Port of New Orleans
Julia Street Cruise Terminal Improvements
RFQ

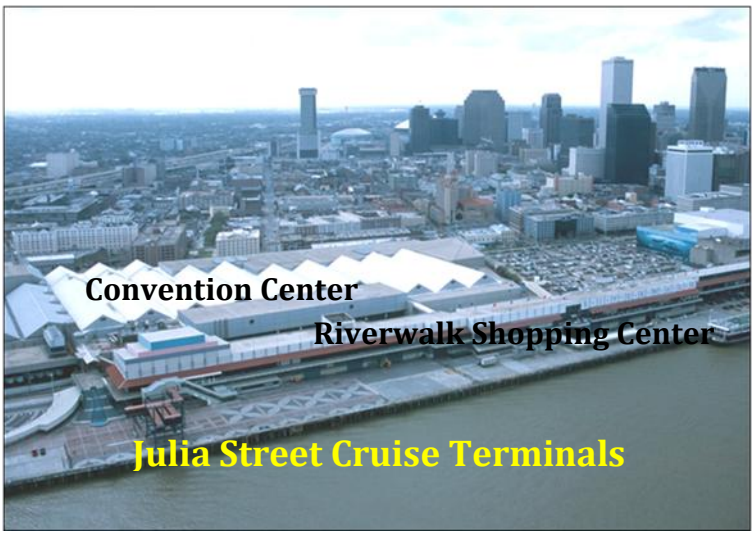
This information packet is taken from selected portions of the 2008 application to the Louisiana Port Construction & Development Priority Program and contains the following:

1. Description of Proposed Project

A. Nature and Goals

This application by the Board of Commissioners Port of New Orleans (PONO) seeks partial funding for the project entitled *Julia Street Cruise Terminal Improvements* through the Louisiana Port Construction and Development Priority program. Attachment A in this document contains a certified resolution adopted by the Board authorizing preparation and submission of this application.

The *Julia Street Cruise Terminal Improvements* is a renovation of the two existing Julia Street Cruise Terminals (Julia Terminal) into a single, state-of-the-art facility with the following project elements:



- Combine Terminal 1 and Terminal 2 into one larger single terminal by remodeling the interior space from two distinct check-in and baggage areas into one larger check-in area and one larger baggage area.

- Add a new vertical circulation core building to provide elevators, escalators, stairwell and mezzanine that connects to a new elevated, enclosed articulating passenger bridge for climate-controlled raised, safe and secure access between the cruise ship and the terminal, all within ADA guidelines.

- New U.S. Government requirements for design of U.S. Coast Guard security guidelines under 33 CFR Chapter 1, Subchapter H, Part 105 – Maritime Security: Facilities, and the Customs and Border Protection (CBP) facility guidelines have dramatically changed since the original construction of the Julia Terminals, and the new design will include the requirements of these two organizations to meet standards for Homeland Security.

The Julia Street Cruise Terminal is located in downtown New Orleans on the eastbank of the Mississippi River at Mile 95.3 AHP (Ahead of Passes). Figure 1 shows an aerial of the project site situated upriver of the historic French Quarter.

Unlike cruise terminals at many other ports, the Julia Terminal is within walking distance of hotels, restaurants, museums, art galleries, historic attractions, and retail shopping. Long term parking is conveniently located at the adjacent PONO Erato Street Cruise Terminal's 1000-car parking garage, as well as at nearby private parking facilities.

Figure 1. Vicinity Map

New Orleans has been a popular port destination since the Julia Terminal opened in 1993. The close proximity to the historic French Quarter and other points of interest attracts cruise business to New Orleans, which is in competition with Miami, Tampa, Mobile, Gulfport, Houston and Galveston that also offer Western Caribbean cruises.

The City of New Orleans tourism industry depends upon cruise passengers. The PONO's cruise business generated $169.5[1] million annually (Fiscal Year 2005) with passenger and crew spending amounting to $103.5 million (lodging, dining, retail, casinos and entertainment, tours and local transit and transportation to New Orleans); and $66.1 million in cruise line spending for operational supplies, maintenance, fuel, food, beverages, operations, administration, and travel agent commissions.

[1] Business Research & Economic Advisors, March 2005.

The purpose of the project is to modernize the Julia Street Cruise Terminal to bring the facility up to industry standards that will retain and attract even more cruise business to the Port of New Orleans. The physical size and passenger capacity of cruise ships has increased over the past 15 years in order to provide an economy of scale (profitability) for the cruise lines while offering a greater range of on-board activities that enhance the cruise experience. These cruise ships are so large that two ships can no longer simultaneously dock at the existing two Julia Terminals.

Even if they could dock such that their passengers could align with each terminal, neither the check-in areas nor the baggage areas of Julia 2 can process more than a 1,800-passenger ship. Furthermore, using outdoor, switchback gangways are no longer acceptable to most cruise lines for safety and comfort reasons. Today's norm is to provide overhead access to the cruise ships for the passengers to avoid conflict with the stevedore activity on the wharf deck.

The *Julia Street Cruise Terminal Improvements* project proposes to convert the existing two smaller terminals into a single, larger more functional unit. The renovations at the Julia Street Terminal include interior remodeling, additional passenger drop off/pick up lanes, a new building called a new vertical circulation core and a new enclosed, climate-controlled articulating passenger bridge that provides a more secure and efficient connection between the cruise terminal lobby and the cruise ship lobby, which will enable simultaneous, safe loading of passengers, baggage and ship supplies.

The interior remodeling involves the re-design and renovation of passenger space, access and queuing areas, security entrances, flooring, Customs and Border Protection area, and restrooms. The new vertical circulation core building will provide escalators, elevators and stairs connecting the ground floor of the terminal to the new elevated passenger bridge.

The new passenger bridge is a climate-controlled, elevated, enclosed passenger boarding structure that protects passengers from weather and removes them from the working ship deck beneath it. This keeps passengers secured from harm's way and allows stevedores unimpeded access to loading and unloading the vessel. The articulated gangway is able to be reconfigured for each ship's specific requirement, and can be adjusted for the seasonal stage variations of the Mississippi River, a range of 18 feet, while at the same time keeping the slope of the gangway within approved American Disability Act (ADA) standards.

The proposed improvements to the Julia Street Terminal including the enclosed articulated passenger gangway will allow the facility to compete against other United States cruise facilities. Without the project and even with its ideal location, the Julia Street Terminal will not overcome deficiencies and will be minimally used or abandoned.

Existing inferior switchback gangway at the Julia Street Terminal.

Elevated, enclosed, climate-controlled articulated passenger gangway at the Erato Street Cruise Terminal, adjacent to the Julia Street Cruise Terminal.

The *Julia Street Cruise Terminal Improvements* project is intended to rectify major deficiencies at the current Julia Street facility that prevent optimum utilization of the facility, which include:

1. There is insufficient berthing space at Julia Street Cruise Terminal No. 1 to accommodate a cruise ship when the Erato Street Cruise Terminal has a

cruise ship docked because the stern of a ship at Erato Terminal extends into Julia 1's berth. Each terminal has a specific, fixed location within its terminal building for embarking/disembarking passengers that must align with the passenger doors of the berthed cruise ship. Due to the demand for the Erato Terminal, this conflict often prevents PONO from using Julia 1.

2. Julia 1 no longer has an articulated, climate-controlled passenger bridge. Due to budget constraints while the Erato Terminal was under construction and realizing that ships at Erato Terminal would encroach into Julia 1, the passenger bridge installed in 2000 was relocated to Erato Terminal. Although the vertical circulation core building remains at Julia 1 Terminal, its location is too close to Erato for simultaneously berthing cruise ships at both wharves.

3. Julia 2 has such small passenger terminal and baggage areas that it cannot handle more than 1,800 passengers per ship, which is the capacity of older cruise ships being retired by the cruise lines.

4. Julia 2 has no articulated, climate-controlled passenger bridge and must use the open, steel plated switchback system which is no longer acceptable in the cruise industry for passenger safety and comfort reasons.

5. Julia 1 and 2 are not in compliance with most current federal regulations for cruise terminals.

The proposed project is the solution to address the aforementioned deficiencies by reconfiguring the building into a single cruise terminal with interior renovations and building a vertical circulation core building and elevated passenger bridge that is sufficiently downriver of the Erato Terminal such that there is no interference when both Erato and Julia are in use.

The passenger terminal area of Julia 2 will be expanded upriver into the existing Julia 1 baggage area. New tile flooring, ceiling, paint, and lighting will be installed. New restrooms for embarking passengers, a vertical circulation core building, and an entry screening area will be constructed. The baggage area of Julia 2 will be renovated and also receive a new drop-down acoustical tile ceiling for energy efficiency. The four overhead roll-up doors and two other existing openings will be replaced with glass storefronts to accommodate the passenger waiting and exit areas, and better illuminate the terminal.

Existing Julia Street Terminal 2, with insufficient berthing, passenger, and baggage areas.

Interior of existing Julia 2, where proposed glass storefronts with the project will brighten passenger waiting and exit areas.

The vertical circulation core building will be constructed adjacent to the exterior of the building and will contain two escalators, two stairs and one elevator to elevate passengers to the required height to enter the passenger bridge as shown on the enclosed drawings. Similar to the Erato Terminal, it will articulate as much as 17 feet vertically and be of similar construction materials.

Exterior of the riverside of existing Julia Street Cruise Terminal with cruise ship service trucks.

A site plan outlining the physical layout of the proposed *Julia Street Cruise Terminal Improvements* appears in Attachment E in this document.

3. Preliminary Design, Plans and Cost Estimate

A. Design Criteria

Design criteria are contained in Attachment B in this document.

B. Design Calculations

The proposed interior renovations work will follow the design codes listed in the Design Criteria. The passenger bridge is a proprietary design by the successful low bidder and is furnished to the Port as a submittal.

C. Preliminary Construction Plans

Preliminary construction plan are contained in attachment F in this document.

D. Cost Estimate

Table 7 depicts the estimated cost for the project, including construction, engineering, testing and administration. The estimated construction cost of the proposed project is $9 million.

Table 7. Preliminary Cost Estimate

Item No.	Description	Quantity	Unit of Measure	Unit Price	Item Total
Passenger Area					
1	Demolish Berth 2 tile & customs area	2400	square feet	$24.00	$57,600
2	Interior Glass screening wall	800	square feet	$30.00	$24,000
3	Storefront for passenger pickup	12600	square feet	$72.00	$907,200
4	Passenger area tile	30500	square feet	$9.60	$292,800
5	New passenger area restroom	1500	square feet	$120.00	$180,000
6	Paint passenger area	25000	square feet	$3.18	$79,500
7	Ceiling passenger area	30500	square feet	$8.40	$256,200
8	Drywall	4200	square feet	$2.40	$10,080
9	Ticket counter	14400	lump sum		$14,400
10	Awning	2400	square feet	$48.00	$115,200
11	Electrical	30500	square feet	$4.80	$146,400

Item No.	Description	Quantity	Unit of Measure	Unit Price	Item Total
12	HVAC	30500	square feet	$4.80	$146,400
Baggage area					
13	Flooring	20800	square feet	$2.40	$49,920
14	Paint	10000	square feet	$3.18	$31,800
15	Ceiling	20800	square feet	$8.40	$174,720
16	Electrical	20800	square feet	$4.80	$99,840
17	HVAC	20800	square feet	$4.80	$99,840
18	New Customs Area	4000	square feet	$48.00	$192,000
19	Relocate HVAC	90000	lump sum		$90,000
Vertical Circulation Building					
20	Build exterior structure	3200	square feet	$190.03	$608,100
21	Escalators	2160000	lump sum		$2,160,000
22	Elevator	144000	lump sum		$144,000
23	Stairs	120000	lump sum		$120,000
24	**Passenger Bridge**	3000000	lump sum		$3,000,000
25	**Subtotal Construction Cost**				**$9,000,000**
26	Engineering cost, testing, administration	10%			$900,000
27	**Total Cost**				**$9,900,000**

E. Progress Schedule

The project schedule shows the contract for consultant design being awarded in July 2009. Design will begin in October 2009 and be completed in February 2010. Advertisement for construction will begin in March 2010, bids received and awarded in April 2010. Construction will begin in June 2010 and be completed by May 2011.

8. Other Information

C. Permits

For pile driving only, the PONO is required to obtain a permit from the Orleans Levee District (OLD) and a Determination of Consistency (DOC) from the Coastal Management Division of the Louisiana Department of Natural Resources prior to construction due to the proximity of a Mississippi River flood control structure (floodwall). Each organization normally includes certain conditions to be included in the permit which the applicant must satisfy during construction and/or operation of the permitted activity.

OLD permitting procedures require that the United States Army Corps of Engineers and the Louisiana Department of Transportation and Development Flood Control and Public Works review the application and issue letters of no objection to the issuance of the permit. The DOC certifies that the proposed construction is consistent with Federal Coastal Zone requirements.

The PONO intends to file the appropriate documentation and applications for permits as stated herein upon approval of this application under the Louisiana Port Construction and Development Priority Program.

The Safety Administration and U. S. Customs and Border Protection are federal agencies that will also review the project plans for compliance with homeland security regulations and will need to issue letters of no objection, as well as conduct inspections to ensure the project meets their requirements.

9. Attachments – Design Criteria

SECTION 15660 - PASSENGER BOARDING BRIDGE-FIXED AND MOBILE GANGWA'YS

1. DESCRIPTION OF WORK

1.1 Work by Contractor

The Scope of the Work provides for the manufacture, supply and erection of a steel framed, glass-clad apron-drive passenger boarding bridge at the Julia Street Cruise Terminal. The passenger boarding bridge will consist of components and equipment of the existing system at the Julia Street Cruise Terminal Berth 1, as well as new components and equipment to be provided under this contract specifically for use at the Julia Street Cruise Terminal. When installation is complete at the Julia Street Cruise Terminal, the passenger boarding system, referred to within this technical section as "Bridge" shall consist of fixed and mobile gangways that are freestanding, articulated, and capable of obtaining the full range of motion within the parameters described in herein, both in the specifications and the drawings. Full cooperation and coordination with other Board contractors working concurrently at the Julia Street and Erato Street Cruise Terminals is a requirement of this contract. See paragraph 1.1.2 of this section for work provided by others for the Board at no cost to the Contractor.

1.2 Work by Provided Other Board Contractors

2. APPLICABLE STANDARDS

2.1 All design and construction will be in accordance with the following standards, latest edition. Applicable United States Codes and Regulations, adopted by the Passenger Boarding Bridge Industry, such as:

2.1.1 SBCCJ Standard Building Code, 1997.

2.1.2 ASCE 7-95 Minimum Design Loads for Buildings and Other Structures.

2.1.3 National Electrical Code.

2.1.4 AISC Steel Construction Code.

2.1.5 ASME Mechanical Code.

2.1.6 SSPC Steel Structure Painting Council.

3. PERFORMANCE REQUIREMENTS

3.1 Design Loadings:

3.1.1 Operational: Roof Live Load: 30 psf. Floor Live Load: 100 psf. Maximum Live Load Deflection: 1/240.

3.1.2 Wind Loading: Wind loading shall be considered to act on the bridge in all possible bridge positions, and shall be considered to act with and without floor live loads. Wind Pressure Data: (Per ASCE-7-95) Base Design Wind

Speed: 74 mph (3-second gust). Exposure: D. Importance Factor: 1.00. Stability against overturning shall include a safety factor of 1.5 for the fully extended position at highest operational cab elevation.

3.2 Stored: Bridge must be able to resist the wind pressure loadings as determined by ASCE-7-95, for the following parameters: Base Design Wind Speed: 130 mph (3-second gust). Exposure: D. Importance Factor: 1.00. If additional wind-resistance tie-downs are required, provide point of connection to bridge and the ultimate tension component to resist overturning.

3.3 The Bridge will minimize water infiltration at all locations during a driving rainstorm (including the connection to the ship). Drainage in the floor shall be provided at the Cab to prevent water from running into the tunnel. A seal will be provided at the boarding end of the Bridge.

3.4 All construction materials (including carpets, wall panels, lighting, lenses, weather seals, etc.) shall be non-combustible.

3.5 The Bridge Cab (or ship vestibule) shall serve any point, all along the bulkhead up to its fully extended position within the range indicated on attached Drawing Pax1 taking into consideration applicable bridge slope requirements.

3.6 The bridge shall be able to be stored by rotating it to a stowing position as indicated on attached drawing Pax1.

3.7 Boarding Elevations: Refer to attached drawings.

3.8 The Bridge is to be completely self-contained except that electrical power, data and telephone line shall be furnished to the Bridge by the Board where it connects to the building. All necessary wiring will be supplied by the Contractor for connection to the Bridge at that point.

3.9 The Bridge is to operate satisfactorily under ambient temperature conditions from 0 degrees to +130 degrees Fahrenheit.

3.10 All electrical components will be manufactured in the U.S.A. Where applicable, components will meet NEMA standards. Components available with UL listing will be used. All junction boxes will be NEMA 4X rated with gasketed hinged covers. In all cases where possible, J-boxes will have conduits enter from the bottom of the box. Only rigid galvanized conduit will be permitted. All J-box connectors will be gasket water tight type. Electrical components located on the exterior will be suitable for marine environment or will be housed within a J-box. Multi conductor cord will be used in place of flexible conduit where possible.

3.11 All materials used in construction shall be new and comply with commercially available standard parts complying with heavy-duty commercial and/or military standards throughout where possible, suitable for saltwater waterfront construction. All hydraulic lines are to be high pressure stainless steel. Flex lines are to be multi-spiral steel reinforced, weather and sunlight safety factor against rupture of at least 4. Hydraulic systems shall be designed to prevent loss of cylinder oil (or other, critical safety mechanism) in case of line failure.

3.12 The hinges and extension tunnels will form an enclosed telescoping ramp between the terminal vestibule and the ship's vestibule. All connections between telescoping parts and hinge points are to be designed to minimize water infiltration, rust and corrosion. All tunnel sections are to be generally rectangular in cross section and constructed to support design loads when fully raised or extended. When sections overlap, short ramps or chamfered edges are to be used. No steps are allowed anywhere in these loading bridges (including the gangways). All tripping hazards are to be avoided. Whenever the bridge ramp slope exceeds 1:12 slope, the control panel shall indicate "exceeded limits" by a yellow flashing light on the control panel, labeled "slope limit exceeded."

3.13 Elevating and Drive Assemblies shall be designed for an industry recognized safety factor that will not allow the assembly to drop or fall with a critical part failure. All design and construction systems shall be "Fail-Safe" so that any malfunction will not create a sudden drop or movement or other dangerous condition. Operation shall be smooth for both lift and drive without jerky motions. The drive tires shall support the imposed loads and allow smooth rolling. The tires, when loaded, should not allow the axle to drop more than 1.5 inches. The tires shall not deflate when punctured.

3.14 Handrails meeting ADA standards, shall be installed on both sides of the bridges. Handrail construction and location will meet established industry standards (bright anodized aluminum). Tunnel sections and terminal vestibule floors shall be finished using commercial grade carpet, minimum 20 oz. moisture resistant , backing, PAR 5.0 designed for high traffic areas.

3.15 The ship's vestibule shall have rotation capabilities of a minimum of 150 degrees travel.

3.15.1 The ship's vestibule shall have a lockable key operated console. All controls shall be accessible from the control console. The console shall be protected from the weather. Adequate windows shall be provided for a clear view, at all times, of the bulkhead line to be served (both directions). All window frames shall have safety glass.

3.15.2 The ship's vestibule shall have a motor-driven overhead coiling door located at the entrance to the vestibule from the ship. The door, when closed, will weatherproof the bridge. The door operator will be located on the bridge control console.

3.15.3 The ship's vestibule shall automatically maintain a level attitude regardless of the slope of the tunnel to provide a horizontal platform to passengers leaving or entering the ship. A manual override control shall be mounted on the main control console. This control shall permit the bridge operator to manually adjust the floor angle of the vestibule. A red indicator light shall indicate manual mode. The design and construction of the ship's vestibule articulated connections shall be fail-safe and shall have an industry recognized safety factor so that failure of any mechanism will not create a sudden drop or other dangerous condition for the bridge or its occupants. The hydraulic controls shall be designed

so that a sudden drop is not possible. Mechanical stops shall prohibit the ship's vestibule floor from exceeding a 20 degree angle regardless of conditions.

3.15.4 The ship's vestibule shall be supplied with an adjustable bimini type canopy. The canopy shall utilize stainless steel tubing, fasteners and other hardware. The fabric shall be white in color, UV and mildew resistant, and water repellant. It shall have a ten (10) year warranty.

3.15.5 A safety net shall be supplied to span between the loading bridge and the ship. This safety net shall be permanently mounted underneath the edge of the ship's vestibule. The net shall be a 3-inch nylon rope mesh with %-inch diameter ropes. The mesh net shall be 12 feet wide and 12 feet long. The net shall be mounted for roll-up storage on a minimum 5-inch diameter drum, which is bolted to the underside of the ship's vestibule. The drum shall be driven by an electric motor with a friction clutch drive (to slip for unwinding with a 400-pound force). There shall be 4 stainless steel hooks along the edge of net toward the ship which will attach to the ship.

3.15.6 A gangway will be provided to give personnel safe passage between the bridge and the ship. The gangway will serve as an integral part of the bridge to ship interface. Routine ship movement is considered 6 feet perpendicular (4ft. out and 2 ft. in), 4 feet parallel, and 4 feet vertical, relative to a fixed point on the dock. The gangway must maintain a safe passageway during routine ship movement without damage to equipment or danger to any persons. Major emphasis for gangWay design will include:

a. Aluminum structure with all welds being continuous;

b. Easy mobility for one-person attachment to ship;

c. No-step transition wheelchair compatibility;

d. Bolt-on replacement parts; i.e., handrails, wheels, hinges, transition ramps; and,

e. High visibility, non-skid flooring covering.

3.15.7 The gangway will interface with bridge controls to automatically maintain a constant leveling of the ship's vestibule. A system will be provided to alert personnel when the gangway exceeds the safe operating range of operation. Both audible and visual alarms will announce at the terminal entrance, ship's vestibule and at the dock level near the travel machinery. The system will activate when the bridge control is in "LOADING" mode. The gangway shall have a clear width of 44 inches. Handrails and floor loadings shall meet all local and federal codes, and the floor shall be nonskid. An audible safety alarm and overhead flashing yellow light with a warning sign "DO NOT ENTER WHEN ALARM SOUNDS" shall be

provided. Sensor control switches will trigger the alarm when the gangway has traveled beyond its safe operating range.

3.16 The tunnel walls shall be exposed steel frame with external glazing. The tunnel ceiling shall be a light off-white colored laminate of easily cleanable, waterproof, non-rusting or non-corroding and puncture-resistant surfaces. Fluorescent lighting shall provide lighting of at least 20 foot candles measured 3 feet above the floor at all locations. Emergency battery pack lights shall be provided at each end of the tunnel and at the opposite end of the smallest tunnel.

3.17 Glazing shall be double pane insulation, tempered Floatglas, tinted. Color to be selected by the Board.

3.18 The lifting and rolling mechanisms will hold securely at any elevation and any location in the event of power failure. The rolling mechanism shall be fitted with fail-safe type spring set, hydraulic release brakes. The brake shall be supplied with manual release. The bridge will be capable of maneuvering over the existing crane rails and bumps on the road or other grade variations without difficulty and without excessive wear to tires or failure of other components. The bridge operator will not be subjected to any sensation of instability or tipping.

3.19 There shall be no binding in any part of the hinge tunnel, extension tunnel assembly, cab, lift mechanism or support pedestal.

3.20 An aircraft quality strobe lamp is to be provided as a warning that the Bridge is ready to operate. An electronic audible alarm will siqnal any movement of the Bridge to safeguard ground personnel and equipment. The strobe and alarm will , be mounted approximately 10 feet above ground level on the lift carriage.

3.21 The means of accomplishing all motion will be contained within the Bridge assembly, and the source of power will be a 480 volt AC, 3-phase 100 ampere, 60 Hertz power source supplied from the terminal building electric distribution system. A fused disconnect switch power source shall be furnished under separate contract. This switch shall be located west of the centerline of the rotunda on the building wall, 6 feet above the building first floor level.

3.21.1 All low voltage AC control/ljghting circuits are to be 120 volts, single phase, 25 amperes, the source of which is to be transformer furnished as part of the Bridge assembly. An elapsed time meter is to be installed to monitor total Bridge running hours installed in the Bridge power panel closet. Hydraulic pump drive motors are to be of the totally enclosed fan cooled type and have a 1.15 NEMA service factor, be single phase protected, and supplied with a marine epoxy coating system.

3.21.2 All electrical motors shall be designed for continuous operation. Lifting speed shall be 6 feet/minute. Drive tire speed shall be 45 feet/minute.

3.21.3 The programmable logic controller will be fitted with all necessary hardware and software for remote communication without the use of additional equipment. The system shall include a modem allowing the manufacturer to dial the controller for trouble shooting and program

modifications. The manufacturer shall demonstrate this "turn-key" system during final check out prior to shipping the Bridge.

3.21.4 All computer software and computer interface cables required to interface with the PLC will be provided. Complete specifications on a compatible computer system, for the port to purchase will be provided along with 3 recommended computer manufacturers and their model numbers.

3.21.5 Detailed information of each PLC input and output, discrete or other, and the PLC ladder logic diagram will be provided. The bridge manufacturer will provide up to forty (40) hours of hands-on instruction. The curriculum will include trouble shooting methods utilizing the PLC computer hardware and software.

3.22 A control station will be located in the ship's vestibule to provide good visibility for the operator during maneuvering of the Bridge and minimum obstruction of passenger traffic. The station will include, but not be limited to, the following:

3.22.1 One keyed 'STORED - LOADING - TRANSIT" switch.

3.22.2 Controls for retracting, extending, steering and swinging the tunnel of the elevating Bridge assembly (deadman type).

3.22.3 Controls for raising and lowering the elevating Bridge assembly (deadman type).

3.22.4 Switches for interior illumination of the Bridge (a switch at the terminal end to control ramp tunnel lights).

3.22.5 Controls for rotating the ship's vestibule (cab) (deadman type).

3.22.6 Switch(es) for illumination of the ship and dock area in general. Two halogen flood lamps shall be provided under the loading bridge.

3.22.7 One convenience duplex receptacle, 110 volt, single phase, 60 Hertz, 20 ampere capacity.

3.22.8 A safety glass window above the control panel for operator visibility.

3.22.9 An emergency button which will shut down operation of the Bridge.

3.22.10 All necessary indicator lamps to monitor Bridge operation.

3.22.11 A wheel position indicator will be provided on the console.

3.23 Control Interlocks:

3.23.1 Controls described in 21.2,21.3 and .5 are to be inoperative when the key switch is in the "stored" position.

3.23.2 Controls described in 21.1, 21.3 and 21.5 are to be inoperative when the key switch is.in the "loading" position.

3.23.3 It will not be possible to damage the control circuitry or any component by selecting opposite motions simultaneously, i.e., extend and retract or up and down travel.

3.23.4 Extend and retract controls are to be inoperative when the limits either fore or aft have been reached. Limit switches are to be provided to preclude the possibility of maneuvering the Bridge into the mechanical stops. An automatic "slow down" that will reduce bridge speed by 50 percent will be provided. The slowdown will occur 10 degrees before the swing limit stop and 3 feet before the extend/retract limit stop.

3.23.5 Indicator lights and buzzer will announce for each limit of travel to include (1) swing left and right, (2) extend and retract, (3) lift upper travel and lower travel, (4) ship's vestibule angle, and (5) cab rotate right and left. When the indicator light and buzzer have activated for a specific range of travel, then the bridge operator must select the opposite direction-to continue operation.

3.23.6 The bridge shall be provided with a system which will automatically activate when the bridge has been moved, to the stowed location. The stowed location shall be defined as indicated on the Drawing Sheet PAX1. The system shall include the following:

a. A parked position indicator lamp located on the operator's console.

b. A high quality strobe lamp with yellow lens located on the exterior of the bridge near the wheel assembly closest to the crane rail. The strobe shall operate continuously when the bridge is in close proximity of the stowed location.

c. A manually engaged holding device to prevent wheel movement. The device will hold during storm conditions, to prevent the possibility of an unattended bridge leaving the stored position.

d. An audible alarm shall sound when the bridge is located in close proximity to the stowed location. The alarm shall continue to sound until the holding device has been properly set.

3.24 Interior passageways are to have a minimum width dimension of 4 ft-6 inches and minimum height of 7 ft.-O inches clear.

3.25 It will not be possible for personnel, articles or litter to become trapped between moving and fixed components. Broom or wiper seals will be provided at all overlapping sections.

3.26 All mechanisms for actuating, guiding and restraining the Bridge or its components are to be such that no noise, sway or sense of insecurity is apparent

to the operator. No vibration will be noticeable in the terminal building. The unit shall not be structurally connected to the terminal.

3.27 All equipment is to be designed fail-safe. Positive mechanical stops are to be provided to prevent dangerous over-travel where any component might become disengaged from its supporting, guiding or restraining components. These mechanical stops are in addition to electrical safeguards provided to restrict overtravel under normal operating 'conditions. Switches shall be dust proof and watertight and designed for a marine environment. All electrical connections to limit switches shall be watertight. All lever arms and mounting hardware shall be stainless steel.

3.28 Particular attention is to be given to keeping components simple, rugged and easily accessible for routine maintenance (including lubrication) and component exchange. Ease of adjustment and ability to retain the adjustment are of equal importance. Access panels are to be of a size to accommodate the components being changed, together with equipment and personnel necessary to accomplish the change. All components possible are to be of the package type for ease of changing rather than necessitating equipment and repair in place.

3.29 All load carrying mechanisms are to be supplied with necessary grease fittings. All lifting carriage roller assembly grease fittings are to be plumbed to the bottom of the lifting carriage. All tunnel roller assembly grease fittings are to be plumbed on a location convenient to the exterior of the Bridge, and all terminal rotunda grease fittings are to be plumbed to the bottom of the stationary pedestal for ease of access to maintenance personnel. All grease fittings for the extension tunnel rollers will be accessible without removing any type of cover. All necessary lubrication for the curtains or roller doors will be easily accessible without removing covers. All plumbing is to be stainless steel tubing.

3.30 The bridge will be designed with a system which will give it the ability to be towed free of the ship in the event of electrical power failure.

3.31 All fluorescent light fixtures are to be standard catalog items, UL listed and designed for easy removal of diffusers for lamp replacement and diffuser cleaning.

3.32 The hydraulic oil reservoir (if provided) is to be equipped with the appropriate access covers for inspection/cleaning purposes, and the reservoir interior is to be coated with an anti-corrosive material. The reservoir shall have an oil level indicator for visual inspection. A method of preventing condensation in the tank will be provided. The reservoir is to have a drain valve plumbed to a convenient location and be equipped with a magnetic drain plug. The hydraulic system is to have a spin-on type filter element with a restriction indicator. All hydraulic actuating cylinders less than three (3) inch bore are to be supplied with chrome plated stainless steel rods. Cylinders with larger than three (3) inch bore are to have heavy chrome plated carbon steel rods certified to withstand a 96-hour salt spray test per MILSPEC OC-C-320B.

3.33 Manufacturer will provide and install non-shrink, non-metallic, high strength grout around stationary pedestal after final bolt torque.

3.34 Paint Specifications:

3:33.1 Blast clean all surfaces in accordance to Steel Structures Painting Council SSPC-SP-6 or better. The blast profile will range from 1.5 mils to 2.5 mils prior to primer application. Blast cleaning is prohibited when surface and air temperatures are less than five (5) degrees above dew point.

3.33.2 All coatings will be applied in strict accordance with the paint manufacturer's instructions. Coatings will be applied only in a controlled environment or when weather conditions are satisfactory according to paint manufacturer's recommendations. No freshly painted surfaces will be subjected to adverse conditions prior to paint manufacturer's recommended dry times.

3.33.3 Damage to primer coats and intermediate coats must be avoided. Should damage occur, repairs will be completed per paint manufacturer's recommendation. Copy of the recommendations will be provided to the Engineer.

3.33.4 Intercoat contamination must be avoided. Should damage occur, the bridge manufacturer will notify the Engineer. A determination as to the method of repair will be per the paint manufacturer's recommendation. Copy of the recommendations will be provided to the Engineer.

3.33.5 The bridge manufacturer will provide the Engineer with inspection reports indicating wet film thickness and dry film thickness for each product applied as part of the coating system. This includes primer coat, intermediate coat, and top coat. The test areas will be random and will be agreed upon prior to system application.

3.33.6 The acceptable paint system will be Tnemec organic zinc/polyurethane system or equal. The system will consist of the following:

a.	Prime coat	9334 organic zinc	1.5 to 3 mils DFT
b.	Int. coat	9381 primer	1.5 to 2.5 mils DFT
c.	Two final coats, finish coat polyurethane	9400 aliphatic	per paint mfgr.

3.33.7 Provided the bridge manufacturer selects an equivalent system, they will submit detailed product information and system specifications to the Engineer for approval prior to product application.

4. INSTALLATION

4.1 The installation offlashing and trim between the terminal vestibule and the building is to be provided. The seal will not be exposed to direct sunlight. A

stainless steel cover will be provided. The base of the stationary pedestal will be fitted with a valance to hide the anchor bolts after installation. All flashing trim valance and attaching hardware.are to be stainless steel. This shall be a fully weatherproof installation.

4.2 Passenger safety warning placards are to be installed in the terminal vestibule, ship's vestibule and all tunnel transition areas. The placards are to read, "Watch Your Stop, Please Use Handrails", and be visible when entering the loading bridge either from the terminal vestibule or the ship's vestibule.

4.3 A system to warn dock traffic of low clearance hazard will be provided on the exterior of the bridge. The system will include as a minimum two (2), ten inch (10 in.) high reflective, high visibility, diagonal, safety orange and white strips, starting from the ship's vestibule and ending at a point where clearance is less than 14 ft.-6 in. when the bridge is positioned at the lower travel limit and fully extended. Four (4) high visibility strobe lights with clear lenses will be provided, which will be highly visible during daylight hours. Two (2) lights will be located on each side of the bridge; one (1) on the hinged tunnel, the other on the extending tunnel at the ship's vestibule. The lights will operate when the bridge is in the loading mode. No components of the bridge will be located on the exterior of the tunnels lower than the main structure of the tunnel including electrical conduits, Jboxes, light fixtures or festoon systems.

5. INSPECTION

5.1 The Board reserves the right to inspect the Bridge during manufacture and installation whenever deemed necessary. A schedule of project major milestones will be provided by the Contractor. These milestones will include, but not be limited to the following:

5.1.1 Schematic Phase review/approval.

5.1.2 Development Phase review/approval.

5..1.3 Final Fabrication Phase approval.

5.1.4 Compilation of calculations and materials acquisition.

5.1.5 Shop Drawings as per Article 50 of the Contract Documents.

5.1.6 Fabrication of major structures.

5.1.7 Application of coating system.

5.1.8 Assembly and test.

5.1.9 Final assembly prior to shipment.

5.1.10 Review of manufacturer's product support documentation:

a. Operating instructions,

b. Maintenance manuals,

c. Parts and materials list,

d. Vendors list,

e. Lubrication charts,

f. As-built drawings, and

g. Programmable logic control documentation and software.

6. PROJECT CLOSEOUT

6.1 Contractor shall furnish Board with the following items prior to Project completion:

6.1.1 All Programmable Logic Control (PLC), Ladder Schematics, and Supporting documentation and software necessary for on-site trouble shooting and diagnostics by Board forces.

6.2 Electrical Manual. This manual shall consist of the following:

6.2.1 Complete electrical schematic;

6.2.2 Hard copy of PLC Ladder Logic;

6.2.3 Ladder Logic Legend;

6.2.4 Manufacturer's catalog cuts of all I/O devices;

6.2.5 Location on bridge and description of function of all I/O devices;

6.2.6 Wire schedules, J-box location wire terminal devices;

6.2.7 Complete electrical parts manual identifying vendors;

6.2.8 Instructions for PLC remote dial up;

6.2.9 PLC Mfgr.'s supporting documentation and manuals.

6.3 Repair Manual. This manual shall consist of the following:

6.3.1 All as-built drawings;

6.3.2 Exploded views of all mechanical assemblies identifying part numbers to include rollers, hinges, cable sleeves, hydraulic cylinders, wheel drive assemblies, curtains;

6.3.3 Component manufacturer's catalog cut sheets;

6.3.4 Instructions for a" specialized repairs.

6.4 Preventative Maintenance Manual. This manual shall consist of the following:

6.4.1 List of type, quantity and recommended lubricants;

6.4.2 Lubricant chart;

6.4.3 Lubrication schedule;

6.4.4 Fluid and filter schedule; and,

6.4.5 Structural and mechanical inspection schedule to include special instructions.

6.5 Operations Manual:

6.5.1 This manual shall consist of detailed explanations of bridge operation, written for interpretation by qualified repair personnel. Bridge operations shall be broken down into several functions, each of which shall be explained to include interaction with each other and electrical inputs and outputs of the logic controller.

6.5.2 Operators Manual. This manual shall consist of detailed instructions for safe operation of the bridge. The manual shall explain each control device available to the operator, a checkout list prior to operation, instruction for stowage, Do's, Don'ts, warnings and cautions. It shall be written for interpretation by personnel familiar with passenger bridge operations.

6.5.3 Operating and maintenance manuals wi" include the PLC.

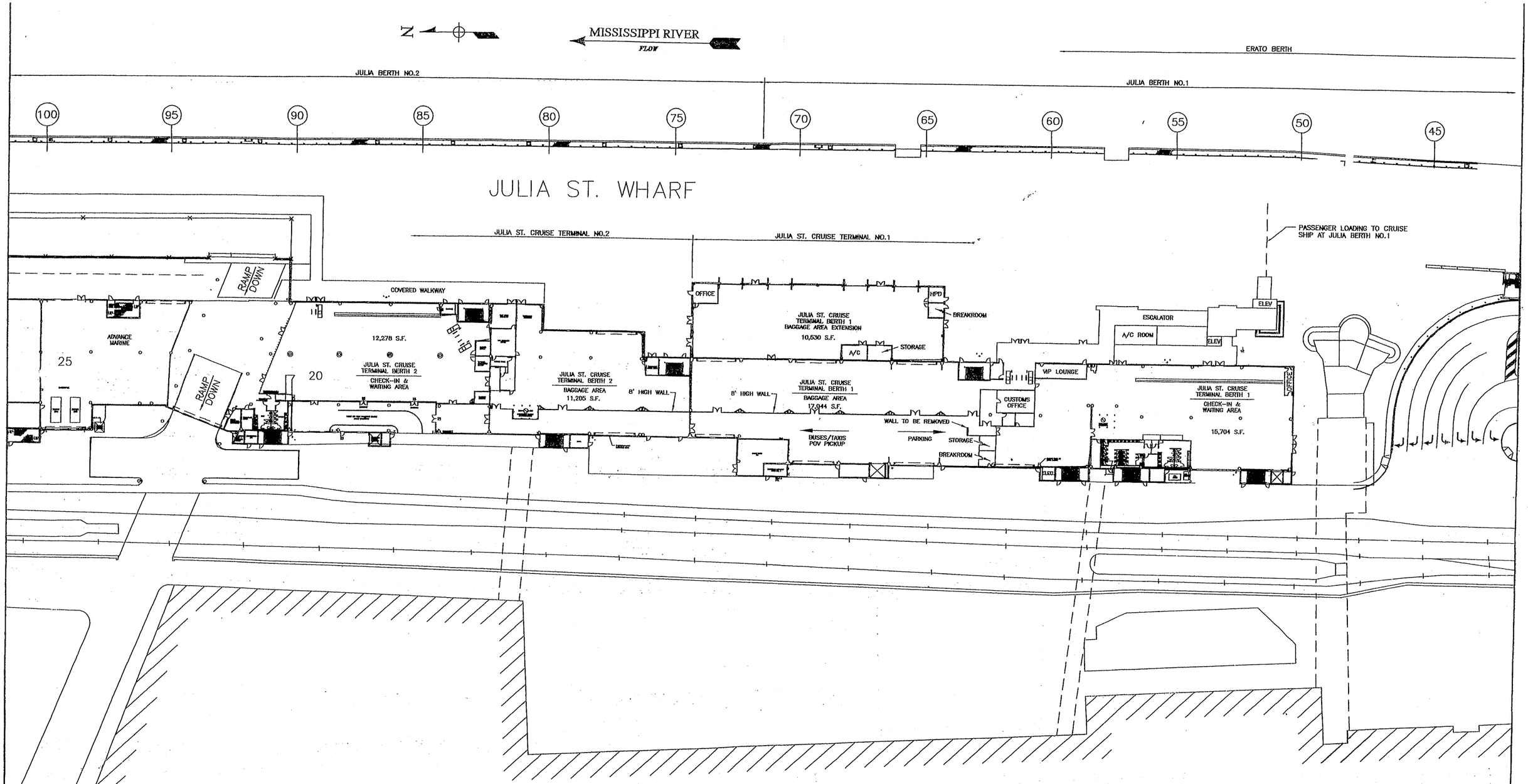
6.6 Parts Manual. This manual shall provide a detailed list of a" serviceable parts of the bridge. It shall include a" components purchased by Vendor and Customer and installed on the bridge.

6.7 As-built drawings.

6.8 Compiled Engineering Calculations.

6.9 Major vendor part and material list along with their catalog cut sheets.

9. Attachments - E. Layout of Existing and Proposed Facilities



EXISTING SITE PLAN

PRELIMINARY CONSTRUCTION PLANS
LOUISIANA PORT CONSTRUCTION & DEVELOPMENT
PRIORITY PROGRAM

REV.	BY	DATE
8		
7		
6		
5		
4		
3		
2		
1		

BOARD OF COMMISSIONERS
PORT OF NEW ORLEANS

JULIA STREET CRUISE TERMINAL

IMPROVEMENTS

EXISTING SITE PLAN

SCALE N.T.S. DATE 11-25-08
DESIGNED W.B.C. DRAWN K.J.C.
CHECKED W.B.C.

RECOMMENDED APPROVED

PROJECT ENGINEER

WILLIAM B. CHOMARTIN, P.E.
ENGINEERING MANAGER

DWG. NO. BH-12079-2 REV.

N

MISSISSIPPI RIVER

FLOW

90 85 80 75 70 65 60 55 50

JULIA ST. WHARF

PASSENGER BRIDGE

NEW VERTICAL CIRCULATION CORE

E S S E

ELEV

NEW PASSENGER RESTROOMS

RAMP DOWN

BUS PICK-UP/DROPOFF

QUEUE

SCREENING

CHECK-IN & WAITING AREA

EMBARKATION

EMBARKATION

NEW PASSENGER WAITING AREA

BAGGAGE AREA

STORAGE

BAGGAGE AREA

DEBARKATION

DEBARKATION

DEBARKATION

INTERVIEW

NEW CUSTOMS OFFICE

SECONDARY BUS PICKUP

NEW PASSENGER POV PICK-UP

NEW PASSENGER POV PICK-UP

DEBARKATION AREA

COND

ELEC.

ONE WAY TRAFFIC

ONE WAY TRAFFIC

ONE WAY TRAFFIC

ONE WAY TRAFFIC

JULIA STREET CRUISE TERMINAL
PROPOSED RENOVATIONS

REV	BY	DATE
13		
12		
11		
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5		
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3		
2		
1		

BOARD OF COMMISSIONERS
PORT OF NEW ORLEANS

JULIA STREET CRUISE TERMINAL IMPROVEMENTS
PROPOSED RENOVATIONS

SCALE NTS
DESIGNED
CHECKED
RECOMMENDED
PROJECT ENGINEER

DATE 11/21/08
DRAWN R LAUGA
APPROVED
WILLIAM B. CROMARTIE, P.E.
ENGINEERING MANAGER

DWG. NO.
REQ.