

No liquefiable
Deposits

FOUNDATIONS

Memorandum.

UTAH DEPARTMENT OF TRANSPORTATION

DATE: June 24, 1980

TO : Those Listed Below

Heber V Cam for E. E. L.

FROM : Edwin E. Lovelace, Engineer of Materials and Research

*X 155 RW
Sec 19 P*

SUBJECT: I-15-5(2)195 - Sevier River to Mills Junction
I-15 over Line 3, Mills Junction
Interchange at I-15 L Station 1673+00

SITE CONDITIONS

Two single span prestressed concrete beam structures are proposed to carry I-15 over Line 3. The structures are 90 feet long and 44 feet wide and will cross Line 3 at a right angle. The approach embankments vary from 8 to 18 feet and Line 3 will have approximately 8 feet of cut at the center of the crossing.

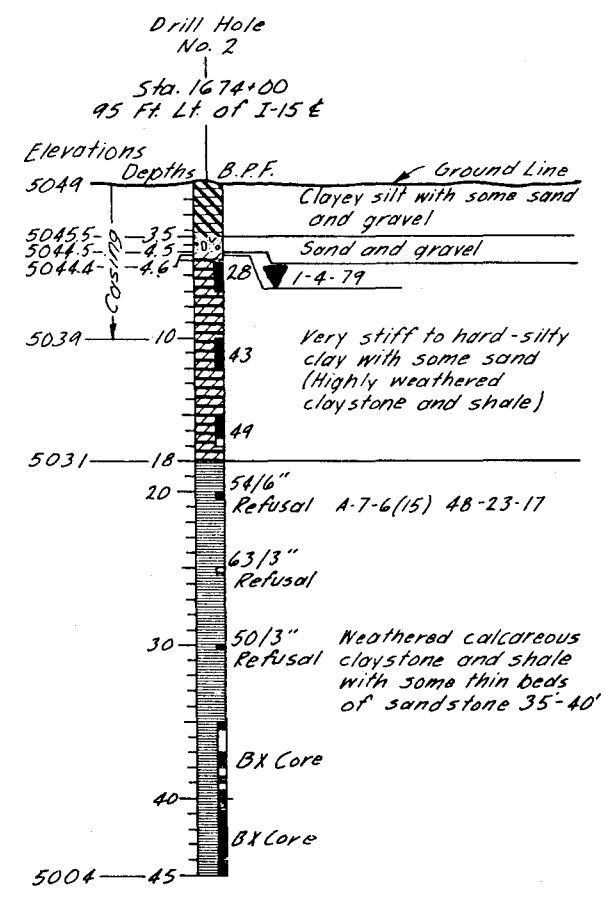
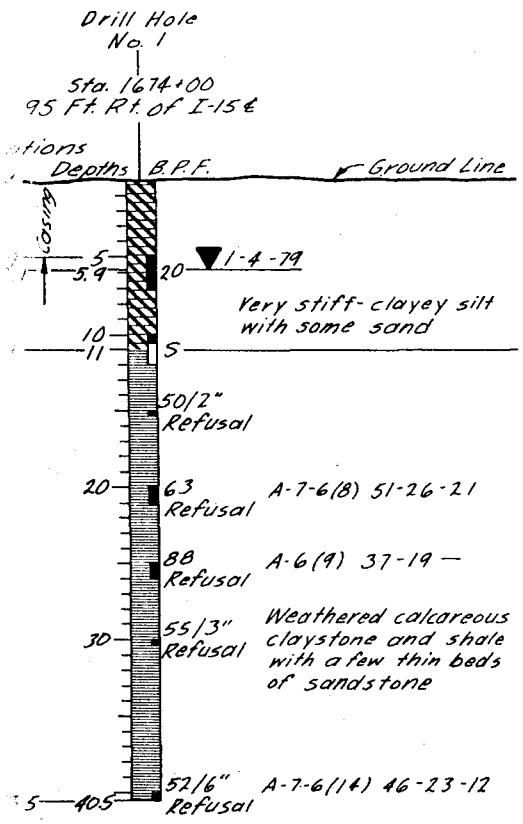
Drainage at this site is good.

SUBSURFACE EXPLORATION

Four test holes were drilled at this site with depths ranging from 30 to 45 feet. Correlation between test holes is good and a general description of the subsurface materials is as follows: from the ground surface to a depth of 6 feet--clayey silt and some silty clay; from 6 feet to the maximum depth of exploration --highly weathered claystone and shale with some calcareous zones and a few thin beds of sandstone and siltstone. See Fig. 1 for more detailed descriptions of subsurface materials and test hole locations.

FOUNDATION RECOMMENDATIONS

Drilled caissons are recommended for support of the abutments



KEY TO DRILLING LOG

RELATIVE DENSITY - NON-PLASTIC
 VERY SOFT - LESS THAN 4 B.L.P.F.
 SOFT - 4 TO 15 B.L.P.F.
 MEDIUM - 15 TO 30 B.L.P.F.
 STIFF - 30 TO 50 B.L.P.F.
 VERY STIFF - MORE THAN 50 B.L.P.F.

CONSISTENCY (PLASTIC-SILT & CLAY)
 VERY SOFT - LESS THAN 2 B.L.P.F.
 SOFT - 2 TO 4 B.L.P.F.
 MEDIUM - 4 TO 8 B.L.P.F.
 STIFF - 8 TO 15 B.L.P.F.
 VERY STIFF - 15 TO 30 B.L.P.F.
 HARD - MORE THAN 30 B.L.P.F.

LEGEND:
 TOPSOIL OR FILL, GRAVEL, SAND, SILT, CLAY, SHALE, IGNEOUS, LIMESTONE, CONGLOMERATE, DOLOMITE

DRILL HOLE NO. 2
 STATION: 0+00 E OR LT OR RT IN
 ELEVATIONS: GROUND ELEVATION, DEPTHS, GROUND WATER TABLE
 EXAMPLE: STIFF BRN CLAY (LL-P=17-7)
 DATE: []
 THIN WALL TUBE UNUSUAL SAMPLER
 SPLIT BAR UNDISTURBED SAMPLER RINGS OR TYPE SAMPLE
 REASON RECOVERED: []
 CLASS OF EACH AND REASON CLASSIFIED TESTS: []

ABBREVIATIONS
 L.L. - LIQUID LIMIT IN %
 P.I. - PLASTIC INDEX
 W. - NATURAL MOISTURE %
 W.G. - WELL GRADED
 PEN. - PENETRATION
 G.W.T. - GROUND WATER TABLE
 B.P.F. - BLOWS PER FOOT
 N.P. - NON PLASTIC

NOTE: REFUSAL = 50 or more blows per 6"

UTAH DEPARTMENT OF TRANSPORTATION
 SALT LAKE CITY, UTAH
 MATERIALS AND RESEARCH SECTION
 SEVIER RIVER TO MILLS JUNCTION
 MILLS JUNCTION INTERCHANGE

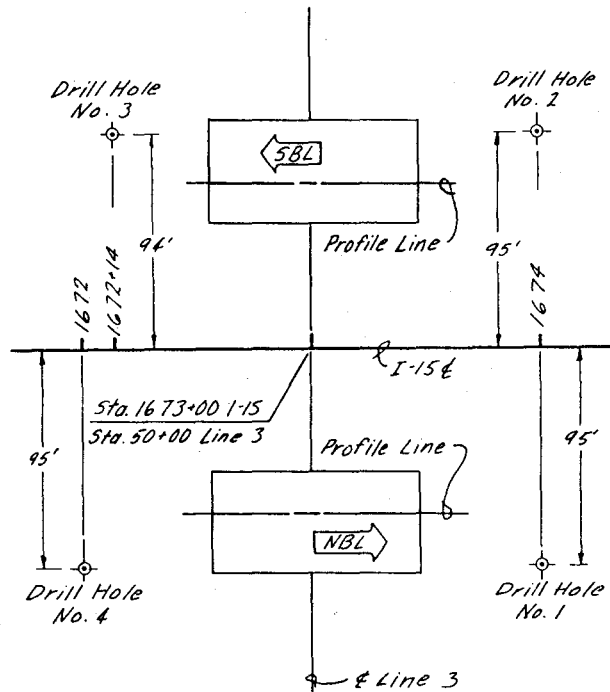
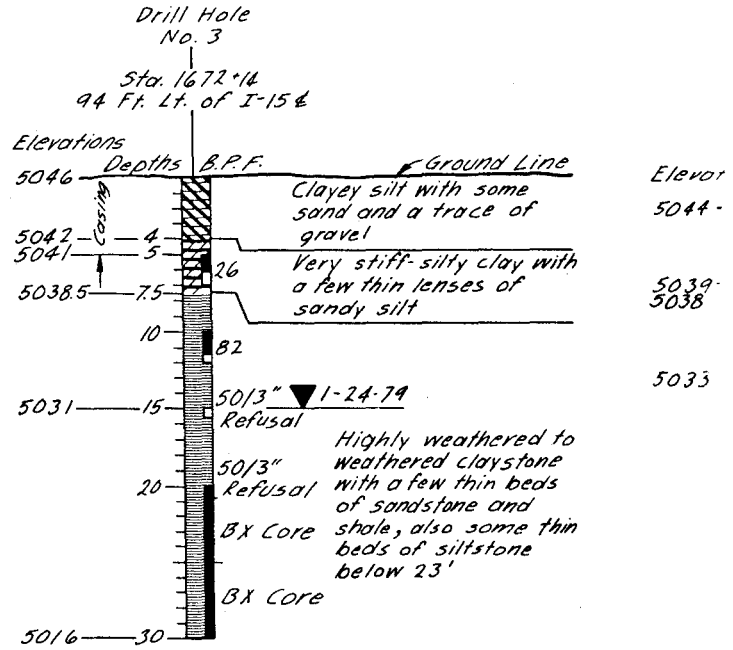
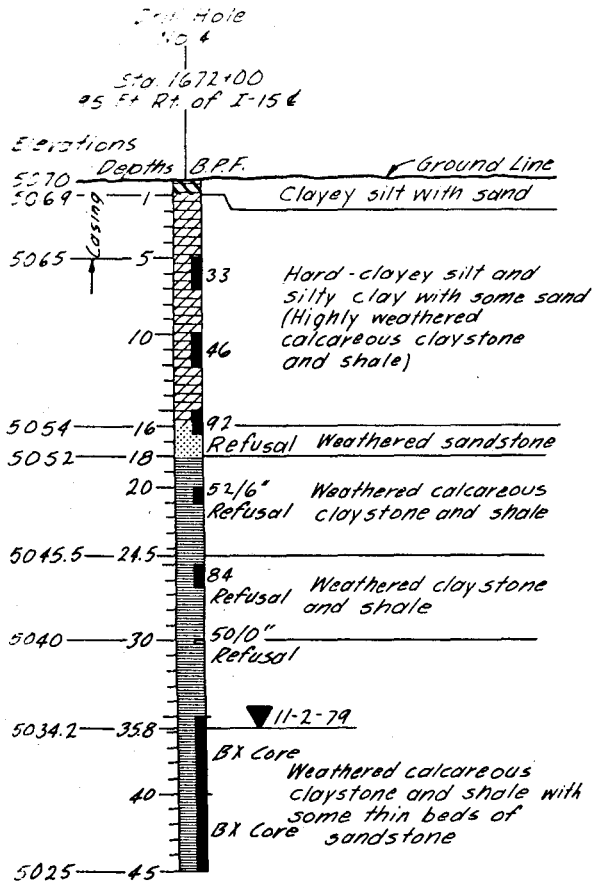
DRAWN BY: B. Kistler CHECKED BY: B.C. Saare
 CHECKED BY: P.J. [] CHECKED BY: S.I. SAKHAI
 CHECKED BY: [] CHECKED BY: []
 APPROVAL RECOMMENDED BY: Loren H. Rawlin
 RECEIVED: [] DATE: [] CHIEF STRUCTURAL ENGINEER: []

NO. BY DATE REMARKS
 REVISIONS

BR NO. DRG NO.

Date Drilled: 1-79 and 10-79

Figure 1



5003.5-

