5/14/99

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

METRIC DETAIL DRAWING FOR
CONCRETE RETAINING WALL WITH BRICK VENEER AND HANDRAIL

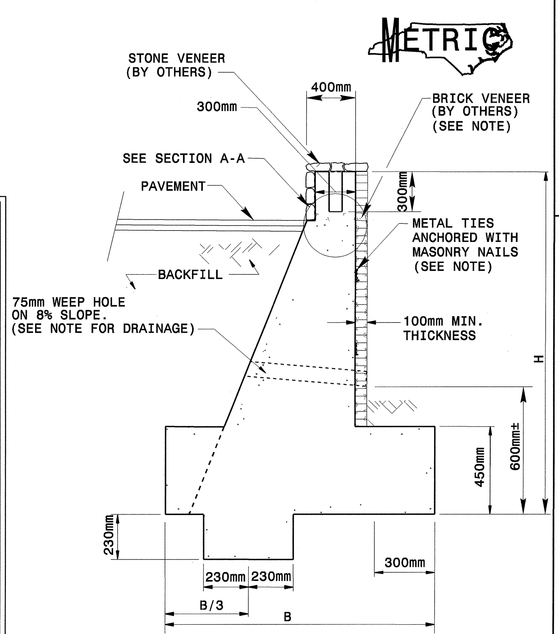
SHEET 1 OF 2
842D03

H	B
1.2m TO 1.8m	0.5H + 300mm
1.8m TO 3.0m	0.65H + 300mm

WALL HEIGHT (H) SHALL NOT EXCEED 3.0m

GENERAL NOTES :

* THE PROPOSED RAILING SHALL BE PRE-MEASURED AND CENTERED ON TOP OF WALL FOR POST SPACINGS. A ROTARY DRILL SHALL BE USED FOR DRILLING THE HOLES. NO IMPACT DRILLS SHALL BE ALLOWED, TO ELIMINATE ANY POSSIBILTY OF STRUCTURAL DAMAGES TO THE PROPOSED WALL.
* ALL DESIGN IS A RECOMMENDED GUIDE FOR PROPOSED RAIL APPLICATION. FINAL ENGINEERING JUDGEMENT SHALL BE AT THE DISCRETION OF THE ENGINEER.
* LOCATIONS AND QUANTITIES GIVEN ARE APPROXIMATE ONLY.
* EXACT LOCATIONS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ELEVATION OF BOTTOM OF THE FOOTING, WIDTH OF BASE AND HEIGHT OF WALL ARE TO BE DETERMINED BY THE ENGINEER.
* WEEP HOLES 75mm IN DIAMETER SHALL BE PLACED AT ABOUT 3.0m INTERVALS JUST ABOVE THE SURFACE OF THE EXISTING GROUND OR AS DIRECTED BY THE ENGINEER.
* A STONE DRAIN CONSISTING OF 0.028 CUBIC METERS OF #78M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT EACH WEEP HOLE. SUBDRAIN FINE AGGREGATE SHALL BE PLACED BENEATH, AROUND AND OVER THE STONE DRAIN SO THAT THE STONE DRAIN IS COVERED BY A LAYER OF SUBDRAIN FINE AGGREGATE AT LEAST 300MM THICK. A HORIZONTAL DRAIN OF SUBDRAIN FINE AGGREGATE AT LEAST 300mm SQUARE IN CROSS SECTION SHALL THEN BE PLACED TO CONNECT ALL STONE DRAINS.
* A VERTICAL DRAIN OF SUBDRAIN FINE AGGREGATE AT LEAST 300mm SQUARE IN CROSS SECTION SHALL BE PLACED AT EACH WEEP HOLE TO AN ELEVATION OF 600mm BELOW THE SURFACE OF THE EMBANKMENT.
* CLASS "A" CONCRETE IS TO BE USED THROUGHOUT FOR CONCRETE RETAINING WALLS.
* IN CONCRETE RETAINING WALL, 13mm EXPANSION JOINT EVERY 7.6m
* ANCHOR BRICK VENEER TO CONCRETE RETAINING WALL WITH APPROVED METAL TIES ACCORDING TO MANUFACTURERS SPECIFICATIONS WITH A MINIMUM 400mm SPACING VERTICALLY AND 800mm SPACING HORIZONTALLY WITH EACH ROW STAGGERED 400mm FROM THE ROW ABOVE.
* PLACEMENT OF BRICK VERNEER WILL BE RESPONSIBILITY OF DEVELOPER/PROPERTY OWNER.



SECTION OF CONCRETE RETAINING WALL

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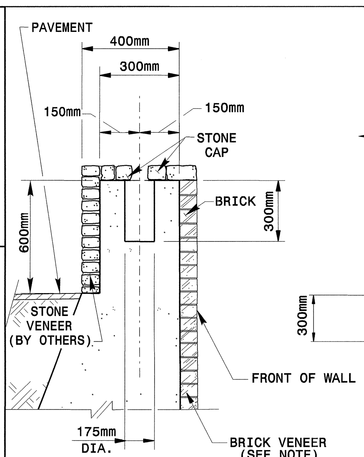
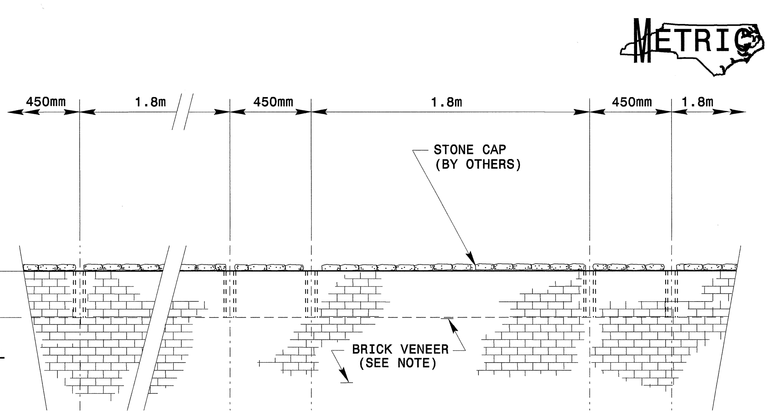
SHEET 2 OF 2
842D03

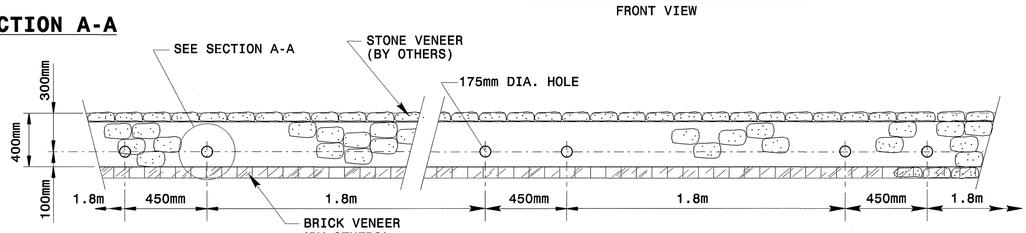


SECTION A-A



ELEVATION OF HANDRAIL

FRONT VIEW



TOP VIEW OF RETAINING WALL

NOTE: HANDRAIL BY OTHERS, SEE SHEET 2-AA

DESIGN SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

"DETAIL LOCATION:SHEET 16 AND 17 (PARCEL 52"
-L- STA 68+87.000 TO STA 69+36.500 LT.
-L- STA 69+66.000 TO STA 69+90.500 LT.

ORIGINAL BY: DATE:
MODIFIED BY: DATE: 09-28-04
CHECKED BY: DATE: 10/4/04
FILE SPEC.: special details/mbrlt/metric/u2913rtwall.dgn

NORTH CAROLINA PROFESSIONAL SEAL 022986 ENGINEER
JOHN L. HOWERTON
10/4/04

PROJECT REFERENCE NO.	SHEET NO.
U-2913B	2-Y

DS203039 Monday October 04 2004 u2913b ret wall.m