STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

# SHELBY TUBE TEST RESULTS



Date 3/27/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange DRILLED BY BS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair STRUCT. NO. 082-0326
Station NA

BORING NO. B-424 ST
Station 13+37.77 Ground Surface Elev. 419.4 ft Tube Length 30 in
Offset 5ft LT Begin Sampling Depth 0 ft Tube Diameter 3 in

| SOIL TYPE, DESCRIPTION AND OBSERVATIONS | DEPTH (ft) | SPECIMEN (no) | RECOVERY (%) | UNIT WEIGHT (pcf) | STRENGTH (tsf) | MOISTURE (%) | TRIAXIAL DATA COHESION (tsf) | PHI ANG. (deg) | TEST TYPE |
|---|---|---|---|---|---|---|---|---|---|
| Brown, clayey SILT (FILL), trace organics and trace sand | | 1-1 | 67 | | | 19 | | | |
| Brown, clayey SILT (FILL), trace organics and trace sand | | 1-2 | 100 | 119 | 0.8 | 19 | | | Uc |
| Brown, clayey SILT (FILL), trace organics and trace sand | | 1-3 | 83 | | | 19 | | | |
| Gravel (FILL) | | 2-1 | | | | | | | |
| Clay and Gravel (FILL) | | 3-1 | | | | | | | |
| | -5 | | | | | | | | |
| Brown, SILTY LOAM | | 4-1 | 100 | | | 27 | | | |
| Brown, SILTY LOAM | | 4-2 | 100 | | | 27 | | | |
| Brown, CLAY | | 4-3 | 67 | 116 | | 35 | | | |
| Brown SANDY LOAM | | 5-1 | 100 | | | | | | |
| Brown SANDY LOAM | | 5-2 | 100 | | | | | | |
| Brown, SILTY CLAY | | 5-3 | 100 | | | 37 | | | |
| Brown, SILTY CLAY | | 5-4 | 67 | | | 37 | | | |
| Brown, SANDY LOAM, with trace iron staining and gravel | -10 | 6-1 | 100 | 110 | | 44 | | | CU |
| Brown, SANDY LOAM, with trace iron staining and gravel | | 6-2 | 100 | 112 | 0.6 | 31 | | | UU |
| Brown and gray, CLAY, with iron staining | | 6-3 | 100 | | | | | | |
| Brown and gray, CLAY, with iron staining | | 6-4 | 83 | | | | | | |
| Brown and gray, CLAY, with fine grained sand | | 7-1 | 100 | | | | | | |
| Brown gray, CLAY | | 7-2 | 100 | | | | | | |

The "Unit Weight" column indicates the "wet" or "moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU) or Consolidated Undrained (CU) test procedures (AASHTO T 296 or T 297) were used

BMPR FORM 1004A (Rev. 8-99)

*SHELBY TUBE TEST: B-424*
*1 OF 3*

Illinois Department of Transportation
Division of Highways
Geotechnology, Inc

# SHELBY TUBE TEST RESULTS



Date 3/27/09

ROUTE FAP 998 DESCRIPTION Trilevel Interchange DRILLED BY BS

SECTION 82-1 LOCATION East St. Louis, IL, SEC. 7, TWP. 2N, RNG. 9W

COUNTY St. Clair STRUCT. NO. 082-0326
Station NA

BORING NO. B-424 ST
Station 13+37.77 Ground Surface Elev. 419.4 ft Tube Length 30 in
Offset 5ft LT Begin Sampling Depth 0 ft Tube Diameter 3 in

| SOIL TYPE, DESCRIPTION AND OBSERVATIONS | DEPTH (ft) | SPECIMEN (no) | RECOVERY (%) | UNIT WEIGHT (pcf) | STRENGTH (tsf) | MOISTURE (%) | TRIAXIAL DATA COHESION (tsf) | PHI ANG. (deg) | TEST TYPE |
|---|---|---|---|---|---|---|---|---|---|
| Brown gray, CLAY | | 7-3 | 100 | 111 | | 33 | 0.2 | 25 | CU |
| Brown, CLAY | | 8-1 | 100 | 110 | | 37 | | | CU |
| Brown, CLAY | -15 | 8-2 | 100 | 112 | 1.3 | 38 | | | Uc |
| Brown, SILTY LOAM | | 8-3 | 83 | | | 31 | | | |
| Brown, SANDY LOAM | | 9-1 | | | | | | | |
| Brown, SANDY LOAM | | 10-1 | | | | | | | |
| | -20 | | | | | | | | |
| Brown, MEDIUM GRAINED SAND | | 11-1 | 100 | | | | | | |
| Gray brown, SANDY LOAM | | 11-2 | 100 | 119 | | 29 | | | CU |
| Gray brown, SANDY LOAM | | 11-3 | 100 | 117 | | 29 | 0.0 | 26 | CU |
| Gray brown, SANDY LOAM | | 11-4 | 100 | 117 | | 30 | | | |
| Brown, SANDY LOAM | | 12-1 | 100 | | | | | | |
| Brown, SANDY LOAM | | 12-2 | 100 | 113 | | 26 | | | CU |
| Brown, FINE GRAINED SAND | | 12-3 | 100 | 117 | | 25 | | | |
| Brown, FINE GRAINED SAND | | 12-4 | 83 | | | | | | |
| Brown, SANDY LOAM | | 13-1 | 100 | | | | | | |
| Gray brown, CLAY | -25 | 13-2 | 100 | 114 | | 36 | | | |
| Gray, CLAY | | 13-3 | 100 | 111 | 0.7 | 42 | | | UU |

The "Unit Weight" column indicates the "wet" or "moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU) or Consolidated Undrained (CU) test procedures (AASHTO T 296 or T 297) were used

BMPR FORM 1004A (Rev. 8-99)

*SHELBY TUBE TEST: B-424*
*2 OF 3*

AECOM
303 East Wacker Drive, Suite 600
Chicago, Illinois 60601
Ph: 312.938.0300
Fax: 312.373.6806
www.aecom.com

| | |
|---|---|
| DESIGNED | PJL |
| CHECKED | DDB |
| DRAWN | BRD |
| CHECKED | DDB |

03/31/2011

*BORING LOGS - VII*
*STRUCTURE NO. 082-0326*

| SHEET NO. S35 | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| S36 SHEETS | 64 | 82-1-3HB, 82-2N, 82-1-12RS | ST. CLAIR | 352 | 237 |
| | F.A.U. 9166 / F.A.U. 9180 | | CONTRACT NO. 76C51 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

K:\PROJECTS\60046609\In_Progress\PLANS\D8TR\76C51-SN082-0326.dgn
3/22/2011