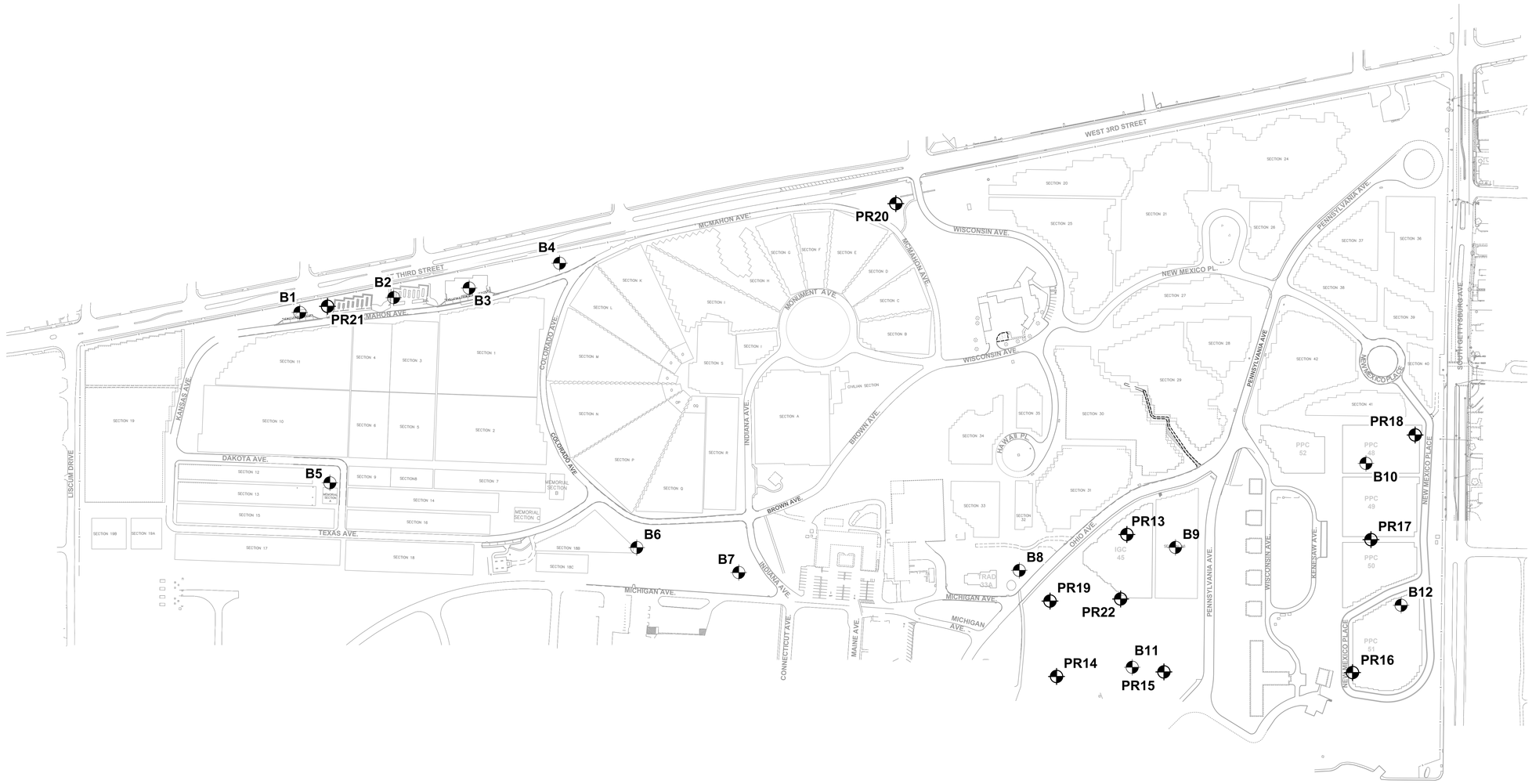
LEGEND

B1 PREVIOUS 2020 PROJECT BORINGS (PROVIDED FOR REFERENCE)

PR1 BORING LOCATION

BORING LOCATIONS

BORING #	NORTHING	EASTING
BORING B1	641163.8489	1471982.8669
BORING B2	641210.1580	1472275.9842
BORING B3	641240.0230	1472511.7869
BORING B4	641317.5707	1472794.2710
BORING B5	640631.8580	1472076.9941
BORING B6	640429.5245	1473035.1256
BORING B7	640351.7278	1473353.5646
BORING B8	640358.4030	1474229.5555
BORING B9	640430.1510	1474717.2476
BORING B10	640692.4801	1475312.0164
BORING B11	640055.8826	1474582.1654
BORING B12	640249.4696	1475421.7771
BORING PR13	39.745254°	-84.256709°
BORING PR14	39.744039°	-84.257470°
BORING PR15	39.744090°	-84.256283°
BORING PR16	39.744103°	-84.254169°
BORING PR17	39.745246°	-84.253986°
BORING PR18	39.746135°	-84.253510°
BORING PR19	39.7447°	-84.2574°
BORING PR20	39.7482°	-84.2593°
BORING PR21	39.7471°	-84.2656°
BORING PR22	39.7448°	-84.2568°



1 BORING LOCATION MAP
SCALE: 1"=150'

N

0 150' 300'

BID DOCUMENTS

Revisions:	Date:

CONSULTANTS

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STAMP
STATE OF OHIO
ADAM THIELE
E-92244
REGISTERED
PROFESSIONAL ENGINEER

Office of Design and Construction Services

VA U.S. Department of Veterans Affairs

Drawing Title: BORING LOCATION MAP	Phase: BID DOCUMENTS	Project Title: DAYTON NATIONAL CEMETERY GRAVESITE EXPANSION	Project Number: 810-CM3-033
Approved: Project Director			Building Number: --
		Location: 4400 W THIRD ST, DAYTON, OH 45428	Drawing Number: B-100
		Issue Date: FEBRUARY 5, 2026 / Checked: JAF / Drawn: MAM	13 of 160

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VA FORM 08 - 6231

BORING LOG NO. B-1

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.747042° Longitude: -84.265936°
Northing: 641163.8489 Easting: 1471682.867
Surface Elev.: 947.9 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.4	947.5	**TOPSOIL (5 INCHES)**
		SILTY CLAY, with gravel and sand, brown, very stiff to hard (Glacial Till)
4.0	944	LIMESTONE, gray, strong rock
9.3	938.5	***Boring Terminated at 9.3 Feet***

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Water Content (%)
1	SS	28	5-7-7 N=14	4.5 (HP)	14.2
2	SS	91	7-50/5"	4.5 (HP)	7.1
3	RC	100	50/1"		0.6
4	SS	70	39-50/4"		

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-14-2020 | Boring Completed: 09-14-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-2

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.747185° Longitude: -84.264897°
Northing: 641210.158 Easting: 1472275.984
Surface Elev.: 937.7 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.5	936.5	**TOPSOIL (12 INCHES)**
2.5	935.0	SILTY CLAY (CL-ML), with gravel and sand, brown, stiff to very stiff (Glacial Till)
13.5	924	SILTY CLAY, with gravel and sand, gray, hard (Glacial Till)
14.5	923	
15.0	922.5	LIMESTONE, gray, strong rock
		Boring Terminated at 15 Feet

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Unconfined Compressive Strength (ksf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL-PL-PI
1	SS	89	2-3-3 N=6	2.5 (HP)		13.7		
2	SS	100	SHELBY TUBE		2.51	12.7	128	21-14-7
3	SS	100	5-6-9 N=15	1.5 (HP)		12.7		
4	SS	22	9-13-14 N=27	1.0 (HP)		11.7		
5	SS	83	13-29-29 N=58	4.5 (HP)				

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler
3-inch Thin-Walled Tube

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-14-2020 | Boring Completed: 09-14-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-3

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.74728° Longitude: -84.264061°
Northing: 641240.023 Easting: 1472511.787
Surface Elev.: 920.2 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.5	919.5	**TOPSOIL (6 INCHES)**
		FILL - SILTY CLAY , with gravel and sand, dark brown
5.0	915	SILTY CLAY, with gravel and sand, brown trace gray, very stiff (Glacial Till)
8.5	911.5	SILTY CLAY, with gravel and sand, gray, very stiff to hard (Glacial Till)
15.0	905	***Boring Terminated at 15 Feet***

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Water Content (%)
1	SS	83	5-6-7 N=13	4.5 (HP)	27.5
2	SS	100	SHELBY TUBE		
3	SS	83	8-6-5 N=11	2.75 (HP)	12.2
4	SS	100	8-10-11 N=21	4.5 (HP)	
5	SS	83	5-6-7 N=13	2.5 (HP)	

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-14-2020 | Boring Completed: 09-14-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-4

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.747508° Longitude: -84.263061°
Northing: 641317.5707 Easting: 1472794.271
Surface Elev.: 912.4 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.5	911.9	**TOPSOIL (12 INCHES)**
4.0	908.4	FILL - LEAN CLAY , with sand and silt, trace gravel, dark brown
8.5	904	LEAN CLAY, with sand and silt, trace gravel, gray trace brown, stiff to very stiff (Glacial Till)
15.0	897.5	***Boring Terminated at 15 Feet***

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Water Content (%)
1	SS	83	2-1-2 N=3	0.75 (HP)	20.7
2	SS	50	2-2-3 N=5	1.5 (HP)	22.0
3	SS	100	2-3-5 N=8	2.25 (HP)	11.8
4	SS	100	3-4-8 N=12	1.75 (HP)	
5	SS	89	5-6-8 N=14	2.75 (HP)	

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-14-2020 | Boring Completed: 09-14-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-5

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.745587° Longitude: -84.265564°
Northing: 640631.858 Easting: 1472076.994
Surface Elev.: 957.1 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.6	956.5	**TOPSOIL (8 INCHES)**
		LEAN CLAY (CL), with gravel and sand, light brown trace gray, stiff to very stiff (Glacial Till)
14.0	943	
14.6	942.5	LIMESTONE, gray, strong rock
		Boring Terminated at 14.6 Feet

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Water Content (%)
1	SS	83	3-4-5 N=9	3.0 (HP)	11.2
2	SS	94	3-4-6 N=10	2.5 (HP)	18.3
3	SS	28	3-4-4 N=8	1.75 (HP)	16.0
4	SS	100	3-8-8 N=16	2.25 (HP)	
5	SS	41	16-29-50/1"		

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-6

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.745083° Longitude: -84.262143°
Northing: 640429.5245 Easting: 1473035.126
Surface Elev.: 928.9 (Ft.)

DEPTH	ELEVATION (Ft.)	Description
0.4	928.5	**TOPSOIL (5 INCHES)**
		FILL - LEAN CLAY (CL), trace sand and silt, dark brown
3.5	925.5	SILTY CLAY, with gravel and sand, brown, medium stiff to very stiff (Glacial Till)
		-- Sample was moist, with a silt seam encountered at 6 feet
8.5	920.5	SILTY CLAY, with gravel and sand, gray, very stiff (Glacial Till)
15.0	914	***Boring Terminated at 15 Feet***

Sample	Type	Recovery (%)	Field Test Results	Laboratory Test	Water Content (%)	Atterberg Limits LL-PL-PI
1	SS	56	3-1-2 N=3	1.75 (HP)	20.5	36-20-16
2	SS	67	2-4-4 N=8	2.0 (HP)	16.5	
3	SS	100	3-2-4 N=6	0.75 (HP)	19.5	
4	SS	100	6-9-10 N=19	2.75 (HP)		
5	SS	67	6-8-10 N=18	2.75 (HP)		

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method:
3.25-inch Continuous-Flight Hollow-Stem Augers
2-inch Split-Barrel Sampler

Abandonment Method:
Backfill with auger cuttings and concrete batch

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevation Reference: Zero GPS Survey

Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL N1205096 DAYTON VA NICHE C GPJ TERRACON_DATATEMPLATE.GDT 9/29/20

BID DOCUMENTS

Revisions:	Date:

CONSULTANTS

IRRIGATION	GEOTECHNICAL	COST ESTIMATING
WATER IN MOTION, INC.	**TERRACON**	**OCMI**
175 James Avenue North Minneapolis, MN 55405 952.229.1911	611 Lunken Park Drive Cincinnati, Ohio 45226 513.612.9020	2100 North Greenville Ave. Richardson, Texas 75082 469.431.0571
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Anderson Engineering of Minnesota, LLC | Proj # 18125

STAMP: STATE OF OHIO — ADAM THIELE — E-92244 — REGISTERED PROFESSIONAL ENGINEER

Office of Design and Construction Services

VA U.S. Department of Veterans Affairs

Drawing Title: 2020 BORING LOGS 1-6

Phase: BID DOCUMENTS

Approved: Project Director

Project Title: DAYTON NATIONAL CEMETERY GRAVESITE EXPANSION

Project Number: 810-CM3-033

Building Number: --

Location: 4400 W THIRD ST, DAYTON, OH 45428

Drawing Number: B-101

Issue Date: FEBRUARY 5, 2026 | Checked: JAF | Drawn: MAM

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VA FORM 08 - 6231

BORING LOG NO. B-7

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.744887° Longitude: -84.261006°
Northing: 640301.7278 Easting: 1473353.565
Surface Elev.: 929.4 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.5	929	**TOPSOIL (6 INCHES)**						
		SILTY CLAY, with gravel and sand, brown to brown trace gray, very stiff to hard (Glacial Till)						
				100	3-4-4 N=8	4.25 (HP)	12.7	
				89	4-4-4 N=8	2.75 (HP)	15.6	
		-- Limestone fragments encountered at 6 feet						
				72	5-5-13 N=18	3.0 (HP)	10.3	
8.5	921	SILTY CLAY, with gravel and sand, gray, very stiff (Glacial Till)						
				67	3-4-5 N=9	2.25 (HP)		
				94	4-6-8 N=14	3.0 (HP)		
15.0	914.5	***Boring Terminated at 15 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
Water observed at 13.5 feet during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-8

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.744952° Longitude: -84.257891°
Northing: 640358.403 Easting: 1474229.556
Surface Elev.: 930.3 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.5	930	**TOPSOIL (6 INCHES)**						
		FILL - SILTY CLAY, with limestone fragments, gravel and sand, dark brown						
				55	7-14-11 N=25	2.0 (HP)	12.5	
				55	10-10-16 N=26	3.5 (HP)	9.5	
6.0	924.5	SILTY CLAY (CL-ML), with gravel and sand, brown, very stiff (Glacial Till)						
				89	6-7-8 N=15	2.5 (HP)	12.2	20-14-6
8.5	922	SILTY CLAY, with sand, trace gravel, gray, very stiff to hard (Glacial Till)						
		-- Sand and gravel seam encountered from 10 to 14 feet						
				55	6-6-8 N=14	3.0 (HP)		
				55	7-7-8 N=15	4.0 (HP)		
15.0	915.5	***Boring Terminated at 15 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
Water observed at 14 feet during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-9

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.745175° Longitude: -84.256162°
Northing: 640430.151 Easting: 1474717.248
Surface Elev.: 928.1 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.6	927.5	**TOPSOIL (6 INCHES)**						
		SILTY CLAY, with gravel and sand, brown trace gray to brown, stiff to very stiff (Glacial Till)						
				72	2-3-7 N=10		7.2	
				83	7-10-10 N=20	2.75 (HP)	9.5	
				72	3-3-5 N=8	3.5 (HP)	12.1	
				100	3-3-6 N=9	2.0 (HP)		
9.0	919	***Boring Terminated at 9 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-10

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.745927° Longitude: -84.254066°
Northing: 640692.4801 Easting: 1475312.016
Surface Elev.: 910.4 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.5	910	**TOPSOIL (6 INCHES)**						
		FILL - LEAN CLAY (CL), with limestone floaters/fragments, gravel and sand, dark brown		72	2-4-6 N=10	2.0 (HP)	11.5	36-18-18
				33	5-12-14 N=26		4.3	
				83	3-3-5 N=8	0.75 (HP)	22.3	
7.5	904	LEAN CLAY, trace gravel and sand, brown trace gray, medium stiff to stiff (Glacial Till)						
				78	3-4-5 N=9	2.0 (HP)		
9.0	901.5	***Boring Terminated at 9 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-11

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.74414° Longitude: -84.256617°
Northing: 640055.8826 Easting: 1474582.165
Surface Elev.: 942.6 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.5	942	**TOPSOIL (5 INCHES)**						
		FILL - SILTY CLAY, with sand, trace gravel		72	2-4-4 N=8	4.0 (HP)	45.0	
				67	4-3-3 N=6	0.75 (HP)	23.0	
6.0	937.5	SILTY CLAY (CL-ML), with sand, trace gravel, brown to brown trace gray, very stiff (Glacial Till)						
				89	4-7-8 N=15	2.25 (HP)	13.1	21-14-7
		-- Limestone fragments were encountered at 7.5 feet						
8.5	934	LIMESTONE, gray, strong rock		94	7-12-19 N=31			
9.0	933.5	***Boring Terminated at 9 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BORING LOG NO. B-12

Page 1 of 1

PROJECT: Dayton VA Niche Columbarium and In-ground Cremains

CLIENT: Anderson Engineering Plymouth, MN

SITE: 4400 West Third Street Dayton, OH

LOCATION See Exploration Plan
Latitude: 39.744717° Longitude: -84.253645°
Northing: 640249.4696 Easting: 1475421.777
Surface Elev.: 914.0 (Ft.)

DEPTH	ELEVATION (Ft.)	Description	Sample Type	Recovery (%)	Field Test Results	Laboratory Data	Water Content (%)	LL-PL-PI
0.5	913.5	**TOPSOIL (4 INCHES)**						
		FILL - SILTY CLAY, with sand, trace gravel, brown to dark brown		83	3-10-11 N=21	4.5 (HP)	8.6	
				89	6-4-3 N=7	2.5 (HP)	23.6	
6.0	909	SILTY CLAY, with gravel and sand, brown trace gray, medium stiff to stiff (Glacial Till)						
				72	3-3-2 N=5	1.5 (HP)	23.5	
				72	2-2-4 N=6	1.0 (HP)		
9.0	905	***Boring Terminated at 9 Feet***						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers; 2-inch Split-Barrel Sampler
Abandonment Method: Backfill with auger cuttings and concrete batch
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Zeno GPS Survey
Notes:

WATER LEVEL OBSERVATIONS
No water observed during drilling
No water observed upon completeion of drilling

Terracon, 611 Lunken Park Dr, Cincinnati, OH

Boring Started: 09-15-2020 | Boring Completed: 09-15-2020
Drill Rig: CME 55 | Driller: KH
Project No.: N1205096

BID DOCUMENTS

Revisions:	Date:

CONSULTANTS

IRRIGATION	GEOTECHNICAL	COST ESTIMATING
WATER IN MOTION, INC.	**TERRACON**	**OCMI**
175 James Avenue North, Minneapolis, MN 55405, 952.229.1911	611 Lunken Park Drive, Cincinnati, Ohio 45226, 513.612.9020	2100 North Greenville Ave. Richardson, Texas 75082 469.431.0571
TIMOTHY MALOOLY	**JEFF DUNLAP, PE**	**KYLE VEATER**

ARCHITECT/ENGINEER OF RECORD

ANDERSON
13605 1st Ave. N. #100 Plymouth, MN 55441
P 763.412.4000 | F 763.412.4090 | ae-mn.com
Anderson Engineering of Minnesota, LLC | Proj # 18125

STAMP: STATE OF OHIO, ADAM THIELE, E-92244, REGISTERED PROFESSIONAL ENGINEER

Office of Design and Construction Services

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
2020 BORING LOGS 7-12	BID DOCUMENTS	DAYTON NATIONAL CEMETERY GRAVESITE EXPANSION	810-CM3-033
Approved: Project Director		Location: 4400 W THIRD ST, DAYTON, OH 45428	Building Number: --
		Issue Date: FEBRUARY 5, 2026 / Checked: JAF / Drawn: MAM	Drawing Number: B-102

VA FORM 08 - 6231

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Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-13

Location: See Exploration Plan
Latitude: 39.745254° Longitude: -84.256709°
Depth (Ft.) Elevation: 925.3 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (3")** 925.05							
1		2.5	**FILL - SILTY CLAY**, with gravel, trace root hairs, brown 921.8			78	3-4-5 N=9	2.5 (HP)	20.0	
2		3.5	**SILTY CLAY (CL-ML)**, with limestone fragments, trace sand and gravel, brown and gray, stiff to hard, (Glacial Till)			100	13-16-16 N=32	4.5 (HP)	8.8	
		5				100	8-7-6 N=13	4.5 (HP)	11.1	
					Split					
		10				100	5-6-7 N=13	1.5 (HP)	10.1	
3		13.5	911.8							
		15.0	**SANDY SILTY CLAY (CL-ML)**, with gravel, gray, very stiff, (Glacial Till) 910.3			100	4-6-10 N=16	3.75 (HP)	8.7	
		15	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.
Split Boring caved at 8.5'

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by J. Friend
Boring Started 11-21-2024
Boring Completed 11-21-2024

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-14

Location: See Exploration Plan
Latitude: 39.744039° Longitude: -84.257470°
Depth (Ft.) Elevation: 941.7 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (3")** 941.45							
1		2.5	**FILL - SILTY CLAY**, trace sand and gravel, brown 938.7			78	2-3-5 N=8	4.5 (HP)	26.7	
2		3.0	**SANDY SILTY CLAY (CL-ML)**, with gravel, brown, very stiff, (Glacial Till)			67		3 (HP)	15.4	
		5	- soft below 6 feet			100	5-4-3 N=7	0.25 (HP)	17.7	21-16-5
		8.5	933.2							
					Split					
6		10	**POORLY GRADED GRAVEL WITH SILT AND SAND (GP)**, with limestone fragments, brown, dense			100	8-17-16 N=33		12.7	
		13.5	928.2							
4		15.0	**SHALE AND LIMESTONE**, shale very weak, limestone strong, gray 926.7			100	24-25-16 N=41		9.5	
		15	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.
Split Boring caved at 8.7'

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by J. Friend
Boring Started 11-21-2024
Boring Completed 11-21-2024

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-15

Location: See Exploration Plan
Latitude: 39.744090° Longitude: -84.256283°
Depth (Ft.) Elevation: 940.6 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (3")** 940.35							
1		2.5	**FILL - LEAN CLAY**, trace sand, brown, (Glacial Till) 937.1			72	3-3-5 N=8	2.5 (HP)	19.3	
2		3.5	**SILTY CLAY (CL-ML)**, with sand, trace gravel, brown, very stiff to hard			100	4-7-9 N=16	3.75 (HP)	12.5	
		5				94	5-5-12 N=17	2.75 (HP)	13.3	
		10			Split	100	7-7-12 N=19	4.5 (HP)	9.9	
4		13.5	**SHALE**, with limestone, gray trace brown, slightly weathered, very weak 927.1			94	21-20-18 N=38		7.5	
		15.0	925.6							
		15	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.
Split Boring caved at 10'

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by J. Friend
Boring Started 11-21-2024
Boring Completed 11-21-2024

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-16

Location: See Exploration Plan
Latitude: 39.744103° Longitude: -84.254169°
Depth (Ft.) Elevation: 919.5 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (3")** 919.25							
1		2.5	**FILL - LEAN CLAY WITH SAND**, trace gravel, trace roots, brown 916			50	2-2-2 N=4	2.25 (HP)	19.6	
5		3.5	**LEAN CLAY (CL)**, trace sand, dark brown, stiff 913.5			39	2-3-4 N=7	1.75 (HP)	21.4	
		6.0	**LEAN CLAY WITH SAND (CL)**, trace gravel, trace limestone fragments, trace concretions, brown trace gray, hard, (Glacial Till) 911			100	4-7-7 N=14	4.5 (HP)	13.1	
2		8.5	**SANDY LEAN CLAY WITH GRAVEL (CL)**, brown and gray, very stiff, (Glacial Till) 906			100	4-5-5 N=10	4 (HP)	13.6	
4		13.5	**SHALE**, gray, slightly weathered, very soft 904.5			100	7-9-13 N=22		14.5	
		15.0	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.
Cave in not observed.

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by A. Moore
Boring Started 11-20-2024
Boring Completed 11-20-2024

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-17

Location: See Exploration Plan
Latitude: 39.745246° Longitude: -84.253986°
Depth (Ft.) Elevation: 914.0 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (2")** 913.9							
1		2.5	**FILL - SANDY LEAN CLAY**, with gravel, with limestone fragments, brown to gray, trace cinders and burned materials, petroleum odor 908			89	7-10-9 N=19	4 (HP)	8.9	
		5				46		4 (HP)	31.3	
		6.0	**FILL - LEAN CLAY**, trace sand, trae root hairs, dark gray 905.5			100	3-5-6 N=11	3 (HP)	25.3	
2		8.5	**LEAN CLAY WITH SAND (CL)**, trace limestone fragments, brown, hard, (Glacial Till) 900.5			89	3-4-6 N=10	4.5 (HP)	13.1	23-13-10
		10			Split					
		13.5	**SANDY LEAN CLAY (CL)**, with limestone fragments, dark grayish brown, very stiff, (Glacial Till) 899			100	7-7-10 N=17	4 (HP)	10.2	
		15.0	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.
Split Boring caved at 10.5'

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by J. Friend
Boring Started 11-21-2024
Boring Completed 11-21-2024

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-18

Location: See Exploration Plan
Latitude: 39.746135° Longitude: -84.253510°
Depth (Ft.) Elevation: 901.6 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Description	Water Level Observations	Sample Type	Recovery (")	Field Test Results	HP (tsf)	Water Content (%)	Atterberg Limits LL-PL-PI
		0.3	**TOPSOIL (2")** 901.3							
1		2.5	**FILL - SANDY LEAN CLAY**, trace gravel, trace limestone fragments, organics, trace root hair, brown, hard 898.1			78	3-4-9 N=13	4.5 (HP)	14.6	
		3.5	**FILL - LEAN CLAY WITH SAND**, trace root hairs, dark gray trace reddish brown 895.6			83	4-5-5 N=10	3.5 (HP)	26.6	
2		6.0	**SILTY CLAY (CL-ML)**, with sand and gravel, trace root hairs, brown, very stiff, (Glacial Till) 893.1			100	4-4-6 N=10	2.75 (HP)	14.9	
		8.5			Split					
6		10	**SILTY SAND (SM)**, trace gravel, trace clay, brown, medium dense 886.6			89	4-5-7 N=12			
		15.0					3-4-6 N=10			
		15	***Boring Terminated at 15 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water encountered at depth 8.5 feet while drilling.
Split Boring caved at 8'

Drill Rig CME 55
Hammer Type Automatic
Driller C. Kinsley

Notes
Automatic Hammer Energy Transfer Ratio=92%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Logged by J. Friend
Boring Started 11-21-2024
Boring Completed 11-21-2024

Facilities | Environmental | **Geotechnical** | Materials

BID DOCUMENTS

Revisions:	Date:

CONSULTANTS

IRRIGATION	GEOTECHNICAL	COST ESTIMATING
WATER IN MOTION, INC.	**TERRACON**	**OCMI**
175 James Avenue North Minneapolis, MN 55405 952.229.1911	611 Lunken Park Drive Cincinnati, Ohio 45226 513.612.9020	2100 North Greenville Ave. Richardson, Texas 75082 469.431.0571
TIMOTHY MALOOLY	**JEFF DUNLAP, PE**	**KYLE VEATER**

ARCHITECT/ENGINEER OF RECORD
ANDERSON
13605 1st Ave. N. #100 Plymouth, MN 55441
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Anderson Engineering of Minnesota, LLC | Proj # 18125

STAMP
STATE OF OHIO
ADAM THIELE
E-92244
REGISTERED
PROFESSIONAL ENGINEER

Office of Design and Construction Services

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
2024-2025 BORING LOGS 13-18	BID DOCUMENTS	DAYTON NATIONAL CEMETERY GRAVESITE EXPANSION	810-CM3-033
Approved: Project Director		Location: 4400 W THIRD ST, DAYTON, OH 45428	Building Number --
		Issue Date: FEBRUARY 5, 2026 / Checked: JAF / Drawn: MAM	Drawing Number B-103
			16 of 160

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Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-B19

Location: See Exploration Plan

Latitude: 39.7447° Longitude: -84.2574°

Approximate Elevation: 929.1 (Ft.)

Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Recovery ()	Field Test Results	HP (tsf)
0.5	**TOPSOIL**, (6 INCHES)	928.6						
	FILL - LEAN CLAY, trace sand and gravel, brownish gray trace gray					33	2-2-4 N=6	2
3.5		925.6						
	LEAN CLAY (CL), trace sand and gravel, brownish gray trace gray, very stiff, (Glacial Till)		5			78	5-9-10 N=19	2.5
6.0		923.1						
	SANDY LEAN CLAY WITH GRAVEL (CL), trace limestone fragments, olive gray, very stiff, (Glacial Till)					94	7-10-11 N=21	3
8.5		920.6						
	INTERBEDDED SHALE AND LIMESTONE **SHALE**, brown and gray, highly weathered, very to extremely weak **LIMESTONE**, gray, slightly weathered, medium strong to strong		10	BST		92	11-36-50/1"	
13.6		915.5				20	50/1"	
	Auger Refusal at 13.6 Feet ***Boring Terminated at 13.6 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water encountered at depth 13.5 feet while drilling.
Water encountered at depth 10 feet at completion of drilling.
BST Boring caved at 10 feet

Drill Rig Mobile B57
Hammer Type Automatic
Driller A. Fay
Logged by E. Hammonds
Boring Started 03-10-2025
Boring Completed 03-10-2025

Notes
Hammer Energy Transfer Ratio (ETR)=(87.1 +/- 2.1)%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-B20

Location: See Exploration Plan

Latitude: 39.7482° Longitude: -84.2593°

Approximate Elevation: 900.2 (Ft.)

Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Recovery ()	Field Test Results	HP (tsf)
0.5	**TOPSOIL**, (6 INCHES)	899.7						
	FILL - LEAN CLAY, trace sand, trace gravel, trace root hairs, brownish gray to gray					33	1-2-2 N=4	1.5
3.5		896.7						
	LEAN CLAY (CL), trace gravel, brown to grayish brown, stiff to very stiff		5			55	2-4-4 N=8	2.75
6.0		894.2						
	SILT (ML), with sand, trace gravel, gray and olive, medium dense, (Glacial Till)					78	4-6-10 N=16	
8.5		891.7						
	SANDY LEAN CLAY WITH GRAVEL (CL), yellowish brown, very stiff, (Glacial Till)		10			67	3-3-7 N=10	3
13.5		886.7						
	LEAN CLAY WITH SAND (CL), trace gravel, gray, very stiff to hard, (Glacial Till)					78	3-7-9 N=16	4.5+
15.0		885.2	15					
	Boring Terminated at 15 Feet							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.

Drill Rig Mobile B57
Hammer Type Automatic
Driller A. Fay
Logged by E. Hammonds
Boring Started 03-10-2025
Boring Completed 03-10-2025

Notes
Hammer Energy Transfer Ratio (ETR)=(87.1 +/- 2.1)%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-B21

Location: See Exploration Plan

Latitude: 39.7471° Longitude: -84.2656°

Approximate Elevation: 942.6 (Ft.)

Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Recovery ()	Field Test Results	HP (tsf)
0.5	**TOPSOIL**, (6 INCHES)	942.1						
	LEAN CLAY WITH SAND (CL), with gravel, gray to grayish brown, stiff to very stiff					72	4-4-4 N=8	2.5
6.0		936.6	5			72	2-3-5 N=8	2
	LEAN CLAY WITH SAND (CL), trace gravel, olive trace gray, very stiff					89	2-3-6 N=9	4.5+
8.5		934.1						
	LEAN CLAY (CL), olive and gray, laminated (Residuum)		10			83	7-14-28 N=42	4.5+
13.5		929.1						
13.6	**INTERBEDDED SHALE AND LIMESTONE**, trace clay seams **SHALE**, gray, highly weathered, very to extremely weak **LIMESTONE**, gray, slightly weathered, medium strong to strong	929				100	50/1"	
	Auger Refusal at 13.6 Feet ***Boring Terminated at 13.6 Feet***							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water not encountered at completion of drilling.

Drill Rig Mobile B57
Hammer Type Automatic
Driller A. Fay
Logged by E. Hammonds
Boring Started 03-10-2025
Boring Completed 03-10-2025

Notes
Hammer Energy Transfer Ratio (ETR)=(87.1 +/- 2.1)%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | **Geotechnical** | Materials

Dayton National Cemetery Expansion
4400 West Third Street | Dayton, OH
Terracon Project No. N1245267

611 Lunken Park Dr
Cincinnati, OH

Boring Log No. PR-B22

Location: See Exploration Plan

Latitude: 39.7448° Longitude: -84.2568°

Approximate Elevation: 931.3 (Ft.)

Depth (Ft.)	Description	Elevation	Depth (Ft.)	Water Level Observations	Sample Type	Recovery ()	Field Test Results	HP (tsf)
0.5	**TOPSOIL**, (6 INCHES)	930.8						
	LEAN CLAY (CL), trace sand, trace gravel, gray, medium stiff to stiff					50	1-2-3 N=5	1.25
3.5		927.8						
	LEAN CLAY WITH SAND (CL), trace gravel, trace concretions, brown to grayish brown, stiff to very stiff		5			83	4-6-7 N=13	4
						100	5-4-5 N=9	2.25
8.5		922.8		BST				
	SILT (ML), trace limestone fragments, gray and olive gray, medium dense to dense - samples are wet		10			78	9-9-9 N=18	
						55	9-20-15 N=35	
17.0		914.3	15					
	CLAYEY GRAVEL WITH SAND (GC), with limestone floaters and shale fragments, olive and gray, dense					72	15-19-19 N=38	
18.5		912.8						
	INTERBEDDED SHALE AND LIMESTONE, with clay seams **SHALE**, gray, moderately weathered, very to extremely weak **LIMESTONE**, gray, slightly weathered, medium strong to strong					100	17-42-49 N=91	
20.0		911.3	20					
	Boring Terminated at 20 Feet							

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations were measured in the field using an EMLID GPS unit.

Water Level Observations
Water encountered at depth 13.5 feet while drilling.
Water encountered at depth 15.5 feet at completion of drilling.
BST Boring caved at 8 feet

Drill Rig Mobile B57
Hammer Type Automatic
Driller A. Fay
Logged by E. Hammonds
Boring Started 03-10-2025
Boring Completed 03-10-2025

Notes
Hammer Energy Transfer Ratio (ETR)=(87.1 +/- 2.1)%

Advancement Method
3-1/4" Continuous Flight Hollow Stem Auger
2" Split-Barrel Sampler

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | **Geotechnical** | Materials

BID DOCUMENTS

Revisions:	Date:

CONSULTANTS

IRRIGATION	GEOTECHNICAL	COST ESTIMATING
WATER IN MOTION, INC.	**TERRACON**	**OCMI**
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STAMP

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ADAM THIELE
E-92244
REGISTERED
PROFESSIONAL ENGINEER

Office of Design and Construction Services

VA U.S. Department of Veterans Affairs

Drawing Title: 2024-2025 BORING LOGS 19-22

Approved: Project Director

Phase: BID DOCUMENTS

Project Title: DAYTON NATIONAL CEMETERY GRAVESITE EXPANSION

Project Number: 810-CM3-033

Building Number: --

Location: 4400 W THIRD ST, DAYTON, OH 45428

Drawing Number: B-104

17 of 160

Issue Date: FEBRUARY 5, 2026 | Checked: JAF | Drawn: MAM

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