



DESIGN & CONSTRUCTION

46224 REDI DREDGING PROGRAM PHASE I

PORT BAY OUTLET CHANNEL DREDGING

PORT BAY HURON, NEW YORK, 14590

CONTRACT NO. 1

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OFFICE OF GENERAL SERVICES
NEW YORK STATE

DECEMBER 2019

O'BRIEN & GERE ENGINEERS, INC A RAMBOLL COMPANY





PERSON UNLESS ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL
ENGINEER TO ALTER THIS DOCUMENT.

ALL WORK SHALL BE PERFORMED FROM THE WESTERN SHORELINE.

THE SCOPE OF WORK IS GENERALLY DESCRIBED AS FOLLOWS:

- ACTUAL EXTENTS OF DREDGING WILL BE BASED ON THE REACH OF APPROVED EQUIPMENT.
- REQUIRED DREDGE DEPTH = 237.3 INTERNATIONAL GREAT LAKES DATUM 1985
- MAXIMUM ALLOWABLE OVER-DREDGE = 0.5-FEET
- STOCKPILE DREDGED SEDIMENTS WITHIN THE SPOIL AREA IDENTIFIED ON SHEET G-3.
- FOR PURPOSES OF DEVELOPING SUBCONTRACTORS FEE A VOLUME OF 1,350 CUBIC YARD SHOULD BE ASSUMED. ACTUAL VOLUME REMOVED WILL BE DEPENDENT ON THE CONDITIONS AT THE TIME OF CONSTRUCTION AND SUBCONTRACTORS MEANS AND METHODS.

REMOVE SEDIMENTS WITHIN THE PORT BAY OUTLET CHANNEL TO THE HORIZONTAL AND VERTICLE EXTENTS SHOWN.

- WORK TO BE PERFORMED IN ACCORDANCE WITH THE PROJECT PERMITS
- •• NYSDEC PERMIT NOS. 8-5426-00010/00007, 00008, AND /00009
- •• USACE LETTER OF PERMISSION DATED SEPTEMBER 13, 2018.

GENERAL NOTES - ALL DRAWINGS

- 1. EXISTING SITE INFORMATION PRESENTED SHOULD BE CONSIDERED APPROXIMATE ONLY.
- EXACT DIMENSIONS AND LOCATIONS OF ALL STRUCTURES AND UTILITIES ARE CONSIDERED APPROXIMATE ONLY AND SHALL BE VERIFIED AS REQUIRED IN THE FIELD BY THE SUBCONTRACTOR.
- 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS ROADWAY DURING CONSTRUCTIONS AND REPAIR OF ANY DAMAGE CAUSED BY CONTRACTORS ACTIVITIES.
- 4. UNDERGROUND UTILITIES MAY EXIST, THE LOCATIONS, DEPTHS AND EXTENT OF WHICH ARE UNKNOWN. THE SUBCONTRACTOR SHALL DETERMINE THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD AS IT MAY PERTAIN TO THE SUBCONTRACTORS WORK PRIOR TO CONSTRUCTION.
- 5. DURING CONSTRUCTION THE SUBCONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF ALL UNDER AND ABOVE GROUND UTILITIES AFFECTED BY THE SUBCONTRACTOR'S WORK.
- 6. THE SUBCONTRACTOR SHALL CONTACT "DIG SAFELY NY" WITHIN 72 HOURS PRIOR TO THE COMMENCEMENT OF THE WORK. THE SUBCONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND IF NECESSARY, NOTIFY THE AFFECTED UTILITY DEPARTMENTS ONE WEEK PRIOR TO DIGGING IN ANY PORTION OF THE SITE. DIG SAFELY NEW YORK PHONE NUMBER: 1-800-962-7962. WEBSITE: WWW.DIGSAFELYNEWYORK.COM
- 7. THE SUBCONTRACTOR SHALL COORDINATE ANY NECESSARY TRAFFIC CONTROLS AND OBTAIN ANY NECESSARY
- PERMITS THAT MAY BE REQUIRED TO PERFORM THE WORK. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SURVEY CONTROL DURING THE PERFORMANCE OF WORK AND TO VERIFY EXISTING GRADES. THE CONTRACT DRAWINGS WILL BE PROVIDED TO THE SUBCONTRACTOR IN ELECTRONIC FORMAT FOR THE SUBCONTRACTOR'S USE.
- PROPER EROSION CONTROL TECHNIQUES SHALL BE IMPLEMENTED AS REQUIRED IN ACCORDANCE WITH THE APPLICABLE REGULATIONS OR DIRECTED BY THE ENGINEER.
- 10. THE SUBCONTRACTOR SHALL RESTORE TO PRECONSTRUCTION CONDITIONS OR BETTER ALL SUPPORT AREAS THAT ARE IMPACTED BY CONSTRUCTION ACTIVITIES.
- 11. ALL SURFACES DAMAGED OR DESTROYED AS A RESULT OF WORK PERFORMED BY THE SUBCONTRACTOR SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER IN A TIMELY MANNER AND PRIOR TO SUBCONTRACTOR
- 12. THE SUBCONTRACTOR MUST COMPLY WITH PERMIT CONDITIONS AND MAINTAIN A COPY OF ALL PERMITS ON SITE DURING CONSTRUCTION.
- 13. THE SUBCONTRACTOR SHALL NOT INVADE UPON PRIVATE PROPERTIES, LANDS OR BUILDING FOR ANY REASON WITHOUT FIRST SECURING PERMISSION FOR THE PROPERTY OWNER. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE THAT MAY OCCUR. ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY DUE TO SUBCONTRACTOR USE OF PRIVATE PROPERTY.

- 1. THIS SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE).
- THIS SURVEY IS REFERENCED VERTICALLY TO THE INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85).
- NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE).
- 4. THE INFORMATION SHOWN HEREON IS BASED ON A BATHYMETRIC AND FIELD SURVEY COMPLETED ON DECEMBER 4, 2019 BY PRUDENT ENGINEERING OF EAST SYRACUSE, NEW YORK.
- 5. THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR PERFORM A SINGLE-BEAM BATHYMETRIC SURVEY OF THE ENTIRE CHANNEL AREA WITHIN 72-HOURS OF THE START OF DREDGING. SURVEY SHALL BE PROVIDED TO THE ENGINEER BY REQUEST AND SHALL BE CONSIDERED THE PRE-CONSTRUCTION SURVEY FOR PURPOSES OF MEASUREMENT FOR PAYMENT.
- 6. ALL COORDINATION OF FIELD SURVEY OPERATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 7. THE SURVEY SHALL HAVE A MINIMUM HORIZONTAL ACCURACY OF 1-FT AND A MINIMIUM VERTICAL ACCURACE OF

DREDGING AND STOCKPILING REQUIREMENTS:

- 1. DREDGING OPERATIONS SHALL BE CONDUCTED TO THE ENGINEER'S SATISFACTION, AND IN ACCORDANCE WITH REGULATORY PERMITS, THE CONTRACT DRAWINGS AND THE SUBCONTRACTOR SCOPE OF WORK.
- MINIMIZE SPILLAGE, RETURN, AND RE-SUSPENSION OF DREDGED MATERIALS TO THE WATERS OF NEW YORK.
- 3. QUANTITIES RESULTING FROM DREDGING GREATER THAN 6 INCHES BELOW THE REQUIRED DREDGE LINE WILL NOT BE PAID FOR.
- 4. ANY CONTIGUOUS 400 SF AREA WHOSE AVERAGE ELEVATION IS GREATER THAN THE REQUIRED DREDGE LINE SHALL BE RE -DREDGED IF DIRECTED BY THE ENGINEER.
- THE TARGED DREDGING PRISM INCLUDES THE DESIRED DEPTH WITHIN THE DREDGING LIMITS SHOWN ON THE CONTRACT DRAWINGS.
- 6. ONLY MINIMAL DISRUPTION TO PUBLIC USE OF THE OUTLET CHANNEL FOR TRAVEL BETWEEN PORT BAY AND LAKE
- DREDGED SEDIMENT SHALL BE STOCKPILED TO A HEIGHT NO GREATER THAN 10-FT FROM SURROUNDING GRADE. THE COST FOR SUCH WORK SHALL BE INCLUDED IN THE DREDGING PAYMENT ITEM.
- 8. AT THE COMPLETION OF WORK THE STOCKPILE SHALL BE COVERED WITH 40 MIL POLYETHYLENE SHEETING AND PROPERLY SECURED AND SILT FENCING SHALL BE PLACED TO COMPLETELY ENCIRCLE THE STOCKPILE. THE COST FOR SUCH WORK SHALL BE INCLUDED IN DREDGING PAYMENT ITEM.
- CONTRACTOR SHALL TAKE MEASURES TO PREVENT EROSION BACK TO SURFACE WATERS. SILT FENCE, OR OTHER APPROPRIATE AND APPROVED MEANS, SHALL BE PLACED AS NEEDED AND/OR DIRECTED BY THE ENGINEER.
- 10. CONTRACTOR SHALL REMOVE AND REINSTALL OR PROTECT EXISTING RAILING AT BULKHEAD.
- 11. CONTRACTOR SHALL UTILIZE CRANE MATS OR APPROVED EQUAL TO MITIGATE EQUIPMENT LOADS ON EXISTING BULKHEAD. DAMAGE TO THE BULKHEAD SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.

- 1. THE CONTRACTOR SHALL CONDUCT OPERATIONS, TO THE SATISFACTION OF THE ENGINEER, TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY WATERWAY FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR THE WATERWAY. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM, OR TO A DITCH IMMEDIATELY FLOWING INTO A STREAM, ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS, WHICH COULD CAUSE THIS WATER TO BECOME POLLUTED WITH SANO, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM A STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN WATER RIGHTS, AND TO SUSTAIN FISH LIFE DOWNSTREAM. THE CONTRACTOR'S OPERATIONS SHALL BE CONDUCTED IN A MANNER THAT MAINTAINS FLOW CONSISTENT WITH AMBIENT CONDITIONS.
- NO VISIBLE CONTRAST BETWEEN UPSTREAM ANO DOWNSTREAM WATER QUALITY SHALL BE ALLOWED. ALL TEMPORARY MEASURES SHALL BE REMOVED, AND THE AREA RESTORED, TO THE SATISFACTION OF THE ENGINEER, AT THE COMPLETION OF THE WORK,
- APPROPRIATE SPILL PREVENTION AND CONTROL PROCEDURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ACTIVITIES, TO PREVENT OIL AND OTHER SUCH MATERIALS FROM DISCHARGING TO THE GROUND, DRAINS, DITCHES, SURFACE WATERS, WETLANDS AND/OR GROUNDWATER. THESE PROCEDURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, PROPER MAINTENANCE OF CONSTRUCTION EQUIPMENT, DESIGNATION OF FUEL/HAZARDOUS SUBSTANCES HANDLING AREAS, USE OF APPROPRIATE CONTAINMENT AND SPILL RESPONSE RESOURCES, FOR PREVENTION OF ANY SPILLS FROM ENTERING THE ENVIRONMENT.
- AN EMERGENCY RESPONSE CONTAINMENT KIT, INCLUDING OIL ABSORBENT BOOMS AND PADS, SHALL BE RETAINED ON SITE FOR RAPID DEPLOYMENT TO SOAK UP ANY POSSIBLE SPILLAGE.
- 5. THE USE OF CHEMICAL DISPERSING AGENTS AND EMULSIFIERS IS NOT AUTHORIZED WITHOUT PRIOR SPECIFIC FEDERAL OR STATE APPROVAL.
- 6. ALL FUELS WILL BE STORED IN A DOT-APPROVED METAL SAFETY CONTAINER WITH SELF-CLOSING SPOUT COVERS AND FLAME ARRESTORS.
- ANY QUANTITY OF MATERIAL RELEASED TO SURFACE WATER SHALL REQUIRE A SPILL REPONSE
- ALL SPILL RESPONSE PROCEDURES SHALL BE IN ACCORDANCE WITH UNITED STATES COAST GUARD AND NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) REGULATIONS.
- 9. IN THE EVENT OF A RELEASE GREATER THAN 5 GALLONS, THE FOLLOWING NOTIFICATION SHALL BE MADE:
- 9.1. PROJECT ENGINEER,
- 9.2. NYSDEC 1-800-457-7362, AND
- 9.3. AND THE NATIONAL RESPONSE CENTER 1-800-424-8802
- 10. IN THE EVENT OF A RELEASE OF LESS THAN 5 GALLONS, THE PROJECT ENGINEER SHALL BE NOTIFIED

WARNING:

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O'BRIEN & GERE ENGINEERS, INC A RAMBOLL COMPANY



IMPROVEMENTS

REVISIONS

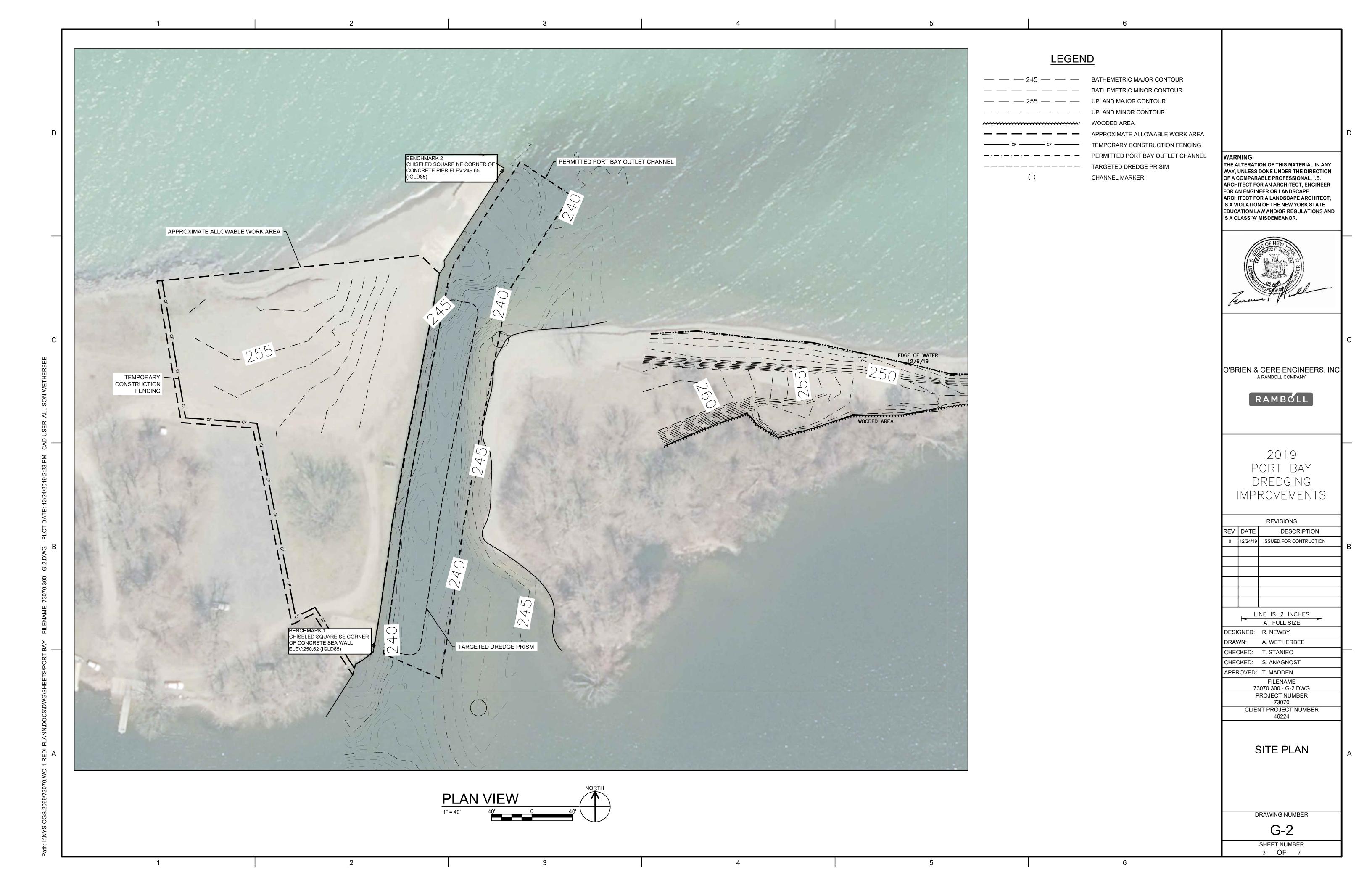
REV	DATE	DESCRIPTION			
0	12/24/19	ISSUED FOR CONSTRUCTION			
	LINE IS 2 INCHES				
	-	AT FULL SIZE			
DESI	DESIGNED: R. NEWBY				
DRAV	NN:	A. WETHERBEE			
CHE	CKED:	T. STANIEC			
CHE	CKED:	S. ANAGNOST			
APPF	ROVED:	T. MADDEN			
	FILENAME 73070.300 - G-1.DWG				
	PROJECT NUMBER 73707				

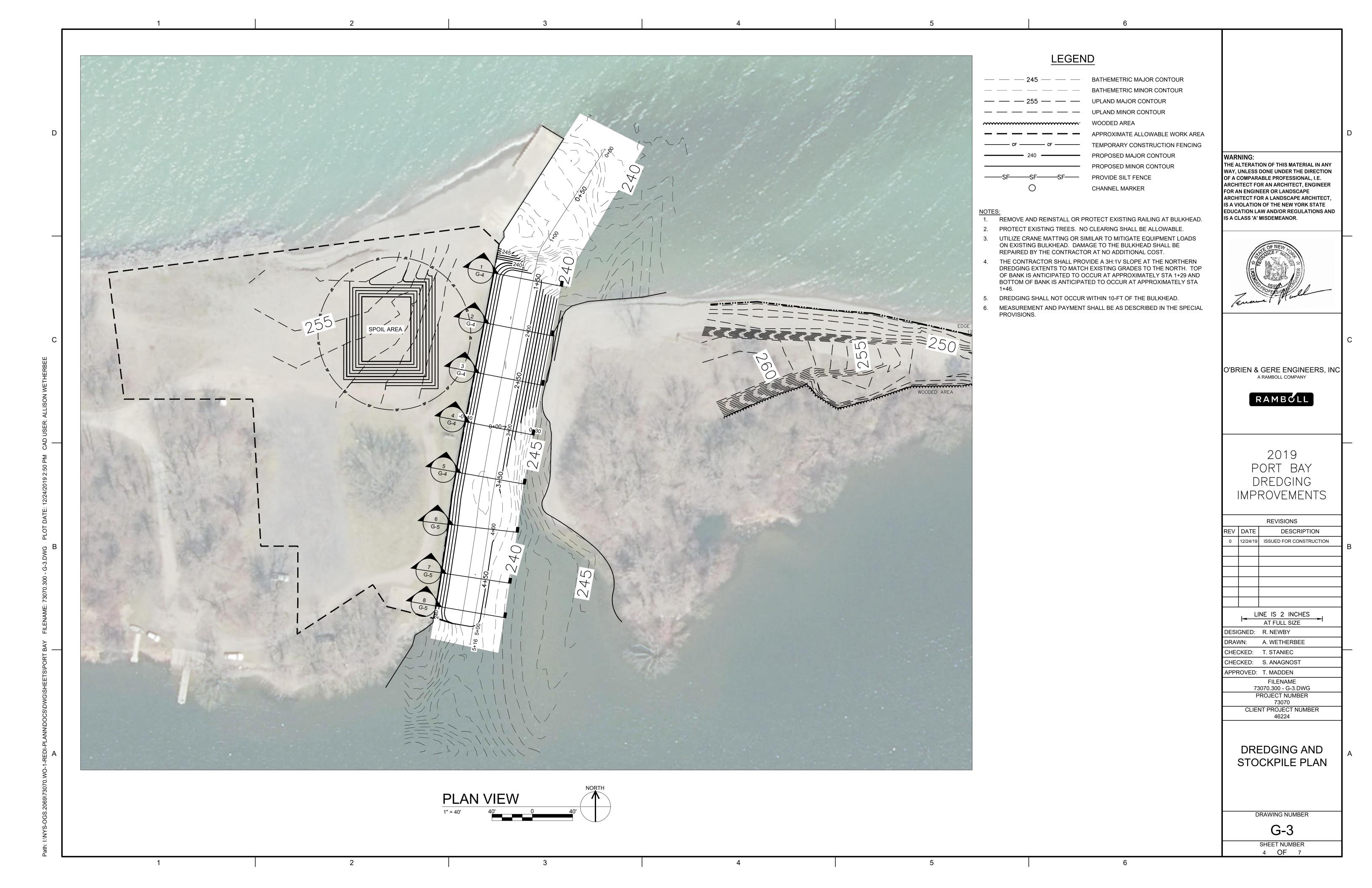
GENERAL NOTES

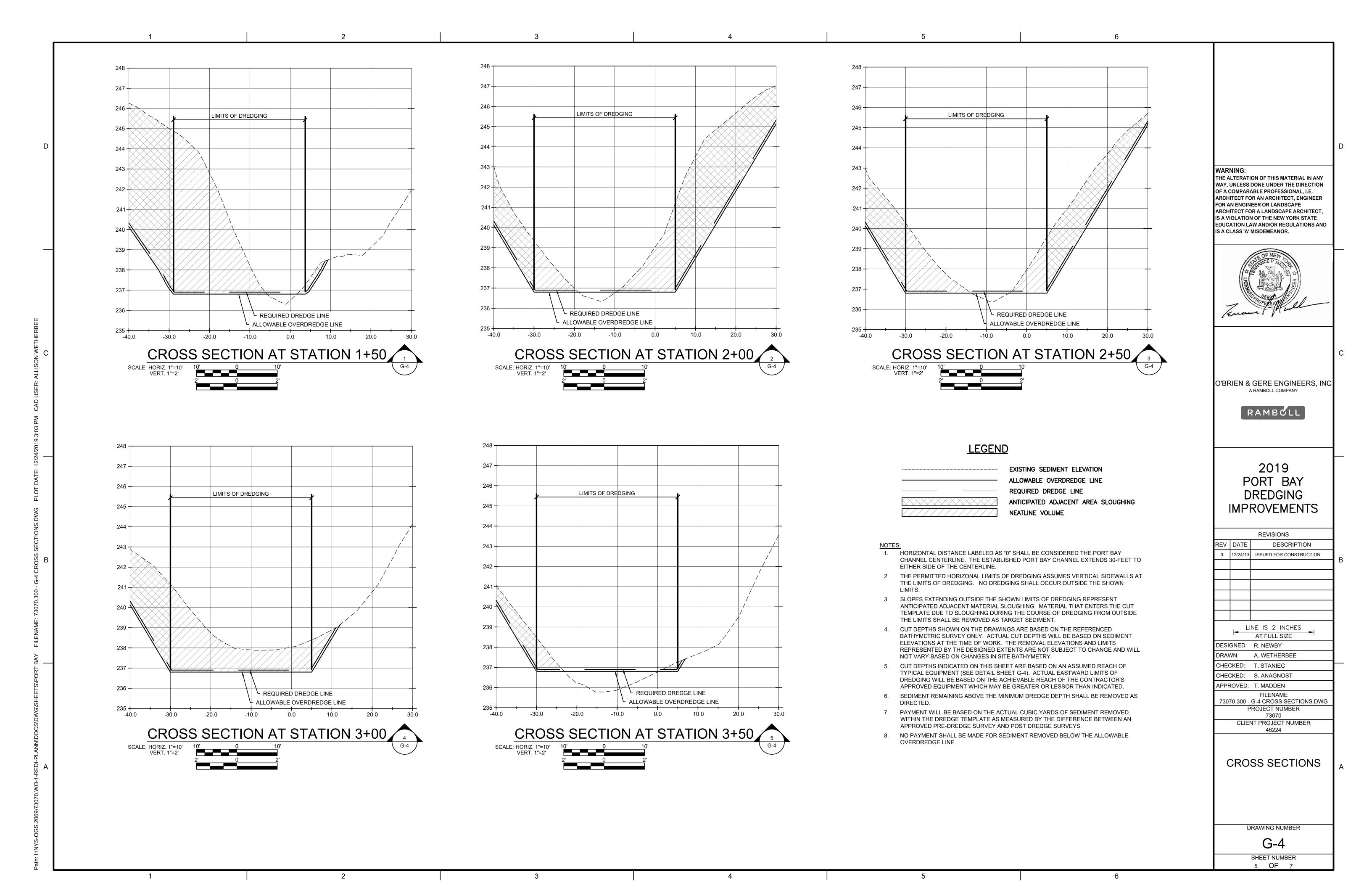
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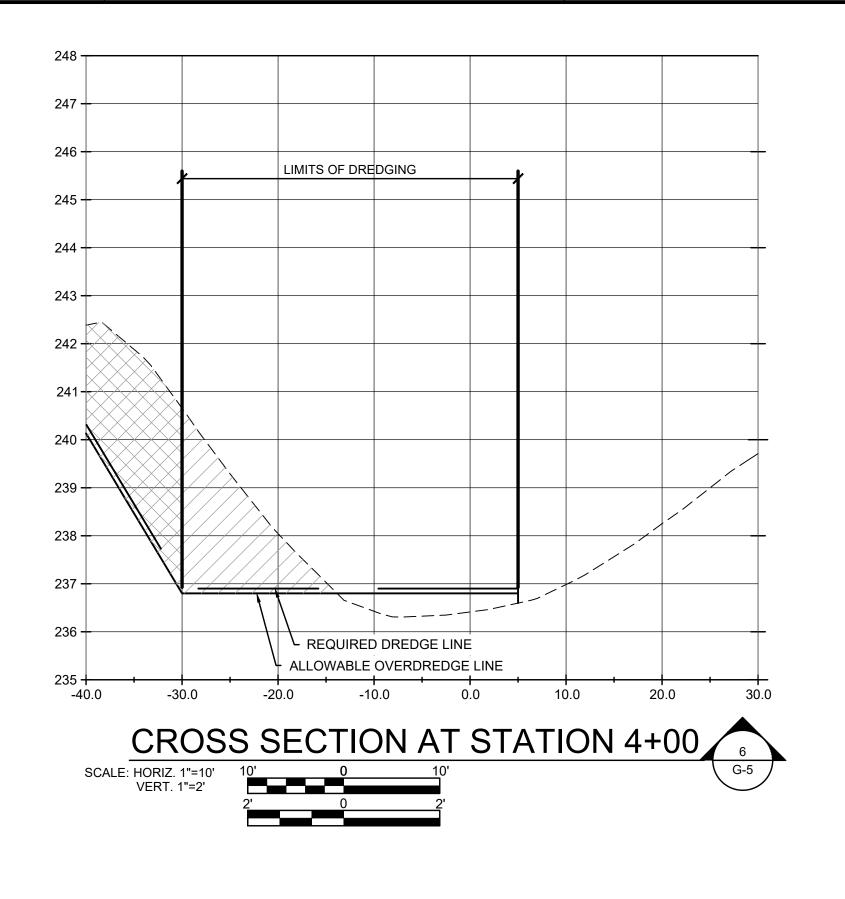
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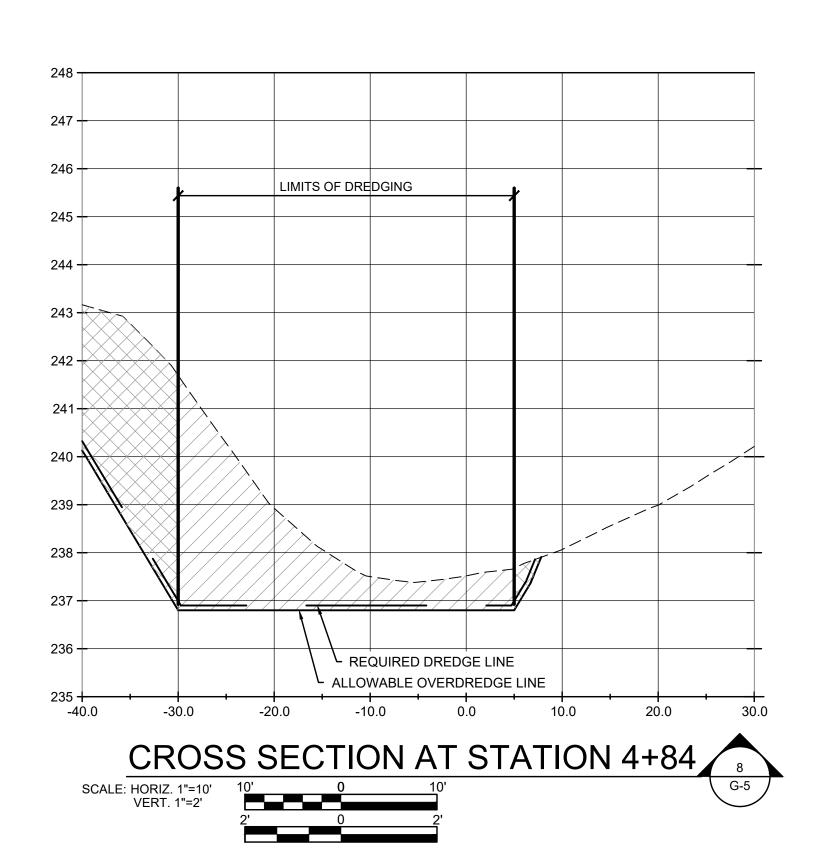
SHEET NUMBER 2 OF 7

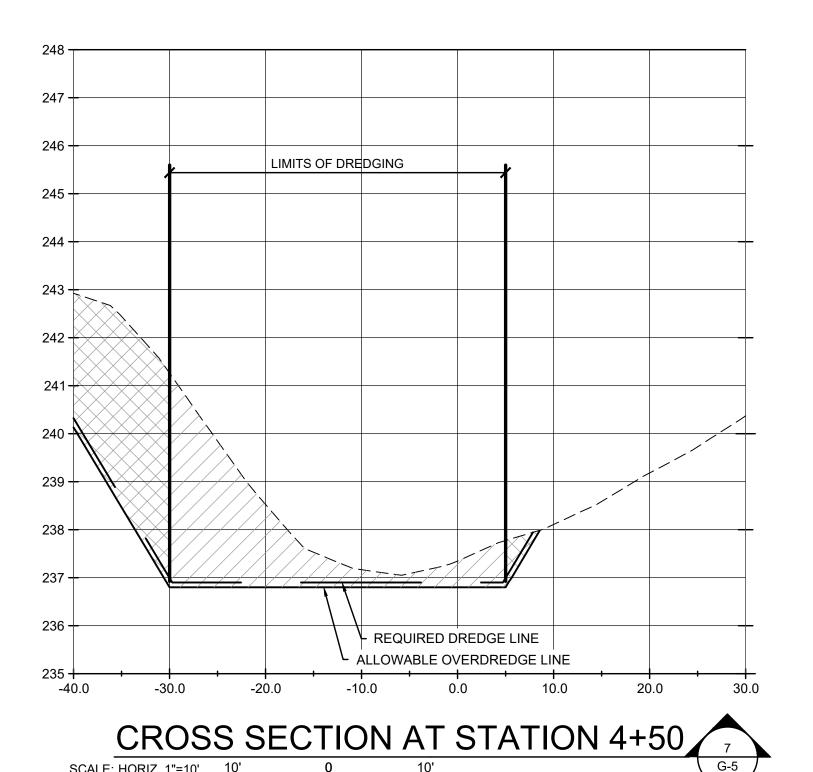












LEGEND

EXISTING SEDIMENT ELEVATION

ALLOWABLE OVERDREDGE LINE

REQUIRED DREDGE LINE

ANTICIPATED ADJACENT AREA SLOUGHING

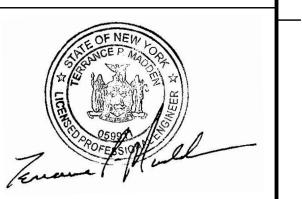
NEATLINE VOLUME

NOTES

- 1. HORIZONTAL DISTANCE LABELED AS "0" SHALL BE CONSIDERED THE PORT BAY CHANNEL CENTERLINE. THE ESTABLISHED PORT BAY CHANNEL EXTENDS 30-FEET TO EITHER SIDE OF THE CENTERLINE.
- 2. THE PERMITTED HORIZONAL LIMITS OF DREDGING ASSUMES VERTICAL SIDEWALLS AT THE LIMITS OF DREDGING. NO DREDGING SHALL OCCUR OUTSIDE THE SHOWN LIMITS.
- 3. SLOPES EXTENDING OUTSIDE THE SHOWN LIMITS OF DREDGING REPRESENT ANTICIPATED ADJACENT MATERIAL SLOUGHING. MATERIAL THAT ENTERS THE CUT TEMPLATE DUE TO SLOUGHING DURING THE COURSE OF DREDGING FROM OUTSIDE THE LIMITS SHALL BE REMOVED AS TARGET SEDIMENT.
- 4. CUT DEPTHS SHOWN ON THE DRAWINGS ARE BASED ON THE REFERENCED BATHYMETRIC SURVEY ONLY. ACTUAL CUT DEPTHS WILL BE BASED ON SEDIMENT ELEVATIONS AT THE TIME OF WORK. THE REMOVAL ELEVATIONS AND LIMITS REPRESENTED BY THE DESIGNED EXTENTS ARE NOT SUBJECT TO CHANGE AND WILL NOT VARY BASED ON CHANGES IN SITE BATHYMETRY.
- 5. CUT DEPTHS INDICATED ON THIS SHEET ARE BASED ON AN ASSUMED REACH OF TYPICAL EQUIPMENT (SEE DETAIL SHEET G-4). ACTUAL EASTWARD LIMITS OF DREDGING WILL BE BASED ON THE ACHIEVABLE REACH OF THE CONTRACTOR'S APPROVED EQUIPMENT WHICH MAY BE GREATER OR LESSOR THAN INDICATED.
- 6. SEDIMENT REMAINING ABOVE THE MINIMUM DREDGE DEPTH SHALL BE REMOVED AS DIRECTED.
- 7. PAYMENT WILL BE BASED ON THE ACTUAL CUBIC YARDS OF SEDIMENT REMOVED WITHIN THE DREDGE TEMPLATE AS MEASURED BY THE DIFFERENCE BETWEEN AN APPROVED PRE-DREDGE SURVEY AND POST DREDGE SURVEYS.
- 8. NO PAYMENT SHALL BE MADE FOR SEDIMENT REMOVED BELOW THE ALLOWABLE OVERDREDGE LINE.

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O'BRIEN & GERE ENGINEERS, INC A RAMBOLL COMPANY



2019 PORT BAY DREDGING IMPROVEMENTS

		NO VEIVIETTI O
		REVISIONS
REV	DATE	DESCRIPTION
0	12/24/19	ISSUED FOR CONSTRUCTION
	 ■ LI	NE IS 2 INCHES AT FULL SIZE
DESI	GNED:	R. NEWBY
DRAWN:		A. WETHERBEE
CHE	CKED:	T. STANIEC
CHECKED:		S. ANAGNOST

CLIENT PROJECT NUMBER 46224

FILENAME

73070.300 - G-5 CROSS SECTIONS.DWG

PROJECT NUMBER

73070

CROSS SECTIONS

APPROVED: T. MADDEN

DRAWING NUMBER

G-5

SHEET NUMBER
6 OF 7

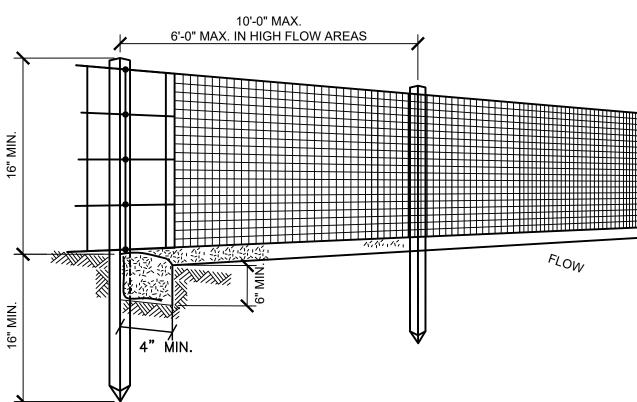
3

В

HEETS/PORT BAY FILENAME: 73070.300 - G-5 CROSS SEC

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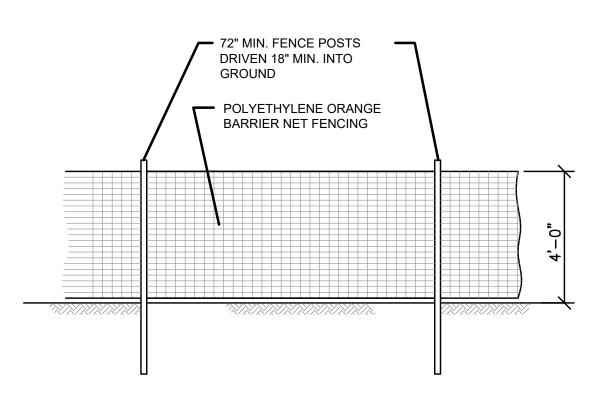
TYPICAL DREDGE CROSS SECTION



NOT TO SCALE

- WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. EMBED SEDIMENT CONTROL FABRIC MIN. 6" INTO
- EACH OTHER THEY SHALL BE OVER-LAPPED BY MIN. SIX INCHES AND FOLDED.
- 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT
- 5. FENCE TO BE ALIGNED ALONG CONTOUR AS CLOSELY AS
- POSTS: STEEL (EITHER "T" OR "U" TYPE) OR 2" HARDWOOD ALL MIN. 36"
- FENCE: WOVEN WIRE; MIN. 14.5 GAUGE 6" MAX. MESH OPENING
- SEDIMENT CONTROL FABRIC: MINIMUM TENSILE STRENGTH OF 120 LBS/100 LBS (MD/CD) (ASTM D4632)
- PREFABRICATED UNIT: MIRAFI ENVIROFENCE, OR APPROVED EQUAL

NOT TO SCALE



NOTES:

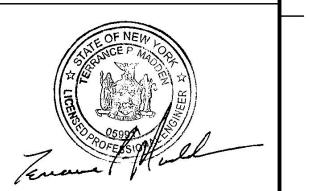
- 1. SECURE FENCING SECURELY TO POSTS.
- 2. MIN. 2' OVERLAP OF FENCE SPLICES (SECURE AS REQUIRED).
- 3. REMOVE UPON COMPLETION OF WORK.
- 4. INSTALL CONSTRUCTION FENCE ALONG PERIMETER OF WORK ZONE.
- 5. EQUIP FENCE WITH "CONSTRUCTION AREA AUTHORIZED PERSONNEL ONLY" AT A MINIMUM OF EVERY 20 FEET.

TEMPORARY CONSTRUCTION FENCE DETAIL

NOT TO SCALE

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O'BRIEN & GERE ENGINEERS, INC A RAMBOLL COMPANY



2019 **DREDGING IMPROVEMENTS**

REVISIONS REV DATE DESCRIPTION ISSUED FOR CONSTRUCTION 0 12/24/19

> LINE IS 2 INCHES AT FULL SIZE

DRAWN: A. WETHERBEE CHECKED: T. STANIEC CHECKED: S. ANAGNOST

DESIGNED: R. NEWBY

APPROVED: T. MADDEN **FILENAME** 73070.300 - G-6 MISC DETAILS.DWG

> 73070 CLIENT PROJECT NUMBER 46224

PROJECT NUMBER

MISCELLANEOUS DETAILS

DRAWING NUMBER

G-6

SHEET NUMBER 7 OF 7

DETAIL NOTES:

- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- 2. SEDIMENT CONTROL FABRIC TO BE FASTENED SECURELY TO
- 3. WHEN TWO SECTIONS OF SEDIMENT CONTROL FABRIC ADJOIN
- POSSIBLE.

SILT FENCE DETAIL