

NEW YORK CITY
DEPARTMENT OF TRANSPORTATION
STATEN ISLAND FERRY

CONSTRUCTION OF THREE (3) OLLIS CLASS FERRIES

CONSTRUCTION MANAGEMENT
PLAN
(CMP)



Revision History

Section	Rev	Description	Date	Approved
	A	Initial issue		

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1.0 Project Overview

Project:	Construction of three (3) 4500-class passenger ferry boats
Owner:	New York City Department of Transportation
Designers/Naval Architects:	Elliot Bay Design Group LLC
Owner's Representative:	Glosten Inc.
Shipyard Construction Contractor:	TBD

1.1 CMP Purpose

This Construction Management Plan (CMP) is to be utilized as a guide for the definition of the project team elements and their members, the organizational roles, responsibilities, and authority of the individual members, as well as delineate the lines of communications and protocols for information exchange for the New York City Department of Transportation (NYCDOT) Ollis Class Ferry Construction Project. It also describes the various project management functions and processes necessary for the execution of a successful project, including not limited to, project documentation, reporting, submittal reviews/approvals, inspections/testing/quality assurance, and contract change management procedures. For further clarification on the Contractor's roles and responsibilities, please refer to the Contract documents.

In the event of a conflict between this CMP guidance document and the Contract, the Contract shall always take precedence, in accordance with Article 1 of Book 1 of the Contract.

This is a long term, high visibility project that directly affects millions of New Yorkers. To that end, this shall be a collaborative and supportive effort by all team members. All team members' opinions and comments will be considered and taken under advisement in a professional manner, as the exchange of ideas and perspective is critical. However, the Owner has the right and responsibility to make final decisions and the other team members have the responsibility to support them.

1.2 Project Scope

The project scope includes the construction and delivery of three (3) 320-foot-long, 4,500-passenger capacity, high-performance ferry boats (Ollis Class) to the NYCDOT Staten Island Ferry (SIF), meeting all of the contract requirements and drawing, and specification requirements, both on time and within budget.

1.3 Construction Support Files

While not included as part of the plan, the following electronic files will be provided to the Contractor not later than issuance of the Notice to Proceed (NTP) to support the on-site team and project management:

- **List of Contract-Required Deliverables (with schedule and contract location reference)**

16 May 2016

- **Conformed Contract, Technical Specifications, and Contract & Contract Guidance Drawings (Conformed Contract Books)**
- **USCG Contract Design Regulatory Correspondence (letters and stamped prints-)**
- **ABS Contract Design Regulatory Correspondence (letters and stamped prints-)**

1.4 List of Abbreviations & Definitions

ABS – American Bureau of Shipping

CFR – Condition Found Report

CO – Change Order

RWO– Regulatory Work Order

DBE – Disadvantaged Business Enterprise

EAB – NYCDOT Engineering Audit Bureau

EBDG – Elliott Bay Design Group LLC.

FTA – Federal Transit Administration

G&A – General and Administrative Expense

Glosten – Glosten, Inc.

HSE – Health, Safety, and Environment

HVAC – Heating, Ventilation, and Air Conditioning

NTP – Notice to Proceed

NYCDOT – New York City Department of Transportation

Owner –NYCDOT

OPM/E –Owner's Project Manager and Engineer

ODT –Owner's Design Team

ORT –Owner's Representative Team

ORPM –Owner's Representative Project Manager

PM – Project Manager

CMP Construction Management Plan

PO – Purchase Order

POC – Point of Contact

PPB – NYC Procurement Policy Board Rules

QC/QA – Quality Control/Quality Assurance

Resident Engineer – On-Site Owner's Representative

RFI – Request For Information

RFP – Request For Proposal

SIF – Staten Island Ferry

SCC – Shipyard Construction Contractor

USCG – U.S. Coast Guard

VENDEX –Vendor Information Exchange System (computerized NYC system providing comprehensive contract management information)

1.5 Project Team

OWNER TEAM: New York City Department of Transportation (NYCDOT) Staten Island Ferry (SIF)

Name	Project Title	Email	Phone Number
Captain James DeSimone	<i>Chief Operating Officer</i>	jdesimone@dot.nyc.gov	212-839-3093
John Collins	<i>Director of Ferry Engineering</i>	jcollins2@dot.nyc.gov	212-839-3098
Thomas Young	<i>Senior Vessel Construction Manager / Owner's Project Manager & Engineer (OPM/E)</i>	tyoung@dot.nyc.gov	212-839-3079
George Mahoney	<i>Director of Administration</i>	gmahoney@dot.nyc.gov	212-839-3097

OWNER'S REPRESENTATIVE TEAM (ORT): Glostén, Inc. (Glostén)

Name	Project Title	Email	Phone Number
Matt Miller	<i>Owner's Representative Project Manager (ORPM)</i>	msmiller@glosten.com	206-624-7850
Jody Bjerkeset	<i>On Site Owner's Representative / Resident Engineer</i>	jbjerkeset@ral.ca	203-906-3605
Dirk Kristensen	<i>Senior Management, Quality Assurance</i>	dhkristensen@glosten.com	206-624-7850
Roland Webb	<i>Senior Management, Constructability, Schedule and Budget Oversight</i>	rwebb@ral.ca	604-736-9466

OWNER'S DESIGN TEAM (ODT): Elliot Bay Design Group LLC (EBDG)

Name	Project Title	Email	Phone Number
Matt Williamson	<i>Design Project Manager</i>	mwilliamson@ebdg.com	206-782-3082
Mike Johnson	<i>Design Project Engineer</i>	mjohnson@ebdg.com	206-782-3082

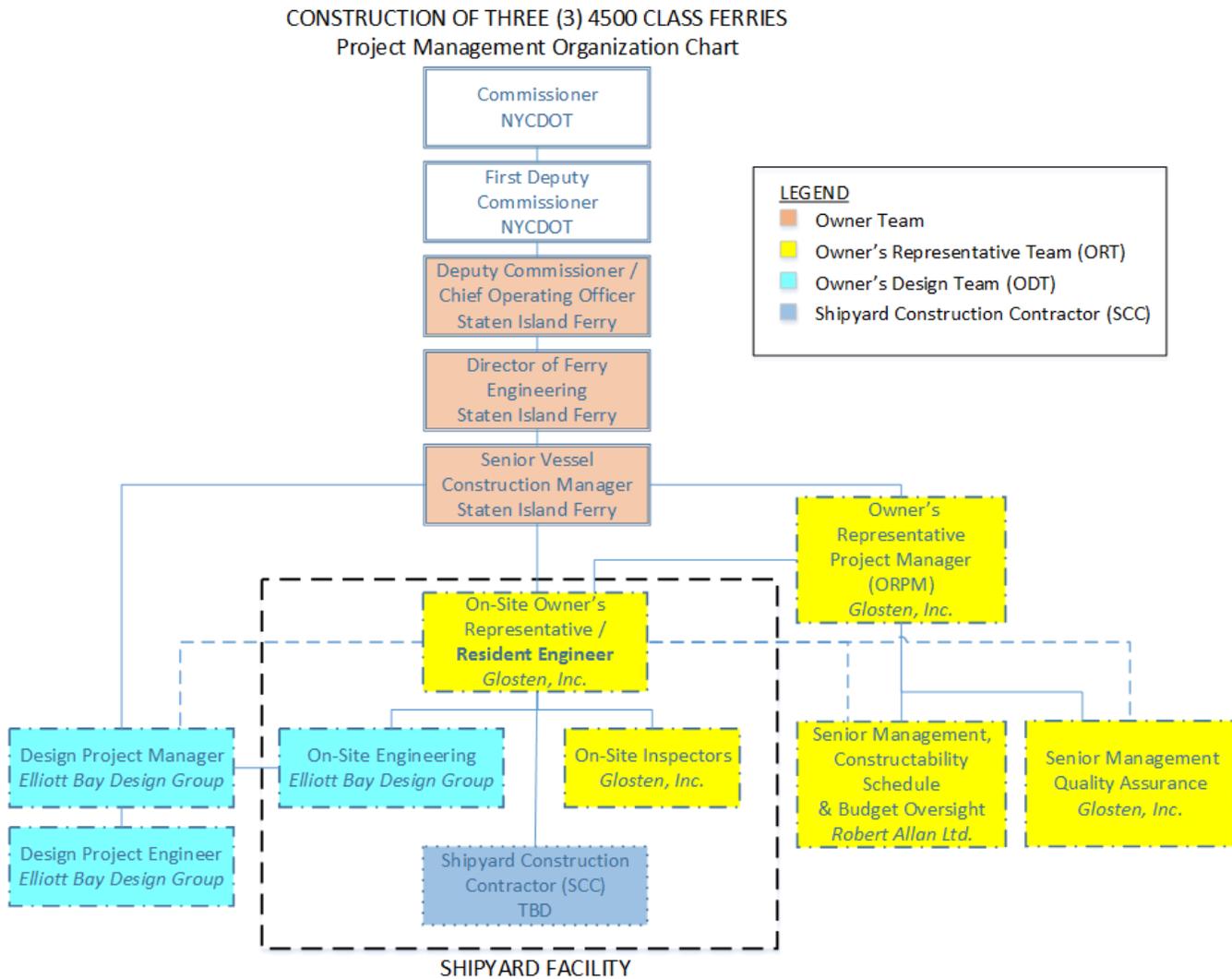
SHIPYARD CONSTRUCTION CONTRACTOR (SCC): TBD

Name	Project Title	Email	Phone Number
TBD	TBD	TBD	TBD

2.0 Roles, Responsibilities and Authorizations

2.1 Project Organization

The following graphic shows the project management organization for all project teams.



2.2 Owner Team

2.2.1 Chief Operating Officer

The Deputy Commissioner of the Ferry Division and the Chief Operating Officer (COO) of the Staten Island Ferry monitors project progress and matters at a high level. He shall be kept apprised of the project status primarily through his Director of Ferry Engineering, Senior Vessel Construction Manager and monthly project reports. Issues of a serious nature, including but not limited to, large contractor claims or extreme project schedule delays, shall be brought to his immediate attention for consideration of potential courses of action towards resolution. Other interdepartmental responsibilities include:

- High-level project coordination between all divisions of NYCDOT and that such work is being performed in a timely, efficient, rational, and reasonable manner.
- Reviewing and resolving any conflicts between the requirements of the various NYCDOT divisions.
- Liaising with the NYCDOT Commissioner and conveying the Commissioner's directions to the Project Team.

2.2.2 Director of Ferry Engineering

The Director of Ferry Engineering serves as the Project Executive. He shall be responsible for high-level and overall management of the Project. He will manage and oversee Staten Island Ferry staff assigned to the project to ensure project responsibilities are performed in a timely efficient, rational, and reasonable manner. He will be responsible for all project matters requiring written approval from the Staten Island Ferry, or as delegated.

2.2.3 Senior Vessel Construction Manager

The Senior Vessel Construction Manager in the Ferry Engineering Unit serves as NYCDOT's Project Manager for this project (Owner's Project Manager and Engineer – OPM/E). He shall be the main contact point on behalf of NYCDOT for the Project. He shall coordinate directly with the Project Managers from the Owner's Design Team (ODT), the Owner's Representative Team (ORT), the Shipyard Construction Contractor (TBD), as well as with any other party to the Project. He will maintain continuous communications with the on-site Resident Engineer to keep fully abreast of all shipyard contract, design and production activities and events. He shall be responsible for managing the contracts with the ODT, the ORT and the SCC and enforcing the requirements of these contracts. He will play a pivotal role in ensuring the quality, budget adherence, and schedule compliance at every stage of the Project. Furthermore, he shall:

- Provide continuous administrative and management direction of project operations.
- Interface and coordinate design review with the ODT and NYCDOT, as well as other parties including, but not limited to, the SCC, the U.S. Coast Guard (USCG) and the American Bureau of Shipping (ABS).
- Interface and coordinate construction oversight with the ORT and NYCDOT, as well as other parties including, but not limited to, the SCC, the USCG, and the ABS.
- Process the contracts for the ODT, ORT and SCC.
- Process the payments for the ODT, ORT and SCC.
- Process negotiated Change and Regulatory Work Orders.
- Assist contractors in submitting VENDEX and employment forms.
- Ensure the compliance of ODT, ORT and SCC with Project goals with regard to budget, schedule, and project management.
- Inspect the project site to monitor progress and issues of safety and quality.

- Ensure the compliance of ODT, ORT and SCC with the requirements of their respective contracts (including DBE requirements).
- Evaluate the performance of the ODT, ORT and SCC.

2.2.4 Director of Administration

The Director of Administration monitors project progress and matters at a high level. He shall be kept apprised of the project status primarily through Director of Ferry Engineering, Senior Vessel Construction Manager and monthly project reports. He will be involved in major project decisions that involve ferry operations and system administrative matters. He will also be involved in project matters with regard to ferry personnel, such as on site personnel trips and training.

2.2.5 SIF Operating Personnel

From time-to-time, various members of the Owner's operating staff will be on site for various observer functions. These persons will report directly to the OPM/E while on site.

2.3 Owner's Representative Team (ORT)

The Owner's Representative Team (ORT), a role filled by Glosten, Inc. (Glosten), provides all facets of construction management and oversight on behalf of the Owners. They serve as the Resident Engineer with the SCC and other project members, managing and coordinating all on-site vessel construction related activities, including but not limited to:

- Project documentation dissemination/control/logging.
- Reporting/log maintenance.
- Quality assurance and quality audit inspections/tests/trials oversight/acceptance.
- Pay milestone review/certification.
- Schedule review/monitoring.
- Change Order and Contingency Work Order process management, document generation, estimates, negotiations and recommendations.
- Budget monitoring.
- Risk assessment.
- Vessel handover and warranty period assistance.

2.3.1 Owner's Representative Project Manager (ORPM)

The Owner's Representative Project Manager (ORPM) is the project lead on behalf of the Owner's Representative team. As such, he is ultimately responsible for all of the above-defined tasks and activities being successfully carried out and implemented. He maintains constant communications with the OPM/E and On-Site Owner's Representative/Resident Engineer (Resident Engineer) in order to achieve this. He is the direct supervisor of the Resident Engineer. Project information from the shipyard will be directed to him primarily by the Resident Engineer and he will disseminate information/documents amongst the ORT members as appropriate, depending on the submittal at

hand. He will be on site on a regular basis and for all critical events, including, but not limited to, the project kick off meeting, quarterly meetings, and dock and sea trials.

2.3.2 On Site Owner's Representative/Resident Engineer

Referred to in the contract documents as the Resident Engineer, this position serves as the focal point of project communications between the shipyard and the Owner. This is elaborated on in the Communications section of this CMP. The Resident Engineer reports directly to the ORPM and OPM/E and maintains daily contact with them. The Resident Engineer coordinates all on-site activities and ORT personnel.

He disseminates project documentation to the various team members, provides shipyard submittal written responses/approvals after receiving feedback from the team members, maintains all project logs, schedules meetings/teleconferences, records and distributes meeting minutes, provides pay milestone certification, manages Change and Regulatory Work Order processes and documentation, oversees and coordinates on-site QC/QA/inspection/testing processes and inspectors, monitors and advises on other project matters such as project schedule, budget, risk assessment, etc. These duties are further detailed in the Communication section, but will specifically include maintaining a daily log, issuing a short weekly status report, and issuing a monthly report addressing status, budget, schedule, Change Orders, and Regulatory Work Orders.

2.3.3 Senior Management, Quality Assurance

Senior Management, Quality Assurance has overall responsibility for the ORT and their satisfactory performance in their individual roles. He assists the ORPM and Resident Engineer with review and recommendations of shipyard contract issues of every nature that arises. He attends all significant meetings and provides to the project a senior-level, “Big Picture” perspective on project matters. He communicates directly with the OPM/E.

2.3.4 Senior Management, Constructability, Schedule, and Budget Oversight

Similar to Senior Management, Quality Assurance, but with a somewhat different focus, this individual focuses on constructability issues, project schedule review and provides budget oversight input. He does not get involved with normal day-to-day topics, but rather, higher-level topics and matters that affect the project overall. He may attend specific meetings in which these topics are covered.

2.3.5 On-Site Inspectors

Designated On-Site Inspectors employed by the ORT are authorized to inspect all work done and materials furnished as assigned by the Resident Engineer. The inspectors are not authorized to issue instructions contrary to the terms of the contract documents, or to act as supervisor for the SCC; however, the On-Site Inspectors shall have the authority to reject work and materials. The scope of rejections to the SCC shall be defined by the OPM/E.

The SCC shall have an established QC/QA plan implemented that makes provision of inspections by the On-Site Inspectors and other project personnel, and documents the results. In no case shall formal inspection be carried out unless the results and findings are documented, signed, and dated

by the inspector. The On-Site Inspectors shall immediately make the Resident Engineer aware of any work that is rejected or conditionally accepted.

The On-Site Inspectors shall be composed of various disciplines. The final make-up shall be determined when the SCC is selected and a build schedule provided. It is anticipated that the following disciplines will be required (one person may fill multiple disciplines, on-site engineering and project staff will assist):

- Contract/Administrative Support
- Structure
- Piping
- Paint
- Outfitting
- Electrical
- Electronics
- Machinery (propulsion and main auxiliaries)
- Machinery (miscellaneous and HVAC)
- Commissioning and testing

It is anticipated that a typical staffing level would be four to six full-time equivalents to cover all three vessels, once construction begins in earnest. However, the actual on-site resource levels at any given time will vary to suit the current state of construction of the vessels and their needs at that time. The intent is that these full-time equivalents cover all three vessels so that a measured and consistent approach is provided for acceptance/rejection of the work.

2.4 Owner's Design Team (ODT)

The Designer/Naval Architect for this project is the Owner's Design Team (ODT), the role being filled by Elliott Bay Design Group (EBDG). They provide project design technical and inspection support. The ODT shall ensure design integrity is maintained throughout the construction of the vessels. They will work closely and collaboratively with the OPM/E and Resident Engineer. All shipyard-related technical submissions (such as working drawings, purchase orders, major equipment vendor submittals, etc.) will be provided to them by the Resident Engineer for review as generally outlined below:

- Initial issue and major revisions will typically be done at the home office (recommendation by ODT with concurrence by Resident Engineer).
- Minor revisions are to be handled on site by the ODT.
- All comments shall be in a numbered sequence, with specific contract citations for each comment.
- The review will include a summary recommendation to accept or reject. Major reasons for rejection should be specifically noted.

- The review shall be considered by the Resident Engineer, discussed with the ODT as necessary for complete understanding and clarity, and a final review response drafted by the Resident Engineer accordingly. Resident Engineer is responsible for review response transmissions to Contractor.

All proposed design changes and/or potential contract CO/DO topics will be shared and reviewed with the ODT for their input and recommendations. The ODT may suggest change orders and task orders to the Resident Engineer. The ODT will be responsible for technical sign-off on all Change and Regulatory Work Orders. The technical review of such orders shall typically be completed by the ODT within 48 hours of receipt.

2.4.1 On Site ODT

Some members from the ODT will be on site full time, with others present on an intermittent basis. They will be present for all critical events and meetings. The on-site ODT personnel will be present in support of the ORT on technical and inspection matters. The ODT will also keep a daily log, and issue a monthly report that identifies any on-site technical risks and concerns and describes the status of the design verification. The report will be reviewed by the Resident Engineer, and independently issued to the team upon consideration of the Resident Engineer's comments.

The ODT will monitor and confirm all SCC Class and regulatory technical submittal approvals are attained, maintain plan tracking logs accordingly, and immediately advise Resident Engineer of any potential, significant Class/regulatory issues that may arise.

ODT on-site Class and regulatory interface shall typically be accomplished as directed by the Resident Engineer.

3.0 Communications and Interfacing

3.1 General

Clear lines of project communications and interfacing are important for a smooth running project. The following descriptions explain the basic means and methods of project communications. The common principle of a single point of contact with the SCC is adhered to via the Resident Engineer. This provides the SCC with a clear, unambiguous communications channel, which minimizes confusion and misunderstandings.

The Resident Engineer generally serves as the information distribution point between all parties. He receives all required submittals from the SCC; distributes them to the appropriate parties for review, comments, recommendations, and information; and reviews as necessary. He also strives for concurrence from the Owner and ODT prior to responding. The Resident Engineer drafts and submits responses to the SCC.

In addition to the SCC, the Resident Engineer will generally maintain a single POC with the other project parties as well. In the case of the Owner, the POC will be the Owner Project Manager/Engineer (OPM/E). In the case of the OR team, the POC will be the ORPM. In the case of the ODT, the POC will be the Design Project Manager.

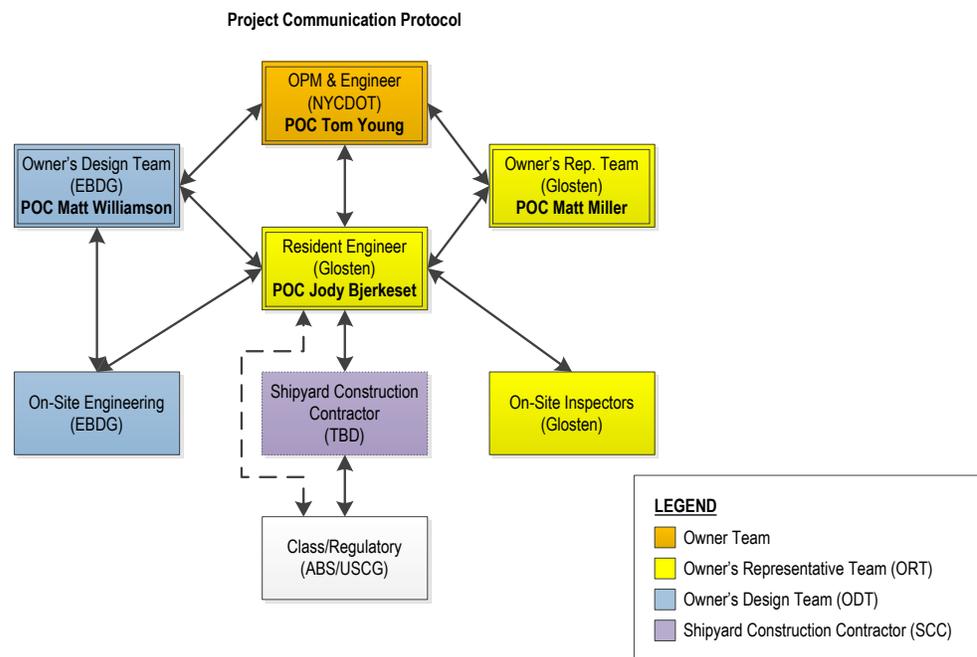
The Resident Engineer will also serve as the conduit for regulatory and classification information, whether received directly from or via the SCC.

The Resident Engineer will generate and distribute all project progress reports, logs, and meeting notes.

The primary mechanisms of project communications and document transfer will be via a dedicated FTP server or some form of file share application. Email will also be utilized, primarily for more narrowed communications on topics of a brief nature. In the case of documents requiring original signatures, these will be transmitted via overnight shipping carrier.

3.2 Project Communication Protocol

The general communications protocol and organization structure for the on-site project team is shown below. Communications between organizations are to be directed to each of the organizational points of contact as described above.



3.3 Meetings/Teleconferences

A project kick-off meeting will be held within 30 days of issuance of the NTP. This will be an extensive meeting with all parties to review all elements of the contract, including a detailed contract, project plan, and specification review. At least two days will be scheduled for this meeting.

After the NTP and kick-off meeting, the following regular meetings will be held:

- Daily teleconferences with the Resident Engineer, OPM/E, and ORPM to highlight major issues and challenges and immediate support/actions required.
- Bi-weekly production meetings with the SCC will be conducted early in the project and may be shifted to weekly meetings as deemed necessary based on project status and activity. An

agenda will be issued by the Resident Engineer before the meeting and signed minutes will be distributed after the meeting. Minutes will be provided by the Resident Engineer within two (2) working days after conclusion of the meeting.

- Weekly Video-Teleconference: Review of 3D Model.
- Weekly walk-throughs with the Resident Engineer, ODT, and On-Site Inspectors to review inspection results and progress, and make sure resources are aligned to support the week's tasks.
- Weekly Resident Engineer and SCC PM work site walk-through, to review progress and production issues, as well as health, safety, and environment (HSE) issues.
- Monthly progress review meetings, held at the SCC's facility. Every 3rd monthly meeting will be a quarterly meeting and maximum on-site participation from all parties will be strongly encouraged.

The frequency of all meetings may be adjusted as the situation warrants. Other parties will be invited to specific briefing meetings, as warranted. There will be numerous times that item-specific meetings will be coordinated and documented by the Resident Engineer, as necessary.

3.4 Project Reporting/Logs

As this is a government-sponsored project significant magnitude, there will be extensive reporting requirements. For the most part, these project reports and logs will be created and maintained electronically by the Resident Engineer and include, but not be limited to;

- Daily logs.
- Change Order log and status.
- Regulatory Work Order log and status.
- Class/Regulatory Status Log (maintained by ODT).
- Request For Information (RFI) Log (Contractor asks question seeking plan/spec clarification).
- Purchase Order Status (PO) Log.
- Condition Found Report (CFR) Log (Contractor has found an issue with plan/spec or a production related issue, and proposes a solution).
- Request For Proposal (RFP) Log (Contractor or Engineer proposes a change to the plan/spec).
- Plans/Calculations Status Log.
- Payment Milestone Log.
- Various QC/QA/Inspection/Testing and Trials Logs.
- Short Weekly Project Status Reports.
- Monthly and Quarterly Status Reports addressing:

- Schedule of Deliverables
- Plan Approval Status
- Class/Regulatory Approval Status
- Change Orders
- Regulatory Work Orders
- Construction Progress
- Progress Pay Milestone Status
- Project financial and funding status
- Project Schedule
- Upcoming major events
- Issues and risks
- Major accomplishments.
- Monthly Budget Review and Management Reports addressing:
 - SCC Budget
 - ODT Budget
 - ORT Budget.
- Site Trip Reports (including trips for Factory Acceptance Tests).
- Meeting Minutes.
- FTA Grant Reports (see below subsection).
- Final Project Report.
- CMP updates.

3.5 Grant Reporting

Federal grant reporting requirements, such as the monthly progress status report, DBE reporting, and Buy America provisions, will be generated and submitted by the OPM/E with the assistance and information provided to him by the Resident Engineer.

3.6 Class/Regulatory

Upon entering the construction phase, the SCC will be responsible for obtaining all regulatory and Class approvals necessary for the vessels to serve their mission in NYC. While these approvals are their responsibility, it is still necessary for the OR to monitor and work closely with the SCC on acquiring these approvals without delay and address and resolve any issues as they come up. The ODT will be primarily responsible for monitoring and reporting on the Class/regulatory plan approval status.

4.0 Shipyard Submittals and Inspections

The SCC shall provide all technical submittals, including Class and regulatory plan submittals, and schedules in accordance with Contract Book 1, Article 9 and Contract Book 4 (Technical Specifications), Section 040.

The SCC shall satisfy the inspection requirements of Contract Book 4, Section 091 and the weight control program requirements of Contract Book 4, Section 096.

5.0 QC/QA – Inspections/Testing/Trials

The Overall QC/QA program and processes are a significant task of the overall ORT and will involve a considerable amount of coordination and interfacing with the SCC's QC/QA team. Because all SCCs will have different approaches, procedures, and methodologies to QC/QA/Inspections/Testing/Trials, it is not practicable to go into great detail in the CMP on this matter. A comprehensive and detailed QC/QA program and documentation plan will be developed in conjunction with the selected SCC and incorporated into the CMP. However, a general description of the QC/QA plan is as provided below.

5.1 Inspection of Work at Construction Site(s)

The SCC shall provide the Resident Engineer and On-Site Inspectors written notification 24-hours prior to a scheduled inspection.

On-Site Inspectors designated by the NYCDOT are authorized to inspect all work done and materials furnished. The On-Site Inspector is not authorized to issue instructions contrary to the terms of the contract documents, or to act as foreman for the SCC. However, the Resident Engineer shall have the authority to reject work and materials. The SCC may appeal the rejection to the OPM/E.

All materials for which shop tests and/or standards are specified shall be inspected and tested by the SCC before incorporation into the work. Certain of these inspections and tests may be performed by, or require witness of, OR and/or regulatory bodies as required by the contract or otherwise directed by the Resident Engineer or regulatory body. Any work in which untested and unaccepted materials are used without approval or written permission of the Resident Engineer shall be immediately brought to the Resident Engineer's attention for disposition with the SCC.

Preliminary inspection of materials and finished articles to be incorporated in the work at the SCC's construction site may be made, at the Resident Engineer's discretion, at place of production, manufacture, or shipment. The On-Site Inspector team and the Resident Engineer shall closely monitor and communicate all in-process inspection and make sure that the intent of the inspection is clear to all parties.

The SCC is responsible for properly presenting completed work for inspection; for ensuring that work is inspected by the OR and, as applicable, the regulatory bodies before the work is covered up; and for coordinating all inspections with the OR and the regulatory bodies. Typically, work shall not be inspected until the SCC is satisfied that all work is properly done and in full compliance with the contract.

The SCC is required to give adequate notice in writing to the Resident Engineer and the applicable regulatory bodies. However, every reasonable effort is to be made to support the SCC and their schedule.

Coordination of inspections to be performed by regulatory body inspectors shall be wholly the responsibility of the SCC.

Weld inspections shall occur prior to painting the welds and shall include visual, radiographic, ultrasonic, hydrostatic, air or magnetic tests, separately or in combination, as acceptable to ABS and the NYCDOT. All weld inspection equipment and materials shall be provided by the SCC.

Primary responsibility for proper work and quality assurance rests with the SCC. Inspections, tests, measurements or other acts or functions performed by the OR are for the sole purpose of assisting the Resident Engineer in determining with reasonable assurance that the work, materials, equipment, rate of progress and quantities comply with the contract.

Such acts or functions, and tests or approvals by others, shall in no manner be construed to relieve the SCC from determining to their own satisfaction that they are in full compliance with the contract requirements at all times, nor to relieve the SCC from any of the responsibility for the work assigned by the contract.

Work, materials and equipment not meeting the contract requirements shall be made good, and unsuitable work and materials are to be replaced at the SCC's expense notwithstanding that such work or materials may have been previously inspected or that payment therefore may have been included in a progress payment.

Failure of the NYCDOT to discover work or materials not in accordance with the contract shall not be deemed as acceptance of such work or materials, nor as a waiver of the provisions of the contract. No payment shall be construed as acceptance of work or materials not in accordance with the contract, nor as agreement that work not called for by the contract was in fact called for.

Any work done or materials installed without inspection by the Resident Engineer or one of the On-Site Inspectors may be ordered removed for purposes of inspection and replaced at the SCC's expense, unless the Resident Engineer failed to inspect after having been given reasonable notice in accordance with the above provisions.

If the Resident Engineer failed to inspect after having been given reasonable notice in accordance with the above provisions, or if for any reason the Resident Engineer questions the probable compliance of any work previously inspected by one of the On-Site Inspectors, the SCC shall remove or uncover such portions of the finished work as may be directed. After examination, the SCC shall restore said portions of the work to the standard required by the contract.

Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work. However, should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the SCC's expense.

A final Operational Acceptance Survey of all spaces will be made by the OR preceding the delivery voyage.

A final Substantial Completion Survey of all spaces will be made by the OR immediately preceding acceptance of delivery of the vessel.

6.0 Work Scopes Changes

When the specifications or drawings are required to be modified or changed to comply with new regulatory and classification or Owner requirements, a Change Order (CO) or a Regulatory Work Order (RWO) may be issued to supplement the contract.

The need for a CO or RWO can originate from any party, including the Owners, OR team, or ODT, but is usually initiated by the SCC. The SCC shall submit its standard form for conveying the changed conditions or requirements. This form is generally called a Condition Found Report (CFR) and will describe the conditions or additional requirements encountered, a recommendation to correct or supplement the condition, and will include a cost and time estimate for that work.

The Resident Engineer will perform the initial review and provide a recommendation for both extent and type of entitlement. If he believes it warrants consideration, he will develop an independent estimate and forward all documentation to the OPM/E for review and consultation.

After review by the OPM/E, the Resident Engineer will independently develop both cost and schedule estimates. Upon receipt of the Contractor proposal, the Resident Engineer shall conduct price and time discussions with the SCC. Upon completion of these discussions he will make his recommendation to the OPM/E and follow proper contract terms for inclusion into the contract.

Running logs of CFRs, RFPs, COs, and RWOs will be maintained by the Resident Engineer and distributed in the project monthly status reports.

Outlined below are the processes for the adjudication of both the Regulatory Work Orders and Change Orders.

6.1 Regulatory Work Order Process

The Regulatory Work Order (RWO) process shall be in accordance with the requirements of Book1, Article 82 of the Contract, for payment of additional work resulting from changes in federal, state, and local laws or regulations issued by regulatory bodies. The process for issuing RWO's will be similar to the process described for change orders in Section 6.2 of this document with the exception of registration by the NYC Comptroller.

6.2 Change Order Process

Change Orders (COs) may be issued for the performance of extra work in accordance with Article 26 in Book 1 of the Contract.

The CO process is similar to the RWO process but requires additional approvals, increasing the authorization approval period.

The CO process will consist of the following steps:

1. The SCC shall develop a price proposal for the change. If the change is being requested by the Owner, through an RFP, then the SCC shall submit the price proposal within 3 days of receipt, or within such additional time provided in writing by the Owner. The price proposal

shall be suitably broken down by labor, materials, subcontractors, and technical representatives. The SCC shall provide a detailed cost estimate breakdown, using the labor rates included in the Bid Schedule and mark-ups for materials and subcontractors allowed for in the Contract.

2. Upon receipt of the change request, the Resident Engineer will communicate this to the OPM/E, and then pertinent members of the OR team will proceed to evaluate the request for its rationale, validity, accuracy, risk, constructability, potential design and schedule impacts and budget implications. The Resident Engineer will seek support from the ODT as necessary.
3. If there appears to be merit to the change, the Resident Engineer will proceed to generate an independent Engineer's Estimate for both cost and time impacts. He will formulate his evaluation, estimates, and recommendations into a single, cogent package and provide to the Engineer for consideration and discussion within 3 days of receipt of such requests.
4. If the OPM/E is in agreement that the change should proceed forward, they will then determine if the SCC's estimate is fair and reasonably close to the Resident Engineer's Estimate. If not, the Resident Engineer will proceed to discuss the cost and/or time extension discrepancies with the SCC to gain a better understanding of the SCC's estimate, and possibly enter into preliminary negotiations to try come to terms acceptable by all parties.
5. After all parties are in agreement on the modified contract scope, cost and time change, the Resident Engineer will proceed to generate the official Change Order paperwork for approval signature and processing by the OPM/E. All of the backup documentation that led to the CO will be attached so that all approving parties have the full picture of the change. The OPM/E will send this CO documentation to the NYCDOT Engineering Audit Bureau (EAB) for approval. Following concurrence by the EAB, the full package will be submitted to the NYC Comptroller for registration. In order for work to commence pursuant to the CO, the CO must be approved by the EAB and registered by the Comptroller.
6. Upon receipt by the Contractor of EAB approval and registration of the CO, work on the change may then proceed.
7. A copy of all approved and executed CO's will be kept on file. The SCC may bill on completed CO work. Invoicing of CO's will be separate from the SCC's routine contract invoicing. The Resident Engineer will affirm the amount of CO work invoiced for work that has been completed and is eligible for payment.