PAVEMENT AND DECK CORE REPORT
FRA-270-43.18
FRANKLIN COUNTY, OHIO
PID#: NA

Prepared For:

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Prepared by:

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NEAS PROJECT: 21-0067

September 9, 2022

National Engineering & Architectural Services Inc.

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1. INTRODUCTION

1.1. General

NEAS presents our pavement and bridge deck core report for the FRA-270-43.18 project in Franklin County, Ohio. The FRA-270-43.18 project is intended to inspect and rehabilitate the I-270 in Franklin County, Ohio.

This report presents a summary of the project encountered material during coring exploration and its testing results in the lab. The exploration was conducted in general accordance with NEAS, Inc.'s proposal to Michael Baker International, dated September 28, 2021.

The scope of work to be performed includes:

1. Twenty-nine (29) pavement cores.
2. Forty (40) bridge deck cores.
3. Laboratory testing program which included water-soluble chloride ion content and compressive strength testing for bridge deck core samples.
4. Development of a summary report.

2. GEOTECHNICAL EXPLORATION

2.1. Coring Exploration Program

The project subsurface exploration performed was conducted by NEAS between June 20, 2022 and June 30, 2022 and consisted of forty (40) bridge deck cores and twenty-nine (29) pavement cores. The initial and final coring locations were determined by E.L. Robinson. Final coring locations were determined by E.L. Robinson field measurements from known locations. The target coring locations are presented on the diagrams provided in Appendix A.

The project cores were drilled using a portable, truck-mounted coring drill with a 4-inch (outer diameter) diamond tipped drill bit utilizing water as the cooling fluid. Asphalt and concrete thicknesses were measured in the field after the cores were extracted and down-hole measurements were made. Each core sample was logged and stored for transportation to NEAS's laboratory.

Following field documentation, the core holes were filled with quick-set concrete. Once in the laboratory, the cores were: 1) re-measured for thickness verification and photographed; 2) checked for composition, assessed condition, and checked for presence and location of rebar; 3) reviewed for individual layer identification and subsequent measurements; and 4) sampled for additional laboratory testing.

Table 1: Pavement/Deck Core Summary

Core ID	Alignment	Latitude	Longitude	Diameter of Core (in)	Length of Core (in)
DC-1	I-270	39.9310579	-82.8575046	4	11.0
DC-2	I-270	39.93098831	-82.8576321	4	6.0
DC-3	I-270	39.93085866	-82.8578432	4	4.0
DC-4	I-270	39.93108056	-82.8576056	4	9.0
DC-5	I-270	39.93090556	-82.8579167	4	7.0
DC-6	I-270	39.93110581	-82.8577047	4	4.0
DC-7	I-270	39.9309545	-82.8579898	4	7.0
DC-8	I-270	39.93110028	-82.8578904	4	6.5
DC-9	I-270	39.93120831	-82.8578495	4	7.0
DC-10	I-270	39.93100951	-82.8581819	4	6.8
DC-11	I-270	39.92680376	-82.8646998	4	5.0
DC-12	I-270	39.92671326	-82.864885	4	4.5
DC-13	I-270	39.92645677	-82.8653717	4	5.8
DC-14	I-270	39.92622967	-82.8657648	4	6.3
DC-15	I-270	39.92681623	-82.8649363	4	8.3
DC-16	I-270	39.92665084	-82.8652358	4	7.8
DC-17	I-270	39.92649952	-82.86552	4	8.5
DC-18	I-270	39.92633538	-82.8658179	4	7.3
DC-19	I-270	39.92701012	-82.8649446	4	4.5
DC-20	I-270	39.92681185	-82.8653067	4	6.3
DC-21	I-270	39.92671958	-82.8654722	4	6.3
DC-22	I-270	39.92651435	-82.8658329	4	5.0
DC-23	I-270	39.92720786	-82.8647793	4	5.5
DC-24	I-270	39.92708056	-82.865018	4	5.8
DC-25	I-270	39.92674039	-82.8656552	4	6.3
DC-26	I-270	39.92659329	-82.8659121	4	5.3
DC-27	I-270	39.90232493	-82.8982397	4	5.0
DC-28	I-270	39.90211941	-82.8984389	4	10.8
DC-29	I-270	39.90192522	-82.8986301	4	7.8
DC-30	I-270	39.90239908	-82.8983631	4	7.0
DC-31	I-270	39.90220281	-82.8985661	4	4.8
DC-32	I-270	39.90196442	-82.8988017	4	5.5
DC-33	I-270	39.88857097	-82.9110044	4	6.5
DC-34	I-270	39.88863477	-82.9110531	4	3.8
DC-35	I-270	39.88858077	-82.9112162	4	9.0
DC-36	I-270	39.88865736	-82.911425	4	8.0
DC-37	I-270	39.88861173	-82.9117013	4	6.8
DC-38	I-270	39.88867888	-82.911809	4	3.3
DC-39	I-270	39.8886397	-82.9122163	4	11.0
DC-40	I-270	39.88869533	-82.9120913	4	9.0
PC-1	I-270	39.9290745	-82.8605791	4	13.3
PC-2	I-270	39.92915556	-82.8606558	4	5.5
PC-3	I-270	39.93048156	-82.8588001	4	11.0
PC-4	I-270	39.93067029	-82.8587689	4	4.5
PC-5	I-270	39.92553404	-82.8669985	4	6.8
PC-6	I-270	39.92482627	-82.8685316	4	6.8
PC-7	I-270	39.92593351	-82.8668848	4	5.0
PC-8	I-270	39.92601806	-82.8669687	4	7.8
PC-9	I-270	39.91869062	-82.878189	4	9.3
PC-10	I-270	39.91875714	-82.8783212	4	7.8
PC-11	I-270	39.91912413	-82.8781132	4	7.0
PC-12	I-270	39.9192138	-82.8782157	4	7.5
PC-13	I-270	39.91097989	-82.888614	4	9.0
PC-14	I-270	39.91098374	-82.8888424	4	5.3
PC-15	I-270	39.91125693	-82.8887737	4	7.3
PC-16	I-270	39.91133313	-82.8888797	4	7.8
PC-17	I-270	39.90333333	-82.8968333	4	6.8
PC-18	I-270	39.90296789	-82.8973435	4	7.5
PC-19	I-270	39.90314932	-82.8974089	4	7.5
PC-20	I-270	39.90321879	-82.8975407	4	11.0
PC-21	I-270	39.88986292	-82.9100551	4	7.8
PC-22	I-270	39.88923708	-82.9108871	4	4.3
PC-23	I-270	39.89004545	-82.9103344	4	14.0
PC-24	I-270	39.89206255	-82.9084753	4	7.0
PC-25	I-270	39.87763889	-82.9220833	4	10.3
PC-26	I-270	39.876634	-82.9233071	4	13.5
PC-27	I-270	39.87846121	-82.9217152	4	9.0
PC-28	I-270	39.87653615	-82.9239082	4	6.5
PC-29	I-270	39.9306471	-82.8582875	4	8.5
DC = DECK CORE PC = PAVEMENT CORE					

2.2. Laboratory Testing Program

The laboratory testing was performed on deck cores only and consisted of compressive strength testing and water-soluble chloride content testing. Four (4) tests were performed for each bridge, two (2) compressive strength test and two (2) chloride content tests. Testing was selected to be able to produce results from the median and the shoulder for each bridge. Data from the laboratory-testing program were incorporated onto the reports contained within the Appendices. Core samples are retained at the laboratory for 2 years following report submittal, after which time they will be discarded.

2.2.1. Compressive Strength Testing

Compressive Strength of cylindrical concrete specimens were performed on total of twelve (12) deck cores, two (2) for each bridge. Compressive Strength test was performed in accordance with ASTM C39 “Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens”. A summary of the compressive strength testing is presented in table 2 below. Laboratory Test reports can be found in Appendix B.

Table 2: Summary of Compressive Strength Results

Sample ID	Length (in)	Average Dia. (in)	Length/Dia. Ratio	Area (in2)	Load (lbs)	Compressive Strength (lbs)	Correction Factor	Corrected Compressive Strength (psi)
DC-1	7.55	3.74	2.02	10.99	75627	**6880**	n/a	N/A
DC-4	7	4	2	11	78688	7200	0.98	**7060**
DC-7	5.7	3.72	1.53	10.87	98408	9050	0.96	**8690**
DC-8	6	4	2	11	89358	8220	0.96	**7890**
DC-13	4.85	3.72	1.3	10.87	127528	11730	0.93	**10910**
DC-18	6	4	2	11	94545	8650	0.96	**8300**
DC-20	3.7	3.71	1	10.81	122201	11300	0.87	**9830**
DC-25	5	4	1	11	98417	9060	0.93	**8430**
DC-29	5.6	3.71	1.51	10.81	91730	8490	0.96	**8150**
DC-30	6	4	2	11	83041	7770	0.96	**7460**
DC-36	6.45	3.68	1.75	10.64	71554	6730	0.98	**6600**
DC-40	7	4	2	11	79148	**7400**	n/a	N/A

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2.2.2. Water-Soluble Chloride Ion Content

Water-soluble chloride content testing was performed in accordance with ASTM C1218 “Standard Test Method for Water-Soluble Chloride in Mortar and Concrete”. For this testing, two cores from each bridge were selected, one from the median and one from the shoulder for a total of 12 tests. A summary of the Water-Soluble Chloride Ion Content testing is presented in Table 4 below. Laboratory test reports can be found in Appendix C.

Table 3: Summary of Water-Soluble Chloride Ion Content Testing

Bridge	Sample ID	Sample Depth From Road Surface (in)	Water Soluble Chloride (%)	Water Soluble Chloride (lbs/yd3)
270 SB Bridge over NS Railroad (Middle)	DC-2	2.75	0.057	2.170
	DC-5	2.75	0.068	2.589
270 SB Bridge over NS Railroad (West)	DC-6	2.75	0.016	0.609
	DC-9	3	0.037	1.409
270 NB Bridge over Big Walnut Creek	DC-12	3	0.023	0.876
	DC-16	2.75	0.06	2.284
270 SB Bridge over Big Walnut Creek	DC-21	3	0.044	1.675
	DC-24	2.75	0.067	2.551
270 SB Bridge over 33	DC-28	2.75	0.02	0.761
	DC-31	3	0.025	0.952
Williams Bridge	DC-34	2.75	0.012	0.457
	DC-37	2.75	0.025	0.952
Notes: Pounds of chloride per cubic yard is calculated with an assumed air dry density of 141 pcf (3807 pcy).				

3. FINDINGS

The results contained herein represent NEAS’s interpretation of the conditions encountered at each core location based on our site observations, field logs, visual review of the core samples by NEAS's geologist, and laboratory test results. The concrete cores characterizations included herein, including summary test

data, are based on the findings from the geotechnical explorations performed by NEAS as part of the referenced project.

The thicknesses of the cores, as well as the depth of any rebar encountered, were measured at the indicated core locations shown on the Core Location Plan provided in Appendix A. A summary of these measurements is summarized in Table 5.

Table 4: Core Summary

Core ID	Alignment	Asphalt Thickness (in)	Concrete Thickness (in)	Total Thickness (in)	Rebar Encountered
DC-1	I-270	0	11	11	Yes
DC-2	I-270	0	6	6	No
DC-3	I-270	0	4	4	No
DC-4	I-270	0	9	9	No
DC-5	I-270	0	7	7	Yes
DC-6	I-270	0	4	4	No
DC-7	I-270	0	7	7	No
DC-8	I-270	0	6.5	6.5	No
DC-9	I-270	0	7	7	Yes
DC-10	I-270	0	6.75	6.75	No
DC-11	I-270	0	5	5	Yes
DC-12	I-270	0	4.5	4.5	Yes
DC-13	I-270	0	5.75	5.75	No
DC-14	I-270	0	6.25	6.25	Yes
DC-15	I-270	0	8.25	8.25	Yes
DC-16	I-270	0	7.75	7.75	Yes
DC-17	I-270	0	8.5	8.5	Yes
DC-18	I-270	0	7.25	7.25	Yes
DC-19	I-270	0	4.5	4.5	Yes
DC-20	I-270	0	6.25	6.25	Yes
DC-21	I-270	0	6.25	6.25	Yes
DC-22	I-270	0	5	5	No
DC-23	I-270	0	5.5	5.5	Yes
DC-24	I-270	0	5.75	5.75	Yes
DC-25	I-270	0	6.25	6.25	No
DC-26	I-270	0	5.25	5.25	No
DC-27	I-270	0	5	5	Yes
DC-28	I-270	0	10.75	10.75	Yes
DC-29	I-270	0	7.75	7.75	Yes
DC-30	I-270	0	7	7	Yes
DC-31	I-270	0	4.75	4.75	No
DC-32	I-270	0	5.5	5.5	No
DC-33	I-270	0	6.5	6.5	Yes
DC-34	I-270	0	3.75	3.75	Yes
DC-35	I-270	1.75	7.25	9	No
DC-36	I-270	0	8	8	No
DC-37	I-270	0	6.75	6.75	Yes
DC-38	I-270	0	3.25	3.25	No
DC-39	I-270	2.75	8.25	11	No
DC-40	I-270	0	9	9	No
PC-1	I-270	13.25	0	13.25	No
PC-2	I-270	0	5.5	5.5	No
PC-3	I-270	11	0	11	No
PC-4	I-270	4.5	0	4.5	No
PC-5	I-270	6.75	0	6.75	No
PC-6	I-270	6.75	0	6.75	No
PC-7	I-270	5	0	5	No
PC-8	I-270	7.75	0	7.75	No
PC-9	I-270	9.25	0	9.25	No
PC-10	I-270	7.75	0	7.75	No
PC-11	I-270	7	0	7	No
PC-12	I-270	7.5	0	7.5	No
PC-13	I-270	9	0	9	No
PC-14	I-270	5.25	0	5.25	No
PC-15	I-270	7.25	0	7.25	No
PC-16	I-270	7.75	0	7.75	No
PC-17	I-270	6.75	0	6.75	No
PC-18	I-270	7.5	0	7.5	No
PC-19	I-270	7.5	0	7.5	No
PC-20	I-270	11	0	11	No
PC-21	I-270	7.75	0	7.75	No
PC-22	I-270	4.25	0	4.25	No
PC-23	I-270	4	10	14	No
PC-24	I-270	7	0	7	No
PC-25	I-270	10.25	0	10.25	No
PC-26	I-270	4.5	9	13.5	No
PC-27	I-270	9	0	9	No
PC-28	I-270	6.5	0	6.5	No
PC-29	I-270	8.5	0	8.5	No

DC = DECK CORE PC = PAVEMENT CORE

4. QUALIFICATIONS

This investigation was performed in accordance with accepted geotechnical engineering practice for the purpose of characterizing the existing pavement condition and bridge deck condition for the FRA-270-43.18 project in Franklin County, Ohio. This report has been prepared for E. L. Robinson and their design consultants to be used solely in evaluating the bridge deck concrete and pavement conditions within the project limits. The assessment of general site environmental conditions or the presence of pollutants in the soil, rock and groundwater of the site was beyond the scope of this geotechnical exploration. The results of the field exploration and laboratory tests are presented in the appendices as

noted. This report does not reflect any variations that may occur between the core locations or elsewhere on the site, or variations whose nature and extent may not become evident until a later stage of the project. In the event that any changes occur in the nature, design or location of the proposed work, the conclusions contained in this report should not be considered valid until they are reviewed and have been modified or verified in writing by a geotechnical engineer.

It has been a pleasure to be of service to E. L. Robinson in performing this geotechnical exploration for the FRA-270-43.18 project. Please call if there are any questions, or if we can be of further service.

Respectfully Submitted,

Abdul Khail

Abdul Saboor Ibrahim Khail, EI
Staff Structural Engineer

Jawdat Siddiqi

Jawdat Siddiqi, PE
Project Manager

APPENDIX A

CORING LOCATION PLAN

- CORE LOCATION

PC-28

PC-27

PC-26

PC-25

HORIZONTAL
SCALE IN FEET

0 25 50 100

CORE LOCATION PLAN
PAVEMENT CORES I-270

FRA-270-43.18

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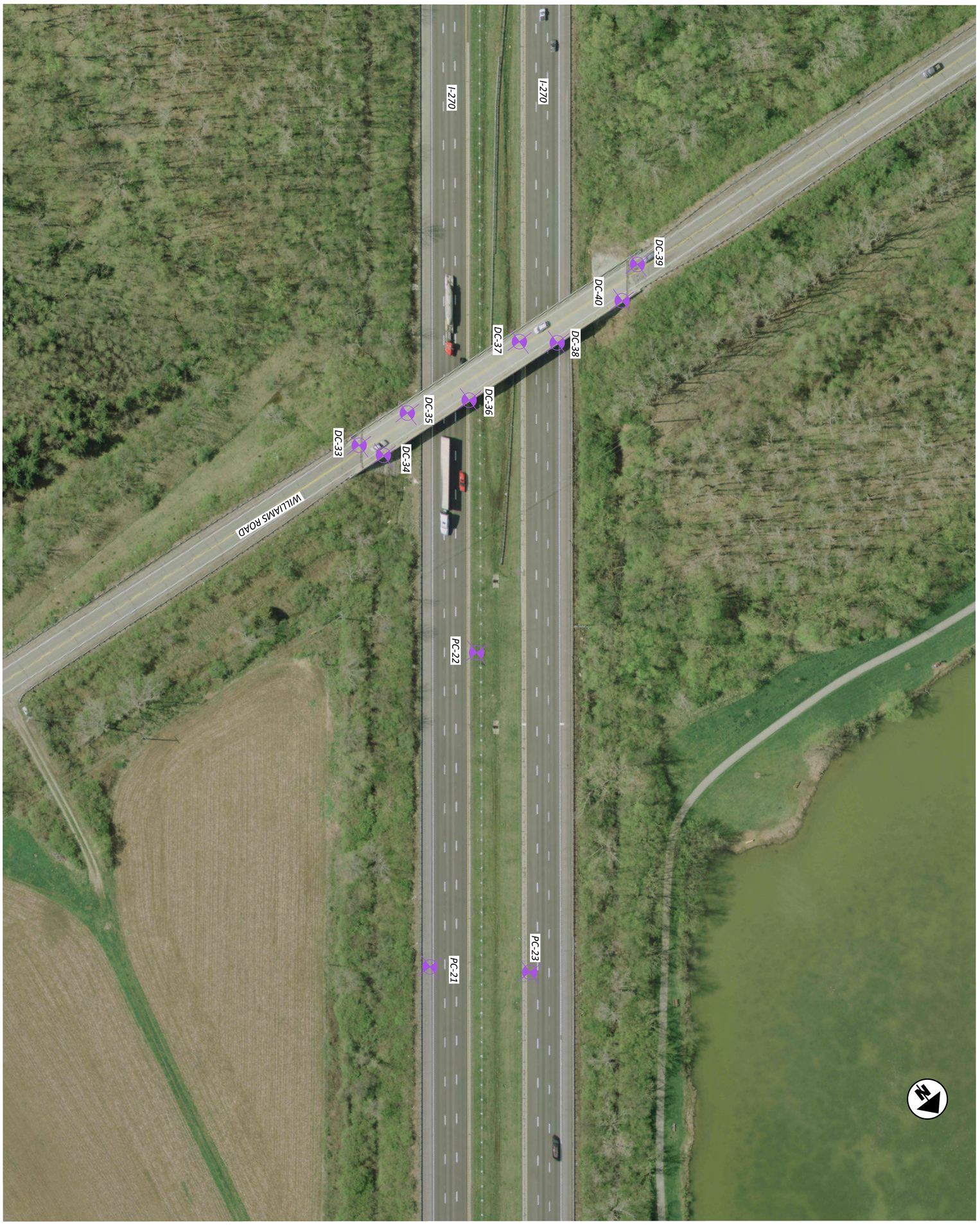

CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

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- CORE LOCATION

CORE LOCATION PLAN
PAVEMENT CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

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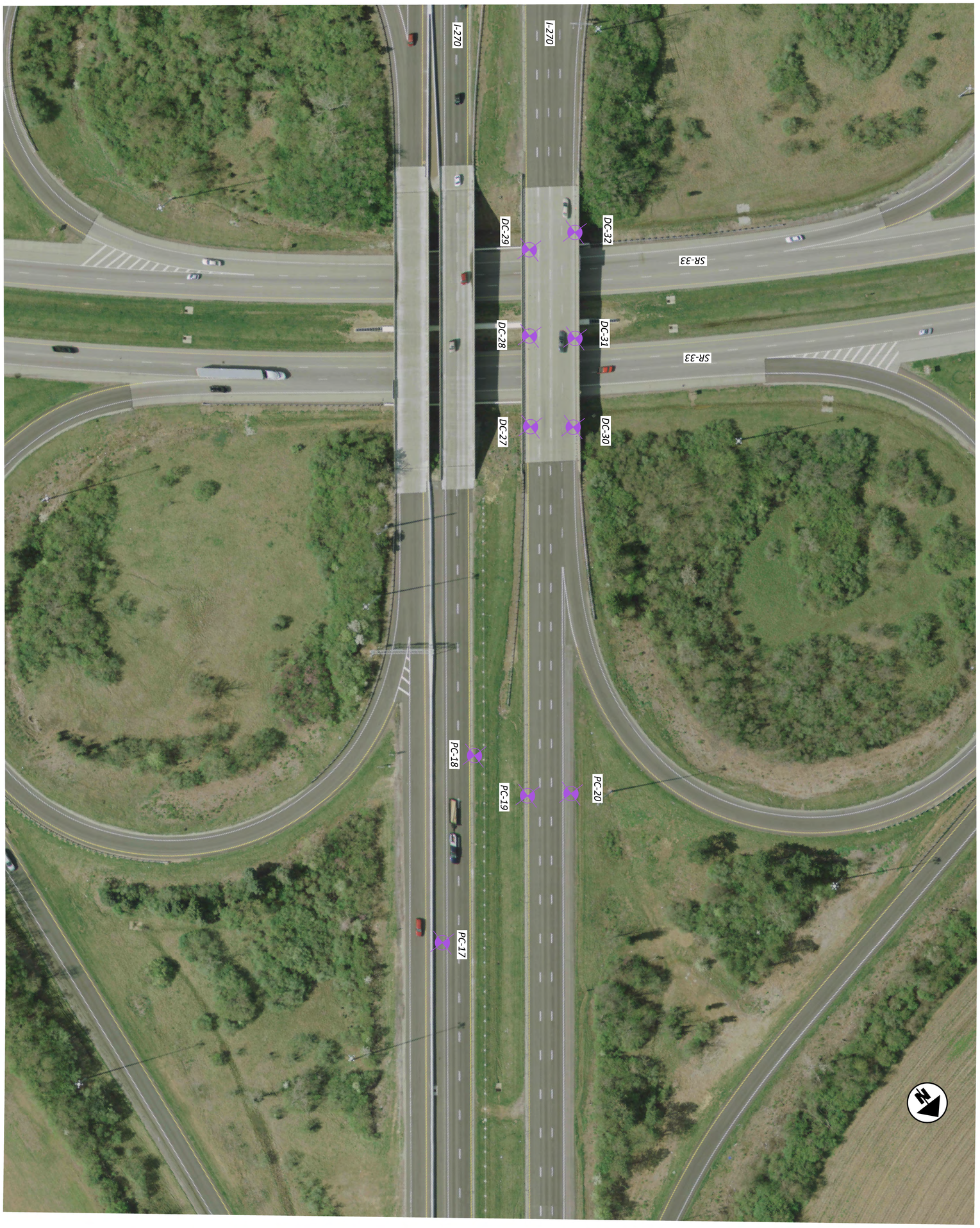

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CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

FRA-270-43.18

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- CORE LOCATION

CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

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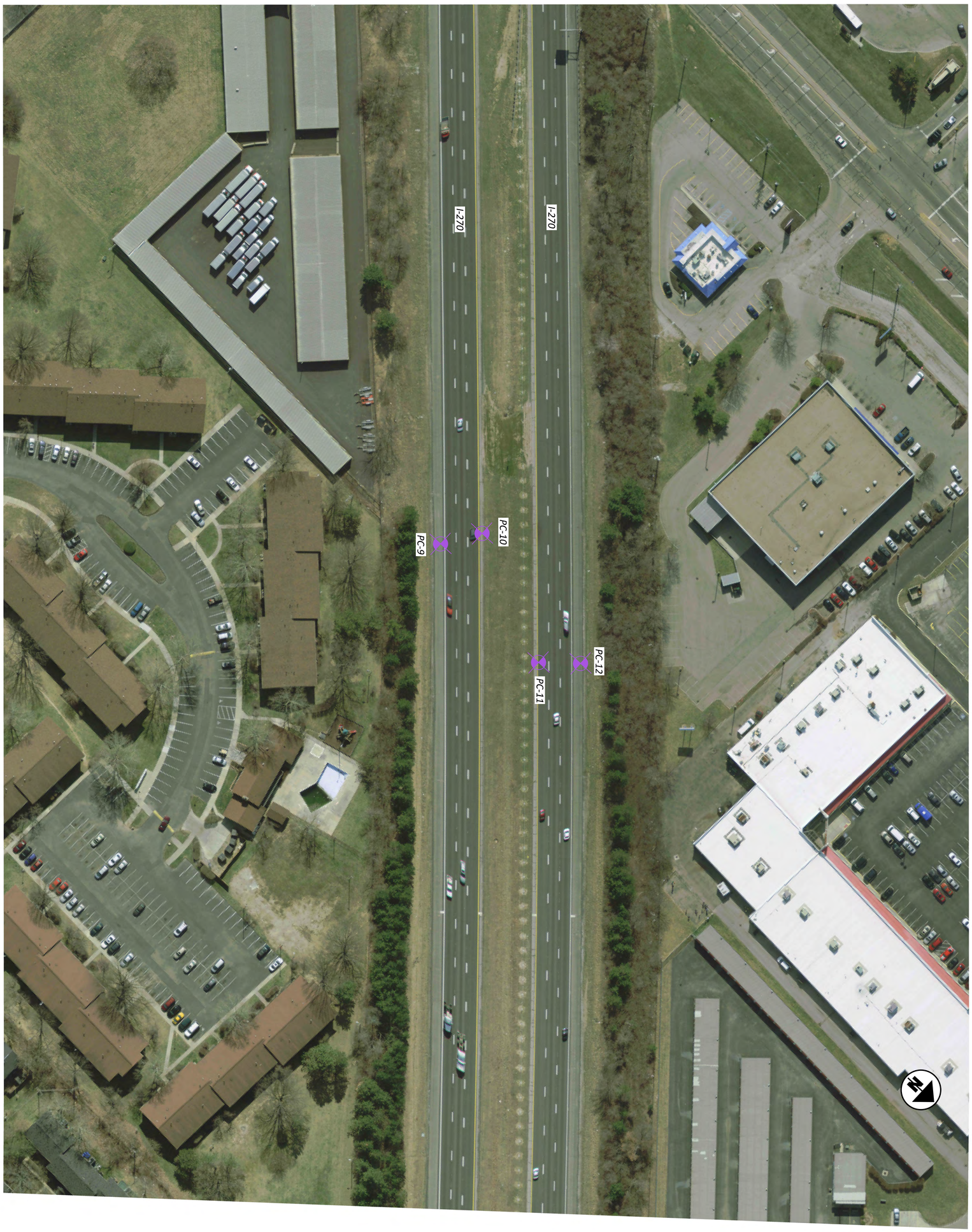
- CORE LOCATION



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CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

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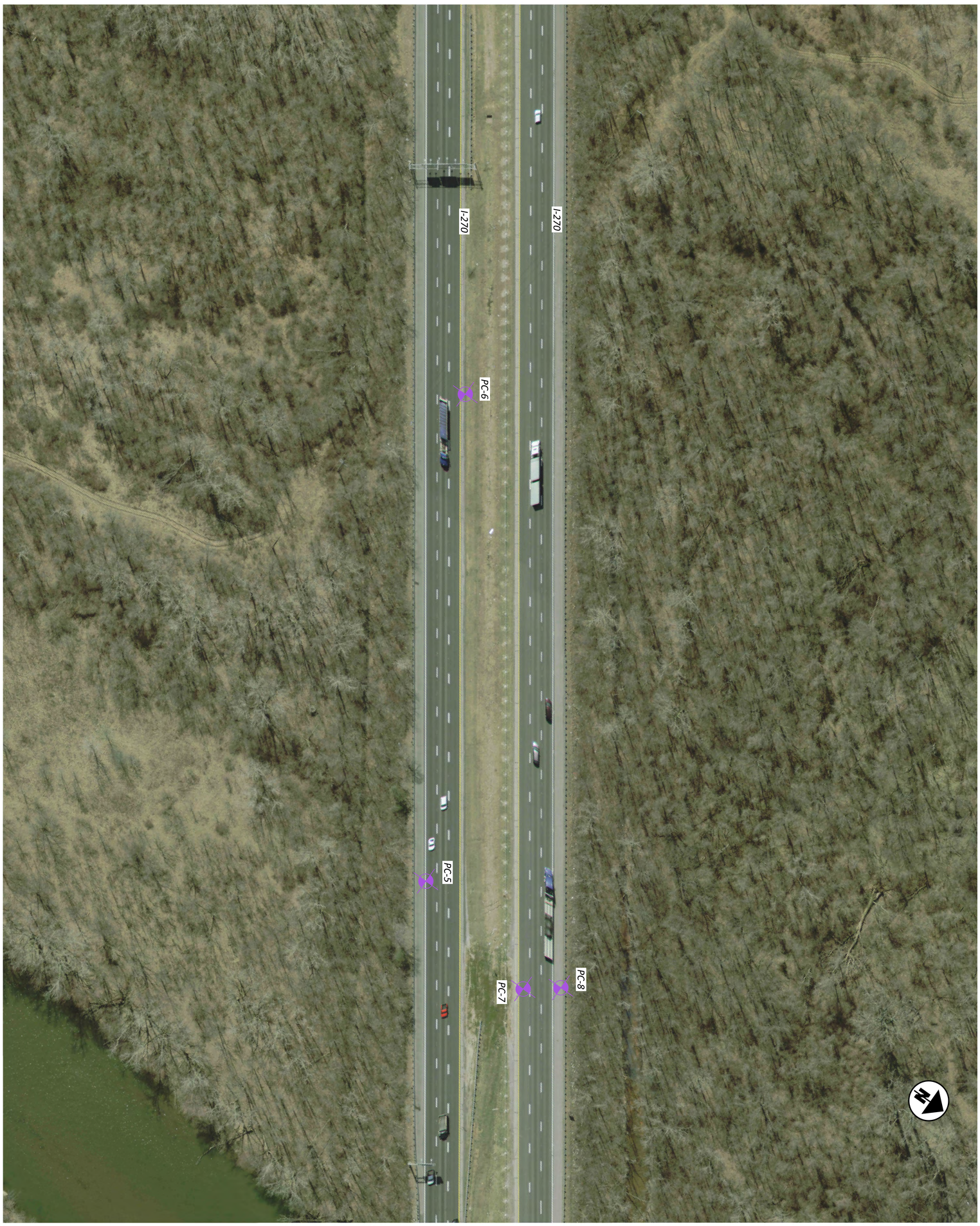
- CORE LOCATION



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CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

FRA-270-43.18

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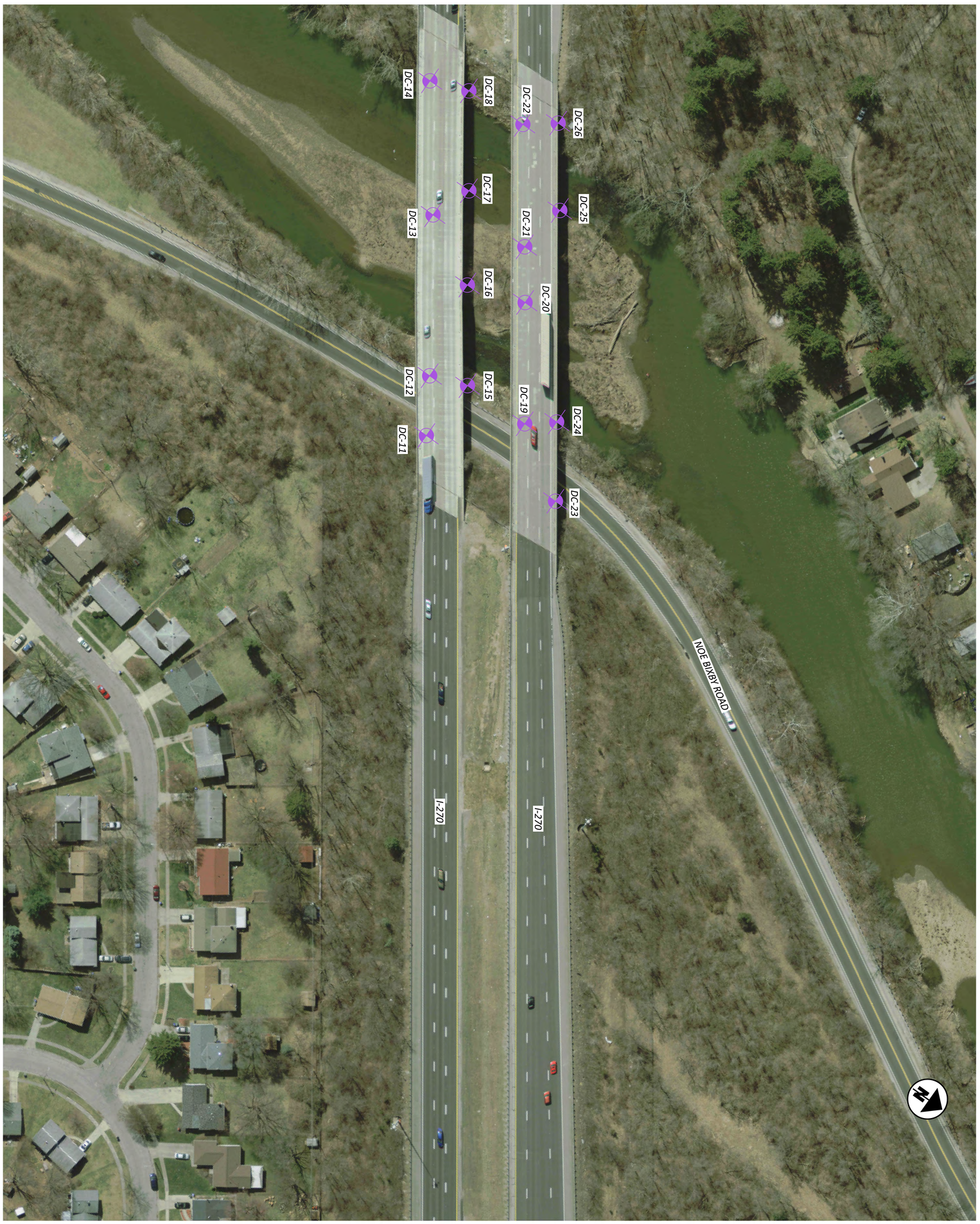
- CORE LOCATION



CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGN AGENCY

2800 CORPORATE EXCHANGE DR.
SUITE 240
COLUMBUS, OH. 43231
TEL:614.714.0299
WWW.NEASINC.COM

DESIGNER AI
REVIEWER JS 09-07-22
PROJECT ID NA
SHEET 8 TOTAL 10

FRA-270-43.18

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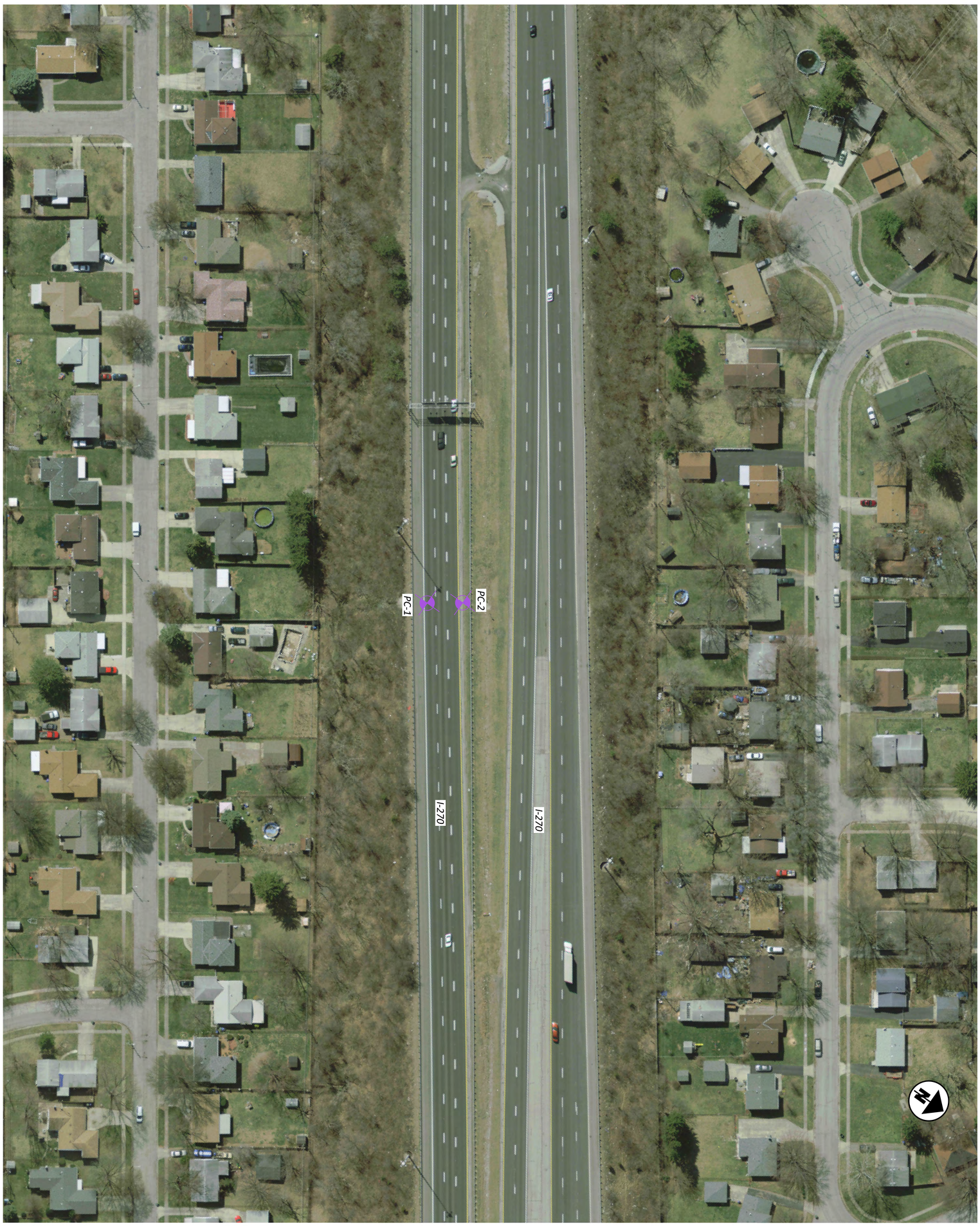
- CORE LOCATION



DESIGN AGENCY
NEAS
2800 CORPORATE EXCHANGE DR.
SUITE 240
COLUMBUS, OH.
43231
TEL:614.714.0299
WWW.NEASINC.COM

DESIGNER AI
REVIEWER JS
09-07-22
PROJECT ID NA
SHEET 9 TOTAL 10

CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

FRA-270-43.18

MODEL: Boring Location Plan 1 PAPERSIZE: 34x22 (in.) DATE: 11/15/2022 TIME: 10:26:09 AM USER: mjasiewicz
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- CORE LOCATION

CORE LOCATION PLAN
PAVEMENT/DECK CORES I-270

HORIZONTAL SCALE IN FEET
0 50
25 100

DESIGN AGENCY
NEAS
2500 CORPORATE EXCHANGE DR.
SUITE 240
COLUMBUS, OH. 43231
TEL:614.714.0299
WWW.NEASINC.COM

DESIGNER MWJ
REVIEWER JS 11-15-22
PROJECT ID NA
SHEET 10 TOTAL 10

APPENDIX B

COMPRESSIVE STRENGTH TEST RESULTS

National Engineering & Architectural Services Inc.

Compressive Strength of Cylindrical Concrete Specimens

Project: FRA-270-43.18
Type of Specimens: Concrete Core
Test Procedures: ASTM C42, ASTM C39, ASTM C1542

Specimens Cored By: LR/CA/NA
Tests Performed By: LR
Checked By: LR

Core Identification	DC-1	DC-4	DC-7	DC-8	DC-13	DC-18	DC-20	DC-25	DC-29	DC-30	DC-36	DC-40
Date concrete placed	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Date concrete cored	6/29/2022	6/28/2022	6/20/2022	6/21/2022	6/29/2022	6/27/2022	6/20/2022	6/21/2022	6/22/2022	6/23/2022	6/30/2022	6/30/2022
Date of end preparation	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22	8/1/22
Date of Compressive Strength Testing	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22	08/08/22
Length before cutting, (.25in)	11.00	9.00	7.00	6.50	5.75	7.25	6.25	6.25	7.75	7.00	8.00	9.00
Length after prep, (.05in)	7.55	6.55	5.70	5.70	4.85	5.60	3.70	4.65	5.60	5.60	6.45	7.35
Average Diameter, (.01in)	3.74	3.73	3.72	3.72	3.72	3.73	3.71	3.72	3.71	3.69	3.68	3.69
Length/Diameter Ratio	2.02	1.76	1.53	1.53	1.30	1.50	1.00	1.25	1.51	1.52	1.75	1.99
Area, (in^2)	10.99	10.93	10.87	10.87	10.87	10.93	10.81	10.87	10.81	10.69	10.64	10.69
Maximum Load, (lbs)	*75,627*	*78,688*	*98,408*	*89,358*	*127,528*	*94,545*	*122,201*	*98,417*	*91,730*	*83,041*	*71,554*	*79,148*
Compressive Strength, (10psi)	**6880**	7200	9050	8220	11730	8650	11300	9060	8490	7770	6730	**7400**
Correction Factor	n/a	0.98	0.96	0.96	0.93	0.96	0.87	0.93	0.96	0.96	0.98	n/a
Corrected Compressive Strength, (psi)	n/a	**7060**	**8690**	**7890**	**10910**	**8300**	**9830**	**8430**	**8150**	**7460**	**6600**	n/a
Break Type	3	3	3	3	3	3	3	3	3	3	3	3
Direction of application of load with respect as placed	All cores tested as placed											
Specimen Properties												
Weight of Cylinder (lbs)	7.02	5.93	5.11	5.06	4.39	5.04	3.28	4.03	5.05	5.20	5.48	6.38
Volume of Cylinder	82.94	71.57	61.95	61.95	52.71	61.19	40.00	50.54	60.54	59.89	68.60	78.60
Density of Cylinder (lb/fts)	146	143	143	141	144	142	142	138	144	150	138	140
Nominal Aggregate Size (in)	0.75	0.75	0.75	0.75	0.38	0.75	0.38	0.75	0.75	0.75	0.75	0.75
Notes												
Size and depth of embedded metal:	1/2 @ 3.5	None	None	None	None	None	None	None	3/4 @ 4.25	3/4 @ 3 & 4	None	None
Any Defects in core:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Deviation from standard:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

APPENDIX C

WATER-SOLUBLE CHLORIDE ION CONTENT REPORT

National Engineering & Architectural Services Inc.

5710 Westbourne Ave
Columbus, OH 43213
614-892-0162

Water Soluble Chloride in Mortar and Concrete (ASTM C1218/C1218M)

Project: FRA-270-43.18
Date: 9/1/2022

Technician: L. Rosenbeck
Checked By: L. Rosenbeck

Bridge	Sample ID	Sample Depth From Road Surface (in)	Water Soluble Chloride (%)	Water Soluble Chloride (lbs/yd3)
270 SB Bridge over NS Railroad (Middle)	DC-2	2.75	0.057	2.170
	DC-5	2.75	0.068	2.589
270 SB Bridge over NS Railroad (West)	DC-6	2.75	0.016	0.609
	DC-9	3.00	0.037	1.409
270 NB Bridge over Big Walnut Creek	DC-12	3.00	0.023	0.876
	DC-16	2.75	0.060	2.284
270 SB Bridge over Big Walnut Creek	DC-21	3.00	0.044	1.675
	DC-24	2.75	0.067	2.551
270 SB Bridge over 33	DC-28	2.75	0.020	0.761
	DC-31	3.00	0.025	0.952
Williams Bridge	DC-34	2.75	0.012	0.457
	DC-37	2.75	0.025	0.952

Notes: Pounds of chloride per cubic yard is calculated with an assumed air dry density of 141 pcf (3807 pcy).

APPENDIX E

CORE PHOTOS AND REPORT

\

Core Photo: D.C.-1

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**11**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		8.5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.75" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-2

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		3.5		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-3

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.75		
2		1.25		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-4

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		6		
3				
4				
Rebar Encountered	Evidence of vertical section of rebar that was not recovered with core			

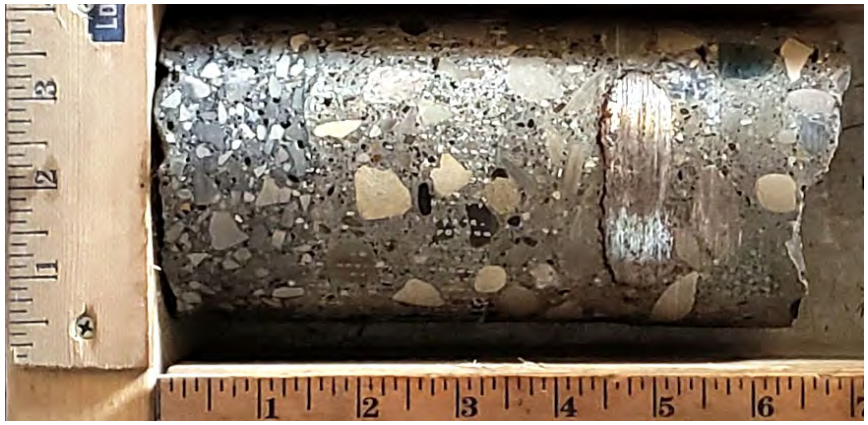
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-5



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		1.5		
2		5.5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 5" depth			

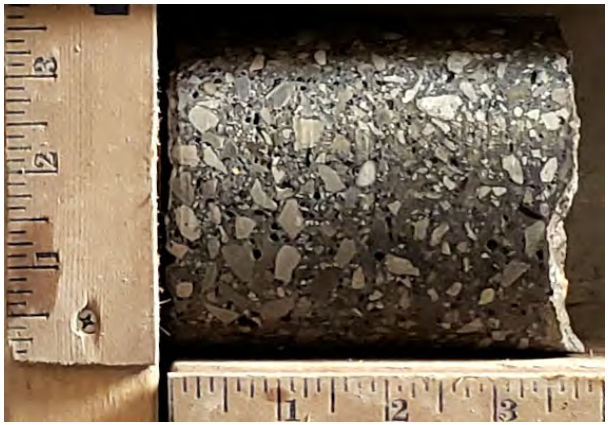
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-6



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		4		
2				
3				
4				
Rebar Encountered	N/E			

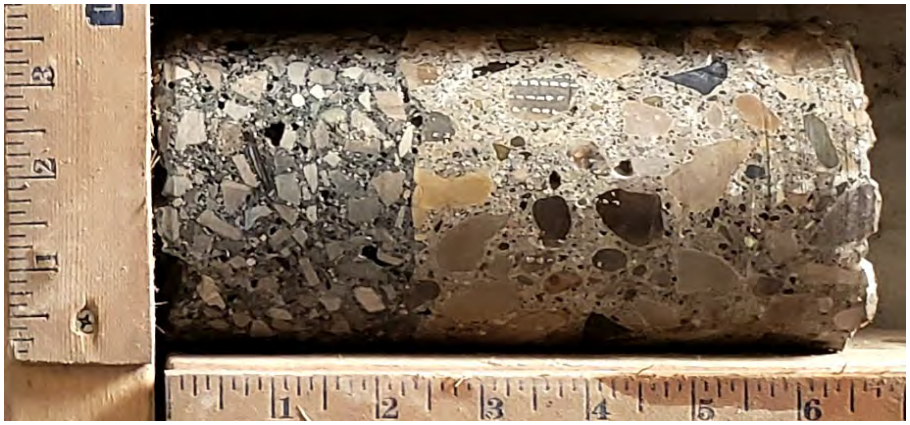
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-7



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		4.5		
3				
4				
Rebar Encountered	N/E			

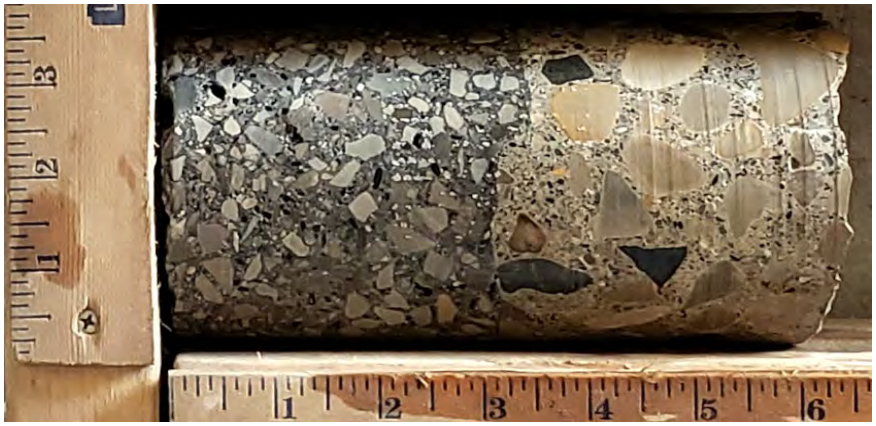
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-8



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3.5		
2		3		
3				
4				
Rebar Encountered	N/E			

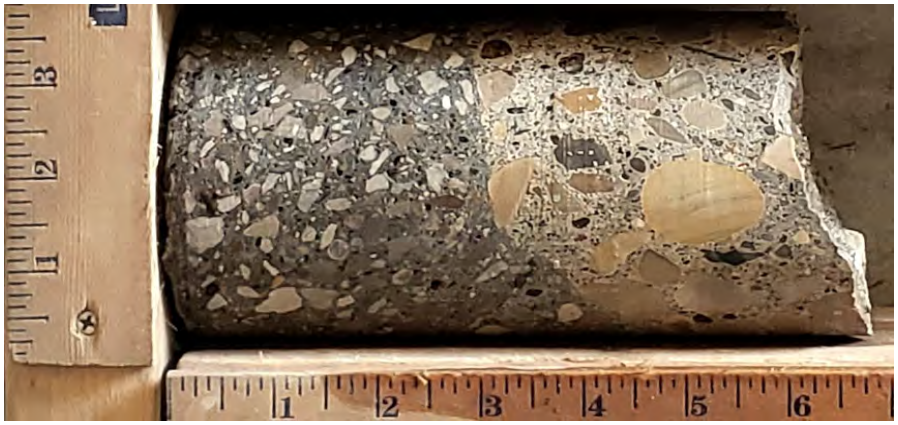
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-9



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3.5		
2		3.5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 3.5" depth			

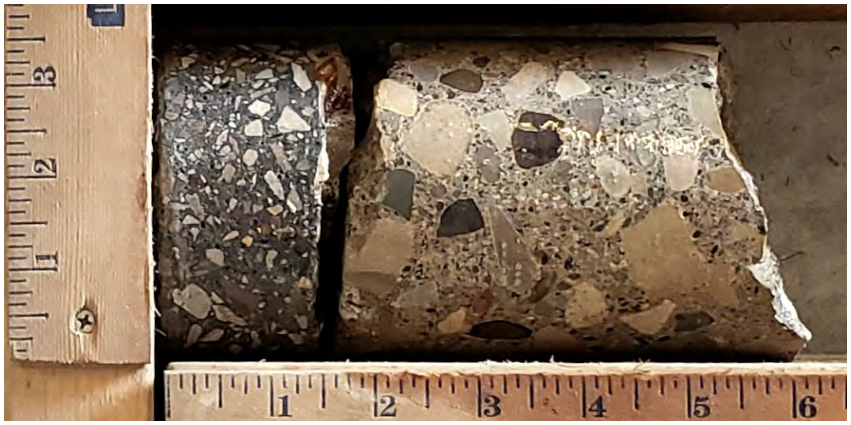
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-10



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		1.75		
2		5		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-11

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		2		
3				
4				
Rebar Encountered	Evidence of rebar at 4.75" depth that was not recovered with core			

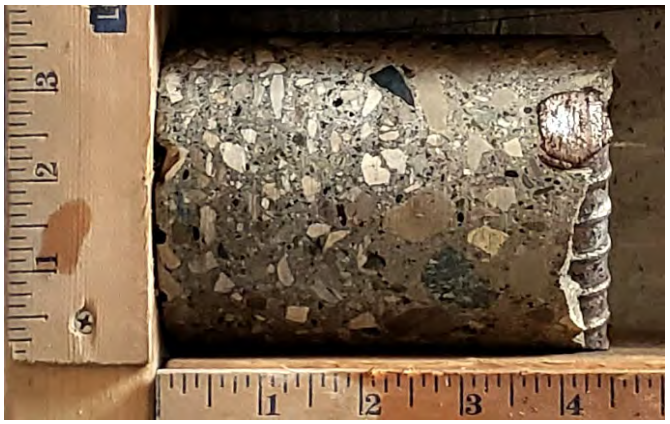
Pavement & Core Photo Log

Roadway Project
FRA-270-43.18

NEAS Project No.: 21-0067
Date: 7/11/2022
Taken By: MJ
Scale: N/A

National Engineering & Architectural Services Inc.

Core Photo: D.C.-12



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.25		
2		2.25		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.25" depth			

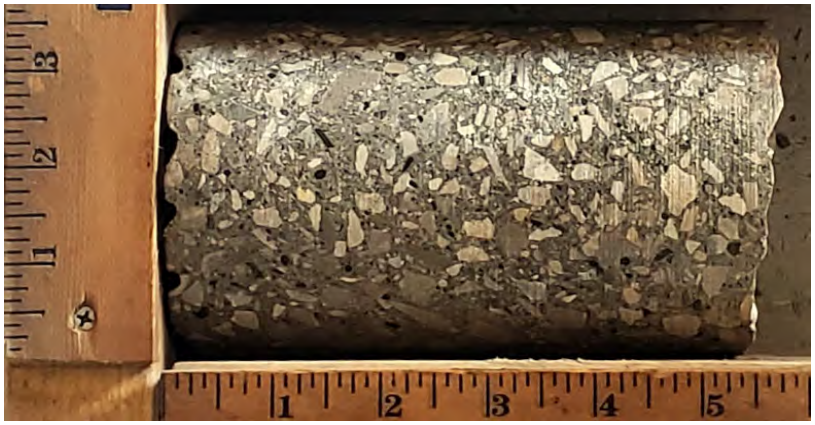
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-13



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		5.75		
2				
3				
4				
Rebar Encountered	N/E			

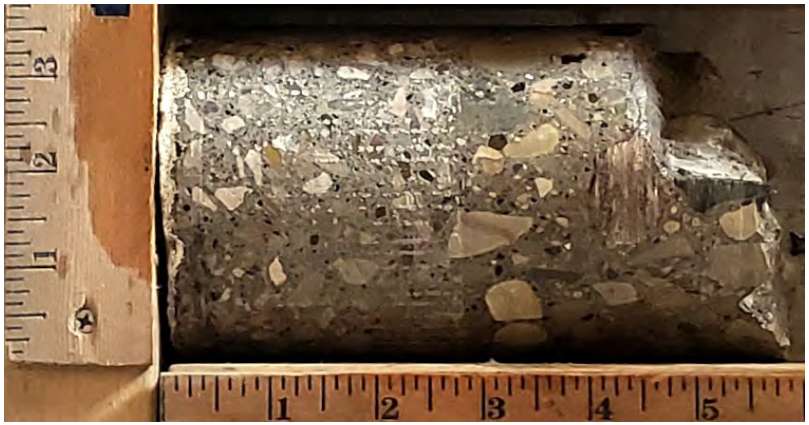
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-14



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		3.75		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.5" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-15

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**8.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		6.25		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.5" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-16

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		5.75		
3				
4				
Rebar Encountered	3/4" rebar encountered at 7" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-17

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**8.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.25		
2		6.25		
3				
4				
Rebar Encountered	3/4" rebar encountered at 7.5" depth			

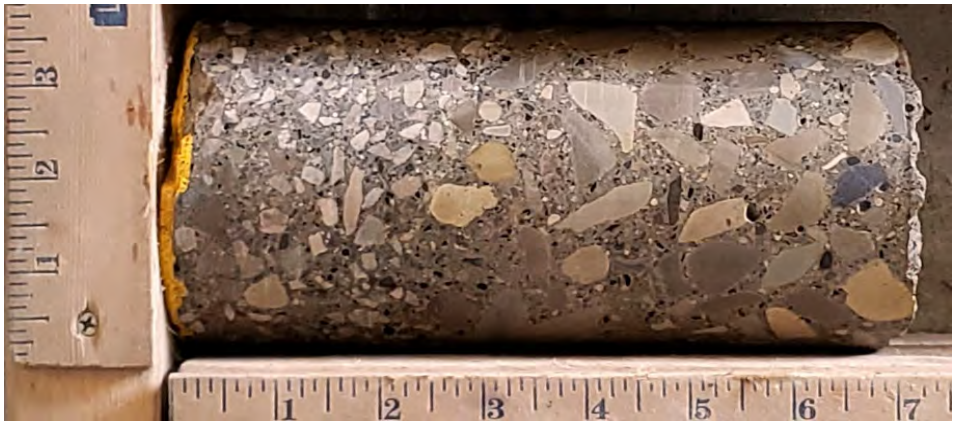
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-18



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		4.25		
3				
4				
Rebar Encountered	N/E			

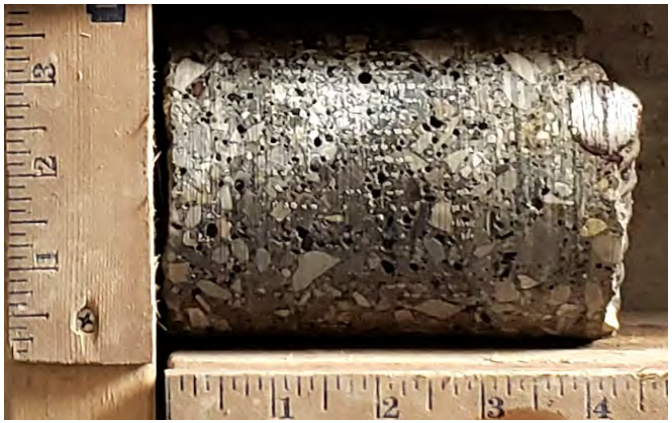
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-19



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		1.5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.25" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-20

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		3.25		
3				
4				
Rebar Encountered	7/8" rebar encountered at 5" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-21

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		3.25		
3				
4				
Rebar Encountered	3/4" rebar encountered at 5.25" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-22

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		2.5		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-23

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		2.5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.25" depth. 2 x 3/4" rebar encounterd at 5.25" depth.			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-24

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.25		
2		3.5		
3				
4				
Rebar Encountered	Evidence of rebar at 5.5" depth that was not recovered with core			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-25

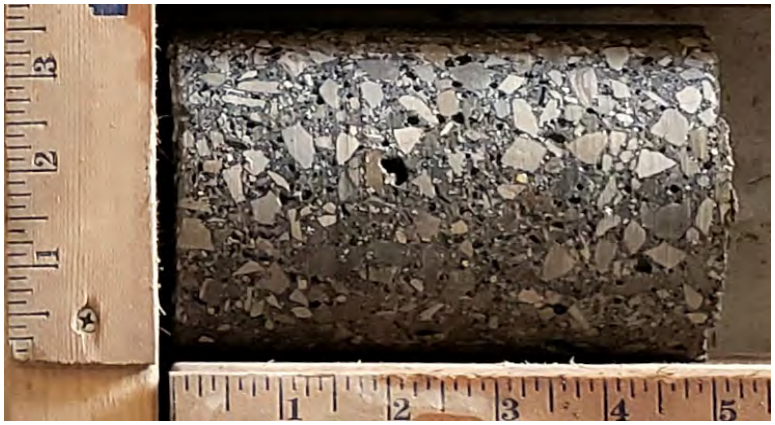
Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3		
2		3.25		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-26



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		5.25		
2				
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-27

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		4.25		
2		0.75		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.5" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-28

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**10.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		5.75		
2		5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 4.75" and 8.25" depths. 7/8" rebar encountered at 9" depth.			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-29

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		5.25		
3				
4				
Rebar Encountered	3/4" rebar encountered at 5.25" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-30

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		5		
3				
4				
Rebar Encountered	3/4" rebar encountered at 3.5" and 4.25" depths			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-31

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.75		
2		2		
3				
4				
Rebar Encountered	N/E			

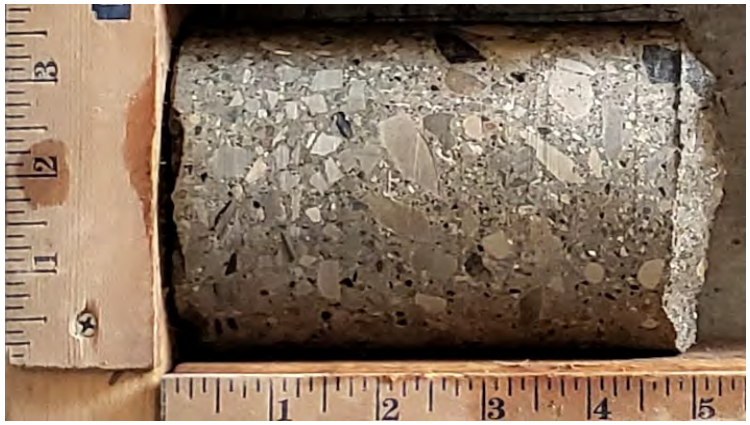
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-32



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		3.5		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-33

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3.5		
2		3		
3				
4				
Rebar Encountered	3/4" rebar encountered at 3.5" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-34

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**3.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		3.75		
2				
3				
4				
Rebar Encountered	3/4" rebar encountered at 2.5" depth			

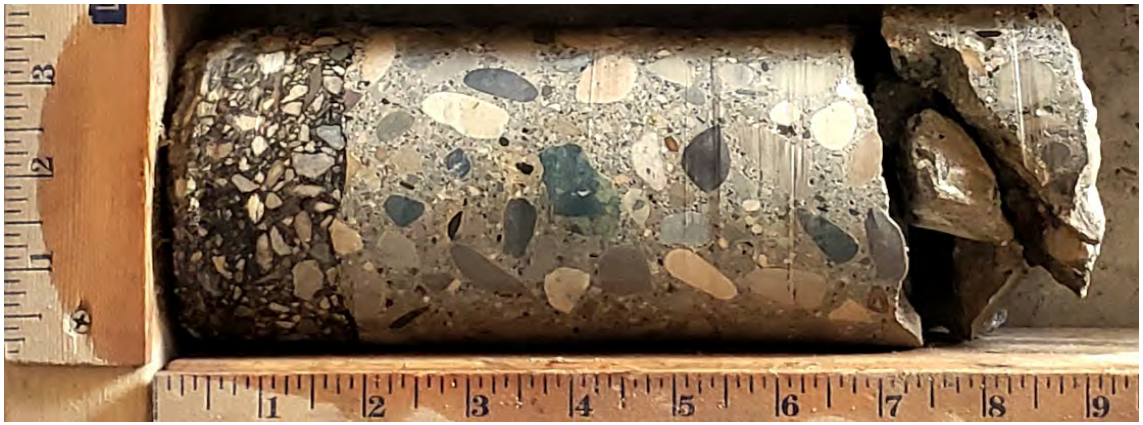
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-35



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2		7.25		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-36

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**8**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		6		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-37

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		4.75		
3				
4				
Rebar Encountered	3/4" rebar encountered at 3.25" depth			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-38

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**3.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		1.25		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-39

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**11**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	2.75			
2		8.25		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: D.C.-40

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2.5		
2		6.5		
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-1

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**13.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	3.25			
2	3			
3	7			
4				
Rebar Encountered	N/E			

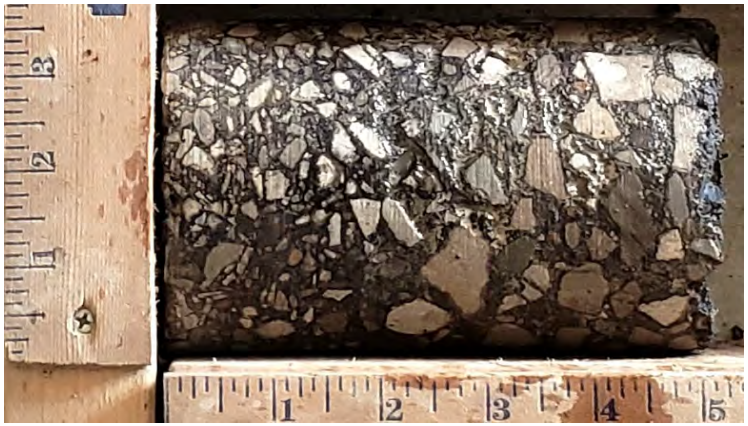
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-2



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1		2		
2		3.5		
3				
4				
Rebar Encountered	N/E			

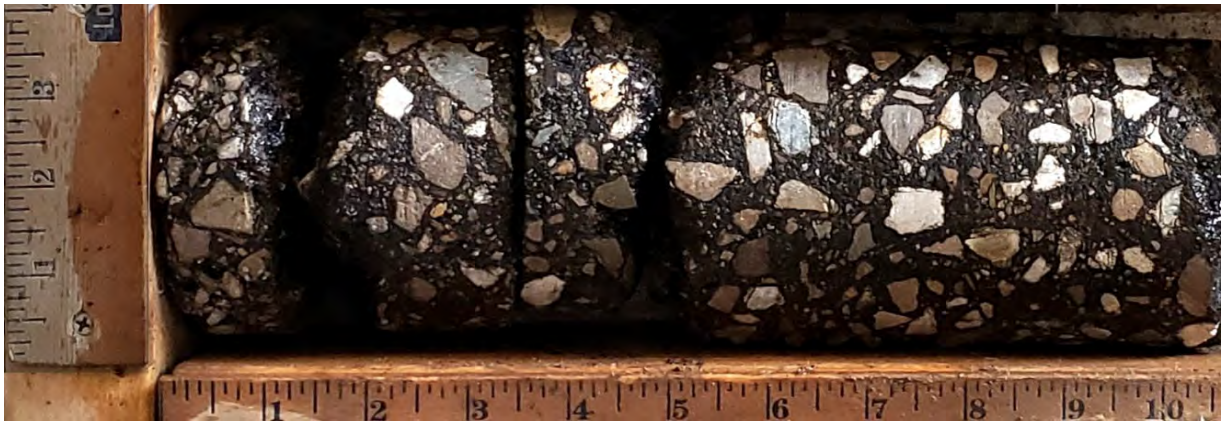
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-3



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**11**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	2			
3	1.5			
4	6.25			
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-4

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	3.25			
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-5

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	2			
2	2			
3	2.75			
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-6

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2	2.75			
3	2.25			
4				
Rebar Encountered	N/E			

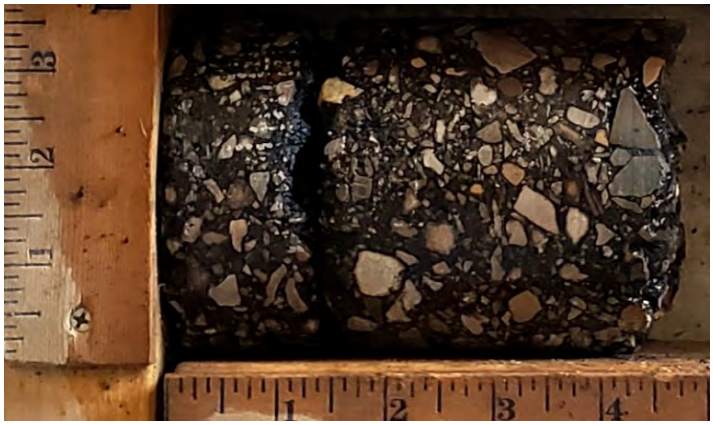
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-7



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	3.75			
3				
4				
Rebar Encountered	N/E			

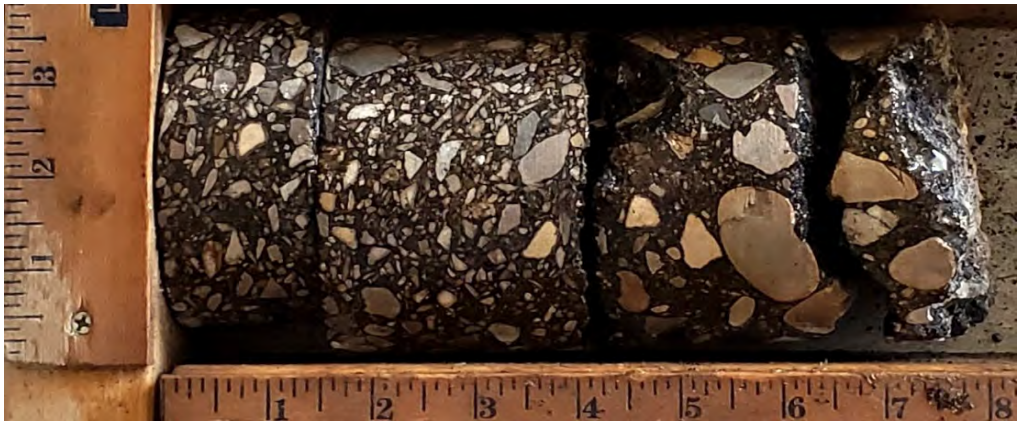
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-8



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	3			
3	2.25			
4	1.25			
Rebar Encountered	N/E			

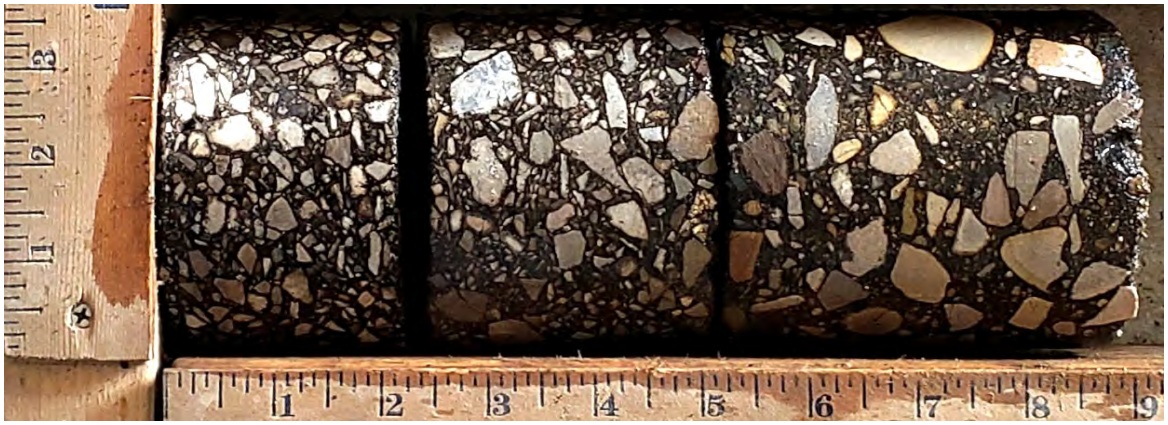
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-9



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	2.25			
2	2.75			
3	4.25			
4				
Rebar Encountered	N/E			

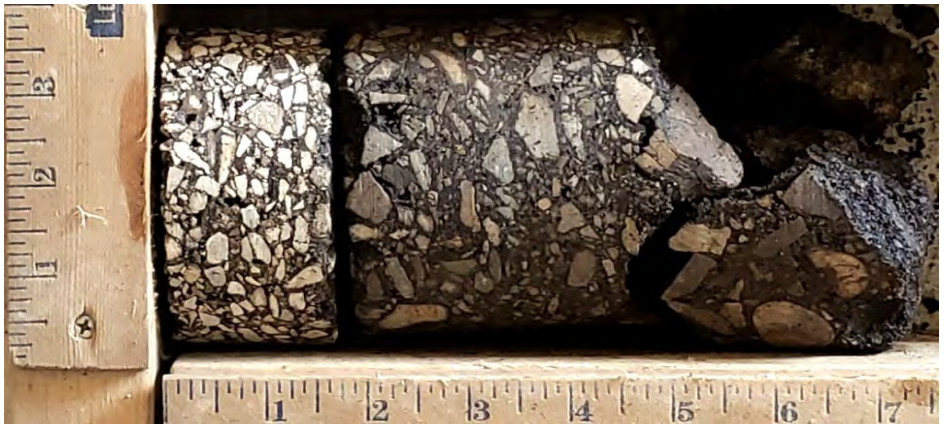
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-10



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2	3.25			
3	2.75			degraded
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-11

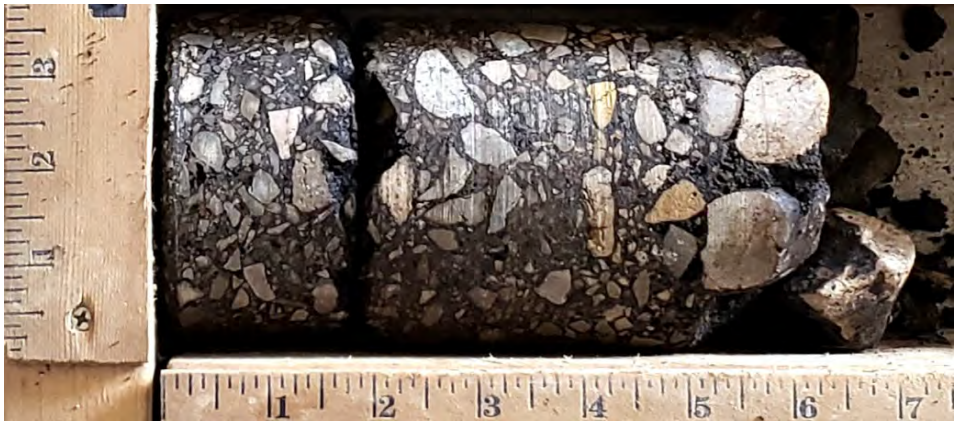
Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	3			
3	2.5			degraded
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-12



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2	3.5			
3	2.25			
4				
Rebar Encountered	N/E			

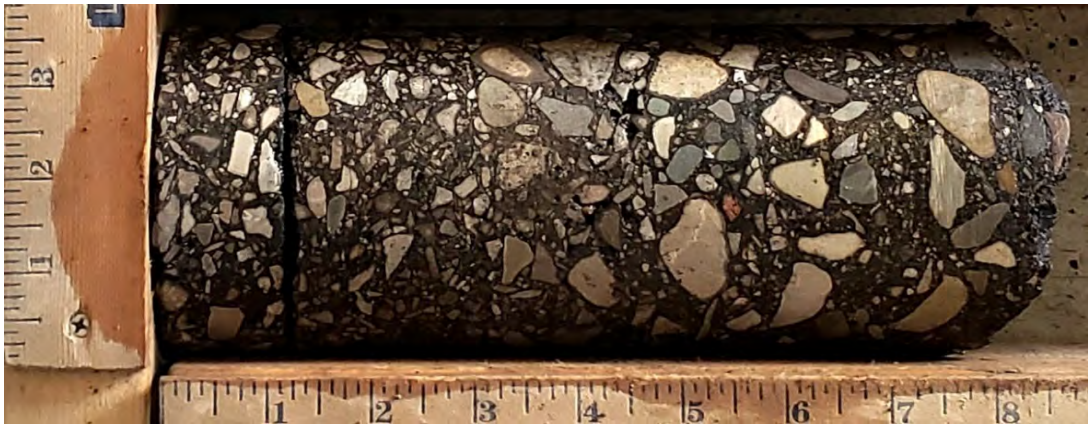
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-13



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	3.25			
3	4.5			
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-14

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**5.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	2.5			
3	1.5			degraded
4				
Rebar Encountered	N/E			

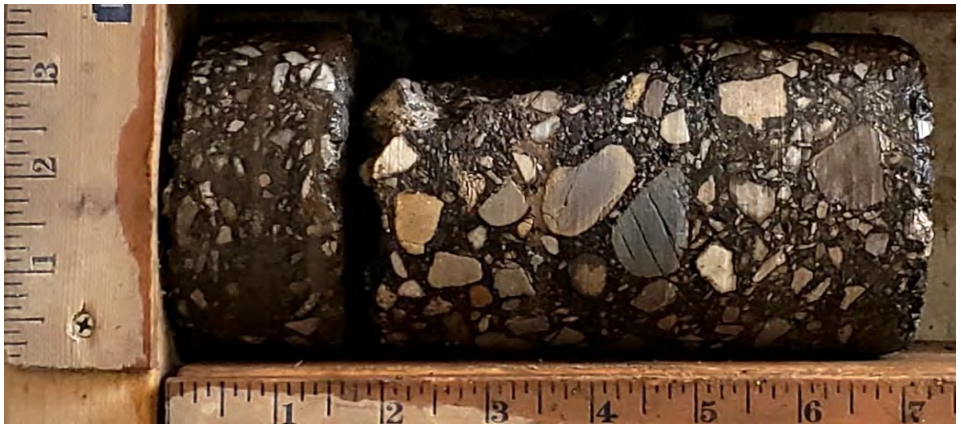
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-15



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	3.5			
3	2.25			
4				
Rebar Encountered	N/E			

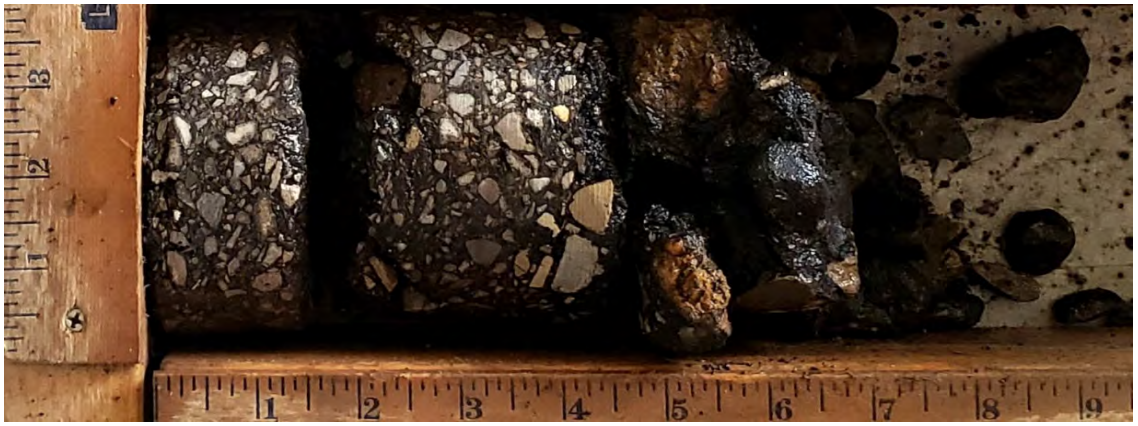
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-16



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	3.25			
3	3			degraded
4				
Rebar Encountered	N/E			

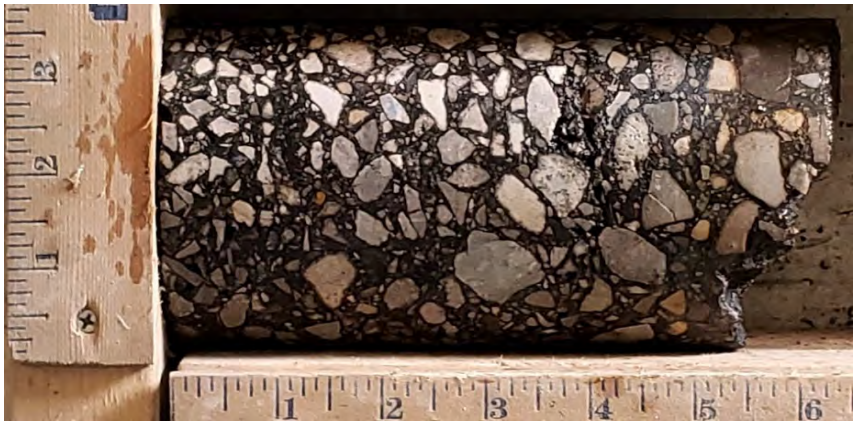
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-17



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	2.75			
3	2.75			
4				
Rebar Encountered	N/E			

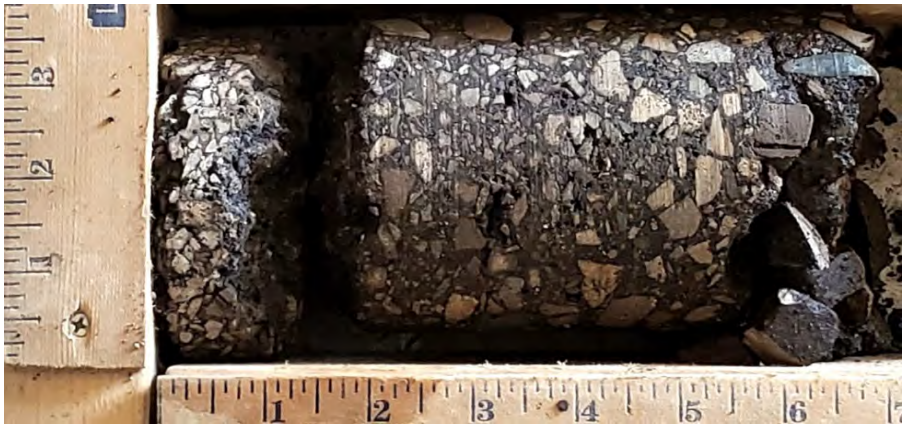
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-18



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	6			degraded
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-19

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	2.5			
3	3.5			degraded
4				
Rebar Encountered	N/E			

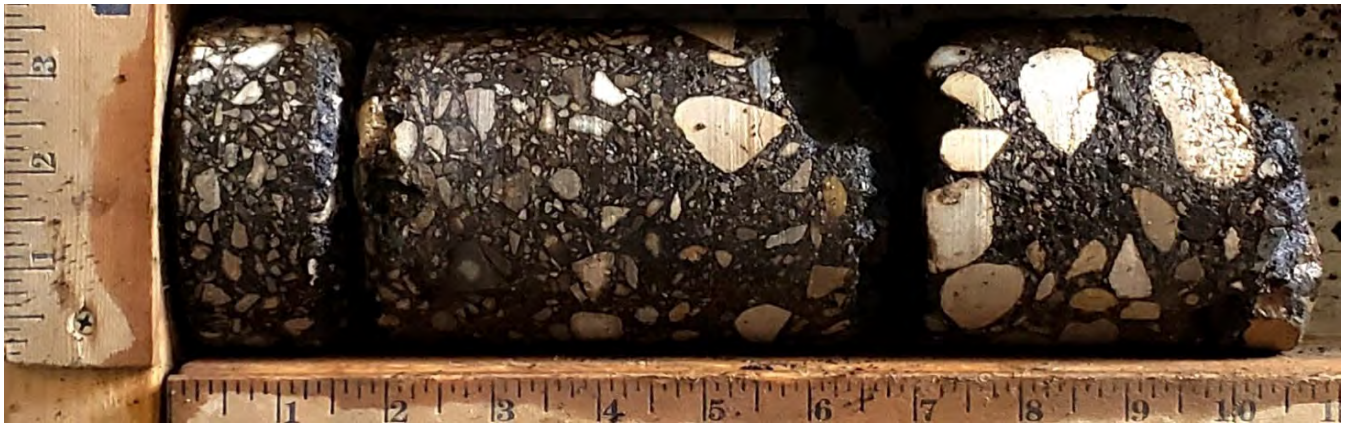
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-20



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**11**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	5.5			
3	4			
4				
Rebar Encountered	N/E			

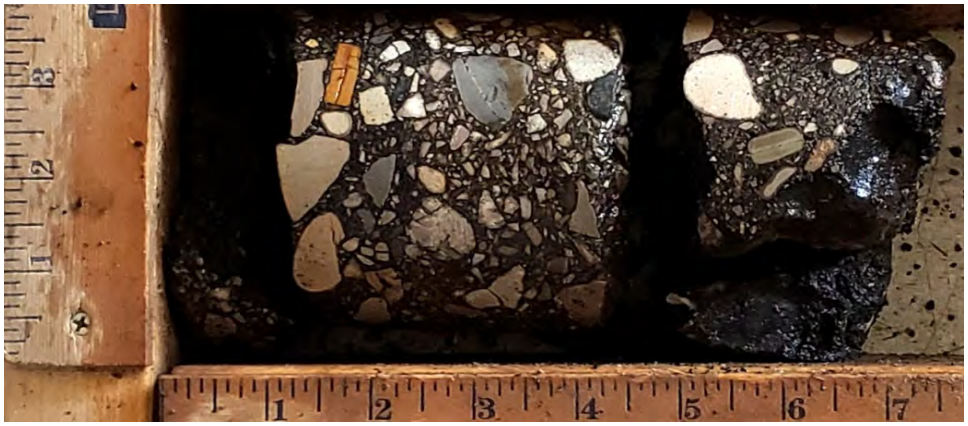
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-21



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7.75**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1			
2	3.5			
3	3.25			
4				
Rebar Encountered	N/E			

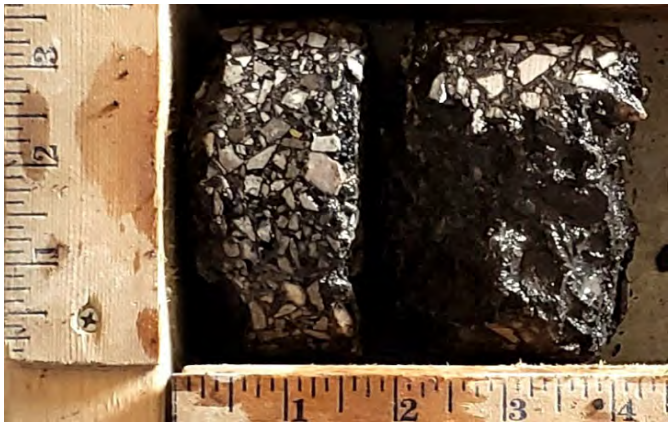
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-22



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**4.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2	2.5			
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-23

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**14**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	2.5			
3		10		broken during extraction
4				
Rebar Encountered	N/E			

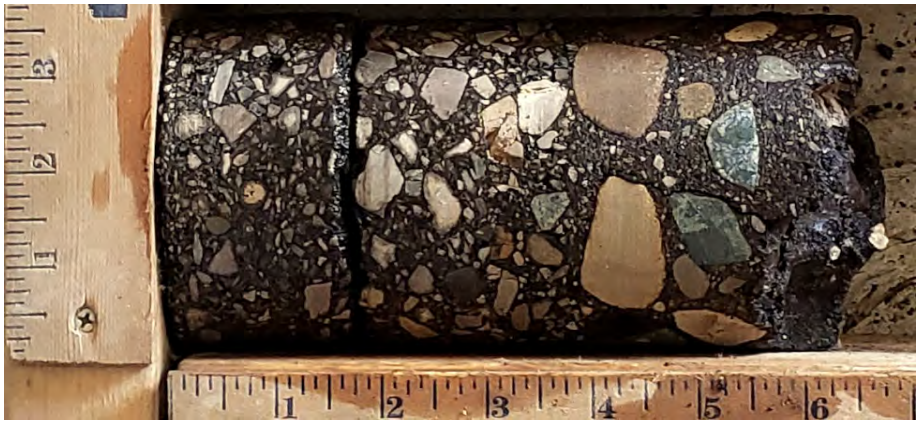
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-24



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**7**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.75			
2	2			
3	3.25			
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

National Engineering & Architectural Services Inc.

Core Photo: P.C.-25

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**10.25**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	3.25			
2	2.5			
3	4.5			
4				
Rebar Encountered	N/E			

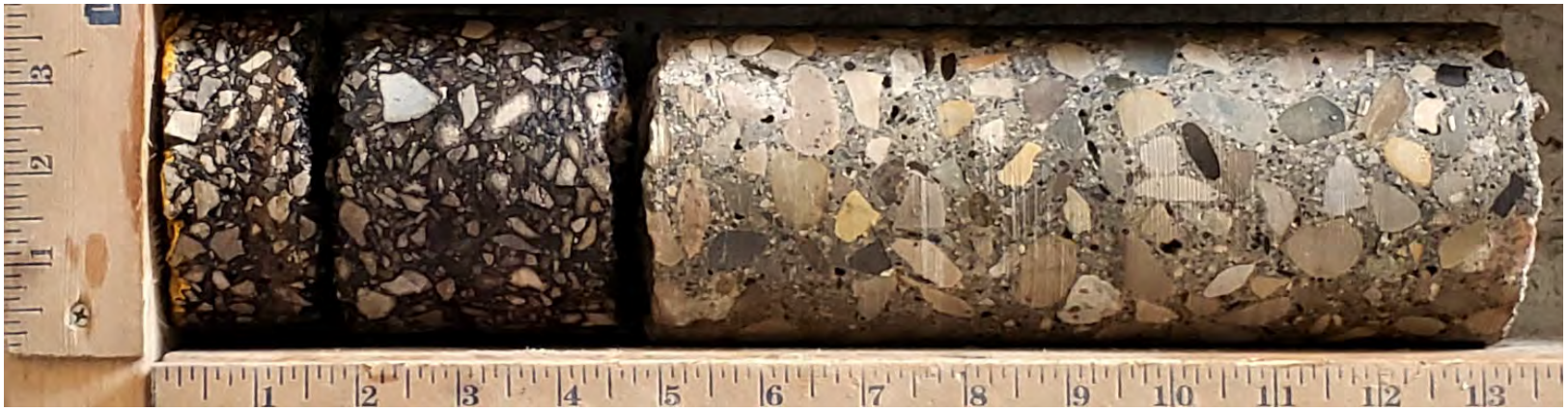
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-26



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**13.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.5			
2	3			
3		9		
4				
Rebar Encountered	N/E			

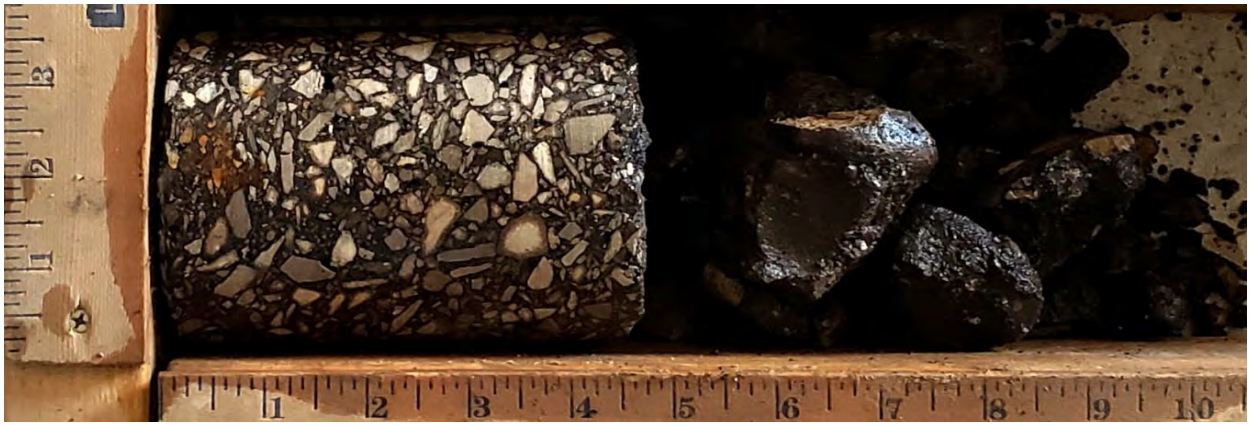
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-27



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**9**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	4.75			
2	4.25			degraded
3				
4				
Rebar Encountered	N/E			

Pavement & Core Photo Log

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-28

Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**6.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	3			
2	3.5			
3				
4				
Rebar Encountered	N/E			

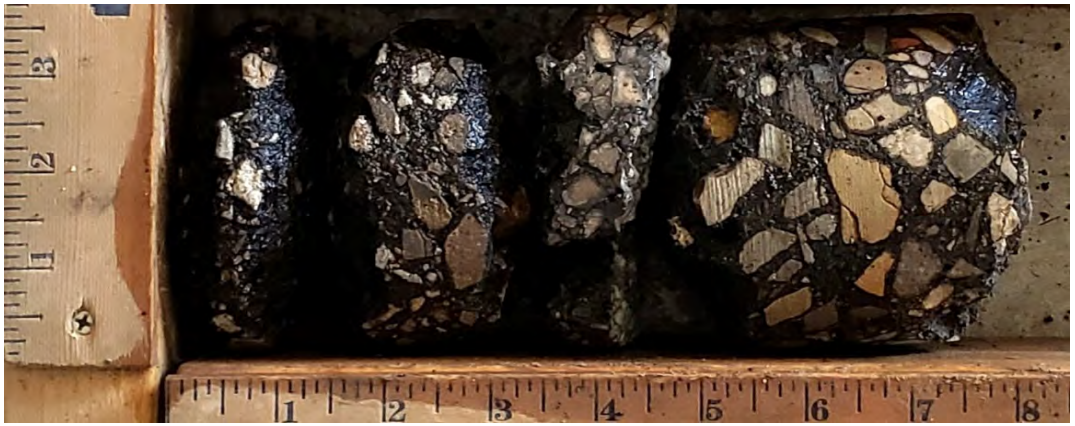
Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A

Core Photo: P.C.-29



Core Information				
Core Diameter (in):			**4**	
Core Total Length (in):			**8.5**	
Layers	Core Composition & Thickness (in)			Remarks
	Asphalt	Concrete	Brick	
1	1.25			
2	2			
3	1.25			
4	4			
Rebar Encountered	N/E			

Pavement & Core Photo Log

National Engineering & Architectural Services Inc.

Roadway Project
FRA-270-43.18

NEAS Project No.:	21-0067
Date:	7/11/2022
Taken By:	MJ
Scale:	N/A