

March 18, 2025

# TO ALL PROSPECTIVE BIDDERS UNDER SPECIFICATION NO. HD-S3195, POLB MAINTENANCE BUILDING C PUMP SHOP CONVERSION LONG BEACH, CALIFORNIA

### ADDENDUM NO. 2

In order to clarify the bid documents, the following modifications to the Technical Specifications, Drawings, and Appendices are to be construed as part of the documents upon which bidders shall prepare their proposals and to supplant provisions appearing elsewhere in the documents which may be in conflict therewith. Material to be added is indicated by <u>underline type</u>. Material to be deleted is indicated by <u>strikethrough type</u>. The location of the changes on each page is also indicated by a vertical bar in the margin. The addendum number and date is indicated at the bottom of each page on the left side in the footer. The page number for each revised page shall be shown center with an "R" and the number of the addendum.

#### **TECHNICAL SPECIFICATIONS**

- 1. **Replace** page 01 11 00-3 with the attached revised page 01 11 00-3-R2.
- 2. **Replace** page 11 11 05-2 with the attached revised page 11 11 05-2-R2 and add page 11 11 05-2A.

#### **DRAWINGS**

- 1. **Replace** Drawing 10-02464-AA006 (Sheet 35 of 86) with the attached Drawing 10-02464-AA006 indicated by the Delta No. 1 revision.
- 2. **Replace** Drawing 10-02464-AA011 (Sheet 40 of 86) with the attached Drawing 10-02464-AA011 indicated by the Delta No. 1 revision.
- 3. **Replace** Drawing 10-02464-AA013 (Sheet 42 of 86) with the attached Drawing 10-02464-AA013 indicated by the Delta No. 1 revision.
- 4. **Replace** Drawing 10-02464-AF001 (Sheet 44 of 86) with the attached Drawing 10-02464-AF001 indicated by the Delta No. 1 revision.
- 5. **Replace** Drawing 10-02464-AE018 (Sheet 86 of 86) with the attached Drawing 10-02464-AE018 indicated by the Delta No. 1 revision.



### **APPENDICES**

1. Add Maintenance Facility Roof Warranty to Appendix CC.

Sincerely,

Jugar

Suzanne Plezia, P.E. Senior Director/ Chief Harbor Engineer Attachments

### 1.04 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:
  - 1. Remove and replace with new:
    - a. Remove overhead door and infill with walls.
    - b. Electrical Lighting, switches, receptacles and Exit signs.
  - 2. Remove and reinstall:
    - a. Owner's equipment relocation
  - 3. Improvements:
    - a. <u>Furnishing and installation of Bridge crane, including footings</u>
    - b. Exterior wall infill of overhead door opening, Window
    - c. Restroom, Office. Interior doors, hardware and windows
    - d. Interior finishes, Casework and countertops
    - e. Electrical improvements
    - f. Includes-Furnishing and installation of test benches
    - g. HVAC equipment, radiant heat, and improvements
    - h. Roof penetrations and patching
    - i. Plumbing floor drains, cleanouts, sinks, eyewash, and the associated sanitary piping
    - j. Fire Protection
    - k. Utility extensions
    - I. Exterior cleaning and sealing
    - m. Additional scope as indicated on Drawings
    - m.n. All equipment and materials shall be Contractor furnished and installed, unless otherwise noted in the Contract Documents.
- B. Type of Contract:
  - 1. Project will be constructed under a single prime contract.

#### 1.05 REFERENCES

Environmental and Geotechnical Reports included in Appendix CC.

#### 1.06 SCHEDULING

- A. Phases of the Work
  - 1. Perform work in accordance with the phasing indicated in the Drawings. The Construction Phasing Plans shall not relieve the Contractor of responsibility for scheduling the work or completion of the work in accordance with specified time frames for the interim milestones and project completion dates.
- B. Site work hours
  - 1. Operation of marina interim parking lot shuttle shall be in accordance with Section 01 50 00, "TEMPORARY FACILITIES AND CONTROLS".
  - 2. All other site work shall be in accordance with SC-6.2, "Contractor Work Schedule".

#### 1.07 SUBMITTALS

Ensure that all submitted items are in compliance with the Contract Documents before actual submittals. Individual requirements for submittals are described in the pertinent sections of the Technical Specifications.

- A. Contractor correspondence
  - 1. Sequentially serialize and date all correspondence to the Engineer. Furnish original and one copy of all correspondence.

#### 1.07 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
- B. Welding Qualifications: Qualify procedures and personnel according to the following:
  - 1. AWS D1.1/D1.1M, "Structural Welding Code Steel."
  - 2. AWS D1.3/D1.3M, "Structural Welding Code Sheet Steel."

#### 1.08 WARRANTY

- A. Manufacturer's Special Warranty: Manufacturer agrees to repair or replace dock levelers that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period for Structural Assembly: 10 years from date of Substantial Completion.
  - 2. Warranty Period for Hydraulic and Electrical Systems: Four years from date of Substantial Completion.
  - 3. Warranty shall be for unlimited usage of leveler for the specified rated capacity over the term of the warranty.

#### PART 2 - PRODUCTS

#### 2.01 TEST BENCHES

- A. Contractor furnished and Contractor installed.
- B. Basis of Design: JM Test Systems, LLC: Quote # TBE-22-2512-04 dated 12/22/2023.
  - 1. 1-800-353-3411, <u>www.jmtest.com/test-bench</u>, <u>www.jmtes</u>.
  - 2. <u>Test Bench specific requirements have been noted below.</u> See attached information at the end of this Section.

C. Performance Requirements:

- a. Test Bench Dimension must operate within a space of 80"H x 96"W x 40"D.
- b. Main input power: 480 VAC, 3P, 60Hz
  - 1) 100A Disconnect Switch: 600VAC max 3 pole 100A enclosed safety disconnect switch.
  - 2) 100A Load Center; 240 VAC max 1 Pm 60Hz, 100A, NEMA Type 3R enclosed load center with main breaker and needed circuit breakers installed at the required amps.
  - 3) 480V 3P Motot Started: 480V 3P motor controller panel mounted/Size2/IEC/Max horsepower:20HP/ includes four panel mounted cam-lok receptacles (three lines & ground), adjustable overload relay, main power switch, start button, emergency stop button, & run light (Equipped with power analyzer).
  - 4) Motor Started Remote Start: Remote box connected to motot started with start and stop button for operating from a safe distance.
  - 5) Cooling Fan: 2A thermostat (32 to 140 degrees Fahrenheit) connected to a 4-1/2" 3,000 RPM fan with an airflow of 110 CFM.
  - 6) Metered 120 VAC Outlet: 120 VAC, 20A GFCI receptacle panel mounted. (Equipped with power analyzer.)
  - 7) 24 VDC Fixed Supply: Equipped with banana jacks & fuse with continuous 24VDC supply.
  - 1)8) Secondary input power: 120 VAC, 60Hz provided by 480V x 120V, 7.5kVA stepdown transformer.

- c. Meters & Calibrators:
  - 1) Variable DC Power Supply 30VDC/5A single variable output. Features include low output noise (1mVrms), over voltage and over current protection, LCD display with backlight, standby output for safety, save-andrecall function up to three memory states, & keypad lock. Panel mounted.
  - 2) AC/DC Power Supply: Variable AC/DC output in 6 nominal ranges 0-140VAC @20A, 0-280VAC @10A, 0-569VAC @5A/ 0-120VDC @ 16A, 0-240VDC @4A. Vernier provides variable output. Input power protected by 20A circuit breaker. Equipped with volt meter. Panel mounted.
  - 3) Digital Panel Analyzeer: Panel mounted digital meter connected to a current transformer. Capable of displaying current, voltage, amps & watts.
- d. Calibration & Certification:
  - 1) All instruments are calibrated traceable to NIST or equal certification. Must be accredited by A2LA to comply with ISO 17025 standards. Certifications are good for one year.
- e. Tabletop Setup:
  - 1) Cabinets will be mounted on heavy duty swivel wheels.
  - 2) Vise: Heavy duty vise with 6 <sup>1</sup>/<sub>2</sub>" jaw opening. Will be table top mounted.
- f. Construction Specifications:
  - 1) Console is made up of heavy-duty aluminum framing and high impact Kydex panels or equivalent.
- g. Accessories:
  - 1) Test Lead Kit: Assorted test leads, T/C wire kits (qty 2 each of J, K, T& E with 5' of wire) or approved equal but not limited to.
  - 2) Motor Starter Test Leads: 15' test lead wires with cam-lok plugs on one end and booted 100A alligator clamps on the other end.

### D. Test Bench Assembly:

2.1. Test bench electrical component must be fully assembled upon delivery. Test bench should be delivered turn key ready and capable of function with minimal staff calibration.

#### 2.02 AIR COMPRESSOR

A. Relocate existing unit as indicated on Drawings.

### 2.03 PRESSURE WASHERS

- A. Stationary Self-Contained Pressure Washing Unit. High pressure, hot water.
  - 1. Basis of performance product: HOTSY model 5735SS (Stationary). Submit product of equal or better performance and features for review.
  - 2. Performance Requirements:
    - a. Model 5735SS
    - b. Part No. 1.109-656.0
    - c. GPM 8.0
    - d. PSI 3000
    - e. HP 20
    - f. Volts/Ph 460/3
    - g. Amps 21
    - h. Fuel NG





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F						ISH SCH	IEDULE						
	NUMBER	ROOM NAME	BASE	FLOORING	G PAINT	CEILING	FINISH	TILE	COUN	NTERTOP, CA	BINETS	REMARKS	
	01	VESTIBULE	RB1		P1, P2, P3	EXPOSED	TO CEILING					$\sim 1$	
	02	UNISEX - RESTROOM	SCH1	<b>3</b> T1	P1, P2, P3	PAINT	ED GYP	T2			{	SCH2, SCH3	
	03	SHOP		<sub>CO</sub> مر	P1, P2, P3	EXPOSED	TO CEILING						
	04	OFFICE	RB1	CO	P1, P2, P3	ACF	21			PL1, C1			
		I	1	1									
				ROO	M FINIS	H LEGEN	ND						
	FINISH	FINISH DESCRIPTION			MANUFACTUR	E S	SERIES			STYLE / COL	OR	REMARKS	
	R1	R1 RESINOUS FLOORING			STANDARD	STON	ECALD GR. 1	/4" THIC	K F	PEWTER			
	P1	P1 WALL PAINT			VISTA WHITE 00 BRIGHT WHITE		Ν	ATCH FLAT F	INISH				
	P2	P2 CEILING PAINT			VISTA WHITE 00 BRIGHT WHITE			Ν	ATCH FLAT F	INISH		•	
	<b>P</b> 3	T1 FLOOR TILE 12" x 24"		MCOLOR	VISTAWHITE		IGHT WHITE	$\sim$		LATCH FLAIF		$\frown \frown \frown \frown \frown$	$\sqrt{1}$
ł	<b>T</b> 1			r v	DALTILE	VOLU	ME <b>Y</b> 1.0	Ŷ	<b>Y</b> A	MPFIFY BLAC		MAPEI - 5027 SILVER	7
	T2	T2 WALL TILE 12" x 24"			DALTILE	VOLU	ME <b>,</b> 1.0	٨	T م	HUNDER VL6	<sup>2</sup>	MARIE - 5027 SILVER	7
						$\sim$		$\sim$	$\sim$				$\sim$
	RB1	RUBBER BASE			JOHNSONITE	08 ICI	08 ICICLE, 4"						
	PL1	PLASTIC LAMINATE CABINETS			PLASTIC LAMINA	ATE WILSO	TE WILSON ART		1	573-01 - FROS	STY WHITE		
	C1	PLASTIC LAMINATE COUNTERTOPS		PLASTIC LAMINA	MINATE WILSON ART			1573-01 - FROSTY WHIT		STY WHITE			
	CO	CO CONCRETE FLOOR SEALER			MATCH EXISTING MATCH EXISTING		N	ATCH EXISTI	NG				
	ACPT ACOUSTICAL CENTER PANEL 24" X24"			MARS	PETMPLUS	)/16"	$\mathbf{h}$	VHITE	$\gamma$				
	SCH1	H1 COVE BASE			SCHLUTER	DILEX	DILEX AHK COVE		S	STAIN ANODIZ	ED		
,	SCH2	H2 TRANSITION STRIP			SCHLUTER	RENC	RENO-RAMP/-K 3 1/2"		S	STAIN ANODIZ	ED		
$ \downarrow $	SCH3	CH3 EDGE TRIM AT TOP OF WALL TILE			SCHLUTER	JOLLY	/				ED		
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# NOTE:



# **SIGNAGE NOTES:**

- 1- ALL SIGNAGE SHALL CONFORM TO THE FOLLOWING CODES AS REQUIRED 2022 CALIFORNIA BUILDING CODE, TITLE 24
- 2- ALL SIGNS SHALL CONFORM TO THE TACTILE EGRESS SIGNED "EXIT" AND COMPLY WITH 2022 CALIFORNIA BUILDING CODE. TITLE 24
- 3- ALL SIGNS THAT ARE REQUIRED BY CODE SHALL CONFORM TO ALL STANDARDS AND REQUIREMENTS
- 4- OTHER SIGNS THAT ARE REQUIRED: "MAX NUMBER OF OCCUPANTS", AND "MAX. WEIGHT OF EXPLOSIVES COMPOSITION", AND SHALL BE PLACED IN ALL BUILDINGS AND MAGAZINES IN CONSPICUOUS LOCATIONS
- 5- WALL FIRE RATING AS REQUIRED, SEE FLOOR PLANS
- 7- SIGNS SHALL BE POSTED AND PERMANENTLY MOUNTED 8- LETTERS ON SIGNS SHALL BE NO LEES THAN 2 INCHES HIGH, WITH LETTER STOKE NO LESS THAN 3/8 OF AN INC
- 9- MOUNTING HEIGHTS AND LOCATIONS, AS DESCRIBED BY CODE



FIRE EXTINGUISHER PROJECTION SIGNS

\* \* SIGNS ARE EXAMPLES. NOT ACTUAL SIGNS \* \*





FLOW TEST RESULTS STATIC PRESSURE: 57 PSI 54 PSI **RESIDUAL PRESSURE:** FLOW: 2420 GPM

THE FIRE WATER FOR THE FACILITY IS SUPPLIED BY A FIRE PUMP IN THE FIRE PUMP HOUSE BY HARBOR PLAZA.

# FIRE PUMP

DIESEL TYPE: RATED FLOW: 1500 GPM PRESSURE AT RATED FLOW: 110 PSI

NOTE: FIRE PUMP AND WATER FLOW TEST DATA ARE FROM 2013. A NEW HYDRANT FLOW TEST SHALL BE PERFORMED TO DETERMINE AVAILABLE SYSTEM FLOW AND PRESSURE. A NEW FIRE PUMP TEST SHALL BE PERFORMED AND DATA USED IN CONTRACTOR HYDRAULIC CALCULATIONS.

FIRE PROTECTION ABBREVIATIONS AND LEGEND						
SYMBOL	ABBREV	DESCRIPTION	HOSE DEMAND	MINIMUM K FACTOR		
HC-1 HC-1		HAZARD CATEGORY 1 250 GPM		5.6		
(HC-2)	HC-2	HAZARD CATEGORY 2	250 GPM	5.6		

FIRE SUPPRESSION LEGEND					
SYMBOL DESCRIPTION					
	SPRINKLER PIPE (EXISTING)				
	SPRINKLER PIPE (NEW)				
$\mathbf{\Theta}$	CONNECT TO EXISTING				
$\bigcirc$	UPRIGHT SPRINKLER (EXISTING)				
•	UPRIGHT SPRINKLER (NEW)				
FS	FLOW SWITCH (NEW)				
Τs	FLOW SWITCH (NEW)				

THE EXISTING FIRE ALARM SYSTEM IS SERVICED BY COSCO FIRE PROTECTION

# SPRINKLER SYSTEM DESIGN REQUIREMENTS

- 1. EXTEND THE EXISTING SPRINKLER SYSTEM TO PROVIDE COVERAGE IN THE NEW ROOMS CREATED IN THE BUILDING RENOVATIONS. THE SPRINKLER SYSTEMS DESIGN SHALL BE IN ACCORDANCE WITH NFPA 13 AND FM GLOBAL STANDARDS.
- 2. PROVIDE 100% PROTECTION OF THE BUILDING INTERIOR INCLUDING, BUT NOT LIMITED TO; TOILET ROOMS AND CLOSETS FORMING A PERMANENT PART OF THE BUILDING STRUCTURE. COMBUSTIBLE CONCEALED SPACES AND ALL SPACES AS INDICATED AND REQUIRED BY NFPA.
- 3. ALL SPRINKLERS IN LIGHT HAZARD AND ORDINARY HAZARD LOCATIONS SHALL BE QUICK RESPONSE TYPE.
- 4. PROVIDE RECESSED SPRINKLERS WITH ORDINARY TEMPERATURE RATING IN AREA WITH FINISHED CEILINGS. PROVIDE WHITE, POLY-COATED SPRINKLERS AND WHITE ESCUTCHEONS.
- MIXING OF HEAD TYPES, INCLUDING FINISHES, WITHIN THE SAME AREA IS NOT PERMITTED. 6. PROVIDE INTERMEDIATE AND HIGH TEMPERATURE SPRINKLERS BASED ON DISTANCE FROM HEAT SOURCES SUCH
- AS DIFFUSERS AND UNIT HEATERS IN ACCORDANCE WITH NFPA 13 SECTION 8.3.2.5 7. ALL SPRINKLER PIPING SHALL BE BLACK STEEL. PIPING 2 INCHES AND LESS MUST BE A MINIMUM OF SCHEDULE 40. 2. PIPING LAYOUTS, WHERE SHOWN, SHOW PIPE DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS, AND PIPING LARGER THAN 2 INCHES MUST BE A MINIMUM OF SCHEDULE 10.
- 8. GALVANIZED PIPING IS NOT PERMITTED TO BE USED IN SPRINKLER SYSTEMS
- 9. ALL SPRINKLER SYSTEM FITTINGS SHALL BE RATED FOR A MAXIMUM WORKING PRESSURE OF NOT LESS THAN 175 PSI.
- 10. THE SPRINKLER SYSTEMS SHALL BE DESIGNED HYDRAULICALLY FOR UNIFORM DISCHARGE DENSITIES ON THE FOLLOWING BASIS:
  - A. SPRINKLER SYSTEM DISCHARGE DENSITIES SHALL BE BASED ON NFPA 13, FM DS 3-26 AND THE FIRE PROTECTION HAZARD CLASSIFICATION TABLE ON THIS SHEET.
  - B. MAXIMUM SPRINKLER SPACING SHALL BE 225 SQ FT PER HEAD FOR HAZARD CATEGORY 1 AREAS, 130 SQ FT 6. CONTRACTOR SHALL COMPLY WITH THE LOCAL FIRE CODE, ALL REGULATORY AGENCIES AND CODE PER HEAD FOR HAZARD CATEGORY 2 AREAS.
  - C. HOSE DEMANDS FOR THE SPRINKLER SYSTEMS WILL BE BASED ON THE COMBINED INSIDE AND OUTSIDE HOSE DEMANDS. HOSE DEMAND IS SUPPLIED FROM A SEPARATE LINE THAN THE FIRE PROTECTION SUPPLY.
    - a. HAZARD CATEGORY 1 250 GPM
  - b. HAZARD CATEGORY 2 250 GPM D. RACK STORAGE SHALL BE LIMITED TO CLASS IV COMMODITIES AND SHALL BE LIMITED TO A MAXIMUM STORAGE HEIGHT OF 12 FEET.
  - E. GROUP A PLASTIC STROAGE SHALL BE ON PALLET RACKS AT A MAXIMUM STORAGE HEIGHT OF 5 FEET
  - F. FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE LIMITED TO THE MAXIMUM ALLOWABLE QUANTITIES PER 1. ALL PIPING IS TO BE INSTALLED TO MAINTAIN CEILING HEIGHTS OR CLEARANCES IN ACCORDANCE WITH NFPA 13, FM THE CALIFORNIA BUILDING CODE.

# PROJECT SPECIFIC NOTES

- 1. THE BUILDING IS PROTECTED THROUGHOUT WITH AN AUTOMATIC WET PIPE FIRE PROTECTION SYSTEM. THE SYSTEM IS CURRENLTY SUPERVISED BY THE FIRE ALARM SYSTEM.
- 2. THE EXISTING SYSTEM HAS BEEN DESIGNED TO NFPA WITH THE FOLLOWING DENSITY:
- A. ORDINARY HAZARD GROUP I: 0.15 GPM / 1,500 SQ.FT.
- 3. THE NEW OCCUPANCY OF THE SPACE IS A HIGHER HAZARD THAN THE PREVIOUS OCCUPANCY, THE NEW OCCUPANCY REQUIRES THE FOLLOWING DENSITY
- A. HAZARD CATEGORY II: 0.20 GPM / 1,500 SQ.FT.

# SCOPE

- 1. THE FIRE PROTECTION SYSTEMS SHALL COMPLY WITH CALIFORNIA BUILDING CODE 2022, NFPA 13 2022 WITH CBC AMENDMENTS, FACTORY MUTUAL (FM GLOBAL) STANDARDS, SPECIFICATION SECTIONS 21 13 13, AND WITH THESE CONTRACT DRAWINGS AS APPROVED BY THE LONG BEACH FIRE DEPARTMENT PRIOR TO INSTALLATION.
- 2. ALL FIRE PROTECTION MATERIALS ARE TO BE UL LISTED AND FM APPROVED.
- 3. THIS BUILDING MUST BE EQUIPPED WITH AN AUTOMATIC FIRE EXTINGUISHING SYSTEM COMPLYING WITH NFPA 13. THE SPRINKLER SYSTEM SHALL BE APPROVED BY THE FIRE PLAN REVIEWER PRIOR TO INSTALLATION.

# GENERAL CONTRACTOR RESPONSIBILITIES

- 1. IT IS THE INTENT OF THESE DOCUMENTS TO PROVIDE DESIGN. MATERIALS AND EQUIPMENT FOR A TOTALLY FUNCTIONING AND OPERATING FIRE PROTECTION SYSTEM, INCLUDING THE PROPER INTERFACING AND COORDINATION WITH ALL OTHER BUILDING SYSTEMS.
- RISERS. FINAL ROUTING SHALL BE PROVIDED ON SHOP DRAWINGS.
- THE GENERAL CHARACTER AND SCOPE OF THE WORK IS ILLUSTRATED IN THE SPECIFICATIONS AND DRAWINGS. THE SPECIFICATIONS AND DRAWINGS ARE DIVIDED INTO SEVERAL SECTIONS FOR CONVENIENCE ONLY AND ALL OF THE CONTRACT DOCUMENTS MUST BE CONSIDERED AS A WHOLE.
- THE SPRINKLER SYSTEM DESIGNER SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS BETWEEN FIRE PROTECTION SYSTEMS AND LIGHTING FIXTURES, DIFFUSERS, GRILLES, DUCTS, EQUIPMENT FIXTURES, STRUCTURAL MEMBERS, PIPES, CONDUITS, AND OTHER OBSTRUCTIONS ENCOUNTERED.
- 5. THE INSTALLING CONTRACTOR SHALL OBTAIN APPROVAL OF THE AUTHORITY HAVING JURISDICTION. REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS AND APPROVALS
- OF ALL TRADES 7. DAMAGE TO WALLS, PARTITIONS, CEILINGS AND FLOORS FROM PENETRATIONS, INSTALLATION OR OTHER ACTIONS OF THE SPRINKLER INSTALLER MUST BE PATCHED, REPAIRED, PAINTED WITH NEW MATERIALS TO ORIGINAL CONDITION.
- 8. CONTRACTOR SHALL PROVIDE A FIRE WATCH DURING SYSTEM IMPAIRMENT TO ALL AREAS ARE IMPAIRED BY THE SYSTEM OUTAGE.

# FIRE PROTECTION GENERAL NOTES

- GLOBAL DATA SHEETS, NFPA 101 AND THE CONTRACT DOCUMENTS
- 2. NO PIPING SHALL BE LOCATED IN ELECTRICAL ROOMS, ELECTRICAL CLOSETS, OR OTHER RELATED AREAS EXCEPT
- PIPING SERVING SPRINKLERS IN THE ROOM. 3. SPRINKLER PIPING SHALL NOT BE INSTALLED ABOVE DEDICATED ELECTRICAL EQUIPMENT SPACE IN ACCORDANCE WITH NFPA 70.
- 4. ALL SPRINKLER PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH THE MAIN DRAIN VALVES. WHERE TRAPPED SECTIONS OF PIPING CANNOT BE AVOIDED, AUXILIARY DRAINS SHALL BE PROVIDED. PROVIDE TEST AND DRAIN CONNECTIONS IN ACCORDANCE WITH SPECIFICATIONS AND NFPA 13.
- 5. DRAINS MUST TERMINATE TO THE EXTERIOR OF THE BUILDING AND BE PROVIDED WITH A SPLASH BLOCK OR OTHER MEANS TO DETER DAMAGE.
- 6. LOCATE CONTROL VALVES, TEST VALVES, AND LOW POINT DRAIN VALVES IN READILY ACCESSIBLE AREAS WITHIN 8 FEET OF THE FLOOR. TEST VALVES AND DRAINS MUST DISCHARGE TO THE OUTSIDE OF THE BUILDING TO A SPLASH BLOCK.
- ALL EXPOSED ABOVEGROUND SPRINKLER PIPING SHALL BE PAINTED RED. 8. SPRINKLERS SHALL BE CENTERED IN CEILING TILES IN ONE DIRECTION AND NO CLOSER THAN 6 INCHES TO THE
- CEILING GRID IN THE OTHER DIRECTION.
- PROVIDE SPRINKLER HEAD TYPES IN ACCORDANCE WITH NFPA 13, SECTION 7.2.2. 10. PROVIDE A MINIMUM OF 6 FEET BETWEEN SPRINKLER HEADS, AND MAINTAIN MINIMUM AREAS OF COVERAGE PER NFPA 13.
- 11. ALL VALVES WHICH CONTROL ALARM FUNCTIONS OR THE FLOW OF WATER, THAT WHEN CLOSED WILL DISRUPT THE PROPER OPERATION OR ALARMING OF A SYSTEM SHALL BE ELECTRONICALLY SUPERVISED VIA TAMPER SWITCHES CONNECTED TO THE EXISTING FIRE ALARM CONTROL PANEL WITHIN THE MAINTENANCE BUILDING.
- 12. PROVIDE A MINIMUM CLEARANCE OF 3 FEET IN FRONT OF ALL EQUIPMENT AND 6 INCHES BEHIND EQUIPMENT, I.E., CONTROL VALVES, BACKFLOW PREVENTER, CHECK VALVES, FLOOR CONTROL VALVE ASSEMBLIES, ETC.
- ENGINEER.
- BARRIFR 15. MECHANICAL T-TAPS ARE NOT PERMITTED ON NEW CONSTRUCTION.
- 16. PROVIDE AUTOMATIC AIR VENTS AT ALL HIGH POINTS IN THE WET PIPE SPRINKLER SYSTEMS. PROVIDE AIR VENTS TO VENT AT LEAST 95% OF THE VOLUMETRIC CAPACITY OF THE SYSTEM. DESIGN THE SYSTEM SUCH THAT THE NUMBER OF VENTS IS REDUCED (I.E. CONNECT BRANCHLINES OR PROVIDE A CROSS MAIN AT THE PEAK). PROVIDE PIPING TO DISCHARGE TO A SPLASH BLOCK AT THE EXTERIOR OF THE BUILDING
- PERMANENTLY CONNECTED TO THE WATER SUPPLY SYSTEM AND THE ISOLATION VALVE OPENED.
- 18. PROVIDE LABELING ON THE SURFACES OF ALL FEED AND CROSS MAINS TO SHOW THE PIPE FUNCTION. FOR PIPE SIZES 4-INCH AND LARGER, PROVIDE WHITE PAINTED STENCILED LETTERS AND ARROWS, A MINIMUM OF 2-IN. IN HEIGHT AND VISIBLE FROM AT LEAST TWO SIDES WHEN VIEWED FROM THE FLOOR. FOR PIPE SIZES LESS THAN 4-INCH, PROVIDE WHITE PAINTED STENCILED LETTERS AND ARROWS, A MINIMUM OF 0.75-IN. IN HEIGHT ANDVISIBLE FROM THE FLOOR. LABELING MUST BE IN ACCORDANCE WITH MIL-STD-101.
- 19. MARKING AND IDENTIFICATION OF CONTROL VALVES, DRAINS, TEST CONNECTIONS AND OTHER EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13.

## CONTRACTOR SHOP DRAWINGS AND HYDRAULIC CALCULATIONS 1. INSTALLING CONTRACTOR SHALL PROVIDE THE FINAL SPRINKLER SYSTEM LAYOUT INCLUDING HYDRAULIC CALCULATIONS

- 2. THE CONTRACTOR SHALL HYDRAULICALLY CALCULATE EACH SPRINKLER SYSTEM ZONE, INCLUDING SUB ZONES WITHIN EACH ZONE, USING THE WATER SUPPLY FROM THE STREET AS THE SOURCE OF THE SUPPLY. ALL CALCULATIONS SHALL CONFORM TO NFPA 13 REQUIREMENTS. EACH SYSTEM SHALL BE CALCULATED TO PROVIDE AN EIGHT (8) PERCENT SAFETY FACTOR BENEATH THE WATER SUPPLY FLOW CURVE AT THE SPRINKLER SYSTEM DEMAND POINT. INCLUDE ALL FITTINGS AND VALVES. HYDRAULIC CALCULATIONS SHALL BE BASED ON THE MOST RECENT FIRE PUMP TEST REPORT.
- 3. PROVIDE ONE HYDRAULIC CALCULATION FOR THE MOST DEMANDING AND/OR MOST REMOTE AREA FOR EACH SPRINKLER RISER.
- SUCH AS ROOM DESIGN MUST NOT BE USED.
- CONTRACTOR. NEW FIRE HYDRANT FLOW TESTS MUST BE PERFORMED IN ACCORDANCE WITH NFPA 291.
- 6. FINAL FIRE PROTECTION SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE DESIGN SHALL BE APPROVED BY THE LOCAL AUTHORITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 7. ALL PIPING SHALL BE SIZED BASED ON CONTRACTOR HYDRAULIC CALCULATIONS. PIPING SHOWN ON PLANS IS FOR COORDINATION PURPOSES ONLY.
- 8. HYDRAULIC CALCULATIONS MUST UTILIZE LATEST PUMP PERFORMANCE DATA



SHEET 44 OF 86

# **APPENDIX CC**

# **REFERENCE DOCUMENTS**

I





# GUARANTEE

# NAME OF PROJECT:

# NEW MAINTENANCE FACILITIES - POLB

ADDRESS OF PROJECT:

#### 725 HARBOR PLAZA LONG BEACH, CA 90802

TYPE OF SYSTEM APPLIED:

THERMOPLASTIC MEMBRANE ROOFING SPEC - 07540

With respect to the items referenced above:

LETNER ROOFING COMPANY guarantees under the conditions hereinafter set forth that during a period of  $\underline{two}(2)$  year(s) from date of acceptance of substantial completion by the owner, said entity will at its own expense make any repairs that may become necessary to maintain a watertight condition.

# THIS GUARANTEE EXPRESSLY DOES NOT APPLY TO ANY OF THE FOLLOWING CONDITIONS, AND THE FOLLOWING CONDITIONS VOID THIS GUARANTEE:

The guarantee will not apply to injury from any cause other than ordinary wear and tear by the elements. This guarantee is not applicable to any damages caused by and other parties, damages caused by virtue of the general building design and construction of the project, damages caused by metal work or drainage problems of any type, and *LETNER ROOFING COMPANY* does not assume responsibility by this document for injury to any internal building contents or for injury to any other portion of the project except that expressly referred to herein.

Specifically, this guarantee is void if persons other than *LETNER ROOFING COMPANY* make any changes, alterations, or repairs to any of the roofing surfaces.

In order for this guarantee to apply, written notification of any claimed deficiency or request for compliance with this guarantee must be made in writing to *LETNER ROOFING COMPANY* promptly and immediately after location of any claimed defect or negligence, and this guarantee shall not apply to any portion or part of the project or units not specifically and particularly manufactured, installed or applied by *LETNER ROOFING COMPANY*.

1490 N. Glassell Orange, CA 92867

e-mail: letner@letner.com www.letner.com 714.633.0030 Fax 714.633.0280 If any repairs, maintenance, or alterations to any portion of the roofing surface as identified above are necessary for any reason, *LETNER ROOFING COMPANY* must be provided the opportunity to perform said alterations, repairs or maintenance, and must be reimbursed at their normal charge for services not covered under this guarantee. The use by any other firm, person or entity to perform any services relating to the roof, or to a portion thereof, negates and voids this guarantee.

To the fullest extent permitted by applicable law, *LETNER ROOFING COMPANY* disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose, or limits such warranty to the duration and to the extent of the express warranty represented by this guarantee. *LETNER ROOFING COMPANY* exclusive responsibility and liability under this guarantee is to make repairs that may be necessary to maintain the roofing system in a watertight condition in accordance with the obligations which are *LETNER ROOFING COMPANY'S* responsibility under this guarantee.

LETNER ROOFING COMPANY and it's affiliates will not be liable for any incidental or consequential damages to the structure (upon which the roofing system is affixed) or its contents, loss of time or profits or any inconvenience. LETNER ROOFING COMPANY and it's affiliates shall not be liable for any damages which are based upon negligence, breach of warranty, strict liability or any other theory of liability other than the consequential damages shall not be recoverable even if the remedies or the actions provided for herein fail of their purpose.

This guarantee shall not apply to acts of God.

Executed this	<u>29<sup>th</sup>_</u> day of	<u>August, 2013</u> b	y Stuart Hein	_on behalf of	LETNER	ROOFING COMPA	NY.
Signed By:	Sfilart Hein				Title: <u>Corp</u>	o. Secretary	

# Sika Sarnafil Photovoltaic Installation/Warranty Continuation Policy

# **INTRODUCTION**

Rooftops are an attractive platform for the installation of solar photovoltaic (PV) systems. Sika Sarnafil has for many years been an advocate of roof mounted PV systems. When considering the installation of a PV system on your roof, it is important to remember that:

- a) The roof's function is first and foremost to protect the building from the elements
- b) A PV installation imposes numerous additional loads on the roof, during installation and throughout its service life
- c) The investment horizon for a typical PV installation is quite lengthy. The remaining service life of the roof assembly should at least match that of the PV system.

The enclosed booklet "Successful Rooftop Photovoltaics: How to achieve a high-quality, well maintained, compatible rooftop PV system", prepared by the Center for Environmental Innovation in Roofing (CEIR) provides useful information and advice.

The following guidelines and requirements have been developed to help you realize the expected service life of your Sika Sarnafil roof system should you elect to proceed with the installation of PV system.

# ADMINISTRATIVE REQUIREMENTS

Any photovoltaic (PV) installation on an existing Sika Sarnafil roofing system should be coordinated through Sarnafil Services Inc. Sarnafil Services can provide a variety of Solar PV solutions. By purchasing your PV system through Sarnafil Services you insure ongoing coverage under your existing Sika Sarnafil warranty, avoid the risk of voiding the warranty and are exempt from all the fees noted below.

In the event the PV system is not supplied by Sarnafil Services Inc., the following steps must be followed and conditions met in order for Sika Sarnafil to consider continuing the coverage under the Sika Sarnafil warranty issued on the original roof assembly.

• Due to the significant roof top traffic during the installation of a PV system and the associated increased potential for leaks, the existing Sika Sarnafil warranty coverage will



Sika Sarnafil, A Division of Sika Corporation, 100 Dan Road, Canton, MA 02021 Tel. 800-451-2504, Fax: 781-828-5365, www.sikacorp.com



# **TECHNICAL REQUIREMENTS**

In order for Sika Sarnafil to consider continuing its warranty on an existing Sika Sarnafil roofing system following the installation of a PV system, the Sika Sarnafil System must at least meet the following minimum technical requirements:

Sarnafil G410 or S327, 60 mil membrane thickness or greater, Approved Cover Board<sup>1</sup> under the membrane, membrane must be no more than 5 years old

- All penetrations are to be round in shape and be able to be flashed a minimum of 8" above the finished roof level.
- Sika Sarnafil G410 or S327 slip sheets of a minimum 60 mil thickness must be used under the solar racking or mounting system, each ballast pan, rail or other components in contact with the roofing membrane.
- No Self Adhered, welded or other similar attachment methods of securing the PV system directly on to the membrane will be allowed without Sika Sarnafil's written approval.

### **Recommendations:**

- It is strongly recommended that the PV installer ensure with the owners' architect or designer that the PV system does not affect the roof system's UL or other code approvals, insurance and other ratings
- It is strongly recommended that the PV installer ensure with the owners' architect or designer that the additional weight of a PV system can be accommodated by the building structure, taking into account all dead and live loads.
- It is strongly recommended that the PV installer ensure with the owners' architect or designer that the roof assembly be able to resist the installation construction traffic, the dead load, and the increased maintenance traffic.
- The solar system must not impede drainage from the roof surface.
- The solar system shall not impede repairs of the roof membrane throughout the system's service life
  - Any PV components hindering leak investigations and/ or repairs are to be disconnected and removed at the owner's expense
  - The owner will be responsible for mitigating any hazards (including but not limited to electrical) and insuring that areas to be investigated and/or repaired are safe

Contact Sika Sarnafil for a list of approved cover boards





# Sarna

Class Roofing and Waterproofin

# 15 Year System Warranty

#### Warranty Serial No.: 0000011249-305913.1

SIKA SARNAFIL ROOFING WARRANTY FOR COMMERCIAL BUILDING

Building Owner:	City of Long Beach						
Building Name:	Port of Long Beach New Maintenance Facilities						
Building Address:	725 Harbor Plaza						
	Long Beach, CA 90802	-					
Applicator:	Telephone: (714) 633-0030						
Date of Substantial Cor	npletion: 10/4/2013 Date of Inspection: 10/8/2013 By: Jaime Amaya						

Building/Area Name: Port of Long Beach New Maintenance Facilities

Used As: COMMERCIAL - OFFICE BUILDINGS Area Warranted: 33,000 sq. ft.

Sika Sarnafil warrants to the owner of the building described above ("Owner"), that subject to the terms, conditions, and limitations stated herein, Sika Sarnafil will repair leaks originating from the Sarnafil Roofing Membrane, Sarnatherm Insulation or Sika Sarnafil Roofing Accessories installed according to Sika Sarnafil's Technical instructions by a Sika Sarnafil Authorized Roofing Applicator for a period of 15 (fifteen) years commencing with the date of substantial completion of the installation of the Roofing Membrane.

#### TERMS, CONDITIONS, LIMITATIONS

- 1. Owner shall notify Sika Sarnafil on the first business day immediately following the discovery of each leak in the Roofing System and confirm in writing within one week
- and the internet of the next beam of the instruction of the i

  - Loss of integrity of the building envelope and, or structure including, but not limited to partial or complete loss of roof decking, wall siding, windows, doors or other envelope components or from roof damage by wind blown objects, or: Condensation accumulates in the roof assembly due to incorrect design or due to a reduction in the vapor barrier effectiveness, or: (g)
  - (h)
  - (i) A significant change in the use of the building by the Owner or his lessee expected by Sika Sarnafil to affect the Roofing Membrane as originally installed, or:
- installed, or:
  (j) The Roofing Membrane is damaged by contaminates and/or spills, or:
  (k) Deficient design applied to the Roofing Membrane such as membrane contact with incompatible materials and/or substrates, or:
  (l) The Owner fails to comply with every term and condition stated herein.
  During the period of this warranty, Sika Sarnafil, its agents and employees, shall have free access to the roof during regular business hours.
  Should the Roofing Membrane be concealed, the cost of exposure of the Roofing Membrane for purposes of Sika Sarnafil's investigation and/or repair, such as removal and replacement of any paving or overburden, shall be the Owner's responsibility.
  Sika Sarnafil's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
- 6
- 8
- Sika Samafil shall have no obligation under this warranty until all invoices for materials, installation, and services have been paid for in full.
  Sika Samafil shall have no obligation under this warranty until all invoices for materials, installation, and services have been paid for in full.
  Sika Samafil's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
  This warranty is extended solely and exclusively to the owner of the Building at the time the Samafil Roofing System is installed. It does not extend nor is it otherwise assignable or transferable to any other party unless approved in advance and in writing by Sika Samafil and the costs to process the transfer and to inspect and repair the Sika Samafil Roofing System, if necessary, are paid for by the original owner.
  The Owner and Sika Samafil hereby agree that any and all claims (contractual, statutory, common law or otherwise), disputes, or suits that in any way, directly or indirectly, arise out of or relate to this Warranty, or the alleged breach thereof, or to any contracts between the owner and Sika Samafil Roofing System, shall first be submitted to non-binding mediation before a neutral mediator jointly selected by the parties or, in the absence of agreement, as designated by the American Arbitration Association. In the absence of resolution by mediation, all such claims shall be governed by, and construed and enforced in accordance with, the laws of the Commonwealth of Massachusetts.
  THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE REMOEDIES STATED HEREIN ARE EXCLUSIVE REMEDIES AND SIKA SARNAFIL SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY INDIRECT.
  CONSEQUENTIAL OR INCIDENTAL DAMAGES INCLUDING THE PRESENCE OF MOLDS, FUNGI, 9.
- 10.

NO REPRESENTATIVE OF SIKA SARNAFIL HAS AUTHORITY TO MAKE ANY REPRESENTATIONS OR PROMISES EXCEPT AS STATED HEREIN.

This Warranty Is Effective From: 10/4/2013 through: 10/3/2028

my Willo Nancy Wilbar Technical Administrative Assistant

10/30/2013 Date:

Hian Whelan

10/30/2013 Date:

Brian J. Whelan Senior Vice President



Sika Sarnafil, A Division of Sika Corporation, 100 Dan Road, Carlon, NA 10221 Port of Long Beach Tel.: 800-451-2502, Fax: 781-828-5365, www.sikacorp.com Tel.: 800-451-2502, Fax: 781-828-5365, www.sikacorp.com

THE WORK.

Page 1 of 1

	Job 732	
Submittal #:	07540	- 605 - 200
Reviewed by:	NB	Date: 11/25/13

SJA CONSTRUCTION INC. SUBMITTAL REVIEWED

THIS SUBMITTAL HAS BEEN REVIEWED BY CONTRACTOR FOR CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND FOR COORDINATION OF