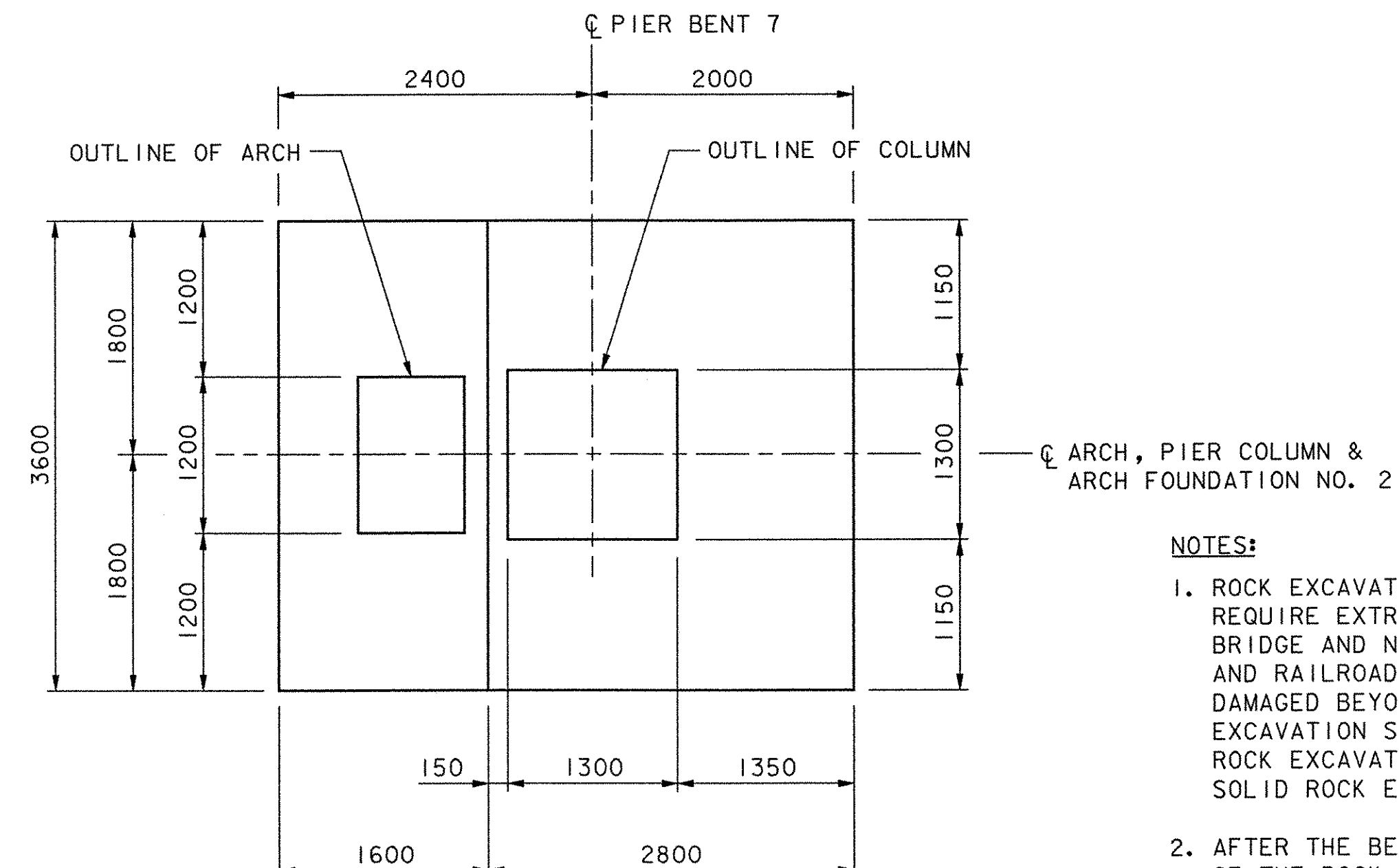
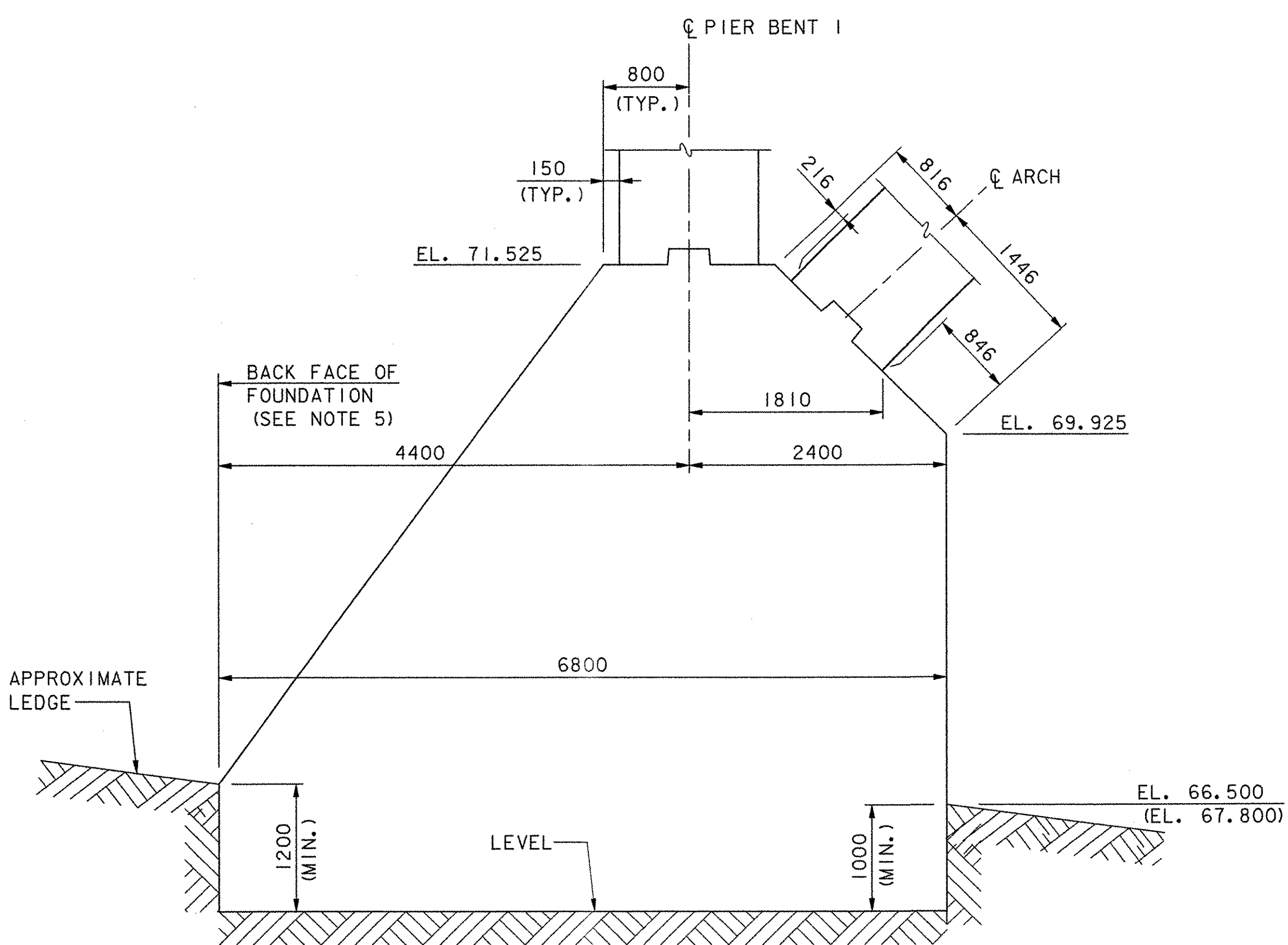


PLAN
SCALE: 1:40

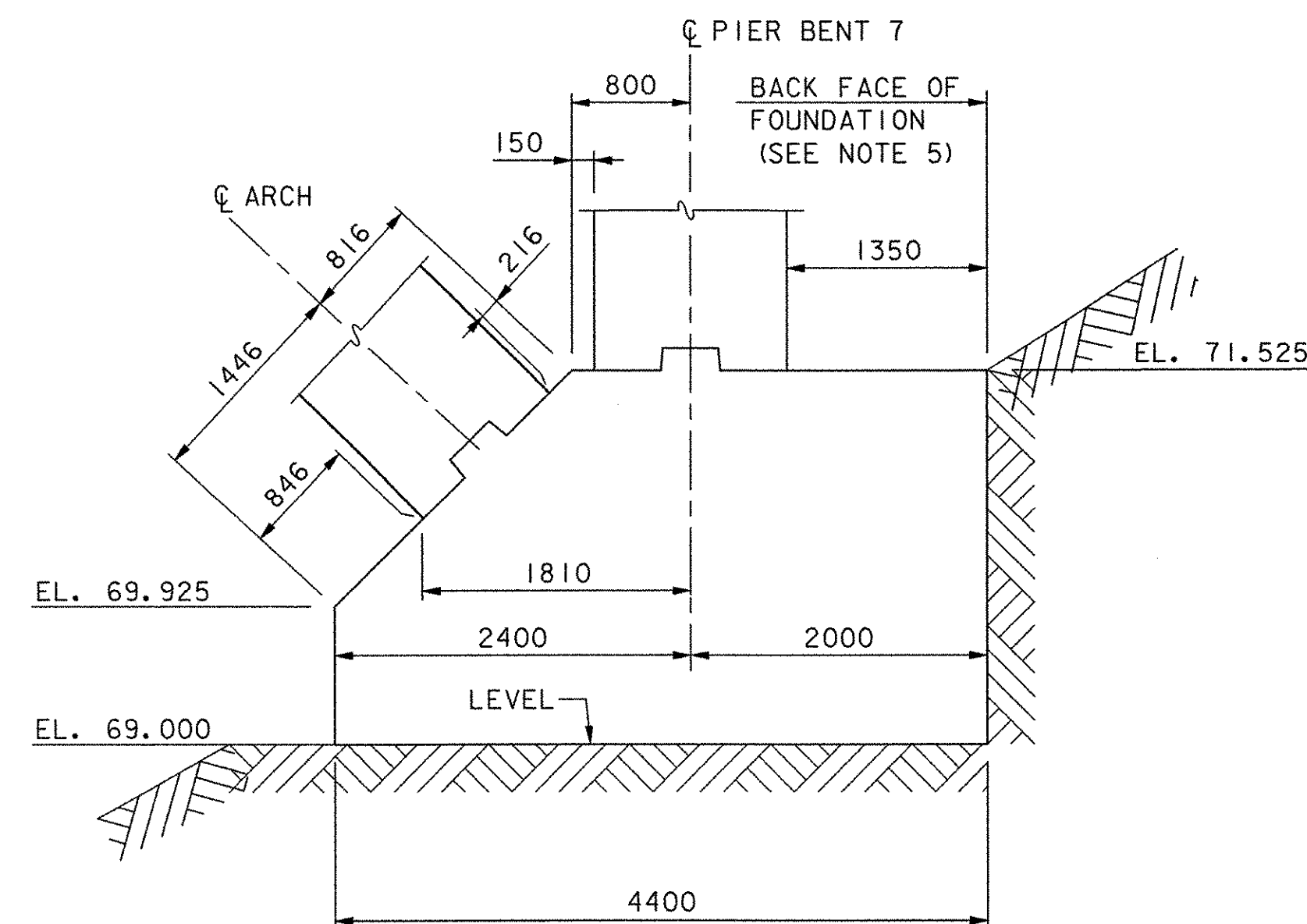
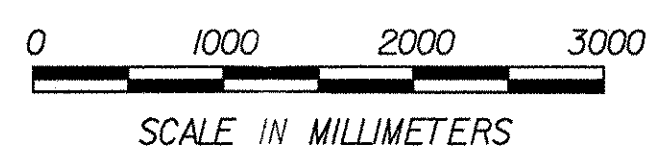


PLAN
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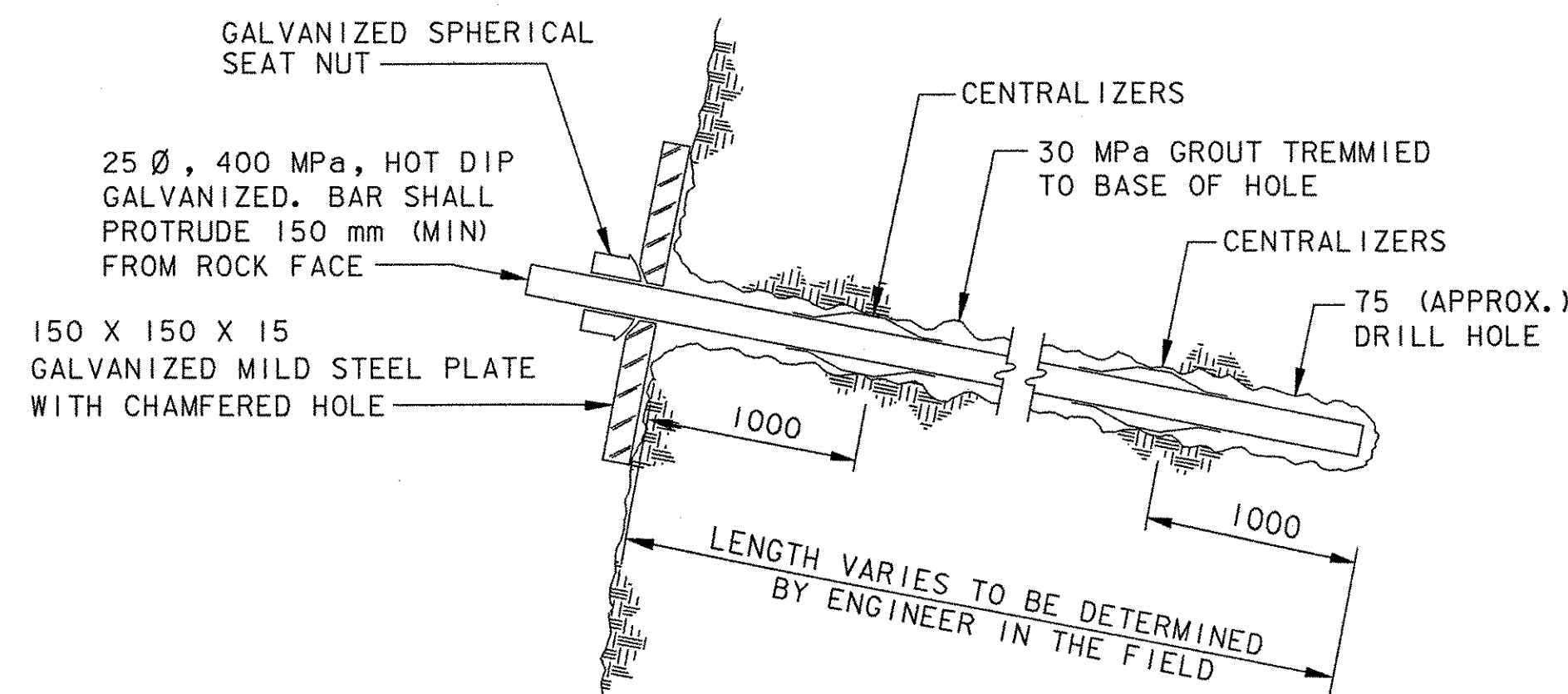
SECTION
SCALE: 1:40

ARCH FOUNDATION NO. 1
(PIER BENT 1)
SOUTHEAST ARCH FOUNDATION SHOWN,
SOUTHWEST ARCH FOUNDATION SHOWN IN PARENTHESES



SECTION
SCALE: 1:40

ARCH FOUNDATION NO. 2
(PIER BENT 7)



ROCK DOWEL DETAIL
NOT TO SCALE

NOTES:

- ROCK EXCAVATION FOR CONSTRUCTION OF FOUNDATIONS WILL REQUIRE EXTREME CARE IN CLOSE PROXIMITY TO THE EXISTING BRIDGE AND NECR TO AVOID DAMAGE TO THE EXISTING BRIDGE AND RAILROAD AND ENSURE THAT ROCK TO REMAIN IS NOT DAMAGED BEYOND BLASTING LIMITS. ALL COST FOR ROCK EXCAVATION SHALL BE INCLUDED UNDER ITEM 203.16, SOLID ROCK EXCAVATION (MOD. - CLOSE-IN BLASTING) AND ITEM 203.16, SOLID ROCK EXCAVATION (MOD. - MECHANICAL SPLITTING).
 - AFTER THE BEARING SURFACE IS EXPOSED, DIAMOND CORING OF THE ROCK TO A DEPTH OF 9.0 m BELOW EACH ARCH FOUNDATION (4 TOTAL) SHALL BE COMPLETED TO VERIFY ROCK MASS SOUNDNESS. CORING SHALL BE CONDUCTED UTILIZING NX SIZE DOUBLE TUBE CORING TECHNIQUES IN ACCORDANCE WITH AASHTO T-225 (DIAMOND CORE DRILLING FOR SITE INVESTIGATION). GEOLOGIC LOGGING SHALL BE PERFORMED BY THE VTRANS GEOLOGIST. AT THE DIRECTION OF THE VTRANS GEOLOGIST, DIAMOND CORE HOLES SHALL BE TREMIE GROUTED WITH NEAT CEMENT GROUT HAVING A MINIMUM UNCONFINED COMPRESSIVE STRENGTH OF 30 MPa. ALL COST FOR DIAMOND CORING AND GROUTING SHALL BE PAID UNDER ITEM 507.16, DRILLING AND GROUTING DOWELS (MOD. 11 - DIAMOND CORING).
 - FOLLOWING EXPOSURE OF THE ARCH PIER BEARING SURFACE LOCATIONS, THE ENGINEER OR THE VTRANS GEOLOGIST SHALL MAP THE EXPOSED BEARING SURFACES AND ROCK SLOPE ADJACENT TO THE FOUNDATIONS TO ASSESS THE NEED FOR ROCK MASS REINFORCEMENT. REINFORCING SHALL CONSIST OF ROCK DOWELS AS SHOWN ON THIS SHEET. THE NUMBER AND LENGTH OF ROCK DOWELS WILL BE DETERMINED BY THE ENGINEER AND VTRANS GEOLOGIST.
 - THE PREPARED BEARING SURFACE SHOULD BE PRESSURE WASHED PRIOR TO CONCRETE PLACEMENT AND SHOULD NOT HAVE PROJECTIONS GREATER THAN 100 mm THAT REDUCE THE CONCRETE COVER OVER REINFORCING STEEL OR THAT CANNOT BE SPANNED BY THE FOUNDATION REINFORCEMENT. OVER-EXCAVATED AREAS SHOULD BE CLEANED OF ALL BROKEN MATERIAL AND BACKFILLED WITH CLASS A CONCRETE.
 - CONSTRUCT THE BACK VERTICAL FACE OF EACH ARCH FOUNDATION AGAINST SOLID LEDGE. THE BACK SLOPING FACE OF ARCH FOUNDATION #1 SHALL BE A CONSTANT SLOPE BASED UPON THE MINIMUM DEPTH OF LEDGE DETERMINED IN THE FIELD.
- ROCK DOWEL INSTALLATION NOTES:**
- DRILL HOLE TO REQUIRED DEPTH.
 - FLUSH HOLE WITH DRILL WATER.
 - TREMIE GROUT TO BASE OF HOLE, WITHDRAWING TREMIE PIPE AS HOLE FILLS WITH GROUT.
 - LEAVE GROUT TO SIT FOR 5 MINUTES.
 - IF HOLE REMAINS FULL OF GROUT, INSERT BAR WITH CENTRALIZERS. IF GROUT LEVEL DROPS BY MORE THAN 100 mm, TOP OFF HOLE WITH GROUT AND REPEAT UNTIL GROUT LEVEL DROP IS LESS THAN 100 mm IN 5 MINUTES, THEN INSTALL DOWEL.
 - ALL COST FOR ROCK DOWEL INSTALLATION SHALL BE INCLUDED UNDER ITEM 507.16, DRILLING AND GROUTING DOWELS (MOD. 1 - ROCK DOWELING).

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of COLCHESTER-SOUTH BURLINGTON	Bridge No. 6
Highway No. TH 4/3	Log Sta. Surv. Sta.

TH 4/3 OVER WINOOSKI RIVER & N.E.C.R.

ARCH FOUNDATION MASONRY

Designed By W.M. MOSHER	Drawn By B.J. MASSE
Checked By K.G. KRETSCH	Date 4/05
Bridge Design Supervisor S.M. GUNN	Date 4/05

PROJECT COLCHESTER-SOUTH BURLINGTON	PROJECT NO. BRM 5600 (6) S C/2
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I.G.C. Info.	Bridge Sheet No. ZD139AFM	Sheet 75 of 124
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DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (92)

VHB Vanasse Hangen Brustlin, Inc.