### **PROJECT CRITERIA**

### AND

### **PERFORMANCE SPECIFICATIONS**

### FOR THE DESIGN BUILD OF THE

### TRANSIENT MARINA AND OTHER IMPROVEMENTS

### AT CLEVELAND NORTH COAST HARBOR

Draft Date: February 3, 2012



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#### FTP SITE (Identify)

#### AVAILABLE REPORTS

- BIG GRANT PROGRAM APPLICATION FOR TIER 1 OR TIER 2 FUNDING ASSISTANCE
- TIGER GRANT SUBMITTAL 10/31/2011
- NORTH COAST HARBOR PEDESTRIAN DRAWBRIDGE REPORT NEEDED

#### AVAILABLE DRAWINGS

- 1990May14\_CoC\_Matrix Eng\_MatherMooringDetails, Details and Plans for mooring structures for the Steamer William G Mather as well as E. 9<sup>th</sup> Street pier construction details.
- 1992Jun17\_USACE\_NorthCoastHarborPier34AsBuilts, As built sections of steel sheet pile and revetment walls of Pier 34.
- 1994Dec12\_ODNR\_ClevelandLakefrontStateParkPierPark, Complete set of Pier Park design including plans, sections, details, utilities and grading.
- 1996Jul31\_ODNR\_E. 9th Street Pier Streetscape & Utilities, Limited sheets showing E. 9<sup>th</sup> St. streetscape design and irrigation/water details.
- 2009Dec4\_NCH\_MEI\_NewTransientFloatingDocksAndDredgingSitePlanDwg16 88-2, Single plan showing updated soundings and old proposal of floating transient marina.
- *dwyre-load\_tests\_rock\_N\_OH*, Case Histories Pile load tests for Piles End-Bearing on Bedrock in Northern Ohio.
- 1997 Jan 8\_E 9th St Bridge and Pier Reconstruction, Complete set showing plans, sections, details, utilities etc...of E. 9<sup>th</sup> St. bridge and pier reconstruction
- *North Coast Harbor Lights,* Cleveland Public Power luminaire pedestrian model for North Coast Harbor.
- <u>City Of Cleveland Department Of Port Control Cad Standards</u>
- <u>Photographs</u>

#### **SECTION 1 - GENERAL**

#### **1.01 PROJECT DESCRIPTION**

#### 1.01.01 PROJECT NAME

Transient Marina and Other Improvements at Cleveland North Coast Harbor

#### 1.01.02 GENERAL DESCRIPTION

The Transient Marina and Other Projects at Cleveland North Coast Harbor include:

- 1. Acquisition of all necessary permits and approvals for the project including NEPA, FAA 7460, and others detailed in the following sections.
- 2. Attendance at and project materials for public engagement during the design phase of the project.
- 3. Installation of a Transient Marina at North Coast Harbor including all floating docks, gangways, security gates and utilities.
- 4. Construction of the Amenities Building in keeping with the overall context of the site.
- 5. Development of berthing for the Goodtime III on the east side of Voinovich Park Pier.

#### 1.01.03 GENERAL REQUIREMENTS

The Cleveland Department of Port Control (DPC) uses certain general requirements as noted in Section 4 that are being incorporated into the performance specification.

#### **1.02 EXISTING INFORMATION AVAILABLE**

The information listed in this section is included as Figures or uploaded on the ftp site. The data provided is for informational purposes only. The Design Builder should independently verify the information.

#### 1.02.01 FIGURE NO. 1 - OVERALL SITE AREA PLAN

This figure shows the conceptual layout of the project.

#### 1.02.02 FIGURE NO. 2 - SITE PLAN

This figure shows the existing conditions of the project area.

#### 1.02.03 FIGURE NO. 3 - MARINA GANGWAYS

This figure shows the conceptual layout of the marina project with additional detailed information.

#### 1.02.04 FIGURE NO. 4 - AMENITIES BUILDING FLOOR PLAN

This figure shows the conceptual layout of the amenities building with additional detailed information.

#### 1.02.05 CITY OF CLEVELAND, DEPARTMENT OF PORT CONTROL CAD STANDARDS (ON CD)

The City of Cleveland, Department of Port Control CAD standards dated September 17, 1999 has been included as a PDF file.

#### 1.02.06 MISCELLANEOUS PHOTOGRAPHS

Miscellaneous photographs of the existing conditions of the North Coast Harbor have been included as JPEG files.

#### 1.03 DESIGN AND CONSTRUCTION PROCEDURES

#### 1.03.01 DESIGN AND CONSTRUCTION SCHEDULE REQUIREMENTS

- 1. General requirements for the Design and Construction Schedules are included in Section 4 of this specification and shall be followed at a minimum for all design and construction phases for developing schedules for this project.
- 2. Interim Milestone Completion Requirements The following dates are **interim milestones** that are required to be met for the completion of this contract. Failure to achieve these milestone requirements may result in the imposition of liquidated damages consistent with those defined in the contract.
  - Submission of a comprehensive project schedule including all design, fabrication and construction activities is due 10 work days from Notice to Proceed.
  - b. Completion of the Transient Marina Design is due 4 months from Notice to Proceed.
  - c. Completion of Amenities Building Design is due 4 months from Notice to Proceed.
  - d. Completion of the Goodtime III berthing modifications is due on or before May 15, 2013.
  - e. Commence Transient Marina Construction, by May 1, 2013.
  - f. Complete Transient Marina construction by September xx, 2013.

#### 3. Final Project Completion

 a. The progress and completion of this project are of critical importance and tied to the funding sources for the project. It is imperative that the contractor expedite and pursue this project in earnest. The project is considered complete when the final invoice has been paid by the City, reimbursed by the state and the state has made the final inspection. The final project completion date is December xx, 2014.

#### 1.03.02 DESIGN REVIEW REQUIREMENTS

#### **30% Design Submittal**

- 1. Schedule of Permits and Approval Requirements.
- 2. Planning Context Summary. It is important to describe how the Project will relate to other park and cultural facilities and / or improvements and how it will seamlessly integrate with North Coast Harbor, Voinovich Park, local surface parking lots and existing development. The Design Builder must become thoroughly familiar with proposed adjacent development from available materials, including the planning reflected in the 2011 Tiger Grant Application by the City of Cleveland and Cleveland Cuyahoga County Port Authority, and the proposed Pedestrian Drawbridge for North Coast Harbor.
- 3. Soil Borings and Soils Report. In conjunction with the design and placement of guide piles for the docks, the Design Builder will be required to obtain soil borings that identifies the following soil properties within the proposed transient marina area for each soil layer type:
  - a. Dry Density
  - b. Moist Density
  - c. Saturated Density
  - d. Submerged Density
  - e. Angle of Internal Friction
  - f. Cohesion
  - g. Active Pressure
  - h. Passive Pressure
  - i. Height of Soils to Neglect
  - j. Coefficient of Active Pressure (Ka)
  - k. Coefficient of Passive pressure (Kp)
  - 1. Depth of Embedment of Pile to Develop Fixity
  - m. Height Below Mudline to the Point of Fixity

The Soils Report shall include a description of subsurface soil conditions, and a summary and analysis of related test data, boring logs, test results, and report signed and sealed by a licensed Professional Engineer. The

Soils Report shall also include load deflection curves for multiple pile types (e.g. variation in diameter and stiffness).

- 4. Topographic and Location survey. The Design Builder shall conduct an existing conditions topographic and location survey showing the location of existing utilities based on visible above ground surface structures supplemented by existing drawings provided by the City of Cleveland. The topographic survey shall be to 1' contour intervals with appropriate spot grades to determine land slope and grades with benchmarks to be based on City of Cleveland datum. Boundary and Topographic Survey signed and sealed by a licensed Professional Engineer. Survey datum shall be NAVD 88 and NAD 83 and created in State Plane Coordinate Grid System ("Real World").
- 5. Hydrographic Survey. The Design Builder shall conduct an existing conditions hydrographic and location survey showing basin contours and the lake floor material. The hydrographic survey shall be to 1' contour intervals with appropriate spot grades to determine basin and land slope and grades with benchmarks to be based on City of Cleveland datum, performed under direction of a professional engineer specializing in geotechnical engineering.
- 6. Draft Design and Engineering Report, which shall include at a minimum the following items:
  - a. Potential problems to be encountered and available solutions with support for the recommended solution, including appropriate priorities and stages;
  - b. A preliminary Basis of Design (BOD) should be prepared that describes each element of the program in terms of size or quantity with comments notes about materials, systems, maintenance, etc. The BOD is used to establish design and engineering parameters for the project and track decisions made throughout the design process.
  - c. A minimum of three (3) preliminary layout plans for the Project Area according to the preliminary basis of design. For each option, show how the planning approach can accommodate future expansion diagrams for marina and land side development such as concessions/restaurant, dock master's office, designated loading/ unloading space(s) for visitors and deliveries to the marina, or other elements. Document the pros/cons of each option including use by transient boaters, use by other visitors, image and identity, sustainability, support for existing and proposed lakefront development, impact of required permits and approvals, and cost.
  - d. Explanation and justification for marina design; including:
    - i. Dock Systems (loading criteria, required freeboard under various design loads, minimum access and clearance requirements, winter storage configurations, etc.).

- ii. Dock Fixtures (power centers, lighting, hose bibs, fire hose cabinets, etc.)
- iii. ADA compliant gangways
- iv. Pilings
- v. Water supply lines
- vi. Electrical supply lines
- vii. Telecom/ wi-fi / security components
- viii. Sewage handling system components
- ix. Architecturally designed gate entry with electronic access
- x. Design loads and assumptions for structures
- e. Explanation and justification for Goodtime III berthing; including:
  - i. Pier rubberized guard rail system
- f. Explanation of recommendation for proposed utilities extension including:
  - i. Sanitary connection Goodtime III
  - ii. Sanitary connection for the Amenity Building
  - iii. Potable water connection for Goodtime III
  - iv. Domestic water connection for the Amenity Building
  - v. Electrical connections for the Goodtime III
  - vi. Electrical connections for the Amenity Buildings
  - vii. Telecom/ security connections for the Amenity Building
- g. Utilities base mapping (this project and future associated demand), including Ownership, contact information, explanation of demand, availability, source, relocation, disconnect / tie out, conservation, Subsurface Utility Engineering field notes and utilities schematic design;
- h. Explanation on recommendations for architectural design, building envelope (signed and sealed by a Registered Architect licensed in the State of Ohio), foundations and calculations (signed and sealed by Registered Professional Engineer licensed in the State of Ohio) finishes, electrical and plumbing systems for the Amenity Building; List architectural, structural, mechanical, electrical, plumbing, security components as well as floor plan layouts, elevations sections and details of the building.
- i. Explanation on recommendations of finishes.
- j. Explanation on recommendations for signs, markings and graphics.
- k. Sequence of construction, including storage and staging area requirements, effect of construction on Voinovich Park, Goodtime III and other adjacent operations, parking, and facilities;
- 1. Understanding of contract time, and milestones.
- m. Construction cost estimate
- n. Code requirements.
- Permit and Zoning requirements; including Federal Aviation Administration (FAA) 7460, US Army Corps of Engineers (USACE, Coastal Zone Management (CZM), National Environment Policy Act (NEPA), etc.

- p. Criteria for sustainable construction.
- q. Landscaping concept.
- r. Criteria for security cameras and other security measures, wi-fi, and revenue control system, etc.
- s. Explanation of the measures and processes for disassembly of docks and utility systems supporting the docks, for winter storage.
- t. Explanation of the measures and processes for shutting off utilities to the Amenities Building during winter season.
- 7. Engineering Calculations and preliminary layouts such as, but not limited to, plumbing requirements, electrical design and structural design, etc.
- 8. Schematic Construction Drawings, including construction limits, staging areas and storage areas.
- 9. List of Construction Specifications sections to be used.
- 10. Construction Schedule showing major milestones by work area, as well as efforts to minimize and mitigate impacts of construction on other activities in the area including the Goodtime III activities and programs and events at Voinovich Park.

#### 90% Design Submittal

- 1. Any revised Engineering Calculations.
- 2. Final Construction Drawings.
- 3. Final Construction Specifications.
- 4. Updated Construction Schedule showing major milestones by work area.
- 5. Guaranteed Maximum Price (GMP)

#### **Construction Submittal**

- 1. Construction Drawings signed and sealed by a licensed Professional Engineer and / or licensed Registered Architect.
- 2. Construction Specifications signed and sealed by a licensed Professional Engineer and / or licensed Registered Architect.
- 3. Final Construction Schedule.

#### 1.03.03 DESIGN SUBMITTALS

The 30%, 90% and Construction Submittals shall be submitted to the Cleveland Department of Port Control with the following conditions:

- 1. Engineering drawings shall be a standard ANSI or ARCH sheet size.
- 2. All documents shall be full size sheets, a minimum of 22" x 34" or other size, as approved.
- 3. The drawings shall be prepared utilizing the City of Cleveland Department of Port Control CAD Standards.
- 4. There shall be three (3) sets with each design submission.
- 5. There shall be ten (10) sets with the construction submission.
- 6. Each design submission will contain three (3) compact discs (CDs) with all information provided in PDF format.
- 7. The Construction submission will contain the same as each design submission above plus CAD drawings in AutoCAD 2009, or newer.
- 8. Cleveland Department of Port Control will provide review comments on each design submission within two (2) weeks from the day they are received.

#### 1.03.04 CONSTRUCTION SUBMITTALS

#### Project Record Documents

During construction one set of all documents including drawings, shop drawings, permits, specifications, any underground interference drawings, and any additional documents that are developed, used and or modified for this project shall be maintained on site. These documents shall record all changes made by addenda, by formal modification and in performing the work for the Cleveland Department of Port Control's use in the future.

- 1. Storage:
  - a. Separately from the documents used for construction and in a location where they can be kept clean and safe from fire and damage.
- 2. Changes to be Recorded include:
  - a. Actual measured locations and ends of existing and abandoned below grade utilities.
  - b. Actual measured locations (horizontal and vertical) of foundations and concealed utilities and appurtenances relative the project datum.
  - c. Field changes of dimensions and details not on original documents.
  - d. Equipment labels matching field labels.
- 3. The project records shall be kept up to date during the entire construction process.

- 4. The project record documents shall be made available for review for the Cleveland Department of Port Control and their engineer, architect or Owner's Representative.
- Submit three (3) sets of 100 percent as-built construction drawings and three (3) CDs containing AutoCAD files and PDF files of each sheet with as-built information incorporated into the construction drawings within six (6) weeks of final completion of the project.

#### Submittal Procedure

General requirements for the Submittals are included in Section 4 of this specification and shall be followed at a minimum for the submission of the submittals during the construction phase.

In addition to construction submittals required above, any field changes that are made shall be provided to the Cleveland Department of Port Control in a written document (minimum of three (3) copies), for information, for all proposed changes made during construction to the Construction Drawings. Documents shall include concurrence from the design engineer and/or architect who sealed and signed the drawings.



#### **SECTION 2 – PROJECT PROGRAM**

#### 2.01 DETAILED DESCRIPTION

The Transient Marina and Other Projects at Cleveland North Coast Harbor generally include:

# 2.01.01 ACQUISITION OF ALL NECESSARY PERMITS FOR THE PROJECT

- 1. Efforts underway by ODNR. In support of the BIG grant, ODNR has begun some of the interagency coordination and approval activities for the project. This information can be made available to the successful Proposer. To date, ODNR has:
  - a. Reviewed the Heritage Data Base and determined that a Marine Biology Report is not needed. In addition, ODNR will check on any fish habitat restrictions for the North Coast Harbor from March-June.
  - b. Submitted Application and received approval of Ohio State Historic Preservation Office (10/2011)
  - c. Submitted National Environmental Protection Act (NEPA) application and compliance/approval
  - d. Completed Section 7 application and approval
- 2. NEPA Process. The Design Builder will coordinate with ODNR to complete the NEPA process and coordination. At this time it is expected that a Categorical exclusion (CATEX) will be sufficient for the project.
- 3. FAA. A Federal Aviation Administration (FAA) 7460 permit approval must be obtained with respect to managing any potential impacts of building height, mast height, and lighting within the limits of Burke Lakefront Airport operations.
- 4. USACOE and Coastal Zone Management (CZM). The Design Builder will prepare a request for a USACOE Letter of Permit for in water work (pilings) and a Section 10 CZM application.
- 5. City of Cleveland Building Permit. The Design Builder will prepare the building permit application for submission and obtain approval.

#### 2.01.02 PUBLIC ENGAGMENT DURING DESIGN PHASE

1. The Design Builder is expected to participate in public outreach and engagement efforts to build awareness of the Project, to elicit public opinion and to build consensus around the Transient Marina and other related projects concepts and uses. These meetings are for public education and discussion. (The NEPA process public involvement has been completed by ODNR and is available for review).

- 2. Schedule. A series of three engagements is anticipated to coincide with the 30%, 90% and 100% design phases. Each of the three engagements is planned to be a series of back to back meetings grouped across approximately three meeting days per engagement. The Design Builder should anticipate a total of nine stakeholder meeting days for the project. The public engagements include one Town Hall style meeting with the general public and individual meetings/focus groups with key stakeholders such as the Science Museum, Rock Hall, etc. The Design Builder will develop a detailed schedule of the stakeholder public engagements so that meeting dates and venues can be established in advance. The City will manage meeting logistics for each meeting including identifying and inviting attendees and posting notice of the meetings for the public. The Design Builder will attend all meetings and provide an informal record of comments.
- 3. Supporting Materials. The Design Builder will prepare public engagement supporting materials for these events. For each engagement, the Design Builder will develop a PowerPoint or pdf presentation, provide meeting materials (assume 6-10 boards for each series of meetings), and electronic materials to be posted on the City Planning Commission website.

#### 2.01.03 INSTALLATION OF TRANSIENT MARINA AT NORTH COAST HARBOR INCLUDING ALL FLOATING DOCKS, GANGWAYS, SECURITY GATES AND UTILITIES.

1. The objective of the proposed project is to provide 53 transient boat docks for 30' to 98' transient, non-trailerable vessels in the North Coast Harbor with docks that provide water and electric service. The slip summary is:

| Proposed Slip Summary                        |                 |  |  |
|--|-----------------|--|--|
| (Refer to Figure No. 2 for Schematic Layout) |                 |  |  |
| Boat Length (Ft)                             | Number of Slips |  |  |
| 30   | 16              |  |  |
| 40   | 30              |  |  |
| 50   | 5               |  |  |
| 80+  | 2               |  |  |
|  | Total: 53       |  |  |

- 2. Loading. Refer to Section 3.01.05 for loading and design criteria for docks, pontoons, gangways and dock walking surfaces under various conditions.
- 3. Pontoons & Dock Walking Surface. Pontoons shall be foam-filled and

encased by polyethylene plastic. Pontoons shall be mechanically attached to the framework of the docks and bolted, to allow for seasonal relocations

- 4. Dock Structure. The Design Builder can select one of many typical dock systems available in the marketplace. Systems include 1) Concrete docks, 2) wood-framed, foam-filled plastic float-supported docks, 3) aluminum docks or 4) hybrid systems.
- 5. Utilities.
  - a. Sanitary. A sanitary sewerage pump-out hydrant connection shall be installed at a minimum of one for every two dock slips, ensuring that each slip has its' own direct access to a connection. The sanitary hydrant connections shall terminate with a 1 ½" male camlock with a cap leading to a 90-degree downturn and a ball valve shut-off. Each connection shall be plumbed together using 3-inch flexible hosing such as Goodyear plicord flexwing hose, 300 p.s.i. or equal. Install one SaniSailor Sentinel CV5400 pump or equal at a location downstream of the dock connections. The pump discharge line shall also be the 3" flexible hose line leading to a 6-inch sanitary lift-station and force-main. The sanitary pumping system must accommodate seasonal disconnection and storage.
  - b. Water. Non-potable water connections shall be provided to each dock slip as part of the electrical pedestal connections. The hose bibs shall have standard <sup>3</sup>/<sub>4</sub>" male threading with an exterior accessible shut-off valve. Hose bibs shall be connected using 3" Goodyear plicord flexwing hose, 300 p.s.i or equal. Connect flexible hosing to a frost free self-draining hydrant located on the landside of the gangway. The hydrant shall be connected to the amenities building downstream of the domestic meter and backflow using two-inch schedule 80 pressure rated potable water piping with a minimum six-feet of cover.
  - c. Fire water. Design Builder to verify with Cleveland Fire Depart as to if any additional fire hydrants per the Cleveland Water Department standards are required. If required the new fire hydrant(s) shall be supplied via 6-inch ductile iron piping from the existing 12-inch water main located within the 9<sup>th</sup> Street pier.
  - d. Electrical. Dock power centers with receptacles and lighting are provided to slips.
- 6. Gangways. Gangways shall be designed for disconnection and lowering of the gangways on to the existing headwalks for in-water storage during off season.

- 7. Bubbler System. A Bubbler System shall be provided by the Design Builder to prevent ice accumulation on the docks when stored within the Basin.
- 8. Other Marina Elements.
  - a. Slip reservations, access, power, wi-fi, etc. are to be activated via smart phone.
  - b. The Design Builder shall provide winter treatment for docks. The docks will be removed and clustered together within the harbor with a bubbler system. The winter treatment of the docks shall not impinge on the winter berth of the Goodtime III, which is not part of this Contract. (The Goodtime III will operate from the east side of Ninth Street pier in season and docks in the North Coast Harbor at its former location in the winter months).
  - c. Repair or replace wood fendering as required.

## 2.01.04 CONSTRUCTION OF THE AMENITIES BUILDING IN KEEPING WITH THE OVERALL CONTEXT OF THE SITE

- 1. Refer to Figure No. 4 for Concept Layout.
- 2. The Amenities Building is to be located to the north east of the marina, adjacent to Voinovich Park. This location is readily visible and proximate to the marina and within the overall context of the park, the pier and its proximity to the museums. Although a relatively small building, it is one of the only built structures in the vicinity and it is in a highly visible location. The final siting and design of the building is the responsibility of the Design Builder. The building may be a new structure, modular construction, or re-use of an ISO/Cargo-container to fit well with the adjoining architectural landmark.. The design, massing and materials must be carefully considered.
- 3. The Amenities Building is intended to provide support areas only to the boaters using the Transient Marina and must be secured to limit use to transient marina users only. The building is expected to be open seasonally.
- 4. Basis of Design for the Amenities Building should include numbers, sizes and functions of each of the building spaces: the materials of each building system including foundation, exterior and interior walls, floors, roof, plumbing, lighting and security. Furnishings, finishes and equipment should be described and quantified.
- 5. Building roof drainage shall connect to underground storm sewers and discharged out to the marina. The building shall be set at such an

elevation that a minimum of 1.0% grade can be established to drain away at all locations from the building perimeter.

- 6. The building shall have a lightning protection system per LPI-175, UL-96A or NFPA-780 standard requirements. System shall be designed and sealed by a Master Installer/Designer or Designer/Inspector certified by the LPI. Installation shall be inspected to LPI-175, UL-96A or NFPA-780 standards by an individual certified by the Lightning Protection Institute Inspection Program (LPI-IP) and shall receive a Master Installation Certificate from the same. Design and inspection standard used shall be determined by requirements from the owner and their representative.
- 7. Utilities for the Amenities Building.
  - a. Utilities to the building shall include a six-inch PVC sanitary sewer with minimum 1.0% slope to connect to the existing sanitary sewer within the 9<sup>th</sup> street pier.
  - b. Two-inch schedule 80 pressure rated potable water piping with a minimum six-feet of cover shall be installed to connect the building to the existing 12-inch water main within the 9<sup>th</sup> street pier.
  - c. The domestic water shall have a 2-inch meter located in a pit and a 2-inch backflow preventer located within the building per Cleveland Water Department standards.
  - d. Electrical: Electrical service for lighting, ventilation and equipment.
  - e. Telephone/Communications: Service per owner requirements.
- 8. Site elements. General site illumination shall be accomplished using a combination of building mounted and pole lighting.
- 9. Site Restoration. Existing site pavement (asphalt, concrete and unit pavers) will need to be restored back to original conditions after utility installation and backfill.

# 2.01.05 DEVELOPMENT OF BERTHING FOR THE GOODTIME III ON THE EAST SIDE OF VOINOVICH PARK PIER

1. Sanitary Connection. The designer/builder shall include a six-inch PVC gravity sanitary sewer to be installed with a surface mounted wye connection and cleanout on the pier adjacent to the sanitary pump-out connection on the Goodtime III. The six-inch PVC sanitary shall be installed from the wye-connection under the surface of the pier with a minimum three feet of cover to the existing four-inch sanitary sewer lift station located along the center of the southern side of the 9<sup>th</sup> Street pier. Maintain minimum of 1.0% slope. If required depths or minimum slopes cannot be obtained then the designer / builder will need to verify that the Goodtime III sanitary pump out can pump as a force main to reach the existing sanitary lift station within the pier.

- 2. Potable Water. The designer/building shall include a two-inch potable water hydrant connection to be installed on the pier adjacent to the potable water connection on the Goodtime III. The potable water hydrant shall be frost-free and self-draining. Install two-inch schedule 80 pressure rated potable water piping with a minimum six-feet to connect the hydrant to the existing twelve-inch water main located within the 9<sup>th</sup> Street pier. Directly upstream of the hydrant Install a water vault pit with a two-inch water meter and double check backflow preventer per Cleveland Water Department standards.
- 3. Electrical. The designer/builder shall include an electrical connection of sufficient amperage and voltage to meet the requirements of the Goodtime III at its new berthing location. Installation shall match that of existing location. Extend existing service to new location and reconnect.
- 4. Repair or replace wood fendering as required.

#### 2.02 TEMPORARY FACILITIES AND CONSTRUCTION CONTROLS

#### 2.02.01 GENERAL REQUIREMENTS

- 1. General requirements for the temporary facilities and construction controls are included in Section 4 of this specification that shall be followed at a minimum.
- 2. All current ingress/egress points to the Voinovich Park and US Coast Guard Station, Rock and Roll Hall of Fame parking lot and loading area shall be maintained and operational during the entire construction process.

# 2.02.02 MAINTENANCE AND PROTECTION OF TRAFFIC ON PUBLIC STREETS AND PEDESTRIAN FACILITIES

1. All temporary and permanent traffic control signs, markings, signals, and controls shall be in accordance with the latest editions of the Ohio Department of Transportation Construction and Materials Specifications. All current ingress/egress points to the Voinovich Park and US Coast Guard Station, Rock and Roll Hall of Fame parking lot and loading area shall be maintained and operational during the entire construction process. The Design Builder shall notify all emergency or first response departments of any detour routes or restricted traffic patterns. In addition to the previously mentioned codes and requirements, the design of temporary pedestrian access shall be in accordance with the Occupational Safety and Health Administration (OSHA) Regulations Part 1926 for Construction.

#### **SECTION 3 – PERFORMANCE REQUIREMENTS**

#### 3.01 GENERAL

#### 3.01.01 CODE REQUIREMENTS

- 1. The design shall comply with City of Cleveland, City of Cleveland Codified Ordinances, Federal, State and Industry codes, standards and regulations hereinafter referred to as "Code Requirements" in the design and construction of the Transient Marina and Other Structures. The latest applicable version of each code shall be used.
- 2. When there is conflict between code requirements, the most stringent code shall govern. Any conflict among codes is to be promptly brought to the attention of the Cleveland Department of Port Control, Division of Harbors.
- 3. Compliance with all applicable codes, statutes, regulations, and the Cleveland Department of Port Control, Division of Harbors, requirements shall be the responsibility of the Design Builder. Regulatory agencies will review and comment, at the Owner's request, to assist in verifying compliance with applicable codes, statutes and policies.

#### 3.01.02 BUILDING AND ZONING REQUIREMENTS

- All building and zoning requirements shall meet City of Cleveland Codified Ordinances, including Part Three – Zoning Code, and Part Three – Building Code, Title XIII - Building Code, Ohio Building Code, all other applicable building and zoning requirements, state, and federal requirements for all work. The Design Builder is responsible for complying with these requirements and any other requirements that may be applicable.
- 2. Cleveland, OH Code of Ordinance can be found at http://www.amlegal.com/nxt/gateway.dll/Ohio/cleveland\_oh/codifiedordin ancesofthecityofcleveland.
- 3. When requirements conflict, the most stringent zoning requirement shall govern. Any conflict among codes is to be promptly brought to the attention of the Cleveland Department of Port Control.
- 4. The Design Builder is responsible for obtaining all permits and ensuring all building and zoning requirements are being met.
- 5. Some of other applicable regulations for obtaining permit include, but not limited to:

- a. Ohio Coastal Management Program. Contact # 1-888-644-6267 Shore Structure Permit.
- b. US Coast Guard.
- c. USACOE United States Army Corps of Engineers
- d. OCRM Ocean and Coastal Resource Management
- e. Docks and gangways shall be designed in accordance with all applicable codes include the Federal ADA Standard for Marinas

#### **3.01.03 SIGNAGE**

- Signage shall be in accordance with the City of Cleveland Codified Ordinances. All signage and markings are subject to the approval of the Cleveland Department of Port Control Division of Harbors.
  - 2. All signs shall also comply with ADAAG (Americans with Disabilities Act Accessibility Guidelines).

#### 3.01.04 GEOTECHNICAL REQUIREMENTS

1. Criteria for Geotechnical requirements shall be governed by the Ohio Department of Transportation's Specifications for Geotechnical Explorations, latest edition, and it can be found here: <u>http://www.dot.state.oh.us/Divisions/ProdMgt/Geotechnical/Pages/sge.aspx</u>

#### 3.01.05 TECHNICAL SPECIFICATION CRITERIA

- 1. Technical specifications shall be organized in accordance with the Construction Specifications Institute MasterSpec 2004 format. Specification Divisions, Sections and Page formats shall follow MasterSpec 2004 format.
- 2. All specifications shall meet or exceed the above referenced code requirements.

#### 3.02 UTILITIES

The Design Builder is required to follow "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" (CI/ASCE 38-02), Utility quality level A or B, and utilize a Subsurface Utility Engineering (SUE) provider for any utility that is servicing the following: Voinovich Park, Goodtime III current berthing and onsite offices, parking control activities including parking booth, Rock and Roll Hall of Fame loading and parking, US Coast Guard gated ingress/ egress point, etc.

Multiple utilities traverse the site. Utility services need to be maintained throughout construction. The Design Builder shall coordinate with utility providers and users prior to the start of construction. The Design Builder is responsible for maintaining all necessary utility services during construction.

A number of existing utilities in and around the project sites are shown to the extent known on the attached original design drawings and are offered in good faith solely for informational purposes. They may not reflect actual locations and may not be inclusive. It is the Design Builder's responsibility to locate utilities prior to construction and protect against damage and/or disruption to existing utilities throughout construction.

Design Builder to provide live/hot power and communication connections. Any utility outages, road closures, etc. shall be coordinated with DPC.

#### 3.02.01 ELECTRICAL

- 1. General Electrical Requirements. Design Builder shall design electrical services in accordance with NEC requirements, and NECA 1- 2010, Standard Practice of Good Workmanship in Electrical Construction. Provide service size calculations, voltage drop calculations, and short circuit calculations for Owners review and approval.
- 2. All lighting shall be designed in accordance with IES Recommendations per the Lighting Handbook, 10<sup>th</sup> edition, and ASHRAE 90.1, 2004. Provide ComCheck EZ calculations (DOE.gov), and Lighting Calculations for Owners review and approval.

#### 3.02.02 WATER LINE AND FIRE HYDRANT

- Proposed interior water lines shall be in accordance with the Ohio Building Code, the Ohio Fire Code, and the City of Cleveland (City of Cleveland Codified Ordinances, Part 5 Municipal Utilities and Services Code, Title – V, Chapter 531 Water and Fire Service Connections, and all other applicable zoning requirements can be found here: <u>http://caselaw.lp.findlaw.com/clevelandcodes/</u>).
- 2. Fire protection systems and equipment shall be in accordance with requirements of the local Fire Marshal.
- 3. Exterior water line piping, fire hydrants, meter vault pits and backflow preventers shall be in accordance with Cleveland Water Department Standards. Proposed utilities shall be of equal or better material than existing and provide adequate service to meet or exceed existing demands.

#### 3.02.03 TELECOMMUNICATION

1. Proposed telecommunication lines shall be in accordance with the Ohio Building Code and meet requirements of the utility Owner/provider. The design builder is required to provide telecommunication services to the amenities building and the marina. The design should accommodate both land line and wireless capability for both voice and data communications. All conduit and cabling are to be exterior grade capable of withstanding the lakefront climate elements. The telecommunications design shall include one spare conduit for every telecommunication conduit run.

#### 3.02.04 STORM SEWER

- 1. Proposed storm sewer lines and systems shall be in accordance with the Ohio Building Code and the City of Cleveland (City of Cleveland Codified Ordinances, Part 5 Municipal Utilities and Services Code, Title VII, Chapter 541 Sewers and sewage disposal, and all other applicable zoning requirements can be found here: http://caselaw.lp.findlaw.com/clevelandcodes/).
- 2. Design shall be in accordance with all US and Ohio EPA guidelines and be in accordance with the Ohio Department of Natural Resources' Third Edition, 2006 or newer, "Rainwater and Land Development: Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection". Proposed systems shall be of equal or better material and provide adequate service to meet or exceed existing demands.

#### 3.02.05 SANITARY

- 1. Proposed sanitary lines shall be in accordance with the Ohio Building Code and the City of Cleveland (City of Cleveland Codified Ordinances, Title – VII, Part 5 Municipal Utilities and services code – Chapter 541 Sewers and sewage disposal, and all other applicable zoning requirements can be found here <u>http://caselaw.lp.findlaw.com/clevelandcodes/</u>), and meet requirements of the utility Owner/provider.
- 2. Sanitary sewerage flow rates are determined using the Ohio EPA "Green Book" and approved by the city of Cleveland Pollution Control. Proposed utilities shall be of equal or better material and provide adequate service to meet or exceed existing demands.

#### 3.03 CIVIL

## 3.03.01 STORM WATER POLLUTION PREVENTION (SWPPP) AND STORM WATER MANAGEMENT

1. The minimum requirements for Storm Water Pollution Prevention Plan and storm water management shall meet the Ohio EPA's Storm Water Program, Ohio Department of Natural Resources' Rainwater and Land Development Manual, Ohio Department of Transportation Location and Design Manual Volume 2 – Drainage Design, and the Cuyahoga Soil Water Conservation District's Storm Water Program. 2. If total site disturbance is over 1.0 acres then the Design Builder shall be responsible to obtain a notice of intent permit and all other required SWPPP and stormwater management documents.

#### 3.03.02 SITE GRADING CRITERIA

- 1. Site grading shall conform to typical practices of the area. All entrances, exits, adjacent sidewalks, curbs, and aprons to exterior streets or surfaces shall be flush with pedestrian right-of-way.
- 2. All walking paths shall be sloped with a cross-slope of no more than 2.0% and no more 5.0% in the direction of travel to meet ADA requirements.
- 3. All ADA parking spaces shall have no more than 2.0% slope in any direction.

#### 3.03.03 TOPOGRAPHIC SURVEYING CRITERIA

- 1. The minimum requirements for topographic survey for this project shall be in accordance with The Ohio Department of Transportation (ODOT) Location and Design Manual Volume 3 - Appendix C, Basic Survey Requirements and ODOT Construction and Material Specifications, latest edition, Item 623 Construction Layout Stakes and all other applicable items.
- 2. Bathymetric survey and sediment sampling shall be performed when required by the governing local, state or federal agency.

#### 3.03.04 QUALITY CONTROL

- 1. The Design Builder shall employ an independent testing organization to perform all required testing that is customary to the public sector construction projects. All the test data shall be reported to the DPC after the results are known. A legible, handwritten copy of all test data shall be given to the DPC daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Design Builder shall submit a final report to the DPC showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.
- 2. All materials and each part or detail of the work shall be subject to inspection by the DPC. The DPC shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Design Builder as is required to make a complete and detailed inspection and any additional quality control / assurance testing.

#### 3.04 MARINA PERFORMANCE REQUIREMENTS

#### 3.04.01 CONCEPTUAL LAYOUT FOR TRANSIENT MARINA

- 1. Conceptual layout can found in Figure No. 2.
- 2. Final layout is the responsibility of the Design Builder.
- 3. The final layout shall be in accordance with the City of Cleveland (City of Cleveland Codified Ordinances, Part 3 Zoning Code, and Part 4 Traffic Code, and all other applicable requirements can be found here: http://caselaw.lp.findlaw.com/clevelandcodes/). Conceptual layout and section of the gangways can be found in Figure 3. Final layout and section is the responsibility of the Design Builder.
- 4. Layout shall include, but not be limited to, considerations for efficient movement of boats, winter storage of docks, access by facility users, including persons with disability, traffic circulation, security, construction, and maintenance.

#### 3.04.02 MARINA ELEMENTS

- 1. Pontoons & Dock Walking Surface. Pontoons shall be foam-filled and encased by polyethylene plastic. Pontoons shall be mechanically attached to the framework of the docks and bolted, to allow for seasonal relocations. Pontoons shall be designed to withstand all environmental forces imposed, including winter freeze conditions. A 1/8 inch minimum wall thickness is suggested for these pontoons.
- 2. Decking. Many decking material types are available for marinas ranging from wood, to concrete, to hybrid and recycled plastic products. Decking in the Accessible Route shall not have gaps more than <sup>1</sup>/<sub>2</sub> inch and must be perpendicular to the path of travel. Changes in height of individual deck elements shall not be greater than <sup>1</sup>/<sub>4</sub> inch. All decking shall be mechanically attached to the dock frame structure to prevent movement during winter relocation.
- 3. Maximum Slopes of the Dock Elements. Cross slope: Under Deadload only: <sup>1</sup>/<sub>4</sub> inch per foot, but no more than 1 inch maximum. Longitudinal slope: 1/8 inch per foot, not to exceed 1 inch in 10 feet of length Accessible Route: 2%
- 4. Dock Structure. The Design Builder can select one of many typical dock systems available in the marketplace. Systems include 1. Concrete docks, 2) wood-framed, foam-filled plastic float-supported docks, 3) aluminum docks or 4) hybrid systems. For disassembly, docks shall be capable of

disassembly in segments no longer than 100ft with simple and accessible hinge or bolted assemblies allowing for ease of disassembly. Consideration shall be given to floating characteristics of adjacent dock elements to facilitate re-assembly of docks without the use of ballasting to line-up pins or bolts with connecting elements.

- 5. Gangways. Gangways shall be designed to support a minimum uniform live load of 100 pounds per square foot. This live load can be reduced by 50% when designing the floating dock that supports the gangway. It is assumed that aluminum-truss gangways will be utilized for this marina with guard rails and hand-railings meeting all State and Federal requirements for loading, height and maximum openings. Generally, aluminum gangway structures are un-coated, with the exception of the handrail can be marine anodized with good results.
- 6. Guidepiles. Cut-off elevations for piles should be such that at extreme high water conditions, roller assemblies cannot overtop the height of the guide piles and become impaled. Steel Guide piles, if chosen, shall be provided with a sufficient coating system to maintain integrity over the life of the dock system, as well as be provided with fiberglass or plastic pile caps to hide potential pile top damage that may occur during installation.

#### 3.04.03 STRUCTURAL LOAD CRITERIA

- Dead Loads. Dead Loads shall be the weight of all materials to be used within the dock system composed of both uniform and concentrated loads. Dead loads shall include all dock appurtenances, attachments, fixtures and utilities. The intent of the dock is to float reasonably level throughout its service life. Cross slopes under dead load only condition shall not exceed 2% (1:50) on docks that are part of the accessible route.
- 2. Live Loads. Live Loads shall consist of pedestrian loading, as well as conditions involving snow and ice. If special events are planned for these docks, specialty live loads may be appropriate.
- 3. Lateral Loads. Lateral loads on the docks may result from wind, current, waves, berthing and impacts. Seasonal factors may also impose load, when docks are disassembled in winter months or lifted from one location to another impacting both lateral and gravity loads. Impact loads can influence the design of end tie docks which are subject to potential impact from floating debris or wayward vessels.
- 4. Torsional Loads. Torsional Loads on docks are generally imposed by imbalanced vertical and/or horizontal loads. Dock design shall include an

internal structure that resists such loads to mitigate torsional movements that become unstable or uncomfortable to traverse.

- 5. Berthing Loads. Docks shall be designed to resist the berth loading imposed vessels. Besides impact, wind loading on the "sail" area of the vessel shall be imposed on the dock system.
- 6. Guidepiles. Guide piles shall be provided in sufficient numbers to resist the lateral loads imposed. Guide pile design shall be based on the recommendations of the geotechnical engineer-of-record.
- 7. Guidepiles, Cleats and the Dock Structure. These shall be designed to resist standard berthing loads, and where practical, upset conditions or impact loads. Special attention should be given to dock system endties.
- 8. Freeboards. The docks shall be designed with freeboards that range under conditions of both dead load only, to dead and live loads. It would be the general intent that the freeboards be no higher than 24 inches under any condition, and not lower than the bottom of the structural support frame under full dead plus live loads.

#### 3.04.04 SECURITY

- 1. Key code access panels to gates at top of gangways and the amenity Building: It is anticipated that access to marina security gates and the Amenity Building will be via key coded access panel. The access code will be provided as part of confirmation of the slip reservations.
- 2. Security gates at the ADA accessible ramp swing out.
- 3. Security Cameras. The security system for the marina is to be provided as part of this Contract. A minimum of two (2) new fixed IP security cameras should be provided at locations adequate to surveil the marina and Amenities Building. The cameras shall be mounted at vantage viewing locations to serve the Owner's needs and the final location will be determined by the Owner/Engineer. The video stream will be sourced back to the central control at Burke Lakefront Airport. Provide one eight (8) port network switch installed in the electrical room. Provide a rack mounted NVR with 6TB drives in RAID array to provide 30 days back-up for each camera. Provide 6'-0" tall standard open frame rack in electrical room for location of devices. Utilize fiber optic cable provided to transmit the video images from this switch to the central command center location as determined by the owner. Provide all associated, software, equipment, and electrical connections associated with installing and connecting these cameras.

#### 3.04.05 SIGNAGE

- 1. List of signage needed:
  - a. Restricted to registered users
  - b. Slip numbering
  - c. Welcome to North Coast Harbor

## 3.04.06 SEASONAL STORAGE AND PROTECTION OF DOCKS AND GANGWAYS

The Design Builder should explore winter options for docks. The winter treatment of the docks must not impinge on the winter berthing of the Goodtime III which is not part of this Contract.

- 1. Gangways. During off season storage, the design for disconnection and lowering of the gangways on to the existing headwalks for in-water storage.
- 2. Docks. The docks will be removed and clustered together within the harbor with a bubbler system.
- 3. Guide piles. Guide piles shall also be designed to allow for the easy dismantling of the docks for seasonal storage. Having most guide piles on one side of a main walk may facilitate this dismantling effort, as well as providing guide roller assemblies that have quick disconnect features.
- 4. Bubbler System. A Bubbler System shall be provided by the Design Builder to prevent ice accumulation on the docks when stored within the Basin.
  - a. A diffuser system (perforated hose or pipe) shall be installed on the basin floor. The supply and diffuser line diameters should be large enough that the pressure drop due to friction along the line is small.
  - b. System should allow for balancing, maintenance and winter monitoring. System should send operational signals to the Harbor Master office for monitoring purposes.
- 5. Quick Disconnect for Utility Systems. All utility systems shall be designed to accommodate a quick disconnection at appropriate locations, for the dismantling of the dock system seasonally. These disconnects shall meet all requirements of the appropriate building codes and local City jurisdiction.
- 6. Compressor. A low pressure, positive displacement blower or compressor shall be supplied. Uniform air pressure shall be supplied along the length of the diffuser system. For initial planning purposes: 1) typical line diameters at field installation are between 1.5 to 3.0 inches; 2) the quantity of air required can be considered to be 3 to 4 cubic feet per minute, per

100ft of diffuser line; 3) orifice diameters should be on the order of 3/64 on an inch, and; 4) typical spacing of diffusers is approximately 1/3 of submergence depth.

7. Compressor Room. A compressor room shall be provided within the footprint of the Amenities Building.

#### 3.05 UTILITIES FOR MARINA

#### 3.05.01 ELECTRICAL

- 1. Slips shall be typically provided with two 30 amp receptacles. 50 ft slips shall be provided with one 30 amp and one 50 amp receptacle.
- 2. Depending on dock geometry, one or more transformers on the docks may be required for distribution of power, although it would be preferred that no transformers be placed on the docks.
- 3. Dock power centers shall be provided with internal lighting. Additional lighting may be required to augment the power center lighting, if it is determined that a uniform light distribution has not been attained. Providing pedestal-type power centers operated via a credit card.
- 4. No dock boxes are desired for this marina.
- 5. Lightning protection shall comply with all applicable codes including the following:
  - a. NFPA 780 Standard for the Installation of Lightning Protection Systems
  - b. LPI-175 Standard of Practice for the Design-Installation-Inspection of Lightning Protection Systems
  - c. UL-96A Installation Requirements for Lightning Protection Systems NFPA 70 National Electrical Code, Article 555 Marinas and Boatyards

#### 3.05.02 PLUMBING

Plumbing includes potable water, fire water and sanitary sewage.

- 1. Potable Water. Potable water hose bibbs shall be provided at each slip.
- 2. Fire Water. A fire water system shall be designed that meets all requirements of the local Fire Department.
- 3. Sanitary Sewage. A sewage handling system shall be designed with hydrants throughout the marina, allowing boaters to pump out their boats in-slip, with assistance from the Harbormaster. The Design Builder should

explore options including an in-dock distribution (1 hydrant per 4 slips) system with dedicated sewage pump. This system must accommodate seasonal disconnection and storage. (This item shall be priced as and add alternate.

#### 3.06 AMENITIES BUILDING PERFORMANCE REQUIREMENTS

#### 3.06.01 CONCEPTUAL LAYOUT FOR AMENITIES BUILDING

- 1. Conceptual layout can be found in Figure No. 4.
- 2. Final layout is the responsibility of the Design Builder. Design layout shall include, but not be limited to, considerations for facility users, including persons with disability, construction material and method, and maintenance criteria.

#### 3.06.02 AMENITIES BUILDING MINIMUM DESIGN CRITERIA

- 1. The minimum design loads for the roof system shall be dead load, live load, wind load, snow/rain load, seismic load as specified in the local building code (Ohio Building Code) and all other related codes.
- 2. All roof water drainage must tie into the onsite underground storm water drainage system. See Section 3.04.05 Storm Sewer.
- 3. Provide required lighting inside the building. See Section 03.04.01 Electrical.
- 4. Provide means to prevent of problems with birds and other animals under the roof system.
- 5. Submit building design calculations and shop drawings signed and sealed by Registered Professional Engineer licensed in the State of Ohio.
- 6. The intent of the building system is to be a "low maintenance, vandal resistant" structure.
- 7. The overall intent of the Amenities Building is to be attractive in appearance, durable for all seasons, energy efficient, sustainably design, environmentally friendly and ADA accessible.
- 8. This building will be operable approximately 5 months of the year, then closed and winterized for the off season.
- 9. Building that can be expandable, modular, or compatible with additional similar buildings nearby.

10. The Design Builder to submit documentation of their design (drawings, renderings, etc.) demonstrating their understanding and conformance to the above design criteria.

## 3.06.03 AMENITIES BUILDING MINIMUM BUILDING ELEMENTS AND MATERIALS

- 1. Building Exterior. Glazed block masonry, glass block, architectural metal panel or other low care, vandal resistant and durable finish.
- 2. Roofing Material. EPDM, white. Interior paint finish on exposed deck.
- 3. Doors / Frames. Hollow metal with louver.
- 4. Door Hardware. Key pad entry to Restrooms & Laundry. Keyed entry to Janitor, Storage and Electrical rooms.
- 5. Building Interior. CMU with anti-graffiti epoxy paint.
- 6. Floors. Concrete, sealed.
- 7. Toilet Partitions. Stainless Steel.
- 8. Building shall be ADA compliant.
- 9. Electrical fans for ventilation.
- 10. Interior Lighting Fluorescent fixtures supported to structure.
- 11. Exterior Lighting LED wall lighting.
- 12. Building shall include following:
  - a. Women
    - i. 1 toilet stall & 1 ADA toilet stall.
    - ii. sinks (1 ADA accessible)
    - iii. 1 ADA accessible shower w/changing area with point of source hot water heater
    - iv. 1 shower w/ changing area with point of source hot water heater
    - v. All toilet room accessories.
    - vi. Grab bars in ADA toilet & ADA shower
  - b. Men
    - i. 1 toilet stall & 1 ADA toilet stall
    - ii. 2 sinks (1 ADA accessible)
    - iii. 1 ADA accessible shower w/changing area with point of source hot water heater

- iv. 1 shower w/ changing area with point of source hot water heater
- v. All toilet room accessories.
- vi. Grab bars in ADA toilet & ADA shower
- c. Storage Room with water connections.
- d. Janitors Closet with mop sink.
- e. Laundry Room with 1 washer and 1 dryer residential grade equipment and connections and floor drain.
- f. Electrical room of sufficient size to contain electrical service panels, video/networking rack and demarcation backboard for telephone, security and video services and electrical and data provisions to support vending operations.
- g. Vending Machine area with all required connections.
- h. Compressor Room with adequate size for the compressor and its required clearance. The room should be vented and insulated for sound. Provide a rollup door for access to the compressor and a man door as necessary. The compressor should be connected (phone or hard wire) to the Harbor Master office for operation of the bubbler system can be monitored.
- 13. List of signage needed:
  - a. Building name
  - b. Use restricted to Transient Boaters only
  - c. Men
  - d. Women
  - e. ADA signage
  - f. Use of laundry vending
  - g. In case of emergency (contact information)

#### 3.06.04 MISCELLANEOUS SITE CONDITIONS

1. There will be some required demolition of pavement/ pavers/ existing surfaces and reinstallation of the same.

#### 3.07 GOODTIME III BERTHING PERFORMANCE REQUIREMENTS

#### 3.07.01 CONCEPTUAL LAYOUT FOR GOODTIME III BERTHING

- 1. Conceptual layout can be found in Figure No. 2. Final layout is the responsibility of the Design Builder. The layout and design of the new berth shall be in accordance with the City of Cleveland (City of Cleveland Codified Ordinances, Title VII, Part 3 Zoning Code, and Part 4 Traffic Code, and all other applicable requirements).
- 2. Layout shall include, but not be limited to, considerations for facility users, berthing and fendering systems, temporary power for critical prime

season systems (bilge pumps, dehumidifiers, etc.), fire protection, construction, and maintenance.

3. No security or signage requirements for the Goodtime III are included in this Contract.

#### 3.08 SUSTAINABLE CONSTRUCTION

- **3.08.01** Sustainable design and construction practice are encouraged, including the potential for sustainable project elements such as, heat island reduction, energy use reduction, water use reduction, construction waste management, and the use of recycled, renewable and locally sourced materials.
  - 1. Heat Island Reduction. The following strategies for reducing urban heat island effects should be considered: Cover roof with solar photovoltaic panels or film, vegetated roofs, and/or cool roof surfaces with a solar reflectance index (SRI) of at least 29, that reflect sunlight and absorb less heat.
  - 2. Water use reduction. Use low flow toilet and plumbing fixtures to reduce water use.
  - 3. Electrical Lighting and Power Management. LED lights, photo sensors, and occupancy sensors in the Amenities Building along with point of source hot water heaters.
  - 4. Construction Waste Management. A construction waste management plan can be implemented from design through construction. All materials that are removed from the site can either be separated on site or at offsite facilities so the materials can be separated. These separated piles can then be reused or recycled, reducing the amount of construction waste sent to landfills.
  - 5. Renewable or Recycled Content of New Construction.
  - 6. Locally sourced materials.

#### **SECTION 4 – GENERAL REQUIREMENTS**

#### 4.01 SUBMITTALS

#### 4.01.1 RELATED DOCUMENTS

Drawings and general conditions of the Contract, including General and Special Provisions and other Specification Sections, apply to this clause.

#### 4.01.2 SUMMARY

- 1. This section specified requirements for submittals required for performance of Work, including:
  - a. Design Builder's Construction Schedule;
  - b. Submittal Schedule;
  - c. Shop Drawings;
  - d. Product Data; and
  - e. Samples.
- 2. Definitions:
  - a. Samples. Physical samples, which illustrate materials, equipment or workmanship and establish standards by which final work will be judged.
  - b. Shop Drawings. Drawings, diagrams, schedules, SWP3 related submittals and other data specifically prepared for the Work by the Design Builder or a Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.
  - c. Product Data. Illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Design Builder to illustrate materials or equipment for some portion of the Work.
  - d. Submittals. General term including samples, shop drawings and product data, as applicable.
  - e. Prototypes. Actual full-scale models as specified in the Design Documents. Prototypes shall be fabricated of the actual materials to be used in the final unit, and shall represent the quality of workmanship and fidelity of execution for all units to be supplied and installed by the Design Builder.
- 3. The Specifications of this Section are minimum requirements. Where more stringent requirements are specified elsewhere in these documents, the more stringent requirement shall prevail.
- 4. Provide a complete list of required submittals to the DPC.

- 5. Submit to DPC for formal review, all items listed herein by the time indicated as received, checked, and approved as required, accompanied with a transmittal letter.
- 6. Keep an accurate record of the date of each submittal and the date received on the Project.
- 7. Submit the following items prior to Contract signing.
  - a. Performance Bonds;
  - b. Subcontractor and Material Supplier List;
  - c. Installer Certification;
  - d. Certificate of Insurance; and
  - e. Equal employment opportunity requirements.
  - f. Site Specific Health and Safety. In addition to the Project Site Specific Health and Safety each subcontractor shall be required to provide a Site Specific Health and Safety Plan for its part of the work or must comply with the Design Builder Project Site Specific Health and Safety Plan.
- 8. The following is a general list of required submittals and the time frame for delivery to DPC.
  - a. Prior to first progress payment:
    - i. Progress schedule;
    - ii. Submittal schedule;
    - iii. Testing and Inspection schedule; and
    - iv. Schedule of values.
  - b. As Work progresses:
    - i. Wage Rate and Payroll Certificates;
    - ii. Certified Payroll (four (4) copies from Design Builder and all Design Builder's subcontractors)
    - iii. Materials Certifications;
    - iv. Test Reports;
    - v. Shop Drawings;
    - vi. Product Data;
    - vii. Samples;
    - viii. Reference Submittals;
    - ix. Affidavits and Waivers of Lien;
    - x. Hardware Schedule;
    - xi. Progress Photographs;
    - xii. A.A.B.C. Guarantee Certificates; and
    - xiii. Operating and Maintenance Instructions.
    - xiv. SWP3 Inspection Reports (Weekly and Storm)
- 9. With Final Application for Payment.
  - a. Special Guarantees and Warranties;
  - b. UL Certificates;

- c. Final affidavits and Waivers of Lien;
- d. Complete package of Shop drawings and Product Data;
- e. Record drawings;
- f. Extra stock;
- g. Final photographs and negatives;
- h. Keys and key schedule;
- i. Certificate of Inspection;
- j. Certificate of Occupancy;
- k. Bound set of all Testing and Inspection Reports; and
- j. Bound set of Operating Maintenance manuals.
- 10 General Requirements.
  - a. Shop Drawings and Product Data are the sole responsibility of the Design Builder and shall be checked by Design Builder. The DPC takes no responsibility whatsoever for such documents submitted for review.
  - b. Shop drawings and Product Data shall be submitted in sufficient detail to permit the reviewer to:
    - i. Review that the product or system is as specified or shown.
    - ii. Review details of fabrication, installation or attachment.
    - iii. Review for complete conformance to each requirement of performance specifications, line item by line item.
  - c. Samples: Submit three identical sets for each material, finish and color required.
    - i. For unit materials, such as brick, floor or ceiling tile, etc.
    - ii. For finishes applied over large areas, such as wall covering, carpet, ceramic tile, plywood, etc., provide 12" x 12" minimum size samples or larger, as required to show full range of repeat pattern.
    - iii. For linear products, such as door and window frames or trim pieces, submit 12" minimum lengths off the actual product.
  - d. Full-Size samples: Where required, submit a full-size unit of a specified product as a sample. Such sample may be used in the finished work if:
    - i. It is approved for such use by the DPC.
    - ii. It is protected and in first-class condition.
    - iii. It matches the balance of the product used on the project.

#### 4.01.3 SUBMITTAL PROCEDURES

- 1. Coordination. Coordinate preparation and processing of submittals with performance of activities. Transmit each submittal sufficiently in advance of performance of related fabrication and installation activities to avoid delay.
  - a. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.

- b. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
- c. The DPC reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- d. Job delays occasioned by requirement of resubmission of samples, shop drawings and product data not in accordance with Contract Documents are Design Builder's responsibility and will not be considered valid justification for extension of Contract Time.
- e. As soon as practical after executing the Contract, or as required by other Contract Documents, request from each subcontractor and submit properly processed and identified items as required in the Specifications.
- f. The Design Builder shall be solely responsible for scheduling and coordinating of submittals among subcontractors.
- 2. Processing. Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
  - a. Allow 2 weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The DPC will promptly advise the Design Builder when a submittal being processed must be delayed for coordination.
  - b. If an intermediate submittal is necessary, process the same as the initial submittal.
  - c. Allow 2 weeks for reprocessing each submittal.
  - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the DPC sufficiently in advance of the Work to permit processing.
  - e. Commence no portion of work requiring submittals until submittal has been reviewed by the DPC and stamped by DPC's engineer.
- 3. Submittal Preparation. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
  - a. Provide a minimum blank space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Design Builder's review and approval markings and the action taken.
  - b. Include the following information on the label for processing and recording action taken.
    - i. Project name and Number
    - ii. Date of Submittal
    - iii. Name, address and telephone number of DPC's engineer
    - iv. Name, address and telephone number of Design Builder
    - v. Name, address and telephone number of Subcontractor
- vi. Name, address and telephone number of Supplier
- vii. Name of Manufacturer
- viii. Number and title of appropriate Specification Section
- ix. Drawing number and detail references, as appropriate
- 4. Submittal Transmittal.
  - a. Package each submittal appropriately for transmittal and handling. Transmit each submittal from Design Builder to DPC using a transmittal form. Submittals received from sources other than the Design Builder will be returned without action.
  - b. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Design Builder's certification that information complies with Contract Document requirements.

### 4.01.4 SUBMITTAL SCHEDULE

- 1. A maximum of ten (10) days after the acceptance of the design has been granted, Design Builder shall prepare and submit a complete Schedule of Submittals. Indicate timing for submission of required submittals and relation to construction sequence.
- 2. During course of the Work, maintain an updated submittal schedule showing status of all submittals. Provide copies for DPC and their Engineer at project meetings and at other times when requested.
  - a. Coordinate submittal schedule with the list of subcontracts and the list of products as well as the Design Builder's fabrication and installation schedule.
  - b. Prepare the schedule in chronological order; include submittals required during the first 60 days of work. Provide the following information:
    - i. Scheduled date for the first submittal.
    - ii. Related Section Number
    - iii. Submittal category.
    - iv. Name of subcontractor.
    - v. Description of the part of the Work covered.
    - vi. Scheduled date for re-submittal.
    - vii. Scheduled date for the DPC's final release and the DPC's engineer approval.
- 3. Distribution: Following response to initial submittal, print and distribute copies to the DPC, DPC's engineer, subcontractor and other parties required to comply with submittal dates indicated.

### 4.01.5 SHOP DRAWINGS

- 1. Submit newly prepared information, drawn to accurate scale. Highlight, encircle or otherwise indicate deviations from the Construction Documents. Do not reproduce Construction Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- 2. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. These drawings are to show all materials, mechanical fasteners, electrical apparatuses, construction details, and installation detailing of typography and sign structure. Include the following information:
  - a. Dimensions;
  - b. Identification of products and materials included;
  - c. Identification of Finishes;
  - d. Compliance with specified standards;
  - e. Notation of coordination requirements; and
  - f. Notation of dimensions established by field measurement.
- 3. Submittal Format. Submittal format shall be determined by Design Builder using Standard Industry Practices. DPC reserves the right to request resubmittals in a different size configuration because of program requirements.
  - a. Sheet Size. Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 11" x 17" but no larger than 22" x 34".
  - b. Initial Submittals. Submit shop drawings and product data in reproducible form as noted below. Provide samples as requested. Submit six (6) complete sets of the sizes indicated. The following represents typical distribution of said submittal sets:
    - i. DPC two (2) copies
      - 1) 1-DPC
      - 2) 1-Document Control
    - ii. DPC's Engineer two (2) copies
      - 1) 2-DPC's engineer
  - c. Final Submittals of re-submittals. For larger than 11" x 17" Shop Drawings, submit-three reproducible copies. Two (2) copies will be retained: One (1) for DPC's engineer and two (2) for DPC and Document Control. The third copy will be returned which shall be used for distribution by Design Builder and marked up and maintained as a "Record Document."
- 4. Coordination Drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require

careful coordination during fabrication or installation to fit in the space provided or function as intended. Submit Coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

### 4.01.6 PRODUCT DATA

- 1. Collect Product Data into a single submittal for each element of fabrication or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."
- 2. Mark each copy to show applicable choices and options. Where Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
  - a. Manufacturer's printed recommendations
  - b. Compliance with recognized trade association standards
  - c. Compliance with recognized testing agency standards
  - d. Application of Testing Firm labels and seals
  - e. Notation of dimensions verified by field measurement
  - f. Notation of coordination requirements
- 3. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- 4. Submittals. Submit six (6) copies of each required submittal. Distribution will be as identified in 4.01.05 Shop Drawings. The returned copy will be marked with action taken and corrections or modifications required. Unless noncompliance with Contact Document provisions is observed, the submittal may serve as the final submittal.
- 5. Distribution. Furnish copies of final submittal to DPC, installers, subcontractors, suppliers, manufacturers, fabricators and others required for performance of construction activities. Show distribution on transmittal forms.
  - a. Do not proceed with installation until an applicable copy of Product Data is in the installer's possession.
  - b. Do not permit use of unmarked copies of Product Data in connection with fabrication.
  - c. The Design Builder shall provide, in writing, maintenance specifications, upkeep instructions to the DPC. These specifications shall speak to the upkeep needs of all elements contained in this

project. They shall identify in a concise, easily understandable form the materials/product specifications for often required changes or maintenance (e.g. bulb specification for lighting units.)

## 4.01.7 SAMPLES

- 1. Where applicable, three (3) 8 1/2" x 11 " samples (three-hole punched to fit 3-ring binders) of the actual materials to be used must be submitted to the DPC or review and approval prior to production.
- 2. Three (3) sets of samples of all other materials shall be submitted to the DPC for review and approval prior to production.
- 3. Submit Samples for review of kind, color, pattern and texture for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
  - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3) that show limits of the variations.
  - b. Refer to other Specifications Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operations and similar fabrication characteristics.
- 4. Preliminary submittals. Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
  - a. Preliminary submittals will be reviewed and returned with the DPC's and Airport Engineer's selection and other action to take.
- 5. Submittals. Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit three sets, one will be returned marked with the action taken.
  - a. Maintain sets of Samples, and distribute sets of samples to DPC or quality comparisons throughout the course of construction.
  - b. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
  - c. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- 6. Distribution of Samples. Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers and others as required for performance of the Work. Show distribution on transmittal forms.

## 4.01.8 **DESIGN BUILDER'S REVIEW**

- 1. Review, stamp with approval and submit to DPC submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the DPC and Owner's Representative or of separate Design Builders. Submittals made by the Design Builder which are not required by the Contract Documents may be returned without action.
- 2. By approving and submitting submittals, Design Builder represents that he has determined and verified materials, quantities, fabrication requirements, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- 3. The Design Builder shall not be relieved of responsibility for deviations form requirements of the Contract Documents by the DPC's review of shop drawings, product data, samples or similar submittals unless the Design Builder has specifically informed the DPC in writing of such deviation at the time of submittal and the DPC has given written acceptance to the specific deviation. The Design Builder shall not be relieved of responsibility for errors or omissions in shop drawings, product data, samples or similar submittals by the DPC's review thereof.
- 4. The Design Builder shall direct specific attention, in writing or on resubmitted shop drawings, product data, samples or similar submittals, to revisions other than those requested by the DPC on previous submittals.
- 5. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the DPC shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.
- 6. Design Builder shall be responsible for coordinating all work, whether by subcontractors or under separate contracts.
- 7. Design Builder agrees that submittals processed by DPC are not construction change directives or change orders. The purpose of submittals is to demonstrate to the DPC that the Design Builder understands the design concept and demonstrates an understanding by indicating which equipment and material he intends to furnish and install and by detailing fabrication and installation methods intended to use.
- 8. Design Builder represents by submitting samples, shop drawings and product data that he has complied with provisions specified herein.

Submissions made without Design Builder's approval indicated thereon will be returned without being reviewed for compliance with this requirement.

- 9. Date each submittal and indicate name of Project, DPC, Design Builder, subcontractor, as applicable, description or name of equipment, material or product, and identify location at which it is to be used in the Work.
- 10. Accompany submittal with transmittal letter containing project name, Design Builder's name, number of samples or drawings, titles and other pertinent data. Transmittal shall outline deviations, if any, in submittals from requirements of Contract Documents.
- 11. Perform no portion of the Work requiring submittal and review of submittals until the respective submittal has been reviewed by the DPC and stamped by the DPC's engineer. Such work shall be in accord with submittals bearing the DPC's engineer's stamp.
- 12. Upon receipt of submittals, check each item for:
  - a. Conformance to submittal requirements;
  - b. Conformance of materials and details to the Contract Documents;
  - c. Accuracy of all measurements; and
  - d. Field construction criteria related thereto.
- 13. Reject items which do not conform to these requirements and return them to the originator with an explanation for rejection. Do not submit rejected items to the DPC for DPC's engineer.
- 14. For items approved by the Design Builder, stamp each item with a review stamp to warrant and represent approval.
- 15. The Design Builder is totally responsible for the following items that will not be reviewed by the DPC and DPC's engineer:
  - a. Dimensions to be confirmed and correlated at the Site.
  - b. Fabrication process information.
  - c. Means, methods, techniques, sequences, procedures of construction and construction safety.

#### 4.01.9 **DPC REVIEW**

- 1. All submittals will be processed by the DPC. Deliver or send each item shipping charges prepaid to DPC.
- 2. DPC will distribute submittals to all reviewers noted in 4.01.05.3.b of this Section.

- 3. All DPC review comments will be forwarded to the DPC's engineer for incorporation on the master set of the submittal. The DPC's engineer will make a copy of the master set with final disposition for their files and return the master set to DPC.
- 4. DPC will make two (2) copies, one for the DPC's office and one for Document Control. DPC will return the original master set to Design Builder for Design Builder's copying and distribution.

### 4.01.10 DPC's ENGINEER REVIEW

- 1. Design Builder will deliver or send each item, shipping charges prepaid, to DPC.
- 2. DPC and DPC's engineer will immediately reject any item without further review if it is not:
  - a. Accompanied by a transmittal letter containing the required information;
  - b. Submitted with six (6) sets of reproducibles; and
  - c. Stamped "Approved" by the Design Builder.
- 3. The review will be for conformance to the design concept and compliance with information given in the Contract Documents. The DPC's engineer will make notations directly on the reproducible.
- 4. DPC's engineer's review or other appropriate action is only for checking for conformance with information given and the design concept expressed in the Contract Documents. DPC's engineer's acceptance of a specific item shall not indicate acceptance of an assembly in which item is a component.
- 5. DPC's engineer's review of submittals shall not relieve Design Builder of responsibility for deviation from requirements of Contact Documents unless Design Builder has informed the DPC's engineer through the DPC in writing of such deviation at time of submission and DPC and DPC's engineer have given written acceptance to the specific deviation. DPC's engineer's review shall not relieve Design Builder from responsibility for errors or omissions in submittals.
- 6. The DPC will review all samples. Such review will be for appearance only. Compliance with all other requirements of the Contract Documents is the responsibility of the Design Builder.
- 7. Submittals required to be submitted "For Designer's Information Only" are required to demonstrate that the Work complies with performance

requirements of the Contract Documents. Such submittals, if acceptable to DPC's engineer, will not be returned to Design Builder.

- 8. Reference submittals shall be reviewed by the DPC and the DPC's engineer for informational purposes only. The contents of such submittals and compliance with all other requirements of the Contract Documents shall be the responsibility of the Design Builder.
- 9. Where the Contract Documents require the design of electrical systems or components of systems by a supplier, or where a Design Builder initiates a change in the design of a system or component thereof, such systems or components shall be designed by a registered Professional Engineer in the State of Ohio and all calculations submitted to the DPC's engineer of record, prior to starting fabrication or installation of the Work. The DPC, Airport Engineer and the DPC's engineer will not be responsible for the designs of such other Professional Engineers.
- 10. DPC's engineer will return one reproducible copy of reviewed shop drawings to DPC for distribution by Design Builder.

# 4.01.11 VARIATIONS FROM CONTRACT DOCUMENTS

- 1. If the DPC determines a variation from the Contract Documents is in the best interest of DPC, and it does not involve a change in the Contract price or time, the DPC's engineer shall permit such variation and stamp the item "CONFORMS AS IS".
- 2. DPC will assume the Design Builder approves the variation shown if not in receipt of immediate written notification stating otherwise.
- 3. If the Design Builder fails to mention variations from the Contract Documents, Design Builder will not be relieved of the responsibility for executing the Work in accordance with the Contract Documents.
- 4. When a variation from the Contract Documents is permitted and such variation involves corresponding adjustment in an adjacent or related item, the responsibility for making and paying all costs for such adjustments rest with the Design Builder requesting the original variation.

### 4.01.12 DPC ENGINEER'S STAMP AND LETTER OF ACKNOWLEDGEMENT

Each Shop Drawing, Product Data or sample processed by the DPC's engineer will be stamped with following notation:

1. If the item conforms to all requirements of the Contract Documents or if the item contains permitted variations as determined by the DPC's engineer in concurrence with the DPC, it will be stamped "APPROVED", which means that fabrication, manufacture or construction may proceed. Proceed immediately, no other action required.

- 2. If the item is marked-up by the Design Builder or the DPC's engineer to make it conform and such mark-ups are not extensive, it will be stamped "APPROVED AS NOTED".
- 3. If the item is marked-up by the Design Builder or the DPC's engineer to make it conform and such mark-ups are not extensive, it will be stamped "APPROVED AS NOTED". Process immediately and make corrections for final Record Documents.
- 4. If the item does not conform to the Contract Documents and/or if the item is extensively marked-up, it will be stamped "REVISE AND RESUBMIT". Make corrections and resubmit for review, however proceeding without either box B or C checked, is prohibited.
- 5. If the item does not conform to the Contract Documents and the variation is not permitted, it will be stamped "REJECTED". Proceeding without either box B or C checked is prohibited. Review, follow remarks and resubmit for review.

# 4.01.13 REJECTION AND RESUBMITTAL

- 1. Items not meeting the requirements of this Section, or stamped "REVISE AND RESUBMIT OR REJECTED", will be returned for correction and resubmittal by the same process. The DPC's engineer will indicate reasons for the rejection and will retain one copy or sample to check against resubmittal.
- 2. Make indicated changes only, unless further change is required for conformance to the Contract Documents.
- 3. Direct attention on the item to all revisions, other than those requested, and explain such in detail on the transmittal form.
- 4. The Design Builder shall be completely responsible for changes not indicated or specifically noted as revised.

### 4.01.14 ACCEPTANCE AND USE

1. Items stamped "APPROVED" or "APPROVED AS NOTED" will be returned to the Design Builder who shall reproduce copies from the original stamped reproducible.

- 2. Distribute copies as required to transmit the information to all parties involved.
- 3. The DPC's engineer will retain copies of conforming Shop Drawings and Product Data as well as one sample, for comparison to work installed.
- 4. Keep copies of each approved item on the job site at all times for reference.
- 5. Retain the original reproducible of each item until final completion of the Work and turn them over to the DPC.
- 6. Do not commence Work requiring Shop Drawings, Product Data and samples until the DPC has approved submittal. Perform all work in accordance with said submittal.

### 4.02 SCHEDULES

### 4.02.01 RELATED DOCUMENTS

Drawings and general conditions of the Contract, including General and Special Provisions and Specification Sections, apply to this section.

#### 4.02.02 SUMMARY

### 1. General Requirements.

- a. Within seven (7) days after award of Contract, prepare and submit to DPC estimated design and construction progress for all project activities. Include sub-schedules of related activities essential to its progress.
- b. Submit revised progress schedule with each Application for Payment.

### 4.02.03 SUBMITTALS

#### 1. Schedules.

- a. Prepare CPM diagrams and reports utilizing *Primavera Project Planner Version* 3.0 or higher. Make compact discs of Project Schedule using "backup" feature of computer analysis program; include with each submittal.
- b. Procedures, technical details and Design Builder's participation and responsibilities shall be as hereinafter described.
- c. Resubmit revisions necessary as a result of this review to DPC within five calendar days after this review. The mutually acceptable schedule shall then be used by Design Builder for planning, organizing and directing work for reporting progress.

d. If Design Builder desires to make changes in the method of performing Work, he shall notify DPC in writing, stating reason for changes.

### 4.02.04 **REPORTS**

- 1. Monthly progress reports.
  - a. Update schedule by entering the following: Actual start and completion dates of complete activities and the actual start date and remaining duration of activities in progress.
- 2. If Design Builder fails to submit the required progress and narrative reports, DPC will withhold approval of progress payment until such time as Design Builder submits required reports.

# 4.02.05 DESIGN BUILDER COVENANTS AND GUARANTEES

- 1. Design Builder covenants and guarantees that Design Builder will not:
  - a. Misrepresent to City or the DPC its planning, scheduling or execution of the Work.
  - b. Utilize schedules materially different from those made available by Design Builder to the City or the DPC or to any subcontractor or separate Design Builders for the direction, execution and coordination or (*sic*) the Work, or which are not feasible or realistic.
  - c. Prepare schedules, updates, revisions, or reports for the Work which do not accurately reflect the actual intent or reflect the reasonable and actual expectations of the Design Builder and its subcontractors pertaining to:
    - i. The sequences of activities.
    - ii. The duration of activities.
    - iii. The responsibility for performing activities.
    - iv. Resource availability.
    - v. Labor availability or efficiency.
    - vi. Foreseeable weather conditions.
    - vii. The cost associated with the activity.
    - viii. The percentage complete of any activity.
    - ix. Completion of any item of work or activity.
    - x. Project milestone completion.
    - xi. Delays, slippages or problems encountered or expected.
    - xii. Subcontractor requests for time extensions or delay claims of subcontractor.
    - xiii. Float available.
  - d. If the Design Builder should desire or intend to complete the Work earlier than any required milestone or completion date, the City or the DPC shall not be liable to the Design Builder for any costs or other

damages should the Design Builder be unable to complete the Work before such milestone completion date.

#### 4.02.06 **FLOAT TIME**

1. Float or slack time is defined as the amount of time the start or finish of an activity can be delayed without affecting the project finish date. Float or slack time is for the exclusive use and benefit of the City. Design Builder's work shall proceed according to early start dates, and the DPC shall have the right to reserve and apportion float time according to the needs of the project. The Design Builder acknowledges and agrees that actual delays, affecting paths of activities containing float time, will not have any effect upon contract completion times, providing that the actual delay does not exceed the float time associated with those activities.

### 4.03 TEMPORARY FACILITIES AND CONSTRUCTION CONTROLS

### 4.03.01 REFERENCE

1. The requirements of this section apply to the Work of all other Sections.

### 4.03.02 DESCRIPTION

- 1. The following temporary facilities and utilities shall be at the Site as herein specified and shall be maintained in good order and condition for the duration of the Project. Pay all costs unless specifically stated otherwise.
- 2. Upon completion of the Project, the Design Builder is responsible for the removal of the temporary facilities or utilities and leave the premises in good condition for occupancy.
- 3. Any Design Builder or subcontractor requiring temporary service before it can be provided as specified, or whose requirements with respect to a particular service differ from the service specified, shall provide such service as satisfactory to DPC.
- 4. There will be no parking for construction personnel provided at the site. Parking will be provided at Burke Lakefront Airport.
- 5. An area off site for the temporary stockpile of excavated materials will be provided at Burke Lakefront Airport.

#### 4.03.03 **USE OF SITE**

- 1. All damage to haul routes, drives, sidewalks, or other features of the grounds designated to remain or adjacent property resulting from any operations connected with the Work shall be repaired by the Design Builder at no additional cost and to the satisfaction of DPC. Repairs to city streets or state roads are the responsibility of the Design Builder and will not be paid for. Photographs shall be taken of haul routes before work begins and compared to conditions at the end of the Project.
- 2. Each Design Builder or subcontractor must keep all streets, drives, parking lots, and sidewalks free from mud and debris at all times which results from his work.
- 3. At the completion of the Project, remove all construction debris, equipment, and temporary items.

### 4.03.04 OFFICES AND SHEDS

- 1. Design Builder's office.
  - a. Unless otherwise provided herein, the Design Builder shall provide and maintain clean, weathertight offices during the period of construction, where Design Builder or Design Builder's designate shall be present or to which either may be readily called at all times while the Work is in progress. The offices shall be located as directed by DPC. The office shall include desks, chairs, tables, facsimile, photocopy machine, HVAC, and telephone line separate from fax line.
  - b. Field offices shall be painted, heated, air conditioned in warm weather, lighted and provided with ventilating windows which operate, door with locks, plan tables, metal file drawers, benches and racks for drawings. The Design Builder's office shall be of sufficient size for use.
  - c. The Design Builder shall provide and have a telephone installed in the field office as soon as possible.
  - d. All expenses in connection with the field office, including the installation and use of telephone, heat, air conditioning, light, water and janitorial service shall be borne by the Design Builder. Said office shall be maintained by the Design Builder until full acceptance of the Work, and then removed, unless DPC orders its earlier removal.
  - e. Copies of permits, the bound form of contract, including contract drawings and detail specifications and the approved shop drawings for the Work shall be kept at said Design Builder's office, ready for use at any time.

- 2. Temporary Storage Facilities.
  - a. The Design Builder is responsible for providing off-site storage of materials.
  - b. The temporary storage of materials, in the area designated by Port Control, may be done at the Design Builder's own risk.

#### 4.03.05 CONSTRUCTION PLANT

- 1. Provide all items, such as cranes, hoists, temporary elevators, and other lifting devices; all scaffolding, staging, platforms, runways, and ladders; and all temporary flooring, partitioning and stairs as required by the various trades for the proper execution of all work. Comply with FAA requirements for height restrictions near or at airports.
- 2. Excavate, level, or otherwise treat existing grade as required for placement of construction plant items.
- 3. Provide such equipment with proper guys, bracing, guards, railings, and other safety devices as required by governing authority and safety standards.

### 4.03.06 MECHANICAL AND ELECTRICAL SERVICES

- 1. General
  - a. Make arrangements with DPC for connections, interruptions of service and coordination of layout. Installations are subject to the approval of DPC.
  - b. Make arrangements with utility companies for temporary metered connections and obtain permits.
  - c. Pay all costs of installation.
- 2. Power and Light
  - a. Electrical Service. Electrical power service of existing voltage and amperage may be obtained from DPC's present facility at no cost to Design Builder. Design Builder shall be responsible for making connection to DPC's service and for extensions of service. Design Builder shall provide additional higher voltage or amperage power service and pay all costs for such power, including connections and extensions, if required by him for construction purposes.
  - b. Temporary Lighting. Provide the following minimum light levels for construction purposes:
    - i. General construction and safety lighting, including area lighting of all enclosed areas accessible to airport operations during nonconstruction hours: Five foot-candles.
    - ii. Finishing Work and Testing: 25 foot-candles.

- c. Provide a temporary distribution system for electric service, of sufficient capacity and characteristics to supply the proper current for the various types of construction, tools, motors, welding machines, lights, heating plant, air-conditioning systems, pumps, and other work required.
- d. Provide all necessary temporary wiring, transformers, panel boards, outlets, switches, lamps, fuses, controls, and accessories.
- e. Pay metered cost of power.
- f. All such temporary wiring and facilities shall be removed when work is completed.
- g. The use of gas, acetylene, kerosene or gasoline lamps will not be permitted.
- h. Where light and power are not available or are insufficient, the Design Builder shall provide approved temporary generating equipment.
- 3. Water Supply
  - a. Provide potable drinking water.
  - b. Pay metered cost of water used.
- 4. Heat and Ventilation
  - a. Provide cold weather protection, temporary heat, and fuel required to carry on the Work expeditiously; to protect all work and materials against injury from dampness and cold; to dry out the building and to provide suitable working conditions for the installation and curing of materials.
  - b. Use properly vented portable forced air heaters or other approved means adequate for the purpose.
  - c. Do not use the permanent heating system for temporary heat without permission from DPC. In the event permission is granted prior to acceptance of the Project, restore all parts of the system to meet the requirements of the Specifications.
  - d. Pay cost of fuel.
- 5. Toilet Facilities
  - a. General Design Builder shall provide temporary toilet facilities located within Site limit lines as directed by the DPC.
  - b. Maintain facilities in a sanitary condition. Comply with governing authority and health standards.
- 6. Telephones and Miscellaneous Equipment
  - a. Provide a job telephone and fax machine in each trailer until completion of the Work.
  - b. Make the telephone and fax machine available at no cost to the City.
  - c. Provide a photocopy machine in each trailer until completion of the Work.

### 4.03.07 SAFETY, PROTECTION AND SECURITY

- 1. General
  - a. Erect and maintain, as required by OSHA, existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including, but not limited to, posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying Owners and users of adjacent utilities.
  - b. Provide protection at all times against damage from vandalism, theft, weather, and other causes of all completed work, materials, and apparatus.
  - c. Protect existing structures, road, and walks during progress of the Work.
  - d. See C-Supplemental General Conditions, C-35 for Safety Programs and Job Safety Meetings.
  - e. The Design Builder shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- 2. Safety
  - a. General
    - i. Design Builder shall comply with all applicable Federal, State, and Local Laws and Regulations including but not limited to:
      - 1) OSHA Standards 29 CFR 1910 and 1926
      - 2) Applicable Standards and Regulations established by the Industrial Commission of Ohio.
      - 3) The DPC Construction Health and Safety Design Builder Handbook.
    - ii. Design Builder shall participate in Weekly Safety Meetings with management.
  - b. Design Builder shall designate a Safety Manager for each contract and if a contract has more than one site designate one (1) for each site.
    - i. Design Builder shall report any accidents, injuries or safety incidents to DPC through the DPC. Design Builder shall forward this report to the DPC in such a manner that the DPC can forward it to DPC and DPC receive the report within twenty four (24) hours of the event. Design Builder shall cooperate fully in any DPC investigation of the event.
    - ii. Erect and maintain, as required by OSHA, existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including, but not limited to, posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying Owners and users of adjacent utilities.
    - iii. The Design Builder shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- 3. Water

- a. Protect foundation excavations, trenches, and completed work from rain, spring or ground water, backing up of drains or other flooding.
- b. Construct and maintain temporary drainage and dispose of pumped water to prevent flooding in the construction and storage areas.
- c. Provide and operate sufficient pumping equipment to maintain excavations and other, construction areas free of water.
- 4. Snow and Ice
  - a. Remove all snow and ice for proper protection and prosecution of the Work.
  - b. Do not use salt, calcium chloride or other materials that can damage paving or building materials.
- 5. Security
  - a. Maintain building and Site security at all times.
  - b. Provide temporary weather tight enclosures for all exterior openings. Equip exterior doors with locks. At the end of each day's work, close and lock all temporary enclosures.
  - c. Temporary perimeter site fence shall be galvanized 6'-0" high chain link fence without top and bottom rail. Posts, footers and minimum two swing gates with top and bottom rails and locks required. Fence posts per building code requirements to withstand wind loads. Also provide similar fence and gate at new media parking lot.
- 6. Shoring, Sheeting, and Bracing
  - a. Provide adequate shoring, sheeting, and bracing required to retain excavations and prevent slides or cave-ins.
- 7. Safety Devices
  - a. Provide all fences, barricades, bridges, railings, and guards for protection of construction personnel and the public.
- 8. Fire Protection
  - a. Schedule means of fire protection for all construction, materials, and personnel prior to starting Work in accordance with governing authority.
  - b. Secure approval of the local Fire Department and other governing authority, as required.
  - c. Provide and perform protection and prevention during the construction period in accordance with FM or IRI recommendations and all other laws and regulations for protection of buildings under construction.
- 9. First Aid
  - a. Provide all articles necessary for first aid treatment.
  - b. Make arrangements with the nearest hospital for treatment of seriously injured workmen.

- 10. Hazardous Materials
  - a. When the use or storage of hazardous materials or equipment is necessary for the execution of the Work, the Design Builder shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel. Such use and storage shall also be in accordance with governing authority.
- 11. Tree Protection
  - a. Provide protection of existing trees that are to remain in current location and trees that are relocated. Protection shall guard against all type of damage.

# 4.03.08 **REPORTS**

- 1. Daily Reports
  - a. Each workday, the Design Builder shall submit to the DPC a full report of the previous workdays work, using Primavera P3 or P6. The report shall include, but not limited to:
    - i. Description of work activity referenced to the activity numbers of the project schedule, trades and subcontractors employees. Include all inspections made by the Design Builder or the subcontractors including but not limited to the Design Builder's Quality Control Inspections, Code Conformance Inspections, and Daily Safety Inspections and progress reports.
    - ii. Equipment lists; the description, units, type and work areas columns shall be filled out. Field Force; Personnel count and minority representation.
    - iii. Visitors; All columns shall be filled out.
    - iv. Materials; Delivery time, name, quantity, and description shall be filled out. All others as required.
    - v. Schedule; May be used in lieu of referencing the activity numbers in the description portion of the report.
    - vi. Temperature, precipitation, sky, wind conditions.
    - vii. Dates, Times, and subject of all meetings and daily toolbox safety meeting comments and results.
- 2. Monthly
  - a. By the fifth of each month, Design Builder shall submit to DPC a full report of the previous month's injury and illness cases and incident rate statistics based on OSHA record keeping requirements that includes, but is not limited to, number of first-aid cases, near miss reports, accidents reports and the number of man-hours worked for the month.

### 4.03.09 NOISE CONTROL

1. The Design Builder must comply with local noise ordinances.

## 4.03.10 CLEAN UP AND REMOVAL

1. Cleaning

Remove burnable materials from the job site immediately. The Design Builder shall, prior to commencement of Work, supply all dumpsters in locations as directed by DPC. Design Builder shall arrange for pick-up and replacement of dumpsters when capacity is reached.

2. Trash/Debris

Immediately dispose of trash and debris too large for dumpsters.

### 4.03.11 SPECIAL PROTECTION

- 1. Protect buildings and building components from damage, staining or defacing due to the Work. Correct or replace damaged materials or replace damaged materials or finishes to satisfaction of DPC.
- 2. Provide protection against over spray of cleaning materials or paint contacting building occupants or vehicles in drives or parking areas. Drives shall not be blocked to extent of restricting vehicular access and parking area restrictions shall be kept to a minimum. Barriers and restrictions shall be approved in advance by DPC. Do not work with materials subject to being wind blown during times of high winds.
- 3. Protect surfaces of fresh coating products from damage or discoloration due to rain, dust or physical damage. Replace damaged or defaced materials which cannot be restored to the satisfaction of DPC.
- 4. Protect building from rain or water leakage during the course of the Work. Do not open joints or roof areas to extent that openings cannot be protected from inclement weather. Openings shall not be left unprotected overnight.

### 4.03.12 RELOCATION & REMOVAL

- 1. Relocate temporary facilities during construction as required by process of the Work at no additional cost to DPC.
- 2. At completion of the Work or at the time of permanent utility connections, as applicable, remove temporary facilities, including connections and debris resulting from temporary installation.

#### 4.04 SECURITY

### 4.04.01 REFERENCE

Drawings and general conditions of the Contract, including General and Special Provisions and other Specification Sections, apply to this section.

#### 4.04.02 **SUMMARY**

The Design Builder shall provide security measures specified herein for this project.

### 4.04.03 GENERAL

- 1. Workers shall be governed by the City of Cleveland's regulations in the use of the premises as required for the Work specified.
- 2. The Design Builder's and the Design Builder's employees activities shall be restricted to the designated area or areas established by DPC. If the Design Builder wishes to use an area other than that which is designated by DPC, written permission must be given by DPC prior to Design Builder's use of the area requested. Additional information as to the City of Cleveland's requirement of guards, employees, vehicles and construction equipment are specified in the following section.

#### 4.04.04 **PROCEDURES**

- 1. The following procedures are mandated by DPC:
  - a. Record keeping
  - b. Deliveries
  - c. Safety precautions with respect to aircraft and the air traveling public
  - d. Coordination.

#### 4.05 **PROJECT MEETINGS**

### 4.05.01 REFERENCE

Drawings and general conditions of the Contract, including General and Special Provisions and other Specification Sections, apply to this section.

#### 4.05.02 **SUMMARY**

1. Work Described. This Section defines the requirements for project meetings, of such nature as relates to the overall project.

2. Related Work Described Elsewhere. A pre-construction conference relating to a specific trade or specific construction process or sequence is specified in the applicable section.

### 4.05.03 DESIGN BUILDER'S DUTIES

- 1. Scheduling and Notification:
  - a. Notify invited parties of meeting time and place and verify approval of invited parties at least 48 hours prior to meeting.
  - b. Coordinate timing of progress meetings with DPC to coincide with the progress of major divisions of work.
  - c. Make physical arrangements for and preside over meetings.
- 2. Administration:
  - a. Prepare meeting agenda.
  - b. Record and promptly distribute copies of minutes of significant proceedings and decisions of meetings.
  - c. Prepare and distribute copies of construction progress schedules as originally issued or subsequently approved, marked to show current progress.

### 4.05.04 KICK OFF MEETING

- 1. Scheduling. A Kick-Off Meeting shall be held at a location to be announced, prior to commencement of the Project, but no later than 15 days after the execution of the Agreement and prior to the commencement of construction activities.
- 2. Attendance
  - a. DPC
  - b. Invited consultants
  - c. Design Builder Design Team Members
  - d. Major subcontractors as requested by DPC, Designer and Design Builder
- 3. Minimum Agenda
  - a. Distribute and discuss design work plan, schedule, and key decision and coordination points.
  - b. Identify and designate responsible personnel.
  - c. Establish procedures for providing and distributing meeting records.
  - d. Discuss special project requirements and conditions.

### 4.05.05 DESIGN PROGRESS AND COORDINATION MEETINGS

- 1. Scheduling. Unless otherwise requested by the DPC a progress and coordination meeting shall be held on a bi-weekly basis at a location designated by DPC.
- 2. Attendance
  - a. Design Builder
  - b. Design Builder's Design Project Manager or Principal Project Superintendent
  - c. Design team members, as applicable to the progress of the Project
  - d. Invited consultants
  - e. DPC
- 3. Minimum Agenda
  - a. Review minutes of previous meetings, with review of follow-up and work progress since previous meeting.
  - b. Present design progress for review and comment.
  - c. Identify direction and recommendations for next phase of design.
  - d. Review proposed changes, including effect on budget, schedule and completion date.
- 4. Reporting
  - a. The Design Builder will be responsible for completing and distributing copies of meeting minutes to each attendee and to other parties who should have been present, or have an interest in items of discussion.
  - b. Schedule Updating: Revise the Project Schedule after each progress meeting where revisions to the Schedule have been made or recognized.

# 4.05.06 PRE-CONSTRUCTION CONFERENCE

- 1. Scheduling. A pre-construction conference shall be held at a location to be announced, prior to commencement of the Work, but no later than 15 days after the execution of the Agreement and prior to the commencement of construction activities.
- 2. Attendance
  - a. DPC
  - b. Invited consultants
  - c. Design Builder
  - d. Major subcontractors as requested by DPC, Designer and Design Builder
  - e. Representative of separate Design Builder, when applicable

- 3. Minimum Agenda
  - a. Distribute and discuss list of major subcontractors and material suppliers.
  - b. Distribute and review insurance submittals.
  - c. Distribute tentative construction progress schedule and submittals schedule, with discussion of critical work sequencing.
  - d. Identify and designate responsible personnel.
  - e. Process and distribute field decisions, change orders and other Contract Documents.
  - f. Process required submittals, including shop drawings, samples and product data and review Design Builder's submittal schedules.
  - g. Establish procedures for maintaining required record documents and maintenance manuals.
  - h. Discuss use of site, including temporary offices, storage areas, erosion control and site use limitations or restrictions.
  - i. Discuss material and equipment deliveries, storage, protection and priorities.
  - j. Discuss safety and first-aid procedures and responsibilities.
  - k. Discuss safety procedures and methods.
  - 1. Discuss housekeeping procedures and methods.
  - m. Discuss special project requirements and conditions.

### 4.05.07 CONSTRUCTION PROGRESS AND COORDINATION MEETINGS

- 1. Scheduling. Unless otherwise requested by the DPC a progress and coordination meeting shall be held on a weekly basis at the job site or area designated by DPC.
- 2. Attendance
  - a. Design Builder, represented by the Project Manager or Principal
  - b. Design Builder's Project Superintendent
  - c. Subcontractors and material supplies specifically invited, as applicable to the progress of the Work
  - d. Invited consultants
  - e. DPC
- 3. Minimum Agenda
  - a. Review minutes of previous meetings, with review of follow-up and work progress since previous meeting.
  - b. Review field observations, safety observations, problems and decisions.
  - c. Identify problems and potential problems affecting project construction, safety or anticipated progress.
  - d. Review problems of materials delivery, off site fabrication and subcontractor scheduling.

- e. Develop corrective measures and procedures to regain planned schedule when delays occur.
- f. Revise construction progress and submittals schedule to reflect actual progress.
- g. Review details of anticipated construction progress and job task analysis prior- to next meeting.
- h. Review workmanship and maintenance of quality standards.
- i. Review proposed changes, including effect on construction progress schedule and completion date.
- j. Review project safety.
- 4. Reporting
  - a. The Design Builder will be responsible for completing and distributing copies of meeting minutes to each attendee and to other parties who should have been present, or have an interest in items of discussion.
  - b. Schedule Updating: Revise the Construction Schedule after each progress meeting where revisions to the Schedule have been made or recognized.

# 4.05.08 MISCELLANEOUS MEETINGS

- 1. Design Builder shall document any formal meetings, such as Construction Interface Meetings, held for the purpose of scheduling and/or coordinating subcontractors and safety issues associated with such coordination. Design Builder is not obligated to document any issues dealing with contractual issues between the Design Builder and the various subcontractors or any related financial issues.
- 2. Informal meetings such as Daily Toolbox Safety Meetings may be documented on the Daily Reports. Toolbox Safety Meetings shall focus on the safety issues related to the work that is being performed during the shift about to begin. Additionally, general safety issues may be addressed.

### 4.06 FIELD PROCEDURES

### 4.06.01 REQUESTS FOR INFORMATION

- 1. Questions that arise during installation concerning Contract Document requirements shall be submitted by the Design Builder in writing, for response.
- 2. Faulty work or work not in conformance with the Contract Documents will not be permitted by DPC. It is the responsibility of the Design Builder to propose a remedy by means of detailed Drawings and written documentation to the DPC for response. All costs for the removal and reconstruction of such work shall be paid for by the Design Builder.

3. Any field changes that are deemed necessary during construction shall be provided to the Cleveland Department of Port Control in writing for review prior to implementation. Documents shall include concurrence from the design engineer and/or architect who sealed and signed the drawings.

#### 4.06.02 MATERIAL CERTIFICATION

1. Material Certification shall consist of written certification from the manufacturer of the material listed, certifying that all such material used in the Work meets the requirements specified in the Contract Documents and is being utilized in conformance with the manufacturer's recommendations. Provide copy of certification to DPC or the Owner's Representative as work progresses.

#### 4.06.03 SITE DOCUMENTS

1. See Section 1.03.04.

### 4.06.04 MAINTENANCE AND OPERATING INSTRUCTION

- 1. Submit written instructions for operating each piece of equipment and for maintaining equipment and finished surfaces for DPC personnel, to the extent of their involvement with such procedures or as required in other Sections of Contract Documents
  - a. List for each product, the name, address, and telephone number of the subcontractor, maintenance Design Builder and source of supply.
  - b. Provide manufacturer's recommended cleaning materials and methods.
  - c. Use a three ring loose leaf binder.
  - d. Three (3) copies must be provided.
- 2. Operations and maintenance manuals must be submitted to the DPC prior to Project Completion Inspection.
  - a. Failure to deliver manuals shall be cause to withhold payment for equipment.

#### 4.06.05 ACCESS AND USE OF PREMISES

- 1. Access
  - a. At all times, provide DPC access to the Work wherever it is in preparation and progress.
- 2. Use of Site

- a. Confine operations at the Site to areas permitted by law, ordinances, permits and the Contract Documents and do not unreasonably encumber the Site with any materials or equipment.
- b. Confine all operations within the area approved by the DPC and as shown in the Contract Documents. If it is necessary to use portions of the Site beyond these limits, obtain permission in writing from DPC. Be responsible for all damages and restore the Site as specified.
- 3. Barricades, Fences, Etc.
  - a. The Design Builder shall install, maintain, relocation, when necessary and finally remove such temporary barricades, fences, safety lighting, obstruction lights, temporary signs, and the like, as are required to safeguard the public, to direct traffic, to identify construction hazards, and to protect the Work.
  - b. Prior to starting the Work, the Design Builder shall install necessary temporary barricades for traffic safety in accordance with the plans.
  - c. Electric or battery operated lights shall be provided, maintained and kept in operation during hours of darkness and periods of inclement weather or when poor visibility may be hazardous to public safety.
  - d. The Design Builder shall arrange and if necessary, pay for the removal and relocation of existing barricades, fencing, material stockpiles, stored equipment and work operations of other Design Builders concurrently working for the City on other projects if such removal and relocation work is necessary to construction progress and other work conditions to be met under this contract.
- 4. Interruption of DPC Activities
  - a. DPC will continue operations of existing facilities at the Site during progress of the Work.
  - b. Maintain continuous service of utilities and telephone at all times. No parts of existing systems such as electrical, plumbing, sewers, communications, fire protection or other utilities.
  - c. Do not work in occupied areas.
  - d. When temporary shutoffs are necessary and approved as such, they shall be of minimum frequency and duration and accomplished at such times as will cause the least inconvenience to the normal operation of the airport. The Design Builder shall give due notice and in sufficient time to DPC and all others affected, of the intent to perform work which may affect the airport operation or others in any way.
- 5. DPC's Rules
  - a. Conform at all times to DPC requirements for protection of plant, materials, equipment and employees.
  - b. Use designated routes of access through existing facilities and keep such routes clean and free of obstruction at all times.
  - c. Do not use toilets and other function facilities in use by DPC.

- d. Do not smoke in occupied portions of existing or new facilities.
- e. Do not pound, drill or use explosive fasteners
- 6. Record of Existing Site and Building
  - a. Prior to starting the Work, review all existing structures and Site work with DPC.
  - b. Take close-up photographs of defects in a manner such that liability determined. Such documentation will also be the basis of restoration of the portions of the Site and buildings not otherwise subject to change under this Contract.
  - c. Deliver copies of the documentation to DPC prior to commencing the Work.
  - d. Repair damage to existing structures, or work resulting from work under this Contract in a manner satisfactory to the DPC at no additional cost to the DPC.

# 4.06.06 HANDLING, DELIVERY, AND STORAGE OF MATERIALS

- 1. Protect products during shipment and on Site to maintain the original product characteristics.
- 2. On-Site Storage
  - a. Store hazardous products, such as paint materials, in well ventilated areas in accordance with applicable standards and governing laws.
  - b. Store materials off the ground and in a manner to prevent damage or intrusion of moisture and other foreign matter.
  - c. Cover materials which may be damaged by weather, allowing for proper circulation of air.
  - d. When possible, store materials in sheds. Materials stored inside existing buildings shall be placed on wooden pallets and shall be repaired to the DPC's satisfaction by the Design Builder at no cost to the DPC.
  - e. When storing materials in buildings, stockpile materials in a manner which will not overload the structure.
  - f. Store all materials in a manner immediately accessible for inspection.
  - g. Store small items, such as finish hardware, and other items easy stolen or vandalized in a secure area. Where possible, do not deliver such items until immediately prior to installation.
  - h. All materials stored on existing finished floors shall be stored on wood pallets to protect the finish surface.

### 4.06.07 EXCLUSION OF WATER

1. The Design Builder shall provide all necessary pumps, pipes, drains, ditches and other means of removing water from excavations or other parts of the Work, or for preventing the sides from sliding or caving, and

he shall remove the water. Design Builder shall provide additional pumps or drains at any place where the DPC shall deem them necessary.

#### 4.06.08 CUTTING AND PATCHING

1. Openings in new work which can be pre-planned by the Design Builder or subcontractor requiring the opening shall be built into the Work by the proper trade for each material under his contract. It is the responsibility of the Design Builder or subcontractor for each trade requiring such openings or requiring the placement of built-in items, to coordinate the Work with the proper trade for each material, sufficiently in advance for the Work to be accomplished in the proper sequence and without delay.

# 4.06.09 DEMOLITION WORK, CLEARING AND WRECKING

- 1. Include all demolition work, clearing and wrecking, and cutting and patching of existing materials and surfaces as required for the installation and completion of the Work.
- 2. Existing work to be removed shall be demolished completely or sufficiently to install new work without cutting or removing excess material. Provisions shall be made to alleviate the spread of debris, dirt and dust, and the premises shall be kept as clean as possible at all times; work shall be executed in an orderly, careful manner with due consideration for the public and for continuous operations of airport facilities and operations; all to the satisfaction of the DPC. Conduits, pipes, drains, underground structures and utilities, and the like, and all areas and surfaces that are to remain shall be carefully protected.
- 3. Materials removed shall not be re-used unless specifically called for in the performance specifications. Materials and items to be re-used shall be carefully removed and stored in a protected location until installed, at which time they shall be cleaned, repaired, painted (if required), and put into first class condition. Materials and items to be turned over to the City shall be carefully removed and stored at the site as directed.
- 4. Wherever demolition and cutting work has occurred, or where existing surfaces, materials or other items or equipment have been damaged or disturbed as a result of this contract, the said surfaces and areas shall be carefully closed up, patched and finished, and materials or other items, or equipment, shall be repaired, restored or replaced as required to completely restore all such surfaces, areas, materials, etc. All surfaces patched and restored shall match and be continuous to existing surrounding surfaces and materials and items restored so that nothing is left undone, all to the satisfaction of the DPC.

5. Any rubble created as a result of the demolition work (including concrete and asphalt paving, gravel, and suitable land-fill material as approved) are to be disposed of off the site.

# 4.06.10 CLEANING UP

- 1. The Design Builder at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials, and rubbish from and about the Project as well as all his tools, construction equipment, machinery and surplus materials.
- 2. If the Design Builder fails to clean up at the completion of the Work, DPC may do so as provided in the Contract during construction and the cost thereof shall be charged to the Design Builder.
- 3. Dispose of trash and debris daily.

# 4.07 QUALITY CONTROL

### 4.07.01 REFERENCE

Drawings and general conditions of the Contract, including General and Special Provisions and other Specification Sections, apply to this section.

### 4.07.02 SUMMARY

- 1. This Section includes administrative and procedural requirements for quality-control services.
- 2. Quality-control services include inspections, tests, and related actions, including reports performed by Design Builder, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by DPC.
- 3. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Design Builder of responsibility for compliance with Contract Document requirements.
- 4. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
  - a. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.

b. Specified inspections, tests, and related actions do not limit Design Builder's quality-control procedures that facilitate compliance with Contract Document requirements.

### 4.07.03 **RESPONSIBILITIES**

- 1. Design Builder Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Design Builder shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents as required by authorities having jurisdiction. Costs for these services are included in the Contract Sum.
  - a. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Design Builder's responsibility, the Design Builder shall employ and pay a qualified independent testing firm to perform quality-control services. Costs for these services are included in the Contract Sum.
- 2. Retesting. The Design Builder is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Design Builder's responsibility.
  - a. The cost of retesting construction, revised or replaced by the Design Builder, is the Design Builder's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
- 3. Associated Services. Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
  - a. Provide access to the Work.
  - b. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
  - c. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
  - d. Provide facilities for storage and curing of test samples.
  - e. Deliver samples to testing laboratories.
  - f. Provide the agency with a preliminary design mix proposed for use for materials mixes that require control by the Testing Firm.
  - g. Provide security and protection of samples and test equipment at the Project Site.
- 4. Duties of the Testing Firm. The firm engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the DPC and the Design Builder in

performance of the duties assigned. The Testing Firm shall provide qualified personnel to perform required inspections and tests. The Testing Firm shall:

- a. Notify the DPC and the Design Builder promptly of irregularities or deficiencies observed in the Work during performance of its services.
- b. Not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
- c. Not perform any duties of the Design Builder.
- 5. Coordination. Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
  - a. The Design Builder is responsible for scheduling times for inspections, tests, taking samples, and similar activities.

### 4.07.04 SUBMITTALS

- 1. The independent Testing Firm shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the DPC.
  - a. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
  - b. Report Data. Written reports of each inspection, test, or similar service include, but are not limited to, the following:
    - i. Date of issue.
    - ii. Project title and number.
    - iii. Name, address, and telephone number of Testing Firm.
    - iv. Dates and locations of samples and tests or inspections.
    - v. Names of individuals making the inspection or test.
    - vi. Designation of the Work and test method.
    - vii. Identification of product and Specification Section.
    - viii. Complete inspection or test data.
    - ix. Test results and an interpretation of test results.
    - x. Ambient conditions at the time of sample taking and testing.
    - xi. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
    - xii. Name and signature of laboratory inspector.
    - xiii. Recommendations on retesting.

#### 4.07.05 EXECUTION - REPAIR AND PROTECTION

1. General. Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.

- 2. Protect construction exposed by or for quality-control service activities, and protect repaired construction.
- 3. Repair and protection is Design Builder's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

### 4.08 WORK-RELATED REQUIREMENTS

#### 4.08.01 REFERENCE

- 1. Drawings and general conditions of the Contract, including General and Special Provisions and other Specification Sections, apply to this section.
- 2. This section further defines processes and procedures of all Specification Sections.

### 4.08.02 DESCRIPTION OF WORK

- 1. General
  - a. The Design Builder or subcontractor is not limited to the Work listed in a section under "WORK INCLUDED' or "RELATED WORK". These listings are intended as general guides to a Section, and not as a scope of Work.
  - b. Unless otherwise provided for in the Contract Documents, the Design Builder shall provide and pay for all labor, materials, equipment, tools construction equipment and machinery, transportation, and other services necessary to complete this Project.

### 4.08.03 STANDARDS

- 1. Standards, codes, and regulations, published by manufacturer's associations, governmental agencies and other regulatory authorities form a part of these Specifications as minimum requirements. Such references include the latest issue up to 30 days prior to the bid date.
- 2. "Governing Authority" means all federal, state, local laws, regulations, and enforcing agencies.
- 3. If there are differences between any Contract Documents and standards, the stricter shall take precedence.
- 4. Supply all materials and perform all Work in accordance with the manufacturer's Specifications, installation procedures, and association standards, unless noted otherwise.

#### 4.08.04 QUALITY ASSURANCE

- 1. Qualifications
  - a. Fire Resistance Rating:
    - i. Provide materials and assemblies tested and listed by UL or other authorities for the e assembly specified. Attach label of testing authority.
    - ii. Provide manufacturer's certification that the assembly is constructed of materials and methods equivalent to the tested construction.
  - b. Flame spread Rating:
    - i. Provide products with flame spread ratings. If requested, submit test reports.
    - ii. Provide materials with flame spread ratings required by code, unless specified otherwise.
  - c. Proprietary products:
    - i. Where systems or assemblies are indicated, obtain all primary components from the same manufacturer.
  - d. Qualifications of subcontractor:
    - i. Submit evidence that subcontractor has a minimum of five year's successful experience in work similar to the scope of Contract.
    - ii. Subcontract the Work to a licensed, franchised firm, approved by the DPC.
- 2. Field Quality Control
  - a. Manufacturer's Field Representative
    - i. As indicated, send a qualified technical representative to the Site advising proper product installation.
  - b. Mock-up
    - i. With finishes, or protective coatings, apply a test to the actual base material.
    - ii. Do not proceed without DPC's approval.
  - c. Field Measurements
    - i. For fabrication of built-in or attached products, verify all dimensions.
    - ii. Do not delay job progress. Allow for trimming where field measurements cannot be made prior to fabrication.
  - d. Layout
    - i. Establish bench marks and layouts as required. Extend these lines up through the building. Each subcontractor lays out his work from these references.

### 4.08.05 TEST, INSPECTIONS, AND APPROVALS

- 1. Perform or arrange for all inspections, test, and approvals required in each technical Section or by governing authority.
- 2. A schedule shall be prepared by the testing and inspection agency of all required tests and inspections. This shall be submitted to the DPC for review and approval at the Pre-Construction meeting.
- 3. Submit required copies to governing authorities.
- 4. If a required test is omitted, Design Builder shall be responsible for destructive testing necessary to perform the test and shall make all necessary repairs, subject to the approval of the DPC, at no cost to the DPC.
- 5. When the Project is completed the testing and inspection service shall submit a complete bound set of all reports to the DPC.

### 4.08.06 JOB CONDITIONS

- 1. Existing Conditions
  - a. Existing structure and Site will be maintained by DPC until work starts with this Contract. Variations may occur after inspection of the premises by the bidder, due to demolition and salvage. DPC assumes no responsibility for conditions at the time the Contract Work commences.
  - b. Execute all Work in connection with the existing building. Report any discrepancies between the Drawings and building conditions to the DPC for adjustment.
  - c. All demolition material is the property of the Design Builder, unless-specified otherwise, and shall be removed from the premises promptly.
- 2. Patching Requirements
  - a. Patching work shall be performed by the proper trade for each material to be patched.
  - b. "Patch and match" all materials, existing or new, damaged in the performance of Work under this Contract.
  - c. Patch out surface only in areas where the Work is performed under this Contract.
  - d. No patching is required for existing cracks, holes or defects found in surfaces outside the Work area of this Contract.
  - e. Where patching of existing materials is required, patching shall include filling of cracks and holes, replacement of defective materials,

and refinishing to achieve uniformity of texture between similar materials.

- f. Where sound transmission reduction by partitions and ceilings are required at offices, toilet rooms and other areas they must be continuous through concealed spaces and sealed penetrations of pipes, ducts, conduits, or other building components.
- 3. Patching Workmanship:
  - a. All new work and materials in existing site shall match in size, type, style, quality workmanship, installation, and surface finish, with existing.
  - b. In existing site where finishes are cut for access, extending, removing, or adding; then "patch and match". Build with new materials matching existing.
  - c. If new materials matching existing are no longer available, reuse of existing materials will be permitted upon approval. Reused materials shall not be torn, broken, soiled, or otherwise damaged.
  - d. Where insufficient reusable materials exist, use new materials conforming to the Contract Documents, as best as possible.
- 4. Temperature and Humidity:
  - a. Maintain proper moisture conditions ambient and material temperatures required by product manufacturers and other standards using temporary heat, ventilation, temporary structures, or other approved means.
  - b. If low temperatures made it difficult for safe work, cease work and notify the DPC.
  - c. Where substrates or product recommendations must be dry or have moisture content listed for installation, conform to the requirements. If conditions do not meet standards, reduce moisture in products by artificial methods approved by the material manufacturer and/or the DPC.
- 5. Power
  - a. Motors, starters, safety switches, push buttons, pull cords, internal wiring and operating devices, and low voltage wring are the responsibility of the Design Builder providing a product requiring electrical service.

### 4.08.07 INSTALLATION

1. Install products in accordance with the manufacturer's recommendations, trade associations, listed standards, Shop drawings, and Contract Documents.

- 2. Where conflicts exist between references, the most strict requirements govern. If printed instructions are not available, consult with the manufacturer's field representative.
- 3. Provide hangers, auxiliary framing, and other means to install ceiling suspension systems, lighting fixtures, diffusers, and other equipment in ceilings to avoid ducts, piping, etc.
- 4. Suspend from structural members, such as joists or beams, or concrete slab.
- 5. Install work not interfering with other trades.
- 6. Install work to facilitate operating, servicing, and repairing.

### 4.08.08 WORKMANSHIP

- 1. Install products straight, plumb, and level. Securely attach items to the substrate, using recommended methods. Where holes are needed, do not field drill or cut without approval of the DPC.
- 2. Match all finished work to the submitted samples.
- 3. Conceal fasteners wherever possible.

### 4.08.09 **PROTECTION**

- 1. Protect surfaces of installed products and surrounding products from damage during installation. Provide required protective devices recommended by manufacturer. Cover work and equipment at the end of each day's work.
- 2. Coat concealed surfaces with an approved coating to prevent contact between dissimilar materials causing deterioration.
- 3. Correct damage as directed by the DPC. Repair where it is detectable and causing structural damage and/or interference to the proper functioning of the part.
- 4. Protect finish of installed products until project completion using wrappings, covers, or other protective devices. Remove protection immediately prior to final cleaning.
### 4.08.10 DEMONSTRATE / INSTRUCT

1. Where required, instruct DPC's personnel in operating procedures, maintenance, safety precautions, using manuals and other literature.

### 4.09 DEWATERING

#### 4.09.01 SECTION INCLUDES

1. General dewatering systems for the control of groundwater and removal of surface water that may be necessary during construction as determined by the Design Builder's means and methods.

### 4.09.02 SUBMITTALS

- 1. Submit complete description, including drawings, describing the type of dewatering system proposed. Obtain approval prior to installation of any system.
- 2. Include arrangement, location and depths of the proposed system, a complete description of the equipment and materials to be used and the procedure to be followed, the standby equipment, standby power supply, and the proposed location(s) of points of discharge of water.

### 4.09.03 QUALITY ASSURANCE

- 1. Provide a dewatering system which will effectively reduce the hydrostatic pressure and lower the groundwater levels below excavation levels including underpinning pits if required for the safe and proper execution of the work and will result in obtaining a stable, substantially dry sub grade for subsequent operations.
- 2. Design dewatering methods so that after initial development, the quantity and size of soil particles will decrease until no soil particles are present in water being pumped at any time after 12 hours initial pumping.

### 4.09.04 **PROJECT SITE CONDITIONS**

- 1. Subsurface Conditions:
  - a. The results of subsurface investigations and groundwater level readings for adjoining projects may be available.
- 2. Permits:
  - a. Prior to discharging water into a storm sewer, obtain a permit from all applicable authorities.

- 3. Responsibilities:
  - a. Select and install a system of dewatering to accomplish groundwater control as specified in this Section.
  - b. Take measures to prevent damage to properties, buildings or structures, sewers and other utility installations, pavements, sidewalks and the Work.
  - c. Modify the dewatering system at no additional cost to DPC if after installation and while in operation it causes or threatens to cause damage to existing buildings, structures, utilities or facilities.
  - d. Modify the quality of the discharge from the dewatering system to determine if soil particles are being removed by the system.
  - e. Measure and evaluate if movements are being caused in adjacent areas by the dewatering operations.
  - f. Repair damage, disruption or interference resulting directly or indirectly from dewatering operations at no additional cost to the Airport.

### 4.09.05 SURFACE DRAINAGE

- 1. Intercept and divert surface drainage away from the excavations and observation wells as needed by use of dikes, curb walls, ditches, pipes, sumps, or other means.
- 2. Design surface drainage systems so that they do not cause erosion on or off the site or caused unwanted flow of water.
- 3. Remove the surface drainage system when no longer required.
- 4. Remove debris and restore the site(s) to original conditions.

### 4.09.06 DRAINAGE OF EXCAVATED AREAS

- 1. Provide and maintain ditches of adequate size to collect surface water and seepage which may enter the excavations as needed and divert the water into a sump so that it can be drained or pumped into drainage channels, or storm sewers if so approved by the applicable authorities.
- 2. Install settling basins or other approved apparatus as required to keep dewatered flows free of silts, sediment and other debris that may be carried by water diverted into storm sewers.
- 3. Should the storm sewer become blocked or have its capacity restricted due to dewatering operations, make arrangements with the jurisdictional agency for the cleaning of the sewer and appurtenances without additional cost to the Airport.

4. Backfill drainage ditches, sumps and settling basins when no longer required with granular material, concrete or other material.

### 4.09.07 DEWATERING

- 1. Install dewatering system as needed.
- 2. Dispose of precipitation and subsurface water clear of the Work and keep excavation dry and free of water.
- 3. Maintain continuous and complete effectiveness of the installation at all times.
- 4. Maintain water levels at such elevations that no damage to the structure can occur because of excessive hydrostatic pressure or lack of normal hydrostatic pressure.

## 4.10 CONTRACT CLOSEOUT

### 4.10.01 REFERENCE

Drawings and general provisions of Contract, including General and Supplementary Conditions apply to work in this Section.

### 4.10.02 FINAL CLEAN-UP

- 1. At completion of the Work, prior to DPC occupancy and prior to "Final Acceptance" by DPC, perform final cleaning.
- 2. Perform the following general cleaning
  - a. Remove from the Site all temporary facilities, construction plant, fences, scaffolding, tools and equipment, surplus materials, and rubbish of every kind.
  - b. Remove all rubbish, loose plaster, mortar drippings, extraneous construction materials, dirt and dust from elevator shafts, electrical closets, pipe and duct shafts, chases, furred spaces, and similar unfinished spaces.
  - c. Remove all temporary protective devices.
  - d. Repair, patch, and touch-up damaged surfaces to specified finish to match adjacent surfaces. Replace damaged materials which cannot be satisfactorily repaired.
  - e. Broom clean paved surfaces and rake clean other surfaces of the Site.
  - f. Remove snow and ice from access to the building do not use salts, calcium chloride, or chemicals that will damage concrete or paving materials.
- 3. Perform the following cleaning and polishing:

- a. Clean all interior and exterior surfaces exposed to view:
  - i. Remove paint spatters, strains, dirt, grease, finger smudges, and other marks, soiling, or foreign matter.
  - ii. Remove all labels.
  - iii. Remove all dust and dirt by vacuuming and washing.
- b. Clean and polish finished surfaces in accordance with the manufacturer's instructions or with the special cleaning instruction in the technical sections.
- c. Clean and polish finished surfaces in accordance with the manufacturer's instructions or with the special cleaning instructions in the technical sections.
- 4. Perform and maintain specified cleaning of Project until DPC occupancy.
- 5. Re-cleaning will not be required after DPC occupancy unless later operations of the Design Builder make re-cleaning necessary.

### 4.10.03 **RESTORATION OF SITE**

1. Where portions of the Site, either inside or outside the Contract limit lines, are not designated for change or new Work and become damaged during the course of construction due to operations arising from Work under this Contract, repair or replace such damage in conformance with the Contract Documents for like or similar Work.

### 4.10.04 SUBSTANTIAL COMPLETION

- 1. When the Work is substantially complete, submit:
  - a. A written notice that the Work or designated portion thereof is substantially complete.
  - b. A list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Design Builder to complete all Work in accordance with the Contract Documents.
- 2. The DPC will then make an inspection to determine the status of completion.
- 3. If the DPC determines that the Work in not substantially complete, he will notify the Design Builder in writing, listing the reasons.
  - a. The Design Builder shall correct all items listed and send a second written notice of substantial completion to the DPC.
  - b. The DPC will re-inspect the Work.
- 4. When the DPC determines that the Work or designated portion thereof is substantially complete he shall:

- a. Prepare a Certificate of Substantial Completion accompanied by Design Builder's punch list of items to be completed or corrected as verified and amended by the DPC. Such certificate shall establish the Date of Substantial Completion and shall fix the time within which the Design Builder shall complete the items on the punch lists.
- b. Submit the Certificate to Design Builder and DPC for their records and review.
- c. Occupy the project or portion thereof that is substantially complete as needed.
- 5. Upon receipt of the Certificate of Substantial Completion the Design Builder shall submit in writing that:
  - a. Contract Documents have been reviewed.
  - b. Work has been inspected for compliance with Contract Documents.
  - c. Work has been completed in accordance with Contract Documents.
  - d. Equipment and systems have been tested and are operational.
  - e. Work is completed and ready for occupancy.
  - f. Notify the DPC in writing that the Work is ready for the Project Completion Inspection.
- 6. When DPC concurs that the Work is substantially complete, he may under the terms of the Contract Documents occupy the Project or portion thereof.
- 7. Design Builder shall then submit the final application for payment which is the total contract cost less a deduction of 10% retainage.

### 4.10.05 FINAL CONSTRUCTION COMPLETION

- 1. Prior to the Project Completion Inspection, the Design Builder shall submit three (3) copies (each item) of manufacturer's specifications, details, dimensions, connections and installation, operating, maintenance, and service instructions and schedules of all operating equipment, bound neatly and indexed in suitable hard cover binders to the DPC. After verifying that all necessary material has been included it shall be forwarded to DPC at the Project Completion Inspection. This material must be intact, clean, and legible. If necessary obtain duplicate copies from manufacturer for this purpose.
- 2. Upon receipt of written notice that the Work is ready, the DPC, and DPC's maintenance personnel shall make such Project Completion Inspection.
- 3. During the Project Completion Inspection, demonstrate all operable equipment and other moving parts. Make all adjustments to the satisfaction of DPC.
- 4. When all equipment is demonstrated, and at a time agreed upon by the City and Design Builder, make available to the City competent instructors

well versed in operation of various mechanical and electrical systems installed in the Project for purpose of training City's personnel in all phases of operation of equipment and systems regarding its care, adjustment, normal maintenance, etc.

- 5. If and when the DPC considers the Work complete, he shall issue the Certificate of Construction Completion to the Design Builder. This should occur within 45 days of substantial completion. This date is the beginning of the one year guarantee period.
- 6. If the DPC considers the Work incomplete or defective, he shall prepare a final punch list notifying the Design Builder in writing, of the incomplete or defective Work.
  - a. The Design Builder shall take immediate steps to remedy the stated deficiencies and shall send a second written certification to the DPC that Work is complete.
  - b. The DPC and DPC will re-inspect the Work and ensure completion of all items prior to the issuance of the Certificate of Construction Completion.
- Design Builder shall submit for eighty percent (80%) of the held retainage 45 days following the issuance of the Certificate of Final Construction Completion.

## 4.10.06 FINAL ACCEPTANCE

- 1. The Date of Final Acceptance shall be established as one year following the final completion date, provided all warranty work is complete. If warranty items remain, the final acceptance date will be established as the date all warranty items are completed by the Design Builder.
- 2. Final Acceptance as defined in the Contract is when the Director certifies the Work is complete. Upon having the signature of the Director, the Design Builder may then submit for the final twenty percent (20%) of the held retainage.

### 4.10.07 FINAL ADJUSTMENT OF ACCOUNTS

- 1. Submit a final statement of accounting with adjustments to the Contract sum and include
  - a. Original Contract sum
  - b. Additions and deductions resulting from:
    - i. Previous "Field Clarifications"
    - ii. Allowances
    - iii. Unit prices
    - iv. Deductions for uncorrected Work

- v. Deductions for liquidated damages
- vi. Deductions for reinspection payments
- vii. Other adjustments
- c. Total Contract sum, as adjusted
- d. Previous payments
- e. Sum remaining due

# 4.10.08 RETAINAGE, PUNCH LIST COMPLETION, AND DELIVERY OF DOCUMENTS

- 1. All punch list items must be completed prior to the release of any retainage.
- 2. Prior to the release of any retainage the Design Builder shall have submitted copies of all submittals, in triplicate, of all items listed in Section 4.06, Field Procedures and elsewhere in the Contract Documents. The only exception will be operating and maintenance manuals which will be submitted in conformance with the Contract Documents.
- 3. Deliver to the DPC, at the completion of the Work, an accurate set of marked-up as-built documents, including a copy of the Project Manual and mylar wash-offs of the Drawings, showing the Project, insofar as the actual construction or installation differs from the documents. Section 1.03.04 requires additional submissions as well. Retainage payment will not be made until receipt of complete record documents.

### 4.10.09 **RESERVE**

- 1. Upon receipt of written notice that the Work is ready for Final Inspection the Designer, DPC, and DPC's maintenance personnel shall promptly make such Final Inspection. The Design Builder shall notify DPC and arrange for the final inspection 20 calendar days prior to the end of the guarantee period. Failure to notify DPC prior to the end of the guarantee period will delay payment of 2% retainage and extend the guarantee period.
- 2. During the final inspection review all operable equipment and other moving parts. Make all adjustments to the satisfaction of DPC.
- 3. If the DPC considers the Work incomplete or defective, he will promptly notify the Design Builder in writing listing the incomplete or defective work.
  - a. The Design Builder shall take immediate steps to remedy the stated deficiencies and shall send a second written certification to the DPC that the Work is complete.

- 4. The DPC will deduct the amount of any uncompleted or unacceptable work from the final payment to the Design Builder.
- 5. When the DPC finds that the Work is acceptable under the Contract Documents the Design Builder shall submit the application for final payment.
- 6. Submit the application for final payment in accordance with requirements stated in the contract.

### 4.11 WARRANTIES

### 4.11.01 **REFERENCE**

Drawings and general conditions of Contract, including General and Special Provisions and other Specification Sections, apply to this Section.

## 4.11.02 **SUMMARY**

- 1. This section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
  - a. Specific requirements for warranties for the Work and products and installation that are specified to be warranted, are included in the individual Sections.
  - b. Certifications and other commitments and agreements for continuing services to DPC are specified elsewhere in the Contract Documents.
- 2. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Design Builder of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Design Builder.

# 4.11.03 **DEFINITIONS**

- 1. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to DPC.
- 2. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for DPC.

## 4.11.04 WARRANTY REQUIREMENTS

1. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result

of such failure or that must be removed and replaced to provide access for correction of warranted Work.

- 2. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- 3. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirement of Contract Documents. The Design Builder is responsible for the cost of replacing or rebuilding defective Work regardless of whether DPC has benefited from use of the Work through a portion of its anticipated useful service life.
- 4. DPC's Recourse: Written warranties made to DPC are in addition to the implied warranties, and shall not limit the duties, obligations, right and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which DPC can enforce such other duties, obligations, rights or remedies.
- 5. Rejection of Warranties: DPC reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- 6. DPC reserves the right to refuse to accept Work for the Project where a special warranty, certification or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.
- 7. A minimum one-year written guarantee must be submitted to the DPC to cover the following:
  - a. All fabrication shall be guaranteed against defects resulting from the use of inferior materials, equipment or workmanship.
  - b. If within the one-year period, repairs and/or compensation are required that result from the above, the Design Builder shall promptly:
    - i. Correct all fabrication defects;
    - ii. Compensate for all damages to the building or site, or contents thereof that result from inferior materials, equipment or workmanship.
    - iii. Be liable for all personal injuries that result from the use of inferior materials, equipment or workmanship.

## 4.11.05 SUBMITTALS

1. Submit written warranties to DPC prior to the date certified for Substantial Completion. If the DPC's Certificate of Substantial Completion designates

a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the DPC.

When a designated portion of the Work is completed and occupied or used by DPC, by separate agreement with the Design Builder during the construction period, submit properly executed warranties to the DPC within fifteen days of completion of that designated portion of the Work.

- 2. When a special warranty is required to be executed by the Design Builder, or the Design Builder and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the DPC for approval prior to final execution.
- 3. Form of Submittal: At Final Completion compile two copies of each required warranty and bond properly executed by the Design Builder, or by the Design Builder, subcontractor, supplier or manufacturer. Organize the warranty document into an orderly sequence based on the table of contents or the Project Manual.
- 4. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 81/2 x 11 paper.
  - a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product, and the name, address and telephone number of the installer.
  - b. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS," the Project Title or name, and the name of Design Builder.
  - c. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

### 4.12 DESIGN BUILDER WARRANTY FORM

| PROJECT:  | NORTH COAST HARBOR   |
|-----------|--|
| LOCATION: | CLEVELAND, OHIO  |
| OWNER:    | CITY OF CLEVELAND<br>DEPARTMENT OF PORT CONTROL<br>DIVISION OF HARBORS |

We, \_\_\_

Design Builder for the above-referenced project, do hereby warrant that all labor and materials furnished and work performed are in accord with the Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a minimum period of one (1) year(s) from the Date of Substantial Completion. This warranty commences on (Date of Substantial Completion by Port Control) and expires on\_\_\_\_\_(One year from Commencement Date).

The warranties agreed to by this form are minimum requirements. Where more stringent requirements are specified in other Sections of those Documents, the more stringent requirements shall prevail.

Should any defect develop during the warranty period due to improper materials, workmanship or arrangement, the same, including adjacent work displaced, shall be made good by the undersigned at no expense to the owner.

DPC will give Design Builder written notice of defective work. Should Design Builder fail to correct defective work in accordance with the contract, DPC may, at its option, correct defects and charge Design Builder costs for such correction. Design Builder agrees to pay such charges upon demand.

Nothing in the above shall be deemed to apply to work that has been abused or neglected by DPC.

OWNER: CITY OF CLEVELAND DEPARTMENT OF PORT CONTROL DIVISION OF HARBORS

| BY:    | <br> | <br> |
|--------|------|------|
| TITLE: | <br> | <br> |
| DATE:  |      |      |

### 4.13 INSTALLER WARRANTY FORM

| LEVELAND, OHIO  |
|---|
| ITY OF CLEVELAND<br>DEPARTMENT OF PORT CONTROL<br>DIVISION OF HARBORS |
|   |
|   |

We, \_\_\_\_\_\_, as described in Specification Section(s) (List appropriate specification sections) do hereby warrant that all labor and materials furnished and work performed in conjunction with the above-referenced project are in accord with Contract Documents and authorized modifications thereto, and will be free from defects due to defective materials or workmanship for a period of one (1) year(s) from Date of Substantial Completion. This warranty commences on (Date of Substantial Completion affixed by DPC) and expires on \_\_\_\_\_\_ (Expiration Date).

Should any defect develop during the warranty prior due to improper materials, workmanship or arrangement, the same, including adjacent work displaced shall be made good by the undersigned at no expense to DPC.

DPC will give subcontractors written notice of defective work. Should subcontractors fail to correct defective work within sixty (60) days after receiving written notice, DPC may, at this option, correct defects and charge subcontractors costs for such correction. Subcontractors agree to pay such charges upon demand. Nothing in the above shall be deemed to apply to work which has been abused or neglected by DPC.

| COMPANY NAME: _ |  |
|-----------------|--|
| BY:             |  |
| TITLE:          |  |
| DATE:           |  |

# FIGURE NO. 1 Overall Site Area Plan

# FIGURE NO. 2 Site Plan

# FIGURE NO. 3 Marina Gangways

Project Criteria and Performance Specifications - Final

# FIGURE NO. 4 Amenities Building Floor Plan