

Weekly Field Report
Week: 02-23-14 through 03-01-14
New Bedford Harbor Lower Harbor CAD Cell (LHCC)

This Weekly Field Report was prepared to serve as a summary of field activities conducted throughout the week for Phase I dredging of the New Bedford Harbor Lower Harbor CAD Cell (LHCC) in New Bedford, Massachusetts.

1. Introduction:

The weekly field report describes the activities carried out by the Contractor (Cashman/Tripp Marine), the Owner's Representative (Apex Companies, LLC), and any subcontractors completing work within the scope of the project requirements.

This Weekly Field Report represents the seventeenth Report associated with Phase I dredging of the LHCC in New Bedford Harbor, and the associated handling and disposal of dredged materials at CAD cells within the Harbor, and at designated open-water disposal sites approved for this Project.

This 17th Report for the LHCC dredging activities includes:

- Daily Inspection Reports from the dredging oversight performed during the week of February 23rd through March 1st, 2014. These reports include notes on the equipment used on site, and a summary of contractor activities. (See Attachment 1);
- Water Quality Monitoring Forms completed for the week of February 23rd through March 1st, 2014, (Attachment 2) summarizing monitoring survey data recorded during active dredging. Included with the attached forms is Figure 1 Lower Harbor CAD Cell Phase I Water Quality Monitoring Plan, which shows the locations of the water quality monitoring events conducted during this reporting period. Per the approved Water Quality Monitoring Plan and associated performance standards for the dredging efforts being conducted during this reporting period, Apex has:
 - Conducted water quality monitoring a minimum of one day per week
 - Performed visual inspections of dredged materials before the disposal of a scow for any visible debris or other items that could potentially become a hazard to navigation prior to the scow's departure for the offshore disposal site.

Summary:

The Contractor, Cashman Dredging and Marine Contracting, Co. LLC (Cashman) conducted dredging at the LHCC on February 25th, 26th, 27th, 28th, and March 1st. Dredging operations focused on the strategic removal of Phase I Bottom of CAD Cell sediments to open up a 125-foot wide deep water channel entering in from the southwest corner of the LHCC to facilitate the access of larger barge mounted dredge equipment expected on site. A new dredge plant and scow from Cashman arrived on site to resume dredging activities after Tripp Marine was demobilized from the site on February 9th. During this reporting period, dredging operations were conducted using a conventional digging bucket, with dredged materials being disposed offshore at the Rhode Island Sound Disposal Site (RISDS). Cashman was observed conducting these activities during the authorized operational window of 7AM until sunset, utilizing a single dredge plant – the Bobby D ; the tugs Henri and Ellsea; a 2800 cubic yard split scow – Eddie Carroll; and two small utility boats. With time of year

restrictions now in place (January 15th through June 15th) all dredging activities were conducted within a silt curtained perimeter surrounding the LHCC.

2. Operational Notes:

Dredging:

Dredging of LHCC Phase I Bottom of CAD sediments restarted during the week after the Cashman dredge plant, Bobby D, arrived on site, along with a new split scow, Eddie Carroll. Dredging operations focused on the strategic removal of sediments to open up a 125-foot wide deep water access channel. Apex conducted two days of water quality monitoring on February 25th and 26th while dredging was being performed to ensure that this activity did not result in an exceedance of any project-specific water quality standards.

Offshore Disposal:

Offshore disposal for LHCC Phase I Bottom of CAD sediments is scheduled and permitted for the Rhode Island Sound Disposal Site. Three offshore disposal events, using the split scow Eddie Carroll, were recorded during the week and occurred on February 26th, 28th and March 1st.

Table 1 – Cumulative Dredging Progress

Period of Activity	Volume (cy)
Approximate Top of CAD Volume Dredged to Date*	24,890
Approximate Bottom of CAD Volume Dredged this Reporting Period	5,400
Approximate Bottom of CAD Volume Dredged to Date*	10,000

* Dredge volume quantities are estimated based on observed scow draft marks and an assumed density of the materials dredged. Given the uncertainty in the density of a composite mix of sediments being dredged, all volumes are confirmed and adjusted as necessary using bathymetric survey data.

3. Monitoring Summary

There were no water quality exceedances observed during this reporting period related to dredging operations. No water quality samples were collected.

Prepared by:
Apex Companies, LLC



John B. McAllister, P.E.
Senior Project Engineer



Don Boyé
Senior Project Manager

Attachment 1
Daily Inspection Reports



City of New Bedford Harbor Development Commission
New Bedford Harbor USEPA Lower Harbor CAD Cell
CFDA No.: 66.802
Inspection Report

Inspector: C. Stillman

Date: 24 February 2014

Contractor: Cashman **Foreman/Supt:** _____

Weather	AM:	<u>Clear</u>	Temperature	AM:	<u>10</u>
	PM:	<u>Clear</u>		PM:	<u>30</u>

Tides	High	<u>0241</u>	AM	<u>1513</u>	PM
	Low	<u>0859</u>	AM	<u>2047</u>	PM

Manpower Onsite

Equipment Onsite

Foreman	_____ @ _____	Hrs	Description: _____	Hrs. _____
Operators	_____ @ _____	Hrs	_____	
Laborers	_____ @ _____	Hrs	_____	
Drivers	_____ @ _____	Hrs	_____	Hrs. _____
Other:	_____ @ _____	Hrs	_____	

Contractor Activities: (Attach Additional Sheets as Necessary)

0515- No activity. Dredge superintendent stated there are no plans to begin dredging today. 0610- The silt curtain is in good working order. 1645- No activity.

Problems/Issues or Action Items:

None / n/a

Visitors: _____

Signature: C. Stillman

Date: 24 February 2014

Title: _____

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File: DIR_LHCC_022414



City of New Bedford Harbor Development Commission
New Bedford Harbor USEPA Lower Harbor CAD Cell
CFDA No.: 66.802
Inspection Report

Inspector: M. Martinho

Date: 25 February 2014

Contractor: Cashman **Foreman/Supt:** _____

Weather	AM: <u>Clear</u>	Temperature	AM: <u>17</u>
	PM: <u>Clear</u>		PM: <u>30</u>
Tides	High <u>0355</u> AM <u>1622</u> PM		
	Low <u>1006</u> AM <u>2157</u> PM		

Manpower Onsite

Equipment Onsite

Foreman	<u>1</u> @ <u>8</u> Hrs	Description:	<u>Bobby D</u> Hrs. <u>8</u>
Operators	<u>1</u> @ <u>8</u> Hrs		<u>Eddie Carroll</u> Hrs. <u>8</u>
Laborers	<u>2</u> @ <u>8</u> Hrs		<u>Henri</u>
Drivers	<u> </u> @ <u> </u> Hrs		<u>Ellsea</u> Hrs. <u>8</u>
Other:	<u> </u> @ <u> </u> Hrs		<u>Red Skiff</u>

Contractor Activities: (Attach Additional Sheets as Necessary)

0801- Pre-inspection on the Eddie Carroll completed; 0804- Bobby D makes 0800 bridge opening northbound and heads for LHCC with the Henri and Ellsea. 0815- Bobby D, Henri, and Ellsea enter into the curtain of LHCC. 0925- Henri and Ellsea bring the Eddie Carol to LHCC. 1045- Eddie Carroll is drafting at 4'. 1051- Red skiff closes the silt curtain. 1055- The Bobby D. begins dredging into the Eddie Carroll. 1221- The Bobby D stops dredging. 1309- The Bobby D resumes dredging into the Eddie Carroll. 1536- Silt curtain gate is opened for the Henri and the Ellsea. 1540- The Eddie Carroll is take out of LHCC and spun 180 degrees; the stern is now facing the east. 1600- The silt curtain is closed. 1608- The Bobby D resumes dredging into the Eddie Carroll. 1718- The Bobby D stops dredging and is moved 30' to the west. 1720- The Bobby D brings the bucket on deck.

Problems/Issues or Action Items:

None / n/a

Visitors: _____

Signature: M. Martinho

Title: _____

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Date: 25 February 2014

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File: DIR_LHCC_022514



City of New Bedford Harbor Development Commission
New Bedford Harbor USEPA Lower Harbor CAD Cell
CFDA No.: 66.802
Inspection Report

Inspector: Kaios Ryan / Adam Hart **Date:** 2/26/2014

Contractor: Cashman **Foreman/Supt:** Junior Huggins, Steve Baynes

Weather	AM:	<u>Cloudy</u>	Temperature	AM:	<u>32</u>
	PM:	<u>Clear</u>		PM:	<u>10</u>
Tides	High	<u>459</u>	AM	<u>1723</u>	PM
	Low	<u>1104</u>	AM	<u>2301</u>	PM

Manpower Onsite

Foreman 2 @ _____ Hrs
 Operators 1 @ _____ Hrs
 Laborers 2 @ _____ Hrs
 Drivers _____ @ _____ Hrs
 Other: _____ @ _____ Hrs

Equipment Onsite

Description: Bobby D. Hrs. 10
Eddie Carroll Hrs. 24
Elsea Hrs. 11
Henri Hrs. 11
Lucinda Smith Hrs. 24
 Hrs. _____

Contractor Activities: (Attach Additional Sheets as Necessary)

0718 Ellsea is tied up to the Bobby D. and the Eddie Carroll inside the silt curtain. 0753 the Bobby D. begins dredging into the Eddie Carroll, drafting at: bow 7' and the stern 5.5'. 0853 the Bobby D. is still dredging into the Eddie Carroll located in the middle of the silt curtain toward the west side. 0900 Bobby D. stops dredging. 0907 Ellsea moves the Eddie Carroll 10' to the West. 0907 the Bobby D. resumes dredging. 1031 the Bobby D. stops dredging. 1221 Captain Huggins reported the Bobby D. was not dredging because of the tide; they were waiting for the tide to come up (too shallow). 1315 silt curtain is opened and Ellsea exits. 1409 Ellsea enter the dredge area. 1413 red skiff closes the silt curtain. 1425 curtain is closed. 1431 Dredge plant Bobby D resumes dredging into the Eddie Carroll. 1527 Tug boats Henri and Lucinda Smith head north through the bridge. 1538 Survey 4 is onsite tied to the silt curtain. 1627 Dredge plant Bobby D. stops dredging, scow Eddie Carroll is full with Draft of 10' - 8'. 1633 Red skiff opens the silt curtain. 1645 Scow Eddie Carroll is inspected and cleared for offshore disposal. 1655 Tug Elsea and Henri pull the scow Eddie Carroll out of the silt curtain to bring to the tug Lucinda Smith. 1711 Red skiff brings the Bobby D. crew in. 1715 Tug Lucinda Smith with the loaded scow Eddie Carroll, and the tug Henri head south through the bridge. Red skiff returns to LHCC site to close silt curtain. 1729 Tug Lucinda Smith and the loaded scow Eddie Carroll head south through the hurricane barrier. 1735 Tug Henri ties to Shuster dock.

Visitors: _____

Signature:  **Date:** 02/26/2014
Title: Environmental Technician **Page:** 1 of 1
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City of New Bedford Harbor Development Commission
New Bedford Harbor USEPA Lower Harbor CAD Cell
CFDA No.: 66.802
Inspection Report

Inspector: Chris Stillman **Date:** 2/27/2014

Contractor: Cashman **Foreman/Supt:** Junior Huggins

Weather	AM:	<u>Clear</u>	Temperature	AM:	<u>15</u>
	PM:	<u>Clear</u>		PM:	<u>20</u>
Tides	High	<u>0555</u>	AM	<u>1818</u>	PM
	Low	<u>1153</u>	AM	<u>2358</u>	PM

Manpower Onsite

Foreman 1 @ Hrs
Operators 1 @ Hrs
Laborers 2 @ Hrs
Drivers @ Hrs
Other: @ Hrs

Equipment Onsite

Description: Bobby D. Hrs. 6
Eddie Carroll Hrs. 8
Elssea Hrs. 8
Henri Hrs. 8
Lucinda Smith Hrs.
Hrs.

Contractor Activities: (Attach Additional Sheets as Necessary)

0623- The Tug Henri brings the split scow Eddie Carroll (EC) to the dredge plant Bobby D. 0706- The dredge plant Bobby D is dredging into the split scow Eddie Carroll. 0740- Bobby D continues dredging into the EC. 0815- Bobby D moves southeast @ 20'. 0830- Bobby D stops dredging. 1010- Bobby D is dredging into EC. Drafts: bow- 3.5', stern- 6'. 1020- Bobby D moves east @ 20'. 1145- Bobby D stops dredging, moves southeast @ 30'. Drafts on EC, bow- 3.5', stern- 7'. 1215- Henri moved south of bridge. 1315- Henri moved north of bridge into LHCC area. 1500- still undergoing repairs, not dredging at this time. 1525- Henri leaves LHCC area southbound. 1630- Bobby D resumes dredging. 1650- The Bobby D and Eddie Carroll reposition and are facing east/west, 20' east of the silt curtain gate. 1701- Bobby D resumes dredging. 1731- Bobby D stops dredging for the night, the bucket is on deck. Eddie Carroll drafts: bow- 4', stern- 7.5'.

Problems/Issues or Action Items:

1158- Hydraulic line on Bobby D excavator failed, crew deployed absorption pads on deck and oil boom in water as precaution. No visible sheen noticed on water. Junior Mitchell indicated a small amount of hydraulic oil was released on deck and that repairs would begin.

Visitors: _____

Signature: *Chris Stillman*

Title: Environmental Scientist

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Date: 02/27/2014

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File: DIR_LHCC_022714



City of New Bedford Harbor Development Commission

New Bedford Harbor USEPA Lower Harbor CAD Cell

CFDA No.: 66.802

Inspection Report

Inspector: Brett Young

Date: 2/28/2014

Contractor: Cashman

Foreman/Supt: Junior Huggins

Weather	AM:	<u>Clear</u>	Temperature	AM:	<u>12</u>
	PM:	<u>Clear</u>		PM:	<u>25</u>

Tides	High	<u>0647</u>	AM	<u>1908</u>	PM
	Low	<u>0003</u>	AM	<u>1240</u>	PM

Manpower Onsite

Foreman	<u>2</u>	@	<u>9.5</u>	Hrs
Operators	<u>1</u>	@	<u>10.5</u>	Hrs
Laborers	<u>2</u>	@	<u>10.5</u>	Hrs
Drivers	<u>1</u>	@	<u>10.5</u>	Hrs
Other:	<u> </u>	@	<u> </u>	Hrs

Equipment Onsite

Description:	<u>Bobby D</u>	Hrs.	<u>4.5</u>
	<u>Eddie Carroll</u>	Hrs.	<u>10.5</u>
	<u>Ellsea</u>	Hrs.	<u>11</u>
	<u>Henri</u>	Hrs.	<u>0.5</u>
	<u>Lucinda Smith</u>	Hrs.	<u>1</u>
		Hrs.	<u> </u>

Contractor Activities: (Attach Additional Sheets as Necessary)

0720 Bobby D begins dredging into Eddie Carroll. 0830 Bobby D pauses dredging for 4 mins to allow Survey 4 to work in the immediate area. 0939 Bobby D drafting 7' Bow and 8' Stern. 1045 Bobby D has stopped dredging and is waiting for a higher tide in order to continue. 1405 Captain Baynes estimates that dredging will resume at 1500. 1505 Steve Baynes estimates dredging will resume between 1545 and 1600. 1632 The Bobby D resumes dredging into the Eddie Carroll. 1731 The Bobby D stops dredging into the Eddie Carroll. 1744 Henri and Ellsea take the Eddie Carol outside the silt curtain and tie it to the Lucinda Smith. 1815 Lucinda Smith with the Eddie Carroll, as well as Henri and Ellsea make the 1815 bridge opening southbound. 1836 The Lucinda Smith and Eddie Carroll exit the Hurricane Barrier.

Problems/Issues or Action Items:

Visitors:

Signature: *Brett Young*
Title: Environmental Scientist

Date: 02/28/2014
Page: 1 of 1

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File: DIR_LHCC_022814



City of New Bedford Harbor Development Commission
New Bedford Harbor USEPA Lower Harbor CAD Cell
CFDA No.: 66.802
Inspection Report

Inspector: Kyle Miller

Date: 3/1/2014

Contractor: Cashman

Foreman/Supt: Junior Huggins/Steve Baynes

Weather	AM: <u>Partly Cloudy</u>	Temperature	AM: <u>28</u>
	PM: <u>Partly Cloudy</u>		PM: <u>37</u>
Tides	High <u>0737</u> AM <u>1958</u> PM		
	Low <u>0058</u> AM <u>1324</u> PM		

Manpower Onsite

Foreman 2 @ _____ Hrs
Operator 1 @ _____ Hrs
Mate 1 @ _____ Hrs
Deckhand 1 @ _____ Hrs
Engineer _____ @ _____ Hrs

Equipment Onsite

Description: Bobby D. Hrs. 12
Eddie Carroll Hrs. 12
Elsea Hrs. 12
Henri Hrs. 1
Red Skiff Hrs. 12
Lucinda Smith Hrs. 1

Contractor Activities: (Attach Additional Sheets as Necessary)

0715 Bobby D begins dredging into Eddie Carrol drafting 4' stern and 3.5' bow. 1135 Bobby D stops dredging to allow the Elsea and the Henri to flip the scow for even loading. 1221 Bobby D. resumes dredging. 1720 Dredging stops, draft is 9'. 1736 Eddie Carrol is inspected and cleared for disposal offshore. Lucinda Smith ties up to the Eddie Carrol. 1815 Lucinda Smith moves the Eddie Carrol South for disposal offshore. 1813 The Bobby D crew departs.

Problems/Issues or Action Items:

Visitors: _____

Signature: *Kyle Miller*

Title: Environmental Scientist

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Date: 03/01/2014

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File: DIR_LHCC_030114

Attachment 2
Water Quality Monitoring Forms

PROJECT:	New Bedford Harbor Lower Harbor CAD Cell		
JOB NUMBER:	6724		
SURVEY DATE:	25 February 2014		
MONITORS:	M. Martinho		
WEATHER CONDITIONS:	Clear	Low: 17	High: 30
WIND CONDITIONS:	Speed: 9-14 MPH	Direction: W	
PRIOR STORM EVENTS:	N/A		
DREDGE / SCOW Position:	Northing/Easting: SW corner of curtained area.		
TYPE OF WATER QUALITY MONITORING EVENT:	TOP CAD Dredging / BTM CAD Dredging / Disposal		
TIDE INFORMATION:	High: 0355/1622	Low: 1006/2157	
WAS WATER QUALITY SAMPLING PERFORMED? (YES/NO):	N	IF YES, ATTACH COC FORMS	
GENERAL NOTES:			



UP-CURRENT

Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	RELATIVE POSITION OF MEASUREMENT	NUMBER OF HOURS DREDGING
022514-00-1-1	814882, 2696939	1110	8.8	1	6.98		Flooding	15' N of Silt Curtain	00
022514-00-1-3		1112		3	6.81				
022514-00-1-7		1114		7	7.89				
					AVERAGE TURBIDITY:	7.23			
022514-02-1-1	815172, 2696568	1259	6.4	1	9.38		Flooding	15' S of Silt Curtain	02
022514-02-1-3		1301		3	12.1				
022514-02-1-6		1303		6	7.65				
					AVERAGE TURBIDITY:	9.71			
022514-04-1-1	815096, 2697022	1510	6.6	1	7.66		Flooding	15' N of Silt Curtain	04
022514-04-1-3		1512		3	10.6				
022514-04-1-6		1514		6	10.34				
					AVERAGE TURBIDITY:	9.53			
022514-06-1-1	814892, 2696602	1610	12.8	1	6.65		Ebbing	15' N of Silt Curtain	06
022514-06-1-5		1612		5	4.28				
022514-06-1-10		1614		10	4.81				
					AVERAGE TURBIDITY:	5.25			
					AVERAGE TURBIDITY:				

Down-Current

Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
022514-00-9-1	815165, 2696521	1100	6	1	11.3		Flooding	15' S of Silt Curtain	00
022514-00-9-3		1102		3	11.2				
022514-00-9-5		1104		5	12.5				
					AVERAGE TURBIDITY:	11.67			
					TURBIDITY INCREASE:	4.44			
022514-02-9-1	814955, 2696999	1307	6.7	1	13.1		Flooding	15' N of Silt Curtain	02
022514-02-9-3		1309		3	14.9				
022514-02-9-6		1311		6	11				
					AVERAGE TURBIDITY:	13.00			
					TURBIDITY INCREASE:	3.29			
022514-04-9-1	815086, 2696568	1500	8.2	1	9.32		Flooding	15' S Silt Curtain	04
022514-04-9-4		1502		4	9.66				
022514-04-9-8		1504		8	10.14				
					AVERAGE TURBIDITY:	9.71			
					TURBIDITY INCREASE:	0.17			
022514-06-9-1	814962, 2697000	1600	9.3	1	9.55		Ebbing	15' S of Silt Curtain	06
022514-06-9-4		1602		4	6.82				
022514-06-9-8		1604		8	9.13				
					AVERAGE TURBIDITY:	8.50			
					TURBIDITY INCREASE:	3.25			
					AVERAGE TURBIDITY:				
					TURBIDITY INCREASE:				

* Turbidity Increase = Down-Current Average Turbidity - Up-Current Average Turbidity

PROJECT: New Bedford Harbor Lower Harbor CAD Cell
JOB NUMBER: 6724
SURVEY DATE: 02/26/2014
MONITORS: Kaios Ryan
WEATHER CONDITIONS: Low: 10 High: 32
WIND CONDITIONS: Speed: 5-15 MPH Direction: West
PRIOR STORM EVENTS:
DREDGE / SCOW Position: Northing/Easting: SW Corner of Curtained Area
TYPE OF WATER QUALITY MONITORING EVENT: TOP CAD Dredging / BTM CAD Dredging / Disposal
TIDE INFORMATION: High: 0459/1723 Low: 1104/2301
WAS WATER QUALITY SAMPLING PERFORMED? (YES/NO): IF YES, ATTACH COC FORMS



GENERAL NOTES: In two instances the down-current monitoring event occurred prior to the up-current monitoring event. This is the result of the initial analysis of our field crew indicating one direction of flow, however our checks from our Quality Control program provided a more accurate depiction of the pattern, which is how the information is now presented below.

UP-CURRENT

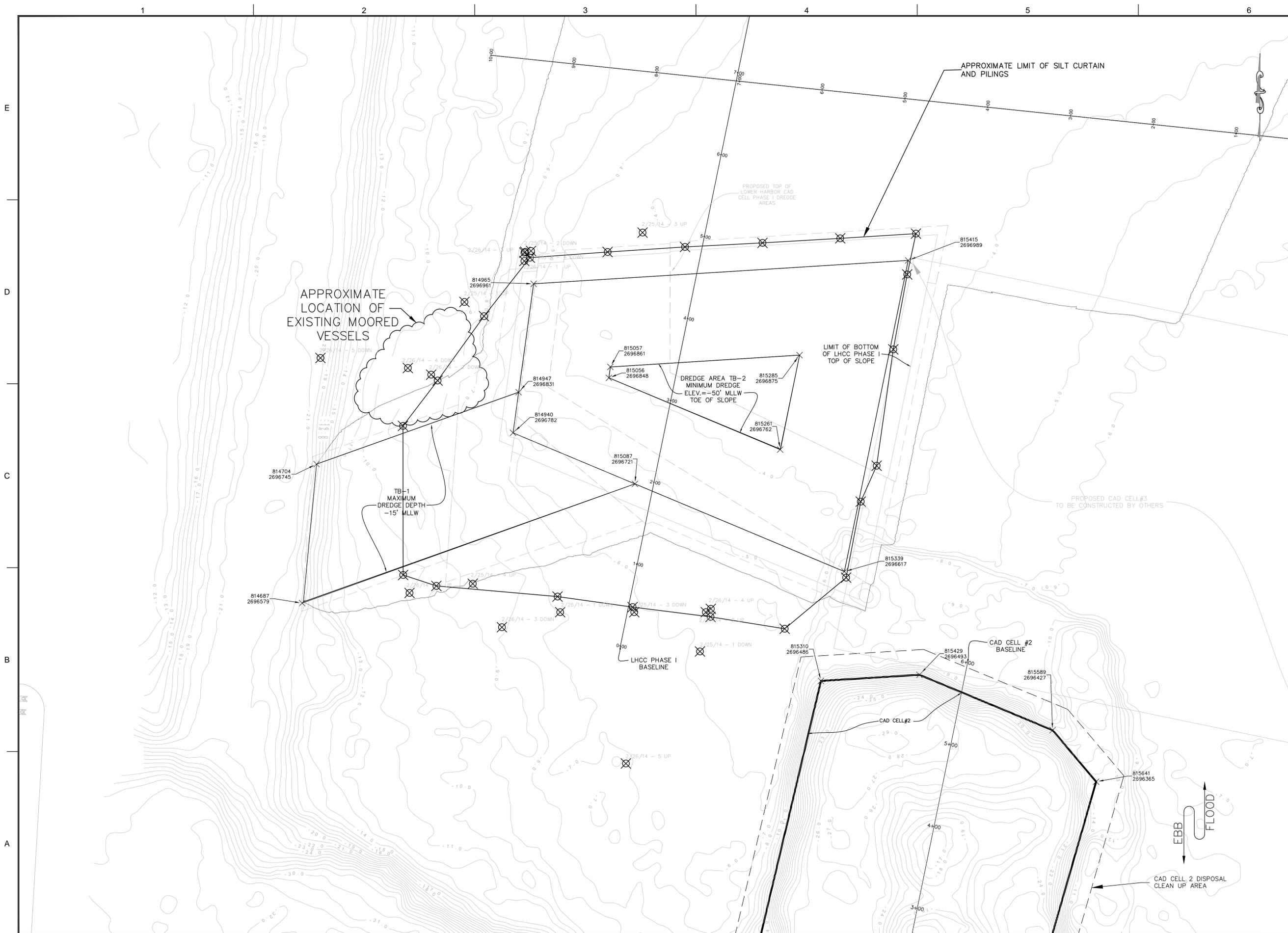
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	RELATIVE POSITION OF MEASUREMENT	NUMBER OF HOURS DREDGING
022614-00-1-1	814954 2696988	0800	8.2	1	4.03	Apex lhcc	Ebbing	15' N of Silt Curtain	00
022614-00-1-4		0802		4	6.54	wqm 022614			
022614-00-1-8		0804		8	4.73	0800			
AVERAGE TURBIDITY:					5.10				
022614-02-1-1	814816 2696591	1011	10.6	1	3.32	Apex lhcc	Ebbing	15' S of Silt Curtain	02
022614-02-1-5		1013		5	5.78	wqm 022614			
022614-02-1-10		1015		10	6.82	1011			
AVERAGE TURBIDITY:					5.31				
022614-04-1-1	814954 2696998	1219	6.2	1	3.02	Apex lhcc	Flooding	15' N of Silt Curtain	04
022614-04-1-3		1221		3	9.3	wqm 022614			
022614-04-1-6		1223		6	5.6	1219			
AVERAGE TURBIDITY:					5.97				
022614-06-1-1	815178 2696572	1405	6.5	1	5.36	Apex lhcc	Flooding	15' S of Silt Curtain	06
022614-06-1-3		1407		3	6.66	wqm 022614			
022614-06-1-6		1409		6	4.31	1405			
AVERAGE TURBIDITY:					5.44				
022614-08-1-1	815076 2696387	1610	11.3	1	4.33	Apex lhcc	Flooding	15' S of Silt Curtain	08
022614-08-1-5		1612		5	3.81	wqm 022614			
022614-08-1-10		1614		10	4.06	1610			
AVERAGE TURBIDITY:					4.07				

Down-Current

Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
022614-00-9-1	814997 2696568	0813	8.3	1	3.96	Apex lhcc	Ebbing	15' S of Silt Curtain	00
022614-00-9-4		0815		4	6.7	wqm 022614			
022614-00-9-8		0817		8	9.45	0813			
AVERAGE TURBIDITY:					6.70				
TURBIDITY INCREASE:					1.60				
022614-02-9-1	814842 2696852	0956	9.3	1	5.55	Apex lhcc	Ebbing	15' N of Silt Curtain	02
022614-02-9-4.5		0958		4.5	5.85	wqm 022614			
022614-02-9-9		1000		9	6.04	0956			
AVERAGE TURBIDITY:					5.81				
TURBIDITY INCREASE:					0.51				
022614-04-9-1	814927 2696550	1207	9.1	1	5.21	Apex lhcc	Flooding	15' S of Silt Curtain	04
022614-04-9-4.5		1209		4.5	7.71	wqm 022614			
022614-04-9-9		1211		9	6.02	1207			
AVERAGE TURBIDITY:					6.31				
TURBIDITY INCREASE:					0.34				
022614-06-9-1	814814 2696860	1421	10.4	1	6.24	Apex lhcc	Flooding	15' N of Silt Curtain	06
022614-06-9-5		1423		5	5.72	wqm 022614			
022614-06-9-10		1425		10	6.45	1421			
AVERAGE TURBIDITY:					6.14				
TURBIDITY INCREASE:					0.69				
022614-08-9-1	814709 2696872	1620	26.2	1	4.45	Apex lhcc	Flooding	15' N of Silt Curtain	08
022614-08-9-13		1622		13	5.46	wqm 022614			
022614-08-9-26		1624		26	5.02	1620			
AVERAGE TURBIDITY:					4.98				
TURBIDITY INCREASE:					0.91				

* Turbidity Increase = Down-Current Average Turbidity - Up-Current Average Turbidity

Figure 1
Lower Harbor CAD Cell Phase I – Water Quality Monitoring



ROCKVILLE, MD
 SOUTH WINDSOR, CT - BOSTON, MA -
 NEW BEDFORD, MA - HOLYOKE, MA
 125 BROAD STREET, 5TH FLOOR
 BOSTON, MA 02210
 58H CONNECTICUT AVENUE
 SOUTH WINDSOR, CT

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PROJECT	NEW BEDFORD HARBOR DEVELOPMENT COMMISSION LOWER HARBOR CAD CELL	
	OWNER	NEW BEDFORD HARBOR DEVELOPMENT COMMISSION 52 FISHERMAN'S WHARF, NEW BEDFORD, MA 02740

1	9/25/2012	EPA COMMENTS	GCD
2	2/21/2013	DRAFT SUITABILITY	MCK

DATE	DESCRIPTION	BY
9/25/2012	EPA COMMENTS	GCD
2/21/2013	DRAFT SUITABILITY	MCK

PROJECT NO.	6724
CADD FILE	
DESIGNED BY	CHM
DRAWN BY	GCD
CHECKED BY	GCD
DATE	MAY 2013
DRAWING SCALE	AS NOTED

GRAPHIC SCALE
 SCALE: 1"=50'
 0 25 50 100
 SHEET TITLE
BOTTOM OF LOWER HARBOR CAD CELL PHASE 1 WATER QUALITY
 2/24/14 - 3/1/14

DRAWING NO.
WQM-1
 6 OF 15