GEOTECHNICAL ENGINEERING REPORT

INTERSTATE HIGHWAY 43
WEST SILVER SPRING DR TO COUNTY HIGHWAY Q
MILWAUKEE COUNTY, WISCONSIN
PROJECT ID: 1229-04-01

Prepared by

Casey Wierzchowski, P. E.
Southeast Region Geotechnical Engineer
Southeast Region Soils Unit

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WAUKESHA COUNTY, WISCONSIN
PROJECT ID: 1229-04-01

EXECUTIVE SUMMARY

- Select materials in subgrades are recommended to be incorporated into the project.

- The following soil parameters are recommended to be used for pavement design

Design Group Index: 12
Frost Index: F-3
Soil Support Value: 4.3
Modulus of Subgrade Reaction: 150 pounds per cubic inch

INTRODUCTION

A Geotechnical Engineering Analysis has been performed for the proposed project to provide design parameters. Pavement design parameters were provided in accordance with WisDOT *Geotechnical Bulletin No. 1*. Recommendations regarding construction issues are also addressed in this report. We should be contacted if the scope of the project changes to see if revisions to the recommendations contained herein are needed.

A supplemental report will also be prepared, at a later date, which will include an evaluation of areas that will need to be widened to accommodate the new construction.

SITE AND PROJECT DESCRIPTION

It is understood that the proposed project is to consist of the reconstruction of Interstate Highway (I) 43 from West Silver Spring Drive to County Highway Q in Milwaukee County, Wisconsin.

Presently I-43 consists of a 4 lane divided highway with urban and rural cross sections. According to the project plans, dated February 2013, the travel lanes are 12 feet wide. Paved shoulders adjacent to the lanes vary from 0 to 10 feet wide. The pavement section consists of hot mix asphalt (HMA) over Portland Cement Concrete (PCC) over a crushed aggregate base course. The existing pavement is generally in fair condition.

SUBSURFACE CONDITIONS

A total of XXX test borings were drilled in July and September of 2014 as part of this exploration and analysis. The test borings were drilled with conventional truck mounted drilling equipment. An all terrain drill rig was used to drill test borings that were off of the existing roadway in difficult to reach locations. Soil samples were collected from each test boring and were returned to the Wisconsin Department of Transportation (WisDOT) Southeast Region Soils Unit laboratory for classification purposes. The test borings were generally drilled to depths of 5 to 25 feet below the existing ground surface.

A boring location plan is also included in Appendix A. The test boring logs are included in Appendix B.

Subsoil Conditions

The United Sates Department of Agriculture, Soil Conservation Service, *Soil Survey of Milwaukee and Waukesha Counties, Wisconsin*, dated July 1971 was reviewed. The United States Geologic Survey *Topographic Map* of the region was also reviewed.

The natural topographical features in the vicinity of the project were generally shaped during the last ice age by the advancing and retreating of the Lake Michigan Lobe of the Laurentide Ice Sheet.

A number of drumlins exist along the project. Drumlins are generally oval shaped hills. The long axis of the drumlin indicates the direction of movement of the glacier. The orientation of the drumlins along the project indicates that the glacier moved from the northeast to the southwest, almost parallel to I-43 through much of Waukesha County.

Drumlins likely formed in one of two ways. They were either carved out of the preexisting landscape or they consist of material deposited during the movement of the glacier.

The soil deposited by the glacier generally consists of sandy glacial till of the New Berlin member of the Holy Hill formation.

The drainage patterns in the area are the result of the landscape carved by the glaciers. The near surface soils developed over time after the glaciers had fully retreated from the area. Wind blown soils and glacial deposits combined to form the near surface soils that

are present. Near surface soils along existing streams and rivers generally consist of postglacial alluvial soil deposits. The organic soil deposits present are also post glacial deposits and generally occur in former glacial lake beds and depressions formed where soil deposits collapsed after blocks of ice melted.

According to the *Soil Survey* the predominant soil types present at the project location predominantly consist of Kewaunee and Manawa soils. It is apparent that grading activities have taken place in the vicinity of the roadway and the actual soil types present may be greatly different than those listed in the *Soil Survey*.

The ***Kewaunee soils*** are well drained or moderately well drained soils that consist of a thin layer of silt loam over a clay loam subsoil that is underlain by calcareous silty clay till. These soils are on glacial ground moraines east of the Milwaukee River in the northern part of Milwaukee County. They occupy areas of irregular shape on convex side slopes.

In a typical profile, the surface layer is silt loam and is about 8 inches thick. The subsurface layer is silt loam that is about 2 inches thick. The subsoil is about 14 inches thick. The upper part of the subsoil is clay. The lower part is silty clay. The substratum is silty clay glacial till that is strongly calcareous.

The Kewaunee soils are slowly permeable and have high available water capacity. In some places ground water is less than 5 feet below the surface in wet periods. The Kewaunee soils are considered an unsuitable source of sand and gravel. They have moderate to very severe limitations for roadway construction and as a subgrade material.

The ***Manawa soils*** consist of somewhat poorly drained, silty soils that have a silty clay subsoil over calcareous silty clay glacial till. These soils occupy the concave side slopes of drainage ways and slight depressions. They lie east of the Milwaukee River in the northern part of Milwaukee County.

In a typical profile, the surface layer is silt loam about 9 inches thick. The subsurface layer is mottled silty clay loam about 3 inches thick. The subsoil is about 18 inches thick. The upper part of the subsoil is mottled silty clay. The lower part is strongly calcareous, mottled silty clay. The substratum is strongly calcareous, mottled silty clay glacial till containing a few pebbles and a few segregations of soft lime.

The Manawa soils are slowly permeable and have high available water capacity. Ground water is less than 3 feet below the surface in wet periods. Manawa soils are considered an unsuitable source for sand and gravel. They have severe to very severe limitations for roadway construction and as a subgrade material.

According to the *Soil Survey* Loamy land and clayey land soils are also present along the proposed project but to a lesser extent.

Test Borings

The following paragraphs are a brief description of the soil conditions encountered in the test borings. A more detailed description of the soil conditions can be found on the test boring logs found in Appendix B.

The test borings have been separated into the following sections: B-xx indicate borings performed within the existing IH-43 pavement and shoulders, SR-xx indicate borings performed along the side road alignments and MP-xx indicate borings performed within the delineated wetlands along the corridor.

The following test borings were drilled in the existing pavement along I-43. The pavement thickness at the test boring locations is shown in the following table:

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**
B1	I-43 NB	1090+00	30’ Rt	6	2	4
B2	I-43 SB	1098+00	30’ Lt	7	7	4
B3	I-43 NB	1099+00	30’ Rt	6.5	6	10
B4	I-43 NB	1099+00	49’ Rt	3	6.5	4
B5	I-43 SB	1102+77	30’ Lt	5	6.5	5
B6	I-43 NB	1104+00	30’ Rt	5	7	6
B8	I-43 SB	1106+00	30’ Lt	4	8	5
B9	I-43 NB	1108+00	30’ Rt	4	8	6
B12	I-43 NB	1114+00	30’ Rt	5	10	7
B14	I-43 SB	1125+00	30’ Lt	7	8	6
B17	I-43 NB	1138+00	50’ Rt	5	6.5	6.5
B18	I-43 NB	1140+00	30’ Rt	5.5	8	4.5
B19	I-43 SB	1140+00	40’ Lt	5.5	8	6
B21	I-43 SB	1150+00	40’ Lt	5.5	8	7
B22	I-43 NB	1158+00	40’ Rt	5.5	11	6
B24	I-43 NB	1165+00	60’ Rt	5.5	0	13
1 – Pavement thickness was determined in the field during drilling.						

The following test borings were drilled in unpaved areas along IH-43. The topsoil thickness at the test boring locations is shown in the following table:

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
B7	I-43 NB	1103+95	45’ Rt	2
B10	I-43 NB	1108+00	45’ Rt	3
B13	I-43 NB	1114+00	60’ Rt	3
B15	I-43 NB	1127+95	55’ Rt	7
B20	I-43 NB	1148+00	40’ Rt	6

B23	I-43 SB	1160+00	40’ Lt	1
B25	I-43 SB	1165+00	40’ Lt	2
B27	I-43 NB	1266+00	70’ Rt	5
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill was encountered in Test Boring Nos. B-1, 7, 8, 9, 10, 12 and 14 to depths of approximately 3 to 8.5 feet below grade. The fill generally consisted of silty clay, fine to coarse sand, silty sand. The possible fill soil sample obtained from Boring B-12 also had a slight petroleum odor to a depth of 4 feet below the existing ground surface.

The underlying apparent natural soils generally consisted of silty clay soils to a depth of at least 25 feet below grade, the maximum depth explored.

The following test borings were drilled in the existing pavement along the side roads associated with the project. The pavement and topsoil thickness at the test boring locations are shown in the following tables:

Port Washington Rd.

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**
SR1	Port	108+59	29’ Lt	3.5	7	4
SR2	Port	113+00	20’ Lt	4.5	6.5	3
SR3	Port	118+09	54’ Lt	3	7	4
SR4	Port	122+05	12’ Rt	6	6	6
1 – Pavement thickness was determined in the field during drilling.						

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR5	Port	128+00	15’ Rt	6
SR6	Port	132+95	10’ Rt	5
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR42	PWN Ali	323+50	30’ Rt	3
SR45	PWS Ali	327+00	20’ Lt	3
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill and possible fill was encountered in Test Boring Nos. SR- 2, 3, 4, 42 and 45 to depths of approximately 3.5 to 8.0 feet below grade. The fill generally consisted of silty clay with varying amounts of sand and gravel. Test borings SR- 2 and 45 did not extend

through the fill and possible fill soils. The underlying apparent natural soils in test borings SR- 3, 4 and 45 generally consisted of silty clay to a depth of at least 10 feet below grade, the maximum depth explored.

Jean Nicolet Road

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**
SR7	Jean Nicolet	14+00	0	4	7.5	5.5
SR8	Jean Nicolet	18+98	4' Rt	7	4	5
SR9	Jean Nicolet	40+00	5' Lt	3.5	7.5	5
SR10	Jean Nicolet	50+04	3' Rt	5.5	5	0
SR11	Jean Nicolet	54+50	4' Lt	5	7	6
1 – Pavement thickness was determined in the field during drilling.						

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR12	Jean Nicolet	59+00	3' Lt	2
SR13	Jean Nicolet	63+40	0	4
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill and possible fill was encountered in Test Boring Nos. SR- 7, 8, 9, 11, 12 and 13 to depths of approximately 3.5 to 5.5 feet below grade. The fill generally consisted of sand, sandy clay and silty clay with varying amounts of sand and gravel. Test borings SR- 7 and 8 did not extend through the fill and possible fill soils. The underlying apparent natural soils in test borings SR- 9, 10, 11, 12 and 13 generally consisted of silty clay to a depth of at least 15 feet below grade, the maximum depth explored.

Good Hope Road

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**

SR16	GHW Ali	30+90	40’ Lt	6	0	12
1 – Pavement thickness was determined in the field during drilling.						

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR14	GHE Ali	21+93	35’ Rt	3
SR15	GHE Ali	31+09	30’ Rt	4
SR17	GHA Ali	1146+50	40’ Rt	2
SR18	GHA Ali	1149+00	15’ Rt	1
SR20	GHB Ali	1144+40	50’ Rt	1
SR21	GHC Ali	1142+00	5’ Lt	1
SR22	GHD Ali	1199+97	4’ Rt	3
SR23	GHD Ali	1154+00	53’ Rt	3
MP152	GHC Ali	1140+60	0	3
MP153	GHD Ali	1156+00	17’ Rt	4
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill and possible fill was encountered in Test Boring Nos. SR- 14, 15, 17, 18, 20, 21 and 22 to depths of approximately 3.0 to 10.0 feet below grade. The fill generally consisted of sand and silty clay with varying amounts of sand and gravel. Test boring SR- 15 did not extend through the fill and possible fill soils. The underlying apparent natural soils in the remainder of the test borings generally consisted of silty clay to a depth of at least 15 feet below grade, the maximum depth explored.

Brown Deer Road

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**
MP156	BDD Ali	1273+00	0	0	0	5
1 – Pavement thickness was determined in the field during drilling.						

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR24	BDE Ali	612+00	55’ Rt	7
SR25	BDA Ali	1252+00	75’ Lt	4
SR26	BDA Ali	1254+00	0	2
SR 27	BDA Ali	1259+02	4’ Rt	7
SR28	BDA Ali	1264+00	0	4
SR29	BDA Ali	1269+00	0	2
SR30	BDB Ali	1245+07	7’ Rt	6
SR31	BDB Ali	1247+00	0	1
SR32	BDB Ali	1250+00	0	3

SR33	BDB Ali	1250+40	100’ Rt	4
SR34	BDC Ali	1245+00	0	2
SR35	BDC Ali	1250+00	0	3
SR36	BDC Ali	1250+97	72’ Lt	4
SR37	BDC Ali	1251+57	0	6
SR38	BDD Ali	1254+04	56’ Lt	5
SR39	BDD Ali	1256+00	0	5
SR40	BDD Ali	1259+00	67’ Lt	3
SR41	BDD Ali	1265+00	0	2
MP154	BDB Ali	1269+75	0	2
MP155	BDB Ali	1271+00	20’ Lt	6
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill was encountered in Test Boring Nos. SR- 25, 26, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40 to depths of approximately 3 to 20 feet below grade. The fill generally consisted of silty clay with varying amounts of sand gravel and organics. The fill soil samples obtained from Borings SR- 25, 32, 33, 34 and 37 also had pieces of foundry slag materials present within the recovered samples. Test boring SR- 25 did not extend through the fill soils. The underlying apparent natural soils in the remainder of the test borings generally consisted of silty clay to a depth of at least 22 feet below grade, the maximum depth explored.

County Line Road

Pavement Thickness[1]						
Test Boring No.	**Location**	**STA**	**Offset**	**HMA (inches)**	**PCC (inches)**	**Base Course (inches)**
SR49	CN Ali	25+21	10’ Lt	3	0	15
SR50	CN Ali	32+00	10’ Rt	4.5	0	19.5
SR51	CN Ali	34+98	14’ Lt	3	0	13
1 – Pavement thickness was determined in the field during drilling.						

Topsoil Thickness[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**
SR48	CN Ali	22+00	6’ Lt	5
SR58	CNC Ali	1305+00	13’ Rt	3
MP157	CNC Ali	1307+95	24’ Lt	4
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.				

Fill was encountered in Test Boring Nos. SR- 49, 50, 51 and 58 and MP-157 to depths of approximately 3 to 8 feet below grade. The fill generally consisted of medium to coarse sand, clayey sand and silty clay with varying amounts of sand gravel and organics. Test borings SR- 49 and 50 did not extend through the fill soils. The underlying apparent

natural soils in the remainder of the test borings generally consisted of silty clay to a depth of at least 15 feet below grade, the maximum depth explored.

The following marsh probes were performed within along the IH-43 corridor.

Topsoil Thickness[1]					
Test Boring No.	**Location**	**STA**	**Offset**	**Topsoil (inches)**	**Approximate EBS depth (ft)**
MP1	I-43 NB	1186+00	65' Rt	4	8
MP2	I-43 NB	1187+00	75' Rt	1	8
MP3	I-43 NB	1188+00	65' Rt	1	3
MP4	I-43 SB	1250+00	65' Lt	2	8
MP5	I-43 SB	1250+65	75' Lt	4	8
MP6	I-43 SB	1250+75	115' Lt	4	3
MP7	I-43 NB	1253+00	80' Rt	6	0
MP8	I-43 NB	1253+70	75' Rt	2	3
MP9	I-43 SB	1253+75	90' Lt	3	3
MP10	I-43 NB	1254+40	80' Rt	4	0
MP11	I-43 SB	1254+50	150' Lt	4	0
MP12	I-43 SB	1255+50	160' Lt	3	3
MP13	I-43 SB	1274+00	65' Lt	2	3
MP14	I-43 SB	1276+00	65' Lt	7	3
MP15	I-43 SB	1278+00	65' Lt	8	2
1 – Topsoil thickness determined at the time of drilling by observation of open boreholes.					

Significant depths of highly organic marsh soils were not encountered within the marsh probes. However, soft, somewhat saturated upper zone soils were encountered in test boring Nos. MP- 2, 3, 4, 5, 6, 8, 9, 12, 13, 14 and 15. Additionally, fill and possible fill soils were encountered in test boring No. MP-1 to a depth of 8 feet below grade. The underlying apparent natural soils the test borings generally consisted of silty clay to a depth of at least 15 feet below grade, the maximum depth explored.

Groundwater Conditions

Depth of Water Encountered During Drilling[1]				
Test Boring No.	**Location**	**STA**	**Offset**	**During Drilling (feet)**
MP1	I-43 NB	1186+00	65' Rt	11
MP2	I-43 NB	1187+00	75' Rt	6
MP4	I-43 SB	1250+00	65' Lt	10
MP11	I-43 SB	1254+50	150' Lt	7
MP12	I-43 SB	1255+50	160' Lt	6
MP152	I-43 SB	1140+60	0	9
1 – Depth to water determined in the field during drilling.				

Water was not encountered during drilling in any test borings not listed above. In general the groundwater depth is estimated at greater than 5 feet below the natural grade where these soil types exist. However, According to the *Soil Survey* some of the soil types encountered are associated with shallow groundwater. The following table presents the locations where shallow groundwater relative to the natural ground surface exists.

Location of Soils with Associated Shallow Groundwater[1]
STA 1302+00 to STA 1311+00
STA 1290+00 to STA 1294+00
STA 1238+00 to STA 1243+00
STA 1226+00 to STA 1229+00
STA 1175+00 to STA 1183+00
STA 1139+50 to STA 1144+00
1 –Manawa soils.

The estimated groundwater table depth is considered a preliminary estimate and is based on the regional geology and site features. A more accurate estimate of the groundwater table would require the installation of groundwater observation wells along with observing the wells over an extended period of time.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations presented in this report are based on the subsoil conditions encountered during the subsurface exploration and the information provided on the submitted project plans. The Southeast Region Soils Unit should be provided with revised plans as soon as possible to determine if alterations to the recommendations contained herein are needed.

Select Materials in Subgrades

According to Chapter 11-5-15 of the (WisDOT) Facilities Development Manual (FDM) the proposed project is located within the standard inclusion area for select materials in subgrades. The FDM requires that projects located in the standard inclusion area have select materials incorporated into the subgrade.

The subsoil conditions encountered in the test borings at the plan final subgrade ranged from somewhat uniform apparent natural clays to highly variable fill and possible fill soils. The onsite soils are considered to be moisture and disturbance sensitive and will likely become unstable when exposed to construction traffic when at an elevated moisture content. Elevated moisture contents were also encountered in some of the test borings.

It is expected that EBS will be needed throughout the majority of the new alignments and widened corridor portions of the project. The use of Select Materials in the aforementioned portions of the project will provide a more uniform subgrade for support of the pavement than if isolated areas of EBS were performed. It is likely that the amount of EBS needed would be substantial enough that it would be as effective to plan for incorporation of a select materials layer in these locations as to EBS numerous isolated areas.

Due to the somewhat varied subgrade soils within the existing embankment areas it is recommended to use select materials beneath the proposed pavement sections. Additionally within the new alignments and widened corridor portions of the project EBS can be expected due to varied fill possible fill and unstable upper apparent natural soils. Shallow ground water and perched water can be encountered during construction therefore, select materials would be necessary to build a stable platform prior to placement of additional embankment materials.

Several options for select materials are considered suitable for this project.

1. Breaker Run Stone/Select Crushed Material: A 16-inch thick layer of breaker run or select crushed material. The breaker run layer would be placed beneath the planned pavement and base course. The breaker run layer is recommended to extend laterally to the outside edge of pavement or 2 feet behind back of curb where applicable.

   Breaker run generally consists of large stone, which is likely to contain a large amount of void space. Water will likely become trapped in the void space. Trapped water in the breaker run can cause softening of the underlying subgrade soils and allow for the breaker run containing large void space to settle into the soft soils resulting in an increase in pavement distress. Water trapped in the void space of the breaker run has the potential to freeze during the winter and heave the pavement structure supported above, resulting in increased pavement distress.

   It is recommended that the layer of breaker run be drained to prevent the accumulation of water. Water within the breaker run layer is recommended to be removed through relief trenches that outfall to the outside ditches. Relief trenches should be spaced every 250 feet and at low points. In urban sections the breaker run can be drained by installing sections of draintile at low points in the profile and discharging them to suitable drainage structures.

2. Pit Run Sand and Gravel: Select materials can consist of placing 20 inches of pit run sand and gravel beneath the pavement and base course. The lateral extent for placement of pit run sand and gravel is the same as that for breaker run.

Similar to breaker run, pit run generally consists of large stone, which is likely to contain a large amount of void space that may trap water. The same provisions used to drain breaker run should be used for pit run.

3. Grade 1 or Grade 2 Granular Backfill: Select materials can consist of placing a 24-inch thick layer of Grade 1 Granular Backfill or a 30-inch thick layer of Grade 2 Granular Backfill beneath the planned pavement and base course. The granular backfill layer will need to extend laterally to outside edge of pavement or 2 feet behind back of curb where applicable. It is not considered necessary to drain the layer of Granular Backfill.

Select materials are not required to be placed on an unyielding subgrade. The use of select materials should reduce the amount of additional EBS that would be required for the project, since the select material layer will bridge/stabilize poorer support soils which would otherwise need to be removed.

It should be noted that some EBS and subgrade stabilization will be needed on this project in addition to the Select Materials layer due to the presence of poor soils. Recommendations regarding EBS and subgrade stabilization are addressed further in this report.

If during construction it is determined that the in-place soils are stable, then the Select Materials layer could be eliminated for stretches of the project. Decisions to remove the Select Materials layer should be made by the Project Engineer at the time of grading after a consultation with the Regional Geotechnical Engineer.

Stabilization/Excavation Below Subgrade

Select Materials in Subgrades is recommended to be incorporated into portions of the project. The use of Select Materials will result in a decrease in the amount of EBS that would typically be used on a project. Select Materials replace a portion of lower quality soils with high quality materials that are capable of bridging/stabilizing areas of poor soils that otherwise would need to be removed. It is not necessary to place the select materials on an unyielding subgrade.

However, it is likely that unforeseen amounts of EBS will be needed on this project. It is recommended to add an undistributed quantity of 5000 cubic yards of EBS to the project plans. It is also recommended to backfill EBS excavations with whatever material is chosen for select materials in subgrades.

PAVEMENT DESIGN PARAMETERS

The following soil parameters were previously provided and are recommended to be used in design of the pavement structure. The parameters provided are in accordance with the

WisDOT Pedological approach to Pavement Design outlined in the WisDOT *Geotechnical Bulletin No. 1*.

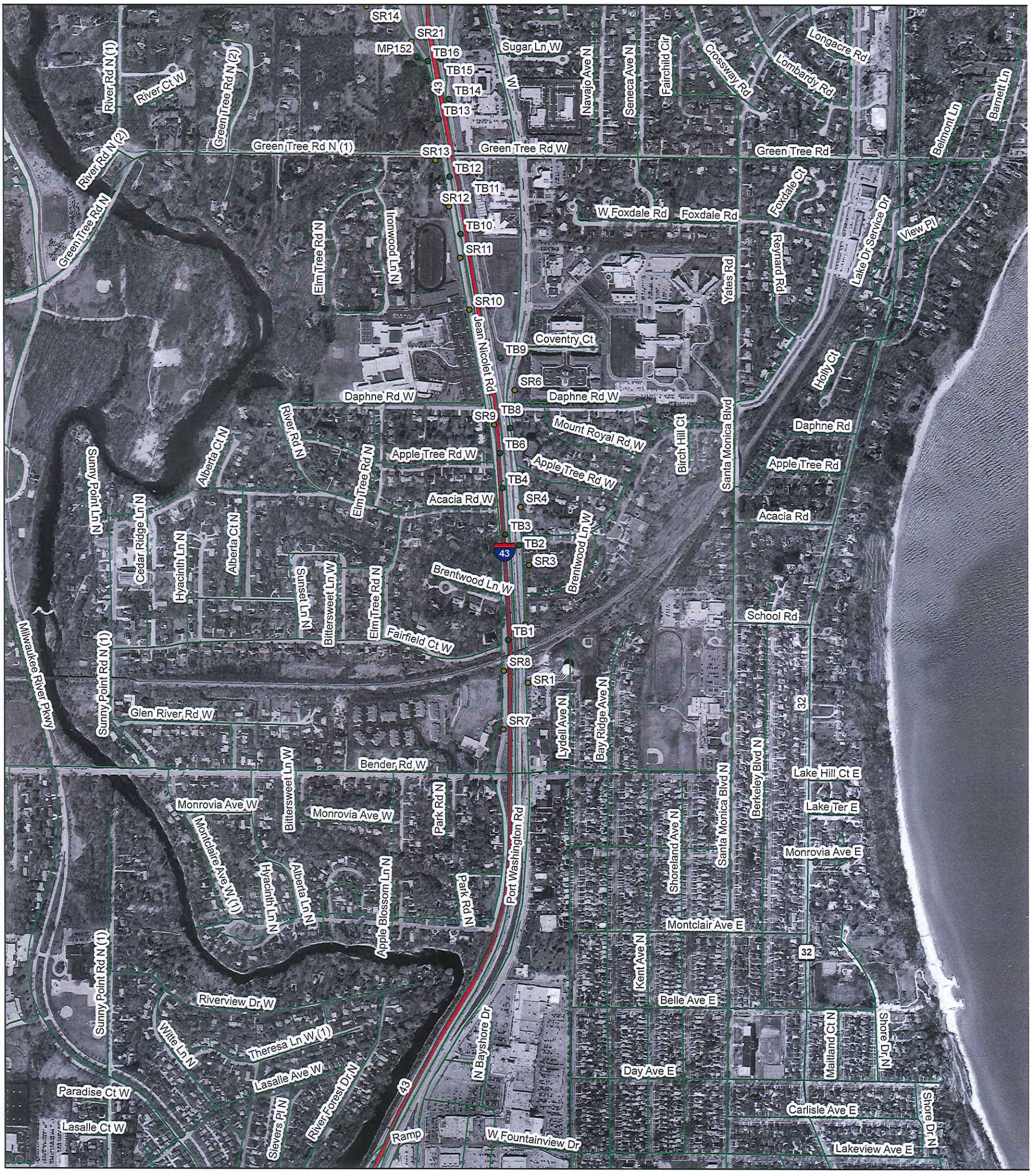
Pavement Design Parameters			
Design Group Index	**Frost Index**	**Soil Support Value**	**Modulus of Subgrade Reaction (pounds per cubic inch)**
12	F-3	4.3	150

AASHTOWare	
Depth to Bedrock (if<20')	-
AASHTO Soil Classification	A-6
Resilient Modulus	12,286
Max Dry Density	115
Specific Gravity	2.65
Optimum Moisture Content	15
Grain Size Distribution:	
#4	97
#10	95
#40	90
#200	76
Atterberg Limits:	
LL	32
PL	18
PI	14

Appendix A

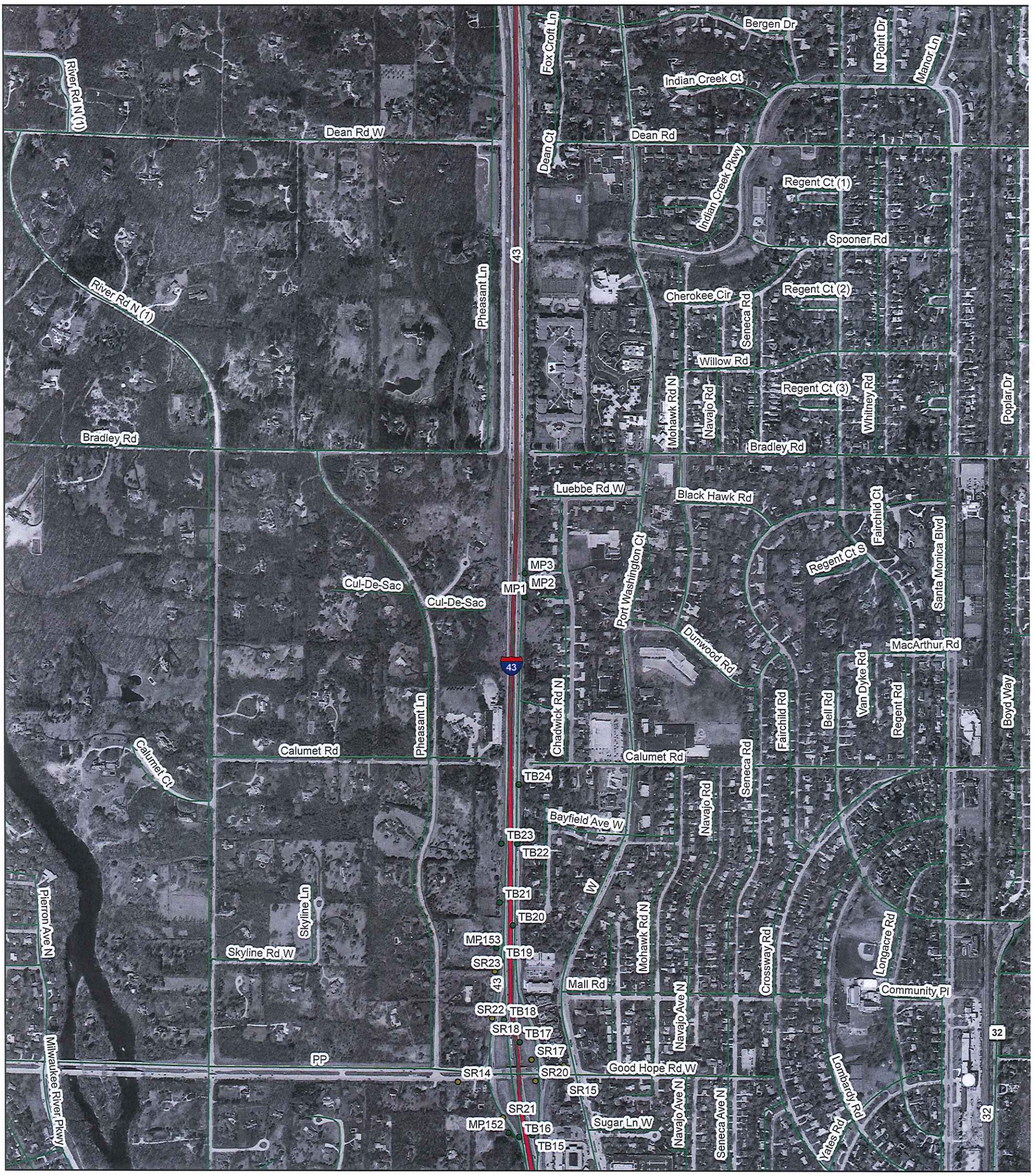
Test Boring Location Plan

I-43 (1229-04-01)
Silverspring Dr to STH 60



0 700 1,400 2,800 4,200 5,600 Feet

I-43 (1229-04-01)
Silverspring Dr to STH 60



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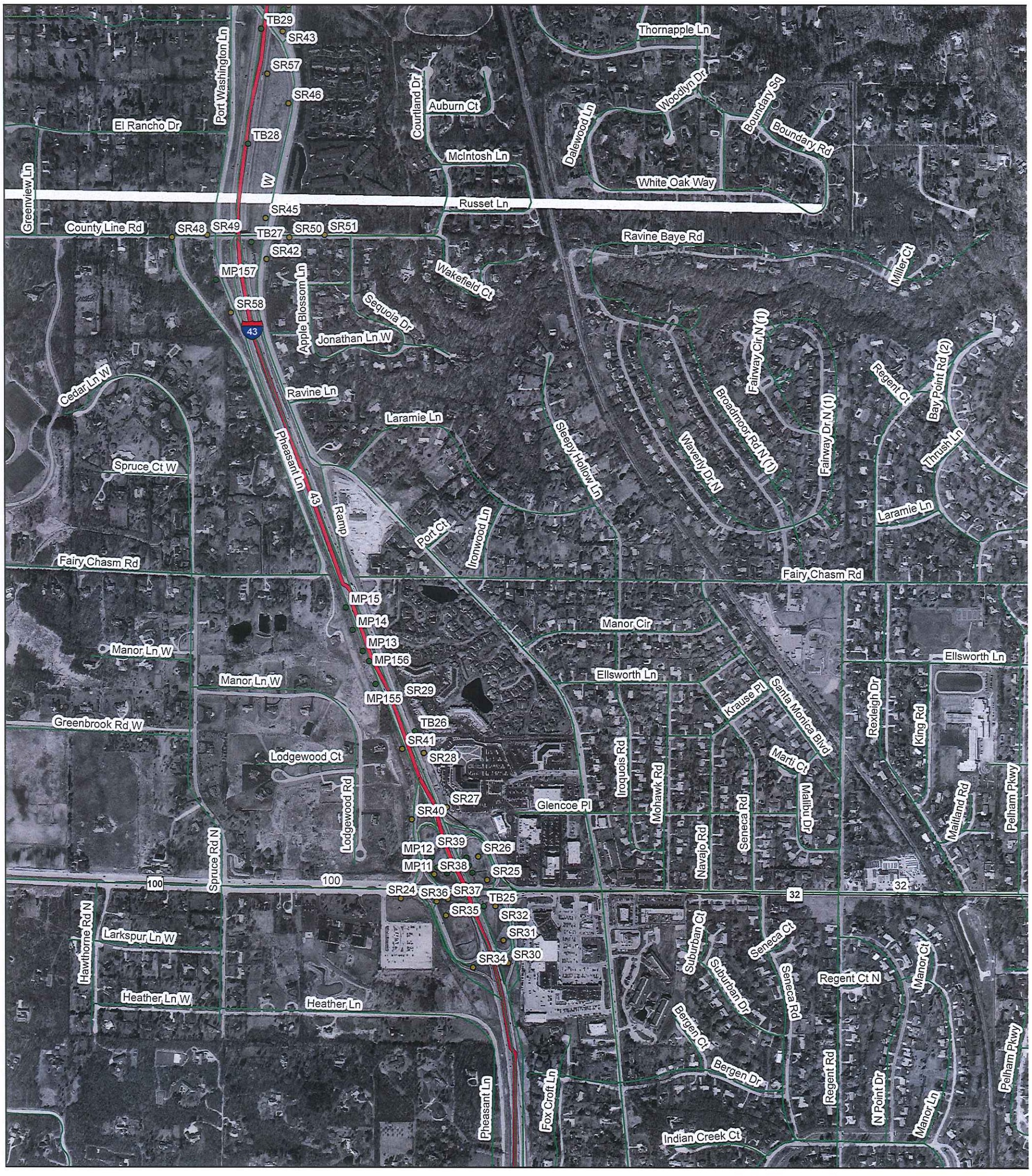
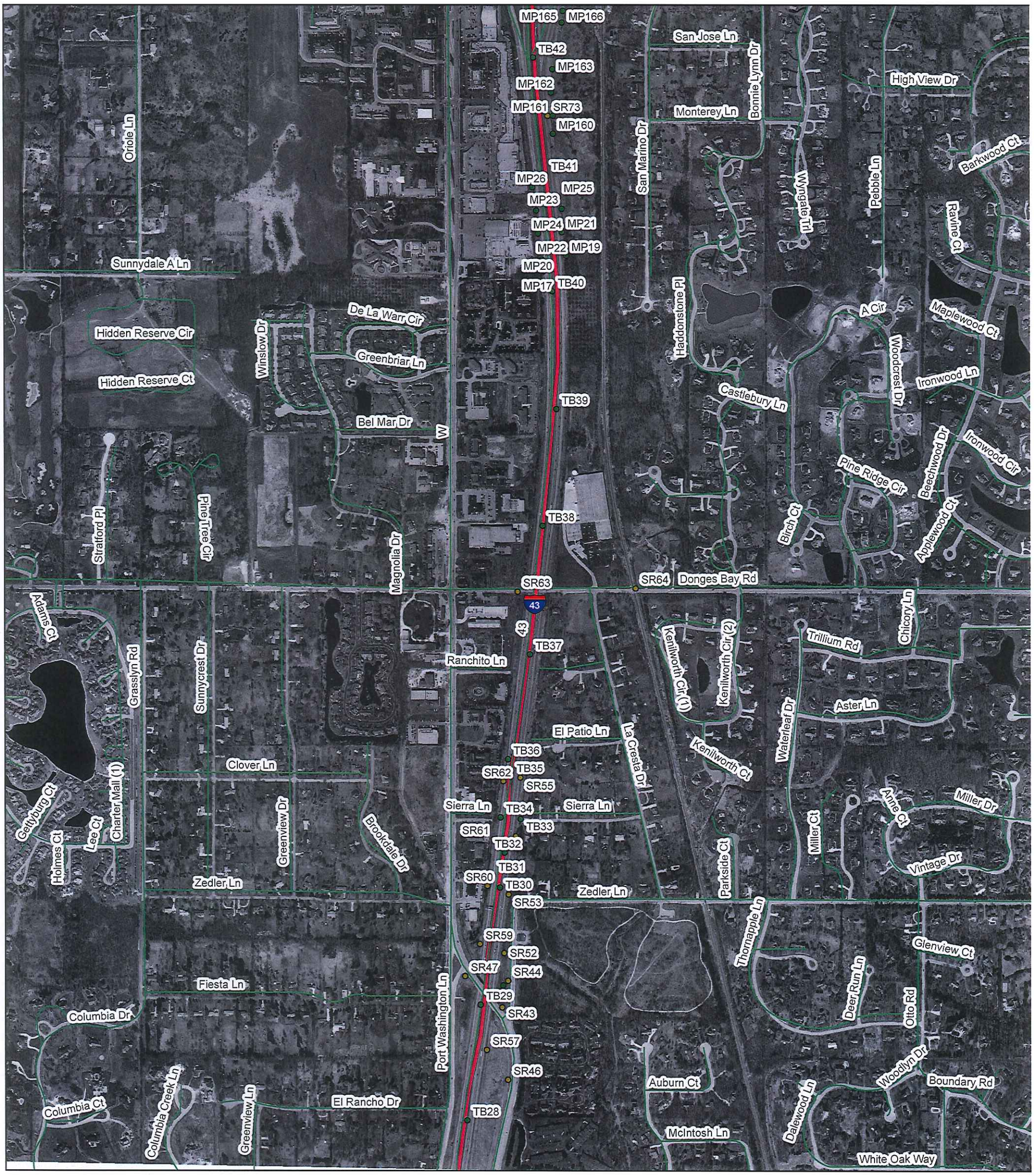
I-43 (1229-04-01)
Silverspring Dr to STH 60

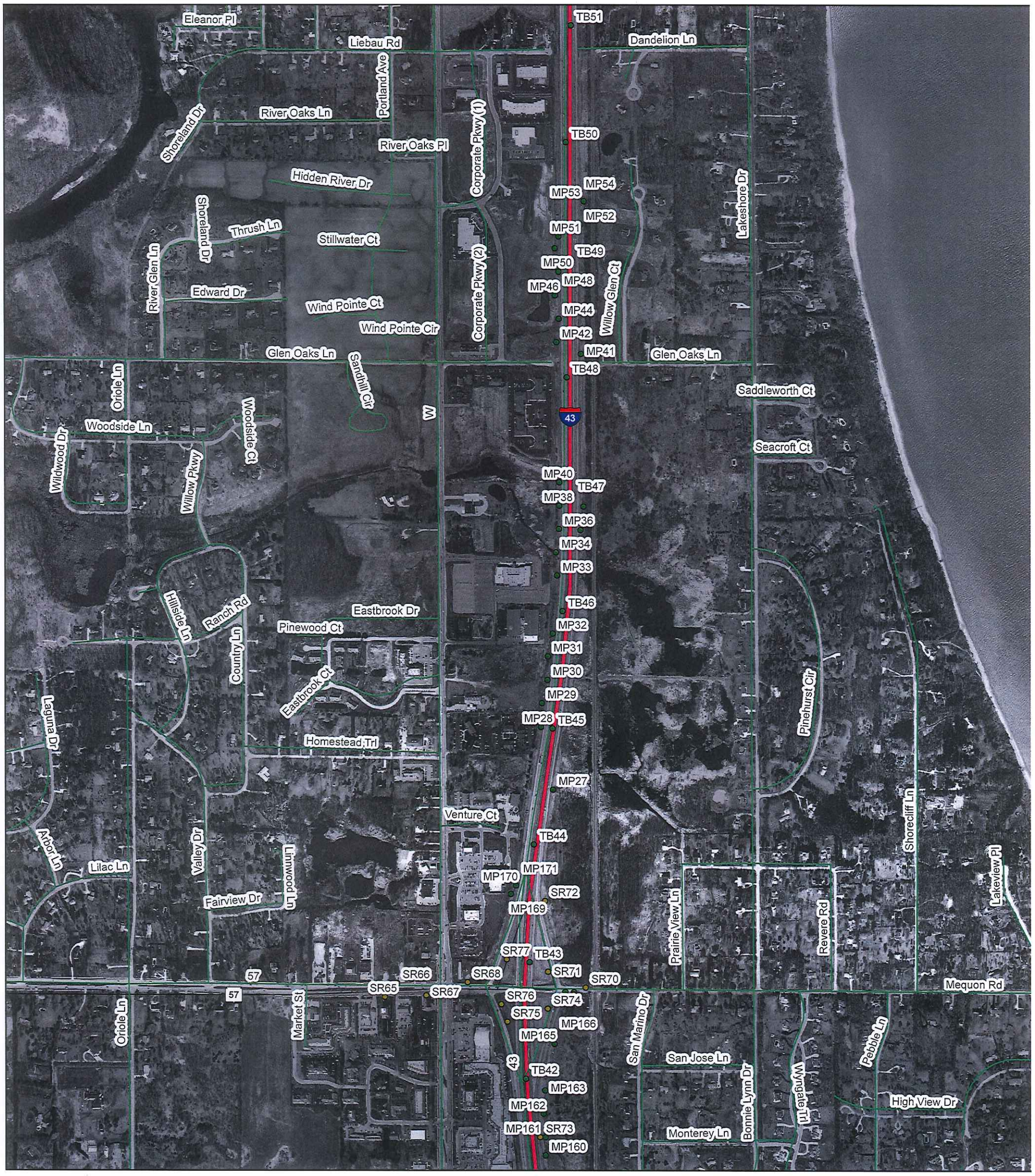


I-43 (1229-04-01)
Silverspring Dr to STH 60



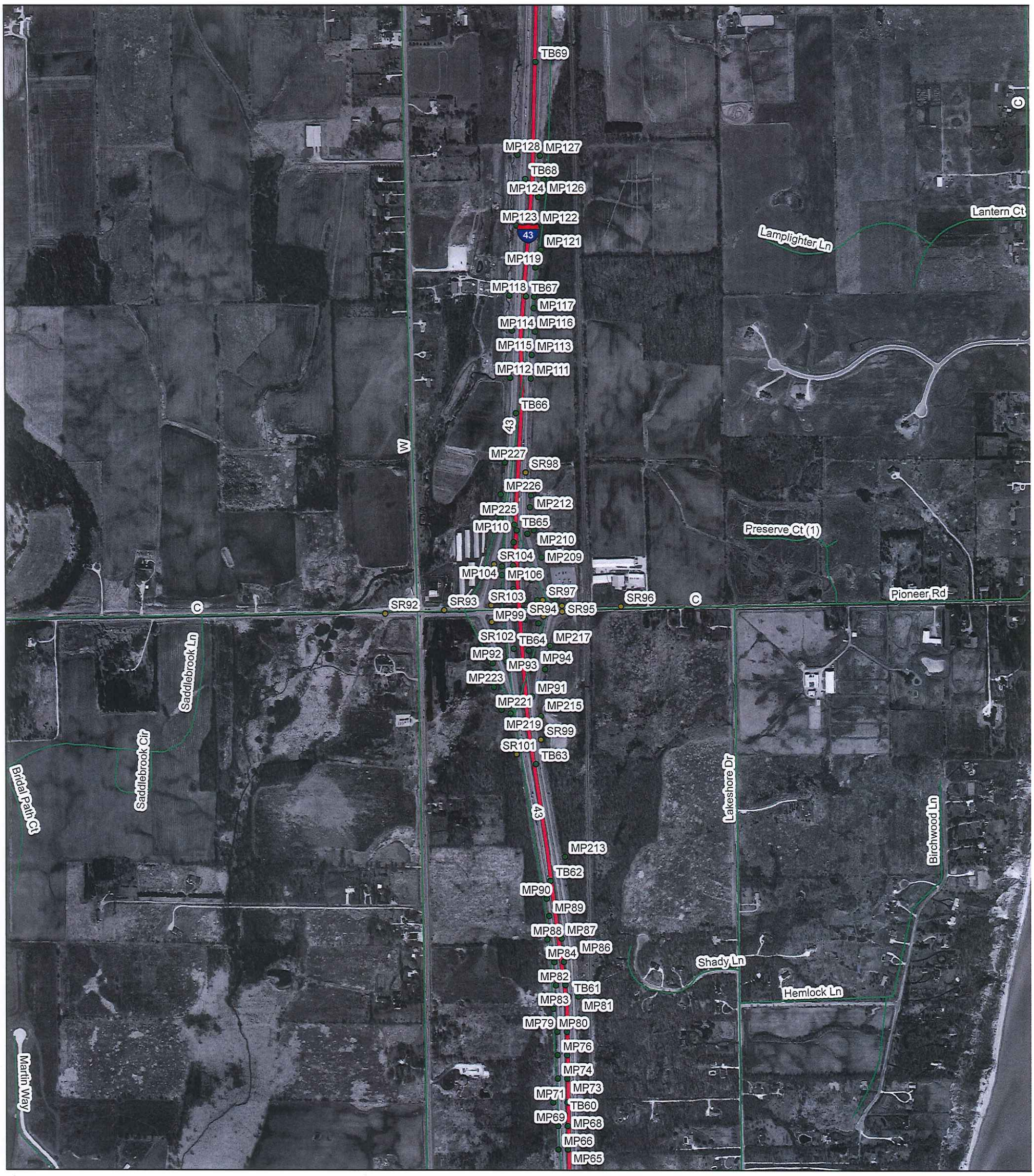
0 700 1,400 2,800 4,200 5,600 Feet

I-43 (1229-04-01)
Silverspring Dr to STH 60



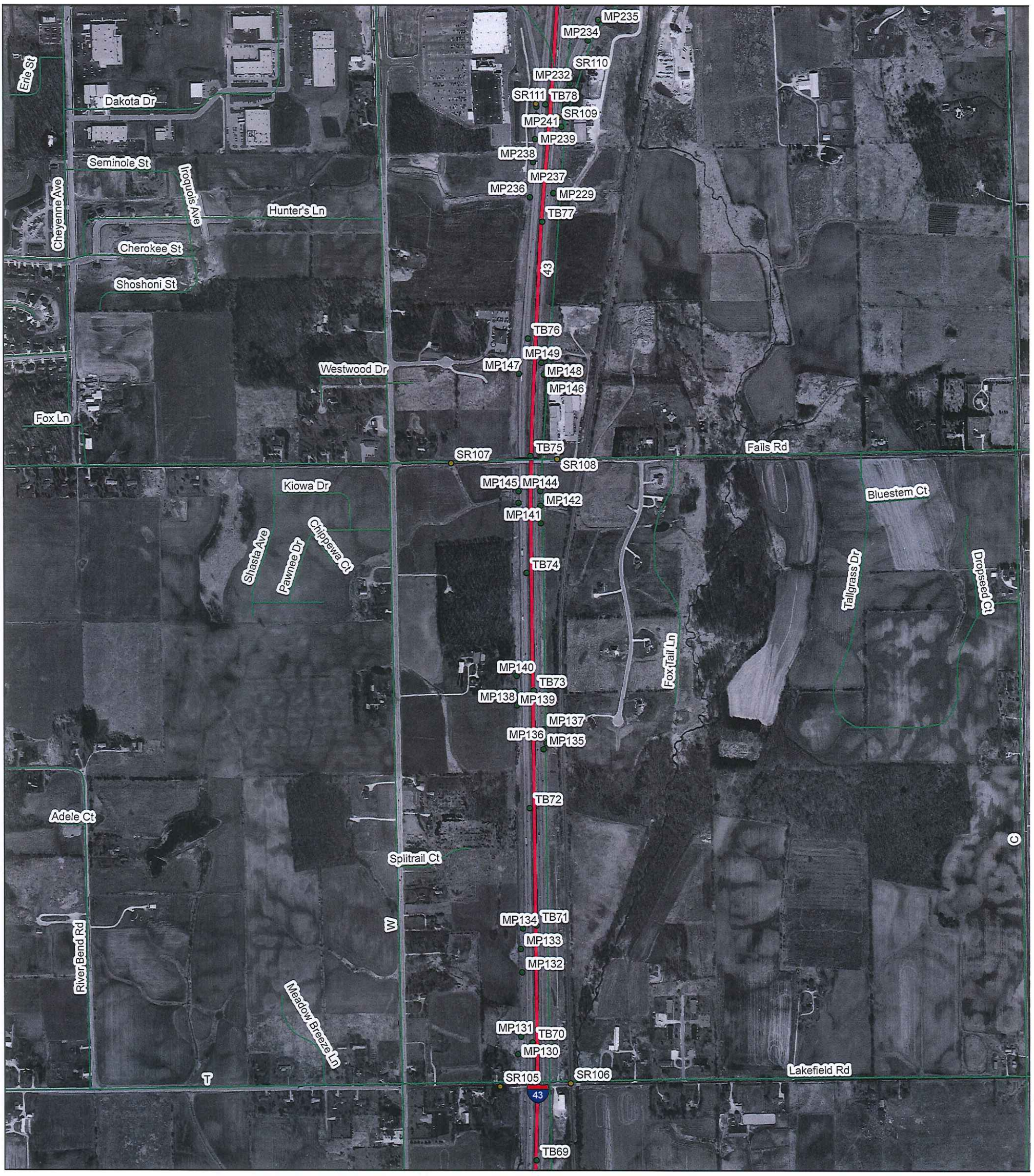
I-43 (1229-04-01)
Silverspring Dr to STH 60

I-43 (1229-04-01)
Silverspring Dr to STH 60

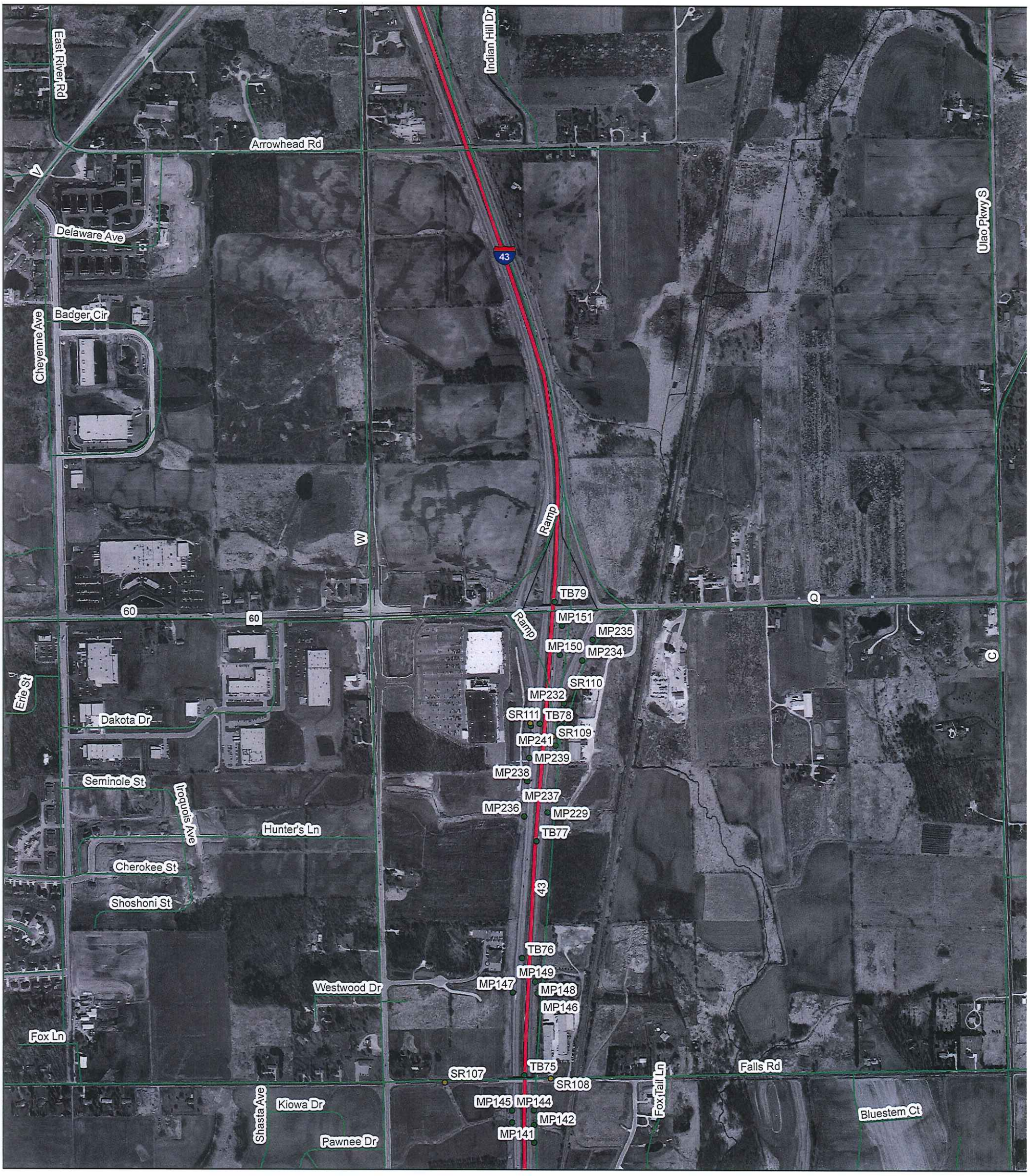


0 700 1,400 2,800 4,200 5,600 Feet

I-43 (1229-04-01)
Silverspring Dr to STH 60



I-43 (1229-04-01)
Silverspring Dr to STH 60



Appendix B

Test Boring Logs

WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B1** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **333869.419**	EASTING: **604897.022**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM: **WGS 1984**	VERTICAL DATUM: **MSL**
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1090+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6" HMA (0.5)						HSA	
		3		1		8" PCC (1.2) 4" BASE COURSE (1.5)	GW						
SS 1	10	M 5	10-8-7-6 (15)	2		MEDIUM TO COARSE SAND, dark brown/black, moist, trace gravel, medium dense, FILL	SP						
				3		(3.5)							
SS 2	10	M 24	2-3-3-4 (6)	4		CLAY, brown/dark brown, moist, trace sand, stiff, POSSIBLE FILL		1.5					
				5									
				6			SC						
		20		7									
				8		(8.5)							
SS 3	18	M	3-4-4-4 (8)	9		CLAYEY SAND, brown mottled, wet, trace silt, loose	SC						
				10		(10.0)							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B2** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **334675.13**	EASTING: **604996.878**
DATE STARTED: **7/29/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/29/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1098+00NB**	OFFSET **40 Rt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" HMA (0.6)						HSA	
				1		7" PCC (1.2)							
		4				4" BASE COURSE (1.5)	GW						
SS 1	8	15 M	4-4-5-6 (9)	2		SILTY CLAY, brown mottled, moist, trace sand & gravel, very stiff		3.5					
				3									
SS 2	19	20 M	5-7-11-12 (18)	4		Hard		4.5					
				5									
				6									
				7									
				8									
SS 3	23	M 21	3-5-7-10 (12)	9		GRAVEL, very stiff	CL	4.0					
				10									
				11									
				12									
				13									
SS 4	24	M 20	4-6-7-12 (13)	14				3.5					
				15		(15.0)							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B3**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **334766.974**	EASTING: **604880.516**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1099+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		3		0		6.5" HMA						HSA	
				0.5		6" PCC							
				1.0		10" BASE COURSE	GW						
SS 1	8	M 19	3-6-5-8 (11)	1.9		SILTY CLAY, gray/brown mottled, moist, hard		4.5					
				4		SAND LENSES, hard to very stiff							
SS 2	17	M 18	5-8-10-12 (18)	5				4.5					
				6			CL						
SS 3	16	M 20	5-7-8-10 (15)	9				3.5					
				10.0		End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B4**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335166.498**	EASTING: **604861.008**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1103+00SB**	OFFSET **40 Lt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		3		0.3		3" HMA 6.5" PCC						HSA	
				0.8									
				1		4" BASE COURSE	GW						
SS 1	13	19 M	2-3-6-6 (9)	1.1		SILTY CLAY, gray/brown mottled, moist, trace sand & gravel, very stiff		4.0					
				2									
				3		Hard							
SS 2	15	18 M	6-7-10-13 (17)	4				4.5					
				5									
				6			CL						
				7									
				8		Very stiff							
SS 3	24	M 20	5-6-10-11 (16)	9				3.75					
				10		End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B5**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335275.031**	EASTING: **604967.548**
DATE STARTED: **7/29/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/29/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1104+00NB**	OFFSET **40**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.4 5" HMA 6.5" PCC 1.0 5" BASE COURSE 1.4						HSA	
		4		1			GW						
SS 1	15	17 M	2-3-5-6 (8)	2		SILTY CLAY, brown mottled, moist, trace sand & gravel, very stiff		3.5					
				3		Hard							
SS 2	20	18 M	5-8-13-15 (21)	4				4.5					
				5									
				6									
				7									
				8		Very stiff	CL						
SS 3	22	M 19	4-5-6-10 (11)	9				4.0					
				10									
				11									
				12									
				13									
SS 4	24	M 20	5-7-9-11 (16)	14				4.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B6** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335464.221**	EASTING: **604841.317**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1106+00SB**	OFFSET **40**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5" HMA (0.4)						HSA	
						7" PCC (1.0)							
		4		1		6" BASE COURSE (1.5)	GW						
SS 1	12	M 20	3-4-4-5 (8)	2		SILTY CLAY, brown/dark brown, moist, trace gravel, very stiff	CL	3.5					
				3		(3.5)							
SS 2	18	M 20	5-7-8-11 (15)	4		SILTY CLAY, brown mottled, moist, very stiff A-7-6 (6)		2.5	42	26			
				5									
				6			CL						
				7									
		21		8		(8.5)							
SS 3	18	M	5-5-7-10 (12)	9		CLAY, brown/dark brown, moist, very stiff	CL	3.0					
				10		(10.5)							

End of Boring at 10.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B7**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335675.837**	EASTING: **604931.749**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1108+00NB**	OFFSET **40**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	8	M 12	3-3-2-1 (5)	1		0.2 2" TOPSOIL SILTY SAND, dark brown, moist, with gravel & organics, trace clay, loose	SM					HSA	
				2									
				3		3.0							
SS 2	18	M 16	3-7-9-12 (16)	4		SILTY CLAY, gray/brown mottled, moist, trace sand & gravel, hard		4.5					
				5			CL						
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, trace gravel, hard to very stiff							
SS 3	24	M 20	6-7-9-10 (16)	9				4.25					
				10									
				11									
				12									
				13									
SS 4	24	M 21	4-5-8-9 (13)	14		A-7-6 (8)		3.5	43	28			
				15			CL						
				16									
				17									
				18									
SS 5	22	M 20	3-5-6-8 (11)	19				3.75					
				20									
				21									
				22									
				23		23.0 SILTY CLAY, dark gray/brown, moist, little sand, trace gravel, very stiff							
SS 6	24	M 16	2-4-7-8 (11)	24			CL	2.25					
				25		25.0							

End of Boring at 25.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B8**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335760.466**	EASTING: **604807.977**
DATE STARTED: **7/29/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/29/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1109+00SB**	OFFSET **40**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 4" HMA 8" PCC 1.0						HSA	
SS 1	5	21 M 6	3-4-5-6 (9)	1		1.4 5" BASE COURSE	GW						
				2		SILTY CLAY, brown, moist, trace sand & gravel, stiff, POSSIBLE FILL	CL	2.0					
SS 2	18	16 M	6-7-10-15 (17)	3		3.5							
				4		SILTY CLAY, gray/brown mottled, moist, trace sand & gravel, hard to very stiff		4.5					
				5									
				6									
				7									
				8									
SS 3	24	M 22	5-9-7-11 (16)	9			CL	4.0					
				10									
				11									
				12									
				13									
SS 4	24	M 20	5-6-8-12 (14)	14				4.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B9** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **336273.961**	EASTING: **604855.286**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1114+00NB** OFFSET **60**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" HMA (0.3)						HSA	
		6		1		8" PCC (1.0)							
						6" BASE COURSE (1.5)	GW						
SS 1	12	M 13	4-6-5-4 (11)	2		SILTY CLAY, brown/dark brown, moist, with sand & gravel, stiff, POSSIBLE FILL		2.0					
				3									
SS 2	8	M 20	3-2-3-4 (5)	4			CL	2.0					
				5		(5.5)							
		15		6		SILTY CLAY, gray/brown mottled, moist, trace sand & gravel, stiff to very stiff	CL						
				7									
				8									
SS 3	16	M	4-5-8-8 (13)	9				3.0					
				10		(10.5)							

End of Boring at 10.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B10** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **337333.993**	EASTING: **604528.558**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1125+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	9	M 8	3-3-2-1 (5)	1		SILTY SAND, dark brown, moist, trace organics & gravel, loose	SM					HSA	
				2									
				3		3.0							
SS 2	10	M 23	4-3-3-4 (6)	4		SILTY CLAY, brown/dark brown, moist, little sand, trace organics, very stiff		2.25					
				5									
				6									
				7									
				8			CL						
SS 3	17	M 26	3-3-4-5 (7)	9		A-7-6 (18)		3.25	49	32			Fines = 81%
				10									
				11									
				12									
				13		13.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, hard							
SS 4	18	M 18	6-8-12-12 (20)	14			CL	4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B12** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **337825.941**	EASTING: **604439.19**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1130+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		5" HMA 0.4						HSA	
				1		10" PCC 1.3							
		4				7" BASE COURSE 1.8	GW						
SS 1	8	M 16	3-3-3-3 (6)	2		SILTY CLAY, brown/dark brown, moist, little sand, stiff, slight petro odor, POSSIBLE FILL	CL	1.5					
				3									
				4		4.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, very stiff to hard							
SS 2	16	M 18	3-3-4-4 (7)	5				2.5					
				6									
				7			CL						
				8									
SS 3	12	M 18	5-6-7-10 (13)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B13** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **338317.89**	EASTING: **604349.822**
DATE STARTED: **7/15/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/15/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1135+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	17	M	3-4-5-5 (9)	1		0.3 3" TOPSOIL SILTY CLAY, brown/dark brown, moist, trace sand & gravel & organics, very stiff		4.0				HSA	
				2									
SS 2	13	M	3-4-4-5 (8)	3									
				4			CL	3.0					
				5									
				6									
				7									
				8		8.0 SILTY CLAY, brown/gray mottled, moist, trace sand & gravel, very stiff to hard							
SS 3	8	M	2-3-4-6 (7)	9				4.0					
				10									
				11			CL						
				12									
				13									
SS 4	20	M	5-7-10-13 (17)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B14**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **338485.905**	EASTING: **604443.301**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1136+50NB** OFFSET **50 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" HMA 0.6						HSA	
				1		8" PCC 1.3							
SS 1	8	6 9 M	5-7-10-12 (17)	2		6" BASE COURSE 1.8	GW	2.0					
				3		SILTY SAND, gray/ brown, moist, trace gravel, firm, FILL 3.5	SM						
SS 2	18	19 M	4-4-7-9 (11)	4		SILTY CLAY, brown, moist, trace sand & gravel, hard		4.5					
				5									
				6									
				7			CL						
				8									
SS 3	17	M 17	4-8-12-16 (20)	9		A-6 (4)		4.5	38	22			
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: B15** PAGE NO: 1 of 1
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: / LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 338828.297 / EASTING: 604375.582
DATE STARTED: 7/15/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:
DATE COMPLETED: 7/15/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM: / VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA
STATION: 1140+00NB / OFFSET: 40 Rt	TOWNSHIP: / RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:		SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.6 7" TOPSOIL							
SS 1	18	M 16	5-5-5-5 (10)	1		SILTY CLAY, dark brown, moist, trace sand & gravel & organics, hard		4.5				HSA	
				2									
SS 2	11	M 22	4-5-6-8 (11)	3		Moist, no organics, hard		4.5					
				4									
				5									
				6									
				7									
				8									
SS 3	20	M 17	7-10-16-18 (26)	9				4.5					
				10			CL						
				11									
				12									
				13									
SS 4	22	M 18	3-6-5-8 (11)	14				2.5					
				15		Moist, little sand, very stiff							
				16									
				17									
				18									
SS 5	24	M 18	3-7-6-8 (13)	19				3.5					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B17**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339619.541**	EASTING: **604275.357**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1148+00NB** OFFSET **40 Rt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.4 5" HMA						HSA	
						1.0 6.5" PCC							
		5		1		1.5 6.5" BASE COURSE	GW						
		19				SILTY CLAY, gray/brown to dark brown, moist, trace sand, hard to very stiff							
SS 1	12	M 17	3-4-4-4 (8)	3				4.5					
SS 2	10	M	5-7-6-8 (13)	5				3.5					
SS 3	18	M 21	3-5-4-6 (9)	9			A-6 (3)	4.0	33	19			
							CL						
SS 4	17	20 M	3-4-4-3 (8)	13		Wet, stiff to very stiff		2.0					
SS 5	15	M 21	3-5-5-7 (10)	19		20.0		2.5					

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B18**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339807.48**	EASTING: **604146.606**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1150+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		5.5" HMA 0.5						HSA	
						8" PCC 1.1							
		5		1		4.5" BASE COURSE 1.5	GW						
SS 1	8	M 17	3-3-4-6 (7)	2		SILTY CLAY, brown/light brown mottled, moist, trace sand, very stiff	CL	2.8					
				3		3.5							
SS 2	15	M 16	4-7-10-13 (17)	4		SILTY CLAY, brown, moist, trace gravel, hard		4.5					
				5									
				6			CL						
		20		7									
				8		8.5							
SS 3	18	M	4-7-8-11 (15)	9		CLAY, gray/brown, wet, trace sand, hard	CL	4.5					
				10		10.0							
						End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B19**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **340308.613**	EASTING: **604119.759**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1155+00SB**	OFFSET **40 Lt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.5 5.5" HMA						HSA	
				1		1.1 8" PCC							
		5				1.6 6" BASE COURSE	GW						
SS 1	8	13 M	4-5-6-7 (11)	2		SILTY CLAY, brown/gray mottled, moist, trace sand & gravel, hard		4.5					
SS 2	12	18 M	3-4-6-8 (10)	3 4 5				4.0					
				6 7 8									
SS 3	22	M 17	6-8-9-10 (17)	9 10			CL	4.5					
				11 12									
SS 4	21	M 18	4-7-11-14 (18)	13 14				4.5					
				15 16 17									
				18		18.0							
SS 5	9	M 18	3-6-8-13 (14)	19		SILTY CLAY, gray, moist, trace sand & gravel, very stiff A-6 (2)		3.5	28	15			
				20 21			CL						
				22 23									
SS 6	24	M 16	5-5-8-10 (13)	24 25		25.0		3.5					

End of Boring at 25.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B20**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **340614.184**	EASTING: **604227.075**
DATE STARTED: **9/03/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/03/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1158+00NB** OFFSET **40 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6" TOPSOIL						HSA	
						0.5							
SS 1	10	M 13	2-5-4-4 (9)	1		SILTY CLAY, brown/dark brown, moist, trace organics & sand, hard		4.5					
				2									
				3		No organics, very stiff							
SS 2	18	M 16	4-6-6-8 (12)	4				3.0					
				5			CL						
				6									
				7									
				8		Gray/brown, very stiff							
				9									
SS 3	16	M 20	3-4-4-5 (8)	10				4.0					
						10.5							

End of Boring at 10.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B21**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **340810.456**	EASTING: **604116.725**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1160+00SB**	OFFSET **40 Lt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		5.5" HMA 0.5						HSA	
				1		8" PCC 1.1							
SS 1	13	4 17 M	3-4-4-5 (8)	2		7" BASE COURSE 1.7 SILTY CLAY, light brown & gray, moist, trace sand & gravel & organics, very stiff	GW CL	3.75					
SS 2	20	17 M	3-5-11-13 (16)	3		3.5 SILTY CLAY, brown, moist, trace sand & gravel, hard	CL	4.5					
SS 3	17	M 20	4-3-5-8 (8)	8		8.0 SILTY CLAY, gray, moist, trace sand & gravel, stiff	CL	2.0					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B22**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **341309.982**	EASTING: **604269.562**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1165+00NB** OFFSET **60 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		5.5" HMA 0.5						HSA	
				1		11" PCC 1.4							
						6" BASE COURSE 1.9	GW						
SS 1	8	24 M 4	2-4-5-7 (9)	2		SILTY CLAY, dark brown, moist, trace sand, trace organics, very stiff		4.0					
				3									
				4									
SS 2	5	M 18	5-7-9-11 (16)	5				4.5					
				6			CL						
				7									
				8									
SS 3	15	M 18	3-7-9-12 (16)	9		A-6 (3) Moist, no organics, hard		4.5	34	19			
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B23**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **341311.727**	EASTING: **604137.421**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1165+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.1 1" TOPSOIL							
SS 1	11	M 14	3-6-7-8 (13)	1		SILTY CLAY, gray/brown & dark brown mottled, moist, some sand & organics, hard	CL	4.5				HSA	
				2									
				3		3.0 CLAYEY SILT, brown, moist, trace sand, very stiff							
SS 2	24	M 19	6-9-13-15 (22)	4		A-4 (0)		2.5	21	5			
				5			CL-ML						
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, trace gravel, hard							
SS 3	24	M 19	7-11-11-18 (22)	9			CL	4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B24** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **341809.956**	EASTING: **604289.933**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1170+00NB** OFFSET **50 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		5		0		5.5" HMA						HSA	
				0.5		17" BASE COURSE							
				1			GW						
				1.9		SILTY CLAY, brown, moist, trace sand & gravel, very stiff							
SS 1	12	M 17	2-3-4-5 (7)	2				3.5					
				3									
				4									
SS 2	15	M 17	3-4-6-8 (10)	5				4.0					
				6			CL						
				7									
				8		Hard							
SS 3	15	M 17	3-5-7-7 (12)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B25** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349793.835**	EASTING: **604078.194**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+00NB** OFFSET **70 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		0.2 2" TOPSOIL							
SS 1	11	M 15	6-7-8-9 (15)	1		SILTY CLAY, brown & dark brown, moist, trace sand & organics, very stiff		2.5				HSA	
				2									
				3		No organics, hard							
SS 2	21	M 17	10-10-14-18 (24)	4				4.5					
				5			CL						
				6									
				7									
				8									
SS 3	22	M 19	8-7-10-13 (17)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B27**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355479.739**	EASTING: **602157.518**
DATE STARTED: **7/15/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/15/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1310+50NB** OFFSET **100 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5" TOPSOIL							
						0.4							
SS 1	10	M 19	2-4-6-8 (10)	1		SILTY CLAY, brown & dark brown, moist, trace sand & gravel, some organics, hard	CL	4.5				HSA	
				2									
				3		3.0							
SS 2	14	M 16	6-10-15-16 (25)	4		SILTY CLAY, brown, moist, trace sand, hard		4.5					
				5									
				6			CL						
				7									
				8		Trace gravel, very stiff							
SS 3	21	M 18	7-9-14-17 (23)	9				3.75					
				10		10.0							
						End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B29**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **357304.218**	EASTING: **602259.364**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1329+00SB** OFFSET **0 SB**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" HMA 0.3						HSA	
						9" PCC 1.1							
		4		1		4" BASE COURSE 1.4	GW						
SS 1	10	M 14	3-4-5-5 (9)	2		SILTY CLAY, brown, moist, trace sand, very stiff		2.5					
SS 2	12	M 19	3-3-4-6 (7)	3									
				4									
				5			CL	3.5					
				6									
				7									
				8									
						8.5 SILTY CLAY, gray/brown, moist, very stiff							
SS 3	13	M 21	2-3-5-6 (8)	9			CL	3.0					
				10		10.0							

End of Boring at 10.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 12/10/14

WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: B30** PAGE NO: 1 of 1
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: / LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 358298.599 / EASTING: 602432.832
DATE STARTED: 7/28/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:
DATE COMPLETED: 7/28/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM: / VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA
STATION 1339+00NB / OFFSET 0 NB	TOWNSHIP: / RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:		SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	15	7 M 11	3-4-4-5 (8)	1		0.3 3.5" HMA 6.5" PCC 0.8 6" BASE COURSE 1.3 SILTY CLAY, dark gray/brown, moist, little sand & gravel, hard to very stiff	GW	4.5				HSA	
SS 2	11	19 M	5-4-5-6 (9)	4			CL	3.75					
SS 3	24	M 18	3-4-7-8 (11)	9		10.0		4.0					

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:		**BORING ID: B31** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:	NORTHING: **358395.807**	EASTING: **602373.98**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:	STREAMBED ELEVATION: **NA**	
STATION **1340+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" HMA 0.3						HSA	
						8" PCC 1.0							
		4		1		5" BASE COURSE 1.4	GW						
						SILTY CLAY, brown, moist, trace gravel, hard							
SS 1	10	M 17	7-5-5-7 (10)	2 3				4.5					
				4			CL						
SS 2	12	M 17	4-5-5-8 (10)	5				4.5					
				6		6.0							

End of Boring at 6.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B32**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **358595.783**	EASTING: **602473.847**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1342+00NB** OFFSET **0 NB**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3.5" HMA 0.3						HSA	
						8" PCC 1.0							
				1		6" BASE COURSE 1.5	GW						
SS 1	11	M 23	4-4-4-4 (8)	2		SILTY CLAY, brown & gray mottled, moist, trace sand & gravel, hard to very stiff	CL	4.5					
SS 2	16	M 19	3-4-5-5 (9)	4				2.5					
				5		5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: B33** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **358879.294**	EASTING: **602613.923**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1345+00NB** OFFSET **100 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		6		0		3.5" HMA (0.3) 7.5" PCC (0.9) 5" BASE COURSE (1.3)	GW					HSA	
SS 1	8	M 17	2-3-4-4 (7)	1–3		SILTY CLAY, brown, moist, trace sand, stiff to very stiff		2.0					
SS 2	15	M 19	3-4-5-5 (9)	4–6			CL	2.5					
SS 3	8	M 19	4-5-6-7 (11)	8–9		Wet A-6 (2)		2.2	31	17			
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B34**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **358894.113**	EASTING: **602442.338**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1345+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6.5" HMA						HSA	
				0.5		9" BASE COURSE	GW						
SS 1	14	13 M	3-2-5-7 (7)	1.3		SILTY CLAY, brown to gray/brown, moist, trace sand & gravel, very stiff		3.0					
SS 2	12	16 M	5-4-5-8 (9)			Hard		4.5					
SS 3	22	M 17	3-4-5-5 (9)			Very stiff	CL	2.25					
				10.0		End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B35**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **359284.888**	EASTING: **602536.649**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1349+00SB** OFFSET **0 SB**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" HMA						HSA	
						0.6							
				1		8" BASE COURSE	GW						
						1.3							
						SILTY CLAY, brown, moist, trace sand & gravel, hard							
SS 1	9	M 17	3-2-4-4 (6)	2				4.5					
				3			CL						
SS 2	15	M 15	4-5-6-7 (11)	4				4.8					
				5		5.3							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B36**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **359389.418**	EASTING: **602510.696**
DATE STARTED: **7/28/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/28/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1350+00SB** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" HMA						HSA	
				0.6		5" BASE COURSE	GW						
				1.0		SILTY CLAY, brown, moist, trace sand & gravel, very stiff							
SS 1	13	M 18	1-2-4-5 (6)	1 2				3.25					
				3		Hard							
SS 2	21	M 17	6-6-9-11 (15)	4				4.5					
				5			CL						
				6 7									
				8		Very stiff							
SS 3	24	M 20	4-5-6-7 (11)	9				3.75					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: B37**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **360279.82**	EASTING: **602706.265**
DATE STARTED: **9/04/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **9/04/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1359+00NB** OFFSET **0 NB**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		4.5" HMA 0.4						HSA	
						8" PCC 1.0							
		5		1		5.5" BASE COURSE 1.5	GW						
SS 1	14	M 17	3-4-5-5 (9)	2		SILTY CLAY, brown/ grayish brown, moist, trace sand, very stiff		4.0					
				3									
SS 2	15	M 17	3-4-5-6 (9)	4		Hard		4.5					
				5									
				6			CL						
				7									
SS 3	18	M 20	3-3-4-5 (7)	8		Gray, very stiff		3.0					
				9									
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR1**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **333504.771**	EASTING: **605063.015**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **108+59PW** OFFSET **29 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		8		1		3.5" HMA 0.3 7" PCC 0.9 4" BASE COURSE 1.2	GW					HSA	
SS 1	15	18 M	2-3-5-6 (8)	2		SILTY CLAY, brown mottled, moist, trace sand & gravel, very stiff to hard	CL	4.0					
SS 2	13	19 M	11-12-9 (21)	4				4.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR2**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **334005.113**	EASTING: **605046.209**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **113+00PW** OFFSET **20 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4.5" HMA 0.4						HSA	
						6.5" PCC 0.9							
		5		1		3" BASE COURSE 1.2	GW						
SS 1	7	10 M	4-3-4-3 (7)	2		SILTY SAND, dark brown, moist, with gravel & lean clay, loose, FILL	SM						
				3		3.5							
SS 2		17 M	4-6-6-4 (12)	4		SANDY CLAY, dark brown, moist, with gravel, very stiff, FILL	SC	3.5					
				5		5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 12/10/14

WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR3**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **334504.636**	EASTING: **605079.397**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **118+09PW** OFFSET **54 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3" HMA 0.3						HSA	
		6				7" PCC 0.8							
				1		4" BASE COURSE 1.2	GW						
SS 1	9	22 M	2-3-2-3 (5)	2		SILTY CLAY, dark brown, moist, little sand & gravel, very stiff, FILL	CL	2.5					
				3		3.5							
SS 2	12	19 M	2-4-9-9 (13)	4		SILTY CLAY, brown, moist, trace sand & gravel, very stiff	CL	4.0					
				5		5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR4**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335002.784**	EASTING: **605012.672**
DATE STARTED: **7/22/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/22/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM: **WGS 1984**	VERTICAL DATUM: **MSL**
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **122+05PW** OFFSET **12 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6" HMA 0.5						HSA	
						6" PCC 1.0							
SS 1	12	19 M 5	2-3-5-5 (8)	1 2 3		6" BASE COURSE 1.5 SILTY CLAY, brown, moist, trace sand & gravel, very stiff, POSSIBLE FILL	GW CL	3.5					
SS 2	17	16 M	5-5-9-12 (14)	4 5		3.5 SILTY CLAY, brown mottled, moist, trace gravel, hard		4.5					
SS 3	24	M 19	5-7-10-10 (17)	6 7 8 9 10			CL	4.5					
						10.0 End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR5** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335504.883**	EASTING: **605031.919**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **128+00PW** OFFSET **15 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6" TOPSOIL							
						0.5							
SS 1	15	M 17	2-4-3-3 (7)	1		SILTY CLAY, dark brown, moist, trace sand, some organics, very stiff		3.0				HSA	
				2			CL						
				3		Very stiff to hard, no organics							
SS 2	20	M 16	8-15-12-19 (27)	4				4.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR6** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **336000.578**	EASTING: **604974.008**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **132+95PW** OFFSET **10**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5" TOPSOIL							
				0.4		SILTY CLAY, brown, moist, trace sand & organics, very stiff to hard							
SS 1	11	M 19	3-3-3-3 (6)	1				3.0				HSA	
				2									
				3									
SS 2	18	M 16	4-12-9-19 (21)	4				4.5					
				5		No organics, very stiff to hard	CL						
				6									
				7									
				8									
SS 3	24	M 17	6-14-11-16 (25)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR7**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **333107.36**	EASTING: **604849.476**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **14+00JN** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" HMA 0.3						HSA	
						7.5" PCC 1.0							
		3		1		5.5" BASE COURSE 1.4	GW						
SS 1	15	M 16	2-3-6-7 (9)	2		SAND, brown, moist, trace to little clay, loose, FILL							
				3									
SS 2	24	M 16	4-5-4-6 (9)	4			SW						
				5		5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR8**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **333607.293**	EASTING: **604857.667**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **18+98JN** OFFSET **4**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" HMA 0.6						HSA	
						4" PCC 0.9							
		5		1		5" BASE COURSE 1.3	GW						
SS 1	11	M 12	5-3-4-6 (7)	2		SANDY SILTY CLAY, brown & dark brown, moist, trace gravel, very stiff to medium, FILL		4.0					
SS 2	17	M 21	6-3-3-3 (6)	3			CL	1.0					
				4									
				5		5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR9**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **335706.28**	EASTING: **604795.46**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **40+00JN**	OFFSET **15**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3.5" HMA (0.3)						HSA	
						7.5" PCC (0.9)							
		5		1		5" BASE COURSE (1.3)	GW						
SS 1	10	M 21	2-2-3-4 (5)	2		SILTY CLAY, brown, moist, trace sand & gravel, stiff, FILL	CL	2.0					
				3		(3.5)							
SS 2	12	M 22	2-3-4-5 (7)	4		SILTY CLAY, dark brown, moist, trace organics, very stiff		2.5					
				5									
				6			CL						
				7									
				8		(8.0)							
SS 3	22	M 17	6-9-13-16 (22)	9		LEAN CLAY, brown, moist, trace gravel & silt, very stiff	CL						
				10		(10.0)							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR10**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **336686.553**	EASTING: **604595.515**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **50+04JN** OFFSET **3 Rt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5.5" HMA						HSA	
						0.5 5" PCC							
				1		0.9 SILTY CLAY, brown, moist, trace sand, hard to very stiff							
SS 1	14	M 16	3-4-4-5 (8)	2			CL	4.5					
SS 2	17	M 20	9-10-14-16 (24)	3 4				4.0					
				5		5.0 End of Boring at 5.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID:**	**SR11**
	WISDOT STRUCTURE ID:			PAGE NO:	**1 of 1**
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **337130.918**	EASTING: **604522.253**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION:	**NA**
STATION **54+50JN** OFFSET **4 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.4 5" HMA						HSA	
						7" PCC 1.0							
				1		6" BASE COURSE 1.5	GW						
SS 1	10	18 M 4	3-5-5-8 (10)	2		SILTY CLAY, brown, moist, trace sand & gravel, hard, POSSIBLE FILL	CL	4.5					
				3		3.5							
SS 2	17	17 M	7-8-11-15 (19)	4		SILTY CLAY, gray/brown mottled, moist, trace sand & gravel, hard		4.25					
				5									
				6									
				7									
				8									
SS 3	17	M 18	6-10-11-15 (21)	9		A-7-6 (8)	CL	4.5	41	25			
				10									
				11									
				12									
				13									
SS 4	18	M 19	4-7-9-13 (16)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 10/15/14

WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR12** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **337571.534**	EASTING: **604431.536**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **59+00JN** OFFSET **3 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	14	M 11	4-5-5-3 (10)	1		0.2 2" TOPSOIL SILTY CLAY, dark brown, moist, trace sand & gravel & organics, hard, POSSIBLE FILL	CL	4.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown mottled, moist, trace sand, trace organics, hard							
SS 2	9	M 15	4-5-6-6 (11)	4				4.5					
				5		No organics							
				6			CL						
				7									
				8									
SS 3	17	M 17	4-5-6-8 (11)	9				4.25					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:		**BORING ID: SR13** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:	NORTHING: **337966.089**	EASTING: **604320.063**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:	STREAMBED ELEVATION: **NA**	
STATION **63+10JN** OFFSET **0**	TOWNSHIP: RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:		SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" TOPSOIL							
				0.3		SANDY CLAY, brown, moist, with gravel, hard, POSSIBLE FILL							
SS 1	14	M 13	5-5-2-3 (7)	1			SC	4.5				HSA	
				2									
				3									
				3.0		SILTY CLAY, brown, moist, trace sand & gravel, very stiff to hard							
SS 2	15	M 16	7-9-12-14 (21)	4				3.75					
				5									
				6			CL						
				7									
				8									
SS 3	18	M 17	6-8-11-13 (19)	9				4.5					
				10									
				10.0		End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR14**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339284.911**	EASTING: **603748.712**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **21+93GHE** OFFSET **35 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	9	M 22	4-1-2-2 (3)	1		SILTY CLAY, brown, moist, some sand & gravel & organics, hard, FILL	CL	4.5				HSA	
				2									
						3.0							
SS 2	14	M 29	2-3-2-3 (5)	3		SILTY CLAY, very dark brown, moist, little organics, very stiff		3.0					
				4									
				5			CL						
				6									
				7									
				8		8.0							
SS 3	17	M 20	3-4-5-7 (9)	9		SILTY CLAY, brown mottled, moist, trace sand, hard	CL	4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR15**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339319.597**	EASTING: **604646.956**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **31+09GHE** OFFSET **30 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		4" TOPSOIL							
				0.3		SAND & GRAVEL, light brown to tan, moist, trace clay, little organics, loose, FILL							
SS 1	13	M 9	2-3-6-6 (9)	1			GW-GM					HSA	
				2									
				3									
				3.0		SAND, light brown, moist, medium dense, FILL							
SS 2	9	M 5	5-8-8-6 (16)	4			SW						
				5									
				5.0		End of Boring at 5.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR16**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339420.063**	EASTING: **604650.498**
DATE STARTED: **7/23/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/23/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **30+90GHW** OFFSET **40 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		7		1		6" HMA 0.5 12" BASE COURSE 1.5	GW					HSA	
SS 1	12	M 19	7-3-3-3 (6)	2		SILTY CLAY, brown mottled, moist, trace sand & gravel, stiff to very stiff	CL	2.0					
SS 2	13	M 19	4-3-3-4 (6)	3 4 5				2.5					
						5.5							

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID:**	**SR17**
	WISDOT STRUCTURE ID:			PAGE NO:	**1 of 1**
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339469.468**	EASTING: **604375.909**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION:	**NA**
STATION **1146+50GHA** OFFSET **40 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.2 2" TOPSOIL							
SS 1	11	M 10	4-6-8-10 (14)	1		LEAN CLAY, dark brown, moist, some sand & gravel & organics, hard	CL	4.5				HSA	
				2									
				3		3.0							
SS 2	9	M 18	2-3-2-4 (5)	4		SILTY CLAY, dark brown, moist, some sand & gravel & organics, stiff, FILL		2.0					
				5									
				6			CL						
				7									
				8									
SS 3	13	M 19	2-3-3-6 (6)	9				2.0					
				10		10.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, hard							
				11									
				12			CL						
				13									
SS 4	22	M 16	5-9-8-10 (17)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR18**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339715.086**	EASTING: **604321.768**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1149+00GHA** OFFSET **15 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	15	M 19	3-6-5-6 (11)	1		0.1 1" TOPSOIL SILTY CLAY, dark brown, moist, little sand & gravel, some organics, hard, FILL	CL	4.5				HSA	
SS 2	23	M 16	5-5-5-6 (10)	4		3.0 SANDY CLAY, brown, moist, trace gravel, very stiff	SC	3.5					
SS 3	22	M 17	6-12-8-5 (20)	9		8.0 SILTY CLAY, brown mottled, moist, trace gravel, hard	CL	4.5					
				10		10.0 End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR20**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339287.956**	EASTING: **604407.453**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1144+40** OFFSET **50 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.1 1" TOPSOIL SILTY CLAY, dark brown, moist, little sand & gravel & organics, hard, POSSIBLE FILL							
SS 1	13	M 12	2-6-4-7 (10)	1			CL	4.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, trace gravel, very stiff							
SS 2	15	M 16	4-6-4-7 (10)	4			CL	3.75					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:		**BORING ID: SR21** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:	NORTHING: **338980.072**	EASTING: **604128.321**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:	STREAMBED ELEVATION: **NA**	
STATION **1142+00GHC** OFFSET **5 Lt**	TOWNSHIP: RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:		SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	9	M 21	6-6-6-6 (12)	1		0.1 1" TOPSOIL SILTY CLAY, brown & dark brown, moist, trace sand & gravel, some organics, hard, POSSIBLE FILL	CL	4.5				HSA	
SS 2	19	M 17	5-14-7-17 (21)	3		3.0 SILTY CLAY, brown mottled, moist, trace sand, hard		4.5					
SS 3	19	M 18	10-15-13-19 (28)	9		10.0	CL	4.5					
				10		End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR22**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **339821.754**	EASTING: **604044.023**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1149+97GHD** OFFSET **4 Rt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:
				SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3" TOPSOIL							
						0.3							
SS 1	8	M 35	5-10-7-12 (17)	1		SILTY CLAY, very dark brown, moist, some organics & sand, very stiff, POSSIBLE FILL	CL	3.5				HSA	
				2									
				3		3.0							
SS 2	19	M 18	5-9-7-12 (16)	4		SILTY CLAY, brown, moist, trace sand & gravel, very stiff	CL	2.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR23**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **340219.921**	EASTING: **604071.999**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1154+00GHD**	OFFSET **53 Rt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	9	M 15	7-13-12-13 (25)	1		SILTY CLAY, dark brown/brown, moist, little sand & gravel, some organics, hard	CL	4.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown mottled, moist, trace gravel, hard							
SS 2	19	M 15	6-13-11-17 (24)	4				4.5					
				5									
				6			CL						
				7									
				8									
SS 3	21	M 17	9-21-15-18 (36)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR24**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349864.984**	EASTING: **603374.046**
DATE STARTED: **7/10/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/10/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **612+00BDE** OFFSET **55 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" TOPSOIL							
						0.6							
SS 1	17	M 18	1-3-2-5 (5)	1		SILTY CLAY, dark brown, moist, with organics, trace sand, very stiff		3.0				HSA	
				2									
				3		Brown, hard							
SS 2	18	M 14	5-11-7-12 (18)	4				4.5					
				5			CL						
				6									
				7									
				8									
SS 3	22	M 19	3-8-6-9 (14)	9				4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR25**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350018.628**	EASTING: **604108.529**
DATE STARTED: **7/11/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/11/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1252+00BDA** OFFSET **75 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" TOPSOIL							
						0.3							
SS 1	8	M 13	3-4-4-6 (8)	1		SILTY CLAY, dark brown, moist, with sand & slag & concrete, medium to stiff, FILL		1.0				HSA	
				2			CL						
SS 2	10	M 14	5-8-8-9 (16)	3				2.0					
				4									
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR26**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350219.372**	EASTING: **604035.543**
DATE STARTED: **7/11/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/11/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1254+00BDA** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	8	M 17	1-4-4-6 (8)	1		0.3 4" TOPSOIL SILTY CLAY, dark brown, moist, with gravel, very stiff, POSSIBLE FILL	CL	3.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown mottled, moist, trace gravel, stiff to very stiff							
SS 2	15	M 19	6-10-7-10 (17)	4				1.5					
				5									
				6									
				7									
				8									
SS 3	15	M 19	5-11-7-11 (18)	9				3.0					
				10									
				11									
				12			CL						
				13									
SS 4	17	M 18	8-14-11-16 (25)	14				3.5					
				15									
				16									
				17									
				18									
SS 5	15	M 20	6-9-9-14 (18)	19				3.5					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR27**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350641.812**	EASTING: **603772.35**
DATE STARTED: **7/15/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/15/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1259+02BDA** OFFSET **4 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" TOPSOIL							
						0.6							
SS 1	8	M 20	2-9-7-9 (16)	1		SILTY CLAY, dark brown, moist, some organics, trace sand, very stiff	CL	2.25				HSA	
				2									
				3		3.0							
SS 2	20	M 17	10-17-13-27 (30)	4		SILTY CLAY, brown, moist, trace sand, hard		4.5					
				5									
				6									
				7									
				8		Trace gravel, very stiff							
SS 3	24	M 20	7-12-9-16 (21)	9				3.0					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR28**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351104.063**	EASTING: **603581.762**
DATE STARTED: **7/15/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/15/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1264+00BDA** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						4" TOPSOIL							
						0.3							
SS 1	8	M 17	3-10-9-7 (19)	1		SILTY CLAY, dark brown, moist, some organics, trace sand, stiff	CL	2.0				HSA	
				2									
						3.0							
SS 2	18	M 16	5-16-14-18 (30)	3		SILTY CLAY, brown, moist, trace sand & gravel, hard		4.5					
				4									
				5									
				6			CL						
				7									
				8		Brown to gray, trace gravel, hard							
SS 3	21	M 19	7-12-9-16 (21)	9			CL	4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR29**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351566.315**	EASTING: **603391.174**
DATE STARTED: **7/15/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/15/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1269+00BDA** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						2" TOPSOIL							
						0.6							
SS 1	9	M 18	5-10-9-7 (19)	1		SILTY CLAY, dark brown, moist, with sand & gravel, some organics, very stiff	CL	3.0				HSA	
				2									
				3		3.0							
SS 2	11	M 15	7-13-11-5 (24)	4		SILTY CLAY, brown, moist, trace sand & gravel, very stiff	CL	2.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:		**BORING ID: SR30** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:	NORTHING: **349304.722**	EASTING: **604282.003**
DATE STARTED: **7/14/14**	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: **7/14/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:	STREAMBED ELEVATION: **NA**	
STATION **1245+07BDB** OFFSET **7 Rt**	TOWNSHIP: RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:		SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.5 6" TOPSOIL							
SS 1	8	M 17	2-4-3-2 (7)	1		SILTY CLAY, dark brown, moist, some sand & organics, hard to very stiff, POSSIBLE FILL		4.5				HSA	
				2									
				3									
SS 2	9	M 16	3-5-3-5 (8)	4			CL	3.0					
				5									
				6									
				7									
				8		8.0							
SS 3	14	M 18	3-4-3-3 (7)	9		SANDY CLAY, gray & brown, moist, little gravel, very stiff		3.75					
				10			SC						
				11									
				12									
				13		13.0							
SS 4	19	M 11	4-4-4-7 (8)	14		SILTY CLAY, brown, moist, with sand seams, trace gravel, very stiff	CL	3.75					
				15		15.0							
SS 5	23	M 17	3-8-6-11 (14)	16		SILTY CLAY, brown/ grayish brown, moist, trace gravel, hard	CL	4.5					
				17		17.0							

End of Boring at 17.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR31**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349500.888**	EASTING: **604243.126**
DATE STARTED: **7/10/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/10/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1247+00BDB**	OFFSET **0**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	1	M 14	4-7-5-7 (12)	1		0.1 1" TOPSOIL SANDY CLAY, dark brown, moist, some organics, stiff, POSSIBLE FILL	SC					HSA	
				2									
				3		3.0 SILTY CLAY, brown & dark brown, moist, some sand & gravel, trace organics, medium							
SS 2	12	M 19	2-6-3-7 (9)	4				1.0					
				5									
				6									
				7									
				8		Trace sand & gravel, hard	CL						
SS 3	21	M 17	8-26-17-34 (43)	9				4.5					
				10									
				11									
				12									
				13		13.0 SILTY CLAY, brown to grayish brown, moist, trace gravel, hard							
SS 4	24	M 17	10-15-11-18 (26)	14			CL	4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR32**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349793.91**	EASTING: **604178.798**
DATE STARTED: **7/10/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/10/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+00BDB**	OFFSET **0**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	8	M 12	5-6-7-3 (13)	1		SILTY CLAY, dark brown, moist, with sand & gravel, very stiff, FILL	CL	3.0				HSA	
				2									
				3		3.0							
SS 2	8	M 22	4-5-4-7 (9)	4		SILTY CLAY, dark brown, moist, trace stone & organics, stiff, FILL		1.5					
				5									
				6									
				7									
				8		SLAG, heavy cobbles 8.5' to 10'	CL						
SS 3	1	M		9									
				10									
				11									
				12									
				13		13.0 SILTY CLAY, brown mottled, moist, trace sand, very stiff							
SS 4	15	W 20	10-14-8-19 (22)	14			CL	4.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR33** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349868.157**	EASTING: **604262.511**
DATE STARTED: **7/11/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/11/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+40BDB** OFFSET **100 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		15				0.3 4" TOPSOIL							
SS 1	8	M	2-2-2-3 (4)	1		SILTY CLAY, dark brown, moist, with slag, trace organics, medium, FILL	CL	1.0				HSA	
				2									
				3		3.0 SILTY CLAY, dark brown, moist, with stone, trace sand & organics, very stiff, FILL							
SS 2	10	M 17	6-6-7-7 (13)	4				2.5					
				5									
				6									
				7									
				8		Medium	CL						
SS 3	8	M 19	3-3-3-3 (6)	9				1.0					
				10									
				11									
				12									
				13		13.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, stiff							
SS 4	10	M 17	3-5-5-8 (10)	14			CL	2.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR34**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349271.057**	EASTING: **603983.11**
DATE STARTED: **7/10/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/10/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1245+00BDC**	OFFSET **0**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	6	M 16	2-5-3-6 (8)	1		0.2 2" TOPSOIL SILTY CLAY, dark brown, moist, some gravel slag & organics, medium, FILL	CL					HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, trace sand & gravel, hard to very stiff							
SS 2	15	M 16	4-8-7-10 (15)	4				4.5					
				5									
				6			CL						
				7									
				8									
SS 3	20	M 18	4-8-6-10 (14)	9				3.75					
				10		10.0 End of Boring at 10.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: SR35** PAGE NO: 1 of 1
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: / LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 349716.694 / EASTING: 603756.691
DATE STARTED: 7/08/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:
DATE COMPLETED: 7/08/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM: / VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA
STATION: 1250+00BDC / OFFSET: 0	TOWNSHIP: / RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:		SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	12	M 18	2-7-4-10 (11)	1		0.3 3" TOPSOIL SILTY CLAY, dark brown, moist, some organics, trace sand, stiff, POSSIBLE FILL	CL	2.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, trace gravel, hard							
SS 2	16	M 15	5-13-10-15 (23)	4				4.5					
				5									
				6									
				7									
				8									
SS 3	13	M 18	2-8-6-13 (14)	9				4.5					
				10									
				11									
				12			CL						
				13									
SS 4	20	M 18	8-13-11-16 (24)	14		A-6 (3) Brown to grayish brown, very stiff		3.0	33	18			
				15									
				16									
				17									
				18									
SS 5	21	M 18	5-11-11-16 (22)	19				3.0					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR36**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349838.199**	EASTING: **603679.063**
DATE STARTED: **7/09/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/09/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+97BDC** OFFSET **72 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	4	M 14	5-6	1		0.3 4" TOPSOIL SILTY CLAY, dark brown, moist, little sand & gravel & organics & large cobbles, stiff to hard, FILL		2.75				HSA	
				2									
SS 2	12	M 13	11-18-13-24 (31)	3			CL	4.5					
				4									
				5									
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, little sand & gravel, hard, POSSIBLE FILL							
SS 3	9	M 17	23-16-12-22 (28)	9				4.5					
				10			CL						
				11									
				12									
				13		13.0 SILTY CLAY, brown, moist, trace sand & gravel, stiff to very stiff							
SS 4	8	M 21	5-7-6-8 (13)	14				2.0					
				15									
				16			CL						
				17									
				18									
SS 5	14	M 21	3-7-6-10 (13)	19				2.75					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR37**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349856.643**	EASTING: **603775.145**
DATE STARTED: **7/09/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/09/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1251+57BDC**	OFFSET **0**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	9	M 18	6-9-7-9 (16)	1		0.5 6" TOPSOIL SILTY CLAY, brown & dark brown, moist, some sand & gravel & organics, very stiff, FILL	CL	3.25				HSA	
SS 2	10	M 18	6-11-7-12 (18)	3		3.0 SANDY CLAY, brown, moist, with gravel, trace organics, very stiff, FILL		4.0					
SS 3	11	M 12	6-8-24-13 (32)	8		No organics	SC	3.0					
SS 4	12	M 8	4-8-7-13 (15)	13		13.0 SILTY CLAY, brown, moist, with sand & gravel slag, very stiff to stiff, FILL	CL	2.75					
SS 5	11	M	10-11-11-14 (22)	18				1.75					
SS 6	13	M 91	10-16-15-21 (31)	20		20.0 SILTY CLAY, brown, moist, trace sand & gravel, very stiff	CL	4.0					
				22		22.0 End of Boring at 22.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR38** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350068.407**	EASTING: **603660.189**
DATE STARTED: **7/09/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/09/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1254+04BDB** OFFSET **56 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.4 5" TOPSOIL							
SS 1	10	M 13	1-3-3-2 (6)	1		SANDY CLAY, brown & dark brown, moist, with sand & gravel & organics, very stiff, FILL		2.5				HSA	
				2									
SS 2	8	M 17	4-6-3-7 (9)	3				3.0					
				4									
				5									
				6									
				7			SC						
				8									
SS 3	7	M 21	2-3-1-2 (4)	9				2.5					
				10									
				11									
				12									
				13		13.0							
SS 4	18	W 21	5-6-5-8 (11)	14		SILTY CLAY, gray & brown mottled, moist, trace sand & gravel, trace organics, stiff		1.75					
				15									
				16			CL						
				17									
				18		18.0							
SS 5	21	M 17	8-18-14-26 (32)	19		SILTY CLAY, brown, moist, trace gravel, hard	CL	4.5					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: SR39** PAGE NO: 1 of 1	
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 350276.664	EASTING: 603645.058
DATE STARTED: 7/07/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: 7/07/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA	
STATION: 1256+00BDB; OFFSET: 0	TOWNSHIP:	RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.4 5" TOPSOIL							
SS 1	13	M 23	1-3-2-4 (5)	1		SILTY CLAY, dark brown, moist, trace organics, very stiff, FILL	CL	2.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, hard							
SS 2	15	M 17	6-20-16-24 (36)	4				4.5					
				5									
				6									
				7									
				8		Trace gravel							
SS 3	19	M 17	9-20-19-26 (39)	9				4.5					
				10									
				11									
				12			CL						
				13									
SS 4	20	M 20	10-15-12-16 (27)	14				4.0					
				15		Sand lenses, very stiff							
				16									
				17									
				18									
SS 5	22	W 19	6-14-10-21 (24)	19				3.0					
				20		20.0							

End of Boring at 20.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR40** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350539.923**	EASTING: **603474.115**
DATE STARTED: **7/02/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/02/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1259+00BDD** OFFSET **67 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	8	M 18	1-4-2-5 (6)	1		0.3 3" TOPSOIL SILTY CLAY, brown/dark brown, moist, trace sand, trace organics, very stiff, FILL		2.5				HSA	
SS 2	5	M 16	5-9-7-10 (16)	4			CL	4.0					
SS 3	10	M 28	3-6-4-8 (10)	8		8.0 SILTY CLAY, brown & gray, moist, with sand, trace gravel, trace organics, very stiff, POSSIBLE FILL		2.5					
				10			CL						
SS 4	19	M 17	8-21-18-22 (39)	14		13.0 SILTY CLAY, brown, moist, trace gravel, hard 15.0	CL	4.0					
				15		End of Boring at 15.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR41**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351141.034**	EASTING: **603398.46**
DATE STARTED: **7/02/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/02/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1265+00BDD** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						2" TOPSOIL							
						0.2							
						SILTY CLAY, brown, moist, trace gravel, hard							
SS 1	7	M 16	4-9-7-13 (16)	1				4.5				HSA	
				2			CL						
				3									
SS 2	20	M 18	10-20-13-26 (33)	4				4.25					
				5		5.0							
						End of Boring at 5.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR42**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355332.844**	EASTING: **602284.93**
DATE STARTED: **7/21/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/21/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **323+50PWN** OFFSET **30 Rt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:
				SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3" TOPSOIL							
						0.3							
SS 1	14	M 19	1-2-3-3 (5)	1		SILTY CLAY, brown & dark brown, moist, trace sand, very stiff, POSSIBLE FILL	CL	4.0				HSA	
				2									
				3		3.0							
SS 2	15	M 29	3-4-4-6 (8)	4		SILTY CLAY, gray & brown mottled, very stiff, POSSIBLE FILL	CL	2.5					
				5		5.0							
						End of Boring at 5.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR45**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355684.71**	EASTING: **602280.368**
DATE STARTED: **7/16/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/16/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **327+00PWS**	OFFSET **20 Lt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	12	M 18	3-3-5-6 (8)	1		SILTY CLAY, dark brown & brown, moist, some sand & gravel & organics, very stiff, FILL	CL	2.25				HSA	
				2									
				3		3.0 SILTY CLAY, brown & gray, moist, little sand & organics, trace gravel, very stiff, FILL							
SS 2	16	M 23	5-11-7-13 (18)	4				3.0					
				5			CL						
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, trace gravel, hard							
SS 3	19	M 18	8-17-17-14 (34)	9			CL	4.5					
				10		10.0							

End of Boring at 10.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR48**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355526.029**	EASTING: **601481.444**
DATE STARTED: **7/21/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/21/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **22+00CN** OFFSET **60Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5" TOPSOIL							
						0.4							
SS 1	15	M 21	1-2-4-4 (6)	1		SILTY CLAY, brown & dark brown, moist, some organics, very stiff	CL	3.5				HSA	
				2									
				3		3.0							
SS 2	24	M 16	5-7-9-11 (16)	4		SILTY CLAY, brown mottled, moist, trace gravel, hard	CL	4.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR49**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355543.585**	EASTING: **601781.597**
DATE STARTED: **7/21/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/21/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **25+21CN** OFFSET **10 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		2				3" HMA 0.3 3" CRUSHED ASPHALT 0.5 12" BASE COURSE						HSA	
SS 1	16	4 M	5-32-15-10 (47)	1 2		1.5 MEDIUM TO COARSE SAND, brown, moist, trace clay, with slag & gravel, dense to medium dense, slight petro odor, FILL	GW						
SS 2	24	6 M	15-10-17 (27)	3 4			SP						
				5		5.0 End of Boring at 5.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: SR50** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355517.884**	EASTING: **602481.411**
DATE STARTED: **7/21/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/21/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **32+00CN** OFFSET **10 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		3		1		4.5" HMA 0.4 19.5" BASE COURSE	GW					HSA	
SS 1	12	M 14	4-4-4-4 (8)	2 3		2.0 SANDY CLAY, brown, moist, with gravel, very stiff, FILL 4.0	SC	4.0					
SS 2	11	M 16	2-3-4-4 (7)	4 5 6		SILTY CLAY, brown & gray, moist, with sand & gravel, very stiff, FILL 6.0	CL	3.0					

End of Boring at 6.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:		**BORING ID: SR51** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:	NORTHING: **355535.44**	EASTING: **602781.564**
DATE STARTED: **7/21/14**	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:	
DATE COMPLETED: **7/21/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**	HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:	STREAMBED ELEVATION: **NA**	
STATION **35+00CN** OFFSET **14 Lt**	TOWNSHIP: RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:		SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
		5				3" HMA 0.3 13" BASE COURSE	GW					HSA	
SS 1	12	14 M	3-4-4-5 (8)	1 2		1.3 SILTY CLAY, brown & dark brown, moist, trace sand & gravel, very stiff, POSSIBLE FILL	CL	4.0					
SS 2	24	16 M	8-9-11-15 (20)	3 4 5		3.5 SILTY CLAY, brown, trace sand & gravel, hard 5.5	CL	4.5					

End of Boring at 5.5 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: SR58**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **354879.263**	EASTING: **601976.983**
DATE STARTED: **7/16/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/16/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1305+00CNC** OFFSET **13 Rt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						3" TOPSOIL							
						0.3							
SS 1	7	M 22	3-3-4-3 (7)	1		SILTY CLAY, dark brown, moist, with organics, little gravel, very stiff, FILL	CL	2.5				HSA	
				2									
				3		3.0							
SS 2	20	M 17	8-21-13-27 (34)	4		SILTY CLAY, brown, moist, trace gravel, hard	CL	4.5					
				5		5.0							

End of Boring at 5.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 12/10/14

WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: MP1** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **343410.595**	EASTING: **604350.204**
DATE STARTED: **7/25/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/25/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1186+00NB** OFFSET **65 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		0.3 4" TOPSOIL						HSA	
				1		CLAY, brown/dark brown, moist, with organics, trace slag, stiff, FILL							
SS 1	8	M 21	2-4-6-6 (10)	2			CL	1.5					
				3		3.0							
SS 2	7	M 20	3-4-5-5 (9)	4		SILTY CLAY, brown & dark brown, moist, trace sand & organics, stiff, POSSIBLE FILL		2.0					
				5			CL						
				6									
				7									
				8		8.0							
SS 3	20	M 17	6-11-13-15 (24)	9		SILTY CLAY, brown, moist, trace gravel, very stiff		3.75					
				10			CL						
				11									
				12									
				13		13.0							
SS 4	24	W 20	4-6-8-8 (14)	14		LEAN CLAY, gray/brown, wet, stiff	CL	2.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP2**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **343510.353**	EASTING: **604362.385**
DATE STARTED: **7/25/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/25/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1187+00NB**	OFFSET **75**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	8	M 38	1-1-2-3 (3)	1		0.1 1" TOPSOIL CLAYEY SAND, brown, moist, loose to medium dense		0.75				HSA	
SS 2	19	M 13	3-12-15-17 (27)	4			SC						
SS 3	22	W 26	3-4-5-7 (9)	8		8.0 SILTY CLAY, brown, wet, some sand, trace gravel, stiff A-6 (2)	CL	1.75	28	15			
SS 4	22	W 21	5-8-8-12 (16)	13		13.0 CLAYEY SAND, gray, wet, very stiff	SC	2.75					
				15		15.0 End of Boring at 15.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP3**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **343610.547**	EASTING: **604354.57**
DATE STARTED: **7/25/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/25/14**	LOGGED BY: **RVT**	HOLE SIZE: **in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1188+00NB**	OFFSET **65**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	6	M 38	2-2-2-3 (4)	1		0.1 1" TOPSOIL SILTY CLAY, dark brown, moist, with sand & organics, soft	CL	0.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, trace sand & gravel, hard							
SS 2	19	M 17	5-12-15-16 (27)	4				4.5					
				5									
				6									
				7									
SS 3	19	M 16	8-12-15-20 (27)	8			CL	4.5					
				9									
				10									
				11									
				12									
				13		13.0 SILTY CLAY, gray/brown, moist, trace gravel, hard							
SS 4	19	M 17	13-16-16-21 (32)	14			CL	4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP4**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349747.311**	EASTING: **603917.356**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+00SB** OFFSET **65**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	13	M 22	1-3-2-5 (5)	1		0.2 2" TOPSOIL SILTY CLAY, dark brown, moist, trace sand, some organics, stiff	CL	1.25				HSA	
				2									
				3		3.0 SILTY CLAY, brown & gray mottled, moist, stiff							
SS 2	19	M 28	2-4-2-4 (6)	4				1.75					
				5			CL						
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, trace gravel, very stiff to hard							
SS 3	15	M 17	8-18-12-20 (30)	9				4.0					
				10									
				11									
				12			CL						
				13									
SS 4	21	M 23	9-15-11-16 (26)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP5**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349803.997**	EASTING: **603885.336**
DATE STARTED: **7/14/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/14/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+65SB**	OFFSET **75**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	7	M 58	0-3-2-4 (5)	1		0.1 1" TOPSOIL SILTY CLAY, brown/dark brown, moist, some sand & organics, stiff	CL	1.75				HSA	
				2									
				3		3.0							
SS 2	17	M 21	12-17-22-16 (39)	4		SILTY CLAY, brown mottled, moist, trace gravel & sand & organics, soft		0.5					
				5			CL						
				6									
				7									
				8		8.0							
SS 3	17	M 19	6-12-8-16 (20)	9		SILTY CLAY, gray/brown, moist, trace gravel, hard to very stiff		4.5					
				10									
				11									
				12			CL						
				13									
SS 4	22	M 19	6-11-7-14 (18)	14				3.75					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP6**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **349799.101**	EASTING: **603844.397**
DATE STARTED: **7/08/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/08/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1250+75SB** OFFSET **115**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	12	M 19	1-4-1-7 (5)	1		0.3 4" TOPSOIL SILTY CLAY, brown, moist, trace sand & gravel & organics, stiff	CL	2.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown & gray, moist, very stiff to hard							
SS 2	21	M 18	5-10-8-12 (18)	4				4.0					
				5									
				6									
				7									
				8									
SS 3	24	M 19	6-10-9-15 (19)	9			CL	4.5					
				10									
				11									
				12									
				13		Gray, very stiff							
SS 4	24	M 20	7-15-11-20 (26)	14				3.75					
				15		15.0 End of Boring at 15.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP7**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350078.643**	EASTING: **603980.817**
DATE STARTED: **7/09/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/09/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1253+00NB**	OFFSET **80**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.5 6" TOPSOIL							
SS 1	10	M 20	2-4-1-6 (5)	1		SILTY CLAY, brown & dark brown, moist, with organics, very stiff	CL	3.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown/dark brown, moist, trace gravel, very stiff							
SS 2	18	M 18	5-9-7-10 (16)	4				3.0					
				5									
				6									
				7									
				8									
SS 3	18	M 19	4-10-8-12 (18)	9			CL	2.7					
				10									
				11									
				12		Gray							
				13									
SS 4	20	M 19	3-7-4-9 (11)	14				3.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: MP8** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350142.277**	EASTING: **603951.225**
DATE STARTED: **7/11/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/11/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1253+70NB** OFFSET **75**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	4	M 36	1-4-1-4 (5)	1		0.2 2" TOPSOIL SILTY CLAY, brown/dark brown, moist, with organics & sand, medium	CL	1.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown/dark brown, moist, with gravel, very stiff							
SS 2	18	M 18	3-4-3-8 (7)	4				2.5					
				5			CL						
				6									
				7									
				8		8.0 SILTY CLAY, brown, moist, trace gravel, very stiff to hard							
SS 3	12	M 17	3-10-5-18 (15)	9				4.0					
				10									
				11			CL						
				12									
				13		Gray/brown							
SS 4	13	M 18	4-11-8-15 (19)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: MP9** PAGE NO: 1 of 1
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: / LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 350076.816 / EASTING: 603765.352
DATE STARTED: 7/07/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:
DATE COMPLETED: 7/07/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM: / VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA
STATION 1253+75SB / OFFSET 90	TOWNSHIP: / RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:		SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 3" TOPSOIL							
SS 1	14	M 25	1-2-1-4 (3)	1		SILTY CLAY, dark brown, moist, little sand, some organics, stiff	CL	1.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown, moist, trace gravel, hard							
SS 2	20	M 18	4-14-13-20 (27)	4				4.25					
				5									
				6									
				7									
				8									
SS 3	20	M 20	6-13-9-16 (22)	9			CL	4.5					
				10									
				11									
				12		Gray/brown, very stiff							
				13									
SS 4	21	M 20	8-12-10-18 (22)	14				3.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 12/10/14

WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 1229-04-01 WISDOT STRUCTURE ID:		**BORING ID: MP10** PAGE NO: 1 of 1
WISDOT PROJECT NAME: I-43	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: / LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: RVT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: 350209.471 / EASTING: 603930.977
DATE STARTED: 7/11/14	CREW CHIEF:	DRILL RIG:	COORDINATE SYSTEM:
DATE COMPLETED: 7/11/14	LOGGED BY: RVT	HOLE SIZE: 4 in	HORIZONTAL DATUM: / VERTICAL DATUM:
COUNTY: Milwaukee/ Ozaukee	LOG QC BY: C. Wierzchowski	HAMMER TYPE:	STREAMBED ELEVATION: NA
STATION 1254+40NB / OFFSET 80 Rt	TOWNSHIP: / RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:		SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 4" TOPSOIL							
SS 1	10	M 22	1-4-2-6 (6)	1		SILTY CLAY, brown/dark brown mottled, moist, trace sand & organics, very stiff	CL	3.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown/dark brown mottled, moist, trace gravel, very stiff							
SS 2	14	M 19	3-6-4-7 (10)	4				3.0					
				5									
				6									
				7									
				8									
SS 3	15	M 19	6-10-8-9 (18)	9			CL	3.5					
				10		Gray/brown, very stiff							
				11									
				12									
				13									
SS 4	1	M 19	3-10-8-15 (18)	14				3.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: MP11** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350125.542**	EASTING: **603682.582**
DATE STARTED: **7/07/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/07/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1254+50SB** OFFSET **150 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						0.3 4" TOPSOIL							
SS 1	14	M 32	1-3-1-3 (4)	1		SILTY CLAY, dark brown, moist, little sand & gravel, some organics, very stiff		2.5				HSA	
				2									
				3									
SS 2	16	M 37	4-4-4-6 (8)	4			CL	2.5					
				5									
				6									
				7									
				8		8.0							
SS 3	24	M 21	8-14-10-21 (24)	9		SILTY CLAY, gray/brown, moist, trace gravel, hard A-6 (4)		4.5	36	20			
				10			CL						
				11									
				12									
				13		13.0							
SS 4	22	M 19	10-12-12-14 (24)	14		SILTY CLAY, gray/brown, moist, trace gravel, very stiff	CL	3.75					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP12**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **350215.431**	EASTING: **603637.638**
DATE STARTED: **7/07/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/07/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1255+50SB** OFFSET **160 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	12	W 36	1-2-2-4 (4)	1		0.3 3" TOPSOIL SILTY CLAY, dark brown, wet, little sand, some organics, very stiff		2.5				HSA	
				2									
				3		Stiff							
SS 2	11	M 14	3-7-4-6 (11)	4				1.25					
				5									
				6									
				7			CL						
				8									
SS 3	10	W 25	9-16-13-20 (29)	9				1.25					
				10									
				11									
				12									
				13		13.0 SILTY CLAY, gray/brown, moist, trace sand, very stiff							
SS 4	19	M 24	6-10-8-13 (18)	14			CL	2.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP13**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351978.049**	EASTING: **603067.812**
DATE STARTED: **7/01/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/01/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1274+00SB** OFFSET **65 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		0.2 2" TOPSOIL							
SS 1	6	M 23	2-3-2-3 (5)	1		SILTY CLAY, brown/grayish brown, moist, trace sand & organics, stiff	CL	1.5				HSA	
				2									
				3		3.0 LEAN CLAY, brown/dark brown, moist, little gravel, hard							
SS 2	24	M 15	9-20-14-40 (34)	4				4.5					
				5			CL						
				6									
				7									
				8		8.0 LEAN CLAY, brown, moist, hard							
SS 3	24	M 19	5-12-8-16 (20)	9				4.5					
				10									
				11			CL						
				12									
				13		Gray/brown, very stiff							
SS 4	24	M 23	6-10-8-12 (18)	14				2.75					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP14**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **352159.606**	EASTING: **602982.595**
DATE STARTED: **7/01/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/01/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1276+00SB**	OFFSET **65 Lt**	TOWNSHIP:	RANGE: / SECTION: / 1/4 SECTION: / 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						7" TOPSOIL 0.6							
SS 1	14	W 28	1-2-2-3 (4)	1		SILTY CLAY, gray & brown, wet, trace sand & organics, stiff		1.25					
				2									
				3		Very stiff to stiff							
SS 2	23	W 21	6-11-8-12 (19)	4				2.5					
				5									
				6									
				7			CL						
				8									
SS 3	13	W 25	9-20-11-20 (31)	9				2.0					
				10									
				11									
				12									
				13		13.0 SILTY CLAY, gray/brown, moist, very stiff							
SS 4	24	M 22	9-13-11-13 (24)	14			CL	2.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP15**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **352351.843**	EASTING: **602925.412**
DATE STARTED: **7/01/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/01/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **2178+00SB**	OFFSET **65 Lt**	TOWNSHIP:	RANGE:	SECTION:	1/4 SECTION:	1/4 1/4 SECTION:	SURFACE ELEVATION:

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						8" TOPSOIL							
SS 1	15	M 21	2-6-3-8 (9)	1		0.7 SILTY CLAY, brown, moist, trace sand & organics, very stiff		2.5				HSA	
				2									
				3		No organics, hard to stiff							
SS 2	18	M 17	8-20-16-26 (36)	4				4.5					
				5									
				6									
				7			CL						
				8									
SS 3	18	M 17	9-18-14-22 (32)	9				2.0					
				10									
				11									
				12									
				13		13.0 LEAN CLAY, gray/brown, moist, trace gravel, hard							
SS 4	20	M 20	6-13-9-18 (22)	14			CL	4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP152**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **338845.95**	EASTING: **604170.61**
DATE STARTED: **7/18/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/18/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1140+60GHC** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	10	M 17	2-4-3-6 (7)	1		0.3 3" TOPSOIL SILTY CLAY, brown/dark brown, moist, trace sand, little organics, stiff to very stiff		2.0				HSA	
SS 2	12	M 25	5-5-5-5 (10)	4			CL	2.5					
SS 3	13	M 18	3-6-4-11 (10)	8		8.0 SILTY CLAY, brown, moist, very stiff	CL	4.0					
SS 4	24	M 18	9-12-14-15 (26)	13		13.0 SILTY CLAY, gray/brown, moist, trace gravel, very stiff	CL	2.5					
				15		15.0 End of Boring at 15.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

J:\COUNTIES\MILWAUKEE\I-43\1229-04-01 - I-43 - SILVER SPRING TO STH 60\GINT\1229-04-01.GPJ I-43 12/10/14

WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP153**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **340420.024**	EASTING: **604079.909**
DATE STARTED: **7/17/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/17/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1156+00GHD** OFFSET **17 Rt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0		0.3 4" TOPSOIL							
SS 1	8	M 16	3-6-4-8 (10)	1		SILTY CLAY, brown/dark brown, moist, trace sand, trace organics, very stiff	CL	3.5				HSA	
				2									
				3		3.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, hard to very stiff							
SS 2	15	M 18	9-18-12-22 (30)	4				4.5					
				5									
				6									
				7									
				8									
SS 3	18	M 19	9-16-12-21 (28)	9			CL	4.0					
				10									
				11									
				12									
				13		Gray/brown							
SS 4	18	M 19	10-15-12-13 (27)	14				4.0					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP154**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351582.274**	EASTING: **603236.778**
DATE STARTED: **7/02/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/02/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1269+75BDD** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				0.2		2" TOPSOIL							
SS 1	17	W 42	1-3-1-3 (4)	1		SILTY CLAY, dark brown, wet, trace sand, with organics, stiff	CL	2.0				HSA	
				2									
				3.0									
SS 2	21	M 18	3-13-10-16 (23)	3		SILTY CLAY, brown mottled, moist, trace organics, hard		4.5					
				4									
				5			CL						
				6									
				7									
				8.0									
SS 3	22	M 19	7-13-11-15 (24)	8		SILTY CLAY, brown, moist, trace sand & gravel, very stiff		3.75					
				9									
				10									
				11			CL						
				12									
				13		Gray, moist, with sand seams, stiff							
SS 4	21	M 22	7-9-10-8 (19)	14				1.5					
				15									
				15.0		End of Boring at 15.0 ft.							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP155**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351696.637**	EASTING: **603171.808**
DATE STARTED: **7/02/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/02/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1271+00BDD** OFFSET **20 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						6" TOPSOIL 0.5							
SS 1	12	W 23	1-2-1-3 (3)	1		SILTY CLAY, brown & dark brown, wet, little sand, trace organics, medium to stiff		1.0				HSA	
				2									
				3									
SS 2	9	M 22	6	4			CL	2.0					
				5									
				6									
				7									
				8		8.0 SILTY CLAY, brown mottled, moist, trace gravel, stiff to very stiff							
SS 3	10	M 19	13-27-16-10 (43)	9				4.0					
				10			CL						
				11									
				12									
				13		13.0 SILTY CLAY, gray/brown, moist, trace sand & gravel, very stiff							
SS 4	24	M 17	10-13-11-6 (24)	14			CL	3.25					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01** WISDOT STRUCTURE ID:			**BORING ID: MP156** PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **351890.654**	EASTING: **603119.298**
DATE STARTED: **7/01/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/01/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1273+00BDD** OFFSET **0**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
						5" BASE COURSE/SHOULDER GRAVEL	GW						
SS 1	10	M 27	2-3-2-3 (5)	1		0.4 SILTY CLAY, brown, moist, with sand & gravel, medium, FILL	CL	1.0				HSA	
				2									
				3		3.0 SILTY CLAY, brown mottled, moist, trace sand & gravel, trace organics, very stiff							
SS 2	13	M 26	3-8-3-12 (11)	4				3.25					
				5			CL						
				6									
				7									
				8		8.0 SILTY CLAY, brown to grayish brown, moist, trace gravel, hard							
SS 3	22	M 17	12-30-18-32 (48)	9				4.5					
				10									
				11			CL						
				12									
				13									
SS 4	23	M 17	11-22-17-26 (39)	14				4.5					
				15		15.0							

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

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WI Dept. of Transportation **3502 Kinsman Blvd.** **Madison, WI 53704**	WISDOT PROJECT ID: **1229-04-01**			**BORING ID: MP157**	
	WISDOT STRUCTURE ID:			PAGE NO: **1 of 1**	
WISDOT PROJECT NAME: **I-43**	CONSULTANT:	CONSULTANT PROJECT NO:		LATITUDE:	LONGITUDE:
ROADWAY NAME:	DRILLING CONTRACTOR: **RVT**	DRILLING CONTRACTOR PROJECT NO:		NORTHING: **355159.234**	EASTING: **601848.55**
DATE STARTED: **7/16/14**	CREW CHIEF:	DRILL RIG:		COORDINATE SYSTEM:	
DATE COMPLETED: **7/16/14**	LOGGED BY: **RVT**	HOLE SIZE: **4 in**		HORIZONTAL DATUM:	VERTICAL DATUM:
COUNTY: **Milwaukee/ Ozaukee**	LOG QC BY: **C. Wierzchowski**	HAMMER TYPE:		STREAMBED ELEVATION: **NA**	
STATION **1307+95CNC** OFFSET **24 Lt**	TOWNSHIP:	RANGE:	SECTION: 1/4 SECTION: 1/4 1/4 SECTION:	SURFACE ELEVATION:	

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
SS 1	10	M 18	5-8-7-8 (15)	1		0.3 4" TOPSOIL SANDY CLAY, dark brown, moist, trace gravel, some organics, hard, POSSIBLE FILL	SC	4.5				HSA	
SS 2	9	M 44	2-3-3-2 (6)	3		3.0 SANDY CLAY, brown & gray, moist, trace organics & gravel, medium, POSSIBLE FILL	SC	1.0					
SS 3	16	M 22	5-7-6-9 (13)	8		8.0 SILTY CLAY, brown mottled, moist, trace gravel, very stiff	CL	3.5					
SS 4	13	M 19	3-7-6-10 (13)	13		15.0		2.5					

End of Boring at 15.0 ft.

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE - IN DEPTH AT COMPLETION: NMR		WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE - IN DEPTH AFTER 0 HOURS: NMR		WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
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Appendix C

Laboratory Testing