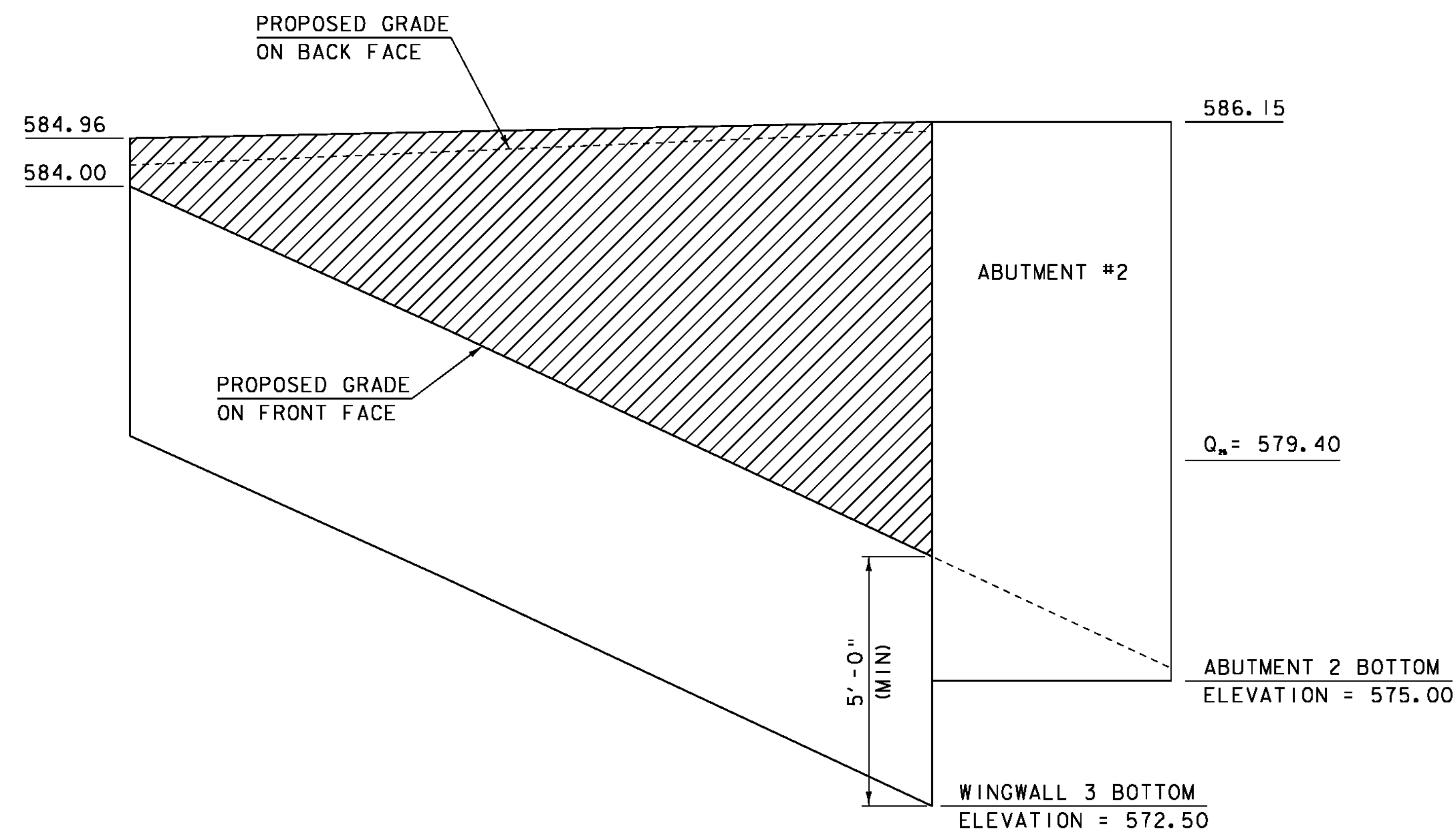


**WINGWALL 3 PLAN VIEW**

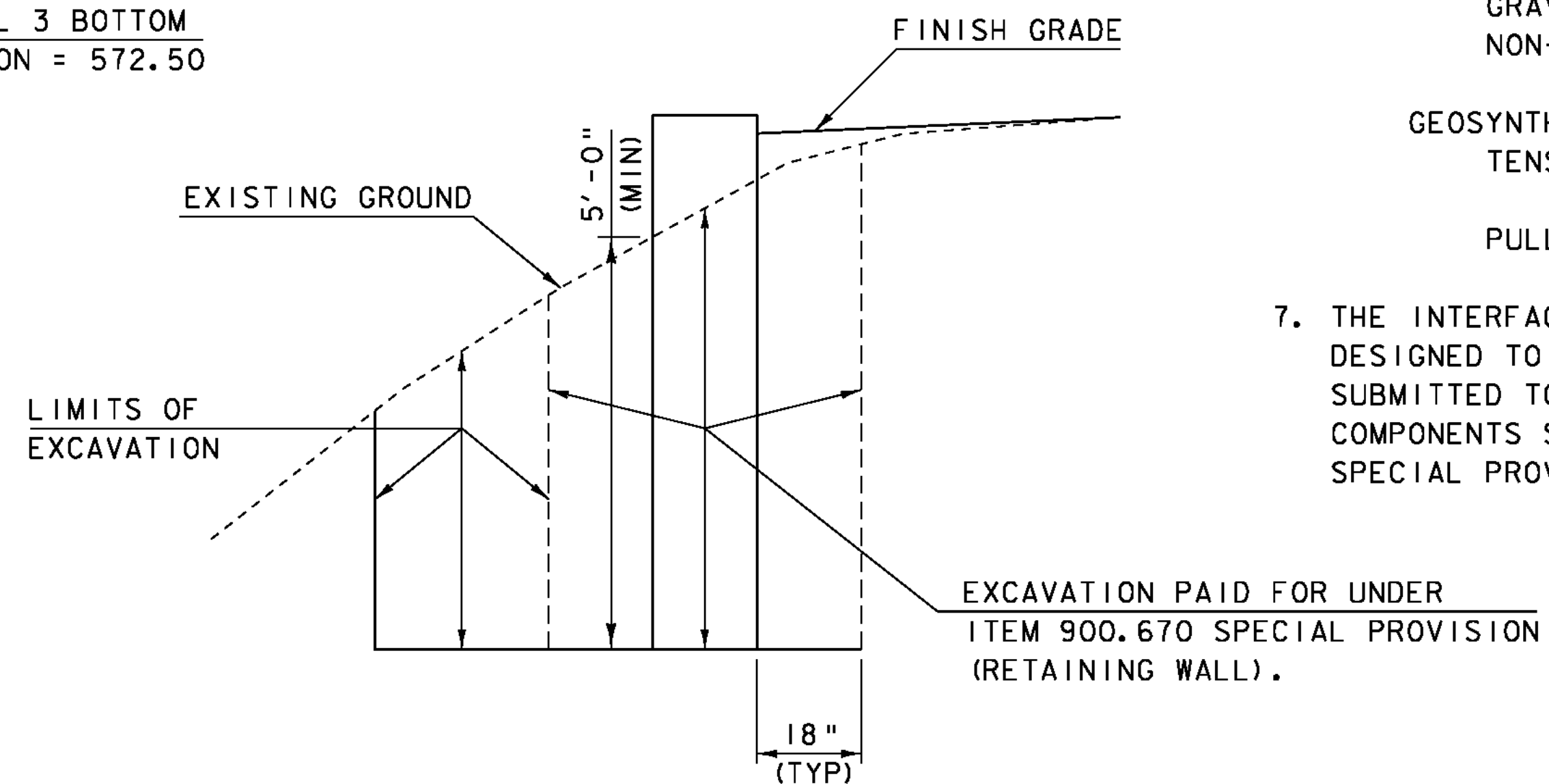
SCALE 1/2" = 1'-0"



**WINGWALL 3 ELEVATION VIEW**

SCALE 1/2" = 1'-0"

PAY LIMITS OF ITEM 900.670 "SPECIAL PROVISION (RETAINING WALL)"



**TYPICAL WINGWALL EXCAVATION DETAIL**

N. T. S.

**NOTES:**

1. WINGWALL 2 AND WINGWALL 3 SHALL BE SELECTED FROM THE LIST OF WALLS ON THE APPROVED RETAINING WALL DOCUMENT AVAILABLE FROM VAOT MATERIALS & RESEARCH WEB SITE. THE RETAINING WALL SHALL HAVE CONCRETE FACING.
2. THE WALL SHALL BE PAID FOR UNDER ITEM 900.670 "SPECIAL PROVISION (RETAINING WALL)".
3. THE BOTTOM OF WALL SHALL BE A MINIMUM OF 5 FEET BELOW THE FINISH GRADE IN THE FRONT OF WALL.
4. THE WALL SHALL BE DESIGNED IN ACCORDANCE WITH 2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND ITS LATEST REVISIONS. THE DESIGN SHALL INCLUDE THE EFFECT OF ALL LOADS INCLUDING BUT NOT LIMITED TO LIVE LOAD, VEHICLE IMPACT ON ADJACENT GUARDRAIL AND POSTS, EARTH SURCHARGE, AND HYDROSTATIC PRESSURE.
5. THE TYPE OF WALL SELECTED SHALL BE COMPATIBLE WITH ADJACENT OBSTRUCTIONS SUCH AS DRAINAGE FEATURES AND GUARD RAIL POSTS. ANY CHANGES TO THE REINFORCING OR ANCHORING SYSTEM SHALL BE DETAILED IN THE FABRICATION DRAWINGS.
6. THE FOLLOWING SOIL PROPERTIES SHALL BE USED IN THE DESIGN OF WINGWALL 2 AND WINGWALL 3:

FOUNDATION SOIL DESIGN VALUES	
NOMINAL BEARING RESISTANCE:	8.9 KSF
FOUNDATION SOIL PARAMETERS	
UNIT WEIGHT:	120 PCF
FRICTION ANGLE:	32°
RETAINED SOIL PARAMETERS	
UNIT WEIGHT:	130 PCF
FRICTION ANGLE:	32°
REINFORCED SOIL PARAMETERS (IF APPLICABLE)	
UNIT WIEGHT:	140 PCF
FRICTION ANGLE:	34°
BEARING RESISTANCE FACTORS (STRENGTH LIMIT STATE)	
MSEW:	0.65
GRAVITY/SEMI-GRAVITY (PROPRIETARY SYSTEM):	0.55
NON-GRAVITY CANTILEVERED AND ANCHORED:	0.45
SLIDING RESISTANCE FACTORS	
MSEW:	1.0
GRAVITY/SEMI-GRAVITY (PROPRIETARY SYSTEM):	1.0
NON-GRAVITY CANTILEVERED AND ANCHORED:	0.8
GEOSYNTHETIC RESISTANCE FACTORS (IF APPLICABLE)	
TENSILE RESISTANCE OF GEOSYNTHETIC:	0.9
REINFORCEMENT AND CONNECTORS	
PULLOUT RESISTANCE OF TENSILE REINFORCEMENT:	0.9

7. THE INTERFACE BETWEEN THE WINGWALL AND THE ABUTMENT STEM SHALL BE DESIGNED TO ALLOW 0.5 INCHES OF MOVEMENT. A JOINT DETAIL SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL. ALL COMPONENTS SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 900.670 SPECIAL PROVISION (RETAINING WALL).

SCALE 1/2" = 1'-0"

PROJECT NAME: CHESTER	PLOT DATE: 20-SEP-2010
PROJECT NUMBER: BRF 025-1(37)	DRAWN BY: D.D.BEARD
FILE NAME: 95b168\95b168sub.dgn	CHECKED BY: E.R.CHARBONNEAU
PROJECT LEADER: C.P.WILLIAMS	SHEET 98 OF 124
DESIGNED BY: R.S.YOUNG	
BRIDGE 9 WINGWALL 3 DETAILS	