

|                     |         |                           |              |           |
|---------------------|---------|---------------------------|--------------|-----------|
| F.A. ROUTE NO.      | SECTION | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|                     |         | LAKE                      | 12/          | 8/        |
| FED. ROAD DIST. NO. |         | ILLINOIS FED. AID PROJECT |              |           |
| CONTRACT NO. XXXXX  |         |                           |              |           |

**Wang Engineering, INC.**  
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### BORING LOG RB-23

WEI Job No.: 555-12-01  
 Client: IDOT Project No. D-91-336-06  
 Project: FAP 330 [IL21 to US45] Inverrary Ln to Deerfield Rd  
 Location: Village of Buffalo Grove, Lake County IL  
 Datum: NGVD  
 Elevation: 60.12 m  
 North: m  
 East: m  
 Station: 10+358.2  
 Offset: 7.0L

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION  | Depth (m) | Sample Type | Sample No. | SPT Values (blows/150 mm) | Qu (kPa) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | SPT Values (blows/150 mm) | Qu (kPa) | Moisture Content (%) |
|-----------------------|--|-----------|-------------|------------|---------------------------|----------|----------------------|-----------------------|---------------------------|-----------|-------------|------------|---------------------------|----------|----------------------|
| 59.1                  | 8.26 centimeter thick ASPHALT;                                   |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.9                  | 22.2 centimeter thick CONCRETE                                   |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.9                  | --PAVEMENT--   |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Brown, coarse to fine SAND and coarse to fine GRAVEL             | 1         | X           | 1          | 4                         | 153      | 10                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Dark gray and dark brown SILTY CLAY and coarse to fine SAND      | 2         | X           | 2          | 3                         | 96       | 21                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Brown, coarse to fine CLAYEY SAND                                | 3         | X           | 3          | 2                         |          | 18                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 4         | X           | 4          | 2                         |          | 18                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 5         | X           | 5          | 3                         | 115      | 18                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Brown, coarse to fine SAND and coarse to fine GRAVEL, trace silt | 6         | X           | 6          | 8                         |          | 9                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 7         | X           | 7          | 11                        |          | 9                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 8         | X           | 8          | 16                        |          | 9                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 9         | X           | 9          | 16                        |          | 5                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 10        | X           | 10         | 13                        |          | 10                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |  | 11        | X           | 11         | 13                        |          | 10                   |                       |                           |           |             |            |                           |          |                      |
| 56.9                  | Gray, coarse to fine SAND, little coarse to fine gravel          | 12        | X           | 12         | 8                         |          | 9                    |                       |                           |           |             |            |                           |          |                      |
| 56.7                  | Gray CLAY, trace fine sand                                       | 13        | X           | 13         | 8                         |          | 11                   |                       |                           |           |             |            |                           |          |                      |
| 55.4                  |  | 14        | X           | 14         | 5                         | 134      | 27                   |                       |                           |           |             |            |                           |          |                      |
| 55.4                  |  | 15        | X           | 15         | 5                         |          | 27                   |                       |                           |           |             |            |                           |          |                      |
| 55.4                  | Boring terminated at 4.72 m                                      | 16        | X           | 16         | 5                         |          |                      |                       |                           |           |             |            |                           |          |                      |

| GENERAL NOTES   |                       |                   |            | WATER LEVEL DATA          |    |        |  |
|---|-----------------------|-------------------|------------|---------------------------|----|--------|--|
| Begin Drilling  | 08-23-2001            | Complete Drilling | 08-23-2001 | While Drilling            | ▽  | 3.35 m |  |
| Drilling Contractor   | Contract Drilling Co. | Drill Rig         | CME 45     | At Completion of Drilling | ▽  | 2.96 m |  |
| Driller   | R. Wolf               | Logger            | J. Dalton  | Time After Drilling       | NA |        |  |
| Drilling Method   | 6-inch HSA            | Checked by        |            | Depth to Water            | ▽  | NA     |  |
| The stratification lines represent the approximate boundary between soil types. The actual transition may be gradual. |                       |                   |            |                           |    |        |  |

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### BORING LOG RB-24

WEI Job No.: 555-12-01  
 Client: IDOT Project No. D-91-336-06  
 Project: FAP 330 [IL21 to US45] Inverrary Ln to Deerfield Rd  
 Location: Village of Buffalo Grove, Lake County IL  
 Datum: NGVD  
 Elevation: 60.05 m  
 North: m  
 East: m  
 Station: 10+381.0  
 Offset: 7.5L

| Profile Elevation (m) | SOIL AND ROCK DESCRIPTION                                 | Depth (m) | Sample Type | Sample No. | SPT Values (blows/150 mm) | Qu (kPa) | Moisture Content (%) | Profile Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | SPT Values (blows/150 mm) | Qu (kPa) | Moisture Content (%) |
|-----------------------|---|-----------|-------------|------------|---------------------------|----------|----------------------|-----------------------|---------------------------|-----------|-------------|------------|---------------------------|----------|----------------------|
| 59.1                  | 8.89 centimeter thick ASPHALT;                            |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.9                  | 23.5 centimeter thick CONCRETE                            |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.9                  | --PAVEMENT--  |           |             |            |                           |          |                      |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Light gray, coarse to fine SAND and coarse to fine GRAVEL | 1         | X           | 1          | 4                         |          | 4                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | --BASE COURSE--   | 2         | X           | 2          | 1                         |          | 7                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Black, coarse to fine SAND, trace silt                    | 3         | X           | 3          | 3                         | 105      | 24                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | --FILL--  | 4         | X           | 4          | 3                         |          | 16                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Brown, gray and dark gray SILTY CLAY                      | 5         | X           | 5          | 12                        |          | 16                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | --FILL--  | 6         | X           | 6          | 13                        |          | 16                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  | Brown, coarse to fine SAND and SILT                       | 7         | X           | 7          | 15                        |          | 16                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 8         | X           | 8          | 3                         |          | 15                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 9         | X           | 9          | 4                         |          | 15                   |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 10        | X           | 10         | 4                         |          | 6                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 11        | X           | 11         | 4                         |          | 6                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 12        | X           | 12         | 6                         |          | 8                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 13        | X           | 13         | 6                         |          | 8                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 14        | X           | 14         | 6                         |          | 8                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 15        | X           | 15         | 10                        |          | 7                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 16        | X           | 16         | 8                         |          | 7                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 17        | X           | 17         | 8                         |          | 7                    |                       |                           |           |             |            |                           |          |                      |
| 58.3                  |   | 18        | X           | 18         | 10                        |          | 7                    |                       |                           |           |             |            |                           |          |                      |
| 55.9                  | Brown, coarse to fine SAND, little coarse to fine gravel  | 19        | X           | 19         | 6                         |          | 23                   |                       |                           |           |             |            |                           |          |                      |
| 55.9                  |   | 20        | X           | 20         | 5                         |          | 23                   |                       |                           |           |             |            |                           |          |                      |
| 55.9                  |   | 21        | X           | 21         | 4                         |          | 23                   |                       |                           |           |             |            |                           |          |                      |
| 55.9                  | Boring terminated at 4.72 m                               | 22        | X           | 22         | 4                         |          |                      |                       |                           |           |             |            |                           |          |                      |

| GENERAL NOTES   |                       |                   |            | WATER LEVEL DATA          |    |        |  |
|---|-----------------------|-------------------|------------|---------------------------|----|--------|--|
| Begin Drilling  | 08-23-2001            | Complete Drilling | 08-23-2001 | While Drilling            | ▽  | 3.05 m |  |
| Drilling Contractor   | Contract Drilling Co. | Drill Rig         | CME 45     | At Completion of Drilling | ▽  | 2.77 m |  |
| Driller   | R. Wolf               | Logger            | J. Dalton  | Time After Drilling       | NA |        |  |
| Drilling Method   | 6-inch HSA            | Checked by        |            | Depth to Water            | ▽  | NA     |  |
| The stratification lines represent the approximate boundary between soil types. The actual transition may be gradual. |                       |                   |            |                           |    |        |  |

| REVISIONS |      | ILLINOIS DEPARTMENT OF TRANSPORTATION                         |
|-----------|------|---|
| NAME      | DATE |   |
|           |      | RETAINING WALL SOIL BORING LOGS                               |
|           |      | US 45/IL RTE. 21 OVER APTAKISIC CREEK                         |
|           |      | DRAWN BY: M.S.M. CHECKED BY: S.D.H.                           |
|           |      | DATE: 11-27-07  |
|           |      | GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. CHICAGO, ILLINOIS |