p> <p>NUMBER OF UNITS REQUIRED: <b>6</b></p>	<p><b>2-Sided Cap Block -28.5"</b></p> <p>NUMBER OF UNITS REQUIRED: <b>5</b></p>	<p><b>2-Sided Straight STEP -28.5"</b></p> <p>NUMBER OF UNITS REQUIRED: <b>28</b></p>
<p><b>Middle -28" (28 M)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>8</b></p>	<p><b>Half Middle -28" (28 HM)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>3</b></p>	<p><b>Half Middle -41" (HM)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>1</b></p>	<p><b>Middle -41" (M)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>6</b></p>	<p><b>Bottom -28" (28 B)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>2</b></p>	<p><b>Half Bottom -28" (28 HB)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>2</b></p>	<p><b>Bottom -41" (B)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>8</b></p>	<p><b>Half Bottom -41" (HB)</b></p> <p>NUMBER OF UNITS REQUIRED: <b>7</b></p>	<p><b>3-Sided Half Cap -28.5"</b></p> <p>NUMBER OF UNITS REQUIRED: <b>2</b></p>

**\*VERTICAL BLOCKS  
FOR RR3 AND RR4-A**

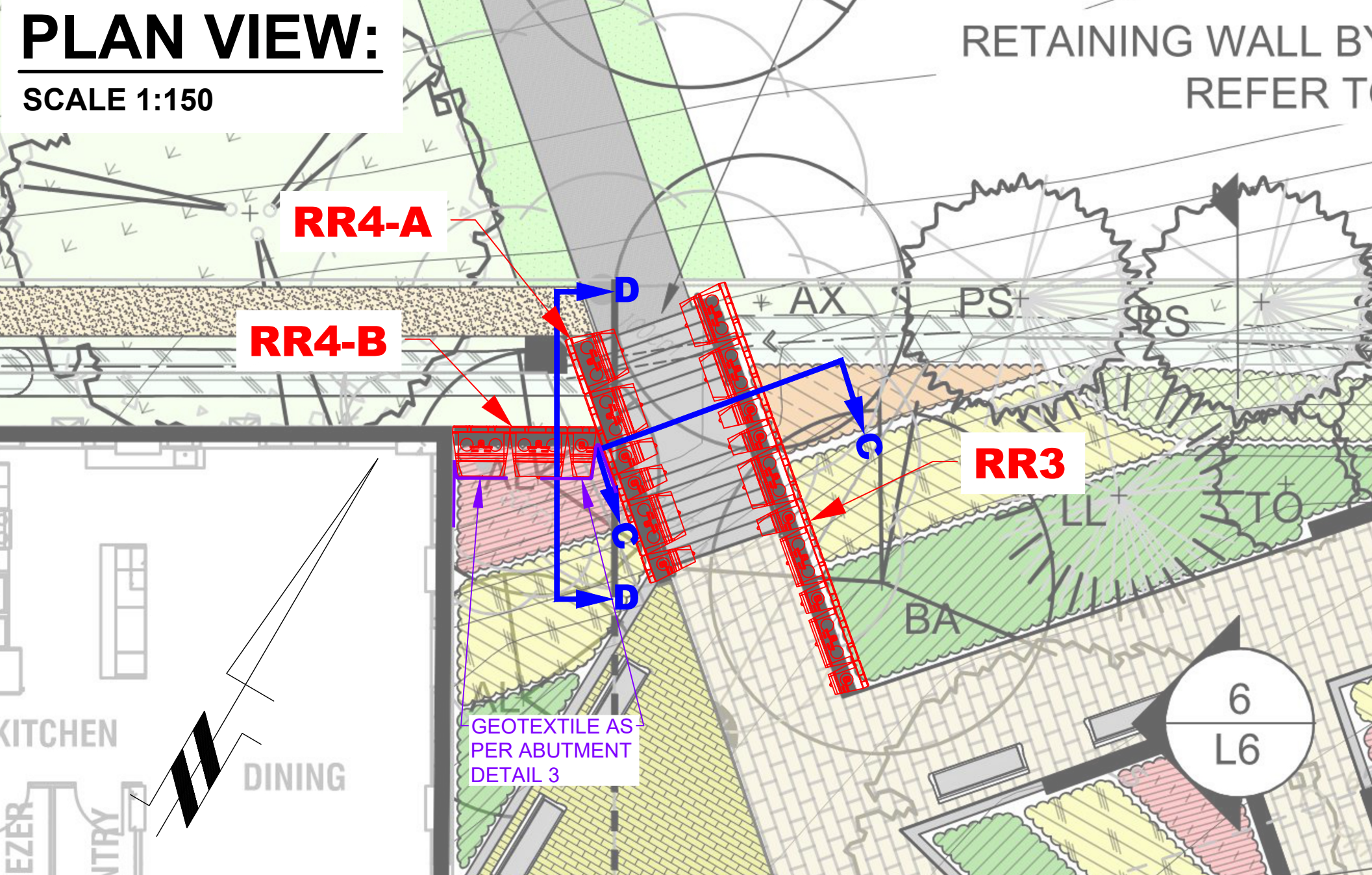
**N.T.S.**



**N.T.S.**



**SCALE 1:150**



RR3

STAIR STEPS

NON-WOVEN GEOTEXTILE FABRIC (TERRAFIX 270R OR EQUIV.)

NON-SHRINK GROUT BETWEEN STEPS AND WALL BLOCKS

STEP UNITS TO BE FIELD CUT (ON THE WALL SIDE) TO FIT.

RR4-A

NON WIND BEARING HAND RAIL INSTALLED AND CORED MIN. 2 COURSES (DESIGNED BY OTHERS)

OPTIONAL CAP

TOW = 65.23m

MOVE BLOCKS FORWARD DURING INSTALLATION TO ENGAGE SHEAR ANKERS (TYPICAL)

ROOT BARRIER (SEE NOTE 20)

FINISHED GRADE

WALL HEIGHT 2.74m

USW = 62.49

MIN. 200mm EMBEDEDMENT

MIN. 300mm

NATIVE SOIL APPROVED BY PATERSON

100mm Ø PERFORATED SOCK DRAIN

MIN. 300mm THICK GRANULAR BASE CONSISTING OF COMPACTED GRANULAR A OR GRANULAR B TYPE II (COMPACTED TO 95% SPMD)

FREE DRAINING GRANULAR MATERIAL (GRANULAR A OR B TYPE II COMPACTED TO 95% SPMD)

21.4m

RR4-B

28T

28HT

28M

28HM

HM

M

B

HB

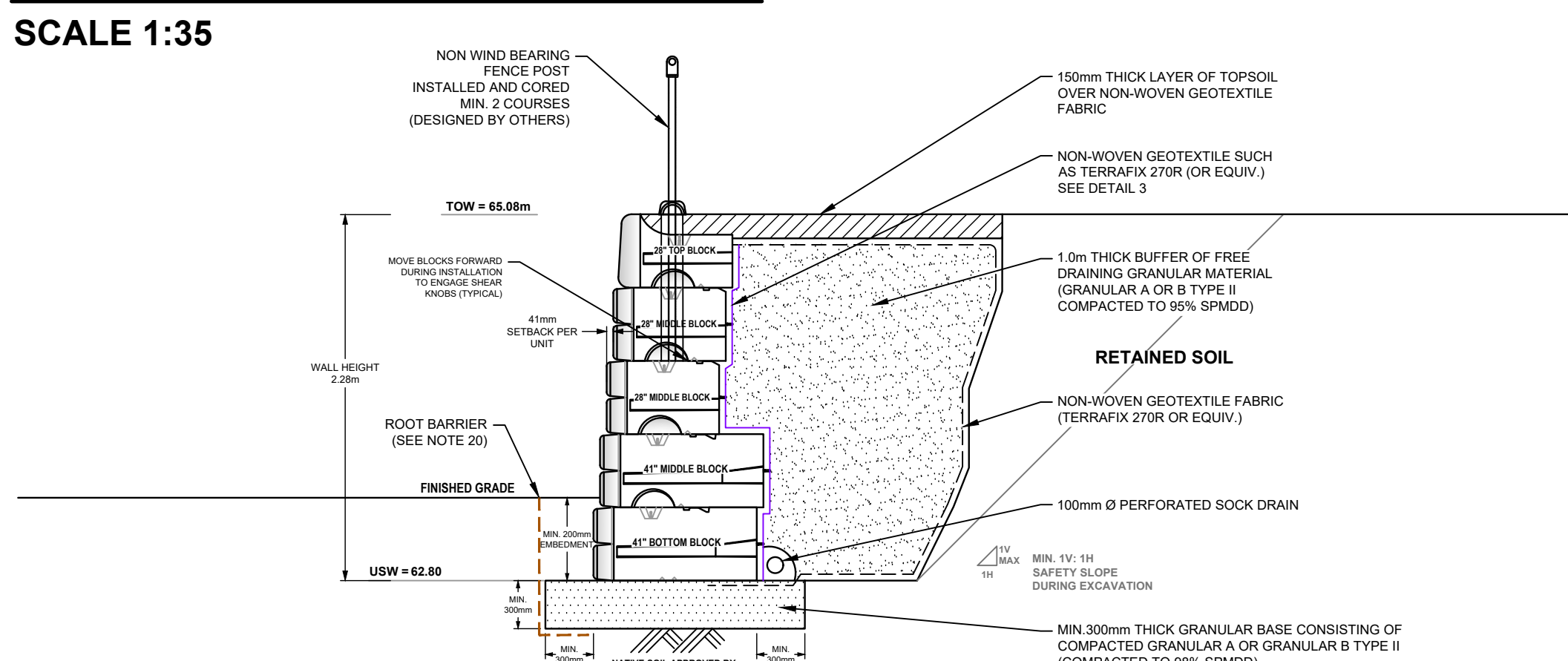
MIN. 200mm EMBEDEDMENT

MIN. 300mm

NATIVE SOIL APPROVED BY PATERSON

ROOT BARRIER (SEE NOTE 20)

**SCALE 1:35**



**ISSUED FOR REVIEW**



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1	AS PER REVISED LANDSCAPE PLAN	06/02/2025	JV
NO.	REVISIONS	DATE	INITIAL

**OTTAWA,**

**Title:**

## REDI-ROCK RETAINING WALL DESIGN (RR3 & RR4)

## WINDMILL DEVELOPMENTS

**PROPOSED RETAINING WALL  
2475 REGINA STREET**

**ONTARIO**

Stamp:

06/02/2025

Stamp:

100

Scale:
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AS SHOWN

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Approved by:

Date: 01/2025

File No.:

PG5901

Drawing No.:

**PG5901-4**

Revision No.: