

PROJECT MANUAL
INCLUDING CONSTRUCTION SPECIFICATIONS

for

BP-477
APM OPERATING SYSTEM REPLACEMENT (OS)
FOR AIRSIDE 2 AND 4

ORLANDO INTERNATIONAL AIRPORT

Orlando, Florida 32827

CONTRACT DOCUMENTS

VOLUME 1A
CONTRACT, BOND, INSURANCE AND AUTHORIZATION DOCUMENTS



GREATER ORLANDO AVIATION AUTHORITY

Documents Prepared and Submitted by:

Lea & Elliott
5200 Blue Lagoon Dr., Suite 250
Miami, FL 33126
Phone: (305) 500-9390

CONTRACT DOCUMENTS FOR

BP 477

APM OPERATING SYSTEM REPLACEMENT (OS) FOR AIRSIDE 2 AND 4

AT THE ORLANDO INTERNATIONAL AIRPORT

GREATER ORLANDO AVIATION AUTHORITY

AND

MITSUBISHI HEAVY INDUSTRIES AMERICA, INC.

TABLE OF CONTENTS

Division	Section Title
VOLUME 1A – CONTRACT, BOND, INSURANCE AND AUTHORIZATION DOCS	

00 52 23	PHASE 1 CONTRACT AGREEMENT
00 61 13	PERFORMANCE AND PAYMENT BOND AND INSURANCE DOCUMENTS
	PERFORMANCE AND PAYMENT BOND COVER SHEET
00 61 13.13	PERFORMANCE BOND FORM-f
00 61 13.16	PAYMENT BOND FORM-f
00 61 13.19	PERFORMANCE AND PAYMENT BOND CERTIFICATION FORM
00 62 16	CERTIFICATE OF INSURANCE FORM-f
	CONTRACTOR'S CERTIFICATE OF INSURANCE
	AVIATION AUTHORITY BOARD MEMO (authorization document)
Appendix D	PHASE 1 PRICE FORMS

Volume 1B - DIVISION 0 SPECIFICATIONS AND FORMS - provided electronically	
--	--

00 72 53	GENERAL CONDITIONS OF THE DESIGN BUILD CONTRACT
00 73 19.13	HAZARDOUS MATERIALS
00 73 93	SPECIAL CONDITIONS REGARDING CONSTRUCTION AT AIRPORT FACILITIES
00 73 93.01	SECURITY AND BADGING AT AIRPORTS
00 73 93.02	FIS/CBP ACCESS PROCEDURES AT OIA
00 73 93.03	SPECIAL PROJECT PROCEDURES FOR SENSITIVE SECURITY INFO
00 62 76.19	PARTIAL RELEASE FOR REDUCTION OF RETAINAGE
00 62 93	CONSTRUCTION ADMINISTRATION FORMS
00 65 19.29	FINAL RELEASE FORM-f
00 65 19.33	SUBCONTRACTOR FINAL RELEASE FORM

VOLUME 1C - DIVISION 01 SPECIFICATIONS - provided electronically	
---	--

01 11 00	Summary of Work
01 25 00	Substitution Procedures

BP-477 (DBOM) APM OPERATING SYSTEM (O/S) REPLACEMENT
FOR AIRSIDES 2 and 4

TABLE OF CONTENTS

Division	Section Title
01 29 73	Schedule of Values
01 31 00	Project Management and Coordination
01 31 14.13	System Interruptions/Utility Outage Notification Procedures
01 31 19	Project Meetings
01 32 13	Scheduling of Work
01 32 33	Photographic Documentation
01 33 23	Shop Drawings, Product Data and Samples
01 33 29	Sustainable Material Content Forms
01 35 46	Indoor Air Quality
01 42 00	References
01 43 39	Visual Mock-Up Requirements
01 45 00	Quality Control
01 50 00	Temporary Facilities and Controls
01 55 30	Requirements for use of Canal Road
01 60 00	Product Requirements
01 71 23	Field Engineering
01 73 29	Cutting and Patching
01 74 19	LEED V4 Construction Waste Management and Disposal
01 74 23	Final Cleaning
01 78 00	Closeout Submittals
01 81 13.14	Sustainable Design Requirements - LEED v4 BD+C
01 91 13	General Commissioning Requirements
01 91 15	Facility Exterior Enclosure Commissioning

VOLUME 1D Special Provisions - provided electronically

1. INTRODUCTION.....	1-1
2. DEFINITIONS, TERMS AND ABBREVIATIONS.....	2-1
3. STATEMENT OF WORK.....	3-1
3.1 PHASE 1 WORK SCOPE.....	3-1
3.1.1 Contractor's Responsibilities.....	3-1
3.1.2 Authority's Responsibilities.....	3-2
3.2 PHASE 2 OPERATIONS AND MAINTENANCE WORK SCOPE.....	3-2
4. PROJECT WORK SCHEDULE.....	4-1
4.1 NOTICE TO PROCEED.....	4-1
4.1.1 Airside 2 and 4 APM Systems.....	4-1
4.2 AVAILABILITY DATES.....	4-2
4.3 CONTRACT TIME.....	4-4
4.4 OTHER SCHEDULES.....	4-4
5. REFERENCE DATA/REFERENCE DRAWINGS.....	5-1
6. PROJECT MANAGEMENT.....	6-1
6.1 MANAGEMENT PROGRAM & ORGANIZATION.....	6-1
6.1.1 Project Management Plan.....	6-2
6.1.2 Network Analysis.....	6-3
6.1.3 Work Schedule.....	6-4
6.1.4 Network Analysis and Work Schedule Format.....	6-6
6.1.5 Submittal Schedule.....	6-6
6.1.6 Project/Progress Meetings.....	6-6
6.1.7 Pre-Construction/Pre-Installation Conference.....	6-7
6.1.8 Monthly Progress Report.....	6-7
6.1.9 Measures for Noncompliance.....	6-9
6.1.10 As-Built Documentation.....	6-9
6.1.11 Patent Rights and Data Rights.....	6-15
6.1.12 Not Used.....	6-15
6.1.13 Design/Construction Interface Document.....	6-15
6.1.14 Photography.....	6-15
6.1.15 Temporary Facilities.....	6-16
6.1.16 Air and Water Pollution.....	6-17
6.1.17 Construction Operations.....	6-18
6.1.18 Work Site Coordination and Conditions.....	6-18
6.1.19 Correspondence Controls.....	6-18
6.2 QUALITY CONTROL AND ASSURANCE PROGRAM.....	6-19

6.2.1	Quality Management.....	6-19
6.2.2	Configuration Management	6-20
6.2.3	Control of Purchases.....	6-21
6.2.4	Construction, Manufacturing, Installation and Testing.....	6-21
6.2.5	Software Quality Assurance.....	6-22
6.3.	SYSTEM ASSURANCE PROGRAM	6-23
6.3.1	System Assurance Monitoring Plan.....	6-23
6.3.2	System Maintainability.....	6-23
6.4.	SYSTEM SAFETY AND SECURITY PROGRAMS.....	6-24
6.4.1	System Safety Program	6-24
6.4.1.1	System Safety Program Plan (SSPP).....	6-24
6.4.1.2	Hazard Identification, Analysis and Resolution.....	6-26
6.4.1.3	Safety Case Document Files.....	6-26
6.4.1.4	Safety Certification	6-27
6.4.1.5	Construction and Installation Safety	6-28
6.4.2	System Security Program	6-29
6.5.	OPERATIONS AND MAINTENANCE REQUIREMENTS	6-29
6.5.1	System Operations Plan	6-30
6.5.1.1	Not Used.....	6-31
6.5.2	Maintenance Plan.....	6-31
6.5.3	Operations and Maintenance Management Plan.....	6-32
6.5.4	Operating Manuals.....	6-33
6.5.5	Maintenance Manuals	6-33
6.5.6	Rule Book.....	6-34
6.5.7	Training Program	6-35
6.5.8	Form and Updates of Plans and Manuals	6-36
6.6.	MAINTENANCE OF TRAFFIC.....	6-37
7.	MEASUREMENT AND PAYMENT FOR PHASE 1 WORK	7-1
7.1	GENERAL.....	7-1
7.2	PROGRESS PAYMENTS	7-1
7.2.1	Schedule of Values Requirements.....	7-1
7.2.2	Not Used.....	7-4
7.2.3	Application for Payment.....	7-4
7.2.4	Not Used.....	7-4
7.3.	PAYMENTS FOR CHANGES.....	7-4
7.4.	No ECONOMIC PRICE ADJUSTMENT for Phase 1	7-4
7.5.	FINAL PAYMENT FOR PHASE 1	7-4
8.	REVIEW, VERIFICATION, AND ACCEPTANCE	8-1
8.1	OVERVIEW.....	8-1
8.1.1	Fixed Facility Verification	8-3
8.1.2	Operating System Verification	8-3
8.1.3	System Verification.....	8-3
8.1.4	Verification Plans and Methodology	8-3

	8.1.4.1	Operating System Compliance Verification Matrix (SCVM)	8-3
8.1.5		Verification Process	8-5
8.1.6		Notifications, Briefings, and Documentation	8-5
8.1.7		Inspection and Audit Rights	8-6
8.1.8		Design Documents and Samples	8-6
8.2.		DESIGN REVIEWS	8-6
8.2.1		General Requirements for Design Reviews	8-6
	8.2.1.1	Submittal Review Procedures	8-7
8.2.2		Types of Design Reviews	8-7
8.2.3		New Designs and Product Modifications	8-8
8.2.4		Time for Reviews	8-9
8.2.5		Operating System Design Review Submittals	8-9
8.2.6		Fixed Facility Design Review Submittals	8-13
	8.2.6.1	Maintenance and Storage Facility	8-15
8.3.		CONTRACTOR INTERNAL VERIFICATION	8-15
8.3.1		Qualification Testing	8-16
	8.3.1.1	Waiver of Tests	8-16
	8.3.1.2	For Contract Compliance	8-17
8.3.2		Factory Test and Inspection	8-17
	8.3.2.1	Vehicles	8-18
	8.3.2.2	Automatic Train Control Equipment	8-19
	8.3.2.3	Electrical Power System Equipment	8-19
	8.3.2.4	Central Control Equipment	8-20
	8.3.2.5	Maintenance Equipment	8-20
8.3.3		Post-Installation Checkout	8-20
8.3.4		On-Site Integration Test and Inspection	8-20
	8.3.4.1	Guideway Surfaces and Guideway-Mounted Equipment	8-21
	8.3.4.2	Vehicles	8-21
	8.3.4.3	Automatic Train Control System	8-22
	8.3.4.4	Communications System Equipment	8-22
	8.3.4.5	Electrical Power System Equipment	8-23
	8.3.4.6	Station Equipment	8-24
	8.3.4.7	Maintenance and Storage Facility Equipment	8-24
8.4.		FIXED FACILITY VERIFICATION	8-24
8.5.		OPERATING SYSTEM VERIFICATION	8-25
8.6.		SYSTEM DEMONSTRATION	8-26
8.7.		SYSTEM ACCEPTANCE	8-26
	8.7.1	Acceptance of Work for Airside 2 and Airside 4 by Lane	8-26
	8.7.1.1	Partial Completion of Airside 2 Lane 4800	8-27
	8.7.1.2	Partial Substantial Completion of Airside 2	8-27
	8.7.1.3	Partial Completion of Airside 4 Lane 4600	8-27
	8.7.1.4	Acceptance of Airside 4 and the Complete System	8-28
8.7.2		Partial Completion and Substantial Completion	8-28
8.7.3		Final Acceptance of the Work	8-29
8.7.4		Partial Verification of Airside 2	8-29

9. NOT USED.....	9-1
10. PHASE 1 WARRANTY PROVISIONS	10-1
10.1 NOT USED.....	10-1
10.2 CONTRACTOR'S OBLIGATIONS.....	10-1
10.3 ADDITIONAL WARRANTIES.....	10-2
10.4 REMEDIES AVAILABLE TO THE AUTHORITY	10-3
10.5 WARRANTY OF CONSTRUCTION PROVIDED BY CONTRACTOR.....	10-4
10.6 WARRANTY SUBMITTAL REQUIREMENTS	10-5
10.6.1 Form of Submittal.....	10-5
10.6.2 Preparation of Submittal.....	10-5
10.6.3 Time of Submittal.....	10-5
11. PHASE 1 CONTRACT DATA REQUIREMENTS LIST (CDRL).....	11-1
11.1 DEFINITIONS AND USE	11-1
11.2 REQUIREMENTS FOR PREPARATION AND REVIEW OF CDRL SUBMITTALS.....	11-1
11.2.1 Format for Submittals.....	11-1
11.2.2 Identification Requirements.....	11-2
11.2.3 CDRL Format	11-2
11.2.4 Supplemental Submittals	11-3
11.2.5 Contractor Responsibilities.....	11-3
11.2.6 OAR's and DOC's Review	11-3
11.2.7 Documentation of CDRL Reviews and Contractor Responses.....	11-4
 ATTACHMENT A - CONTRACT DATA REQUIREMENTS LIST (CDRL).....	 A-1
 ATTACHMENT B - PRELIMINARY OPERATING SYSTEM COMPLIANCE VERIFICATION MATRIX.....	 B-1
 ATTACHMENT C - PRELIMINARY OPERATING SYSTEM ACCEPTANCE PLAN.....	 C-1
 ATTACHMENT D – GOAA EXISTING SYSTEM SAFETY PROGRAM PLAN (SSPP)	 D-1

VOLUME 1E Technical Provisions — provided electronically

1	Introduction
2	Definitions, Terms and Abbreviations
3	System Description
4	System Interfaces and Coordination
5	System Operating Criteria
6	System Environmental Design Requirements
7	Safety and Security Technical Requirements
8	Operating System Service Availability
9	Vehicle
10	Power Distribution System and Backup Power Supplies
11	Automatic Train Control (ATC)
12	Communications
13	Guideway Equipment
14	Station Equipment
15	Maintenance Facilities and Equipment
16	Corrosion Control and Grounding
17	Electrical Materials and Workmanship
18	Codes and Standards
Appendix A	Division of Responsibilities/Work Breakdown Structure

**VOLUME 1F – MASTER DESIGN GUIDELINES
SPECIFICATIONS DIVISIONS 02-33 - PROVIDED ELECTRONICALLY**

DIVISION 02 - EXISTING CONDITIONS

02 31 23	Electromagnetic Investigations
02 25 16.23	Existing Concrete Assessment

DIVISION 03 - CONCRETE

03	Concrete – Design Intent
----	--------------------------

DIVISION 04 - MASONRY

04	Masonry – Design Intent
----	-------------------------

DIVISION 05 - METALS

05	Metals – Design Intent
----	------------------------

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06	Wood, Plastics and Composites – Design Intent
----	---

BP-477 (DBOM) APM OPERATING SYSTEM (O/S) REPLACEMENT
FOR AIRSIDES 2 and 4

TABLE OF CONTENTS

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07	Thermal and Moisture Protection – Design Intent
07 22 00	Roof and Deck Insulation
07 51 00	Built-up Bituminous Roofing
07 52 00	Modified Bituminous Membrane
07 60 00	Flashing and Sheet Metal
07 72 00	Roof Accessories and Unit Skylights
07 90 00	Joint Protection
	FM Global Checklist for Roofing Systems

DIVISION 08 - OPENINGS

08	Openings – Design Intent
----	--------------------------

DIVISION 09 – FINISHES

09	Finishes – Design Intent
09 68 16	Sheet Carpeting
	GOAA Carpet Standards

DIVISION 10 - SPECIALTIES

- 10 Specialties – Design Intent
 - GOAA Door & Elevator FQID Tags
 - Current Signage Design Guidelines
 - Symbol Legend 2016

DIVISION 11 - EQUIPMENT

- 11 Equipment – Design Intent

DIVISION 12 – FURNISHINGS

- 12 Furnishings – Design Intent
 - 12 93 00 Site Furnishings

DIVISION 13 – SPECIAL CONSTRUCTION

- 13 Special Construction – Design Intent

DIVISION 14 - CONVEYING EQUIPMENT

- 14 Conveying Equipment – Design Intent
 - 14 21 00 Traction Elevators
 - 14 24 00 Hydraulic Elevators
 - 14 31 00 Escalators

DIVISION 21 - FIRE SUPPRESSION

- 21 05 00 Common Work Results Fire-Suppression System
- 21 05 16 Expansion Fittings and Loops
- 21 05 23 General-Duty Valves
- 21 05 29 Hangars and Supports
- 21 05 53 Identification Fire Suppression Piping
- 21 13 00 Fire Suppression Sprinkler System

DIVISION 22 - PLUMBING

- 22 05 00 Common Work Results for Plumbing
- 22 05 13 Common Motor Requirements for Plumbing Equipment
- 22 05 16 Expansion Fittings and Loops for Plumbing Piping
- 22 05 19 Meters and Gages for Plumbing Piping
- 22 05 23 General-Duty Valves for Plumbing Piping
- 22 05 29 Hangers and Supports for Plumbing Piping and Equipment
- 22 05 48 Vibration Controls for Plumbing Piping and Equipment
- 22 05 53 Identification for Plumbing Piping and Equipment
- 22 07 00 Plumbing Insulation

22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 11 23	Domestic Water Pumps
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 13 23	Stormwater Wet Well
22 13 29.01	Storm Sewerage Pumps 1750 RPM
22 13 29.02	Storm Sewerage Pumps 1600 RPM
22 13 29.03	Storm Sewerage Pumps Controllers
22 14 13	Facility Storm Drainage Piping
22 14 23	Storm Drainage Piping Specialties
22 14 29	Sump Pumps
22 33 00	Electric Domestic Water Heaters
22 37 00	Potable Water Cabinet
22 40 00	Plumbing Fixtures

DIVISION 23 – HEATING, VENTILATING AND AIR CONDITIONING (HVAC)

23 00 10	Basic HVAC Requirements
23 05 00	Common Work HVAC
23 05 13	Common Motor Requirements for HVAC
23 05 14	Variable Frequency Motor Controllers & Magnetic Motor Controllers
23 05 16	Expansion Fitting and Loops for HVAC Piping
23 05 17	Sleeves and Sleeve Seals for HVAC Piping
23 05 18	Control Wiring
23 05 19	Meters and Gages for HVAC Piping
23 05 23	General Duty Valves for HVAC Piping
23 05 29	Hangers and Supports for HVAC Piping and Equipment
23 05 31	Sleeves and Sleeve Seals for HVAC Piping
23 05 48	Vibration Controls for HVAC
23 05 53	Identification for HVAC Piping and Equipment
23 05 80	Air Control and Accessories
23 05 93	Testing, Adjusting and Balancing for HVAC
23 07 00	HVAC Insulation
23 09 13	Instrumentation and Controls for HVAC
23 09 93	Sequence of Operations for HVAC
23 11 13	Facility Fuel-Oil Piping
23 21 13	Hydronic Piping
23 21 13.15	Pre-insulated Underground Piping Systems
23 21 23	Hydronic Pumps

BP-477 (DBOM) APM OPERATING SYSTEM (O/S) REPLACEMENT
FOR AIRSIDES 2 and 4

TABLE OF CONTENTS

23 21 30	HVAC Water Management Pck & Pumping Equip.
23 23 00	Refrigerant Piping
23 25 00	HVAC Water Treatment
23 31 00	HVAC Ducts and Casings
23 31 01	Fabricated Ductwork
23 33 00	Air Duct Accessories
23 33 19	Duct Silencers
23 34 00	HVAC Fans
23 36 00	Air Terminal Units
23 37 13	Diffusers, Registers, And Grilles
23 41 00	Particulate Air Filtration
23 64 16	Centrifugal Water Chillers
23 65 00	Cooling Towers
23 73 13	Modular Indoor Central Station Air Handling Units
23 81 26	Split System Air Conditioners
23 82 16	Air Coils
23 82 19	Fan Coil Units
23 82 23	Energy Recovery Ventilator Unites

DIVISION 26 - ELECTRICAL

26 01 60	Operation and Maintenance Manuals
26 05 01	Basic Electrical Requirements
26 05 02	Airfield General Provisions
26 05 03	Submittals
26 05 04	Substitutions
26 05 05	Selective Demolition
26 05 06	Airfield Safety Procedures
26 05 12	Airfield OUC Underground Electrical
26 05 19	Low Voltage Electrical Connectors and Cables
26 05 26	Grounding and Bonding
26 05 29	Hangers and Supports
26 05 33	Conduit
26 05 33.16	Boxes for Electrical Systems
26 05 43	Underground Ducts and Raceways
26 05 53	Identification for Electrical Systems
26 05 73	Overcurrent Protection Device Coordination Study
26 08 10	Tests and Performance Verification
26 08 20	Demonstration of Completed Electrical Systems
26 09 23	Lighting Control Devices

26 09 43	Network Lighting Controls
26 22 00	Low Voltage Transformers
26 22 16	Low Voltage Buck-Boost Transformers
26 23 00	Low Voltage Transfer Switchgear
26 24 13	Switchboards
26 24 16	Panelboards
26 24 16.13	Distribution Panelboards
26 27 13	Electrical Metering and Monitoring System
26 27 16	Electrical Cabinets and Enclosures
26 27 26	Wiring Devices
26 28 16	Enclosed Switches and Circuit Breakers
26 32 13.06	Outdoor Engine Generator, Subbase Tank
26 32 13.09	Indoor Engine Generator
26 33 53	Static Uninterruptible Power Supply
26 36 23	Automatic Transfer Switches
26 41 13	Lightning Protection System
26 43 13	Surge Protective Devices
26 51 00	Lighting Fixtures, Lamps, Ballasts
26 53 00	Exit Signs
26 56 00	Exterior Lighting
26 56 13	Lighting Poles and Standards
DIVISION 27 - COMMUNICATIONS	
27 01 05	Investigation of Existing Communication Systems
27 05 00	Common Work Results for Communications
27 05 07	Submittals for Communications
27 05 26	Grounding and Bonding for Communications
27 05 29	Hangars and Supports for Communications
27 05 33	Conduit and Backboxes for Communications
27 10 00	Structured Cabling
	Attachment 0: General Labeling Guidelines
	Attachment 1: Work Area Telecommunications Outlet
	Attachment 2: Labeling Backbone Fiber Optic Cables
27 51 13	Paging System Extension
27 53 13	Clock System Extension
DIVISION 28 - ELECTRONIC SAFETY AND SECURITY	
28 01 05	Investigation of Existing Electronic Safety and Security Systems
28 05 00	Common Work Elements For ESS

28 05 07	Submittals for ESS
28 05 26	Grounding and Bonding for ESS
28 05 29	Hangars and Supports for ESS
28 13 00	Access Control Extension
28 23 00	Video Surveillance System Extension
28 31 00	Fire Detection and Alarm System Extension
	GOAA Camera Guide

DIVISION 32 - EXTERIOR IMPROVEMENTS

32	Exterior Improvements – Design Intent
32 13 15	Concrete Pavement
32 13 73	Concrete Paving Joint Sealant
32 14 00	Unit Paver
32 31 19	Decorative Metal Fences and Gates
32 84 00	Landscape Irrigation
32 91 13	Soil Preparation
32 92 00	Turf and Grasses
32 93 00	Plants
32 94 00	Interior Plant
	City of Orlando Plant List

VOLUME 2 - PHASE 2 OPERATIONS AND MAINTENANCE

00 52 23	PHASE 2 CONTRACT AGREEMENT (including Phase 2 Lump Sum Fixed Price Summary)
Appendix E	Completed Pricing Forms For Phase 2 - Operations & Maintenance
00 61 13.19	PHASE 2 INITIAL PERFORMANCE BOND FOR YEARS 1 & 2 (to be provided at Contract execution)
	PARENT COMPANY GUARANTY
	OATH OF SECRETARY FORM
	IRREVOCABLE STANDBY LETTER OF CREDIT FORM
	PHASE 2 PERFORMANCE/PAYMENT BOND CERTIFICATION FORM
	OPERATION AND MAINTENANCE PROVISIONS
	General Conditions (OMGC)
	Specifications (OMS)

VOLUME 3 - REFERENCE DRAWINGS

VOLUME 3 REFERENCE DRAWINGS — provided electronically

**VOLUME 4 - REQUEST FOR PROPOSALS, DESIGN CRITERIA PACKAGE
AND ALL ADDENDA – provided electronically**

ADDENDA 1-33

Request for Proposal

Instructions to Proposers

00 24 16 Proposal Content Requirements – 2 Envelope

00 31 11 Project Directory

00 41 13 Proposal Form-(single-Prime Contract)

00 41 13.15.1 Exhibit A – Schedule of DBE Subcontractor Participation Percentages

00 41 13.15.2 Exhibit A – Schedule of DBE Subcontractor Participation Monetary
Values

00 43 13 Proposal Bond Form

Appendix A Form For Questions and Requests For Clarifications

Appendix B Forms For Corporate Information

Appendix C Not Used

Appendix D Pricing Forms For Phase 1

Appendix E Pricing Forms For Phase 2 - Operations & Maintenance

Appendix F Site Visits To Proposer Selected Sites Form

Appendix G Non-collusion Certificate

VOLUME 5 CONTRACTOR'S PROPOSAL

PROPOSAL ENVELOPE A

PROPOSAL ENVELOPE B – SEE VOLUME 1A and VOLUME 2

PROPOSAL ENVELOPE C

END OF TABLE OF CONTENTS

**SECTION 00 52 53 – CONTRACT AGREEMENT FORM (PHASE 1 & 2)- - AUTHORITY-DESIGN/BUILDER –
STIPULATED SUM**

PHASE 1 CONTRACT AGREEMENT FORM

THIS CONTRACT made and entered into this 22 day of January, in the year 2024, by and between the **GREATER ORLANDO AVIATION AUTHORITY**, hereinafter called the Authority, and **MITSUBISHI HEAVY INDUSTRIES AMERICA, INC.**, hereinafter called the Contractor.

The Contractor, for and in consideration of the Total Phase 1 Contract Price specified below, hereby agrees to furnish all labor, equipment, materials, supplies and services, to complete the Work in conformity with the Contract Documents for "BP-477, APM OPERATING SYSTEM (OS) REPLACEMENT FOR AIRSIDE 2 AND AIRSIDE 4, Orlando International Airport." The Contractor agrees to make payment of all proper charges for labor, equipment, materials, supplies and services, and to defend, indemnify, and hold harmless the Authority in accordance with the Contract Documents. If the Contractor fails to comply with any of the terms of the Contract Documents, the Authority may avail itself of any or all remedies provided in the Contract Documents or in law or equity. The acceptance of final payment by the Contractor shall be considered as a release in full of all claims against the Authority or any of its members, officers, agents, employees or servants, directly or indirectly relating to, arising out of, or by reason of, this Contract, except for those Claims that have been properly raised in accordance with the Contract Documents and specifically identified by the Contractor as unsettled in the final Application for Payment.

The Authority will pay the Contractor for the Work, according to the terms set forth in the Contract Documents the Total Phase 1 Contract Price of ONE HUNDRED SEVENTY-SEVEN MILLION, EIGHT HUNDRED EIGHT THOUSAND, FIVE HUNDRED SEVENTY Dollars (\$177,808,570) subject to approved Contract Modifications, if any.

The Contractor hereby certifies it will utilize the U.S. Department of Homeland Security's Employment Eligibility Verification System, in accordance with the terms governing the use of the system, to confirm the employment eligibility of persons employed by the Contractor, during the term of the Contract, to perform employment duties within Florida. The Contractor specifically represents that it will not discontinue use of the System until every Contract with the Authority has reached Final Completion and all contractual obligations have been fulfilled. The Contractor further certifies that it will include this provision in each Subcontract that involves work for the Authority.

IN WITNESS WHEREOF, the said GREATER ORLANDO AVIATION AUTHORITY has caused this Contract to be executed in its name by its Chief Executive Officer or an Aviation Authority Officer; and the Contractor has caused this Contract to be executed in its name by Darin
Friedmann, its ^{Vice} President, , all on the day and year first above written.

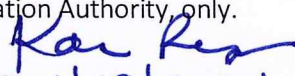
GREATER ORLANDO AVIATION AUTHORITY

By: 

Chief Executive Officer

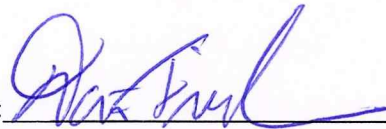
APPROVED AS TO FORM AND LEGALITY

For the use and reliance of the Greater Orlando
Aviation Authority, only.

By: 

Date: 1/19/2024

MITSUBISHI HEAVY INDUSTRIES AMERICA, INC.

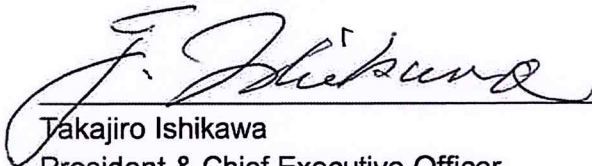
By: 

Vice President

Date: 20th December 2023

POWER OF ATTORNEY

BY THIS DOCUMENT IT IS HEREBY ACKNOWLEDGED, that I, Takajiro Ishikawa, President and Chief Executive Officer, MITSUBISHI HEAVY INDUSTRIES AMERICA, INC., the undersigned, do hereby appoint Darin Friedmann, Vice President, Engineered Systems Division, Mitsubishi Heavy Industries America, Inc., as attorney-in-fact, with full power and authority to exercise on my behalf all of my legal rights and powers with respect to the execution of all contract and other documents and any and all other action and matters concerning the Orlando International Airport BP-477, APM Operating System (OS) Replacement for Airside 2 & Airside 4 project. This Power of Attorney shall become effective immediately, and shall continue in effect until terminated in writing. This Power of Attorney may be revoked by me or my successor, as President and Chief Executive Officer of Mitsubishi Heavy Industries America, Inc., at any time by providing written notice to Mr. Friedmann.

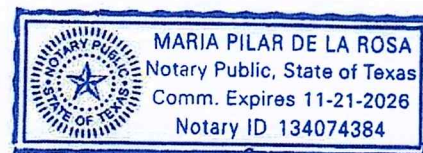
Dated : Dec. 20th, 2023, at Houston, Texas

Takajiro Ishikawa
President & Chief Executive Officer
Mitsubishi Heavy Industries America, Inc.

STATE OF TEXAS
COUNTY OF

In Harris County, on the 20th day of December, 2023, before me, Notary Public in and for the above state and county, personally appeared Takajiro Ishikawa, known to me or proved to be the person whose name is subscribed to the within instrument and acknowledge to me that he executed the same, and that by his signature on the instrument the person executed the instrument.

My Commission Expires :



(SEAL)

NOTARY PUBLIC

PARENT COMPANIES GUARANTEE

This Guarantee is made this 26th day of December, 2023, by Mitsubishi Heavy Industries America, Inc., a corporation organized under the laws of Delaware, by Sumitomo Corporation, and by Sumitomo Corporation of Americas (hereinafter referred collectively to as "Guarantors", and each respectively as a "Guarantor"), in favor of the Greater Orlando Aviation Authority and/or its affiliates, divisions and subsidiaries (collectively "GOAA"), in order to induce GOAA to enter into the Phase 2 Contract for Operations and Maintenance of the Automated People Mover ("APM") Operating Systems for Airside 2 and Airside 4 (RFP No.: BP-00477), with Crystal Mover Services, Inc. ("CMS"), including any amendments thereto (the "Contract"), which is incorporated herein by reference. The Guarantors, as a parent company of CMS, acknowledges that it benefits from the Contract and this Guarantee and that adequate consideration has been received and, as such, it hereby agrees as follows:

1. Guarantors unconditionally, absolutely, and irrevocably guarantee the full and prompt payment, when notified by GOAA that payment is due, for any and all liabilities and obligations of CMS in accordance with the Contract, including but not limited to the payment of any and all liabilities of CMS and those incurred by GOAA by reason of CMS's failure to timely perform any financial or non-financial obligations. Guarantors shall not be required to perform any non-financial obligations of CMS. The Guarantors expressly agree that GOAA has the right to proceed first and directly against the Guarantors under this Guarantee and Guarantors expressly: (a) waive the right to require GOAA to proceed against CMS, (b) waive the right to require GOAA to pursue any other remedy for the benefit of the Guarantors, and (c) agree that GOAA may proceed against the Guarantors to enforce this Guarantee without taking any action against CMS. This Guarantee constitutes a guarantee of payment and not of collection.
2. Guarantors shall be entitled to all contractual limits on the liability to which CMS would be entitled under the Contract. This is a continuing guarantee and will remain in full force and effect irrespective of any interruptions in the business relationships between CMS and GOAA. This Guarantee may not be amended, changed or modified, or terminated and none of its provisions may be waived, except with the prior written consent of the GOAA and the Guarantors, and it shall continue indefinitely until GOAA has determined that the Contract obligations have been fulfilled.
3. All payments are to be made in United States (US\$) Dollars in full without any set-off or counterclaim and shall be free of any deductions or withholdings, except that Guarantors reserve all rights, setoffs, counterclaims and other defenses to which CMS is entitled in accordance with the Contract.
4. GOAA may make any agreement with CMS for the creation, extension, renewal, payment, compromise, discharge or release of any obligations of CMS owed in connection with the Contract, in whole or in part, or for any modification of the terms of those obligations, without any notice to Guarantors and without in any way changing or discharging the obligations of Guarantors under this Guarantee.

5. Guarantors hereby waive the giving or making of any demand, notice, presentment or protest, including but not limited to notice of acceptance of this Guarantee by GOAA, notice of reliance on this Guarantee by GOAA, notice of any transaction relating to the Contract or any modifications thereof, and notices of any default or breach by CMS of its obligations in connection with the Contract. This Guarantee shall not be affected by, and Guarantors hereby waive any right to notice of, (i) the taking of any checks, notes, or other obligations, secured or unsecured, in any amount purportedly in payment of the whole or any part of the indebtedness owed by CMS to GOAA; (ii) the taking of any security or collateral for CMS's indebtedness or obligations to GOAA; (iii) any full or partial release of any collateral security, or of any other guarantors or sureties of CMS's indebtedness or obligations to GOAA; (v) the creation, renewal, extension, compromise, discharge, release, or modification of CMS's indebtedness or obligations to GOAA; or by payment by CMS to GOAA that is voidable under bankruptcy law for any reason, whether such payment is voided or recovered from GOAA before or after the expiration or earlier revocation of this Guarantee. The obligations of this Guarantee shall not be released, discharged, or affected in any way by any of the following: (1) the voluntary or involuntary liquidation, dissolution, sale, or other disposition of all or substantially all the assets, marshalling of assets and liabilities, receivership, insolvency, bankruptcy, assignment for the benefit of creditors, reorganization, moratorium, arrangement, composition with creditors or readjustment of, or other similar proceedings against CMS or any of the Guarantors, or any of the property of either of them, or any allegation or contests of the validity of this Guarantee or the Contract in any such proceeding (it is specifically understood, consented, and agreed to that, to the extent permitted by law, this Guarantee shall remain and continue in full force and effect and shall be enforceable against any Guarantor to the same extent and with the same force and effect as if any such proceeding had not been instituted and as if no rejection, stay, termination, assumption, or modification had occurred as a result thereof, it being the intent and purpose of this Guarantee that each Guarantor shall and does hereby waive all rights and benefits that might accrue to it by reason of any such proceeding); (2) any failure on the part of CMS for any reason to perform or comply with any agreement with any Guarantor; (3) the failure on the part of the Owner to provide any Guarantor with any notice to any Guarantor or to CMS; (4) any failure of any party to the Contract to mitigate damages resulting from any default by CMS or any Guarantor; (5) any legal disability or incapacity of any party to the Contract or this Guarantee; or (6) the fact that entering into the Contract by CMS or the Guarantee by any Guarantor was invalid or in excess of the powers of such party. Each Guarantor also hereby waives its right to assert any statute of limitations defense which would result in a shorter statute of limitations than that which is applicable to the underlying claim against CMS.
6. Except as allowed in paragraph 10, the Guarantors may not assign, delegate, or transfer in any way any of their rights, interests, or obligations under this Guarantee without the prior written consent of GOAA.
7. Notwithstanding anything herein contained to the contrary, each of the Guarantor's obligations hereunder shall survive termination or completion of

the Contract. All notices and other communications about this Guarantee are effective upon receipt as long as they are made in writing, delivered by U.S. Mail, return receipt requested, hand delivery or overnight courier service and addressed or directed to the respective parties as follows:

If to GOAA, to:

Greater Orlando Airport Authority
One Jeff Fuqua Boulevard
Orlando, Florida 32827-4399
Attention: SCOTT SHEDEK, PROJECT LIAISON

If to Guarantors, to:

Mitsubishi Heavy Industries America, Inc.
20 East Greenway Plaza, Suite 830 Houston, TX 77046
Attention: Darin Friedmann
Vice President and Head Transportation Systems
Phone (346) 308-8800
Fax (346) 308-8787

Sumitomo Corp.
OTEMACHI PLACE EAST TOWER
3-2 Otemachi 2-Chome, Chiyoda-ku, Tokyo 100-8601, Japan

Sumitomo Corp. of Americas
300 Madison Avenue, New York, NY 10017
Attention: Shiro Matsui
General Manager, Transportation Systems Department
Phone (332) 223-9848

Notices are effective when actually received by the party to which they are given, as evidenced by U.S. Mail receipt, written acknowledgment, or affidavit of hand delivery or courier receipt.

8. The laws of the State of Florida govern this Guarantee and its performance, without regard to that State's choice of law principles. The parties irrevocably consent to the exclusive jurisdiction of the Ninth Judicial Circuit Court in and for Orange County, Florida, for the resolution and determination of any dispute between GOAA and any Guarantor relating to the construction, meaning, or effect of this Guarantee or the rights and liabilities of GOAA and any Guarantor or any other matter arising from or connected with this Guarantee.

9. Maintenance of Corporate Existence in Florida. Each Guarantor agrees that, so long as this Guarantee is in effect, each Guarantor will be duly qualified to conduct business in the State of Florida.
10. Consolidation Merger, Sale, or Transfer. Each Guarantor covenants that during the term of this Guarantee it will maintain its corporate existence, will not dissolve or otherwise dispose of all or substantially all of its assets, and will not consolidate with or merge into another entity or permit one or more other entities to consolidate with or merge into it unless the successor is a Guarantor and the conditions contained in clause (2) below are satisfied; provided, however, each Guarantor may consolidate with or merge into another entity, or permit one or more other entities to consolidate with or merge into it, or sell or otherwise transfer to another entity all or substantially all of its assets as an entirety and thereafter dissolve if: (1) the successor entity (if other than a Guarantor): (a) assumes in writing all the obligations of a Guarantor under this Guarantee and is duly qualified to do business in the State of Florida, and (b) delivers to the Owner an opinion of counsel to the effect that its obligations under this Guarantee are legal, valid, binding, and enforceable subject to applicable bankruptcy and similar insolvency or moratorium laws; and (2) any such transaction does not result in a material decline in a Guarantor's credit standing, or if such transaction results in a material decline in a Guarantor's credit standing, the successor Guarantor provides credit enhancement sufficient to fully reverse the material decline to GOAA's reasonable satisfaction.
11. Continuance of Obligations. If a consolidation, merger, or sale or other transfer is made in accordance with the previous paragraph, the provisions of this Guarantee shall continue in full force and effect and no further consolidation, merger, or sale or other transfer shall be made except in compliance with the provisions of the previous paragraph. No consolidation, merger, or sale or other transfer shall have the effect of releasing the initial Guarantors from its liability hereunder unless a successor entity has assumed responsibility for this Guarantee as provided in the previous paragraph, and if such transaction results in a material decline in a Guarantor's credit standing, the successor Guarantors shall provide a credit enhancement sufficient to fully reverse the decline to the GOAA's reasonable satisfaction.
12. Subordination of Rights. Each Guarantor agrees that any right of subrogation, contribution, or indemnity that it may have against CMS as a result of any payment or performance under this Guarantee is hereby fully subordinated to the rights of GOAA under the Guarantee and under the Contract, and the Guarantors shall not recover or seek to recover any payment made hereunder from CMS until the CMS and the Guarantors have fully and satisfactorily paid and discharged the obligations to GOAA.
13. Payment of Costs and Expenses. Each Guarantor agrees to pay GOAA on demand all attorney and expert fees and all litigation costs incurred by or on behalf of GOAA in successfully enforcing the covenants, agreements, and obligations contained in this Guarantee against any Guarantor, other than the fees and costs that GOAA incurs in performing any of its obligations under the Contract, if these obligations are a condition to performance by the CMS of its Contractual obligations.

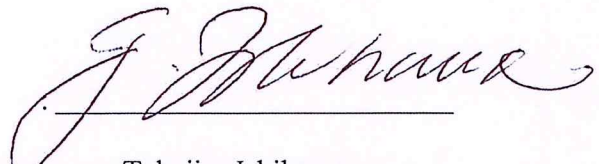
14. All three parent company Guarantors of CMS in connection with the Contract shall be jointly and severally liable.
15. No Third-Party Beneficiaries. This Guarantee is not intended to confer any benefit on any person or firm other than the Guarantors and GOAA.
16. Separate Obligations; Reinstatement. Each Guarantor's obligations to make any payment under this Guarantee shall: (1) to the extent permitted by applicable law, constitute separate and independent obligations of each Guarantor from its other obligations under this Guaranty; (2) give rise to separate and independent causes of action against each Guarantor; and (3) apply irrespective of any indulgence granted from time to time by GOAA. Each Guarantor agrees that this Guarantee shall be automatically reinstated if and to the extent that for any reason any payment or performance by or on behalf of CMS is rescinded or must be otherwise restored by GOAA, whether as a result of any proceedings in bankruptcy, reorganization, or similar proceedings.

IN WITNESS WHEREOF, each Guarantor has duly executed and delivered this Guarantee which constitutes the legal, valid and binding obligation of each Guarantor enforceable against each Guarantor in accordance with its terms.

[SIGNATURES ON THE FOLLOWING PAGE]

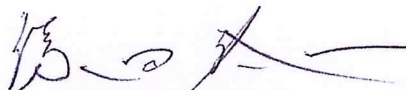
12/20/2023
Date

Mitsubishi Heavy Industries America, Inc.

By 
Printed Name : Takajiro Ishikawa
Title : President & CEO

CERTIFICATE OF CORPORATE SECRETARY

I, Yuichi Katsuta, certify that I am the Secretary of the corporation named above and that Takajiro Ishikawa who signed above on behalf of the corporation was then President & CEO of said corporation, and that I know his/her signature, and his/her signature thereto is genuine, and that this Guarantee was duly authorized, signed, sealed and attested for and on behalf of said corporation by authority of its governing body or is otherwise authorized by the corporation to enter into this Guarantee.


Secretary Signature

Yuichi Katsuta

Secretary Printed Name

(Corporate Seal)

Dec. 26, 2023
Date

SUMITOMO CORPORATION

By : 

Printed Name : Takayuki Seishima

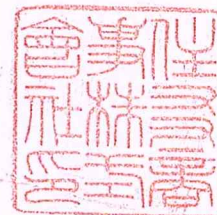
Title : Representative Director,
Executive Vice President

CERTIFICATE OF GENERAL MANAGER, CORPORATE LEGAL &
GENERAL AFFAIRS DEPARTMENT

I, Takao Nagazawa, certify that I am the General Manager, Corporate Legal & General Affairs Department of the corporation named above and that Takayuki Seishima who signed above on behalf of the corporation was then Representative Director, Executive Vice President of said corporation, and that I know his signature, and his signature thereto is genuine, and that this Guarantee was duly authorized, signed, sealed and attested for and on behalf of said corporation by authority of its governing body or is otherwise authorized by the corporation to enter into this Guarantee.


Signature

Takao Nagazawa
Printed Name



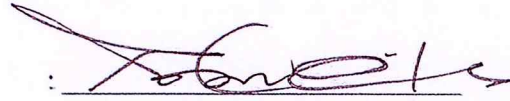
(Corporate Seal)

12/22/2023

Date

SUMITOMO CORPORATION OF AMERICAS

By

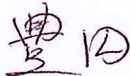
: 

Printed Name : Tomonori Wada

Title : President and Chief Executive Officer

CERTIFICATE OF ASSISTANT SECRETARY

I, Takeshi Toyoda, certify that I am the Assistant Secretary of the corporation named above and that Tomonori Wada who signed above on behalf of the corporation was then President and Chief Executive Officer of said corporation, and that I know his signature, and his signature thereto is genuine, and that this Guarantee was duly authorized, signed, sealed and attested for and on behalf of said corporation by authority of its governing body or is otherwise authorized by the corporation to enter into this Guarantee.



Signature

Takeshi Toyoda

Printed Name

(Corporate Seal)

SECTION 00 61 13 - PERFORMANCE/PAYMENT BOND COVER SHEET

PERFORMANCE/PAYMENT BOND COVER SHEET – PHASE 1

This cover sheet is an integral part of the attached bonds and must not be separated from them.

GREATER ORLANDO AVIATION AUTHORITY
ORLANDO, FLORIDA
(Public Work)
In Compliance with Florida Statutes, Section 255.05(1)(a)

PERFORMANCE BOND NO.:	9441854
PAYMENT BOND NO.:	9441854
CONTRACTOR INFORMATION:	Name: MITSUBISHI HEAVY INDUSTRIES AMERICA, INC. Address: 20 East Greenway Plaza, Suite 830 Houston, Texas 77046 Phone: (212) 397-6144 (Mr. Darin Friedmann)
SURETY PRINCIPAL: BUSINESS INFORMATION	Name: Zurich American Insurance Company Address: 4 Embarcadero Center #3740 San Francisco, CA 94111 Phone: 818-517 5044
AUTHORITY INFORMATION:	Name: Greater Orlando Aviation Authority Address: One Airport Boulevard Orlando, FL 32827 Phone: (407) 825-2001
BOND AMOUNT:	\$177,808,570.00
CONTRACT NO. (if applicable):	BP-477
DESCRIPTION OF WORK:	APM Operating System (OS) Replacement For Airside 2 and Airside 4
PROJECT LOCATION:	Orlando International Airport, Orlando, FL
AGENT INFORMATION:	Name: Arthur J. Gallagher Risk Management Services LLC Address: 595 Market St. #2100 San Francisco, CA 94105 Phone: 415-391-1500

SECTION 00 61 13.13 – PERFORMANCE BOND BOND NO.: 9441854

PHASE 1 PERFORMANCE BOND

GREATER ORLANDO AVIATION AUTHORITY

ORLANDO, FLORIDA

The cover page that lists the contact information for the entities involved in this bond is considered the front page of this bond and is an integral part of this bond and, therefore, must not be separated from this bond.

KNOW ALL PERSONS BY THESE PRESENTS that MITSUBISHI HEAVY INDUSTRIES AMERICA, INC., hereinafter called Principal, and Zurich American Insurance Company, a corporation organized under the laws of the State of New York and licensed to do business in the State of Florida, hereinafter called Surety, are held and firmly bound unto the Greater Orlando Aviation Authority, hereinafter called Authority, in the Penal Sum of **ONE HUNDRED SEVENTY-SEVEN MILLION, EIGHT HUNDRED EIGHT THOUSAND, FIVE HUNDRED SEVENTY Dollars (\$177,808,570)**, for the payment of which sum well and truly made, Principal and Surety bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated 1/25/2024, entered into a Contract with Authority for BP-477, APM OPERATING SYSTEM (OS) REPLACEMENT FOR AIRSIDE 2 AND AIRSIDE 4 at the Orlando International Airport, Orlando, Florida," in accordance with the Contract Documents which are incorporated herein by reference and made a part hereof, and are herein referred to as the Contract.

WHEREAS, Surety is authorized to do business in the State of Florida.

NOW, THEREFORE, the condition of this obligation is such that if Principal:

1. Promptly and faithfully performs the Contract including, but not limited to, its construction and warranty provisions in the time and manner prescribed in the Contract, and correction of defective work, and
2. Pays Authority all losses, damages, expenses, costs, attorneys' fees and other legal costs (including, but not limited to, those for investigative and legal support services and appellate proceedings), that Authority sustains resulting directly or indirectly from the conduct of the Principal including, but not limited to, breach or default under the Contract, want of care or skill, negligence, patent infringement, or intentionally wrongful conduct on the part of the Principal, its officers, agents, employees or any other person or entity for whom the Principal is responsible, then this bond is void; otherwise it shall remain in full force and effect.

3. In the event that the Principal shall fail to perform any of the terms, covenants and conditions of the Contract during the period in which this Performance Bond is in effect, the Surety shall remain liable to the Authority for all such loss or damage (including reasonable attorneys' fees and other legal costs) resulting from any failure to perform up to the amount of the Penal Sum.
4. In the event that the Surety fails to fulfill its obligations under this Performance Bond, then the Surety shall also indemnify and save the Authority harmless from any and all loss, damage, cost and expense, including reasonable attorneys' fees and other legal costs for all trial and appellate proceedings resulting directly or indirectly from the Surety's failure to fulfill its obligations hereunder. This paragraph shall survive the termination or cancellation of this Performance Bond. The obligations set forth in this paragraph shall not be limited by the Penal Sum of this Bond.
5. The Surety's obligations hereunder shall be direct and immediate and not conditional or contingent upon Authority's pursuit of its remedies against Principal, and shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Authority and Principal without the Surety's knowledge or consent, (ii) waivers of any default under the Agreement or the Contract granted by Authority to Principal without the Surety's consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Authority or Principal that would, in the absence of this clause, result in the release or discharge by operation of law of the Surety from its obligations hereunder.
6. The institution of suit upon this Bond shall be in accordance with Section 95.11(2)(b), Florida Statutes.
7. Any changes in or under the Contract Documents (which include the Plans, Drawings and Specifications) and compliance or noncompliance with any formalities connected with the Contract or the changes therein shall not affect Surety's obligations under this Bond and Surety hereby waives notice of any such changes. Further, Principal and Surety acknowledge that the Penal Sum of this bond shall increase or decrease in accordance with approved changes or other modifications to the Contract Documents.

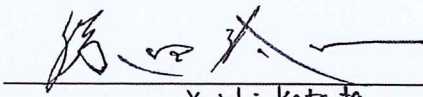
IN WITNESS WHEREOF, the Principal and Surety have executed this instrument under their several seals on this 16th day of November, 2023, to be effective as of the date of the Contract, the name and corporate seal of each corporate party being hereto affixed and these presents fully signed by its undersigned representative, pursuant to authority of its governing body.

MITSUBISHI HEAVY INDUSTRIES AMERICA, INC.

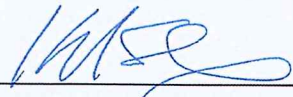
Principal

Signed, sealed and delivered

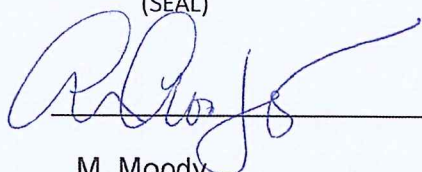
in the presence of:



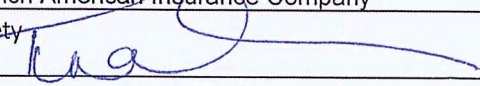
Yuichi Katsuta
Secretary, Mitsubishi Heavy Industries America, Inc.

By: 

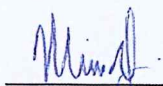
Kosuke Kasada, President,
Name and Title Engineered Systems Division

(SEAL)


M. Moody

Zurich American Insurance Company
Surety
By: 

Tina K. Nierenberg, Attorney-in-Fact
Name and Title
Arthur J. Gallagher Risk Management Services LLC
Agency
595 Market St. #2100, San Francisco, CA 94105
Address

(SEAL)


(Countersignature by a Florida Licensed Agent)
Michael S. Gillon, Area President
Name and Title
Arthur J. Gallagher Risk Management Services, LLC
Agency
200 S Orange Ave., Suite 750 Orlando, FL 32801
Address

NOTE: If Principal or Surety are corporations, the respective corporate seals should be affixed. Additionally, a certified copy of a Power-of-Attorney appointing the individual Attorney-in-Fact for the Surety, as well as the Power-of-Attorney appointing the Florida licensed agent, should be attached.

STATE OF Arizona

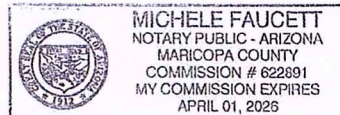
COUNTY OF Maricopa

On November 16, 2023, before me, Michele Faucett - Notary
(here insert name and title of the officer), personally appeared TINA K NIERENBERG

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Michele Faucett (SEAL)



This area for Official Notarial Seal

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- ☐ INDIVIDUAL
☐ CORPORATE OFFICER

TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED
☐ GENERAL
☒ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:

NAME OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

TITLE OF TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER(S) OTHER THAN NAMED ABOVE

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

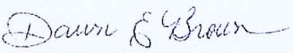
KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Thuyduong LE, Brittany KAVAN, Julia ORTEGA, Douglas B. BOWRING, Matthew KALAFATIS, Misty R HEMJE, Courtney CHEW, Maria De Los Angeles REYNOSO, Tina K. NIERENBERG, Susan HECKER, K. ZEROUNIAN, Janet C. ROJO, Betty L. TOLENTINO, M. MOODY, Maureen O'CONNELL, Robert P. WRIXON, Kevin RE, Virginia L. BLACK, Susan M. EXLINE, **all of San Francisco, California**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 6th day of September, A.D. 2023.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND


By: Robert D. Murray
Vice President

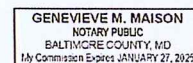

By: Dawn E. Brown
Secretary

**State of Maryland
County of Baltimore**

On this 6th day of September, A.D. 2023, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies,
this 11th day of November 2003



MJ Pethick

By: Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Michael GILLON, of Orlando, Florida**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 21st day of November, A.D. 2023.



ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: *Robert D. Murray*
Vice President

By: *Dawn E. Brown*
Secretary

**State of Maryland
County of Baltimore**

On this 21st day of November A.D. 2023, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison

GENEVIEVE M. MAISON
NOTARY PUBLIC
BALTIMORE COUNTY, MD
My Commission Expires JANUARY 27, 2025



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 18th day of October, 2023.



Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

SECTION 00 61 13.16 – PAYMENT BOND FORM

BOND NO.: 9441854

PHASE 1 PAYMENT BOND FORM

GREATER ORLANDO AVIATION AUTHORITY

ORLANDO, FLORIDA

The cover page that lists the contact information for the entities involved in this bond is considered the front page of this bond and is an integral part of this bond and, therefore, must not be separated from this bond.

KNOW ALL PERSONS BY THESE PRESENTS that MITSUBISHI HEAVY INDUSTRIES AMERICA, INC., hereinafter called Principal, and Zurich American Insurance Company, a corporation organized under the laws of the State of New York, having its home office in the City of Schaumburg, Illinois and licensed to do business in the State of Florida, hereinafter called Surety, are held and firmly bound unto the Greater Orlando Aviation Authority, hereinafter called Authority, for the use and benefit of claimants as herein below defined, in the Penal Sum of **ONE HUNDRED SEVENTY-SEVEN MILLION, EIGHT HUNDRED EIGHT THOUSAND, FIVE HUNDRED SEVENTY Dollars (\$177,808,570)**, for the payment of which sum well and truly to be made, Principal and Surety bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated 1/25/2024, entered into a contract with Authority for BP-477, APM OPERATING SYSTEM (OS) REPLACEMENT FOR AIRSIDE 2 AND AIRSIDE 4 at the Orlando International Airport, Orlando, Florida," in accordance with the Contract Documents which are incorporated herein by reference and made a part hereof, and are herein referred to as the Contract.

WHEREAS, Surety is authorized to do business in the State of Florida.

NOW, THEREFORE, the condition of this obligation is such that if Principal shall promptly make payments to all claimants as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect subject, however, to the following conditions: requirement

1. This bond is given to comply with Section 255.05, Florida Statutes, and any action instituted by a claimant under this bond for payment must be in accordance with Sections 255.05(2) and 255.05(10), Florida Statutes, as amended, including, but not limited to, the notice and time limitation provisions therein.
2. Therefore, a claimant, except a laborer, who is not in privity with the Contractor shall, before commencing or not later than 45 days after commencing to furnish labor, services or

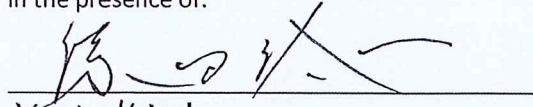
materials for the prosecution of the work, serve the Contractor with a written notice that he or she intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for furnishing his or her labor, services, or materials shall, serve a written notice of nonpayment on the Contractor and on the Surety. Notices must be served in accordance with Section 255.05(2), as amended. The notice of non-payment shall be under oath and served during the progress of the work or thereafter, but may not be served earlier than forty-five (45) days after the first furnishing of the labor, services or materials by the claimant or later than ninety (90) days after the final furnishing of the labor, services or materials by the claimant, or, with respect to rental equipment, later than 90 days after the date that the rental equipment was last on the job site available for use. Any notice of nonpayment served by a claimant who is not in privity with the contractor which includes sums for retainage must specify the portion of the amount claimed for retainage. No action for the labor, services, or materials may be instituted against the Contractor or the Surety unless both notices have been served. No action shall be instituted against the Contractor or the Surety on the bond after one (1) year from the performance of the labor or completion of the delivery of the materials or supplies.

3. The Surety's obligations hereunder shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Authority and Principal without the Surety's knowledge or consent, (ii) waivers of compliance with or any default under the Contract granted by Authority to Principal without the Surety's knowledge or consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Authority or Principal that would, in the absence of this clause, result in the release or discharge by operation of law of the Surety from its obligations hereunder.
4. Any changes in or under the Contract Documents (which include the, Drawings and Specifications) and compliance or noncompliance with any formalities connected with the Contract or the changes therein shall not affect Surety's obligations under this Bond and Surety hereby waives notice of any such changes. Further, Principal and Surety acknowledge that the Penal Sum of this Bond shall increase or decrease in accordance with the approved changes or other modifications to the Contract Documents.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument under their several seals on this 16th day of November, 2023, to be effective as of the date of the Contract, the name and corporate seal of each corporate party being hereto affixed and these presents fully signed by its undersigned representative, pursuant to authority of its governing body.

Signed, sealed and delivered

in the presence of:



Yuichi Katsuta

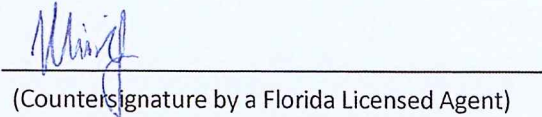
Secretary, Mitsubishi Heavy Industries America, Inc.

(SEAL)



M. Moody

(SEAL)



(Countersignature by a Florida Licensed Agent)

Michael S. Gillon, Area President

Name and Title

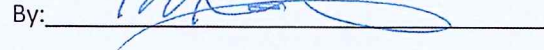
Arthur J. Gallagher Risk Management Services LLC

Agency

200 S Orange Ave., Suite 750 Orlando, FL 32801

Address

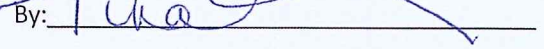
MITSUBISHI HEAVY INDUSTRIES AMERICA, INC.,
Principal

By: 

Kosuke Kasada
Name and Title President
Engineered Systems Division

Zurich American Insurance Company

Surety

By: 

Tina K Nierenberg, Attorney-in-Fact

Name and Title

Arthur J. Gallagher Risk Management Services LLC

Agency

595 Market St. #2100

Address

San Francisco, CA 94105

NOTE: If Principal or Surety are corporations, the respective corporate seals should be affixed. Additionally, a certified copy of a Power-of-Attorney appointing the individual Attorney-in-Fact for the Surety, as well as the Power-of-Attorney appointing the Florida licensed agent, should be attached.

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Thuyduong LE, Brittany KAVAN, Julia ORTEGA, Douglas B. BOWRING, Matthew KALAFATIS, Misty R HEMJE, Courtney CHEW, Maria De Los Angeles REYNOSO, Tina K. NIERENBERG, Susan HECKER, K. ZEROUNIAN, Janet C. ROJO, Betty L. TOLENTINO, M. MOODY, Maureen O'CONNELL, Robert P. WRIXON, Kevin RE, Virginia L. BLACK, Susan M. EXLINE, **all of San Francisco, California**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

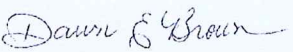
The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 6th day of September, A.D. 2023.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND


By: Robert D. Murray
Vice President



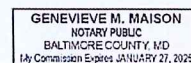

By: Dawn E. Brown
Secretary

**State of Maryland
County of Baltimore**

On this 6th day of September, A.D. 2023, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8: ~~Attorneys-in-Fact~~. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, ~~Was~~ President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 10th day of November, 2023



MJ Pethick

By: Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1856
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by Robert D. Murray, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Michael GILLON, of Orlando, Florida**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 21st day of November, A.D. 2023.



ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: *Robert D. Murray*
Vice President

By: *Dawn E. Brown*
Secretary

State of Maryland
County of Baltimore

On this 21st day of November A.D. 2023, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Genevieve M. Maison

GENEVIEVE M. MAISON
NOTARY PUBLIC
BALTIMORE COUNTY, MD
My Commission Expires JANUARY 27, 2025



Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 18th day of October, 2023.



MJ Pethick

Mary Jean Pethick
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
reportsfclaims@zurichna.com
800-626-4577

Authenticity of this bond can be confirmed at bondvalidator.zurichna.com or 410-559-8790

STATE OF Arizona

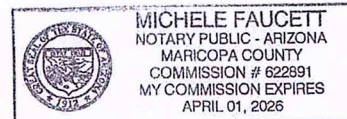
COUNTY OF Maricopa

On November 10, 2023, before me, Michele Faucett - Notary
(here insert name and title of the officer), personally appeared TINA K NIERENBERG

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Michele Faucett (SEAL)



This area for Official Notarial Seal

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- ☐ INDIVIDUAL
☐ CORPORATE OFFICER

TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED
☐ GENERAL

☒ ATTORNEY-IN-FACT

- ☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:

NAME OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

TITLE OF TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER(S) OTHER THAN NAMED ABOVE

SECTION 00 61 13.19 – PERFORMANCE/PAYMENT BOND CERTIFICATION FORM

PHASE 1 - PERFORMANCE/PAYMENT BOND CERTIFICATION FORM

GREATER ORLANDO AVIATION AUTHORITY

ORLANDO, FLORIDA

I, Yuichi Katsuta, certify that I am the Secretary of the corporation, named as Principal in the foregoing Performance and Payment Bonds; that Kosuke Kasada who signed the said Bonds on behalf of the Principal was then President or Vice-President of said corporation; that I know [his, her] signature, and [his, her] signature thereto is genuine, and that said Bonds were duly signed, sealed and attested for and in behalf of said Principal by authority of its governing body or is otherwise authorized by the Principal to enter into this Contract and the Performance and Payment Bonds.


Secretary Signature
Yuichi Katsuta
Secretary Printed Name

(Corporate Seal)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
01/12/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MARSH USA, LLC. 1166 Avenue of the Americas New York, NY 10036	CONTACT NAME:	
	PHONE (A/C, No, Ext): FAX (A/C, No):	
CN101778321--2023	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE NAIC #	
INSURED Mitsubishi Heavy Industries America, Inc 20 Greenway Plaza, Suite 600 Houston, TX 77046	INSURER A: Tokio Marine America Insurance Company	10945
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** NYC-011816500-03 **REVISION NUMBER:** 4

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY	X		CLL6411992-00	10/18/2023	10/18/2024	EACH OCCURRENCE \$ 25,000,000
	☐ CLAIMS-MADE ☒ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$ 50,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 25,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$ 25,000,000
	☐ POLICY ☒ PROJECT ☐ LOC						
	OTHER:						\$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	☐ ANY AUTO						BODILY INJURY (Per person) \$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident) \$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident) \$
							\$
	UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE \$
	DED ☐ RETENTION \$						\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ☐ Y ☒ N						PER STATUTE ☐ OTH-ER ☐
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)		N/A				E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: APM Operating System Replacement for Airsides 2 & 4
COMMERCIAL GENERAL LIABILITY coverage Deductible/SIR: Nil

CERTIFICATE HOLDER

The Greater Orlando Aviation Authority
Engineering and Construction
One Jeff Fuqua Blvd.
Orlando, FL 32827

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Marsh USA LLC

© 1988-2016 ACORD CORPORATION. All rights reserved.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/13/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Baldwin Krystyn Sherman Partners LLC 914 N Broadway Ave Ste 100 Oklahoma City OK 73102	CONTACT NAME: Beverly McCool PHONE (A/C, No, Ext): 405-246-0246 FAX (A/C, No): E-MAIL ADDRESS: Beverly.McCool@bks-partners.com
INSURED Mitsubishi Heavy Industries America Inc Engineered Systems Division 20 Greenway Plaza Suite 830 Houston TX 77046	INSURER(S) AFFORDING COVERAGE INSURER A: Tokio Marine America Insurance INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:
License#: L002281 MITCHEA-03	NAIC # 10945

COVERAGES**CERTIFICATE NUMBER:** 1697437752**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
A	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☐ SCHEDULED AUTOS HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY		CA6410556-04	4/1/2023	4/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED RETENTIONS					EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N ☐ N/A		WC6410921-03	4/1/2023	4/1/2024	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: APM Operating System Replacement for Airsides 2 & 4

The Greater Orlando Aviation Authority and the City of Orlando and their members (including without limitation, members of the Authority's board and the City Council and members of the citizens' advisory committees of each), the OAR, and the Designer are additional insureds on all policies except Workers Compensation as required by written contract.

CERTIFICATE HOLDER**CANCELLATION**

The Greater Orlando Aviation Authority
Engineering and Construction
One Jeff Fuqua Blvd.
Orlando FL 32827

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
09/14/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MARSH USA, LLC. 1166 Avenue of the Americas New York, NY 10036 CN101778321-MHIA-GU-23-24	CONTACT NAME:	FAX (A/C, No):	
	PHONE (A/C, No, Ext):	E-MAIL ADDRESS:	
INSURED Mitsubishi Heavy Industries America, Inc Engineered Systems Division 20 Greenway Plaza Houston, TX 77046	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A : Tokio Marine America Insurance Company		10945
	INSURER B :		
	INSURER C :		
	INSURER D :		
	INSURER E :		
INSURER F :			

COVERAGES

CERTIFICATE NUMBER:

NYC-011701907-02

REVISION NUMBER: 5

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION S			CU6409630-06	04/01/2023	04/01/2024	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N ☐ N/A						PER STATUTE ☐ OTH-ER ☐ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: APM Operating System Replacement for Airsides 2 & 4

The Umbrella policy sits excess to Auto policy CA6410556-04

The Greater Orlando Aviation Authority and the City of Orlando and their members (including without limitation, members of the Authority's board and the City Council and members of the citizens' advisory committees of each), the OAR, and the Designer are included as additional insureds as required by written contract.

CERTIFICATE HOLDER

CANCELLATION

The Greater Orlando Aviation Authority Engineering and Construction One Jeff Fuqua Blvd. Orlando, FL 32827	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>Marsh USA LLC</i>



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
10/23/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Central, Inc. Indianapolis IN Office 450 East 96th Street Suite 275 Indianapolis IN 46240 USA	CONTACT NAME: PHONE (A/C. No. Ext.): (866) 283-7122 FAX (A/C. No.): (800) 363-0105 E-MAIL ADDRESS:														
INSURED Mitsubishi Heavy Industries America, Inc. 20 Greenway Plaza, Suite 600 Houston TX 77046 USA	<table><tr><td>INSURER(S) AFFORDING COVERAGE</td><td>NAIC #</td></tr><tr><td>INSURER A: Lloyd's Syndicate No. 2488</td><td>AA1128488</td></tr><tr><td>INSURER B: Lloyd's Syndicate No. 2121</td><td>AA1128121</td></tr><tr><td>INSURER C: Lloyd's Syndicate No. 4000</td><td>AA1126005</td></tr><tr><td>INSURER D:</td><td></td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Lloyd's Syndicate No. 2488	AA1128488	INSURER B: Lloyd's Syndicate No. 2121	AA1128121	INSURER C: Lloyd's Syndicate No. 4000	AA1126005	INSURER D:		INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A: Lloyd's Syndicate No. 2488	AA1128488														
INSURER B: Lloyd's Syndicate No. 2121	AA1128121														
INSURER C: Lloyd's Syndicate No. 4000	AA1126005														
INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC OTHER:						EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COM/OP AGG	
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION ☐						EACH OCCURRENCE AGGREGATE	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N ☐ N/A						PER STATUTE ☐ OTH-ER ☐ E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT	
A	Architects & Engineers Professional			B0621PMITS001523 Archit&Eng Prof	10/18/2023	10/18/2024	Each Claim Aggregate Limit	\$2,000,000 \$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Included coverage: Design Build and Contractors Professional Liability; Contractors Pollution Liability; Transportation Pollution Liability; Non-Owned Disposal Site Pollution Liability; Emergency Pollution Remediation Expenses

CERTIFICATE HOLDER**CANCELLATION**

The Greater Orlando Aviation Authority Engineering and Construction One Jeff Fuqua Blvd. Orlando FL 32827 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Aon Risk Services Central, Inc.</i>
---	---

©1988-2015 ACORD CORPORATION. All rights reserved.

**ADDITIONAL REMARKS**

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

[illegible]



EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)
10/05/2023

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST.

AGENCY MARSH USA, LLC. 1166 Avenue of the Americas New York, NY 10036		PHONE (A/C, No, Ext):		COMPANY Tokio Marine America Insurance Company	
CN101778321-PW-CARGO-23-24		FAX (A/C, No):		E-MAIL ADDRESS:	
CODE:		SUB CODE:		LOAN NUMBER	
AGENCY CUSTOMER ID #:				POLICY NUMBER TO60011865	
INSURED Mitsubishi Heavy Industries America, Inc 20 East Greenway Plaza, Suite 830 Houston, TX 77046		EFFECTIVE DATE 04/01/2023		EXPIRATION DATE 04/01/2024	☐ CONTINUED UNTIL TERMINATED IF CHECKED
THIS REPLACES PRIOR EVIDENCE DATED:					

PROPERTY INFORMATION

LOCATION/DESCRIPTION

Re: APM Operating System Replacement for Airsides 2 & 4

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

COVERAGE INFORMATION

PERILS INSURED ☐ BASIC ☐ BROAD ☐ SPECIAL ☒

COVERAGE / PERILS / FORMS	AMOUNT OF INSURANCE	DEDUCTIBLE
Cargo	100,000,000	0
Other deductibles may apply as per policy terms and conditions.		

REMARKS (Including Special Conditions)

Project materials, machinery and equipment

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST NYC-011723532-00

NAME AND ADDRESS The Greater Orlando Aviation Authority Engineering and Construction One Jeff Fuqua Blvd. Orlando, FL 32827	ADDITIONAL INSURED	LENDER'S LOSS PAYABLE	☐ LOSS PAYEE
	MORTGAGEE		
	LOAN #		
AUTHORIZED REPRESENTATIVE of Marsh USA LLC <i>Marsh USA LLC</i>			

ACORD 27 (2016/03)

© 1993-2016 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

SECTION 00 62 16 – CERTIFICATE OF INSURANCE FORM

The Contractor shall provide evidence of insurance reflecting compliance with the insurance requirements as listed in Section 00 21 13 of the Contract Documents and Article 11 of the General Conditions. **Separate Certificate(s) of Insurance for Phase 1 and Phase 2** shall be remitted using an ACORD form, or in a form acceptable to the Authority, and submitted to the Authority's Contracts and Grants Manager prior to contract execution and each policy renewal for the duration of the contract term and statute of repose. Any deductible or self-insurance retention (\$0.00 and higher) for each coverage line must be indicated on the Certificate of Insurance.

The Certificate of Insurance shall state the following as certificate holder:

The Greater Orlando Aviation Authority
Engineering and Construction
One Jeff Fuqua Blvd.
Orlando, FL 32827

The Certificate of Insurance shall reflect the Greater Orlando Aviation Authority and the City of Orlando and their members (including without limitation, members of the Authority's board and the City Council and members of the citizens' advisory committees of each), the OAR, and the Designer as additional insured as outlined in Article 11.2 of the General Conditions. Authority may elect to utilize a third party for the collection and monitoring of Contractor's insurance. Contractor will promptly respond to all requests for information, including, without limitation, requests for copies of insurance policies and Certificate(s) of Insurance evidencing renewal policy periods.

END OF SECTION 00 62 16

INSERT CERTIFICATE(s) OF INSURANCE AFTER THIS PAGE



GREATER ORLANDO AVIATION AUTHORITY

Orlando International Airport
One Jeff Fuqua Boulevard
Orlando, Florida 32827-4392

MEMORANDUM

TO: Members of the Aviation Authority

FROM: Kathleen M. Sharman, Interim Chair, Procurement Committee/Chief Financial Officer

DATE: October 18, 2023

ITEM DESCRIPTION

Recommendation of the Procurement Committee to Award Design/Build/Operate/Maintain (DBOM) Services for Bid Package (BP) No. 00477, Automated People Mover (APM) Operating System (OS) for Airsides 2 and 4 at the Orlando International Airport, to Mitsubishi Heavy Industries America, Inc.

BACKGROUND

BP No. 00477 provides for the replacement of the existing APM OS serving Airsides 2 and 4 of the North Terminal Complex (NTC). The Airside 2 APM OS was first placed into service in 2000. The Airside 4 APM System was first placed into service in 1990 and the cars were replaced with new cars in 2008. The Airsides 2 and 4 APM systems are dual-lane shuttles with an approximate length of 2,000 feet on each guideway lane. Each guideway lane utilizes a 3-Car Alstom (formerly Bombardier) CX-100 technology train and operates at an approximate round trip time of 208-seconds, including a 40-second dwell time. At a minimum, BP No. 00477 will include replacement of all vehicles, running surfaces, central control equipment in the Orlando International Airport's Communications Center, all other required subsystems (i.e., communications, command and controls, power distribution, station doors) and all modifications, if any, required to existing APM stations, guideway and other facilities to accommodate the proposed APM OS. Maintaining passenger service to Airsides 2 and 4 during the work and minimizing the time that any one of the two APM lanes to each Airside is out of service during construction are essential. Work shall be completed (i.e., both Airsides 2 and 4 fully functional for passenger service) no later than April 2, 2027.

On November 20 and 23, 2022, a notice was publicly advertised requesting Statements of Qualifications (SOQs) for DBOM Services for BP No. 00477, APM OS for Airsides 2 and 4 at the Orlando International Airport.

The Submission Requirements stated that it is preferred that proposers, including team members and key personnel, have prior experience on a minimum of three similar, DBOM projects within the last five years, one of which having a minimum construction value of not less than \$50 million. The following experience is also preferred:

- Prior experience completing similar turn-key APM systems with a similar scope and complexity as this Project and that required a high degree of reliability and 24 hours-per-day, 7 days-per-week operation;
- Prior experience replacing an existing, operating APM System, similar to Airside 2 and Airside 4, while maintaining passenger service throughout the construction period;
- Prior experience working on an active airport, public facility or commercial environment with complex phasing;
- Prior experience working together with the proposed team members;
- Prior experience using the same or similar APM Operating System technologies; and

- Prior experience (1) coordinating with; (2) meeting the requirements on projects funded by; and, (3) operating in accordance with, the rules and regulations of the Florida Department of Transportation (FDOT) and the Orlando Utilities Commission (OUC).

ISSUES

By December 20, 2022, two firms responded to the Aviation Authority's advertisement for the above-referenced services as follows, in alphabetical order:

- Alstom Transport USA, Inc.
- Mitsubishi Heavy Industries America, Inc.

On February 7, 2023, the Procurement Committee (PC) met to consider the SOQs. Based on the SOQs, staff's evaluations, and past performances on Aviation Authority or related projects, the PC shortlisted three firms for further consideration as follows, in alphabetical order:

- Alstom Transport USA, Inc.
- Mitsubishi Heavy Industries America, Inc.

On March 26, 2023, the Design Criteria Package (DCP) was issued to both shortlisted firms. Since then, 32 bid addenda have been issued which addressed questions and requested clarifications of the DCP. The DCP instructed the shortlisted firms to submit its Technical Proposal (Envelope A) by July 14, 2023, and its Price Proposal (Envelope B) and Small Business Participation (Envelope C) by August 30, 2023.

The Program Description as provided in the Proposal Content Requirements (Section 00 24 16) of the RFP includes the following Submittal Parts:

- Part I: Proposer's Financial Strength and Experience
- Part II: Proposed Technology (Phase 1)
- Part III: Proposed Management Approach (Phase 1)
- Part IV: Operations and Maintenance (Phase 2)
- Part V: DBE Participation (Phases 1 and 2)

On July 14, 2023, both shortlisted firms timely submitted its Technical Proposal (Envelope A). Staff and the design criteria consultant reviewed the proposals for compliance with the DCP and other RFP requirements.

By August 31, 2023, both shortlisted firms timely submitted its Price Proposal (Envelope B) and Small Business Participation (Envelope C) in accordance with the DCP and other RFP requirements.

On August 31, 2023, the PC met to consider the shortlisted firms. Each shortlisted firm was interviewed and evaluated by the PC. The Proposal Content Requirements (Section 00 24 16) of the RFP provided for the basis of award, which requires the numeric score from the technical proposals be determined prior to opening the price proposals.

The Proposal Content Requirements (Section 00 24 16) of the RFP provided the criteria to be used for determining the total numeric score (for a total possible score of 100 points) for each technical proposal for each shortlisted proposer, as follows:

Part I: Proposer's Financial Strength and Experience (Maximum Score: 10 Points)

- Satisfactory evidence of sufficient strength and resources, and capability to finance the work to be performed and complete the Contracts in a satisfactory manner.
- Satisfactory evidence of sufficient human and physical resources to perform the contract in a timely manner (in addition to other commitments), in accordance with the time for performance identified in the Instructions to Proposers.
- Satisfactory evidence of at least five years of direct experience with the proposed system technology, which may include a predecessor generation of the proposed system technology, and other similar technologies.

Part II: Proposed Technology (Phase 1) (Maximum Score: 50 points)

- Proven Operating System Technology.
- Demonstrated capability of the Operating System to meet specified technical requirements by describing design features and explaining how specific contract requirements will be met.
- Vehicle and train aesthetics will meet the requirements in accordance with the DCP and all procurement documents.

Part III: Proposed Management Approach (Phase 1) (Maximum Score: 15 points)

- Ability to meet required schedule.
- Management approach and organization.

Part IV: Operations and Maintenance (Phase 2) (Maximum Score: 20 points)

- Operations and maintenance experience.
- Spare parts and equipment.
- System Operations Plan.
- Maintenance Plan.
- O&M Management Plan and Training Program.
- Manuals for Operations and Maintenance.
- Capital Assets Replacement Program Plan (CARPP).

Part V: DBE Participation (Phase 1 and 2) (Maximum Score: 5 points)

- Goal for Design/Build – 12%
- Goal for Operate/Maintain – 9%

The Proposal Content Requirements (Section 00 24 16) of the RFP provided that the adjusted scores will be calculated by dividing the Total Base Bid Price by the Total Numeric Score for each proposer to determine the lowest adjusted score for each proposer.

At the conclusion of the interviews, during an open public session, the PC evaluated each Proposer, considering the SOQs, proposals, any additional documentation, the interviews and presentations. Legal Counsel advised the PC that the Technical Proposal (Envelope A) submitted by Alstom Transport USA, Inc. contained material irregularities. Alstom Transport USA, Inc. proposed an APM vehicle (Innova 300R) which is heavier than its existing vehicles on Airsides 2 and 4, and stated that it could not ensure, without further analysis, whether the existing guideway structures could support these heavier vehicles. Alstom Transport USA, Inc.'s Technical Proposal specifically stated that, "an analysis of the entire system by a competent structural engineer would be required." During the interview portion with Alstom Transport USA, Inc., when asked about the proposed heavier APM vehicle and any potential structural impacts, to the existing APM guideway structures, Alstom Transport USA, Inc. acknowledged multiple times that:

- Any structural integrity assessments and inspections, and subsequent engineering analyses and support reinforcements would be the responsibility of the Aviation Authority;
- These assessments, inspections and engineering analyses could delay the project schedule proposed by Alstom Transport USA, Inc.; and,
- The extra costs for any resulting structural reinforcements required because of Alstom Transport USA, Inc.'s heavier APM vehicles would be borne by the Aviation Authority.

In light of these responses, legal counsel advised the PC that that Alstom Transport USA, Inc.'s Technical Proposal was not responsive to the RFP because:

1. Alstom Transport USA, Inc. required the Aviation Authority to perform the underlying analysis to determine the suitability of the guideway structure to carry Alstom Transport USA, Inc.'s proposed heavier cars. Doing so would result in the Aviation Authority assuming the cost, risk, and liability of the underlying analysis and any necessary redesign.
 - a. Requiring the Aviation Authority to perform any redesign necessitated by Alstom Transport USA, Inc.'s heavier cars is contrary to the design-build delivery method

chosen by the Aviation Authority for this Project and contrary to the RFP requirements.

b. For example, the RFP required that:

- i. "If the existing APM station(s) and guideway structure requires modifications to accommodate the proposed APM Operating System, then all modifications required shall be the responsibility of the Contractor and all modified structures shall be maintained by the O&M Contractor for the life of the O&M Contract." TP 3.1.1.
 - ii. "The Contractor is fully responsible for providing an APM System that is compatible with the existing infrastructure. Any modifications to existing facilities necessary to accommodate the Contractor's APM System are the responsibility of the Contractor." TP 3.2.2.
 - iii. "The Contractor shall ensure that: (1) trackwork (i.e. running and guidance surfaces and appurtenances), other guideway equipment, vehicles, construction loads and anything placed on the guideway structure by the Contractor does not overstress the guideway structure and foundations; (2) all Contractor-provided guideway structures and equipment are correctly designed for their functions and structural loads..." TP 13.
 - iv. "The Work shall not result in any unintended lateral or vertical movement of any existing structure." GC 3.1.3.
2. Alstom Transport USA, Inc. did not propose a firm price as required by the RFP.¹ If Alstom Transport USA, Inc.'s heavier vehicles require structural reinforcement to the APM guideway, any additive price was not in its Price Proposal and Alstom Transport USA, Inc. confirmed that the extra cost must be covered by the Aviation Authority.
 3. Alstom Transport USA, Inc. did not propose a firm schedule as required by the RFP (ITP 2.3.1). If structural reinforcement is necessary due to Alstom Transport USA, Inc.'s heavier vehicles, additional time likely would be required to design and implement the necessary changes. This additional time was not accommodated in Alstom Transport USA, Inc.'s proposed schedule and the actual time impact is unknown.

The PC reached the consensus that Alstom Transport USA, Inc.'s requirement that the Aviation Authority perform all structural integrity assessments, inspections, and subsequent engineering analyses of the APM guideways as a result of Alstom Transport USA, Inc.'s heavier vehicles and that the Aviation Authority must pay for the extra costs for any resulting structural reinforcements required because of Alstom Transport USA, Inc.'s heavier APM vehicles did not comply with the Proposal Content Requirements of the RFP for the reasons detailed above. The PC therefore deemed Alstom Transport USA, Inc. as non-responsive to this procurement and ceased any further evaluation or scoring of Alstom Transport USA, Inc.

The PC determined that the Technical Proposal submitted by Mitsubishi Heavy Industries America, Inc. was responsive, and consequently deliberated and consented to establish the total numeric score for its Technical Proposal. After the PC completed the Technical Score for Mitsubishi Heavy Industries America, Inc., the sealed Price Proposal (Envelope B) submitted by Mitsubishi Heavy Industries America, Inc. was publicly opened during the PC meeting. The adjusted score was calculated as follows:

¹ See, e.g., RFP Section 00 41 13, Proposal Form ("By submitting a Proposal, the Proposer represented to the Authority that the Proposal and the Contract is inclusive of sufficient compensation for performing adequate investigations of existing site conditions, the DCP, and existing records to sufficiently support the design developed and proposed by the Proposer...Proposer represents that it has investigated and is fully informed of the conditions to be encountered, of the character, quality and quantities of Work to be performed and materials to be furnished and has included in the Proposal and Contract all items necessary for the proper execution and completion of the Work in accordance with the requisite time frame, applicable laws, statutes, building codes, regulations, or as otherwise required by the Contract Documents.").

	Alstom Transport Did not score	Mitsubishi
PART I: Proposer's Financial Strength and Experience (Maximum Score: 10 points)		9
Part II: Proposed Technology (Phase 1) (Maximum Score: 50 points)		39
Part III: Proposed Management Approach (Phase 1) (Maximum Score: 15 points)		13
Part IV: Operations and Maintenance (Phase 2) (Maximum Score: 20 points)		12
Part V: DBE Participation (Phase 1 and 2) (Maximum Score: 5 points)		4
For reference, the goals are: Design/Build – 12% Operate/Maintain - 9%		
Total Technical Score – Max 100		77
Price		\$346,008,570.00
ADJUSTED SCORE (PRICE/TECH. SCORE)		4,493,617.79

The Adjusted Score for Mitsubishi Heavy Industries America, Inc. was determined to be the lowest responsive Adjusted Score. Mitsubishi Heavy Industries America, Inc. has confirmed its proposal was prepared in accordance with all design criteria documents and addenda, and that it will be able to complete the project for the amount proposed and within the Aviation Authority's schedule.

The Total Proposal Price submitted by Mitsubishi Heavy Industries America, Inc. is as follows:

Total Proposal Price	Mitsubishi
All Phase 1 Work, including interim operation and maintenance of an incomplete system (from Line A1 on Page D-2)	\$177,808,570
All Phase 2 Work for Initial 10 years (from Line 11 of Form OMP)	\$47,833,890
First 10-year Aviation Authority Option (from Line 22 of Form OMP)	\$66,601,060
Second 10-year Aviation Authority Option (from Line 33 of Form OMP)	\$53,765,050
Total Proposal Price (Sum of all four prices)	\$346,008,570

The PC recommended the award of Design/Build/Operate/Maintain (DBOM) Services for BP No. 00477, Automated People Mover (APM) Operating System (OS) for Airsides 2 and 4 at the Orlando International Airport, to Mitsubishi Heavy Industries America, Inc., for the total amount of \$177,808,750 (All Phase 1 Work only), as outlined in the memorandum.

The deadline to protest the PC's disqualification of Alstom Transport USA, Inc. or its recommendation of award to Mitsubishi Heavy Industries America, Inc. expired on September 8, 2023, with no protest being received.

The DCP provided a Phase 1 Contract Agreement form for design-build services and a separate Phase 2 Contract Agreement form for O&M services. The DCP allowed the proposers to identify a separate entity for Phase 2; (i.e. the operating system service supplier) who shall execute the Phase 2 Contract. Mitsubishi Heavy Industries America, Inc. proposed Crystal Mover Services, Inc. as their operating system service supplier. Crystal Mover Services, Inc. will execute the Phase 2 Contract for O&M services at the same time the Phase 1 Contract is executed by Mitsubishi Heavy Industries America, Inc.

The initial O&M Contract term will be for 10 years, effective upon issuance of NTP-2A, with two additional 10-year options at the Aviation Authority's discretion, for a total possible O&M Contract of 30 years. The initial ten-year term of the Phase 2 Contract will not begin until Substantial Completion of the APM System for Airside 2 and issuance of NTP-2A.

On August 16, 2023, the Aviation Authority Board approved the update to the Fiscal Year (FY) 2021-2028 Capital Improvement Plan (CIP) for MCO. This CIP update included budget adjustments to the Airsides 2 and 4 APM System Replacement Program, increasing the program budget from \$155 million to \$161.5 million.

On September 23, 2023, the Capital Management Committee recommended the approval of a CIP update to increase the program budget from \$161.5 million to \$225 million, and update the funding plan to accommodate this award.

SMALL BUSINESS

A Disadvantaged Business Enterprise (DBE) participation goal of 12% for Design/Build and a combined DBE/Minority and Women Business Enterprise (MWBE)/Local Developing Business (LDB)/Veteran Business Enterprise (VBE) participation goal of 9% for Operate/Maintain were established for this Project. Following review by the Aviation Authority of the proposal from Mitsubishi Heavy Industries America, Inc., it was determined that Mitsubishi Heavy Industries America, Inc. proposes DBE participation goals of 12% for Design/Build and 9.2% for Operate/Maintain.

ALTERNATIVES

The Aviation Authority Board may send the matter back to committee for further consideration or reject all proposals.

FISCAL IMPACT

The fiscal impact is \$225,642,460, which includes a Phase 1 Contract in the amount of \$177,808,570 with Mitsubishi Heavy Industries America, Inc. for Design-Build Services, with funding from Florida Department of Transportation (FDOT) Grants to the extent eligible, General Airport Revenue Bonds, previously-approved Capital Expenditure Funds, and Line of Credit to be reimbursed by future Passenger Facility Charges to the extent eligible; and a Phase 2 Contract in the amount of \$47,833,890 with Crystal Mover Services, Inc. for the initial 10-year term of O&M services, with funding from previously-approved Operation and Maintenance Funds. Because the prices proposed are in today's dollars, the Phase 2 Contract sets forth the process for an equitable economic price adjustment to the yearly Phase 2 Contract prices. Any economic price adjustment must be separately approved by the Aviation Authority Board.

RECOMMENDED ACTION

It is respectfully requested that the Aviation Authority Board resolve to accept the recommendation of the Procurement Committee and (1) approve the award of Design/Build/Operate/Maintain (DBOM) Services for BP No. 00477, Automated People Mover (APM) Operating System (OS) for Airsides 2 and 4 at the

Orlando International Airport, to Mitsubishi Heavy Industries America, Inc., for the total proposal price for all Phase 1 Work in the amount of \$177,808,750, with funding from FDOT Grants to the extent eligible, previously-approved Capital Expenditure Funds, General Airport Revenue Bonds, and Line of Credit to be reimbursed by future Passenger Facility Charges to the extent eligible, and an initial Phase 2 Contract in the amount of \$47,833,890 with Crystal Mover Services, Inc. for the initial 10-year term of O&M services, with funding from previously-approved Operation and Maintenance Funds; (2) approve the CIP Update; and, (3) authorize an Aviation Authority Officer or the Chief Executive Officer to execute the necessary contract documents following satisfactory review by legal counsel.

PROPOSED PRICES-- PHASE 1

All prices shall be in United States dollars and the total lump sum fixed price as written below shall not be subject to any economic price adjustment for inflation, currency exchange, or other economic conditions.

FOR ALL PHASE 1 WORK REQUIRED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS (INCLUDING INTERIM OPERATION AND MAINTENANCE OF AN INCOMPLETE SYSTEM), INCLUDING ALL COSTS RELATED TO THE PHASE 1 WORK, AND ANY REQUIRED PERMITS, TAXES, BONDS AND INSURANCE.

	TOTALS
A1. Proposed Price for All Phase 1 Work:	\$177,808,570
Line A1 Written in Words	<u>Onehundred Seventy Seven Milion Eighthundred Eight Thousand Five Hundred Seventy</u> Dollars

PROPOSAL PRICING SUMMARY

The following is a Fixed Price Summary for items comprising the APM Operating System (OS) for replacement Airside 2 & Airside 4 at Orlando International Airport. Detailed breakdowns shall be provided on the supporting WBS forms. All pricing data shall be in United States dollars. All prices are fixed and shall not be subject to any economic price adjustments for quantity variation, inflation, currency exchange or other economic conditions. **Proposer shall provide relevant and proper pricing for each of the separate WBS Price Breakdowns.**

WBS No.	ITEM DESCRIPTION	ITEM TOTAL (\$)
1.1	Guideway Facilities	\$30,743,456.00
1.2	Station Facilities	\$3,174,080.00
1.3	Maintenance and Storage Facility	\$1,231,000.00
1.4	Power Distribution System Facilities	\$2,733,000.00
1.5	Central Control Facility	\$956,000.00
1.6	Equipment Rooms	\$1,483,000.00
1.7	Infrastructure and Site Work	\$337,000.00
1.8	Fixed Facility Verification and Acceptance	\$0.00
2.1	Guideway Equipment	\$523,000.00
2.2	Station Equipment	\$14,091,000.00
2.3	Maintenance and Storage Facility Equipment	\$5,964,734.00
2.4	Power Distribution System Equipment	\$15,138,280.00
2.5	Automatic Train Control (ATC) Equipment	\$6,263,000.00
2.6	Audio and Video Communications Equipment	\$8,927,020.00
2.7	Vehicles	\$23,301,000.00
2.8	Other Operating System Equipment	\$493,000.00
2.9	Operating System Verification and Acceptance	\$0.00
2.10	Project Management and Administration	\$61,808,000.00
2.11	Interim Operations & Maintenance Services	\$642,000.00
TOTAL PROPOSED PRICE FOR ALL PHASE 1 WORK		\$177,808,570.00

In the event of any discrepancies between this form and the Proposal Form Section 00 41 13, the Proposal Form Section 00 41 13 will govern.

AIRSIDE 2 AND AIRSIDE 4 APM

PHASE 1 PRICE BREAKDOWN						
<u>Airside 2 and 4 APM Systems - Guideway Facilities (WBS - 1.1)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.1.1	Guideway Structure	Contractor shall paint existing guideway structural steel. Proposer to include any modifications, if required	Ft	1,762	\$3,305	\$5,823,410
1.1.2	Cathodic Protection of Guideway Structures	Proposer to include, if required	Lot	NA	NA	NA
1.1.3	Drainage	Drains from Airside 2 and 4 APM System to existing outlets/facilities, and interface with track and equipment, if necessary. Proposer to verify all drains are cleaned out and functional for intended use, and perform remedial work as necessary to ensure proper functionality of drainage system.	Lot	NA	NA	NA
1.1.4	Lightning Protection System		Lot	NA	NA	NA
1.1.5	Grounding	Interface and connect Airside 2 and 4 APM Systems Equipment to existing and/or new grounding systems. Proposer to verify existing grounding system performance and provide additional grounding, if necessary.	Lot	2	\$244,000	\$488,000

PHASE 1 PRICE BREAKDOWN
Airside 2 and 4 APM Systems - Guideway Facilities (WBS - 1.1)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.1.6	Emergency Walkway System and Railings	Existing Emergency walkway railings (as-is). Proposer to use existing system, and update/upgrade if necessary. Contractor shall paint existing emergency walkway railings. Contractor shall provide emergency walkway	Lot	7,208	\$211	\$1,520,886
1.1.7	Emergency Walkway Lighting System	Contractor shall replace existing emergency lighting system in accordance with TP 13.6.2	Lot	2	\$121,000	\$242,000
1.1.8	Conduits, Cable Trays, Chases, Wireways, Junction/Equipment Boxes, Ductbanks	All Operating System items required and designed in light of the existing items and their interface. Proposer to include all additional and new items, as required, without impacting adjacent lane.	Lot	2	\$1,463,000	\$2,926,000
1.1.9	Security Barriers	Fencing and access gates	Lot	NA	NA	NA
1.1.10	Guideway Exit Stairs and Doors	All Operating System items required and designed in light of the existing items and their interface. Proposer to include new equipment, if necessary.	Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN
Airside 2 and 4 APM Systems - Guideway Facilities (WBS - 1.1)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.1.1.11	Signage	All Airside 2 and 4 APM Systems specific signage associated with the APM System equipment; all signage along guideways necessary to assure safety, including those required for guideway emergency egress	Lot	2	\$72,000	\$144,000
1.1.1.12	Landscaping and Irrigation	All landscaping areas and irrigation systems disturbed or damaged during construction shall be returned to their initial condition.	Lot	2	\$92,500	\$185,000
1.1.1.13	Other Guideway Facilities Work Unique to Operating System		Lot	2	\$164,000	\$328,000
1.1.1.14	Interface and Design Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.1.1.15	Running Surfaces (Track)		Lot	8,408	\$2,270	\$19,086,160

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Guideway Facilities (WBS - 1.1)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.1.16	Embedded Reinforcing into Authority Provided Guideway for Running Surface Plinths, Guide Beam Pedestals and Crossover Slabs	Including but not limited to the development of: a Quality Control Plan for proper installation of embedded reinforcing; layout including all Horizontal and Vertical Control; locating of reinforcing steel in Authority Provided Guideway; furnish and install drilled and epoxy reinforcing steel for running plinths, guide beam pedestals and crossover slabs if required.	Lot	included in 1.1.15	included in 1.1.15	included in 1.1.15
GUIDEWAY FACILITIES (WBS - 1.1) TOTAL						\$30,743,456

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D -5

PHASE 1 PRICE BREAKDOWN
Airside 2 and 4 APM Systems - Station Facilities (WBS - 1.2)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.2.1	Station Structures	Proposer to include additional and new items, if required.	Lot	NA	NA	NA
1.2.2	Cathodic Protection of Station Structures		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.2.3	Station Equipment Rooms	Include update/upgrade only if needed. Use of modular design based on analysis of Operating System needs and project phasing and design, to ensure no impact on adjacent lane.	Lot	1	\$157,000	\$157,000
1.2.4	Access/Egress and Vertical Circulation	Proposer to use existing		NA	NA	NA
1.2.5	Platforms	Update/upgrade to comply with current codes and standards.	Platform side	16	\$36,690	\$587,040
1.2.6	Platform Edge Walls	Update/upgrade to comply with current codes and standards.	Platform side	16	\$28,100	\$449,600
1.2.7	Emergency Egress Doors	Update/upgrade to comply with current codes and standards.	Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN Airside 2 and 4 APM Systems - Station Facilities (WBS - 1.2)						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.2.8	Emergency/Maintenance Walkway Doors	Update/upgrade to comply with current codes and standards.Existing as-is	Lot	NA	NA	NA
1.2.9	Platform Edge Threshold		Platform side	16	\$20,940	\$335,040
1.2.10	Platform Edge Rubstrips		Platform side	16	\$38,775	\$620,400
1.2.11	Lighting	Include update/upgrade, to support compliance with current codes and standards.Proposer to replace <u>existing neon lighting with cold neon lighting in glass</u>	Lot	8	\$68,000	\$544,000
1.2.12	Signage, Static	Include update/upgrade, to support compliance with current codes and standards.	Lot	8	\$2,875	\$23,000
1.2.13	Signage, Dynamic		Platform side	1	\$182,000	\$182,000
1.2.14	Refuge Area	Proposer to provide any upgrade and/or modification as required.	Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN
Airside 2 and 4 APM Systems - Station Facilities (WBS - 1.2)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.2.15	Grounding	Review of existing, interfaces and connections of APM System equipment to existing (if adequate). Proposer to include additional grounding, if required.	Lot	1	\$115,000	\$115,000
1.2.16	Fire Detection and Protection System	Update/upgrade to comply with current codes and standards and interface with existing system in the Terminal.	Lot	NA	NA	NA
1.2.17	Housekeeping Power	Include additional distribution, update/upgrade, to support APM design.	Lot	1	\$80,000	\$80,000
1.2.18	Drainage	Drains from Airside 2 and 4 APM Systems to track and equipment. Proposer to verify all drains are cleaned out and functional for intended use, and perform remedial work as necessary to ensure proper functionality of drainage system.	Lot	NA	NA	NA
1.2.19	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.2.20	Landscaping and Irrigation			NA	NA	NA

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Station Facilities (WBS - 1.2)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.2.21	Conduits, Cable Trays, Chases, Wireways, Junction/Equipment Boxes, Ductbanks	All Operating System items required and designed in light of the existing items and their interface. Proposer to include additional and new items, if necessary, without impacting adjacent lane.	Lot	1	\$56,000	\$56,000
1.2.22	Other Station Facilities Work Unique to Operating System		Lot	1	\$25,000	\$25,000
STATION FACILITIES (WBS - 1.2) TOTAL						\$3,174,080

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Maintenance and Storage Facility (WBS - 1.3)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.3.1	Maintenance and Storage Facility (M&SF) Building	Include update/upgrade only if needed. Use of modular design based on analysis of Operating System needs and project phasing and design, to ensure no impact on adjacent lane. See subcategories.	Lot	NA	NA	NA
1.3.1.1	Structural	See 1.3.1 above	Lot	NA	NA	NA
1.3.1.2	Architectural	See 1.3.1 above	Lot	1	\$398,000	\$398,000
1.3.1.3	Mechanical/Electrical/ Plumbing	See 1.3.1 above	Lot	1	\$518,000	\$518,000
1.3.2	Vehicle/Train Wash Facility	Existing as-is. See WBS 2.3.14 ~~Include additional distribution and update/upgrade existing to support APM design and meet current codes.~~	Lot	NA	NA	NA
1.3.3	Site Utilities	Include update/upgrade only if needed. Use of modular design based on analysis of Operating System needs and project phasing and design, to ensure no impact on adjacent lane.	Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Maintenance and Storage Facility (WBS - 1.3)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.3.4	Grounding	Review of existing, interfaces and connections of Airside 2 and 4 APM Systems (APM System equipment) to existing (if adequate). Proposer to include additional grounding, if necessary.	Lot	1	\$115,000	\$115,000
1.3.5	Power Distribution System Substation Facility(ies) at the M&SF	Review of existing, interfaces and connections of Airside 2 and 4 APM Systems (APM System equipment) to existing (if adequate). Proposer to include additional items, if necessary.	Lot	1	\$200,000	\$200,000
1.3.6	Cathodic Protection of M&SF Structures		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.3.7	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
MAINTENANCE & STORAGE FACILITY (WBS - 1.3) TOTAL						\$1,231,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Power Distribution System Facilities (WBS - 1.4)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.4.1	Facilities / Spaces / Vaults			NA	NA	NA
1.4.2	Grounding	Review of existing, interfaces and connections of Airside 2 and 4 APM Systems (APM System equipment) to existing (if adequate). Proposer to include additional grounding, if required.	Lot	1	\$229,000	\$229,000
1.4.3	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.4.4	Conduits, Cable Trays, Chases, Wireways, Junction/Equipment Boxes, Ductbanks	All Operating System items required and designed in light of the existing items and their interface. Proposer to include additional and new items, if required without impacting adjacent lane.	Lot	1	\$747,000	\$747,000
1.4.5	Cathodic Protection of Facility Structure		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.4.6	Primary Feeder Ductbank and Conduits	Ductbanks and conduits required for Contractor-provided primary power distribution at the M&SF.	Lot	2	\$686,500	\$1,373,000
1.4.7	Fire Detection and Protection System		Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Power Distribution System Facilities (WBS - 1.4)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.4.8	Signage	All Airside 2 and 4 APM Systems specific signage associated with the APM System equipment and Include update/upgrade existing signage, to support compliance with current codes and standards.	Lot	NA	NA	NA
1.4.9	Housekeeping Power	Include additional distribution, update/upgrade, to support APM design.	Lot	1	\$213,000	\$213,000
1.4.10	Lighting	Include additional lighting, update/upgrade, to support APM design.	Lot	NA	NA	NA
1.4.11	Drainage	Drains from Airsides 2 and 4 APM Systems to existing and interfaces with track and equipment. Contractor to verify all drains are cleaned out and functional for intended use, and perform remedial work as necessary to ensure proper functionality of drainage system.	Lot	NA	NA	NA
1.4.12	Security Barriers	Fencing and access gates	Lot	NA	NA	NA
1.4.13	Other Power Distribution System Facilities Work Unique to Operating System		Lot	1	\$171,000	\$171,000

PHASE 1 PRICE BREAKDOWN						
<u>Airside 2 and 4 APM Systems - Power Distribution System Facilities (WBS - 1.4)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
		POWER DISTRIBUTION SYSTEM FACILITIES (WBS - 1.4) TOTAL				\$2,733,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Central Control Facility (WBS - 1.5)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.5.1	Central Control Facility (Including the Central Control Facility Equipment Room)	Include update/upgrade only if needed. Use of modular design based on analysis of Operating System needs and project phasing and design, to ensure no impact on adjacent lane.	Lot	1	\$545,000	\$545,000
1.5.2.1	Backup Central Control Facility	Proposer to include all fit out/modifications required for a fully functional Backup Central Control.	Lot	1	\$411,000	\$411,000
1.5.3	Interface Requirements Submittal		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.5.4	Furnishings, Fixtures and Equipment		Lot	included in 1.5.1	included in 1.5.1	included in 1.5.1
1.5.5	Other Central Control Facility Facilities Work Unique to Operating System		Lot	NA	NA	NA
CENTRAL CONTROL FACILITY (WBS - 1.5) TOTAL						\$956,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN
Airside 2 and 4 APM Systems - Equipment Rooms (WBS - 1.6)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.6.1	Equipment Rooms and Spaces	Finish out of shells, including all furnishings, fixtures and equipment and all mechanical, electrical and plumbing distributions as well as any additional HVAC, if required.	Lot	1	\$417,000	\$417,000
1.6.2	Grounding	Review of existing, interfaces and connections of Airside 2 and 4 APM Systems (APM System equipment) to existing (if adequate). Proposer to include additional grounding, if required.	Lot	1	\$115,000	\$115,000
1.6.3	Interface and Design Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.6.4	Conduits, Cable Trays, Chases, Wireways, Junction/Equipment Boxes, Ductbanks	All Operating System items required and designed in light of the existing items and their interface. Proposer to include additional and new items, if required, without impacting adjacent lane.	Lot	1	\$398,000	\$398,000
1.6.5	Anti-Static Access Floor System, Including Covering	If required	Sq ft	NA	NA	NA
1.6.6	Fire Detection and Protection System		Lot	1	\$553,000	\$553,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems</u> - Equipment Rooms (WBS - 1.6)						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.6.7	Signage	Update/upgrade, to support compliance with current codes and standards.	Lot	NA	NA	NA
1.6.8	Cathodic Protection of Structures	Update/upgrade, to support compliance with current codes and standards.		NA	NA	NA
1.6.9	Other Airside 2 and 4 APM System Equipment Room Facility Work Unique to Operating System		Lot	NA	NA	NA
EQUIPMENT ROOMS (WBS - 1.6) TOTAL						\$1,483,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems</u> - Infrastructure and Site Work (WBS - 1.7)						
WBS No,	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.7.1	Modifications of Existing Structures	Update/upgrade, to comply with current codes and standards.	Lot	NA	NA	NA
1.7.2	Interface and Design Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.7.3	Traffic Management Plan	Proposer to provide off-duty patrol car with flashing lights (e.g., OPD, FHP, OCS) during all MOT UONs of lanes of Jeff Fuqua Blvd.	Lot	1	\$337,000	\$337,000
1.7.4	Utilities Relocation		Lot	NA	NA	NA
1.7.5	Site Preparation		Lot	NA	NA	NA
INFRASTRUCTURE AND SITE WORK (WBS - 1.7) TOTAL						\$337,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Fixed Facility Verification and Acceptance (WBS - 1.8)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
1.8.1	Demonstrate Compliance with all related Contractual Requirements through the CDRL Process	Related only to any Fixed Facilities Work performed by Airside 2 and 4 APM Systems Proposer	Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
1.8.2	Review and Accept Authority Fixed Facilities Designs and Inspect and Accept Construction for Installation of Operating System	Related only to any Fixed Facilities Work performed by Authority	Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
FIXED FACILITY VERIFICATION & ACCEPTANCE (WBS - 1.8) TOTAL						\$0

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Guideway Equipment (WBS - 2.1)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.1.1	Guidance and Retention Devices (Track)		Lane ft	included in 1.1.15	included in 1.1.15	included in 1.1.15
2.1.2	Overtravel Buffers	~~Include update/upgrade only if needed.~~	Each	8	\$65,375	\$523,000
2.1.3	Interface Requirements Submittals		Each	included in 2.10.3	included in 2.10.3	included in 2.10.3
2.1.4	Other Guideway Equipment		Lot	NA	NA	NA
GUIDEWAY EQUIPMENT (WBS - 2.1) TOTAL						\$523,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Station Equipment (WBS - 2.2)</u>						
WBS No,	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.2.1	Automatic Platform Door System	See also WBS 1.2.6 for edge wall.	Platform Side	16	\$848,250	\$13,572,000
2.2.2	Signage, Dynamic		Each	included in 1.2.13	included in 1.2.13	included in 1.2.13
2.2.3	Conduits, Cable Trays, Chases, Wireways, Junction / Equipment Boxes, Ductbanks	See WBS 1.2.21	Lot	1	\$519,000	\$519,000
2.2.4	Fire Protection System	Any unique or supplemental fire protection system required by Airside 2 and 4 APM Systems. Include FM-200 (or similar) fire suppression system in all station equipment rooms, CCR and BCCR Remove conventional fire sprinkler pipe and heads (wet or dry systems) as necessary. Provide and install Contractor's equipment (i.e. inert gas system or other).	Lot	NA	NA	NA
2.2.5	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3

PHASE 1PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Station Equipment (WBS - 2.2)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.2.6	Other Airside 2 and 4 APM Systems Station Equipment		Lot	NA	NA	NA
STATION EQUIPMENT (WBS - 2.2) TOTAL						\$14,091,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D – 5

PHASE 1PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Maintenance and Storage Facility Equipment (WBS - 2.3)

WBS No,	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
<i>All Operating System Equipment requirements (Entire WBS 2.3) shall be designed and procured in light of the existing items and their interface. Proposer to include additional and new items, if required, and without impacting adjacent lane service.</i>						
2.3.1	Maintenance and Storage Facility (M&SF) Outfitting, Fixtures, Equipment, Furniture and Furnishings		Lot	1	\$909,000	\$909,000
2.3.2	Maintenance Tools and Equipment	Including all necessary special tools, equipment and machinery	Lot	1	\$23,000	\$23,000
2.3.3	Equipment/Provisions to Recover Disabled Vehicles		Lot	included in 2.3.1	included in 2.3.1	included in 2.3.1
2.3.4	Non-Guideway Service Vehicles (including road- based vehicles)		Each	2	\$46,500	\$93,000
2.3.5	Maintenance Management Information System (MMIS)		Each	1	\$1,774,734	\$1,774,734
2.3.6	Consumables and Expendable Parts (12- month supply)		Lot	1	\$137,000	\$137,000

PHASE 1PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Maintenance and Storage Facility Equipment (WBS - 2.3)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.3.7	Spare Parts (12-month supply)		Lot	1	\$2,439,000	\$2,439,000
2.3.8	APM System Contractor- Specific Lighting System		Lot	NA	NA	NA
2.3.9	APM System Contractor- Specific Electrical System		Lot	1	\$57,000	\$57,000
2.3.10	Integrate Operating System Equipment with the M&SF Fac.		Lot	included in 2.3.7	included in 2.3.7	included in 2.3.7
2.3.11	Locker Room Equipment	Including lockers, benches, and other furnishings	Lot	NA	NA	NA
2.3.12	Eye-Wash		Each	included in 2.3.1	included in 2.3.1	included in 2.3.1
2.3.13	Warning Lights		Lot	1	\$15,000	\$15,000
2.3.14	Vehicles/Train Wash Equipment		Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Maintenance and Storage Facility Equipment (WBS - 2.3)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.3.15	Wastewater System	Including storage and disposal of effluents as required	Lot	NA	NA	NA
2.3.16	Other M&SF Equipment		Lot	1	\$517,000	\$517,000
2.3.17	Other Waste Storage and Disposal Equipment	As required for storage and legal disposal of all trash/waste, including industrial and hazardous	Lot	NA	NA	NA
2.3.18	Interface Requirements Submittal	The Contractor shall replace existing emergency backup power system in accordance with TP 10.2.2. ~~Proposer to provide and install any modification and/or changes that may be required to the existing emergency backup power system equipment.~~	Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
MAINTENANCE & STORAGE FACILITY EQUIPMENT (WBS - 2.3) TOTAL						\$5,964,734

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D – 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Power Distribution System Equipment (WBS - 2.4)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.4.1	Substation Power Conditioning Equipment		Each Substation	NA	NA	NA
2.4.2	Primary Power Distribution Airside 2		Each Substation	1	\$1,530,000	\$1,530,000
2.4.2.1	Primary Power Distribution Airside 4		Each Substation	1	\$1,530,000	\$1,530,000
2.4.3	Secondary Power Distribution Airside 2		Each Substation	1	\$318,000	\$318,000
2.4.3.1	Secondary Power Distribution Airside 4		Each Substation	1	\$318,000	\$318,000
2.4.4	Non-Propulsion PDS Equipment		Lot	NA	NA	NA
2.4.5	Lightning Protection		Lot	NA	NA	NA
2.4.6	Propulsion PDS Equipment		Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Power Distribution System Equipment (WBS - 2.4)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.4.7	Power Rails		Ft	8,408	\$410	\$3,447,280
2.4.8	Uninterruptible Power Supplies		Each Substation	1	\$1,544,000	\$1,544,000
2.4.9	Power Factor and/or Harmonic Correction Equipment		Lot	4	\$200,250	\$801,000
2.4.10	Fire Protection System	Any unique or supplemental fire protection system required.	Lot	NA	NA	NA
2.4.11	Blue Light Stations		Each	18	\$4,000	\$72,000
2.4.12	Interface Requirements Submittal		Lot	1	\$90,000	\$90,000
2.4.13	Other Airside 2 and 4 APM Systems PDS Equipment		Lot	NA	NA	NA

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Power Distribution System Equipment (WBS - 2.4)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.4.14	Power Metering	Proposer to provide and install any modification and/or changes that may be required to the existing power metering system to meet current code and OUC requirements.	Each Substation	NA	NA	NA
2.4.15	Cathodic Protection	As required by Operating System design	Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
2.4.16	Furniture and Fixtures		Lot	NA	NA	NA
2.4.17	Grounding	See WBS 1.4.2	Lot	1	\$350,000	\$350,000
2.4.18	Emergency Backup Power System	Proposer to provide and install any modification and/or changes that may be required to the existing emergency backup power system equipment.	Each Substation	4	\$1,206,000	\$4,824,000
2.4.19	Remove existing APM emergency generator control panel equipment	Contractor shall remove and properly dispose of the exiting emergency generator control panel equipment for Airside 2, 4, 1, and 3 all located in the Comms Center on the wall as shown in the Reference Documents. Contractor shall also repair and repaint wall. See TP Section 10.2.2.	Lot	1	\$61,000	\$61,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems</u> - Power Distribution System Equipment (WBS - 2.4)						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.4.20	Temporary power during construction and testing		Lot	1	\$91,000	\$91,000
2.4.21	Remove existing APM emergency generator fuel storage tanks	The Contractor shall remove and properly dispose of the existing underground fuel storage tanks. The Contractor shall also restore the surface/ground to its original condition. See TP 10.2.2.2	Lot	2	\$81,000	\$162,000
ELECTRICAL POWER SYSTEM EQUIPMENT (WBS - 2.4) TOTAL						\$15,138,280

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Automatic Train Control (ATC) Equipment (WBS - 2.5)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
<i>All Operating System Equipment requirements (Entire WBS 2.5) shall be designed and procured in light of the existing items and their interface. Proposer to include additional and new items, if required, and without impacting adjacent lane service.</i>						
2.5.1	Automatic Train Protection (ATP) Equipment		Lane Ft	1	\$1,291,000	\$1,291,000
2.5.2	Automatic Train Operation (ATO) Equipment		Lane Ft	1	\$1,221,000	\$1,221,000
2.5.3	Automatic Train Supervision (ATS) Equipment		Lane Ft	1	\$1,258,000	\$1,258,000
2.5.4	Supervisory Control and Data Acquisition (SCADA) System	If provided separate from or adjunct to ATS equipment	Lot	1	\$743,000	\$743,000
2.5.5	Central Control Facility for Airside 2 and 4 APM Systems Equipment		Lot	1	\$129,000	\$129,000
2.5.6.1	Backup Central Control APM System Equipment		Lot	1	\$181,000	\$181,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Automatic Train Control (ATC) Equipment (WBS - 2.5)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.5.6.2	Remote CCO Workstation System Equipment	Proposer to provide and install all Remote CCO workstation equipment. Any modification and/or changes that may be required to the existing console to accommodate the new equipment shall be the responsibility of the Proposer. Proposer shall coordinate with Authority		included in 2.5.3	included in 2.5.3	included in 2.5.3
2.5.7	Unique Fire Protection System	All unique or supplemental fire protection system required by the Airside 2 and 4 APM Systems Contractor - See WBS 1.6.6	Lot	included in 1.6.6	included in 1.6.6	included in 1.6.6
2.5.8	Furniture & Fixtures for CCF		Lot	1	\$520,000	\$520,000
2.5.9	Interface Requirement Submittals		Lot	1	\$409,000	\$409,000
2.5.10	Other Airside 2 and 4 APM Systems ATC Equipment		Lot	1	\$511,000	\$511,000
AUTOMATIC TRAIN CONTROL (ATC) EQUIPMENT (WBS - 2.5) TOTAL						\$6,263,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Audio and Video Communications Equipment (WBS - 2.6)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.6.1	Wayside Public Address System (to Stations and to Maintenance and Storage Facility)	Proposer to update/upgrade to comply with current codes and standards and interface with existing system in the Terminal.	Lot	1	\$2,775,000	\$2,775,000
2.6.2	Emergency Telephone System	Proposer to update/upgrade to comply with current codes and standards and interface with existing system in the Terminal.	Lot	1	\$296,000	\$296,000
2.6.3	Internal Telephone System	Proposer to update/upgrade to comply with current codes and standards and interface with existing system in the Terminal.	Lot	1	\$65,000	\$65,000
2.6.4	Vehicle Voice Communication System		Each Vehicle	12	\$32,835	\$394,020
2.6.5	Audio Announcement System		Lot	NA	NA	NA
2.6.6	Operations and Maintenance Radio Communications System		Lot	1	\$371,000	\$371,000
2.6.7	Audio Recording and Playback System		Lot	1	\$88,000	\$88,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Audio and Video Communications Equipment (WBS - 2.6)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.6.8	Video Surveillance Subsystem		Lot	1	\$1,774,000	\$1,774,000
2.6.9	Audio, Video and/or Data Communications System		Lot	1	\$1,466,000	\$1,466,000
2.6.10	Other Airside 2 and 4 APM Systems Audio and Video Communications Equipment		Lot	1	\$1,698,000	\$1,698,000
2.6.11	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
2.6.12	CCTV System on Vehicles		Each Vehicle	NA	NA	NA
AUDIO & VIDEO COMMUNICATIONS EQUIPMENT (WBS - 2.6) TOTAL						\$8,927,020

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Vehicles (WBS - 2.7)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.7.1	Vehicles, Complete		Each Vehicle	12	\$1,941,750	\$23,301,000
VEHICLES (WBS - 2.7) TOTAL						\$23,301,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Other Operating System Equipment (WBS - 2.8)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.8.1	Special Passenger Emergency Evacuation Equipment	See TP 13.6.1.	Lot	NA	NA	NA
2.8.2	Parts, Instruments and Supplies for System Verification		Lot	NA	NA	NA
2.8.3	Interface Requirements Submittals		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
2.8.4	Access Control System	Provide access control system in accordance with TP 7.2.1.2.	Lot	1	\$493,000	\$493,000
2.8.5	Intrusion Alarms	Supply and Install System compatible with Authority Access Control System; supply and install complete system at the M&SF.	Lot	NA	NA	NA
2.8.6	Other APM System Required Equipment	Provide a list included in this WBS element	Lot	NA	NA	NA
OTHER OPERATING SYSTEM EQUIPMENT (WBS - 2.8) TOTAL						\$493,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Operating System Verification and Acceptance (WBS - 2.9)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.9.1	Demonstrate Compliance with all related Contractual Requirements through the CDRL Process		Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
OPERATING SYSTEM VERIFICATION & ACCEPTANCE (WBS - 2.9) TOTAL						\$0

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN

Airside 2 and 4 APM Systems - Contractor's Project Management and Administration (WBS - 2.10)

WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.10.1	Scheduling	Proposer schedules are required to interface with Authority schedules	Months	46	\$51,000	\$2,346,000
2.10.2	Cost Control and Documentation		Person Hours	3,000	\$230	\$690,000
2.10.3	Analysis, Design, and Engineering		Person Hours	37,000	\$230	\$8,510,000
2.10.4	Inspection, Test and Demonstration Management		Person Hours	40,000	\$230	\$9,200,000
2.10.5	Construction and Installation Management		Person Hours	10,000	\$230	\$2,300,000
2.10.6	Quality Assurance and Control of Work		Person Hours	1,700	\$230	\$391,000
2.10.7	Safety Plan and Program Execution		Person Hours	1,600	\$230	\$368,000
2.10.8	Bonds		Lot	1	\$2,498,000	\$2,498,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Contractor's Project Management and Administration (WBS - 2.10)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.10.9	Insurance		Lot	1	\$3,044,000	\$3,044,000
2.10.10	Permits, Licenses, Certificate of Occupancy		Lot	NA	NA	NA
2.10.11	Guarantees and Warrantees	Except for Authority-provided facilities and equipment	Lot	included in 2.10.3	included in 2.10.3	included in 2.10.3
2.10.12	Training		Person Hours	400	\$230	\$92,000
2.10.13	Interface and Coordination Activities		Person Hours	500	\$230	\$115,000
2.10.14	Project Identification Signage		Lot	1	\$5,000	\$5,000
2.10.15	Project Documents, including "As-builts", Software Documentation and CDRL Documentation		Lot	1	\$1,022,000	\$1,022,000
2.10.16	Administration and Project Management		Months	46	\$585,500	\$26,933,000

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems</u> - Contractor's Project Management and Administration (WBS - 2.10)						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.10.17	Construction Staging Area and Field Office Site	Including one set of utility connection points	Lot	1	\$2,586,000	\$2,586,000
2.10.18	Field Office	Including utility connections and distribution, as required	Lot	1	\$1,708,000	\$1,708,000
CONTRACTOR'S PROJECT MANAGEMENT AND ADMINISTRATION (WBS - 2.10) TOTAL						\$61,808,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

PHASE 1 PRICE BREAKDOWN <u>Airside 2 and 4 APM Systems - Interim Operations and Maintenance Services (WBS - 2.11)</u>						
WBS No.	WBS Element	Comments	Unit	Quantity	Unit Price	Total Price
2.11.1	Airside 4, Lane (4600) Interim O&M Services		Lot	1	\$321,000	\$321,000
2.11.2	Airside 2, Lane (4800) Interim O&M Services		Lot	1	\$321,000	\$321,000
INTERIM OPERATIONS AND MAINTENANCE SERVICES (WBS - 2.11) TOTAL						\$642,000

INSERT TOTAL ON PHASE 1 PROPOSAL PRICING SUMMARY FORM, PAGE D - 5

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
Project Management				
TBD	Site Preparation (Construction Staging Area and Field Office Site)	46	month	\$4,294,000
TBD	Bonds	1	Lot	\$2,498,000
TBD	Insurance	1	Lot	\$3,044,000
TBD	Administration and Project Management	46	month	\$29,282,950
TBD	Training	1	Lot	\$92,000
Engineering Work				
Preliminary Design				
TBD	Guideway Preliminary Design : Preparation/Submission	1	Lot	\$177,780
TBD	Guideway Preliminary Design : Review/Approval	1	Lot	\$44,445
TBD	M&SF Preliminary Design : Preparation/Submission	1	Lot	\$177,780
TBD	M&SF Preliminary Design : Review/Approval	1	Lot	\$44,445
TBD	PDS Preliminary Design : Preparation/Submission	1	Lot	\$444,440
TBD	PDS Preliminary Design : Review/Approval	1	Lot	\$111,110
TBD	PSD Preliminary Design : Preparation/Submission	1	Lot	\$177,780
TBD	PSD Preliminary Design : Review/Approval	1	Lot	\$44,445
TBD	ATC Preliminary Design : Preparation/Submission	1	Lot	\$355,555
TBD	ATC Preliminary Design : Review/Approval	1	Lot	\$88,890
TBD	Comms Preliminary Design : Preparation/Submission	1	Lot	\$266,665
TBD	Comms Preliminary Design : Review/Approval	1	Lot	\$66,670
TBD	Vehicle Preliminary Design : Preparation/Submission	1	Lot	\$666,660
TBD	Vehicle Preliminary Design : Review/Approval	1	Lot	\$166,665
Final Design				
TBD	Guideway Final Design : Preparation/Submission	1	Lot	\$76,190
TBD	Guideway Final Design : Review/Approval	1	Lot	\$19,050
TBD	M&SF Final Design : Preparation/Submission	1	Lot	\$76,190
TBD	M&SF Final Design : Review/Approval	1	Lot	\$19,050
TBD	PDS Final Design : Preparation/Submission	1	Lot	\$190,475
TBD	PDS Final Design : Review/Approval	1	Lot	\$47,620
TBD	PSD Final Design : Preparation/Submission	1	Lot	\$76,190
TBD	PSD Final Design : Review/Approval	1	Lot	\$19,050
TBD	ATC Final Design : Preparation/Submission	1	Lot	\$152,380
TBD	ATC Final Design : Review/Approval	1	Lot	\$38,095
TBD	Comms Final Design : Preparation/Submission	1	Lot	\$114,285
TBD	Comms Final Design : Review/Approval	1	Lot	\$28,575
TBD	Vehicle Final Design : Preparation/Submission	1	Lot	\$285,715

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	Vehicle Final Design : Review/Approval	1	Lot	\$71,430
CDRLs				
TBD	#01 Correspondence Ctrl Designee Preparation/Submission	1	Lot	\$11,115
TBD	#01 Correspondence Ctrl Designee Review & Approval	1	Lot	\$4,765
TBD	#02 Project Management Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#02 Project Management Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#02 Project Management Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#02 Project Management Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#03 Network Analysis -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#03 Network Analysis -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#03 Network Analysis -Final Preparation/Submission	1	Lot	\$9,525
TBD	#03 Network Analysis -Final Review & Approval	1	Lot	\$2,385
TBD	#04 Work Schedule -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#04 Work Schedule -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#04 Work Schedule -Final Preparation/Submission	1	Lot	\$9,525
TBD	#04 Work Schedule -Final Review & Approval	1	Lot	\$2,385
TBD	#05 Submittal Schedule -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#05 Submittal Schedule -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#05 Submittal Schedule -Final Preparation/Submission	1	Lot	\$9,525
TBD	#05 Submittal Schedule -Final Review & Approval	1	Lot	\$2,385
TBD	#06 Schedule of Value -Preliminary Preparation/Submission	1	Lot	\$11,115
TBD	#06 Schedule of Value -Preliminary Review & Approval	1	Lot	\$2,780
TBD	#06 Schedule of Value -Draft Interim Preparation/Submission	1	Lot	\$11,115
TBD	#06 Schedule of Value -Draft Interim Review & Approval	1	Lot	\$2,780
TBD	#06 Schedule of Value -Final Preparation/Submission	1	Lot	\$9,525
TBD	#06 Schedule of Value -Final Review & Approval	1	Lot	\$2,385
TBD	#07 Monthly Progress Report (1st) Preparation/Submission	1	Lot	\$39,685
TBD	#08 Dsgn/Const. Interface Doc. -Preliminary Preparation/Submission	1	Lot	\$444,440
TBD	#08 Dsgn/Const. Interface Doc. -Preliminary Review & Approval	1	Lot	\$111,110
TBD	#08 Dsgn/Const. Interface Doc. -Final Preparation/Submission	1	Lot	\$190,475
TBD	#08 Dsgn/Const. Interface Doc. -Final Review & Approval	1	Lot	\$47,620
TBD	#09 Quality Assurance Prog Plan Preparation/Submission	1	Lot	\$27,780
TBD	#09 Quality Assurance Prog Plan Review & Approval	1	Lot	\$11,905
TBD	#10 Sys Configuration Mgmt. Plan -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#10 Sys Configuration Mgmt. Plan -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#10 Sys Configuration Mgmt. Plan -Final Preparation/Submission	1	Lot	\$9,525

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#10 Sys Configuration Mgmt. Plan -Final Review & Approval	1	Lot	\$2,385
TBD	#11 Sys Assurance Monitoring Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#11 Sys Assurance Monitoring Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#11 Sys Assurance Monitoring Plan -Final Preparation/Submission	1	Lot	\$28,575
TBD	#11 Sys Assurance Monitoring Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#12 Review of Owner's Sys Safety Prog. Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#12 Review of Owner's Sys Safety Prog. Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#12 Review of Owner's Sys Safety Prog. Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#12 Review of Owner's Sys Safety Prog. Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#13 New Dsgn/Product Modific. Verific. Plan -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#13 New Dsgn/Product Modific. Verific. Plan -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#13 New Dsgn/Product Modific. Verific. Plan -Final Preparation/Submission	1	Lot	\$9,525
TBD	#13 New Dsgn/Product Modific. Verific. Plan -Final Review & Approval	1	Lot	\$2,385
TBD	#14 Software Documentation Plan -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#14 Software Documentation Plan -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#14 Software Documentation Plan -Final Preparation/Submission	1	Lot	\$9,525
TBD	#14 Software Documentation Plan -Final Review & Approval	1	Lot	\$2,385
TBD	#15 Preliminary Hazards Analysis (PHA) -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#15 Preliminary Hazards Analysis (PHA) -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#15 Preliminary Hazards Analysis (PHA) -Final Preparation/Submission	1	Lot	\$19,050
TBD	#15 Preliminary Hazards Analysis (PHA) -Final Review & Approval	1	Lot	\$4,765
TBD	#16 Subsystem Hazards Analysis (SSHA) -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#16 Subsystem Hazards Analysis (SSHA) -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#16 Subsystem Hazards Analysis (SSHA) -Final Preparation/Submission	1	Lot	\$28,575
TBD	#16 Subsystem Hazards Analysis (SSHA) -Final Review & Approval	1	Lot	\$7,145
TBD	#17 System Hazards Analysis (SHA) -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#17 System Hazards Analysis (SHA) -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#17 System Hazards Analysis (SHA) -Final Preparation/Submission	1	Lot	\$28,575
TBD	#17 System Hazards Analysis (SHA) -Final Review & Approval	1	Lot	\$7,145
TBD	#18 Operation & Support Hazard Analysis (O&SHA) -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#18 Operation & Support Hazard Analysis (O&SHA) -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#18 Operation & Support Hazard Analysis (O&SHA) -Final Preparation/Submission	1	Lot	\$28,575
TBD	#18 Operation & Support Hazard Analysis (O&SHA) -Final Review & Approval	1	Lot	\$7,145
TBD	#19 Safety Document Files for A2 Preparation/Submission	1	Lot	\$83,335
TBD	#19 Safety Document Files for A3 Review & Approval	1	Lot	\$35,715
TBD	#19 Safety Document Files for A4 Preparation/Submission	1	Lot	\$83,335

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#19 Safety Document Files for A4 Review & Approval	1	Lot	\$35,715
TBD	#20 Safety Certification Report for A2 Preparation/Submission	1	Lot	\$27,780
TBD	#20 Safety Certification Report for A2 Review & Approval	1	Lot	\$11,905
TBD	#20 Safety Certification Report for A4 Preparation/Submission	1	Lot	\$27,780
TBD	#20 Safety Certification Report for A4 Review & Approval	1	Lot	\$11,905
TBD	#21 Project Site Safety Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#21 Project Site Safety Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#21 Project Site Safety Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#21 Project Site Safety Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#22 System Security Program Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#22 System Security Program Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#22 System Security Program Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#22 System Security Program Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#23 Fixed Facility Acceptance Reports Preparation/Submission	1	Lot	\$27,780
TBD	#23 Fixed Facility Acceptance Reports Review & Approval	1	Lot	\$11,905
TBD	#24 Operating System Design Review -Preliminary Preparation/Submission	50	Lot	\$2,309,500
TBD	#24 Operating System Design Review -Preliminary Review & Approval	50	Lot	\$2,309,500
TBD	#24 Operating System Design Review -Final Preparation/Submission	50	Lot	\$2,309,500
TBD	#24 Operating System Design Review -Final Review & Approval	50	Lot	\$2,309,500
TBD	#25 Predesign Corrosion Control Survey Results -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#25 Predesign Corrosion Control Survey Results -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#25 Predesign Corrosion Control Survey Results -Final Preparation/Submission	1	Lot	\$28,575
TBD	#25 Predesign Corrosion Control Survey Results -Final Review & Approval	1	Lot	\$7,145
TBD	#26 Sys Performance & Failure Mgmt. Analysis -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#26 Sys Performance & Failure Mgmt. Analysis -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#26 Sys Performance & Failure Mgmt. Analysis -Final Preparation/Submission	1	Lot	\$28,575
TBD	#26 Sys Performance & Failure Mgmt. Analysis -Final Review & Approval	1	Lot	\$7,145
TBD	#27 Electromagnetic Compatibility Ctrl Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#27 Electromagnetic Compatibility Ctrl Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#27 Electromagnetic Compatibility Ctrl Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#27 Electromagnetic Compatibility Ctrl Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#28 Safety Critical Component/Equip Failure List -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#28 Safety Critical Component/Equip Failure List -Preliminary Review & Approval	1	Lot	\$5,560
TBD	#28 Safety Critical Component/Equip Failure List -Final Preparation/Submission	1	Lot	\$9,525
TBD	#28 Safety Critical Component/Equip Failure List -Final Review & Approval	1	Lot	\$2,385
TBD	#29 Vehicle Structural Analysis -Preliminary Preparation/Submission	1	Lot	\$88,890

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#29 Vehicle Structural Analysis -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#29 Vehicle Structural Analysis -Final Preparation/Submission	1	Lot	\$38,095
TBD	#29 Vehicle Structural Analysis -Final Review & Approval	1	Lot	\$9,525
TBD	#30 Tipping Stability Analysis -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#30 Tipping Stability Analysis -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#30 Tipping Stability Analysis -Final Preparation/Submission	1	Lot	\$38,095
TBD	#30 Tipping Stability Analysis -Final Review & Approval	1	Lot	\$9,525
TBD	#31 Crashworthiness Analysis -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#31 Crashworthiness Analysis -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#31 Crashworthiness Analysis -Final Preparation/Submission	1	Lot	\$38,095
TBD	#31 Crashworthiness Analysis -Final Review & Approval	1	Lot	\$9,525
TBD	#32 Software Requirements Manual -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#32 Software Requirements Manual -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#32 Software Requirements Manual -Final Preparation/Submission	1	Lot	\$28,575
TBD	#32 Software Requirements Manual -Final Review & Approval	1	Lot	\$7,145
TBD	#33 HVAC Calculations -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#33 HVAC Calculations -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#33 HVAC Calculations -Final Preparation/Submission	1	Lot	\$28,575
TBD	#33 HVAC Calculations -Final Review & Approval	1	Lot	\$7,145
TBD	#34 Design Stopping Distances -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#34 Design Stopping Distances -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#34 Design Stopping Distances -Final Preparation/Submission	1	Lot	\$28,575
TBD	#34 Design Stopping Distances -Final Review & Approval	1	Lot	\$7,145
TBD	#35 Vehicle Exterior Design & Color Scheme -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#35 Vehicle Exterior Design & Color Scheme -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#35 Vehicle Exterior Design & Color Scheme -Final Preparation/Submission	1	Lot	\$19,050
TBD	#35 Vehicle Exterior Design & Color Scheme -Final Review & Approval	1	Lot	\$4,765
TBD	#36 Vehicle Interior Design & Color Scheme -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#36 Vehicle Interior Design & Color Scheme -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#36 Vehicle Interior Design & Color Scheme -Final Preparation/Submission	1	Lot	\$19,050
TBD	#36 Vehicle Interior Design & Color Scheme -Final Review & Approval	1	Lot	\$4,765
TBD	#37 Samples of Floor Coverings, Seats, Trim, Panels, & Stanchion Material -Preliminary Preparation/Submission	1	Lot	\$22,225
TBD	#37 Samples of Floor Coverings, Seats, Trim, Panels, & Stanchion Material Review & Approval	1	Lot	\$5,560

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#37 Samples of Floor Coverings, Seats, Trim, Panels, & Stanchion Material -Final Preparation/Submission	1	Lot	\$9,525
TBD	#37 Samples of Floor Coverings, Seats, Trim, Panels, & Stanchion Material -Final Review & Approval	1	Lot	\$2,385
TBD	#38 Interior Graphics Design -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#38 Interior Graphics Design -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#38 Interior Graphics Design -Final Preparation/Submission	1	Lot	\$19,050
TBD	#38 Interior Graphics Design -Final Review & Approval	1	Lot	\$4,765
TBD	#39 Power Distribution Loads Analysis -Preliminary Preparation/Submission	1	Lot	\$111,110
TBD	#39 Power Distribution Loads Analysis -Preliminary Review & Approval	1	Lot	\$27,780
TBD	#39 Power Distribution Loads Analysis -Final Preparation/Submission	1	Lot	\$47,620
TBD	#39 Power Distribution Loads Analysis -Final Review & Approval	1	Lot	\$11,905
TBD	#40 Central Ctrl Design & Layout -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#40 Central Ctrl Design & Layout -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#40 Central Ctrl Design & Layout -Final Preparation/Submission	1	Lot	\$28,575
TBD	#40 Central Ctrl Design & Layout -Final Review & Approval	1	Lot	\$7,145
TBD	#41 Central Ctrl Operator Ctrl Functions -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#41 Central Ctrl Operator Ctrl Functions -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#41 Central Ctrl Operator Ctrl Functions -Final Preparation/Submission	1	Lot	\$38,095
TBD	#41 Central Ctrl Operator Ctrl Functions -Final Review & Approval	1	Lot	\$9,525
TBD	#42 Priority I & II Malfunctions -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#42 Priority I & II Malfunctions -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#42 Priority I & II Malfunctions -Final Preparation/Submission	1	Lot	\$38,095
TBD	#42 Priority I & II Malfunctions -Final Review & Approval	1	Lot	\$9,525
TBD	#44 Guideway Signage Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#44 Guideway Signage Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#44 Guideway Signage Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#44 Guideway Signage Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#45 Station Dynamic & Static Signage Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#45 Station Dynamic & Static Signage Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#45 Station Dynamic & Static Signage Plan -Final Preparation/Submission	1	Lot	\$28,575
TBD	#45 Station Dynamic & Static Signage Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#46 M&SF Signage/Graphics Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#46 M&SF Signage/Graphics Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#46 M&SF Signage/Graphics Plan -Final Preparation/Submission	1	Lot	\$28,575

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#46 M&SF Signage/Graphics Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#47 Tools & Equipment List -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#47 Tools & Equipment List -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#47 Tools & Equipment List -Final Preparation/Submission	1	Lot	\$28,575
TBD	#47 Tools & Equipment List -Final Review & Approval	1	Lot	\$7,145
TBD	#49 Departure Test Document -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#49 Departure Test Document -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#49 Departure Test Document -Final Preparation/Submission	1	Lot	\$38,095
TBD	#49 Departure Test Document -Final Review & Approval	1	Lot	\$9,525
TBD	#50 System Operations Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#50 System Operations Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#50 System Operations Plan -Final Preparation/Submission	1	Lot	\$28,575
TBD	#50 System Operations Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#51 Maintenance Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#51 Maintenance Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#51 Maintenance Plan -Final Preparation/Submission	1	Lot	\$28,575
TBD	#51 Maintenance Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#52 Operations & Maintenance Mgmt. Plan -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#52 Operations & Maintenance Mgmt. Plan -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#52 Operations & Maintenance Mgmt. Plan -Final Preparation/Submission	1	Lot	\$28,575
TBD	#52 Operations & Maintenance Mgmt. Plan -Final Review & Approval	1	Lot	\$7,145
TBD	#53 Record of Operating System Design Reviews Preparation/Submission	1	Lot	\$88,890
TBD	#53 Record of Operating System Design Reviews Review & Approval	1	Lot	\$22,225
TBD	#54 Fixed Facilities Design Review -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#54 Fixed Facilities Design Review -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#54 Fixed Facilities Design Review -Final Preparation/Submission	1	Lot	\$28,575
TBD	#54 Fixed Facilities Design Review -Final Review & Approval	1	Lot	\$7,145
TBD	#55 Effluent Information Preparation/Submission	1	Lot	\$55,555
TBD	#55 Effluent Information Review & Approval	1	Lot	\$23,810
TBD	#56 Record of Fixed Facilities Design Reviews Preparation/Submission	1	Lot	\$55,555
TBD	#56 Record of Fixed Facilities Design Reviews Review & Approval	1	Lot	\$23,810
TBD	#57 Qualification Test Procedures Preparation/Submission	1	Lot	\$111,110
TBD	#57 Qualification Test Procedures Review & Approval	1	Lot	\$47,620
TBD	#58 Qualification Test Report Preparation/Submission	1	Lot	\$55,555
TBD	#58 Qualification Test Report Review & Approval	1	Lot	\$23,810
TBD	#59 Operation Sys Compliance Verific. Matrix (SCVM) -Preliminary Preparation/Submission	1	Lot	\$44,445

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#59 Operation Sys Compliance Verific. Matrix (SCVM) -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#59 Operation Sys Compliance Verific. Matrix (SCVM) -Final Preparation/Submission	1	Lot	\$19,050
TBD	#59 Operation Sys Compliance Verific. Matrix (SCVM) -Final Review & Approval	1	Lot	\$4,765
TBD	#60 Operating System Acceptance Plan -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#60 Operating System Acceptance Plan -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#60 Operating System Acceptance Plan -Final Preparation/Submission	1	Lot	\$38,095
TBD	#60 Operating System Acceptance Plan -Final Review & Approval	1	Lot	\$9,525
TBD	#61 Integrated Operation Sys T/I Verific. SCDL -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#61 Integrated Operation Sys T/I Verific. SCDL -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#61 Integrated Operation Sys T/I Verific. SCDL -Final Preparation/Submission	1	Lot	\$28,575
TBD	#61 Integrated Operation Sys T/I Verific. SCDL -Final Review & Approval	1	Lot	\$7,145
TBD	#62 Operating Sys Acceptance Inspection & Test Procedures -Draft Preparation/Submission	1	Lot	\$177,780
TBD	#62 Operating Sys Acceptance Inspection & Test Procedures -Draft Review & Approval	1	Lot	\$44,445
TBD	#62 Operating Sys Acceptance Inspection & Test Procedures -Final Preparation/Submission	1	Lot	\$76,190
TBD	#62 Operating Sys Acceptance Inspection & Test Procedures -Final Review & Approval	1	Lot	\$19,050
TBD	#63 Fixed Facilities Acceptance Procedures -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#63 Fixed Facilities Acceptance Procedures -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#63 Fixed Facilities Acceptance Procedures -Final Preparation/Submission	1	Lot	\$38,095
TBD	#63 Fixed Facilities Acceptance Procedures -Final Review & Approval	1	Lot	\$9,525
TBD	#64 Operating Sys Acceptance Inspection & Test - Reports Preparation/Submission	1	Lot	\$111,110
TBD	#64 Operating Sys Acceptance Inspection & Test - Reports Review & Approval	1	Lot	\$47,620
TBD	#65 System Demonstration Procedure -Draft Preparation/Submission	1	Lot	\$44,445
TBD	#65 System Demonstration Procedure -Draft Review & Approval	1	Lot	\$11,115
TBD	#65 System Demonstration Procedure -Final Preparation/Submission	1	Lot	\$19,050
TBD	#65 System Demonstration Procedure -Final Review & Approval	1	Lot	\$4,765
TBD	#66 System Demonstration Report (for A2) Preparation/Submission	2	Lot	\$27,780
TBD	#66 System Demonstration Report (for A2) Review & Approval	2	Lot	\$11,905
TBD	#66 System Demonstration Report (for A4) Preparation/Submission	2	Lot	\$27,780
TBD	#66 System Demonstration Report (for A4) Review & Approval	2	Lot	\$11,905
TBD	#67 Emergency Evacuation Procedures -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#67 Emergency Evacuation Procedures -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#67 Emergency Evacuation Procedures -Final Preparation/Submission	1	Lot	\$28,575
TBD	#67 Emergency Evacuation Procedures -Final Review & Approval	1	Lot	\$7,145
TBD	#68 Emergency Procedures & Equipment -Preliminary Preparation/Submission	1	Lot	\$66,670
TBD	#68 Emergency Procedures & Equipment -Preliminary Review & Approval	1	Lot	\$16,670
TBD	#68 Emergency Procedures & Equipment -Final Preparation/Submission	1	Lot	\$28,575

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#68 Emergency Procedures & Equipment -Final Review & Approval	1	Lot	\$7,145
TBD	#69 MMIS Manual -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#69 MMIS Manual -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#69 MMIS Manual -Final Preparation/Submission	1	Lot	\$38,095
TBD	#69 MMIS Manual -Final Review & Approval	1	Lot	\$9,525
TBD	#70 Operating Manuals -Preliminary Preparation/Submission	1	Lot	\$133,335
TBD	#70 Operating Manuals -Preliminary Review & Approval	1	Lot	\$33,335
TBD	#70 Operating Manuals -Interim Preparation/Submission	1	Lot	\$28,575
TBD	#70 Operating Manuals -Interim Review & Approval	1	Lot	\$7,145
TBD	#70 Operating Manuals -Final Preparation/Submission	1	Lot	\$28,575
TBD	#70 Operating Manuals -Final Review & Approval	1	Lot	\$7,145
TBD	#71 Maintenance Manuals -Preliminary Preparation/Submission	1	Lot	\$266,665
TBD	#71 Maintenance Manuals -Preliminary Review & Approval	1	Lot	\$66,670
TBD	#71 Maintenance Manuals -Interim Preparation/Submission	1	Lot	\$57,145
TBD	#71 Maintenance Manuals -Interim Review & Approval	1	Lot	\$14,290
TBD	#71 Maintenance Manuals -Final Preparation/Submission	1	Lot	\$57,145
TBD	#71 Maintenance Manuals -Final Review & Approval	1	Lot	\$14,290
TBD	#72 Rule Book -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#72 Rule Book -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#72 Rule Book -Interim Preparation/Submission	1	Lot	\$9,525
TBD	#72 Rule Book -Interim Review & Approval	1	Lot	\$2,385
TBD	#72 Rule Book -Final Preparation/Submission	1	Lot	\$9,525
TBD	#72 Rule Book -Final Review & Approval	1	Lot	\$2,385
TBD	#73 Forms & Updates of Plans & Manuals -Initial Preparation/Submission	1	Lot	\$27,780
TBD	#73 Forms & Updates of Plans & Manuals -Initial Review & Approval	1	Lot	\$11,905
TBD	#74 Training Plan & Materials -Preliminary Preparation/Submission	1	Lot	\$111,110
TBD	#74 Training Plan & Materials -Preliminary Review & Approval	1	Lot	\$27,780
TBD	#74 Training Plan & Materials -Interim Preparation/Submission	1	Lot	\$23,810
TBD	#74 Training Plan & Materials -Interim Review & Approval	1	Lot	\$5,955
TBD	#74 Training Plan & Materials -Final Preparation/Submission	1	Lot	\$23,810
TBD	#74 Training Plan & Materials -Final Review & Approval	1	Lot	\$5,955
TBD	#75 Training Report Preparation/Submission	1	Lot	\$83,335
TBD	#75 Training Report Review & Approval	1	Lot	\$35,715
TBD	#76 As-Built Record Doc. a As-built Deliverables for A2 Preparation/Submission	1	Lot	\$138,890
TBD	#76 As-Built Record Doc. a As-built Deliverables for A2 Review & Approval	1	Lot	\$59,525
TBD	#76 As-Built Record Doc. a As-built Deliverables for A4 Preparation/Submission	1	Lot	\$138,890

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	#76 As-Built Record Doc. a As-built Deliverables for A4 Review & Approval	1	Lot	\$59,525
TBD	#77 System Availability & Operations Reports -Preliminary Preparation/Submission	1	Lot	\$55,555
TBD	#77 System Availability & Operations Reports -Preliminary Review & Approval	1	Lot	\$23,810
TBD	#77 System Availability & Operations Reports -Final for A2S Preparation/Submission	1	Lot	\$13,890
TBD	#77 System Availability & Operations Reports -Final for A2S Review & Approval	1	Lot	\$5,955
TBD	#77 System Availability & Operations Reports -Final for A2N Preparation/Submission	1	Lot	\$13,890
TBD	#77 System Availability & Operations Reports -Final for A2N Review & Approval	1	Lot	\$5,955
TBD	#77 System Availability & Operations Reports -Final for A4S Preparation/Submission	1	Lot	\$13,890
TBD	#77 System Availability & Operations Reports -Final for A4S Review & Approval	1	Lot	\$5,955
TBD	#77 System Availability & Operations Reports -Final for A4N Preparation/Submission	1	Lot	\$13,890
TBD	#77 System Availability & Operations Reports -Final for A4N Review & Approval	1	Lot	\$5,955
TBD	#78 Maintenance Traffic Plan -Preliminary Preparation/Submission	1	Lot	\$44,445
TBD	#78 Maintenance Traffic Plan -Preliminary Review & Approval	1	Lot	\$11,115
TBD	#78 Maintenance Traffic Plan -Final Preparation/Submission	1	Lot	\$19,050
TBD	#78 Maintenance Traffic Plan -Final Review & Approval	1	Lot	\$4,765
TBD	#79 Warranty Submittals for A2 Preparation/Submission	1	Lot	\$44,445
TBD	#79 Warranty Submittals for A2 Review & Approval	1	Lot	\$11,115
TBD	#79 Warranty Submittals for A4 Preparation/Submission	1	Lot	\$19,050
TBD	#79 Warranty Submittals for A4 Review & Approval	1	Lot	\$4,765
TBD	#80 Safety Critical Software V&V Plan -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#80 Safety Critical Software V&V Plan -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#80 Safety Critical Software V&V Plan -Final Preparation/Submission	1	Lot	\$38,095
TBD	#80 Safety Critical Software V&V Plan -Final Review & Approval	1	Lot	\$9,525
TBD	#81 Software Quality Assurance Plan -Preliminary Preparation/Submission	1	Lot	\$88,890
TBD	#81 Software Quality Assurance Plan -Preliminary Review & Approval	1	Lot	\$22,225
TBD	#81 Software Quality Assurance Plan -Final Preparation/Submission	1	Lot	\$38,095
TBD	#81 Software Quality Assurance Plan -Final Review & Approval	1	Lot	\$9,525
Procurement & Manufacturing				
Guideway Facility & Equipment				
TBD	Guideway Material/Equip. P.O. issue			Value not allocated
TBD	Guideway Facility & Equip. Procurement, Manufacturing, FAT, Shippment	1	Lot	\$290,420
TBD	Guideway Facility & Equip. 1st batch Delivery for Lane 4800	1	Lot	\$58,150
TBD	Guideway Facility & Equip. 2nd batch Delivery for Lane 4700	1	Lot	\$58,150
TBD	Guideway Facility & Equip. 3rd batch Delivery for Lane 4600	1	Lot	\$58,150
TBD	Guideway Facility & Equip. 4th batch Delivery for Lane 4500	1	Lot	\$58,150
M&S Facility & Equipment				

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	M&S Facility & Equip. P.O. issue			Value not allocated
TBD	M&S Facility & Equip. Procurement, Manufacturing, FAT, Shipment	1	Lot	\$4,321,785
TBD	M&S Facility & Equip. 1st batch Delivery for Lane 4800 A2 Landside Station	1	Lot	\$533,990
TBD	M&S Facility & Equip. 2nd batch Delivery for Lane 4600 A2 Landside Station	1	Lot	\$533,990
TBD	M&S Facility & Equip. 3rd batch Delivery for Lane 4600 A4 Landside Station	1	Lot	\$533,990
TBD	M&S Facility & Equip. 4th batch Delivery for Lane 4500 A4 Landside Station	1	Lot	\$533,990
PDS Facility & Equipment				
TBD	PDS Equip. P.O. issue			Value not allocated
TBD	PDS Equip. Procurement, Manufacturing, FAT, Shipment	1	Lot	\$10,496,550
TBD	PDS Equip. Delivery to Site	1	Lot	\$4,551,735
Station Facility & Equipment				
TBD	PSD Equip. P.O. issue			Value not allocated
TBD	PSD Equip. Procurement, Manufacturing, FAT, Shipment	1	Lot	\$9,500,400
TBD	PSD Equip. Delivery to Site	1	Lot	\$4,071,600
Automatic Train Control (ATC) Facility & Equipment				
TBD	Signaling: Equip. P.O. issue			Value not allocated
TBD	Signaling: Equip. Procurement, Manufacturing, FAT, Shipment	1	Lot	\$3,785,010
TBD	Signaling: Equip. Delivery to Site	1	Lot	\$2,068,995
Audio & Video Communication System Facility & Equipment				
TBD	Communication Equip. P.O. issue			Value not allocated
TBD	Communication Equip. Procurement, Manufacturing, FAT, Shipment	1	Lot	\$5,525,970
TBD	Communication Equip. Delivery to Site	1	Lot	\$3,401,055
Vehicle				
TBD	Vehicle: SPEC Finalize			Value not allocated
TBD	Vehicle: Parts Procurement, Manufacturing			Value not allocated
1st Train Set (for A2 South)				
TBD	Vehicle: 1st car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 1st car Assembly	1	Lot	\$962,770
TBD	Vehicle: 2nd car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 2nd car Assembly	1	Lot	\$962,770
TBD	Vehicle: 3rd car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 3rd car Assembly	1	Lot	\$962,770
TBD	Vehicle: 1st Train-set Sequence Check			Value not allocated
TBD	Vehicle: 1st Train-set Running Test	1	Lot	\$1,159,110
TBD	Vehicle: 1st Train-set Preparation for Delivery			Value not allocated
TBD	Vehicle: 1st Train-set Shipment			Value not allocated

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	Vehicle: 1st Train-set Delivery to Site	1	Lot	\$39,185
2nd Train Set (for A2 North)				
TBD	Vehicle: 4th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 4th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 5th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 5th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 6th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 6th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 2nd Train-set Sequence Check			Value not allocated
TBD	Vehicle: 2nd Train-set Running Test	1	Lot	\$1,159,110
TBD	Vehicle: 2nd Train-set Preparation for Delivery			Value not allocated
TBD	Vehicle: 2nd Train-set Shipment			Value not allocated
TBD	Vehicle: 2nd Train-set Delivery to Site	1	Lot	\$39,185
3rd Train Set (for A4 South)				
TBD	Vehicle: 10th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 10th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 11th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 11th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 12th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 12th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 3rd Train-set Sequence Check			Value not allocated
TBD	Vehicle: 3rd Train-set Running Test	1	Lot	\$1,159,110
TBD	Vehicle: 3rd Train-set Preparation for Delivery			Value not allocated
TBD	Vehicle: 3rd Train-set Shipment			Value not allocated
TBD	Vehicle: 3rd Train-set Delivery to Site	1	Lot	\$39,185
4th Train Set (for A4 North)				
TBD	Vehicle: 13th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 13th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 14th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 14th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 15th car Panel Assembly, Painting	1	Lot	\$579,555
TBD	Vehicle: 15th car Assembly	1	Lot	\$962,770
TBD	Vehicle: 4th Train-set Sequence Check			Value not allocated
TBD	Vehicle: 4th Train-set Running Test	1	Lot	\$1,159,110
TBD	Vehicle: 4th Train-set Train-set Preparation for Delivery			Value not allocated
TBD	Vehicle: 4th Train-set Shipment			Value not allocated

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	Vehicle: 4th Train-set Delivery to Site	1	Lot	\$39,185
Site Work				
for Lane 4800 (A2 North)				
TBD	1. Temporary Work Platforms / Disconnect Equipment			\$1,729,415
TBD	2. Demo Running Surface			\$1,008,830
TBD	3. Construct Removable Plinth			\$144,120
TBD	4. Furnish & Install Reinforcing Steel			\$1,441,180
TBD	5. Cast-In-Place Running Surface			\$1,441,180
TBD	6. Reinstall Equipment			\$1,008,830
TBD	7. Remove Temporary Work Platform			\$144,120
TBD	8. Paint existing guideway and walkway handrail			\$720,590
TBD	9. A2 Airside Station			\$1,008,830
TBD	10. A2 Landside Station			\$1,441,180
TBD	11. OCC			\$864,710
TBD	12. A2 Substation			\$2,882,360
TBD	13. Testing & Commissioning			\$0
TBD	14. Individual Test			\$288,240
TBD	15. Individual (Dynamic) & Integration Test, and System Demo.			\$288,240
for Lane 4700 (A2 South)				
TBD	1. Temporary Work Platforms / Disconnect Equipment			\$1,647,065
TBD	2. Demo Running Surface			\$823,535
TBD	3. Construct Removable Plinth			\$164,710
TBD	4. Furnish & Install Reinforcing Steel			\$1,317,650
TBD	5. Cast-In-Place Running Surface			\$1,317,650
TBD	6. Reinstall Equipment			\$329,415
TBD	7. Remove Temporary Work Platform			\$82,355
TBD	8. Paint existing guideway and walkway handrail			\$658,825
TBD	9. A2 Airside Station			\$658,825
TBD	10. A2 Landside Station			\$658,825
TBD	11. OCC			\$82,355
TBD	12. Testing & Commissioning			\$0
TBD	13. Individual Test			\$247,060
TBD	14. Individual (Dynamic) & Integration Test, and System Demo.			\$247,060
for Lane 4600 (A4 North)				
TBD	1. Temporary Work Platforms / Disconnect Equipment			\$1,647,065
TBD	2. Demo Running Surface			\$823,535

Preliminary Schedule of Value - APM OS for Airside2 and Airside4

Activity No	Activity Name	Qty	Unit	Value
TBD	3. Construct Removable Plinth			\$164,710
TBD	4. Furnish & Install Reinforcing Steel			\$1,317,650
TBD	5. Cast-In-Place Running Surface			\$1,317,650
TBD	6. Reinstall Equipment			\$329,415
TBD	7. Remove Temporary Work Platform			\$82,355
TBD	8. Paint existing guideway and walkway handrail			\$658,825
TBD	9. A4 Airside Station			\$658,825
TBD	10. A4 Landside Station			\$658,825
TBD	11. BCC			\$514,710
TBD	12. A4 Substation			\$1,852,945
TBD	13. Testing & Commissioning			\$0
TBD	14. Individual Test			\$82,355
TBD	15. Individual (Dynamic) & Integration Test, and System Demo.			\$185,295
for Lane 4500 (A4 South)				
TBD	1. Temporary Work Platforms / Disconnect Equipment			\$1,647,065
TBD	2. Demo Running Surface			\$823,535
TBD	3. Construct Removable Plinth			\$164,710
TBD	4. Furnish & Install Reinforcing Steel			\$1,317,650
TBD	5. Cast-In-Place Running Surface			\$1,317,650
TBD	6. Reinstall Equipment			\$329,415
TBD	7. Remove Temporary Work Platform			\$82,355
TBD	8. Paint existing guideway and walkway handrail			\$658,825
TBD	9. A4 Airside Station			\$658,825
TBD	10. A4 Landside Station			\$658,825
TBD	11. BCC			\$82,355
TBD	12. Testing & Commissioning			\$0
TBD	13. Individual Test			\$247,060
TBD	14. Individual (Dynamic) & Integration Test, and System Demo.			\$247,060
Interim O&M Services				
TBD	Airside 2, South Lane (4800) Interim O&M Services	1	Lot	\$321,000
TBD	Airside 4, South Lane (4600) Interim O&M Services	1	Lot	\$321,000

APM OS for Airside2 and Airside4 Grand Total **\$177,808,570**