

100 Grove Street Worcester, MA 01605 T 508-856-0321 F 508-856-0357 gravesengineering.com

Olivia Caton

Date: July 7, 2023 Client: Sutton Planning Board Project: Unified Parkway Lots 2 and 3 **Contractor:** Walsh Contracting Corp. **Contractor Contact:** John Walsh

Prepared By: Arrived on site: 9:50 AM Left site: 10:30 AM **Site Conditions:** Dry Weather: 75°, Clear

	Fransmitted by:
Mail	
Hand	☐ Other:
Fax	

Comments:

Graves Engineering, Inc. (GEI) was on-site to observe installation of the drainage system. This site visit was conducted throughout the entire site. This site was conducted with Nate Maloney from GEI. We observed the following:

General:

- The contractor continued work on Building 3.
- The contractor was moving earth material at the southern entrance to Lot 3.
- Fill material had been placed along the area immediately northwest of Outlet Control Structure (OCS) 500.
- The concrete pads along the middle of the western side of Building 3 had been installed.

Drainage:

- Headwall (HW) 600 had been installed.
- Approximately 20 feet of 36-inch reinforced concrete pipe (RCP) had been installed and backfilled from Drain Manhole (DMH) 607 to HW 600.
- The pipe connection at HW 600 had been sealed with mortar.
- Geotextile fabric had been placed around the sides and bottom of HW 600. The contractor was placing riprap over the fabric.
- The contractor was excavating the trench for the pipe between OCS 500 and Stormwater Management Area (SWMA) UG2e.

SWMA UG3c:

- Additional wire baskets and one-and-a-half-inch crushed stone throughout the entire system had been installed until the top of the baskets and crushed stone were approximately level with the surrounding area.
- Three-quarter-inch crushed stone had been placed and compacted in a six-foot-wide area along the sides of the trench to form the reinforced zone.
- The contractor was confirming stone elevations and compacting the three-quarter-inch crushed stone along the western side of the trench.
- DMH 804 and the area previously being compacted had been backfilled and were no longer visible.

Based upon visual observations only, the work observed today appeared to be consistent with the approved plans.

Action to be Taken:

Client will be notified of this site visit by way of this report.

Copies:

cc: John Walsh; Walsh Contracting Corp.
Matthew Piekarski; The Kraft Group, LLC

Photos:



Photo 1: The concrete pads along the middle portion of the western side Building 3 had been installed.



Photo 2: Overall progress of SWMA UG3c. A red line has been added to show the separation between the three-quarter-inch and one-and-a-half-inch crushed stone.



Photo 3: The contractor placing riprap around HW 600.



Photo 4: The contractor was excavating the trench for the pipe between OCS 500 and SWMA UG2e.



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Olivia Caton

Date:
Client:
Sutton Planning Board
Project:
Unified Parkway Lots 2 and 3
Contractor:
Walsh Contracting Corp.
Contractor Contact:
John Walsh

Arrived on site: 1:45 PM
Left site: 2:30 PM
Site Conditions: Dry/Slightly Damp

Prepared By:

Weather: Dry/Slightly Damp
82°, Mostly Sunny

		Transmitted by:
\boxtimes	Mail	⊠ E-mail
	Hand	☐ Other:
	Fax	

Comments:

Graves Engineering, Inc. (GEI) was on-site to observe installation of the drainage system. This site visit was conducted throughout the entire site. This site was conducted with Nate Maloney from GEI. We observed the following:

General:

- The contractor continued work on Building 3.
- The contractor was moving earth material along the area between the subdivision road and lot, near the southern entrance to Lot 3.
- The contractor was performing work on various utilities immediately east of the electrical boxes near the pumphouse.

Drainage:

• Additional riprap had been placed around Headwall (HW) 600.

Stormwater Management Area (SWMA) UG3c:

- Geogrid had been placed along the walls of the trench and across the reinforced zone.
- Approximately one foot of dense-graded crushed stone had been placed over the one-and-a-half-inch crushed stone. Geotextile fabric was visible underneath the dense-graded crushed stone.

SWMA UG2e:

- The location of the stormwater management area had been excavated to a width of ±74 feet, a length of ±136 feet, and a depth of ±12 feet.
- The contractor was placing fill material along the northern slope.
- John Walsh informed us that sand still needed to be placed along the bottom of the stormwater management area, and they would begin to install the system tomorrow or Thursday.

Based upon visual observations only, the work observed today appeared to be consistent with the approved plans.

Action to be Taken:

Client will be notified of this site visit by way of this report.

Copies:

cc: John Walsh; Walsh Contracting Corp. Matthew Piekarski; The Kraft Group, LLC



Photo 1: The contractor performing work on various utilities east of the pumphouse.



Photo 2: Overall progress of SWMA UG3c.



Photo 3: The contractor placing fill material along the northern slope of SWMA UG2e.



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Date:July 13, 2023Client:Sutton Planning BoardProject:Unified Parkway Lots 2 and 3Contractor:Walsh Contracting Corp.Contractor Contact:John Walsh

Prepared By: Olivia Caton
Arrived on site: 10:45 AM
Left site: 11:45 AM
Site Conditions: Dry

Weather: 84°, Partly Cloudy

		Transmitted by:	
\boxtimes	Mail	\boxtimes	E-mail
	Hand		Other:
	Fax		

Comments:

Graves Engineering, Inc. (GEI) was on-site to observe installation of the drainage system. This site visit was conducted throughout the entire site. I observed the following:

General:

- The contractor continued work on Building 3.
- Additional earth material had been placed along the area between the subdivision road and lot, near the southern entrance to Lot 3. The contractor was placing earth material along the slopes of Bioretention Area (BA) 3b.
- The contractor was fine-grading a six-inch lift of dense-graded crushed stone in the northern parking lot.
- Sewer Manholes (SMHs) 106 and 107 had been installed and partially backfilled.
- Approximately 180 feet of 8-inch PVC pipe had been installed and backfilled between the two structures. An
 additional 16 feet of pipe had been installed past SMH 107 towards SMH 108.
- The contractor was moving earth material between SMH 107 and the location of SMH 108.
- The utilities near the pumphouse previously being worked on had been backfilled and were no longer visible. A light pole base had been installed at this location.
- The contractor was cleaning a concrete truck in the southern corner of the western parking lot at the cleanout area

Stormwater Management Area (SWMA) UG3c:

- The stormwater management area had been covered with dense-graded crushed stone and was no longer visible.
- The contractor was placing a six-inch lift of dense-graded crushed stone at the northeastern corner of the stormwater management area.

SWMA UG2e:

- The location of the stormwater management area had been further excavated to a width of ±90 feet and a length of ±150 feet.
- Additional fill material had been placed along the northern slope.
- Large erosion rills were present along the eastern slope.

• From the location where the pipe from Drain Manhole (DMH) 503 intersects with the management area to the western side of UG2e, the width increased to approximately 100 feet.

Based upon visual observations only, the work observed today appeared to be consistent with the approved plans.

Action to be Taken:

Client will be notified of this site visit by way of this report.

Copies:

cc: John Walsh; Walsh Contracting Corp.
Matthew Piekarski; The Kraft Group, LLC

Photos:



Photo 1: The contractor placing fill material along the slopes of BA 3b.



Photo 2: SMHs 106 and 107 were installed, and the pipe between them backfilled.



Photo 3: SWMA UG2e was further excavated. The width increased to 160 feet where the pipe from DMH 503 intersects with the stormwater management area (middle left).



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Date:July 18, 2023Prepared By:Client:Sutton Planning BoardArrived on sitProject:Unified Parkway Lots 2 and 3Left site:Contractor:Walsh Contracting Corp.Site ConditionContractor Contact:John WalshWeather:

Prepared By: Olivia Caton
Arrived on site: 10:15 AM
Left site: 11:10 AM
Site Conditions: Dry
Weather: 78°, Hazy

		Transmitted by:	
\boxtimes	Mail	\boxtimes	E-mail
	Hand		Other:
	Fax		

Comments:

Graves Engineering, Inc. (GEI) was on-site to observe installation of the drainage system. This site visit was conducted throughout the entire site. I observed the following:

General:

- The contractor continued work on Building 3.
- Additional earth material had been placed along the slopes of Bioretention Area (BA) 3b.
- The locations of the concrete pads in the southern portion of the western parking lot had been prepared for concrete pouring. Approximately half of the concrete for the pad adjacent to the southern portion of the western side of the building had been poured.
- The dense-graded crushed stone previously placed in the northern parking lot had been compacted.
- Sewer Manholes (SMHs) 106 and 107 had been backfilled until only the cover of SMH 106 was visible.
- The contractor was excavating the trench for electrical utility conduits along the driveway at the southern side of Lot 3. Light poles had been installed along this area.
- Electrical conduit pipe had been installed along the road eastmost of Building 3.

Stormwater Management Area (SWMA) UG2e:

- Two rows of wire baskets had been installed around the trench. One-and-a-half-inch crushed stone had been placed and compacted behind the baskets. Geogrid was visible between the lifts of stone.
- One-and-a-half-inch crushed stone had been placed along the space between the trench and sides of UG2e.
 The crushed stone depth was approximately equal to the current grade of the surrounding area along the eastern
 and southeastern sides. The depth varied throughout the rest of the SWMA, with the lowest depth being level
 with the top of the baskets.
- Geotextile fabric had been installed along the sides of the trench. Geogrid was visible under the geotextile fabric along the top of the trench.
- The following pipe had been installed (outlet control structure = OCS, catch basin = CB, reinforced concrete pipe = RCP):

From	То	Diameter (inches)	Length (feet)	Material
OCS 500	SWMA UG2e	24	±56	RCP
DMH 503	SWMA UG2e	24	±36	RCP
SWMA UG2e	CB 507	12	±40	RCP

- The pipes between OCS 500, DMH 503, and UG2e were partially covered in one-and-a-half-inch crushed stone.
 The pipe towards CB 507 was uncovered.
- The contractor placed three-quarter-inch crushed stone bedding material past the end of the pipe towards CB 507, then installed an additional 8 feet of pipe in a satisfactory manner.

Based upon visual observations only, the work observed today appeared to be consistent with the approved plans.

Action to be Taken:

Client will be notified of this site visit by way of this report.

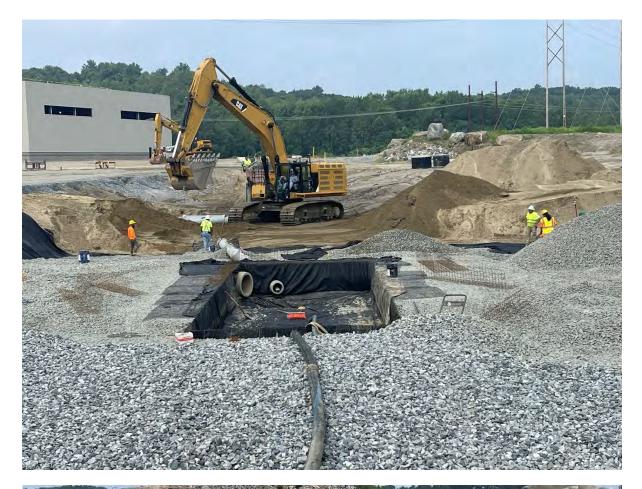
Copies:

cc: John Walsh; Walsh Contracting Corp.
Matthew Piekarski; The Kraft Group, LLC

Photos:



Photo 1: Approximately half of the concrete for the pad adjacent to the southern portion of the western side of the building had been poured.





Photos 2 and 3: General progress of SWMA UG2e.

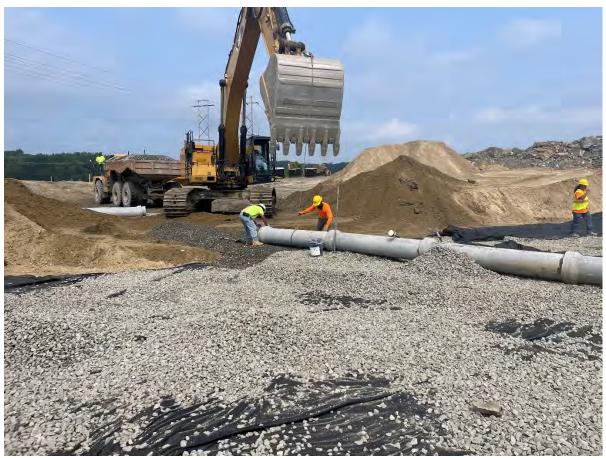


Photo 4: The contractor installing 12-inch RCP from SWMA UG2e towards CB 507.



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Date: July 20, 2023 Client: Sutton Planning Board Project: Unified Parkway Lots 2 and 3 **Contractor:** Walsh Contracting Corp.

Contractor Contact: John Walsh Prepared By: Olivia Caton Arrived on site: 1:45 PM Left site: 2:30 PM **Site Conditions:** Dry

Weather: 80°, Partly Cloudy

		Transmitted by:	
\boxtimes	Mail	⊠ E-mail	
	Hand	☐ Other:	
	Fax		

Comments:

Graves Engineering, Inc. (GEI) was on-site to observe installation of the drainage system. This site visit was conducted throughout the entire site. I observed the following:

General:

- The contractor continued work on Building 3.
- The contractor was performing earth work near the northern side of Bioretention Area (BA) 3b.
- The contractor was fine-grading and compacting the eastern parking lot.
- The previously installed electrical conduit pipe had been backfilled and was no longer visible. The contractor was backfilling additional conduit pipe along the road eastmost of Building 3.

Stormwater Management Area (SWMA) UG2e:

- Three additional rows of wire baskets had been installed.
- Geogrid was visible along the sides of the trench.
- One-and-a-half-inch crushed stone had been placed and compacted along the space between the trench and sides of UG2e until the SWMA was approximately equal to the current grade of the surrounding area.
- Three-quarter-inch crushed stone had been placed and compacted in a six-foot-wide area adjacent to the trench to form the reinforced zone.
- The previously installed pipe had been backfilled or covered in one-and-a-half-inch crushed stone and was no longer visible.
- The contractor was removing excess crushed stone that had fallen into the trench area during construction.

Based upon visual observations only, the work observed today appeared to be consistent with the approved plans.

Action to be Taken:

Client will be notified of this site visit by way of this report.

Copies:

John Walsh; Walsh Contracting Corp. Matthew Piekarski; The Kraft Group, LLC

Photos:



Photo 1: The contractor backfilling electrical conduit pipe along the road eastmost of Building 3.



Photo 2: The contractor fine-grading and compacting the eastern parking lot.



Photo 3: The contractor removing excess crushed stone that had fallen into the trench of SWMA UG2e. Geogrid is visible along the sides of the trench, and the top of the reinforced zone can be seen adjacent to the trench.