U.S. Department of Transportation **Federal Aviation Administration**	**Construction Progress and Inspection Report** **NAPMRC**		*Inspection Date* 07/02/2018 *Project Name* Reflective Cracking Outdoor Phase I
Contractor & # of Personnel GDIT - 10	*Contractor & # of Personnel* Gemini - 3	*Contractor & # of Personnel* JBT Building Co.- 3	*Contractor & # of Personnel* Craig Testing - 1

Equipment On-Site

- Lee G440 (Power Grader)
- RL-SV2S (Laser Level)
- John Deere 310SG (Backhoe)
- Dynapac CA25D (Roller)
- HPRV (Firetruck)
- Instrotek Nuclear Moisture-Density Gauge

Start Time – 8:00 AM *Stop Time –* 4:30 PM	*Temperature* Min – 85 F Max – 95 F	*Humidity* Min – 49 % Max – 74 %	*Conditions* Fair

Site Activities

(6) Trucks arrived onsite at 7:50 AM to begin unloading a total of 141.35 tons of fine gray/black P-154 material. JBT Building Co. personnel distributed and smoothed out the material into the project area using the John Deere 310SG backhoe. (6) Samples of P-154 were taken in 5-gallon pails at randomly generated locations for testing in the lab to determine a proctor number and gradation of the material. The HPRV was operated by GDIT personnel and brought onsite at 9:15 AM to wet P-154 layer. Approximately 1,000 gallons of water sprayed on surface in short burst to allow for absorption into the P-154 material. The Lee G440 Power Grader was synchronized with the RL-SV2S Laser Level to grade the P-154. After intial grading was completed, the Dynapac CA25D Roller completed (5) passes (up and back equal to 1 pass). Craig Testing arrived onsite at 1 PM to perform Nuclear Moisture and Density Tests. First readings did not reach specifications with the moisture % and compaction % being too low. The HPRV was called back to wet the section between Station 60+00 and 120+00 which showed low moisture % during initial testing. The HPRV sprayed an additional 75 gallons of water on this section and was followed by (5) more passes of the Dynapac CA25D Roller. Testing results completed after the compaction were still not to specifications. The Dynpac CA25D completed (6) more passes and GDIT personnel covered site at end of day.

Materials Delivered

P-154

Materials Removed

P-154

Laboratory and Field Testing Performed

Nuclear Density and Moisture Testing

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	Typed or Printed Name and Title	Signature
7/2/18	JOE GAWRYSIAK	

Hanson **Plant: 32112** **Penns Park**
852 Swamp Road
Newtown, PA 18940
215-598-3152.

7/2/2018 05:37 In : 5:14:59
Customer: 2193715 NATIONAL PAVING CO INC
Order : FOB - FAA
P.O. :

Tkt. No. **1000206178**

Product 114317
Screenings
S.O. Info:
Ship Ref:

	Pounds	Kilo
Gross	72,100	32,704
Tare	26,420	11,984
Net	45,680	20,720
	22.84 Ton	20.72

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg: No		

Today Tons:	22.84	Loads:
Tons To Date:	0.00	1
Today Tonnes	20.72	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE
Vehicle: RO223 AM608Y
License: **AM608Y**
MaxGVW: 80,000
Received:
Weighmaster: Nicole Urbanelli PA#82782
P/D Status: **Pickup**

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same
CURB DELIVERY ONLY.NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Cust:

Customer Do Not Accept |2| Scale: 1

Hanson **Plant: 32112**

Penns Park
852 Swamp Road
Newtown, PA 18940
215-598-3152.

7/2/2018 05:43 In : 5:22:39
Customer: 2193715 NATIONAL PAVING CO INC
Order : FOB - FAA
P.O. :

Tkt. No. **1000206183**

Product 114317
Screenings
S.O. Info:
Ship Ref:

	Pounds	Kilo
Gross	72,640	32,949
Tare	24,960	11,322
Net	47,680	21,627
	23.84 Ton	21.63

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg:	No	

Today Tons:	46.68	Loads:
Tons To Date:	0.00	2
Today Tonnes	42.35	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE
Vehicle: RO222 AK269E
License: **ro222**
MaxGVW: 80,000
Received: D. Renzi
Weighmaster: Nicole Urbanelli PA#82782
P/D Status: **Pickup**

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same
CURB DELIVERY ONLY.NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Cust: _____

Customer Do Not Accept |2| Scale: 1

Hanson **Plant: 32112**

Penns Park
852 Swamp Road
Newtown, PA 18940
215-598-3152.

7/2/2018 05:47 In : 5:22:55
Customer: 2193715 NATIONAL PAVING CO INC
Order : FOB - FAA
P.O. :

Tkt. No. **1000206186**

Product 114317
Screenings
S.O. Info:
Ship Ref:

	Pounds	Kilo
Gross	72,980	33,103
Tare	25,160	11,412
Net	47,820	21,691
	23.91 Ton	21.69

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg: No		

Today Tons:	70.59	Loads:
Tons To Date:	0.00	3
Today Tonnes	64.04	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE
Vehicle: RO206 AL125T
License: **AL125T**
MaxGVW: 80,000
Received:
Weighmaster: Nicole Urbanelli PA#82782
P/D Status: **Pickup**

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same
CURB DELIVERY ONLY.NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Cust:

Customer Do Not Accept [2] Scale: 1

Hanson **Plant: 32112**

Penns Park
852 Swamp Road
Newtown, PA 18940
215-598-3152.

7/2/2018 05:54 In : 5:30:02
Customer: 2193715 NATIONAL PAVING CO INC
Order : FOB - FAA
P.O. :

Tkt. No. **1000206193**

Product 114317
Screenings
S.O. Info:
Ship Ref:

	Pounds	Kilo
Gross	73,300	33,248
Tare	25,480	11,558
Net	47,820	21,691
	23.91 Ton	21.69

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg:	No	

Today Tons:	94.50	Loads:
Tons To Date:	0.00	4
Today Tonnes	85.73	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE
Vehicle: RO229 AS812U
License: **AS812U**
MaxGVW: 80,000

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same
CURB DELIVERY ONLY.NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Received:_____ Cust: _____

Weighmaster: Nicole Urbanelli PA#82782
P/D Status: **Pickup**

Customer Do Not Accept [3] Scale: 1

Hanson **Plant: 32112**

Penns Park
852 Swamp Road
Newtown, PA 18940
215-598-3152

7/2/2018 06:03 In : 5:39:23
Customer: 2193715 NATIONAL PAVING CO INC
Order : FOB - FAA
P.O. :

Tkt. No. **1000206198**

Product 114317
Screenings
S.O. Info:
Ship Ref:

	Pounds	Kilo
Gross	70,800	32,114
Tare	24,760	11,231
Net	46,040	20,883
	23.02 Ton	20.88

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg:	No	

Today Tons:	117.52	Loads:
Tons To Date:	0.00	5
Today Tonnes	106.61	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE
Vehicle: RO225 AP322C
License: **AP322C**
MaxGVW: 80,000

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same
CURB DELIVERY ONLY.NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Received:_____ Cust: _____

Weighmaster: Nicole Urbanelli PA#82782
P/D Status: **Pickup**

Customer Do Not Accept [3] Scale: 1

Hanson

Plant: 32112

Penns Park
852 Swamp Road
Newtown, PA 18940
215-598-3152

7/2/2018 06:06 In : 5:30:16

Customer: 2193715 NATIONAL PAVING CO INC

Order : FOB - FAA

P.O. :

Tkt. No. 1000206202

Product 114317

Screenings

S.O. Info:

Ship Ref:

	Pounds	Kilo
Gross	73,020	33,121
Tare	25,360	11,503
Net	47,660	21,618
	23.83 Ton	21.62

	UNIT	TOTALS
Material:		
Freight:		
Tax:		
Fee / Fuel:		
Other Chrg: No		

Today Tons:	141.35	Loads:
Tons To Date:	0.00	6
Today Tonnes	128.23	
Tonnes To Date:	0.00	

Carrier : 2347198 RAIO CONTRACTING & MATE

Vehicle: RO230 RAIO John

License: .

MaxGVW: 80,000

Received:

Weighmaster: Nicole Urbanelli PA#82782

P/D Status: **Pickup**

By acceptance of this ticket (with or without signature), driver accepts on behalf of themselves/their employer sole responsibility to ensure that the load received is within the weight limit authorized by law and shall hold seller harmless against any and all claims with respect to same

CURB DELIVERY ONLY .NOT RESPONSIBLE FOR ANY DAMAGE BEYOND CURB.

Cust:

Customer Do Not Accept [1] Scale: 1

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-6

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 2, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☑ Other: Test Area
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 6, Offset 4'	122.4	5.2	124.0	6.8	100.0	98.7%
2	Station 14.5, Offset 0'	126.8	5.3	124.0	6.8	100.0	102.3%
3	Station 29.5, Offset -4'	124.9	6.3	124.0	6.8	100.0	100.7%
4	Station 37.5, Offset 4'	123.4	5.5	124.0	6.8	100.0	99.5%
5	Station 49.5, Offset -1'	121.5	6.4	124.0	6.8	100.0	98.0%
6	Station 60, Offset 0'	125.9	6.1	124.0	6.8	100.0	101.5%
7	Station 66.5, Offset -1'	125.4	4.9	124.0	6.8	100.0	101.1%
8	Station 75, Offset -3'	121.5	4.1	124.0	6.8	100.0	98.0%
9	Station 88, Offset 4'	119.9	3.7	124.0	6.8	100.0	96.7%
10	Station 94, Offset 2'	118.3	3.2	124.0	6.8	100.0	95.4%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 626 DS: 1846

Fill Placement: ☑ Controlled ☐ Uncontrolled **Loose Lift Thickness (in.):** 10

Hours on Site: 1:00 PM - 4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Reported to:
Project Distribution

Reviewed By: Ian Craig

REV 4/17

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-7

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 2, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☑ Other: Test Area
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 106.5, Offset -3'	124.1	5.2	124.0	6.8	100.0	100.1%
2	Station 113.5, Offset 4'	127.1	5.3	124.0	6.8	100.0	102.5%
3	Station 125.5, Offset 4'	114.2	6.3	124.0	6.8	100.0	92.1%
4	Station 135, Offset -4'	125.6	5.5	124.0	6.8	100.0	101.3%
5	Station 145, Offset 1'	119.6	6.4	124.0	6.8	100.0	96.5%
6	Station 67.5, Offset 1', After soaking and rolls	125.4	5.3	124.0	6.8	100.0	101.1%
7	Station 80.5, Offset 4', After soaking and rolls	122.3	5.4	124.0	6.8	100.0	98.6%
8	Station 90.5, Offset 4', After soaking and rolls	120.5	5.3	124.0	6.8	100.0	97.2%
9	Station 98.5, Offset 1', After soaking and rolls	123.4	4.4	124.0	6.8	100.0	99.5%
10	Station 128.5, Offset -2', After soak and rolls	121.5	4.9	124.0	6.8	100.0	98.0%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 626 DS: 1846

Fill Placement: ☑ Controlled ☐ Uncontrolled **Loose Lift Thickness (in.):** 10

Hours on Site: 1:00 PM - 4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Reported to:
Project Distribution

Reviewed By: Ian Craig

REV 4/17

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/03/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 8	Gemini - 2	JBT Building Co.- 3	Craig Testing - 1

Equipment On-Site

- CAT PS300C (Rolller)
- John Deere 310SG (Backhoe)
- Dynapac CA25D (Roller)
- HPRV (Firetruck)
- Instrotek Nuclear Moisture-Density Gauge

Start Time – 8:00 AM *Stop Time –* 4:30 PM	*Temperature* Min – 84 F Max – 91 F	*Humidity* Min – 59 % Max – 82 %	*Conditions* Fair

Site Activities

Craig Testing personnel arrived at 8AM and began nuclear testing to see how much water we needed to add to the site to raise the moisture content to the specified level. The HPRV sprayed 115 gallons of water on the P-154 surface followed by the Dynapac roller for (9) passes (back and forth equal to 1 pass). The HPRV then sprayed an additional 65 gallons of water followed by the Dynapac Roller for (8) more passes. The CAT PS300C Roller was then brought onsite and used for (6) passes. Density and moisture readings taken at 10" depths in random locations were still not up to spec. The HPRV then sprayed an additional 105 gallons on surface followed by the CAT Roller for (8) more passes. Density and moisture readings taken at random locations still did not reach the required 100% compaction spec. The Dynapac Roller was used to complete (8) more passes. Sand cone readings were taken on centerline at station 0+55 to try and correlate density/moisture readings. Nuclear Density and moisture readings were performed again at a depth of 10" and the values still did not reach the required specification. During testing in the afternoon, the Instrotek Nuclear Moisture-Density Gauge overheated so no more readings could be taken.

Materials Delivered

Materials Removed

Laboratory and Field Testing Performed

Nuclear Density and Moisture Testing, Sand Cone Moisture-Density Test

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Instrotek Nuclear Moisture-Density Gauge overheated

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/3/18	JOE GAWRYSIAK	

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-8

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 3, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☑ Other: Test Area
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 10.5, Offset 1'	124.8	6.0	124.0	6.8	100.0	100.6%
2	Station 18.5, Offset -2'	132.9	6.1	124.0	6.8	100.0	107.2%
3	Station 27, Offset 2'	128.5	6.3	124.0	6.8	100.0	103.6%
4	Station 36, Offset -3'	131.5	5.0	124.0	6.8	100.0	106.0%
5	Station 49, Offset 1'	127.8	6.1	124.0	6.8	100.0	103.1%
6	Station 54, Offset 0'	123.3	4.7	124.0	6.8	100.0	99.4%
7	Station 67, Offset -2'	128.2	5.6	124.0	6.8	100.0	103.4%
8	Station 78, Offset 2'	126.1	4.6	124.0	6.8	100.0	101.7%
9	Station 85, Offset -1'	122.8	4.7	124.0	6.8	100.0	99.0%
10	Station 97, Offset 0'	128.0	5.4	124.0	6.8	100.0	103.2%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 629 DS: 1874

Fill Placement: ☑ Controlled ☐ Uncontrolled **Loose Lift Thickness (in.):** 10

Hours on Site: 8:00 AM - 3:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

I was told that there was a new proctor being worked on when I first arrived. I was never given an official print out with the values, so this report contains the proctor used from the day before.

Reported to:
Project Distribution

Reviewed By: Ian Craig

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-9

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 3, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☑ Other: Test Area
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 109, Offset -2'	129.6	6.1	124.0	6.8	100.0	104.5%
2	Station 116, Offset 3'	125.4	6.3	124.0	6.8	100.0	101.1%
3	Station 130, Offset -3'	125.8	6.7	124.0	6.8	100.0	101.5%
4	Station 137, Offset 2'	122.7	5.6	124.0	6.8	100.0	99.0%
5	Station 146, Offset -3'	119.8	4.5	124.0	6.8	100.0	96.6%
6	Station 137, Offset 2', After soaking and rolls	124.3	5.8	124.0	6.8	100.0	100.2%
7	Station 146, Offset -3', After soaking and rolls	123.2	5.3	124.0	6.8	100.0	99.4%
8							
9							
10							

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 629 DS: 1874

Fill Placement: ☑ Controlled ☐ Uncontrolled **Loose Lift Thickness (in.):** 10

Hours on Site: 8:00 PM - 3:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

I was told that there was a new proctor being worked on when I first arrived. I was never given an official print out with the values, so this report contains the proctor used from the day before.

Reported to:
Project Distribution

Reviewed By: Ian Craig

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade					
Performed by Craig Testing Laboratories					
Final Testing results to be provided 7/5/2018					
Notes compiled by Tirupan Mandal 7/3/2018					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density pcf	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	1.00	10.5	124.8	100.6%	6.0
0+12.5 to 0+22.5	-2.00	18.5	132.9	107.2%	6.1
0+22.5 to 0+32.5	2.00	27	128.5	103.6%	6.3
0+32.5 to 0+42.5	-3.00	36	131.5	106.0%	5.0
0+42.5 to 0+52.5	1.00	49	127.8	103.1%	6.1
0+52.5 to 0+62.5	0.00	54	123.3	99.4%	4.7
0+62.5 to 0+72.5	-2.00	67	128.2	103.4%	5.6
0+72.5 to 0+82.5	2.00	78	126.1	101.7%	4.6
0+82.5 to 0+92.5	-1.00	85	122.8	99.0%	4.7
0+92.5 to 1+02.5	0.00	97	128	103.2%	5.4
1+02.5 to 1+12.5	-2.00	109	129.6	104.5%	6.1
1+12.5 to 1+22.5	3.00	116	125.4	101.1%	6.3
1+22.5 to 1+32.5	-3.00	130	125.2	101.0%	6.2
1+32.5 to 1+42.5	2.00	137	124.3	100.2%	5.8
1+42.5 to 1+52.5	-3	146	123.2	99.4%	5.3
		Average:	126.77	1.02	5.6

Field Notes of Craig Testing Nuclear Density Gauge Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade					
Performed by Craig Testing Laboratories					
Final Testing results to be provided 7/5/2018					
Notes compiled by Tirupan Mandal 7/3/2018 - PM Testing					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density pcf	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	-1.00	9			
0+12.5 to 0+22.5	2.00	17			
0+22.5 to 0+32.5	0.00	29			
0+32.5 to 0+42.5	2.00	38			
0+42.5 to 0+52.5	0.00	46			
0+52.5 to 0+62.5	3.00	57			
0+62.5 to 0+72.5	-1.00	65	130.4	105.2%	4.8
0+72.5 to 0+82.5	2.00	79	127.2	102.6%	4.4
0+82.5 to 0+92.5	1.00	86	128.2	103.4%	4.6
0+92.5 to 1+02.5	0.00	99	128.9	104.0%	4.1
1+02.5 to 1+12.5	-1.00	106	131.2	105.8%	3.9
1+12.5 to 1+22.5	2.00	118			
1+22.5 to 1+32.5	0.00	125			
1+32.5 to 1+42.5	-1.00	133			
1+42.5 to 1+52.5	1	144			
		Average:	129.18	1.04	4.4

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-2

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-9

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 3, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☑ Other: Test Area
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 109, Offset -2'	129.6	6.1	124.0	6.8	100.0	104.5%
2	Station 116, Offset 3'	125.4	6.3	124.0	6.8	100.0	101.1%
3	Station 130, Offset -3'	125.8	6.7	124.0	6.8	100.0	101.5%
4	Station 137, Offset 2'	122.7	5.6	124.0	6.8	100.0	99.0%
5	Station 146, Offset -3'	119.8	4.5	124.0	6.8	100.0	96.6%
6	Station 137, Offset 2', After soaking and rolls	124.3	5.8	124.0	6.8	100.0	100.2%
7	Station 146, Offset -3', After soaking and rolls	123.2	5.3	124.0	6.8	100.0	99.4%
8							
9							
10							

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 629 DS: 1874

Fill Placement: ☑ Controlled ☐ Uncontrolled **Loose Lift Thickness (in.):** 10

Hours on Site: 8:00 PM - 3:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

I was told that there was a new proctor being worked on when I first arrived. I was never given an official print out with the values, so this report contains the proctor used from the day before.

Reported to:
Project Distribution

Reviewed By: Ian Craig

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/04/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*

Equipment On-Site

Start Time – No Work *Stop Time* – No Work	*Temperature* Min – 79.0 F Max – 89.0 F	*Humidity* Min – 57 % Max – 94 %	*Conditions* Cloudy to fair

Site Activities
No activity for the day - Holiday

Materials Delivered
None

Materials Removed
None

Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/5/18	JOE GAWRYSIAK	

U.S. Department of Transportation **Federal Aviation Administration**	**Construction Progress and Inspection Report** **NAPMRC**		*Inspection Date* 07/05/2018 *Project Name* Reflective Cracking Outdoor Phase I
Contractor & # of Personnel GDIT - 7	*Contractor & # of Personnel* Gemini - 1	*Contractor & # of Personnel* JBT Building Co.- 1	*Contractor & # of Personnel* Craig Testing - 1

Equipment On-Site

- CAT PS300C (Rolller)
- John Deere 310SG (Backhoe)
- Dynapac CA25D (Roller)
- HPRV (Firetruck)
- Instrotek Nuclear Moisture-Density Gauge

Start Time – 8:30 AM *Stop Time –* 4:00 PM	*Temperature* Min – 82 F Max – 88 F	*Humidity* Min – 63 % Max – 88 %	*Conditions* Partly Cloudy, Light Rain

Site Activities

GDIT personnel took sand cone readings at station 0+20 offset 0, station 0+46 offset 0, station 1+02 offset 0.5, and station 1+33 offset 0.5. Craig Testing personnel began Nuclear Gauge testing at 9:10 AM. GDIT personnel covered site prior to quick, heavy rain shower. Site was uncovered after rain shower ended.

Materials Delivered

Materials Removed

Laboratory and Field Testing Performed

Nuclear Density and Moisture Testing, Sand Cone Moisture-Density Test

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/5/18	JOE GAWRYSIAK	

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-10

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 5, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base

Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 106.5, Offset -3'	124.1	5.2	124.0	6.8	100.0	100.1%
2	Station 113.5, Offset 4'	127.1	5.3	124.0	6.8	100.0	102.5%
3	Station 125.5, Offset 4'	114.2	6.3	124.0	6.8	100.0	92.1%
4	Station 135, Offset -4'	125.6	5.5	124.0	6.8	100.0	101.3%
5	Station 145, Offset 1'	119.6	6.4	124.0	6.8	100.0	96.5%
6	Station 67.5, Offset 1', After soaking and rolls	125.4	5.3	124.0	6.8	100.0	101.1%
7	Station 80.5, Offset 4', After soaking and rolls	122.3	5.4	124.0	6.8	100.0	98.6%
8	Station 90.5, Offset 4', After soaking and rolls	120.5	5.3	124.0	6.8	100.0	97.2%
9	Station 98.5, Offset 1', After soaking and rolls	123.4	4.4	124.0	6.8	100.0	99.5%
10	Station 128.5, Offset -2', After soak and rolls	121.5	4.9	124.0	6.8	100.0	98.0%

Gauge Serial No.: 24540

Gauge Standard Counts: MS: 629 DS: 1887

Fill Placement: ☐ Controlled ☑ Uncontrolled

Loose Lift Thickness (in.): -

Hours on Site: 8:00 AM - 11:00 AM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Client representative present during testing and aware of test results below requirements.

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-11

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 5, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base

Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 127, Offset -.5'	133.1	4.5	130.8	7.2	100.0	101.8%
2	Station 137, Offset 0'	132.4	4.6	130.8	7.2	100.0	101.2%
3	Station 146, Offset -1'	136.0	4.8	130.8	7.2	100.0	104.0%
4	Station 20, Offset 0'	134.5	4.9	130.8	7.2	100.0	102.8%
5	Station 10, Offset .5'	132.8	5.2	130.8	7.2	100.0	101.5%
6							
7							
8							
9							
10							

Gauge Serial No.: 24540

Gauge Standard Counts: MS: 629 DS: 1887

Fill Placement: ☐ Controlled ☑ Uncontrolled

Loose Lift Thickness (in.): -

Hours on Site: 8:00 AM - 11:00 AM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

Field Notes of Craig Testing Nuclear Density Gauge Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade					
Performed by Craig Testing Laboratories					
Final Testing results to be provided 7/6/2018					
Notes compiled by Tirupan Mandal 7/5/2018					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density (lbs/ft^3)	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	0.50	10	132.8	101.5%	5.2
0+12.5 to 0+22.5	1.50	20	129.7	99.2%	4.1
0+12.5 to 0+22.5	0.00	20	134.5	102.8%	4.9
0+22.5 to 0+32.5	1.50	23	136.1	104.1%	5.5
0+32.5 to 0+42.5	1.00	42	132.5	101.3%	4.5
0+42.5 to 0+52.5	1.00	48	133.1	101.8%	5.2
0+52.5 to 0+62.5	2.50	56	132.6	101.4%	4.0
0+62.5 to 0+72.5	-2.00	68	133.8	102.3%	4.2
0+72.5 to 0+82.5	-0.50	76	131.5	100.5%	3.9
0+82.5 to 0+92.5	4.00	89	128.9	98.5%	4.3
0+82.5 to 0+92.5	0.00	89	132.0	100.9%	4.0
0+92.5 to 1+02.5	-3.50	99	132.6	101.4%	5.0
1+02.5 to 1+12.5	1.50	107	128.4	98.2%	3.8
1+02.5 to 1+12.5	-3.50	107	135.4	103.5%	5.7
1+12.5 to 1+22.5	-1.00	116	130.5	99.8%	3.5
1+22.5 to 1+32.5	-0.50	127	133.1	101.8%	4.5
1+32.5 to 1+42.5	0.00	137	132.4	101.2%	4.6
1+42.5 to 1+52.5	-1.00	146	136.0	104.0%	4.8
		Average:	132.6	101.3%	4.5

Density of Soil In Place by Sand Cone Method
ASTM D1556

National Airport Pavement Test Facility
William J. Hughes Technical Center
Atlantic City International Airport
New Jersey 08405

Project: RCO P1 - TO #15

Section: P-154MR **Date:** 7/5/2018 **Technician:** RHN

Prof. Engineer: MTB **Method Used to Dry Soil:** D2216

Test No.	1	2	3	4	5	6	7
Location	0+20	0+46	1+02	1+33			
Soil Description	P-154MR	P-154MR	P-154MR	P-154MR			
Offset (ft.)	0	0	0.5	0			
Depth/Elevation (ft.)	-	-	-	-			
Mass of soil removed (g)	1119.3	1096.4	1141.1	1234.3			
Mass of jar and sand before test (g)	7280.8	6906.0	7194.5	4953.0			
Mass of jar and sand after test (g)	4928.9	4576.2	4858.8	2520.3			
Mass of sand lost in hole and cone (g)	**2351.9**	**2329.8**	**2335.7**	**2432.7**			
Mass of sand in cone (g)	1626.9	1626.9	1626.9	1626.9			
Mass of sand in hole only (g)	**725.0**	**702.9**	**708.8**	**805.8**			
Sand density (g/cm^3)	1.535	1.535	1.535	1.535			
Volume of hole (cm^3)	**472.3**	**457.9**	**461.8**	**525.0**			
Moisture sample can ID	Dirt	2	G1	W4			
Moisture sample can mass (g)	**223.2**	**772.4**	**181.4**	**929.2**			
Mass of wet soil + can (g)	1342.5	1868.8	1322.5	2163.5			
Mass of dry soil + can (g)	1292.9	1813.2	1273.3	2107.5			
Mass of dry soil (g)	**1069.7**	**1040.8**	**1091.9**	**1178.3**			
Mass of water loss (g)	**49.6**	**55.6**	**49.2**	**56.0**			
Moisture content (%)	**4.6%**	**5.3%**	**4.5%**	**4.8%**			
Wet soil density (g/cm^3)	**2.370**	**2.394**	**2.471**	**2.351**			
Dry soil density (g/cm^3)	**2.265**	**2.273**	**2.365**	**2.245**			
Wet soil unit weight (lb/ft^3)	**147.9**	**149.5**	**154.3**	**146.8**			
Dry soil unit weight (lb/ft^3)	**141.4**	**141.9**	**147.6**	**140.1**			

Remarks: Used for internal verification of Nuclear testing results.
Results are not for acceptance or reporting.

Revised: 5/17/2018

U.S. Department of Transportation **Federal Aviation Administration**	**Construction Progress and Inspection Report** **NAPMRC**		*Inspection Date* 07/06/2018 *Project Name* Reflective Cracking Outdoor Phase I
Contractor & # of Personnel GDIT - 8	*Contractor & # of Personnel* JBT Building Co. - 2	*Contractor & # of Personnel*	*Contractor & # of Personnel*

Equipment On-Site

- John Deere 310SG (Backhoe)
- Lee G440 (Power Grader)
- RL-SV2S (Laser Level)

Start Time – 7:30 AM *Stop Time –* 4:30 PM	*Temperature* Min – 77 F Max – 86 F	*Humidity* Min – 74 % Max – 96 %	*Conditions* Cloudy, Heavy Storm & Rain

Site Activities

JBT Building Co. personnel arrived at 7:30 AM to grade the P-154 surface using a Lee G440 and RL-SV2S laser leveling system. Grading stopped at 9:45 AM due to a rain shower and resumed at 11:10 AM. The areas were smoothed out and rolled with the CAT PS300C before more rain and thunder came in the afternoon, stopping site activities until 2:00 PM. GDIT personnel placed (2) sump pumps in the puddle of water at the low point of the site (NW corner). Water covered from Station 01+12 to Station 01+55. GDIT personnel surveyed the site to back check final grade elevations.

Materials Delivered

Materials Removed

Laboratory and Field Testing Performed

None

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Heavy rain caused ponding towards the NW corner of the project site, pumps were added to remove the excess water. All water was pumped out of the site prior to leaving for the day.

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/6/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/09/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 6	JBT Building Co. – 2 United Concrete Inc. - 2	Gemini - 1	Rodriguez Consulting - 1

Equipment On-Site

- John Deere 310SG (Backhoe)
- Manitou (Forklift)
- RL-SV2S (Laser Level)
- Pentax AL-320 (Level)
- Leica 3D Scanner
- HAMM HD12 (Roller)
- ZAXIS 160LC (Excavator)

Start Time – 7:00 AM *Stop Time –* 5:15 PM	*Temperature* Min – 73 F Max – 84 F	*Humidity* Min – 41 % Max – 61 %	*Conditions* Fair

Site Activities

JBT Building Co. personnel arrived onsite at 6:30 AM and finished grading the P-154 layer by 8:00 AM. United Concrete Inc. personnel arrived onsite at 7:30 AM and transferred wood from truck to site using Manitou Forklift. United Concrete began assembling forms onsite at 8:30 AM. GDIT personnel surveyed the site to back check final grade elevations. GDIT personnel and Rodriguez Consulting set up Leica 3D Scanner and associated equipment at 9:30 AM and ran Scanner until 11:00 AM. Leica 3D Scan results came up with elevations outside of tolerance of 3/8 in. for select areas. The ZAXIS 160LC Excavator was used to cut areas of P-154 that were above desired elevation. P-154 was added from stockpile by JBT Building Co. personnel into areas that were below desired elevation. After material added, JBT. Building Co personnel rolled and smoothed using HAMM HD12 Roller. GDIT personnel and Rodriguez Consulting set up Leica 3D Scanner equipment at 3:30 PM and completed it at 5:15. Equipment dissembled and stored away by GDIT personnel.

Materials Delivered

Wood for forms

Materials Removed

Small amount of P-154 in the area between Sta. 0+05 to 0+15.

Laboratory and Field Testing Performed

None

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Results 1st scan showed low and high areas that were out of tolerance. The areas were addressed and the test section was

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/9/18	JOE GAWRYSIAK	

Smoothness/Straightedge Testing

Project: Reflective Cracking Phase I
Date: 7/10/2018
Inspector/Technician: SC, JK, MA

Material: P-154 MR
Deviation Limit: N/A
Specification for Approval: N/A

Test Results									
Station	Transverse Measurements - Pass? (Y/N)					Longitudinal Measurements - Pass? (Y/N)			
	Offset, ft					Offset, ft			
	-6 to +6					-3	+3		
0+10	Y					Y	Y		
0+20	Y					Y	Y		
0+40	Y					Y	Y		
0+60	Y					Y	Y		
0+80	Y					Y	Y		
1+00	N					Y	Y		
1+20	N					Y	Y		
1+40	Y					N	N		
1+45	Y								
# Pass	7	0	0	0	0	7	7	0	0
# Fail	2	0	0	0	0	1	1	0	0
% Fail	22.22	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	12.50	12.50	#DIV/0!	#DIV/0!
Total Passing, %		**84.00**							

Additional Comments: A longitudinal measurment at station 1+45 was not possible due to the fact that it was at the end of the test section.

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/10/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 6	Gemini - 2	Craig Testing - 1	Rodriguez Consulting - 1

Equipment On-Site

- 12' straight edge
- NOVA Surveying Device
- Instrotek 3440 Nuclear Moisture-Density Gauge

Start Time – 11:50 AM *Stop Time –* 4:30 PM	*Temperature* Min – 79 F Max – 93 F	*Humidity* Min – 34 % Max – 62 %	*Conditions* Fair

Site Activities

GDIT personnel performed straightedge testing from 11:50 AM to 12:30 PM. 21 out of 25 straightedge readings passed the 3/8" inch tolerance. Rodriguez Consulting was onsite to survey from 12:00 PM to 3:25 PM. Craig Testing arrived at 1:30 PM to perform Nuclear Moisture-Density Gauge testing at a depth of 8". Rodriguez Consulting was onsite to survey from 12:00 PM to 3:25 PM. Rodriguez marked out the 8 points for corners of the forms at the following locations: Sta. 0+00, 3' offset; Sta. 0+50, 3' offset; Sta. 1+00, 3' offset; Sta. 1+50, 3' offset; Sta. 0+00, 2' offset; Sta. 0+50, 2' offset; Sta. 1+00, 2' offset; Sta. 1+50, 2' offset.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

Straight Edge Testing
Nuclear Moisture-Density

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/10/18	JOE GAWRYSIAK	

CRAIG TESTING LABORATORIES, INC.
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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-12

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 10, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 11, Offset 0'	127.4	3.0	130.8	7.2	100.0	97.4%
2	Station 17.5, Offset 2.5'	131.7	2.7	130.8	7.2	100.0	100.7%
3	Station 30.5, Offset -2'	134.8	2.9	130.8	7.2	100.0	103.1%
4	Station 39.5, Offset 2'	128.5	2.8	130.8	7.2	100.0	98.2%
5	Station 46.5, Offset 3'	130.7	2.4	130.8	7.2	100.0	99.9%
6	Station 55.5, Offset -5'	129.4	2.4	130.8	7.2	100.0	98.9%
7	Station 64.5, Offset 1'	126.9	2.7	130.8	7.2	100.0	97.0%
8	Station 78.5, Offset 0'	126.2	2.2	130.8	7.2	100.0	96.5%
9	Station 83.5, Offset 3'	126.8	2.1	130.8	7.2	100.0	96.9%
10	Station 96.5, Offset -.5'	130.1	2.4	130.8	7.2	100.0	99.5%

Loose Lift Thickness (in.): -

Fill Placement: ☑ Controlled ☐ Uncontrolled

Continued on following page . . .

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-12

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 10, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base

Compactor Model: Wacker Neuson RTSC2

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 104.5, Offset 1'	126.7	2.3	130.8	7.2	100.0	96.9%
12	Station 115.5, Offset 2.5'	128.1	2.5	130.8	7.2	100.0	97.9%
13	Station 127, Offset 1'	122.7	2.4	130.8	7.2	100.0	93.8%
14	Station 137.5, Offset -2'	126.6	2.3	130.8	7.2	100.0	96.8%
15	Station 143, Offset 0'	127.0	2.6	130.8	7.2	100.0	97.1%
16	Station 68, Offset -2'	131.5	2.3	130.8	7.2	100.0	100.5%
17	Station 87, Offset 0'	128.5	1.9	130.8	7.2	100.0	98.2%
18	Station 92, Offset -6'	126.9	3.2	130.8	7.2	100.0	97.0%
19	Station 102, Offset -3.5'	134.5	2.7	130.8	7.2	100.0	102.8%
20	Station 146, Offset -1'	128.2	2.8	130.8	7.2	100.0	98.0%

Gauge Serial No.: 24540

Gauge Standard Counts: MS: 628 DS: 1864

Fill Placement: ☐ Controlled ☑ Uncontrolled

Loose Lift Thickness (in.): -

Hours on Site: 1:00 PM-3:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Client representative present during testing and aware of test results below requirements.

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

Field Notes of Craig Testing Nuclear Density Gauge Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade					
Performed by Craig Testing Laboratories @ 8" depth					
Final Testing results to be provided 7/11/2018					
Notes compiled by Tirupan Mandal 7/10/2018					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density (lbs/ft^3)	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	0.00	11	127.4	97.4%	3.0
0+12.5 to 0+22.5	2.50	17.5	131.7	100.7%	2.7
0+22.5 to 0+32.5	-2.00	30.5	134.8	103.1%	2.9
0+32.5 to 0+42.5	2.00	39.5	128.5	98.2%	2.8
0+42.5 to 0+52.5	3.00	46.5	130.7	99.9%	2.4
0+52.5 to 0+62.5	-3.00	55.5	129.4	98.9%	2.4
0+62.5 to 0+72.5	2.00	64.5	126.9	97.0%	2.3
0+72.5 to 0+82.5	0.00	78.5	126.2	96.5%	2.2
0+82.5 to 0+92.5	3.00	83.5	126.8	96.9%	2.1
0+92.5 to 1+02.5	-0.50	96.5	130.8	100.0%	2.4
1+02.5 to 1+12.5	1.00	104.5	126.7	96.9%	2.3
1+12.5 to 1+22.5	2.50	115.5	128.1	97.9%	2.5
1+22.5 to 1+32.5	1.00	127	122.7	93.8%	2.4
1+32.5 to 1+42.5	-2.00	137.5	126.6	96.8%	2.3
1+42.5 to 1+52.5	0.00	143	127.0	97.1%	2.6
		Average:	128.3	98.1%	2.5

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/11/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 9			

Equipment On-Site

- FAA Firetruck Engine #5
- BOMAG (Soil Stabilizer)

Start Time – 12:30 PM *Stop Time –* 4:30 PM	*Temperature* Min – 61 F Max – 70 F	*Humidity* Min – 34 % Max – 63 %	*Conditions* Fair, Cloudy

Site Activities

GDIT personnel brought the BOMAG Soil Stabilizer onsite and prepared it to be used the following day. GDIT personnel sprayed down and soaked the P-154 material using FAA Firetruck Engine #5 with 1300 gallons of water at 1:30 PM. Sandbags were placed at Sta. 0+75 to prevent water running down to low point of site (NW corner). A tarp was placed over the wet surface to prevent evaporation overnight as the water soaked in.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

Moisture Test

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/11/18	JOE GAWRYSIAK	Joe

U.S. Department of Transportation **Federal Aviation Administration**	**Construction Progress and Inspection Report** **NAPMRC**		*Inspection Date* 07/12/2018 *Project Name* Reflective Cracking Outdoor Phase I
Contractor & # of Personnel GDIT - 12	*Contractor & # of Personnel* Gemini - 2	*Contractor & # of Personnel* JBT Building Co. - 2 United Concrete - 1	*Contractor & # of Personnel* Craig Testing - 1

Equipment On-Site

- HPRV (Firetruck)
- BOMAG (Soil Stabilizer)
- Hitachi ZAXIS 160LC (Excavator)
- John Deere 310SG (Backhoe)
- Lee G440 (Power Grader)
- Dynapac (Roller)
- Instrotek 3430 Nuclear Density-Moisture Gauge
- CAT PS300C (Rubber Tire Roller)

Start Time – 7:15 PM *Stop Time –* 4:30 PM	*Temperature* Min – 73 F Max – 83 F	*Humidity* Min – 47 % Max – 90 %	*Conditions* Fair, Cloudy

Site Activities

JBT Building Co. arrived onsite at 7:15 AM to prepare equipment. United Concrete Inc. arrived at 8:20 AM and welded together dowel baskets with #8 dowels for the remainder of the day. GDIT took moisture samples to fill a 5-gallon bucket at random locations. Craig Testing was onsite all day and took Nuclear Moisture-Density readings at 6 random locations each at a depth of 4 in., 6 in., and 8 in at the following locations: Sta. 0+35, -1 Lt; Sta. 0+60, 0'; Sta. 0+75, +3.5 Rt; Sta. 0+95, -2.5 Lt; Sta. 1+04.5, -2 Lt and Sta. 1+32, +3.5 Rt. GDIT personnel wetted the P-154 material with the HPRV prior to tilling. JBT Building Co. operated the BOMAG to scarify the entire lift of P-154 to an average depth of 4". GDIT personnel sprayed an additional 450 gallons of water on scarified material. JBT Building Co. used John Deere 310SG Backhoe to place excess P-154 that was stored onsite. A Lee G440 grader was then used to roughly grade the surface. GDIT personnel took survey points at 5 lowest points to see if filling was necessary before compaction. JBT Building Co. personnel filled more material in spots with slightly low elevations and then GDIT personnel sprayed 350 gallons on the material. It was then covered with the tarp so water could soak in. After waiting an hour, JBT Construction Co. rolled the material with the Dynapac Roller for 2 passes (up and back equal to 1 pass) and rolled the site with CAT PS300C for 2 more passes. Craig Testing performed nuclear gauge testing at random locations to determine compaction and moisture %. Material was very wet and soft in some locations. GDIT personnel covered site at end of day and to resume testing in the morning.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

Compaction and Moisture Testing

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments		
INSPECTOR OR REPRESENTATIVE		
Date	*Typed or Printed Name and Title*	*Signature*
7/12/18	JOE GAWRYSIAK	

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-13

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 12, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other: _____
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 35, Offset -1', 4" Depth	137.1	3.8	130.8	7.2	100.0	104.8%
2	Station 35, Offset -1', 6" Depth	137.2	3.4	130.8	7.2	100.0	104.9%
3	Station 35, Offset -1', 8" Depth	135.2	3.6	130.8	7.2	100.0	103.4%
4	Station 60, Offset 0', 4" Depth	131.9	4.8	130.8	7.2	100.0	100.8%
5	Station 60, Offset 0', 6" Depth	128.9	4.7	130.8	7.2	100.0	98.5%
6	Station 60, Offset 0', 8" Depth	128.6	4.8	130.8	7.2	100.0	98.3%
7	Station 75, Offset +3.5', 4" Depth	129.2	4.3	130.8	7.2	100.0	98.8%
8	Station 75, Offset +3.5', 6" Depth	129.2	3.9	130.8	7.2	100.0	98.8%
9	Station 75, Offset +3.5', 8" Depth	129.0	4.6	130.8	7.2	100.0	98.6%
10	Station 103.5, Offset -2', 4" Depth	132.5	3.3	130.8	7.2	100.0	101.3%

Loose Lift Thickness (in.): -

Fill Placement: ☐ Controlled ☑ Uncontrolled

Continued on following page . . .

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-13

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 12, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☑ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 103.5, Offset -2', 6" Depth	129.7	3.5	130.8	7.2	100.0	99.2%
12	Station 103.5, Offset -2', 8" Depth	127.2	3.9	130.8	7.2	100.0	97.2%
13	Station 132, Offset +3.5',4" Depth	124.9	4.7	130.8	7.2	100.0	95.5%
14	Station 132, Offset +3.5', 6" Depth	122.5	4.8	130.8	7.2	100.0	93.7%
15	Station 132, Offset +3.5', 8" Depth	122.2	4.8	130.8	7.2	100.0	93.4%
16	Station 95, Offset -2.15',4" Depth	136.4	4.2	130.8	7.2	100.0	104.3%
17	Station 95, Offset -2.15', 6" Depth	135.2	4.1	130.8	7.2	100.0	103.4%
18	Station 95, Offset -2.15', 8" Depth	133.9	3.7	130.8	7.2	100.0	102.4%
19	Station 75, Offset -1', 8" Depth	129.3	10.6	130.8	7.2	100.0	98.9%
20	Station 48, Offset +3', 8" Depth	128.8	9.9	130.8	7.2	100.0	98.5%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 629 DS: 1880

Fill Placement: ☐ Controlled ☑ Uncontrolled **Loose Lift Thickness (in.):** -

Hours on Site: 9:00 AM-4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

All tests that were taken in sets of three were conducted before wetting the soils. While the following four were taking after moisture was added. Client representative present during testing and aware of test results

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-14

INSPECTED BY: Colin Salotti

DATE INSPECTED: July 12, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 112, Offset -1.5', 8" Depth	120.2	13.9	130.8	7.2	100.0	91.9%
2	Station 127.5, Offset 3.5', 8" Depth	123.1	11.1	130.8	7.2	100.0	94.1%
3							
4							
5							
6							
7							
8							
9							
10							

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 629 DS: 1880

Fill Placement: ☐ Controlled ☑ Uncontrolled **Loose Lift Thickness (in.):** -

Hours on Site: 9:00 AM-4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

All tests that were taken in sets of three were conducted before wetting the soils. While the following four were taking after moisture was added. Client representative present during testing and aware of test results

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/13/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 11	Gemini - 3	JBT Building Co. - 2 United Concrete - 1	Craig Testing - 1

Equipment On-Site

- John Deere 310SG (Backhoe)
- Lee G440 (Power Grader)
- Dynapac (Roller)
- Instrotek 3430 Nuclear Density-Moisture Gauge
- CAT PS300C (Rubber Tire Roller)
- RL-SV2S (Laser Level)
- Pentax AL-320 (Level)

Start Time – 7:45 PM *Stop Time –* 4:30 PM	*Temperature* Min – 68 F Max – 83 F	*Humidity* Min – 46 % Max – 100 %	*Conditions* Fair

Site Activities

JBT Construction Co. personnel arrived onsite at 7:00 AM and rolled the area prior to Nuclear Moisture-Density tests. (2) Passes were completed (back and forth equal to 1 pass) with the Dynapac Roller and an additional (2) passes with the CAT PS300C Roller. Craig Testing personnel operated the Nuclear Density-Moisture Gauge and took readings at random locations to determine compaction and moisture %. Values ranged from 124.2 pcf to 132.5 pcf with mositures ranging from 7.5 to 10.0. JBT Construction Co. personnel graded the site using a Lee G440 Power Grader to trim and level the material prior to additional compaction. JBT then completed (2) additional passes with each roller (Dynpac and CAT PS300C). GDIT personnel used the Pentax AL-320 Level to verify all points were above proposed grade. Craig Testing performed Nuclear Moisture-Density tests at predetermined random locations at depths of 4", 6" and 8" depths for a total of (45) tests @ 60 seconds each. GDIT personnel covered the site at the end of the shift.

Materials Delivered

None

Materials Removed

None

Laboratory and Field Testing Performed

Nuclear Moisture-Density Testing

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Area was wet and soft in many spots, will leave covered for the weekend and allow moisture to soak into lower region.

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/13/18	JOE GAWRYSIAK	

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TESTING LABORATORIES, INC.
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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-15

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other: _____
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 87, Offset 1', 8" Depth	128.8	9.6	130.8	7.2	100.0	98.5%
2	Station 122, Offset -1.5', 8" Depth	126.0	11.9	130.8	7.2	100.0	96.3%
3	Station .5, Offset -3.4', 8" Depth	129.2	9.4	130.8	7.2	100.0	98.8%
4	Station 31.5, Offset 4', 8" Depth	127.7	10.0	130.8	7.2	100.0	97.6%
5	Station 52.5, Offset -.5', 8" Depth	136.5	9.8	130.8	7.2	100.0	104.4%
6	Station 75, Offset 3', 8" Depth	132.5	8.4	130.8	7.2	100.0	101.3%
7	Station 87, Offset -1.5', 8" Depth	128.8	9.9	130.8	7.2	100.0	98.5%
8	Station 113, Offset 4', 8" Depth	130.2	9.8	130.8	7.2	100.0	99.5%
9	Station 133, Offset 4', 8" Depth	131.0	9.1	130.8	7.2	100.0	100.2%
10	Station 146, Offset -.5', 8" Depth	127.5	8.6	130.8	7.2	100.0	97.5%

Loose Lift Thickness (in.): -

Fill Placement: ☐ Controlled ☑ Uncontrolled

Continued on following page . . .

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-15

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 145.5, Offset -1', 8" Depth	125.8	8.5	130.8	7.2	100.0	96.2%
12	Station 145.5, Offset -1', 6" Depth	127.7	8.2	130.8	7.2	100.0	97.6%
13	Station 137, Offset .5', 8" Depth	129.5	8.9	130.8	7.2	100.0	99.0%
14	Station 137, Offset .5', 6" Depth	131.3	9.0	130.8	7.2	100.0	100.4%
15	Station 137, Offset .5', 4" Depth	132.2	8.5	130.8	7.2	100.0	101.1%
16	Station 124.5, Offset 0', 8" Depth	131.8	8.4	130.8	7.2	100.0	100.8%
17	Station 124.5, Offset 0', 6" Depth	132.9	8.1	130.8	7.2	100.0	101.6%
18	Station 124.5, Offset 0', 4" Depth	133.3	8.3	130.8	7.2	100.0	101.9%
19	Station 117.5, Offset 1.5', 8" Dep.	131.1	8.4	130.8	7.2	100.0	100.2%
20	Station 117.5, Offset 1.5', 6" Dep.	133.0	8.2	130.8	7.2	100.0	101.7%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 599 DS: 1865

Fill Placement: ☐ Controlled ☑ Uncontrolled **Loose Lift Thickness (in.):** -

Hours on Site: 7:00 AM-4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

Tests 1 and 2 were taken at 8 AM. Tests 3-10 were taken at 11 AM. The rest of the tests were taken at 3 PM. Client representative present during testing and aware of test results below requirements.

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-16

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other: _____
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 117.5, Offset 1.5', 4" Dep.	133.2	8.1	130.8	7.2	100.0	101.8%
2	Station 106, Offset -2', 8" Depth	129.6	8.6	130.8	7.2	100.0	99.1%
3	Station 106, Offset -2', 6" Depth	131.0	8.5	130.8	7.2	100.0	100.2%
4	Station 106, Offset -2', 4" Depth	132.2	8.6	130.8	7.2	100.0	101.1%
5	Station 96, Offset -1.5', 8" Depth	128.8	9.6	130.8	7.2	100.0	98.5%
6	Station 96, Offset -1.5', 6" Depth	130.1	9.7	130.8	7.2	100.0	99.5%
7	Station 96, Offset -1.5', 4" Depth	130.8	9.7	130.8	7.2	100.0	100.0%
8	Station 87.5, Offset 0', 8" Depth	132.5	7.7	130.8	7.2	100.0	101.3%
9	Station 87.5, Offset 0', 6" Depth	132.8	7.3	130.8	7.2	100.0	101.5%
10	Station 87.5, Offset 0', 4" Depth	133.8	7.6	130.8	7.2	100.0	102.3%

Loose Lift Thickness (in.): -

Fill Placement: ☐ Controlled ☑ Uncontrolled

Continued on following page . . .

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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-16

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☑ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☐ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 75.5, Offset 2', 8" Depth	133.4	6.9	130.8	7.2	100.0	102.0%
12	Station 75.5, Offset 2', 6" Depth	134.4	7.0	130.8	7.2	100.0	102.8%
13	Station 75.5, Offset 2', 4" Depth	136.4	6.5	130.8	7.2	100.0	104.3%
14	Station 67.5, Offset 1', 8" Depth	131.5	8.8	130.8	7.2	100.0	100.5%
15	Station 67.5, Offset 1', 6" Depth	132.3	8.8	130.8	7.2	100.0	101.1%
16	Station 67.5, Offset 1', 4" Depth	132.0	7.8	130.8	7.2	100.0	100.9%
17	Station 55, Offset -1.5', 8" Depth	131.9	7.9	130.8	7.2	100.0	100.8%
18	Station 55, Offset -1.5', 6" Depth	133.2	8.0	130.8	7.2	100.0	101.8%
19	Station 55, Offset -1.5', 4" Depth	134.0	7.9	130.8	7.2	100.0	102.4%
20	Station 48, Offset 2.5', 8" Depth	133.1	7.7	130.8	7.2	100.0	101.8%

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 599 DS: 1865

Fill Placement: ☐ Controlled ☑ Uncontrolled **Loose Lift Thickness (in.):** -

Hours on Site: 7:00 AM-4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

All of these tests were taken at 3 PM. Client representative present during testing and aware of test results below requirements.

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

CRAIG TESTING LABORATORIES, INC.
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CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-17

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other: _____
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
1	Station 48, Offset 2.5', 6" Depth	133.6	8.0	130.8	7.2	100.0	102.1%
2	Station 48, Offset 2.5', 4" Depth	135.4	7.6	130.8	7.2	100.0	103.5%
3	Station 37.5, Offset 0', 8" Depth	133.5	8.4	130.8	7.2	100.0	102.1%
4	Station 37.5, Offset 0', 6" Depth	133.9	8.1	130.8	7.2	100.0	102.4%
5	Station 37.5, Offset 0', 4" Depth	133.9	8.1	130.8	7.2	100.0	102.4%
6	Station 26, Offset -1', 8" Depth	131.2	7.7	130.8	7.2	100.0	100.3%
7	Station 26, Offset -1', 6" Depth	133.9	7.9	130.8	7.2	100.0	102.4%
8	Station 26, Offset -1', 4" Depth	133.7	8.5	130.8	7.2	100.0	102.2%
9	Station 14.5, Offset -2', 8" Depth	129.5	6.3	130.8	7.2	100.0	99.0%
10	Station 14.5, Offset -2', 6" Depth	131.1	6.0	130.8	7.2	100.0	100.2%

Loose Lift Thickness (in.): -

Fill Placement: ☐ Controlled ☑ Uncontrolled

Continued on following page . . .

CRAIG TESTING LABORATORIES, INC.
5439 Harding Highway • P.O. Box 427 • Mays Landing, NJ 08330-0427 • (609) 625-1700 • FAX (609) 625-1798

CLIENT: General Dynamics Information Technology

PROJECT NO.: 811092-3

PROJECT: Reflective Cracking Outdoor Phase I, Building 296 Outdoors, William J. Hughes Technical Center

REPORT NO.: FD-17

INSPECTED BY: Reflective Cracking Project Atlan

DATE INSPECTED: July 13, 2018

GEOTECHNICAL REPORT BY: N/A

DATED: N/A

EARTHWORK FIELD INSPECTION REPORT

Item Inspected: ☐ Building Pad ☐ Slab ☐ Foundation ☐ Other:
☐ Utility Trench ☐ Sub-Grade ☑ Pavement Sub-Base Compactor Model: PS-300C

	Location	Dry Density (pcf)	Percent Moisture	Proctor (pcf) ASTM D1557	Optimum Moisture (%)	Compaction Required (%)	Percent Compaction
11	Station 14.5, Offset -2', 4" Depth	134.7	5.8	130.8	7.2	100.0	103.0%
12	Station 8, Offset 1', 8" Depth	130.4	7.0	130.8	7.2	100.0	99.7%
13	Station 8, Offset 1', 6" Depth	130.0	7.0	130.8	7.2	100.0	99.4%
14	Station 8, Offset 1', 4" Depth	134.0	6.7	130.8	7.2	100.0	102.4%
15							
16							
17							
18							
19							
20							

Gauge Serial No.: 24540 Gauge Standard Counts: MS: 599 DS: 1865

Fill Placement: ☐ Controlled ☑ Uncontrolled **Loose Lift Thickness (in.):** -

Hours on Site: 7:00 AM-4:00 PM

Inspection Findings

Report for Informational Purposes Only

Remarks:

All of these tests were taken at 3 PM. Client representative present during testing and aware of test results below requirements.

Reported to:
Project Distribution

Reviewed By: Ed Freire

REV 4/17

Field Notes of Craig Testing Nuclear Density Gauge Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subbase					
Performed by Craig Testing Laboratories @ 8" depth					
Final Testing results to be provided 7/16/2018					
Notes compiled by Matt Aromando 7/13/2018 - 8 AM					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density (lbs/ft^3)	Percent of Maximum Dry Density %	Moisture %
Random Locations for Density and Moisture prior to Compaction	0.00	0+34	122.8	93.9%	12.2
	0.00	0+46	126.2	96.5%	9.7
	-2.50	0+75	125.7	96.1%	9.9
	1.00	0+87	128.8	98.5%	9.6
	7.50	0+91	N/A		9.9
	-2.50	1+20	127.4	97.4%	10.5
	-1.50	1+22	126.8	96.9%	11.9
	0.00	1+42	126.5	96.7%	10.9
		Average:	126.3	96.6%	10.6

Field Notes of Craig Testing Nuclear Density Gauge Results ASTM D6938					
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subbase					
Performed by Craig Testing Laboratories @ 8" depth					
Final Testing results to be provided 7/16/2018					
Notes compiled by Matt Aromando 7/13/2018 - 11 AM					
Station Range in Relation to Slab Joints	Offset	Station	Dry Density (lbs/ft^3)	Percent of Maximum Dry Density %	Moisture %
Random Locations for Density and Moisture prior to Compaction	-3.5	0+15	129.2	98.8%	9.4
	4.0	0+32	127.7	97.6%	10.0
	-1.5	0+52.5	130.5	99.8%	9.8
	3.0	0+75	132.5	101.3%	8.4
	-1.5	0+87	128.8	98.5%	9.9
	4.0	1+13	130.2	99.5%	9.8
	0.0	1+33	131.0	100.2%	9.1
	4.0	1+46	124.2	95.0%	7.5
		Average:	129.3	98.8%	9.2

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/16/2018				
Notes compiled by Tirupan Mandal 07/13/2018				
Nuclear Density Gauge Depth: 4 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	8.00	1	102.5	6.7
0+12.5 to 0+22.5	14.50	-2	103.0	5.8
0+22.5 to 0+32.5	26.00	-1	102.2	8.5
0+32.5 to 0+42.5	37.50	0	102.4	8.1
0+42.5 to 0+52.5	48.00	2.5	103.5	7.6
0+52.5 to 0+62.5	55.00	-1.5	102.4	7.9
0+62.5 to 0+72.5	67.50	1	100.9	8.9
0+72.5 to 0+82.5	75.50	2	104.3	6.5
0+82.5 to 0+92.5	87.50	0	102.3	7.6
0+92.5 to 1+02.5	96.00	-1.5	100.0	9.7
1+02.5 to 1+12.5	106.00	-2	101.0	8.6
1+12.5 to 1+22.5	117.50	1.5	101.8	8.1
1+22.5 to 1+32.5	124.50	0	101.9	8.3
1+32.5 to 1+42.5	133.00	-1	101.1	8.5
1+32.5 to 1+42.5	**137.00**	**0.5**	101.4	8.4
1+42.5 to 1+52.5	145.50	2.5	N/A	N/A
1+42.5 to 1+52.5	**145.5**	**-1**	100.4	8.6
		Average:	101.9	8.0

**Values in bold are before rolling 4 passes*

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/16/2018				
Notes compiled by Tirupan Mandal 07/13/2018				
Nuclear Density Gauge Depth: 6 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	8.00	1	99.5	7.0
0+12.5 to 0+22.5	14.50	-2	100.2	6.0
0+22.5 to 0+32.5	26.00	-1	102.4	7.9
0+32.5 to 0+42.5	37.50	0	102.4	8.1
0+42.5 to 0+52.5	48.00	2.5	102.1	8.0
0+52.5 to 0+62.5	55.00	-1.5	101.8	8.0
0+62.5 to 0+72.5	67.50	1	101.1	8.8
0+72.5 to 0+82.5	75.50	2	102.0	7.0
0+82.5 to 0+92.5	87.50	0	101.5	7.3
0+92.5 to 1+02.5	96.00	-1.5	99.5	9.7
1+02.5 to 1+12.5	106.00	-2	100.2	8.5
1+12.5 to 1+22.5	117.50	1.5	101.6	8.2
1+22.5 to 1+32.5	124.50	0	101.6	8.1
1+32.5 to 1+42.5	133.00	-1	100.4	9.0
1+32.5 to 1+42.5	**137.00**	**0.5**	101.2	8.9
1+42.5 to 1+52.5	145.50	2.5	97.6	8.2
1+42.5 to 1+52.5	**145.5**	**-1**	100.4	8.5
		Average:	100.9	8.1

**Values in bold are before rolling 4 passes*

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/16/2018				
Notes compiled by Tirupan Mandal 07/13/2018				
Nuclear Density Gauge Depth: 8 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	8.00	1	99.7	7.0
0+12.5 to 0+22.5	14.50	-2	99.0	6.3
0+22.5 to 0+32.5	26.00	-1	100.3	7.7
0+32.5 to 0+42.5	37.50	0	102.0	8.4
0+42.5 to 0+52.5	48.00	2.5	101.8	7.7
0+52.5 to 0+62.5	55.00	-1.5	100.8	7.9
0+62.5 to 0+72.5	67.50	1	100.5	8.8
0+72.5 to 0+82.5	75.50	2	102.0	6.9
0+82.5 to 0+92.5	87.50	0	101.3	7.7
0+92.5 to 1+02.5	96.00	-1.5	98.4	9.6
1+02.5 to 1+12.5	106.00	-2	99.1	8.6
1+12.5 to 1+22.5	117.50	1.5	100.2	8.4
1+22.5 to 1+32.5	124.50	0	100.7	8.4
1+32.5 to 1+42.5	133.00	-1	99.0	8.9
1+32.5 to 1+42.5	**137.00**	**0.5**	99.9	8.8
1+42.5 to 1+52.5	145.50	2.5	95.9	8.5
1+42.5 to 1+52.5	**145.5**	**-1**	99.0	8.7
		Average:	100.0	8.1

**Values in bold are before rolling 4 passes*

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/16/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 6	Gemini - 1	JBT Building Co. - 2	

Equipment On-Site
- Dynapac (Roller)
- CAT PS300C (Rubber Tire Roller)

Start Time – 7:45 PM *Stop Time –* 4:30 PM	*Temperature* Min – 85 F Max – 94 F	*Humidity* Min – 49 % Max – 69 %	*Conditions* Fair, Cloudy

Site Activities
JBT Construction Co. personnel arrived onsite at 7:45 and compacted the site for (2) passes with the CAT PS-300C. GDIT personnel took (2) samples to be tested for moisture content in the speedy dry reader. Results from the test yielded values of 8.0% and 10.1%. JBT Construction Co. personnel compacted the site for an additional (2) passes with Dynapac roller. The area was left to dry throughout the day. GDIT covered the East side of site at 1:30 PM and then covered the full site at 4 PM.

Materials Delivered
None

Materials Removed
None

Laboratory and Field Testing Performed
Moisture Testing

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
The project area still has spots that are wet and soft, area left open to dry all day.

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7·16·18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/17/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 7	Gemini - 2	JBT Building Co. – 2	Craig Testing – 1 RDM International - 1

Equipment On-Site

- Dynapac (Roller)
- CAT PS300C (Rubber Tire Roller)
- John Deere 310SG (Backhoe)
- MQ Mikasa MTX70HD (Hand Tamp)
- Pentax AL-320 (Level)
- Instrotek 3440 (Nuclear Moisture-Density)

Start Time – 8:00 AM *Stop Time –* 4:30 PM	*Temperature* Min – 83 F Max – 94 F	*Humidity* Min – 51 % Max – 79 %	*Conditions* Fair, Partly Cloudy

Site Activities

Craig Testing arrived at 8:15 AM and obtained Nuclear Moisture-Density readings at depths of 4, 6, and 8 inches at the previous failing locations from Friday 7/13/18 and 8 inches at locations that previously passed to confirm. JBT Construction Co. personnel dug out a trench at Sta. 0+89 to help drain the site and reduce pumping in the area. The trench reached 22 inches below the P-154 surface and was approximately 2.5 feet wide. A section of P-154 from Sta. 0+86 to Sta. 0+92, offset -0.5' to -3.5' was removed by a John Deere 310 SG Backhoe by JBT Construction Co. personnel due to pumping issues. The area was excavated down to the subgrade to determine if it was holding water which it did not show signs of. Craig Testing took a Nuclear Moisture-Density reading on the subgrade level at St. 0+89 yielding a 13.9% moisture and 93.4% dry density. P-154 material was spread out to facilitate drying before it was placed in the hole. Once the material was dried to optimum moisture, the P-154 was placed in the hole then compacted for (5) passes (back and forth equal to 1 pass) using the CAT PS300C. GDIT personnel surveyed the elevation of apparent low spots after compaction and determined that results were below the proposed grade. The top layer of the hole was scarified and additional material was added to bring up the elevation. The material was then compacted for (5) passes with the Dynapac and an additional (5) passes with the CAT PS300C. Craig Testing performed Nuclear Moisture-Density test on the newly filled hole and compaction came up below specification. RDM personnel used a MQ Mikasa MTX70 Hand Tamper to compact the fill area. Craig Testing took another Nuclear Moisture-Density reading and this resulted in a value passing specification at 101.3% compaction and a moisture of 7.6%. GDIT then shot elevations using the Pentax AL-320 Level to confirm the repaired surface was above grade. GDIT personnel covered the site and patched holes in tarp at end of day due to expected heavy thunderstorms.

Materials Delivered
None

Materials Removed
P-154

Laboratory and Field Testing Performed
Moisture Testing, Nuclear Density-Moisture

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments		
Pumping section from Sta. 0+86 to Sta. 0+92, offset -0.5 to -3.5 was removed down to the subgrade material to identify if the subgrade was holding water. Nuclear test results produced values of 13.9% moisture content and a dry density of 93.4% on the subgrade. The area was replaced with new P-154 material and compacted to the required density (101.3% and 7.6% moisture).		
INSPECTOR OR REPRESENTATIVE		
Date	*Typed or Printed Name and Title*	*Signature*
7/17/18	JOE GAWRYSIAK	

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/18/2018				
Notes compiled by Tirupan Mandal 07/17/2018				
Nuclear Density Gauge Depth: 8 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	3.00	10	103.5	7.3
0+12.5 to 0+22.5	2.50	15.5	100.3	7.8
0+22.5 to 0+32.5	-1.00	28.5	100.7	7.8
0+32.5 to 0+42.5	0.00	36.5	101.7	8.3
0+42.5 to 0+52.5	2.00	47.5	103.1	7.2
0+52.5 to 0+62.5	-2.00	60.5	102.7	6.7
0+62.5 to 0+72.5	1.00	69.5	101.6	6.8
0+72.5 to 0+82.5	0.00	76	103.6	6.7
0+82.5 to 0+92.5	-2.00	89	101.9	8.5
0+92.5 to 1+02.5	-3.00	96.5	103.2	7.1
1+02.5 to 1+12.5	3.00	107.5	101.1	7.6
1+12.5 to 1+22.5	2.00	118	102.6	7.5
1+22.5 to 1+32.5	-1.00	127.5	100.6	7.7
1+32.5 to 1+42.5	0.00	136	101.9	7.2
1+42.5 to 1+52.5	0.5	150	100.8	7.3
		Average:	102.0	7.4

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/18/2018				
Notes compiled by Tirupan Mandal 07/17/2018				
Nuclear Density Gauge Depth: 6 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	3.00	10	104.0	7.4
0+12.5 to 0+22.5	2.50	15.5	103.1	7.2
0+22.5 to 0+32.5	-1.00	28.5		
0+32.5 to 0+42.5	0.00	36.5		
0+42.5 to 0+52.5	2.00	47.5		
0+52.5 to 0+62.5	-2.00	60.5		
0+62.5 to 0+72.5	1.00	69.5		
0+72.5 to 0+82.5	0.00	76		
0+82.5 to 0+92.5	-2.00	89	103.0	8.4
0+92.5 to 1+02.5	-3.00	96.5	104.4	7.2
1+02.5 to 1+12.5	3.00	107.5		
1+12.5 to 1+22.5	2.00	118		
1+22.5 to 1+32.5	-1.00	127.5		
1+32.5 to 1+42.5	0.00	136	104.5	7.0
1+42.5 to 1+52.5	0.5	150	102.4	7.1
		Average:	103.6	7.4

Field Notes of Craig Testing Nuclear Density Gage Results ASTM D6938				
TO 015 Reflective Cracking Outdoor Phase 1 P-154MR Subgrade				
Performed by Craig Testing Laboratories				
Final Testing results to be provided 07/18/2018				
Notes compiled by Tirupan Mandal 07/17/2018				
Nuclear Density Gauge Depth: 4 in				
Station Range in Relation to Slab Joints	Offset	Station	Percent of Maximum Dry Density %	Moisture %
0+02.5 to 0+12.5	3.00	10	104.3	7.5
0+12.5 to 0+22.5	2.50	15.5	105.0	6.7
0+22.5 to 0+32.5	-1.00	28.5		
0+32.5 to 0+42.5	0.00	36.5		
0+42.5 to 0+52.5	2.00	47.5		
0+52.5 to 0+62.5	-2.00	60.5		
0+62.5 to 0+72.5	1.00	69.5		
0+72.5 to 0+82.5	0.00	76		
0+82.5 to 0+92.5	-2.00	89	101.8	8.9
0+92.5 to 1+02.5	-3.00	96.5	104.6	7.2
1+02.5 to 1+12.5	3.00	107.5		
1+12.5 to 1+22.5	2.00	118		
1+22.5 to 1+32.5	-1.00	127.5		
1+32.5 to 1+42.5	0.00	136	104.3	6.9
1+42.5 to 1+52.5	0.5	150	104.7	6.6
		Average:	104.1	7.3

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/18/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 4	Gemini - 2	RDM International - 1	

Equipment On-Site

- Pentax AL-320 (Level)
- Little Giant 505025 5-MSP Submersible Utility Pump (Sump Pump)
- ToolCat

Start Time – 6:00 AM *Stop Time –* 4:30 PM	*Temperature* Min – 71 F Max – 81 F	*Humidity* Min – 58 % Max – 90 %	*Conditions* Fair

Site Activities

GDIT personnel used a sump pump for 15 minutes at the North end of the site to remove water from the top of the tarp. The tarp was then removed at 6:45 AM once all standing water was extracted. GDIT personnel took elevation readings using the Pentax Al-320 Level at 10-foot increments to determine grade conformance with all elevations being above grade. The area was deemed to be too moist to work on so it was left uncovered all day to allow the P-154 to dry. GDIT personnel dug a trench at the Northwest corner of site to help drain the low point and prevent future ponding during construction. The trench was approximately 25' long x 12" wide x 12" avg depth. (3) Check dams were added to the trench to help with the collection of silt/debris. GDIT personnel covered site at end of day.

Materials Delivered

None

Materials Removed

Laboratory and Field Testing Performed

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Due to excessive rain/thunderstorms from previous evening, site was too wet to perform any testing or grading. Approximately 0.94 inches of rain fell overnight after the site was covered yesterday.

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/18/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/19/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 5	Gemini - 2	RDM International - 1	JBT Construction Co. - 2

Equipment On-Site

- Pentax AL-320 (Level)
- Lee G440 (Power Grader)
- RL-SV2S (Laser Level)
- John Deere 310SG (Backhoe)

Start Time – 6:15 AM *Stop Time –* 4:30 PM	*Temperature* Min – 74 F Max – 82 F	*Humidity* Min – 45 % Max – 58 %	*Conditions* Fair

Site Activities

GDIT personnel uncovered the site at 6:15 AM. JBT Construction Co. personnel arrived onsite at 7 AM and set up their dual slope laser level. JBT used their Lee G440 along with the RL-SV2S system to grade the site starting at 8AM. Numerous passes were made throughout the day to remove up to 1/8" of material with each pass. GDIT personnel back checked the site throughout this process using Pentax AL-320 Level to make sure elevations were above grade and within tolerance. GDIT provided feedback of areas that required additional attention that were still out of tolerance. JBT finished grading at 4:20 PM and used the John Deere Backhoe to remove the excess P-154 generated. This material was stockpiled in the parking lot with the other trimmed P-154.

Materials Delivered

None

Materials Removed

P-154

Laboratory and Field Testing Performed

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

Small portion of site still slightly above elevation tolerance (Sta. 0+40 to 0+90, West side)

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/19/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/20/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 5	Gemini - 2	JBT Construction Co. - 2	Rodriguez Consulting - 1

Equipment On-Site

- Pentax AL-320 (Level)
- RL-SV2S (Laser Level)
- Lee G440 (Power Grader)
- John Deere 310SG (Backhoe)
- Dynapac (Roller)
- ZAXIS 160LC (Excavator)
- Leica 3D Scanner

Start Time – 6:15 AM *Stop Time –* 4:00 PM	*Temperature* Min – 65 F Max – 82 F	*Humidity* Min – 42 % Max – 90 %	*Conditions* Fair

Site Activities

GDIT personnel uncovered the site at 6:15 AM. JBT Construction Co. personnel arrived onsite at 7 AM and set up their dual slope laser level. JBT used their Lee G440 along with the RL-SV2S system to grade the one area still above the target elevation from Sta. 0+40 to 0+90, west side of baseline. GDIT back checked the site throughout this process using Pentax AL-320 Level to make sure elevations were above grade and within tolerance. Once target elevations were met, JBT Construction Co. personnel used the John Deere 310SG to trim the P-154 at each end of the project inaccessible to the Lee G440. After trimming was completed and verified, JBT proceeded to roll site using Dynapac Roller without vibration to smooth out the surface. GDIT personnel did full survey run at 5' x 5' increments at 8:30 AM with all values falling within tolerance. Rodriguez Consulting personnel performed a Leica 3D scan starting at 11:00 AM and ending around 1 PM. JBT Construction Co. personnel cut the west shoulder to provide the full 15' width as indicated on the plans. The material was pulled back to the silt fence using the ZAXIS 160LC excavator. GDIT personnel covered site at 3:30 PM including the material piled to the west to prevent ruining the recently finished surface.

Materials Delivered
None

Materials Removed
P-154

Laboratory and Field Testing Performed

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/20/18	JOE GAWRYSIAK	

U.S. Department of Transportation **Federal Aviation Administration**	**Construction Progress and Inspection Report** **NAPMRC**		*Inspection Date* 07/23/2018 *Project Name* Reflective Cracking Outdoor Phase I
Contractor & # of Personnel GDIT - 6	*Contractor & # of Personnel* JBT Construction Co. - 2	*Contractor & # of Personnel*	*Contractor & # of Personnel*

Equipment On-Site

- Toolcat
- John Deere 310SG (Backhoe)

Start Time – 8:00 AM *Stop Time –* 1:30 PM	*Temperature* Min – 72 F Max – 76 F	*Humidity* Min – 76 % Max – 82 %	*Conditions* Mostly Cloudy

Site Activities

JBT Construction Co. personnel began removing their equipment from the project site and 207A building at 8:00 AM and continued until 2:00 PM. They removed (1) truck of P-154 material (~approximately 600 CF) and (5) trucks of DGA material (~approximately 1,600 CF). GDIT personnel moved concrete forms and dowel bar baskets created by United Concrete to 207A building for storage from the elements. GDIT personnel also made (15) new sandbags to weigh down the edges of tarp in anticipation of heavy rainfall this week. GDIT personnel removed the tarp and performed the smoothness/straightedge test transversely at Stations 0+10, 0+50, 0+70, 0+90, 1+10, 1+30, 1+50, and longitudinally at Stations 0+16, 0+28, 0+40, 0+52, 0+66, 0+78, 0+90, 1+02, 1+14, 1+26, 1+38, and 1+50. 18 out of 20 passed straightedge test with 3/8" tolerance, the (2) that did not pass were both located at Sta. 1+50. GDIT personnel covered site at 1:30 PM.

Materials Delivered

None

Materials Removed

P-154 (~600 CF), DGA (~1,600 CF)

Laboratory and Field Testing Performed

Straightedge Testing

Meetings/Discussions

None

Safety Concerns

None

Problem Areas/Additional Comments

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/23/18	JOE GAWRYSIAK	

Smoothness/Straightedge Testing

Project: RCO P1
Date: 7/23/18
Inspector/Technician: SC, JK, MA

Material: P-154
Deviation Limit: Less than 3/8"
Specification for Approval: 100%

Test Results

Transverse Measurements - Pass? (Y/N)						Longitudinal Measurements - Pass? (Y/N)				
Station	Offset, ft					Station	Offset, ft			
	-6 to +6						0			
0+10	Y					0+16	Y			
0+30	Y					0+28	Y			
0+50	Y					0+40	Y			
0+70	Y					0+52	Y			
0+90	Y					0+64	Y			
1+10	Y					0+76	Y			
1+30	Y					0+88	Y			
1+50	N					1+00	Y			
						1+12	Y			
						1+24	Y			
						1+36	Y			
						1+48	N			
# Pass	7	0	0	0	0	**# Pass**	11	0	0	0
# Fail	1	0	0	0	0	**# Fail**	1	0	0	0
% Fail	12.50					**% Fail**	8.33			
Total Passing, %		**90.00**								

Additional Comments:

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/24/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 8	Gemini - 2	Rodriguez Consulting - 1	

Equipment On-Site
- Leica 3D Scanner

Start Time – 7:00 AM *Stop Time –* 4:30 PM	*Temperature* Min – 80 F Max – 86 F	*Humidity* Min – 70 % Max – 87 %	*Conditions* Partly Cloudy

Site Activities
GDIT personnel partially uncovered the site at 7 AM and fully uncovered it at 8:15 AM. GDIT personnel set up the Leica 3D Scanner equipment at 10:20 AM to perform another scan of the P-154 surface. The original scan did not show the west side due to excess material being stored in the shoulder area. Rodriguez Consulting performed the Leica 3D Scan starting at 11:40 AM and finished at 12:40 PM. GDIT personnel then performed DCP and LWD tests from 1:45 to 4:00 PM at Stations 0+7.5, 0+17.5, 0+27.5, 0+37.5, 0+47.5, 0+57.5, 0+97.5, 1+17.5, 1+27.5, 1+37.5, and 1+47.5. GDIT took moisture samples from (4) locations and covered the site at the end of the day.

Materials Delivered
None

Materials Removed

Laboratory and Field Testing Performed
Leica 3D Scan, DCP, LWD, Moisture Tests

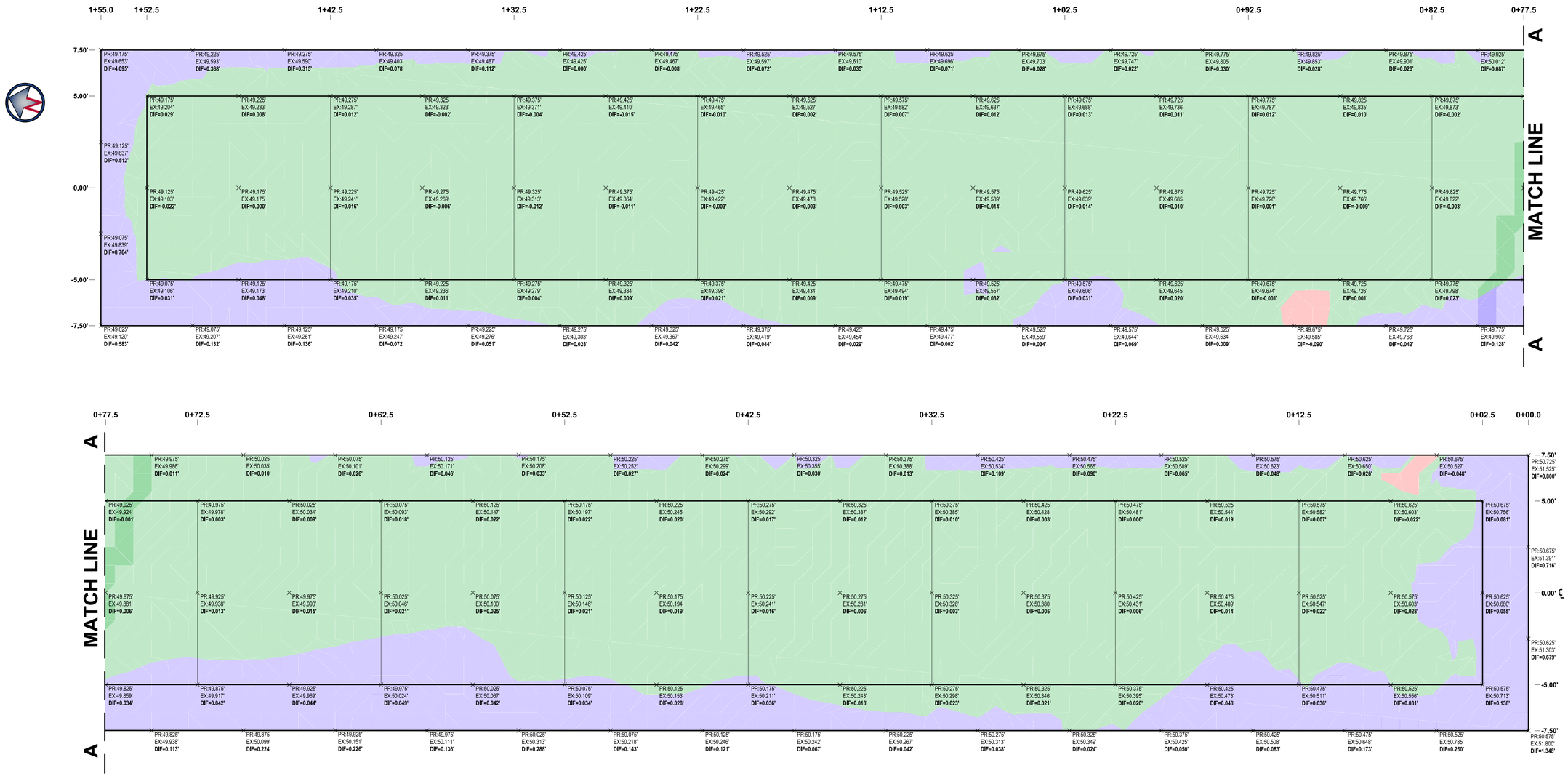
Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments

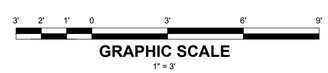
INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/24/18	JOE GAWRYSIAK	



PLAN VIEW

SCALE: 1"=3'



GRAPHIC SCALE

1" = 3'

CUT (+) AND FILL (-) SUMMARY TABLE				
ID	COLOR	MIN. [FT]	MAX. [FT]	AREA [SQ. FT]
1		-0.244	-0.031	8.00
2		-0.031	0.031	1879.11
3		0.031	1.495	437.86

LEGEND:

x - SPOT ELEVATION

PR - PROPOSED ELEVATION

EX - EXISTING ELEVATION

DIF - DIFFERENCE IN ELEVATION

GRADE TOLERANCE: ± 0.031' (3/8")

CONFORMING ELEVATION

ELEVATION BELOW THE CONFORMANCE RANGE

ELEVATION ABOVE THE CONFORMANCE RANGE

NO.	REVISIONS	DATE	BY	CHK	APR

RODRIGUEZ CONSULTING, LLC
1301 N 2ND STREET
PHILADELPHIA, PA 19122
PHONE: (215) 839-8087

GENERAL DYNAMICS
Information Technology
200 DECADON DRIVE
EGG HARBOR TOWNSHIP
NEW JERSEY 08234
PHONE: (609) 677-8543

FOR

NATIONAL AIRPORT PAVEMENT TEST FACILITY
ATLANTIC CITY AIRPORT
NEW JERSEY 08234

	NAME	DATE
DRAWN	M. MAZUREK	07/25/2018
CHECKED	H.Y. / J.G.	
FAA APPROVAL DATE:		

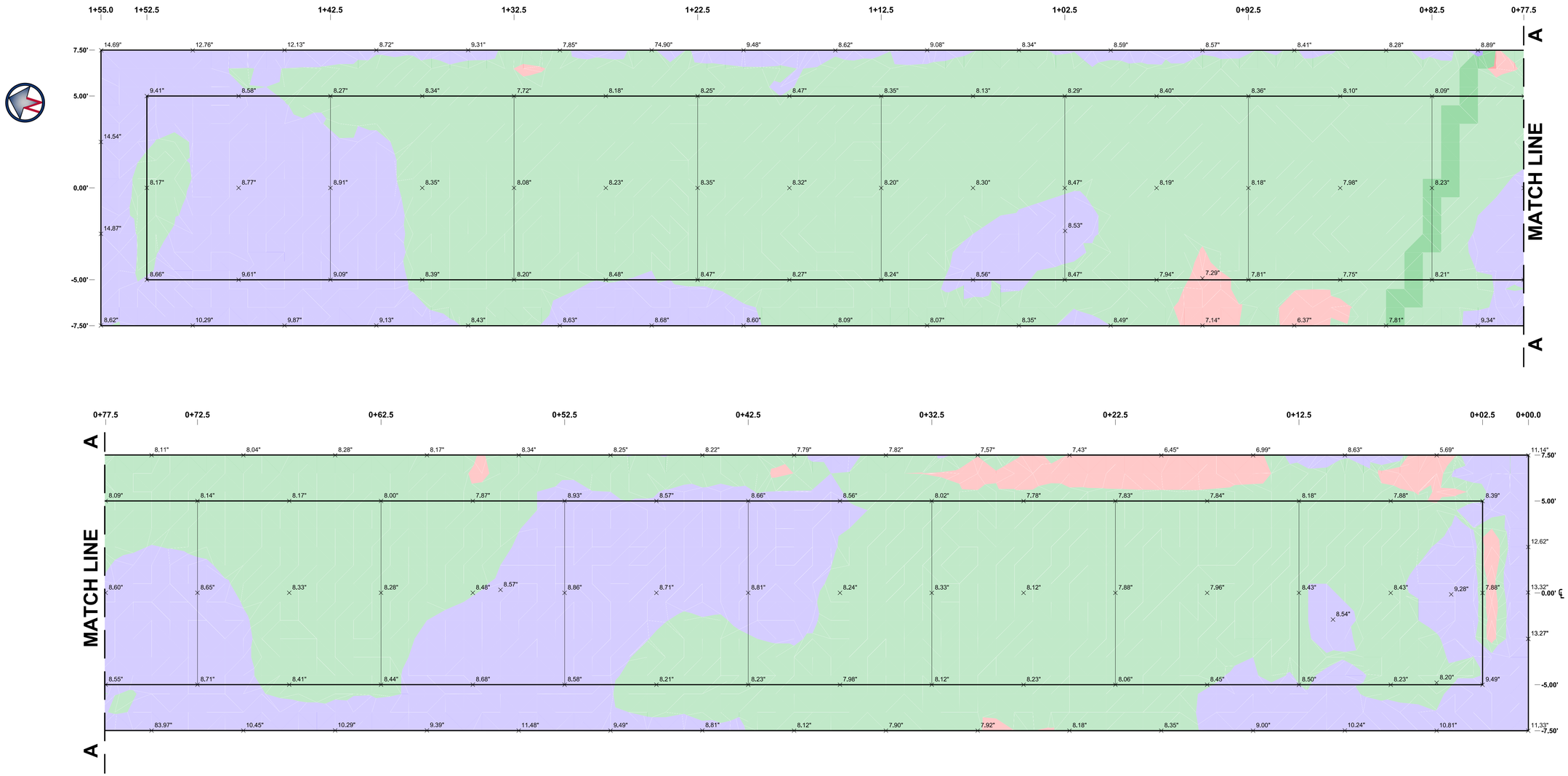
REFLECTIVE CRACKING OUTDOOR

PHASE I

P-154 ELEVATION MAP

PROJECT NO:	SIZE: ANSI D	SCALE: 1"=3'	SHEET 1 OF 1

CAD FILE: REFL-CRACK-OUT1-CONF.DWG



PLAN VIEW

SCALE: 1"=3'

3' 2' 1' 0 3' 6' 9'

GRAPHIC SCALE

1" = 3'

THICKNESS MAP LEGEND				
ID	MIN. THICKNESS [FT]	MAX. ELEVATION [FT]	AREA [SQ. FT]	COLOR
1	0.388'	0.625'	59.75	
2	0.625'	0.708'	1559.22	
3	0.708'	1.828'	705.97	

LEGEND:

x - THICKNESS LABEL

TARGET THICKNESS: 8"±½" (0.667±0.042')

THICKNESS TOLERANCE: ± 0.042' (½")

CONFORMING THICKNESS

THICKNESS BELOW THE CONFORMANCE RANGE

THICKNESS ABOVE THE CONFORMANCE RANGE

NO.	REVISIONS	DATE	BY	CHK	APR

RODRIGUEZ CONSULTING, LLC
1301 N 2ND STREET
PHILADELPHIA, PA 19122
PHONE: (215) 839-8087

GENERAL DYNAMICS
Information Technology
200 DECADON DRIVE
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NEW JERSEY 08234
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FOR

NATIONAL AIRPORT PAVEMENT TEST FACILITY
ATLANTIC CITY AIRPORT
NEW JERSEY 08234

	NAME	DATE
DRAWN	M. MAZUREK	07/25/2018
CHECKED	H.Y. / J.G.	
FAA APPROVAL DATE:		

REFLECTIVE CRACKING OUTDOOR

PHASE I

P-154 THICKNESS MAP

PROJECT NO:	SIZE: ANSI D	SCALE: 1"=3'	SHEET 1 OF 1

CAD FILE: REFL-CRACK-OUT1-CONF.DWG

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/25/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 2			

Equipment On-Site

- Little Giant 505025 5-MSP Submersible Utility Pump (Sump Pump)

Start Time – 6:30 AM *Stop Time –* 4:30 PM	*Temperature* Min – 75 F Max – 81 F	*Humidity* Min – 81 % Max – 97 %	*Conditions* Cloudy

Site Activities
GDIT personnel pumped out Northwest corner of site at 6:30 AM for 15 minutes. No other worked performed.

Materials Delivered
None

Materials Removed

Laboratory and Field Testing Performed

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
D-PSPA testing planned to be performed, but site was too wet from early morning rainfall of 0.64 inches.

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/25/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/26/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 8	Gemini - 3		

Equipment On-Site
- D-PSPA
- DCP

Start Time – 8:00 AM *Stop Time –* 2:00 PM	*Temperature* Min – 76 F Max – 87 F	*Humidity* Min – 59 % Max – 94 %	*Conditions* Partly Cloudy

Site Activities
GDIT personnel uncovered site at 8:15 AM and proceeded to perform DCP and D-PSPA tests at 8:45 AM on the centerline at Stations 0+6.5, 0+16.5, 0+26.5, 0+36.5, 0+46.5, 0+56.5, 0+96.5, 1+06.5, 1+116.5, 1+126.5, 1+36.5, and 1+46.5. Moisture samples were taken at 10:30 AM at Sta. 0+23, 0+55, 0+93, and 1+30. GDIT personnel backfilled holes from DCP tests and covered site at 2:00 PM.

Materials Delivered
None

Materials Removed

Laboratory and Field Testing Performed
DCP, D-PSPA

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/26/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/27/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*
GDIT - 3			

Equipment On-Site
- Little Giant Submersible Pump

Start Time – 7:00 AM *Stop Time –* 12:30 PM	*Temperature* Min – 75 F Max – 87 F	*Humidity* Min – 63 % Max – 100 %	*Conditions* Fair to Mostly Cloudy, Brief Thunderstorm around noon

Site Activities
GDIT personnel uncovered site and rearranged tarps to provide better protection. The larger tarp being used to cover the excess material on the west side was moved to cover the lower portion of the test section. Due to extra width, the tarp was spread up and over the concrete curb to the east. The tarp that previously was being used on the bottom half of the test section was moved over to the side to cover the excess material. Overlaps were used to prevent water from working its way under the tarp during ponding. A brief thunderstorm popped up at 11:45 and excess water was pumped off the tarp at the northwest corner. The tarp was secured down using long 2"x4"s with a sand bag on each end.

Materials Delivered
None

Materials Removed

Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/27/18	JOE GAWRYSIAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/30/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*

Equipment On-Site
None

Start Time – No Work *Stop Time* – No Work	*Temperature* Min – 65.0 F Max – 78.0 F	*Humidity* Min – 71 % Max – 100 %	*Conditions* Cloudy with Light Rain Total Accumulation = 0.06"

Site Activities
No activity for the day

Materials Delivered
None

Materials Removed
None

Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/30/18	JOE GAWRYSJAK	

U.S. Department of Transportation
Federal Aviation Administration

Construction Progress and Inspection Report

NAPMRC

Inspection Date
07/31/2018

Project Name
Reflective Cracking Outdoor Phase I

Contractor & # of Personnel	*Contractor & # of Personnel*	*Contractor & # of Personnel*	*Contractor & # of Personnel*

Equipment On-Site
None

Start Time – No Work *Stop Time* – No Work	*Temperature* Min – 69.0 F Max – 80.0 F	*Humidity* Min – 76 % Max – 97 %	*Conditions* Cloudy with Light Rain Total Accumulation = 0.04"

Site Activities
No activity for the day

Materials Delivered
None

Materials Removed
None

Laboratory and Field Testing Performed
None

Meetings/Discussions
None

Safety Concerns
None

Problem Areas/Additional Comments
None

INSPECTOR OR REPRESENTATIVE

Date	*Typed or Printed Name and Title*	*Signature*
7/31/18	JOE GAWRYSIAK	