

[REDACTED]

---

**From:** [REDACTED]@gw.dec.state.ny.us>  
**Sent:** Thursday, August 01, 2013 3:17 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]; [REDACTED]; [REDACTED]@hdrinc.com  
**Subject:** Re: Revised Dredging Plan

The Department has reviewed and hereby approves the decanting procedure described in the dredging plan submitted with your email below as consistent with permit condition 27. I understand a more formal submittal will be provided when available.

[REDACTED]

>>> [REDACTED]@newnybridge.com> 8/1/2013 2:03 PM >>>

Tappan Zee Constructors (TZC) has provided the attached, revised dredging plan which is intended to address the comments you made in your July 26, 2013 email. The revised text regarding the decanting has been highlighted in the attached and provided for your review.

A more formal submittal, with transmittal letter from TZC will be provided before when it is available. Let me know if you have any questions or require anything further.

TZC expects to be dredging tomorrow morning. I understand that approval is required prior to decanting, per condition 27.

Please review and let us know if any further changes are required before approval.

[REDACTED]

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July 31, 2013

Ref: [REDACTED]

[REDACTED]  
The New NY Bridge Project  
[REDACTED]

303 S. Broadway, Suite 413

Tarrytown, NY 10591

Telephone: [REDACTED]

Re: [REDACTED]/D214134 - [REDACTED]  
[REDACTED]

**Subject:** Access Channel Dredging Plan for Permit REV 3  
NYSDEC Facility ID DEC ID 3-9903-00043/00012

[REDACTED]  
Please find attached the revised Dredging Plan provided by our dredging subcontractor, Weeks Marine, Inc. (WMI), for dredging of the project Access Channels in the Hudson River. Revisions to the plan were made in response to comments received from the NYSDEC via email from the Authority on July 29, in reference to the submittal in letter [REDACTED]  
[REDACTED]

This revised version of the plan includes amendments to the section addressing permit condition 27 which now describes the handling and disposal of sediment contained in the decant water holding barge.

To again clarify, section 21 has the complete list of facilities proposed for processing, transfer, and disposal of dredged materials which are located out State. WMI does not intend to use any site in the State of New York for upland handling, transferring, storage, disposal, or placement of dredged material from the New NY Bridge Project.

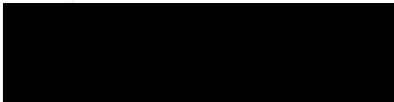
Commencement of Dredging for Phase I, is scheduled to begin at 6:00 AM on Friday August 2, 2013 pending receipt of necessary approvals.



Very truly yours,



Project Manager  
Tappan Zee Constructors, LLC



Attachment  
Access Channel Armoring Plan

[REDACTED]

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**From:**

**Sent:**

[REDACTED]  
Monday, July 29, 2013 8:19 AM

**To:**

**Subject:**

[REDACTED]  
FW: Fwd: Dredging Plan

-----Original Message-----

From: [REDACTED] <[REDACTED]@dec.state.ny.us>

Sent: Friday, July 26, 2013 11:41 AM

To: [REDACTED]

Subject: Re: Fwd: Dredging Plan

[REDACTED] following are the Department's comments on the dredge plan submitted with your 7/22/13 email:

-- The plan should include a description of how the settled sediment in the decant holding barge will be managed/disposed. This should describe how often sediments will be removed in order to maintain adequate settling, how it will be removed, and how and where will it be taken (eg, transferred to another barge). Also the plan should describe if there will be more than one decant holding barge.

-- Tappan Zee Constructors, LLC's July 19, 2013 letter states that Weeks Marine, Inc., "does not intend to use any site in New York State to for upland placement, handling, transferring, storage, disposal, or placement of dredged material" from the project. Yet the Department has received a Beneficial Use Determination petition seeking authorization for placing project sediments at a site in Staten Island, NY. As pointed out previously, the use of a site in New York State must be approved by the Department "before dredging begins" (see Permit Condition 21). Unless modified, this prohibits use of a site in New York State once dredging starts. As with the current dredge plan any such proposal must include a complete description of the dredge material management procedure, from dredging to placement and all steps in between.

If you have any questions please feel free to call me.

[REDACTED]

>>> [REDACTED]@newnybridge.com> 7/22/2013

>>> 10:42 AM >>>

[REDACTED]

Attached you will find a revised Access Channel Dredging Plan prepared by TZC to comply with permit conditions 20-35. TZC would like to begin dredging at 12:01am on August 1. We respectfully request approval of this plan at your earliest convenience. Should you have any questions, please don't hesitate to call or email me.

[REDACTED] P.E.

Environmental Manager  
New NY Bridge Project

[REDACTED]



# The New NY Bridge Project



June 28, 2013

The New NY Bridge Project  
NYS Thruway Authority  
303 South Broadway, Suite 413  
Tarrytown, NY 10591

[REDACTED] Project Manager  
Tappan Zee Constructors, LLC  
P.O. Box 10  
Tarrytown, NY 10591

CONTRACT: D214134 [REDACTED]  
DOC REF: [REDACTED]

SUBJECT: NYSDEC DREDGING COMMENTS [REDACTED]

Dear [REDACTED]

We have received the following comments from New York State Department of Environmental Conservation (DEC) on the *Access Channel Dredging Permit Plan, Rev 1* dated June 17, 2013.

- The section addressing condition 21, on Page 9, identifies three New Jersey "processing and or re-handling" facilities. The list is an "example of facilities in the process of being negotiated at this time. Additional facilities are being explored and will be added to this Plan as they become available." Thus, as written this section gives no definitive information as to the fate of dredged sediment. Rather, it lists three facilities where the sediment may be processed.
- Before dredging begins, advise the DEC where the dredged sediments will be processed, how they will be processed and where they will be ultimately placed.
- The section states that any New York sites "that may become available" "will be submitted for approval before they are utilized." This statement is inconsistent with condition 21, which requires that a New York State site used for "upland handling, transferring, storage, disposing or placing of dredged materials" will require Department approval "before dredging begins". Unless modified, this condition prohibits use of a New York State site once dredging begins.
- DEC has requested plan view and cross sectional views depicting the existing bottom contours and proposed dredge depths, additional to those provided with the joint application.

Tappan Zee Constructor's response to these comments is required in sufficient time to allow the DEC to approve the Dredging Plan, as required by permit condition 19, prior to the commencement of dredging.

Sincerely,

[REDACTED]  
Project Director  
The New NY Bridge Project

Prepared by: [REDACTED]

July 31, 2013  
~~June 7, 2013~~

NYDEC Albany Headquarters  
625 Broadway  
4<sup>th</sup> Floor  
Albany, NY 12233

Attention: [REDACTED]  
Chief Permit Administrator

Reference: Dredging Plan Submittal\_Rev *A4*  
DEC ID 3-99903-00043/00012

Dear [REDACTED]

In accordance with the New York State Department of Environmental Conservation Permit for Facility DEC ID 3-9903-00043/00012 the following document is submitted as the Dredging Plan.

Should you have any questions concerning any information contained herein please do not hesitate to contact us.

Sincerely,

[REDACTED]  
North East Area Operations Manager  
Weeks Marine, Inc.

## **INTRODUCTION:**

The following Dredging Plan addresses conditions 20 thru 35 of the Dredging Section of the Permit referenced as NYDEC Facility ID DEC ID 3-9903-00043/00012.

In addition to the Permit listed above this Plan addresses compliance with the USACE Permit Number NAN-2012-00090, the USCG Bridge Permit (3-13-1), and NMFS Biological Opinion for Activity NER-2013-9592.

Reference material used in preparing this document is contained in NYDEC Division of Water Technical and Operational Guidance Series 5.1.9, "In-Water and Riparian Management of Sediment and Dredged Material" dated November 2004 and the above referenced Permits.

## **DREDGING:**

### **Condition 20**

Dredging may be conducted from August 1 to November 1, only, in any calendar year.

At least 24 hours prior to the commencement of dredging Weeks Marine, Inc. will notify the USCG of the start of work, the expected completion date, the hours of the day the work will be performed, the names of the vessels on scene, the VHF radio channels the vessels will monitor, and the Project's 24/7 point of contact. Contact with USCG will be coordinated with Tappan Zee Constructors, LLC (TZC) and NY State Thruway Authority (NYSTA). This information will be faxed to [REDACTED] or mailed to:

USCG Commander  
Activities New York (wob)  
212 Coast Guard Drive  
Staten Island, NY 10305

No less than 24 hours prior to commencement of dredging Weeks Marine, Inc. will inform the local waterway users of the start of the work using the "Local Notice to Mariners". Information about the dredging operations will be faxed to [REDACTED] or mailed to:

Commander (oan)  
First Coast Guard District  
408 Atlantic Avenue  
Boston, MA 02111-3350

Prior to August 1, 2013 Weeks Marine, Inc. will coordinate with the TZC Environmental Point of Contact. This will allow for water quality monitoring infrastructure to be in place prior to commencement of dredging.

At 0600 on 08/01/2013, Weeks Marine, Inc. intends to commence dredging operations. Dredging will occur on a 24 hour basis, 7 days a week until all required material is dredged from the East and West Dredge Areas located north of the existing bridge. These areas contain a combined

800,000 cys of required and allowable overdepth. The minimum production rate required to complete operations within this time frame is 8,695 cys per day.

This production rate will be achieved by committing two dredges at the site during the duration of the job. The two dredges combined are capable of producing over 1,200 cys per run hour. Committing two dredges to the project will assure redundancy and allow for anticipated inefficiencies in the dredging cycle, while effectively completing the project within the allowed time frame.

This work will be conducted in a manner that the free navigation of the waterway is not unreasonably interfered with and the present navigational depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during the performance of the work. Dredging methods will be employed to ensure that there is no increase in sedimentation and turbidity outside of the 500 ft mixing zone during the work.

At all times during performance of the work a copy of the USACE Permit will be kept upon all vessels engaged in dredging and transporting the dredged materials.

At all times during the performance of the work reasonable accommodations will be made to transport NMFS certified observers to and from both dredges to ensure that observer coverage is sufficient for 100% monitoring of dredging operations. Weeks Marine, Inc. understands that the monitoring coverage must involve the placement of a NMFS approved observer on board the dredge for every day that dredging is occurring. Prior to the start of the work the NMFS approved observer liaison will be provided with a 24/7 point of contact associated with the dredging operation. Transport to the dredges will be coordinated through that point of contact.

Once aboard the dredges an area will be dedicated to allow the observers to safely view the bucket operations in a manner that does not impede normal production rates.

In addition to accommodations made for transport to the dredges, Weeks Marine, Inc. will make available all information and contacts for the NMFS certified observers to be present during disposal operations. Coordination will occur in accordance with the TZC Dredging and Pile Driving Monitoring Plan.

#### Condition 21

This Permit authorizes no upland handling, transferring, storage, disposing or placing of dredged materials in New York State; any such activity will require approvals from the Department before dredging begins.

All material that is dredged from the site will be directly placed into sealed scows and shipped via tug to a permitted processing and or re-handling facility.

**Processing Sites:**

A minimum of [REDACTED] Portland cement will be utilized as the sole admixture for solidifying and stabilizing dredged material from the East and West Areas of the Project.

The addition of the Portland cement will take place either in barge, or on-shore via a pugmill depending on the processing location (see below).

The final product of either processing method is a soil-like material suitable for structural fill or capping purposes.

The sites proposed to be utilized for processing and/or off-loading then processing (as noted) include as follows:

Clean Earth Dredging Technologies, Inc. (CEDTI)  
Claremont Dredged Material Processing Facility  
One Linden Avenue East  
Jersey City, NJ 07305  
(Off-loading and pugmill processing)

Clean Earth Dredging Technologies, Inc. (CEDTI)  
Koppers Dredged Material Processing Facility  
1 Fish House Road  
Kearny, NJ 07032  
(Off-loading and pugmill processing)

Don Jon Marine Co., Inc.  
Dredge Material Processing Facility  
Berth 36  
Port Newark, NJ  
(In-barge processing and off-loading)

Weeks Marine, Inc.  
On-Water Dredge Processing Facility  
Foot of Colony Road  
Jersey City, NJ  
(In-barge processing only)

**Off-loading Sites (in-barge processed material):**

For in-barge processing facilities each processed scow of dredge material will be allowed to cure for approximately 24 hours, or as needed, prior to offloading to provide better handling characteristics for the material, i.e. soil like versus thin mud.

At the Don Jon site the offloading will occur at both the processing site described above and the offloading site included below. The processed dredge material will either be placed into a stockpile and then into tri-axle trucks or loaded directly into tri-axle trucks for transport to the designated approved upland sites described further in this section.

Prior to exiting the facilities, each truck will have its tires and body washed down. This will prevent tracking of material onto public roadways. Each truck will receive a bill of lading. This bill of lading will be utilized at the landfill to record each truck received and its placement location site.

Material that is in-barge processed at the Weeks Marine, Inc. facility will be transported by tug to a temporary mooring and off-loading area in the Arthur Kill River immediately adjacent to the DuPont-Grasselli site.

At the temporary mooring a stevedoring crane will unload the processed material from the barges and place it directly on the DuPont – Grasselli property. Best Management Practices during the off-loading of the processed dredge material onto the Grasselli site will include controlling the swing rate of the off-loading crane and using spill plates as necessary to prevent discharge into the waterway during off-loading.

Material off-loaded at the Grasselli site will remain there for beneficial use placement.

The following sites are proposed to be utilized as off-loading sites of In-barge processed dredge material only:

DuPont – Grasselli Point Location  
Temporary Offloading and Transfer Facility  
Grasselli Point Road  
Linden, NJ  
(Weeks Marine, Inc. in-barge processed material)

SIMS Metal Management NE  
Offloading and Transfer Facility  
Berth 30  
Port Newark, NJ  
(Don Jon Marine, Inc. in-barge processed material)

#### **Upland Placement & Disposition Sites:**

Material processed at the Clean Earth Dredging Technologies, Inc. sites and the Don Jon Marine, Inc. site will be hauled by tri-axle truck to the sites listed below.

Prior to exiting the processing facilities, each truck will have its tires and body washed down. This will prevent tracking of material onto public roadways. Each truck will receive a bill of lading. This bill of lading will be utilized at the landfill to record each truck received and its placement location site.

Prior to exiting the upland placement area each truck will have its tires and body washed down to prevent tracking material onto public roadways.

The processed dredge material is proposed for upland disposal or beneficial use at multiple sites in New Jersey and Pennsylvania. These sites are as follows:

DuPont – Grasselli Beneficial Use Site  
South Wood Avenue  
Linden, NJ 07036

Koppers Seaboard Site  
1 Fish House Road  
Kearny, NJ 07032

AHA Meadowlands Landfill Closure Site  
Lyndhurst, NJ  
Rutherford, NJ

Bellmawr Waterfront Development Site  
204 Harding Avenue  
Bellmawr, NJ 08031

269 Canal Road L.P.  
269 Canal Road  
Fairless Hills, PA 19067

Bethlehem Earth, L.P. Site  
Bethlehem Steel Slag Processing Area  
Bethlehem, PA

Coplay Aggregates Quarry Reclamation Project  
West Coplay Road  
Coplay, PA

Former National Lead Site  
Sayreville Seaport Associates, L.P. ("SSA")  
Sayreville, NJ

Fenimore Landfill Site  
Adjacent to Mountain Road  
Roxbury Township, NJ

All of the facilities and sites listed above are included in the Acceptable Use Determination (AUD) application submitted to NJDEP on June 30, 2013 for the offloading, processing and disposal of dredged material from the New Tappan Zee Bridge Project, Tarrytown, NY.



#### Condition 22

Barge Overflow is prohibited.

Weeks Marine, Inc. understands that barge overflow is prohibited. All operators and crew members will be instructed of this prior to the start of dredging operations.

No barge overflow will be allowed during any part of the dredging cycle. All loaded scows will be shipped with adequate freeboard for the conditions at the time of shipment to allow for no barge overflow.

#### Condition 23

Dredging must be conducted using a closed clamshell dredge. Drawings and specifications of the closed clamshell bucket and other dredging equipment, including specifications demonstrating that appropriate design considerations are incorporated in the equipment, must be provided to the Department at least 45 days before dredging related activities start.

Weeks Marine, Inc. will be utilizing the Cable Arm, Inc. closed clamshell buckets contained in Appendix C of this Document.

These closed clamshell buckets have a sealing system that minimizes the loss of material during transport through the water column. Any excessive loss of water from the buckets during the duration of the Project will be investigated and repaired.

#### Condition 24

The bucket must be lifted in a continuous motion through the water column and into the barge. Bucket decanting and loss of dredged material into the River during barge loading will be minimized to the maximum extent practicable.

Weeks Marine, Inc. will employ experienced operators that will have sufficient control over bucket depth, bucket closure, and bucket hoist speed during the duration of the work. Any malfunction of these controls will be reported immediately and corrected.

#### Condition 25

Dredging equipment must be operated in a manner that minimizes the re-suspension of sediments in the Hudson River. Dredging operations may not cause turbidity that results in a substantial visible contrast to the Hudson River outside of the 500 ft mixing zone as set forth in the Water Quality Monitoring Section of the Permit.

The closed clamshell buckets contained in Appendix B reduce the amount of suspended solids in the upper water column at the dredging location. The movement of the spuds on the dredge will be controlled in a fashion that will minimize turbidity.

The dredges will be equipped with the maximum sized buckets that can be installed on each. This will minimize the amount of suspended solids dispersed during dredging operations by reducing the number of "bites" needed to dredge at each particular site.

Turbidity monitoring will be conducted as stated in the Water Quality Monitoring Plan. Results of the monitoring will be communicated to the dredge superintendent and adjustments or controls will be put into place if turbidity approaches permit condition requirements.

#### Condition 26

Best management practices include lowering the bucket to the level of the barge gunwales prior to release of the load and placing the dredged material in the barge in a controlled manner. Excessive loss of material from the bucket should be investigated and repaired. Bucket retrieval rates will be controlled to minimize turbidity.

Prior to starting the work all dredge operators will be instructed of best management practices (BMP's) which include lowering the bucket to the level of the barge combing prior to releasing the load and placing the dredge material in the barge in a controlled manner.

Bucket retrieval rates will be closely monitored.

#### Condition 27

If decanting of barges is necessary, a detailed plan must be submitted to the Department for approval before decanting may start.

Weeks Marine, Inc. does not intend on doing any direct decanting of loaded scows into the Hudson River.

A decant water holding barge will be mobilized to the site. The loaded scows will have any excess water pumped off into the holding barge before they are shipped for disposal. The suction hose that is used for de-watering will be screened to minimize the passing of solids through to the decant barge.

The decant water holding barge will be certified as sealed and will have capacity for retaining decant water for over 24 hours prior to discharge to the water column. This barge will also act as a stake boat for loaded and unloaded scows to moor prior to towing.

The barge that is intended to be used is the Weeks 070 Barge, which is a converted NYDOS Barge. The holding capacity of this barge is approximately 280,000 gallons of water. This capacity is estimated to accommodate 48 hours of dredging time. If the estimated necessary capacity is short, an additional NYDOS barge, or Seminole barge will be taken out of the dredge material rotation and moored alongside the decant barge adding additional capacity.

The water will be pumped from the barge through a discharge hose that is submerged to minimize turbidity.

At the completion of dredging, and before demobilizing the decant water from all holding barges will be allowed to completely settle and as much water as practicable will be pumped back into the Hudson River. All decant water holding barges will be towed from the site to one of the processing facilities listed in Condition 21. The settled material will then be processed and disposed of as all of the other project dredge material was.

It is not anticipated that the settled material will inhibit capacity as to where the decant barges would need to be towed from site and emptied until the end of the job.

It is expected that the decant water barge will have ample capacity to allow settling time before it is pumped out. If a flocculent is needed to enhance settling the form "Water Treatment Chemical Usage Notification Requirements for SPDES Permittee" will be submitted and approved by NYDEC prior to use.

De-watering of the holding barge will be conducted in a manner that precludes adding substantial suspended solids, turbidity or sheens of the receiving water body. During de-watering operations, great care shall be taken to avoid re-suspending or pumping previously settled sediment.

De-watering of the holding barge will be conducted in a manner that does not cause turbidity that result in a substantial visible contrast to the Hudson River outside of the 500 ft mixing zone as set forth in the Water Quality Monitoring section of the Permit. In the event that this requirement is exceeded, the Department will be notified immediately and corrections will be made to control this.

#### Condition 28

All side slopes of the dredged channel will have a maximum [REDACTED] slope.

Dredging will only occur between the bottom toe lines of the dredge template. The intent of this project is to clear the pilot channel to the permitted lines and grades shown in the Project Drawings. These lines and grades call for a [REDACTED] ft channel with [REDACTED] ft of allowable overdepth and [REDACTED] maximum side slopes. At all times each dredge will be equipped with real time positioning and computer guidance, allowing the operator to know the location of the dredge and the bucket relative to the dredge cut.

Daily hydrographic surveys will be conducted behind the dredges to monitor the finished cut and confirm that the dredges are digging to the permitted lines and grades of the Project Drawings.

#### Condition 29

The Permittee will monitor the sedimentation rate within the Piermont Marsh, prior to and during dredging operations. A plan detailing the procedures the Permittee will employ for this task must be submitted to the Department no less than 60 days before dredging starts.

This condition is not applicable to Weeks Marine, Inc.'s scope of work. It is being addressed under separate cover by others.

Condition 30

All sediment transporting barges must be inspected and certified as properly sealed.

Before any scow arrives at the dredging site it will be thoroughly inspected and certified as sealed. Inspection sheets and certifications will be made available to the Department on request. Any leaks or damage that occurs to the scows during operations will be repaired immediately. These damaged scows will be pulled from use until proper repairs are made. After the repairs are made the scow will be re-inspected, and then re-certified for use.

Condition 31

Loss of material during transport is prohibited.

The material will be loaded into the scows to a point that allows enough freeboard around the edges and below the combing for movement of the scow during transport. The dredge operators will be instructed to switch out scows before they are filled to a point where sudden movements will cause material to spill over the combing of the barge during transport operations.

Condition 32

If material is transferred between barges, measures must be implemented to minimize the potential for discharge to the river, as described in the FEIS.

Weeks Marine, Inc. does not intend to transfer material between barges in executing this work.

Condition 33

Sidecasting of dredged sediment is prohibited.

Weeks Marine, Inc. understands that side casting of dredged material at the dredge site is prohibited and does not intend to execute the work at the dredge site in this manner.

Condition 34

By January 30 following every calendar year in which dredging has occurred the Permittee must submit to the Department a Dredging Report specifying the location and amount of sediments dredged and deposited either uplands or at the HARS.

Weeks Marine, Inc. understands that no material removed from the East and West dredging areas of the Project site will go to the HARS.

Each scow that is loaded will be logged as shipped, and then logged at its unloading point. This Report will be updated daily. Examples of these Reports are included in Appendix E.

A Final Report will be generated stating where the final deposition point is for all material removed during the contract.

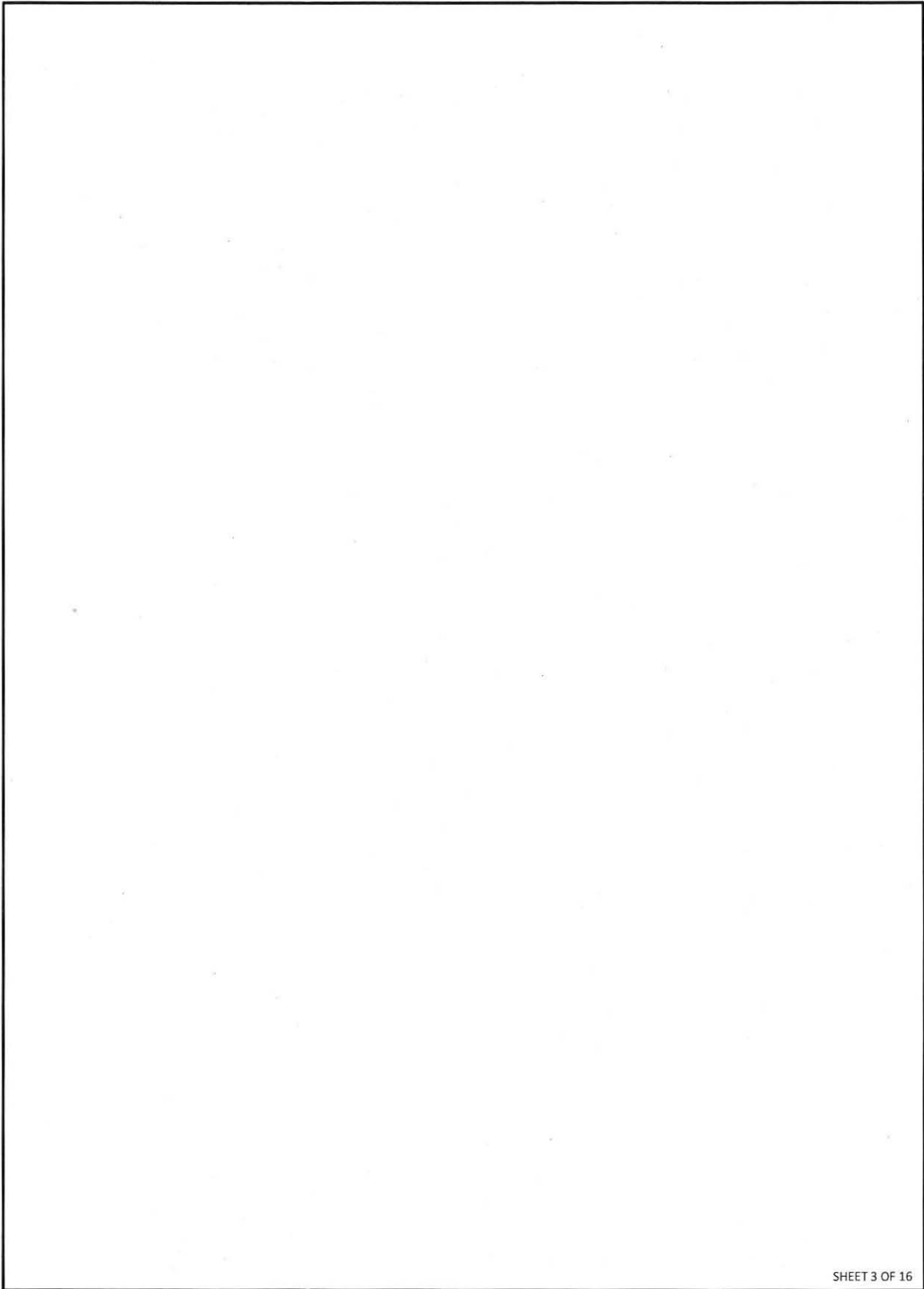
The Final Report will be submitted to the Department before January 30 of the following calendar year.

In addition to the NYDEC reporting requirements a report that summarizes dredging operations will be issued and made available to NMFS by December 31, 2013. This report will include information on the dates of dredging, the volume of material removed, the number of trips to the disposal sites, and copies of the NMFS approved observer reports.

Condition 35

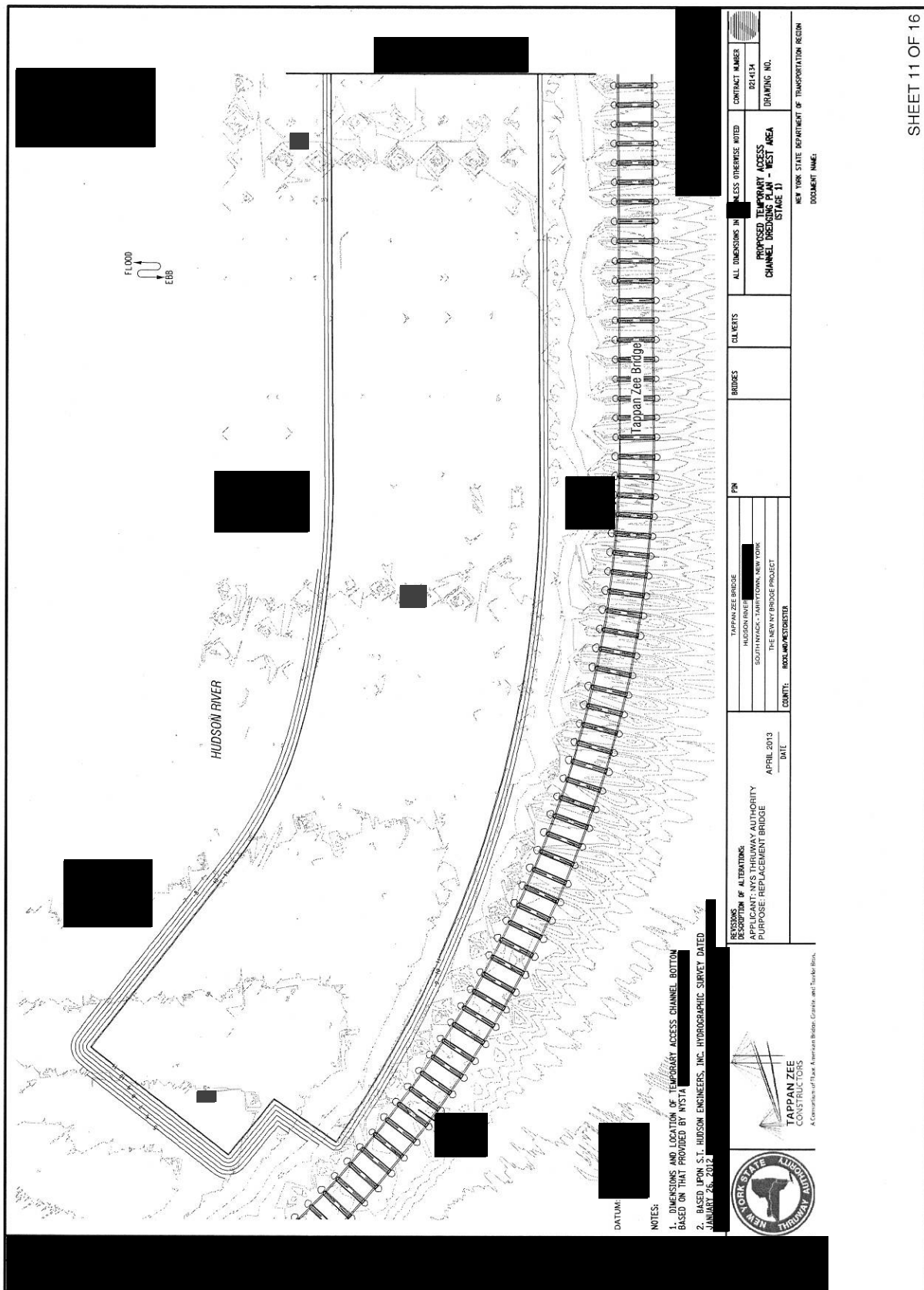
The top three feet of East Sediment Mound #3 near the existing bridge must be removed. Weeks Marine, Inc. understands that this condition will be addressed at a later date.

**APPENDIX A**  
**DREDGE SITE PLAN**



SHEET 3 OF 16





DATUM:

NOTES:

1. DIMENSIONS AND LOCATION OF TEMPORARY ACCESS CHANNEL BOTTOM BASED ON THAT PROVIDED BY NYSTA
2. BASED UPON S.T. HUDSON ENGINEERS, INC. HYDROGRAPHIC SURVEY DATED JANUARY 26, 2012



**TAPPAN ZEE CONSTRUCTORS**  
A Subsidiary of Tappan Zee Constructors, LLC

REVISIONS  
DESCRIPTION OF ALTERATIONS  
APPLICANT: NYS THRUWAY AUTHORITY  
PURPOSE: REPLACEMENT BRIDGE  
DATE: APRIL 2013

COUNTY: ROCKLAND  
PROJECT: THE NEW NY BRIDGE PROJECT  
SOUTH TAPPAN, TAPPAN TOWN, NEW YORK  
TAPPAN ZEE BRIDGE  
HUDSON RIVER

PN

BRIDGES

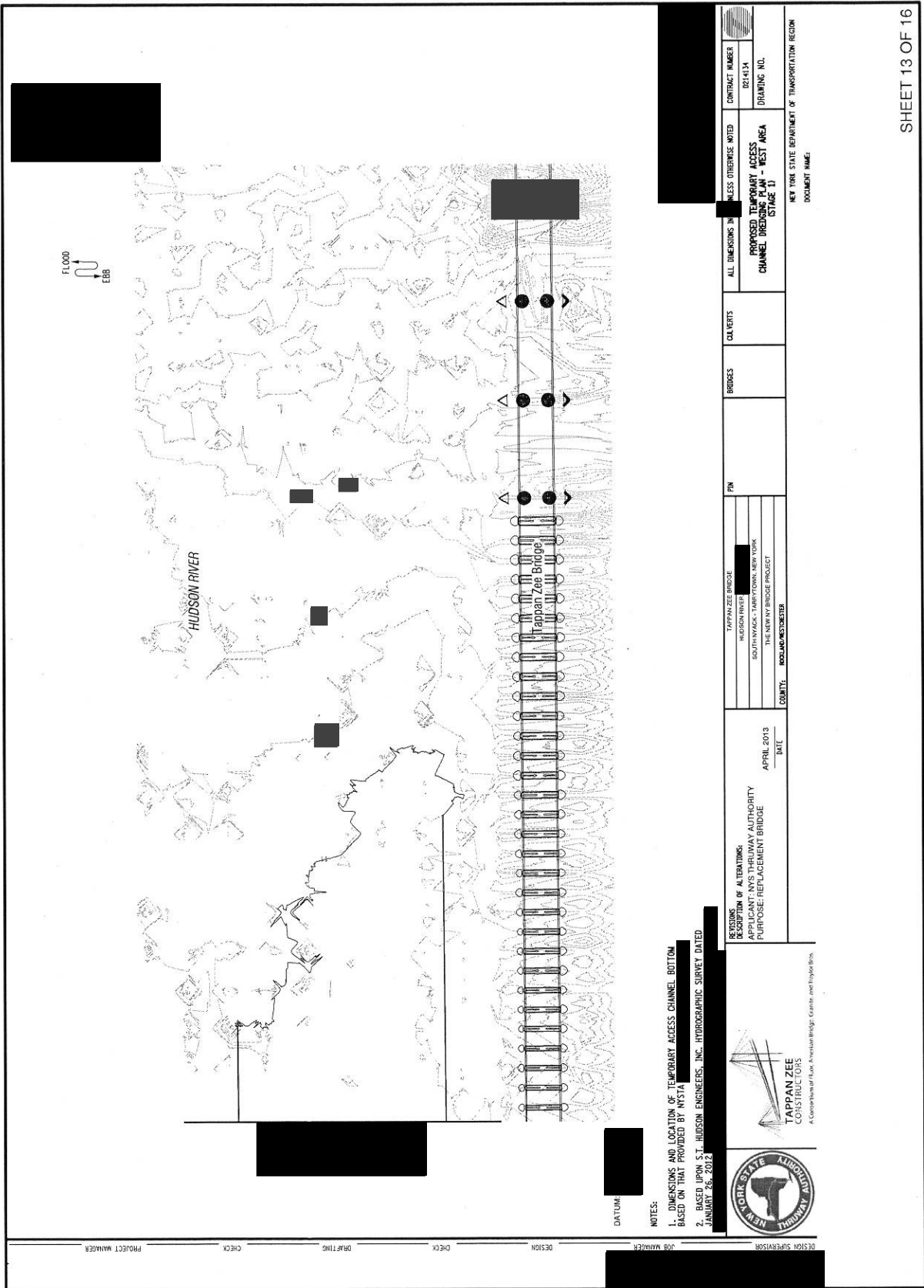
COLLECTS

ALL DIMENSIONS IN  
PROPOSED TEMPORARY ACCESS  
CHANNEL DREDGING PLAN - WEST AREA  
(STAGE 1)

LESS OTHERWISE NOTED  
CONTRACT NUMBER  
B214134  
DRAWING NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION  
DOCUMENT NAME:







DESIGN

CHECK

DRAWING

CHECK

PROJECT MANAGER

CROSS SECTION

CROSS SECTION

CROSS SECTION

**TAPPAN ZEE CONSTRUCTORS**  
A Consortium of Fluor, American & Ebasco Inc.

**REVISIONS**

DESCRIPTION OF ALTERNATIONS:

APPLICANT: NYS THRUWAY AUTHORITY

PURPOSE: REPLACEMENT BRIDGE

DATE: APRIL 2013

DATE: [REDACTED]

COUNTY: WASHINGTON

THE NEW NY BRIDGE PROJECT

SOUTH BRIDGE, TAPPAN ZEE, NEW YORK

HUDSON RIVER, MILEPOINT [REDACTED]

TAPPAN ZEE BRIDGE

PM

BRIDGES

CULVERTS

ALL DIMENSIONS IN

UNLESS OTHERWISE NOTED

CONTRACT NUMBER

PROPOSED CROSS SECTIONS - WEST AREA

ELEVATION FOOTPRINT

SHEET NO.

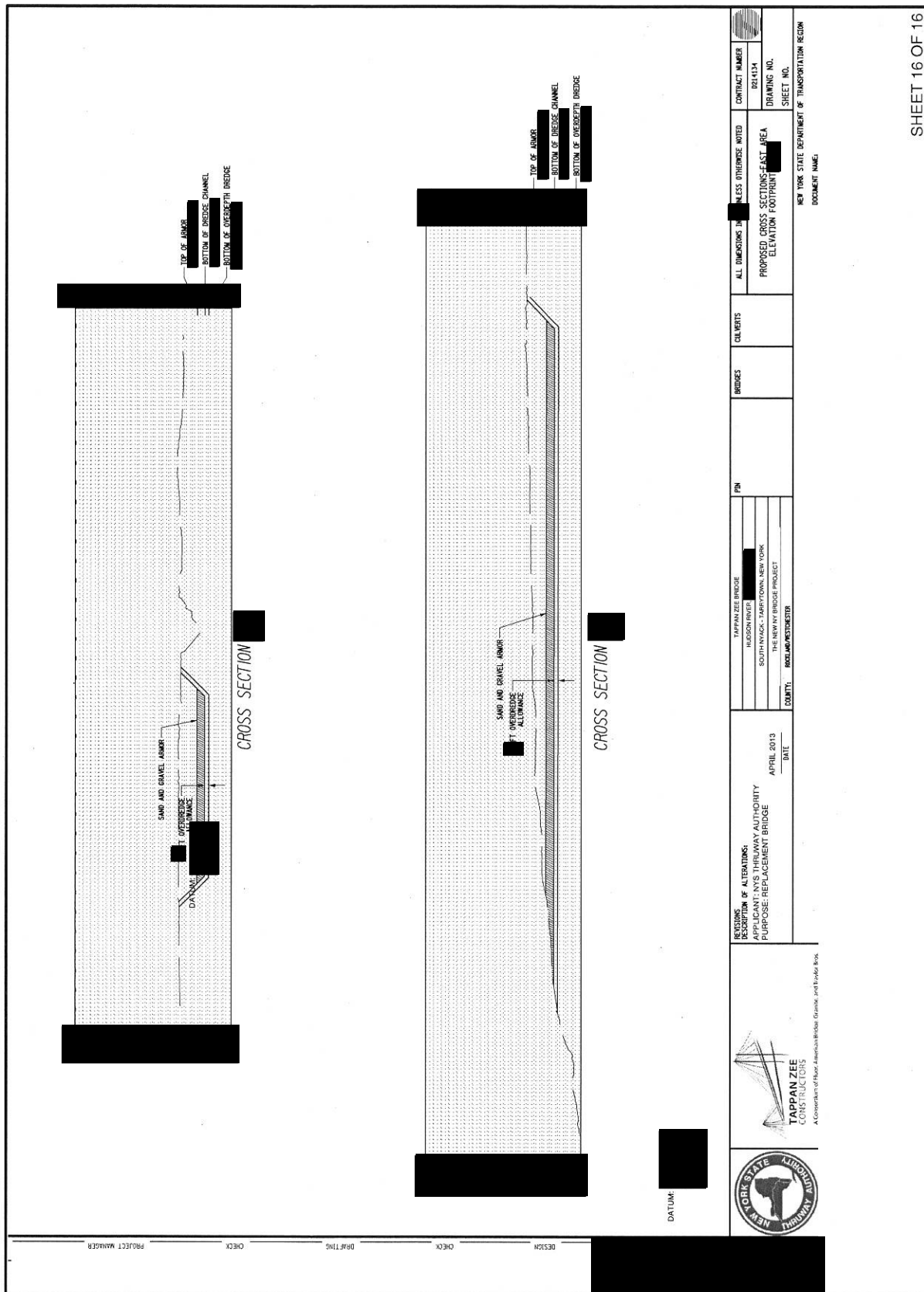
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NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION


DOCUMENT NAME

SHEET 15 OF 16

Page 18 of 33

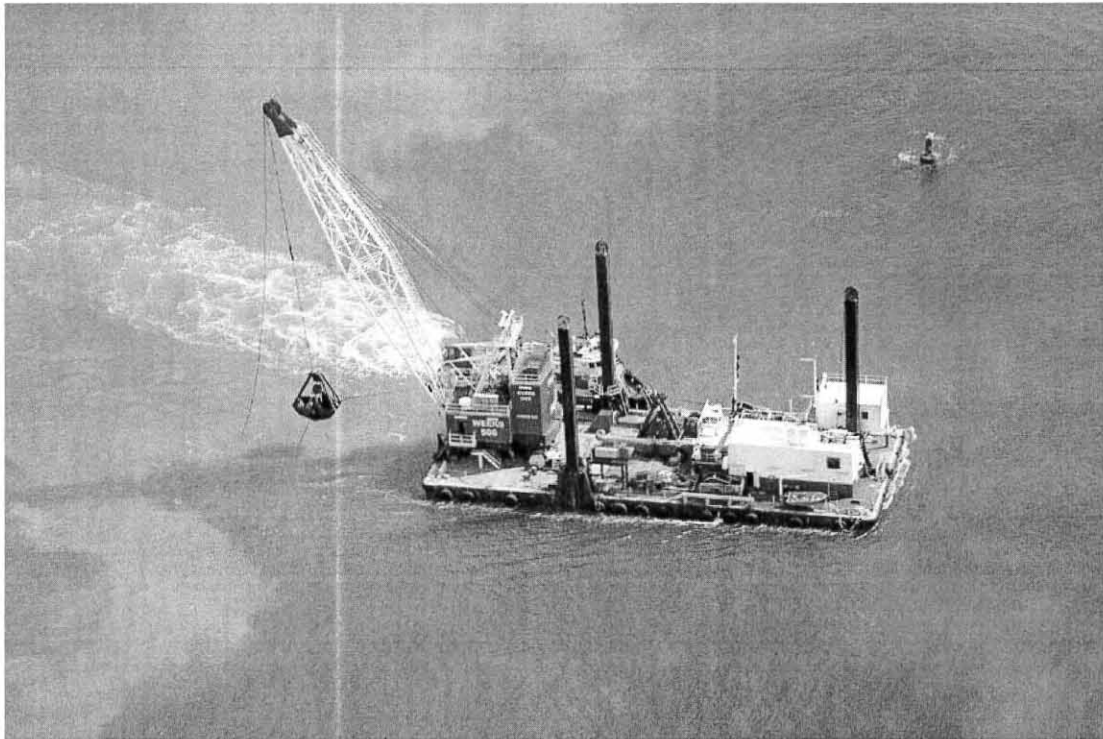


DESIGN	CHECK	DRAFTING	CHECK	PROJECT MANAGER
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 <b>TAPPAN ZEE CONSTRUCTORS</b> A Consortium of Fluor, American Bridge, Granite, and Taylor & Yonkers		<b>REVISIONS:</b> DESCRIPTION OF ALTERATIONS: APPLICANT: NYS THRUWAY AUTHORITY PURPOSE: REPLACEMENT BRIDGE DATE: APRIL 2013		TAPPAN ZEE BRIDGE HUDSON RIVER SOUTH-NOVA, TAPPAN TOWN, NEW YORK THE NEW NY BRIDGE PROJECT COUNTY: ROCKLAND-ROCKSTAR		PIN: [REDACTED]		BRIDGES		CULVERTS		ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED PROPOSED CROSS SECTIONS-FAST AREA ELEVATION FOOTPRINT		CONTRACT NUMBER: 0214134 DRAWING NO.: [REDACTED] SHEET NO.: [REDACTED]	
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION DOCUMENT NAME:															

## **APPENDIX B DREDGE DESCRIPTIONS**





**DREDGE 506:** 30 CY BUCKET. 2,500 INSTALLED HP.



**DREDGE 551:** 25 CY BUCKET. 1,742 INSTALLED HP.

**APPENDIX C**  
**CLOSED CLAMSHELL DRAWINGS AND SPECIFICATIONS**

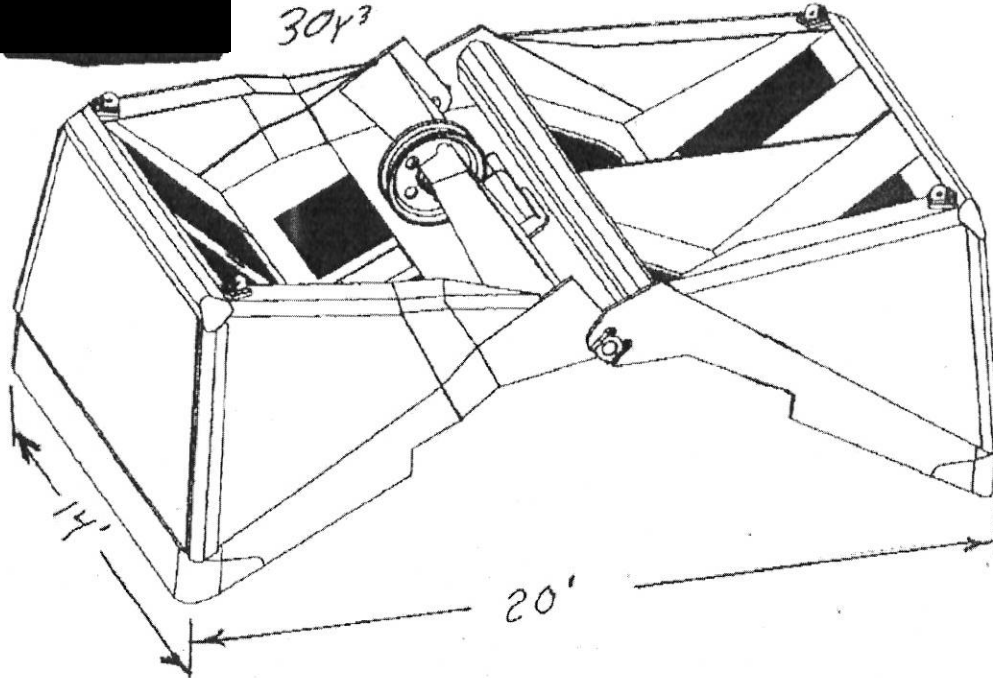
LIMITED TURBIDITY

LEVEL-CUT NAVIGATION

SEDIMENT DREDGING

30Y<sup>3</sup>

CABLE ARM CLAMSHELL  
 3452 WEST JEFFERSON AVE.  
 TRENTON, MI 48163-2839  
 PH-(734) 678-6108  
 FAX-(734) 678-1345

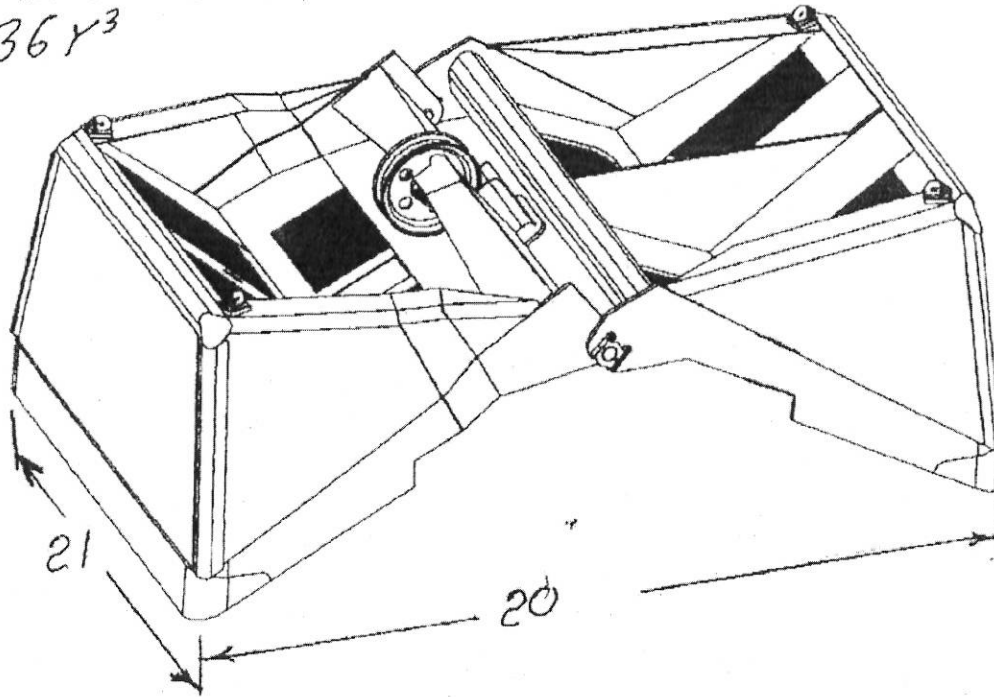


Rated Capacity: <i>HEAD</i>	30 cubic yards
Plate Line:	710 cubic feet
Water Level:	432 cubic feet
Deck Area:	280 square feet
Sheave Diameter:	36 inches
Cable to Reeve:	70 feet
Cable to Close:	35 feet
Max Parts:	2 No.
Weight::	21,000 pounds
Height Closed:	12 feet
Height Open:	9 feet
Length Closed:	11 feet
Length Open:	20 feet
Width:	14 feet

*Cable Arm Inc*  
 9-1-07

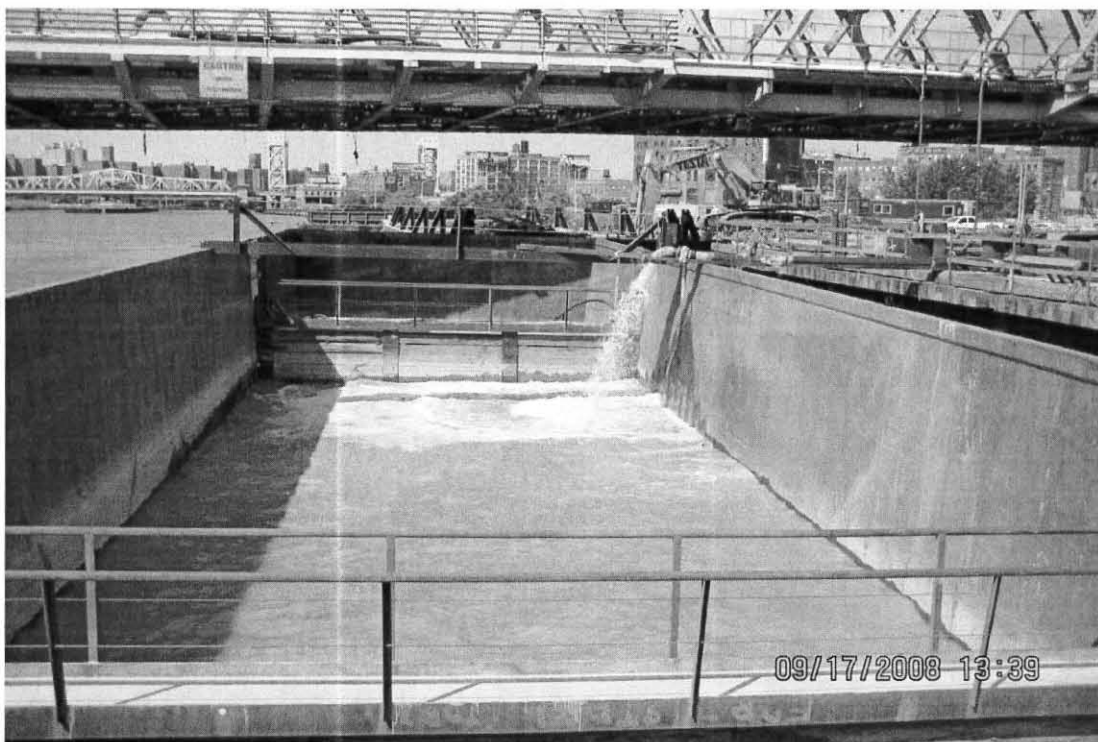
WEEKS MARINE  
CABLE ARM CLAMSHELL  
NAVIGATIONAL-LEVEL CUT™  
MUD DREDGING BUCKET  
36Y<sup>3</sup>

CABLE ARM CLAMSHELL  
3452 WEST JEFFERSON AVE.  
TRENTON, MI 48183-2838  
PH: (313) 676-8108  
FAX: (313) 676-1345

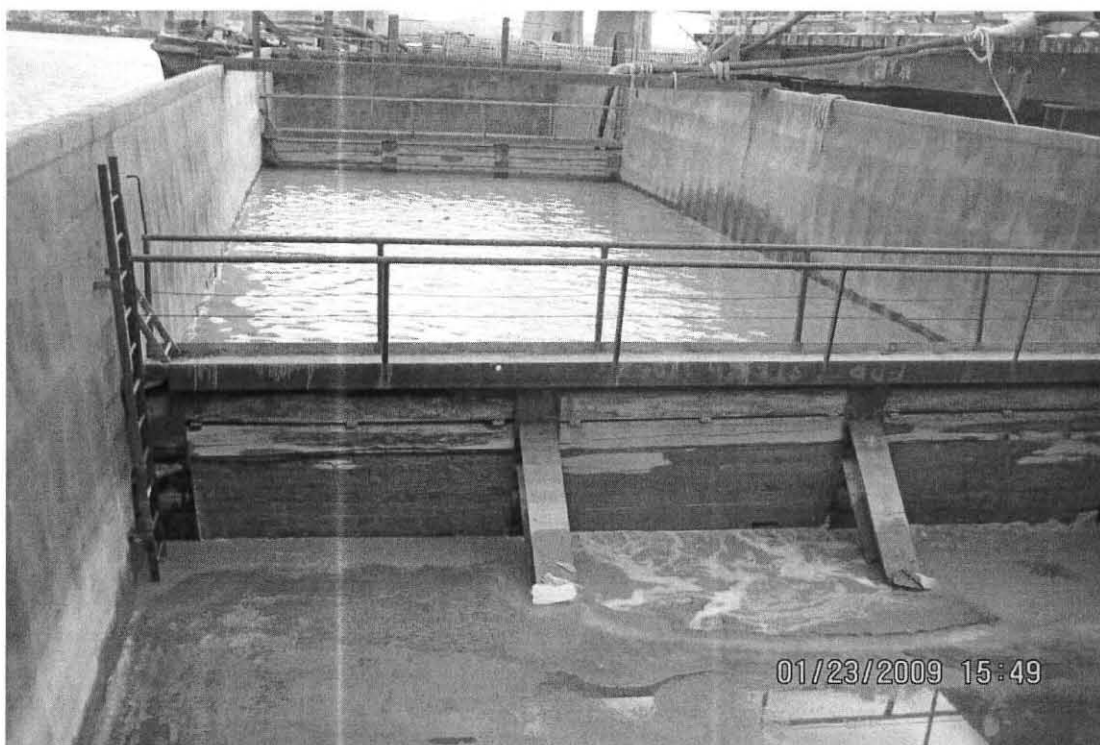


Rated Capacity: <i>HEAP</i>	<u>36</u> cubic yards
Plate Line:	<u>972</u> cubic feet
Water Level:	<u>600</u> cubic feet
Deck Area:	<u>420</u> square feet
Sheave Diameter:	<u>48</u> inches
Cable to Reeve:	<u>65</u> feet
Cable to Close:	<u>20</u> feet
Max Parts:	<u>1</u> No.
Weight:	<u>34,500</u> pounds
Height Closed:	<u>12</u> feet
Height Open:	<u>9</u> feet
Length Closed:	<u>11</u> feet
Length Open:	<u>20</u> feet
Width:	<u>14</u> feet

**APPENDIX D**  
**DECANT WATER HOLDING BARGE**



DECANT WATER HOLDING BARGE



DECANT WATER HOLDING BARGE

**APPENDIX E**  
**EXAMPLES OF DAILY REPORTS**



# WEEKS MARINE, INC.

## Tappen Zee Dredging Project

### DREDGE 506 / 551

CONTRACT	DATE	PD ENDING	MATERIAL %'S					
WMI 1413XXXX	08/01/2013	2400	SILT	SAND	CLAY	GRAVEL	CORAL	ROCK
OWNER	DREDGE	REPORT #	75.00%	4.00%	20.00%	1.00%	0.00%	0.00%
TZC	WEEKS 506 / 551	1	LOCATION	Tappen Zee Bridge		WEATHER	Clear	

PRODUCTION	TODAY	TO DATE	THIS MONTH	CONSUMABLES		
CU. YDS. SCOW	0	0	0	PLANT	USED	ONHAND
RUNNING TIME	24.00	24.00	24.00	Fuel	0	25,000
TOTAL TIME	24.00	24.00	24.00	Lube Oil	0	1,000
% RUNNING TIME	100.00%	100.00%	100.00%			
NUMBER OF SHIFTS	2	2	2			

PROGRESS							
ACCEPTANCE SECTION	EAST	WEST	0	0	0	0	0
WEEKS CUT	A	A	0	0	0	0	0
FROM RANGE	0	0	0	0	0	0	0
TO RANGE	100	100	0	0	0	0	0
{A} AVG. WIDTH OF CUT	100	100	0	0	0	0	0
FROM STATION			0	0	0	0	0
TO STATION			0	0	0	0	0
{B} ADVANCE	0	0	0	0	0	0	0
{C} AVG. DEPTH PRE DRG			0.0	0.0	0.0	0.0	0.0
SQ. FT. AREA {A X B}	0	0	0	0	0	0	0.0
{D} AVG. AFTER DRG. DEPTH			0.0	0.0	0.0	0.0	0.0
{E} AVG. BANK {D - C}			0.0	0.0	0.0	0.0	0.0
IN PLACE C.Y. {A X B X E} / 27	0	0	0	0	0	0	0

SUMMARY	TODAY	TO DATE	THIS MONTH	TENDER TUG	TOW BOAT
TOTAL ADVANCE	0	0	0	Tug	Tugs
TOTAL SQ. FEET	0	0	0	BUCKET NUMBER	BUCKET SIZE
TOTAL IN PLACE YDS.	0	0	0	CableArm	30 Cu. Yd
TOTAL SCOW YARDS	0	0	0	EQUIPMENT ON SITE	
TTL. NUMBER OF SCOWS	0	0	0		
RUNNING TIME / NO. OF SCOWS	0.00	0.00	0.00		
AVG. CU. YDS. / SCOWS	0	#DIV/0!	#DIV/0!		

DUMP SCOW INFORMATION							
SCOW NUMBER	101	102	103	104	105	106	107
LOAD NUMBER	1	2	3	4	5	6	7
TIME STARTED	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIME FINISHED	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIME TO LOAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCOW LOAD	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
SQ FT PER SCOW	0	0	0	0	0	0	0
LOAD NUMBER	108						
SCOW NUMBER	8						
TIME STARTED	0.00						
TIME FINISHED	0.00						
TIME TO LOAD	0.00						
SCOW LOAD	#DIV/0!						
SQ FT PER SCOW	0						

NON EFFECTIVE TIME	TODAY	TO DATE	VISITORS	
GENERAL MAINT.	0.00	0.00	NAME	REPRESENTING
CHANGE CUTS	0.00	0.00		
PASSING VESSELS	0.00	0.00		
WEATHER / TIDE / CURRENT	0.00	0.00		
SURVEY	0.00	0.00		
CHANGE SCOWS	0.00	0.00		
DELAY BY OWNER	0.00	0.00		
CHANGE & REPAIR BUCKET	0.00	0.00		
WAIT FOR SCOW FROM SEA	0.00	0.00		
WAIT FOR ATTENDANT PLANT	0.00	0.00		
DELAY BY CONTRACTOR	0.00	0.00	SERVICE CALLS	
REPAIR DREDGE	0.00	0.00	Enter company, equipment worked on, time of arrival and departure.	
REPAIR SCOW	0.00	0.00		
REPAIR TUG	0.00	0.00		
PREPARATION AND TOW	0.00	0.00		
MISCELLANEOUS	0.00	0.00		
SAFETY MEETING	0.00	0.00		
MOBILIZATION/DEMOLITION	0.00	0.00		
FRICTION & BRAKE ADJUSTMENT	0.00	0.00		
TOTALS	0.00	0.00		

DREDGE 506 / 551 OPERATIONS LOG							
SCOW INFORMATION	SCOW 1	SCOW 2	SCOW 3	SCOW 4	SCOW 5	SCOW 6	SCOW 7
LOAD NUMBER	101	102	103	104	105	106	107
SCOW NUMBER	1	2	3	4	5	6	7
LOAD TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
TIME STARTED	0.00						
TIME FINISHED	0.00						
TIME TO LOAD	0.00						
NON EFFECTIVE TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
GENERAL MAINT.							
CHANGE CUTS							
PASSING VESSELS							
WEATHER / TIDE / CURRENT							
SURVEY							
CHANGE SCOWS							
DELAY BY OWNER							
CHANGE & REPAIR BUCKET							
WAIT FOR SCOW FROM SEA							
WAIT FOR ATTENDANT PLANT							
DELAY BY CONTRACTOR							
REPAIR DREDGE							
REPAIR SCOW							
REPAIR TUG							
PREPARATION AND TOW							
MISCELLANEOUS							
SAFETY MEETING							
MOBILIZATION/DEMOLIZATION							
FRICTION & BRAKE ADJUSTMENT							
SCOW INFORMATION	SCOW 8	SCOW 9	SCOW 10	SCOW 11	SCOW 12	SCOW 13	SCOW 14
LOAD NUMBER	108						
SCOW NUMBER	8						
LOAD TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
TIME STARTED							
TIME FINISHED							
TIME TO LOAD							
NON EFFECTIVE TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
GENERAL MAINT.							
CHANGE CUTS							
PASSING VESSELS							
WEATHER / TIDE / CURRENT							
SURVEY							
CHANGE SCOWS							
DELAY BY OWNER							
CHANGE & REPAIR BUCKET							
WAIT FOR SCOW FROM SEA							
WAIT FOR ATTENDANT PLANT							
DELAY BY CONTRACTOR							
REPAIR DREDGE							
REPAIR SCOW							
REPAIR TUG							
PREPARATION AND TOW							
MISCELLANEOUS							
SAFETY MEETING							
MOBILIZATION/DEMOLIZATION							
FRICTION & BRAKE ADJUSTMENT							
TOTAL NON EFFECTIVE TIME							
DAMAGES TO EQUIPMENT / REPORT OF ACCIDENT / SAFETY CONCERNS							
VERBAL INSTRUCTIONS RECEIVED							
REMARKS							
SURVEY							
Work Performed Today							
SUPERINTENDENT MUST COMPLETE ALL APPLICABLE SECTIONS ON BOTH SIDES OF THE REPORT							
SUPERINTENDENT _____ Page 29 of 33							
REPORT PROMPTLY ALL ACCIDENTS AND DAMAGES							

REPORT OF OPERATIONS - PIPELINE , DIPPER OR BUCKET DREDGES										REPORTS CONTROL SYMBOL	
THRU: Tappen Zee Bridge			TO: TZC			FROM: WEEKS MARINE INC			REPORT NO. 1		
CHARACTER OF REPORT	MAINTENANCE	NEW WORK	DAILY	STATUS	COMPLETION	ANNUAL	DATE OR PERIOD				
		X	X				08/01/2013 Thursday				
DREDGE	NAME AND TYPE WEEKS 506 / 551			SIZE	PIPELINE		DIPPER OR BUCKET				
	HORSEPOWER OF			DREDGE PUMP	SUCTION PIPE JET	CUTTER OR BUCKET		PROPULSION			
	NUMBER OF CREW MEMBERS			DREDGE	SHORE	OTHER PLANT	TOTAL	WORK SCHDLE.			
				11	0	8	19	2		7	
PROJECT AND BAR	NAME 0 Tappen Zee Bridge				AUTH DIMENSIONS		WIDTH	DEPTH	OVERDEPTH		
							100		1		
	LOCATION ( INCLUDE STATION NUMBERS )				ADVANCE	STATION FROM / TO	RANGE FROM / TO				
	AS #	EAST	CUT #	A	0						
	AS #	WEST	CUT #	A	0						
CHARACTER OF MATERIAL	ABSOLUTE DENSITY			IN PLACE DENSITY			VOIDS RATIO				
	GMS / LITER			GMS / LITER							
	GRAIN SIZE			GEOLOGICAL CLASSIFICATION							
				SILT	SAND	CLAY	GRAVEL	ROCK			
DREDGING ORDER	NUMBER WMI 1413XXXX			CONTRACTOR X		HIRED LABOR		TOTAL NO. OF DAYS 1			
CONDITION OF CHANNEL	AVERAGE DEPTH		BEFORE DREDGING	AFTER DREDGING	AVERAGE BANK	MINIMUM SOUNDING		BEFORE DREDGING	AFTER DREDGING		
RIVER STAGE	MINIMUM	TIME	MAXIMUM	TIME	TIDE GAGE LOCATION						
	0.0	6:00	4.5	12:00	TBD						
WEATHER CONDITION	( CLEAR,CLOUDY,RAIN,SNOW,AND FOG )					VISIBILITY	WIND ( MAX. VELOCITY & DIRECTION				
	Clear					10	variable				
WORK PERFORMED					DISTRIBUTION OF TIME						
ITEM			UNIT	QUANTITY	EFFECTIVE WORKING TIME			HOURS	MIN.		
AVERAGE WIDTH OF CUT			FEET	#DIV/0!	PUMPING OR DREDGING			24	0		
TOTAL ADVANCE THIS PERIOD			FEET	0	PCT. EFFECTIVE RENTAL TIME			100%			
TOTAL ADV. PREV. TO THIS PERIOD			FEET	0	BOOSTER ( IN LINE )						
TOTAL ADVANCE TO DATE			FEET	0	NON-EFFECTIVE WORKING TIME						
FLOATING PIPE: SHRE PIPE:					HANDLING PIPE LINES			0	0		
TOTAL LENGTH OF DISCHARGE PIPE			FEET		HANDLING ANCHOR LINES			0	0		
AVERAGE LIFT			FEET		CLEARING PUMP AND PIPE LINE			0	0		
AVERAGE PUMP SPEED			R.P.M		CLEARING CUTTER OR SUCTION HEAD			0	0		
AVG DREDGE PER PUMP HR,HR			CU. YDS.	0	WAITING FOR SCOWS			0	0		
SCOWS TODAY 0			TOTAL #	0	TO AND FROM WHARF OR ANCHORAGE			0	0		
AVERAGE LOAD PER SCOW			CU. YDS.	0	CHANGING LOCATION OF PLANT ON JOB			0	0		
CUBIC YARDS REMOVED					LOSS DUE TO OPPOSING NATURAL ELEMENTS			0	0		
AMOUNT DREDGED THIS PERIOD					LOSS DUE TO PASSING VESSELS			0	0		
( 1 ) GROSS ( COMPUTED AMOUNT )					SHORE LINE AND SHORE WORK			0	0		
( 2 ) CREDITED ( PAY PLACE )					WAITING FOR BOOSTER / CHANGE SCOWS			0	0		
AMOUNT PREVIOUSLY REPORTED					MINOR OPER. REPAIRS ( EXPLAIN IN REMARKS )			0	0		
( 1 ) GROSS ( COMPUTED AMOUNT )					WAITING FOR ATTENDANT PLANT			0	0		
( 2 ) CREDITED ( PAY PLACE )					PREPARATION AND MAKING UP TOW			0	0		
TOTAL AMOUNT DREDGED TO DATE					TRANSFERRING PLANT BETWEEN WORKS			0	0		
( 1 ) GROSS ( COMPUTED AMOUNT )					CHANGE AND REPAIR BUCKET			0	0		
( 2 ) CREDITED ( PAY PLACE )					SUNDAYS AND HOLIDAYS			0	0		
ATTENDANT PLANT					FIRE DRILL			0	0		
ITEM	NAME OR NUMBER			HOURS	MISCELLANEOUS ( EXPLAIN IN REMARKS )			0	0		
TUG	Tugs			24	TOTAL NON-EFFECTIVE WORKING TIME			0	0		
TUG	Tug			24	PCT. NON EFFECTIVE RENTAL TIME			0%			
SCOW	Seminoles			24	TOTAL EFFECTIVE/NON-EFFECTIVE TIME			24	0		
SCOW	0			24	PCT. OF TOTAL TIME IN PERIOD			100%			
DREDGE	551			24	LOST TIME						
Survey Boat	0			24	MAJOR REPAIRS AND ALTERATIONS						
					CESSATION						
					COLLISIONS						
					MISCELLANEOUS ( EXPLAIN IN REMARKS )						
NUMBER OF INSPECTIONS					TOTAL LOST TIME						
BY DIST. PERS.					BY DIV. & OCE PERS						
1					PERCENTAGE OF TOTAL TIME						
CONTRACT USE ONLY											

[illegible]

<b>CONTRACTOR'S QUALITY CONTROL REPORT ( QCR )</b>				DATE: 01-Aug-13		REPORT NO 1		
CONTRACT NUMBER AND NAME OF CONTRACTOR : Contract # WEEKS MARINE, INC. WMI 1413XXXX				DESCRIPTION AND LOCATION OF THE WORK: Tappen Zee Bridge Replacement Hudson River				
<b>WEATHER CLASSIFICATION :</b> <b>CLASS A</b> No interruptions of any kind from weather conditions occurring on this or previous shifts. <b>CLASS B</b> Weather occurred during this shift that caused a complete stoppage of work. <b>CLASS C</b> Weather occurred during this shift that caused a partial stoppage of work. <b>CLASS D</b> Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous adverse weather. <b>CLASS E</b> Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner. <b>OTHER</b> Explain.				<b>CLASSIFICATION :</b>				
				CLASS                      A				
				<b>TEMPERATURE :</b>				
				MAX                      90.0		MIN                      75.0		
				<b>PRECIPITATION :</b>				
				INCHES                      0.0				
CONTRACTOR / SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY ( Attach list of items of equipment either idle or working as appropriate.) <b>A:</b> WEEKS MARINE, INC. <b>B:</b>								
1. WORK PERFORMED TODAY : ( Indicate location and description of work performed. Refer to work performed by prime and / or subcontractors by letter in Table above.)								
<b>A</b>	<b>STATION</b>	<b>FROM</b>	<b>TO</b>	<b>CUT #</b>	<b>RANGE</b>	<b>FROM</b>	<b>TO</b>	<b>AS#</b>
redge 506 / 551				A				EAST
				A				WEST
		0	0	0		0	0	0
		0	0	0		0	0	0
		0	0	0		0	0	0
		0	0	0		0	0	0
		0	0	0		0	0	0
2. TYPE AND RESULTS OF INSPECTION : ( Indicate weather : P - Preparatory, I - Initial, or F - Follow - up and include satisfactory work completed or deficiencies with action to be taken.)								
3. TEST REQUIRED BY PLANS AND / OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS: None								

4. VERBAL INSTRUCTIONS RECEIVED ( List any instruction given by Government personnel on construction deficiencies,

5. REMARKS : ( Cover conflicts in plans, specifications or instructions : acceptability of incoming materials : off-site surveillance activities, progress of work, delays, causes and extent thereof: days of no work with reasons for same.)

Equipment on site:

6. SAFETY : ( Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)

INSPECTOR

**CONTRACTOR'S CERTIFICATION:** I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.