



CONTRACT DOCUMENTS
For
Sanford Airport Authority
FIS/Customs Baggage Belt Replacement

ISSUED BY

CPH, INC.
CPH PROJECT NO. S12009.3

To: Prospective Bidders and other Concerned Parties

This Addendum No. 2 to the Plans, Specifications, and Contract Documents for the Sanford Airport Authority FIS/Customs Baggage Belt Replacement is hereby declared a part of the Original Contract Documents. This addendum shall be incorporated within the Contract Documents and have the same force and effect as if part of the original documents, and in case of conflict, this Addendum No. 2 shall govern.

This Addendum consists of a total of 4 pages, plus the following attached items:

- A. FP - 0.1 – Fire Protection Tables, Schedules, and General Notes
- B. Pre-Bid Attendees List
- C. 01 30 00 Administrative Requirements
- D. 01 40 00 Quality Requirements
- E. 01 60 00 Product Requirements
- F. SP13 Construction Time and Liquidated Damages
- G. Flooring Exhibit
- H. Electrical Exhibit 1 and 2 (2 pages)

CHANGES TO THE PROJECT MANUAL:

- 1. 01 30 00 Administrative Requirements; **ISSUE** entire section. New specification section is included with this addendum.
- 2. 01 40 00 Quality Requirements; **ISSUE** entire section. New specification section is included with this addendum.
- 3. 01 60 00 Product Requirements; **ISSUE** entire section. New specification section is included with this addendum.
- 4. Specification Section SP13 Construction Time and Liquidated Damages: - REISSUE entire section.
- 5. Specification Section NTB – **REMOVE** 210 Days and **REPLACE** 240 Days.
- 6. Specification Section 80-01 – **REMOVE** 25 percent and **REPLACE** 10 percent.

CHANGES TO THE PLANS:

- 1. Sheet FP – 0.1; **ISSUE** entire sheet. New sheet is included with this addendum.



MISCELLANEOUS:

1. Question: Please furnish the AIC rating for the new panels.

RESPONSE: There are no new Panels in this Project. All Panels requiring work are existing. See Electrical Exhibit 1 and 2.

2. Question: Please furnish the source feeding the Panels IHE1 and EPD2.

RESPONSE: Please see Electrical Exhibit 1 as part of this addendum.

3. Question: Furnish the feeder sizes for the above mentioned panels.

RESPONSE: Please see Electrical Exhibit 2 as part of this addendum.

4. Question: Please advise if the source panels has the circuit breakers available for the new panels.

RESPONSE: No. Feeder circuit breakers for the (2) new Baggage Belts are not existing Spares in Panel EDP2. They are new circuit breakers to be provided by the Contractor. It appears that they are new to be provided was not made explicit and clear in the Plans. Typically new circuit breakers are shown in BOLD text. These (2) new circuit breakers are not shown in BOLD. They shall be provided new by the Contractor.

5. Question: Would like to request that Five Star Airport Alliance be added as approved controls firm for this project as they are approved equals.

RESPONSE: Per 1.8.8 of 14540 specifications, the incomplete request for substitution was not made until 1/10/2017 which would not allow the full review period by the owner/architect/engineer (14 days – 14540.1.8.8.e) before bid opening, therefore the request is not approved. The awarded contractor may still request the substitution within the prescribed time period with a formal complete submittal which will then be reviewed by the owner/architect/engineer.

6. Question: Specification section 14540: Section 2.7 states that BHS contractor should provide any required interfaces to the BHS Computer System including provision of audible and visual system alarms in the Control Room. Please confirm that there is no interface and/or controls equipment for the Control Room to be supplied in the scope of this project. If there is equipment or interface needed in the Control Room, please provide specifications.

RESPONSE: – No interfacing or controls equipment to a control room are required due to no control room.

ADDENDUM NO. 2
January 14, 2017

7. Question: Specification section 14540: Section 2.7.5 states that BHS PLC's shall be Allen-Bradley ControlLogix using the most current version available at time of product data submission. However, due to the size and functionality requirements of these Inbound Baggage Systems, we feel that Allen-Bradley ControlLogix PLC is excessive requirement which will result of significant project costs increase as well as cost of spare parts for the Customer. Can Allen-Bradley ControlLogix be approved for BHS PLC's?

RESPONSE: CompactLogix can be used for this project.

8. Question: Specification section 14540: Section 3.6.1.2 states that "Upon the issuance of a "Certificate of Conditional Acceptance", a 30 day "Operational Period" shall commence." Please confirm that 30 day "Operational Period" will be required after entire project completion and acceptance not after each BHS Subsystem installation and testing.

RESPONSE: Typically the 30 day operation period would commence after the testing and installation, due to the size of the job and requirements associated with the two (2) claim units and inbound lines, a 40 hour operational period over five (5) consecutive days for each subsystem will be required in lieu of a 30 day operational period and this will commence after the install and testing of the equipment in each sub-system.

9. Question: Detail 4/A3.0 shows soffit framing studs to be 3 5/8" @ 24" Ga. 20 with Cross Bracing at 60" O.C. However Soffit Details 1, 2, & 3 on Dwg. A3.1 shows 6" GA.18 @ 16" O.C. Metal Studs with Cross Bracing at 32" O.C. Please clarify which applies.

RESPONSE: Soffits shall be constructed per details 1,2,&3 on A3.1.

10. Informational: Contractor shall provide a phenolic tag on both sides of each door, colored red with white 3/4" letters approximately 4" in width. See Flooring Exhibit.
11. Informational: Flooring shall extend a minimum of 18" beneath bag claim devices and fully beneath the bag slide and relocated desk. See Flooring Exhibit.
12. Informational: The contractor will include all licensing for the new cameras within their bids.
13. Informational: The contractor will include the flooring removal and replacement of the restroom foyer (approximately 40sf) in front of FIS-07,08,09 with flooring TZ3. See Flooring Exhibit.



ADDENDUM NO. 2
January 14, 2017

14. **Informational: The contractor will include flooring removal and replacement up to the equipment in space FIS-04. For the purposes of this proposal, include quantity to cover the entire room. See Flooring Exhibit.**

15. Question: Is there a budget that has been released for the project.

RESPONSE: No budget/estimate has been released.

16. Question: What is the badging process?

RESPONSE: Each employee will be required to acquire an SAA badge with Custom's Seals. This requires applications for both agencies and requires a 10yr background check in relation to living history and employment for each employee. There is a three step process for badging: application, review, training. The application process when properly scheduled and with a complete application takes approximately 30 minutes per employee. The review process is averaging 4 weeks for approval with a clear history. The training process takes approximately 2 hours. SAA recommends starting the badging process as soon as possible in case of increased review time by the TSA and CBP. SAA has no control on the review time of TSA and CBP. All training is performed at the Orlando Sanford International Airport.

17. Question: Is there a budget that has been released for the project.

RESPONSE: No budget/estimate has been released.

18. Question: If we have a US Customs Bond at another airport will that suffice?

RESPONSE: Per US CBP, a separate bond will be required by the winning contractor as for this project. All employees must have a Customs Seal.

19. Question: What is the target date of this project?

RESPONSE: The recommendation to award is anticipated to go to the SAA Board at the February meeting scheduled on 2/7/2017. The work is anticipated to being immediately upon contract signing.

20. Question: Can Phase 0 be increased due to the lead time on the slope plates?

RESPONSE: Phase 0 has been increased to 120 days (from 90 days) to allow more time for fabrication and delivery of BHS equipment.

END OF ADDENDUM NO. 2

FIRE PROTECTION GENERAL NOTES

1. FIRE PROTECTION SYSTEM SHALL COMPLY WITH THE LATEST EDITION OF NFPA # 12A, 13, 14, 15, 24, 25, 70, 72, 75, & 101. LOCAL FIRE MARSHALS OFFICE, OWNERS INSURANCE CARRIER, ALL APPLICABLE STATE, LOCAL, AND FEDERAL CODES AND REGULATIONS AND ANY OTHER AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. THIS SYSTEM SHALL BE INSTALLED BY A STATE OF FLORIDA CERTIFIED FIRE PROTECTION CONTRACTOR SKILLED AND LICENSED IN THIS PARTICULAR TRADE.
2. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND HYDRAULIC CALCULATIONS FOR APPROVAL BY THE AUTHORITIES HAVING JURISDICTION AND ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK. THE DOCUMENTS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THESE DRAWINGS AND SPECIFICATIONS AND ALL APPLICABLE CODES ADOPTED BY THE STATE OF FLORIDA.
3. THE CONTRACTOR SHALL CONDUCT A HYDRANT FLOW TEST, WHICH SHALL BE THE BASIS FOR THE HYDRAULIC CALCULATIONS. CONTRACTOR SHALL EVALUATE THE WATER SUPPLY FOR EVIDENCE OF MICROBIAL INDUCED CORROSION (MIC) AND INCORPORATE ANY PREVENTIVE MEASURES AS REQUIRED.
4. THE CONTRACTOR SHALL PROVIDE ALL PERMITS, MATERIAL, LABOR, TRUCKING, HOISTING, ENGINEERING, SCAFFOLDING, POWER HOOK UPS, PROTECTION, SHOP DRAWINGS, TAXES, LAYOUT, EQUIPMENT, SUPERVISION, INSURANCE, ETC. NECESSARY FOR THE FURNISHING AND INSTALLATION OF ALL SPECIFIED AND RELATED WORK IN ACCORDANCE WITH THE CONTACT DRAWINGS AND SPECIFICATIONS.
5. THIS CONTRACTOR SHALL OBTAIN FINAL INSPECTION AND APPROVAL BY LOCAL FIRE DEPARTMENT, BLDG. DEPT., OWNERS INSURANCE CARRIER AND ARCHITECT/ENGINEER.
6. PROVIDE DETAIL AND INDICATE TYPE OF HANGERS TO BE INSTALLED FOR SPRINKLER PIPING. METHODS OF HANGING PIPES, HEADERS AND BRANCHES SHALL BE IN ACCORDANCE WITH N.F.P.A. 13. ALL HANGERS ON 4" PIPE AND LARGER SHALL BE CLEVIS-TYPE HANGERS. HANGERS SHALL NOT INTERFERE WITH ANY OTHER TRADE. POWDER DRIVEN STUDS SHALL NOT BE USED. ALL PIPING SUPPORTS AND HANGERS SHALL BE CORROSION RESISTANT, SIZED AND SPACED IN ACCORDANCE WITH NFPA #13.
7. BEFORE SUBMITTING PROPOSAL OR BID, EXAMINE ALL DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT, THE AMOUNT OF SPACE AVAILABLE FOR PIPING, EQUIPMENT AND CONNECTING SERVICES, THE SCOPE OF SITE OF THE WORK, THE REQUIREMENTS TO COMPLETE THE FIRE PROTECTION WORK WITH THAT OF OTHER TRADES AND THE TIME SCHEDULE NECESSARY TO PERFORM THAT WORK. CONTRACTOR SHALL VISIT THE SITE TO CHECK AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO INSURE THE COORDINATION OF THE FIRE SERVICES WITH EXISTING CONDITIONS. IN CASE OF DISPUTE OR DOUBT AS TO INTENT OF DRAWINGS OR SPECIFICATIONS, OBTAIN ARCHITECT/ENGINEER'S WRITTEN DECISION BEFORE PROCEEDING WITH BID OR WORK INVOLVED.
8. IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS, OTHER ENGINEERING PLANS, THE ARCHITECTURAL PLANS AND/OR FIELD CONDITIONS PRIOR TO FINAL BID PRICE OR FINAL PERMITTING.
9. INDICATE CENTER TO CENTER DIMENSIONS AND/OR PIPE CUT LENGTHS AND NOMINAL PIPE DIAMETERS ON ALL PIPING. INDICATE PIPE TYPE, SCHEDULE OF WALL THICKNESS AND METHOD OF JOINING ON SHOP DRAWING.
10. CUTTING OF STRUCTURAL AND/OR ARCHITECTURAL MEMBERS SHALL BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
11. VERIFY STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS AND AVOID ANVIL OBSTRUCTIONS OR INTERFERENCES WITH FIRE PROTECTION PIPE ROUTING.
12. ALL MATERIALS, WHERE APPLICABLE, SHALL BE U.L. LISTED AND FACTORY MUTUAL APPROVED FOR USE IN AUTOMATIC SPRINKLER SYSTEMS. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED FOR TWO HOURS IN ACCORDANCE WITH NFPA #13. HYDROSTATIC TEST PRESSURE SHALL BE 200 PSI.
13. FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE WALLS, CEILINGS, FLOORS, ROOFS, ETC., FLASH AND COUNTERFLASH ROOF PENETRATIONS. (SEE FIRE RATED PIPE PENETRATION DETAILS ON ARCHITECTURAL SHEETS).
14. COORDINATE ALL PIPE ROUTING WITH ALL OTHER TRADES TO AVOID DUCTWORK, LIGHTING, PIPING AND ANY BUILDING STRUCTURE, ROUTE ALL PIPING CONCEALED ABOVE CEILING, WITHIN CHASES OR CONCEALED WITHIN WALLS.
15. WELD-O-LETS SHALL BE TWO SIZES SMALLER THAN CROSSMAIN, NO LENGTH OF CROSSMAIN SHALL BE GREATER THAN 10'-0". ALL SPRINKLER PIPING & FITTINGS SHALL BE INSTALLED ABSOLUTELY RUST-FREE.
16. ALL SPRINKLER DROPS SHALL BE 1" SCHEDULE 40 BLACK STEEL PIPE WITH 1" X 1/2" THREADED REDUCER.
17. PIPE SHALL BE REAMED AND CLEANED BEFORE ASSEMBLY, AND AFTER ASSEMBLY THE ENTIRE PIPING SYSTEM SHALL BE FLUSHED CLEAN.
18. PROVIDE ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES.
19. PROVIDE SYSTEM(S) WITH FLUSHING CONNECTION(S).
20. INSPECTOR'S TEST VALVE SHALL NOT EXCEED 7 FEET ABOVE THE FINISHED FLOOR. PROVIDE SMOOTH BORE CORROSION RESISTANT OUTLET FOR INSPECTOR'S TEST GIVING FLOW EQUIVALENT TO 1 SPRINKLER.
21. THIS CONTRACTOR SHALL ASSIST IN PREPARATION OF COORDINATION DRAWINGS FOR ALL LEVELS WHICH INDICATE ALL THE ENGINEERING DISCIPLINES & FIRE PROTECTION PIPING.
22. FIRE SPRINKLER PIPING SHALL NOT TRAVEL OVER THE TOPS OF ELECTRICAL PANEL BOARDS.
23. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS IN EACH AREA.
24. WET SYSTEM PIPING SHALL BE INSTALLED LEVEL TO DRAIN BACK TO THE SYSTEM RISER, IN ACCORDANCE WITH NFPA #13, 4.14.3.2. TRAPPED SECTIONS OF PIPING SHALL HAVE AUXILIARY DRAIN CONNECTIONS IN ACCORDANCE WITH 4.14.3.5
25. AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS SHALL BE IN ACCORDANCE WITH N.F.P.A. 13. ALL SPRINKLERS SHALL HAVE CORROSIVE RESISTANT COATINGS WHERE EXPOSED TO ELEMENTS.
26. SPRINKLERS SHALL COVER THE ENTIRE AREA OF ALL STRUCTURAL MEMBERS. THE SPRAY PATTERN ON ANY SPRINKLER SHALL NOT BE BLOCKED BY WALL, PARTITIONS OR STRUCTURAL COMPONENTS.
27. ALL PENDENT SPRINKLERS SHALL BE CENTER OF TILE, UNLESS MAXIMUM DISTANCES FROM WALLS OR BETWEEN HEADS IS EXCEEDED, IF NOT POSSIBLE ALL SPRINKLER HEADS MOUNTED IN CEILING SHALL BE LOCATED A MINIMUM OF 4' AWAY FROM ANY WALLS, CEILING GRID MEMBERS, CEILING HEIGHT CHANGES OR ANY OTHER VERTICAL INTERSECTING STRUCTURAL SURFACE.
28. PROVIDE STOCK OF EXTRA SPRINKLERS IN ACCORDANCE WITH N.F.P.A. # 13.
29. PROVIDE SPRINKLERS ABOVE AND BELOW EXPOSED DUCTWORK 4 FEET OR WIDER.
30. PROVIDE HAZARD COVERAGE FOR THE FUNCTIONS FOR EACH AREA AS INDICATED ON PLANS OR REQUIRED BY NFPA.
31. INDICATE THE LOCATION AND SIZE OF BLIND SPACES AND CLOSETS.
32. PROVIDE HEAD GUARDS ON SPRINKLER HEADS IN ELECTRIC, TELEPHONE, AND MECHANICAL ROOMS.
33. SPRINKLER HEADS SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURES GULD LINES.
34. CONTRACTOR SHALL PERFORM A HYDROSTATIC TEST OF THE SPRINKLER SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13. NOTIFY THE ARCHITECT, ENGINEER, OWNER AND UNDERWRITER PRIOR TO PERFORMING THE TEST WHO, AT THEIR OPTION, MAY DESIRE TO WITNESS THE TEST. TEST SHALL BE SATISFACTORY TO THE ARCHITECT, ENGINEER, OWNER, UNDERWRITER OR AUTHORITIES HAVING JURISDICTION. AFTER TESTING HAS BEEN COMPLETED, ALL VALVES SHALL BE LEFT IN THEIR RESPECTIVE NORMAL POSITIONS, AND THE OWNER AND HIS DULY APPOINTED REPRESENTATIVE SHALL BE INSTRUCTED IN THE CARE, OPERATION AND MAINTENANCE OF THE ENTIRE SYSTEM. ALL MATERIAL AND TEST CERTIFICATE SHALL BE COMPLETED AND TURN OVER TO THE OWNER'S REPRESENTATIVE AT THAT TIME.
35. FLUSHING CONNECTIONS TO BE PROVIDED AT REMOTE ENDS OF ALL CROSS MAINS.
36. PROJECT SPECIFICATIONS TAKE PRECEDENT OVER PLANS.
37. VERIFY UNDERGROUND FIRE MAIN LOCATIONS WITH PROJECT SITE PLAN.
38. UNFORESEEN CONDITIONS MAY EXIST. COOPERATION WITH OTHER TRADES IN ROUTING AND/OR BURIAL DEPTHS AS DETERMINED DURING CONSTRUCTION AND AS DIRECTED BY THE ARCHITECT MAY BE NECESSARY. IT IS INTENDED THAT SUCH DEVIATIONS SHALL BE CONSIDERED AS PART OF THIS CONTRACT. THIS CONTRACTOR IS TO FIELD VERIFY DIMENSIONS OF ALL SITE UTILITIES, ETC., PRIOR TO BID AND INCLUDE ANY DEVIATIONS IN THE CONTRACT.
39. THE CONTRACTOR WILL INSTALL A FIRE SAFETY PROGRAM TO ADDRESS ALL THE REQUIREMENTS SPECIFIED IN THE FLORIDA FIRE PREVENTION CODE, INCLUDING NFPA 241. THIS PROGRAM SHALL BE EFFECTIVE FOR THE DURATION OF ALL DEMOLITION, ALTERATION AND CONSTRUCTION OPERATIONS.
40. WORK SHALL BE PERFORMED, IN STRICT COMPLIANCE WITH THE ESTABLISHED WORK SCHEDULE BEING SET FORTH BY OWNER. COORDINATE ALL WORK WITH GENERAL CONTRACTOR. THIS CONTRACTOR SHALL FURNISH ADEQUATE FORCES, CONSTRUCTION PLANT AND EQUIPMENT, AND SHALL WORK SUCH HOURS, INCLUDING NIGHT SHIFTS, OVERTIME OPERATIONS, SUNDAYS AND HOLIDAYS IN ACCORDANCE WITH THE OWNERS' OPERATIONAL SCHEDULE AS LISTED IN DIVISION 1 OF THE SPECIFICATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN THE CONSTRUCTION SCHEDULE BECAUSE OF INADEQUATE FORCES, SUPERVISION OR ANY OTHER REASON UNDER THE CONTRACTOR'S CONTROL, THE OWNER MAY REQUIRE THE CONTRACTOR TO INCREASE THE NUMBER OF SHIFTS AND/OR OVERTIME OPERATIONS, DAY OF WORK AND/OR THE AMOUNT OF CONSTRUCTION PLANT, AT NO ADDITIONAL COST TO THE OWNER UNDER THIS CONTRACT. FAILURE TO MAINTAIN THE CONSTRUCTION SCHEDULE DUE TO OWNERS' OPERATIONAL INTERFERENCES, WHICH WERE NOT IDENTIFIED IN OR PRIOR TO THE PRE-BID CONFERENCE, SHALL NOT BE THE CONTRACTOR'S LIABILITY.
40. THE EXISTING FIRE SPRINKLER SYSTEM SHALL REMAIN IN OPERATION DURING THE CONSTRUCTION PHASE OR PROVIDE A FIRE WATCH 24-HOUR / 7-DAYS A WEEK PER THE AHJ REQUIREMENTS.

HYDRAULIC DESIGN DATA	
OCCUPANCY CLASSIFICATION	LIGHT HAZARD
DESIGN AREAS	A) OFFICES AND SIMILAR USE SPACE, RESTROOMS, AND CORRIDORS.
MAXIMUM COVERAGE	225 SQ. FT. PER SPRINKLER
TEMPERATURE RATING	ORDINARY 155°, QUICK RESPONSE
DENSITY GPM/SQ. FT.	0.10 GPM OVER 1500 SQ. FT.
HOSE STREAM	100 GPM / DURATION 30 MINUTES
OCCUPANCY CLASSIFICATION	ORDINARY HAZARD GROUP 1
DESIGN AREAS	A) GENERAL STORAGE AREAS, (STORAGE LESS THAN 8' AND QUANTITY AND ARRANGEMENT NOT EXCEEDING THE LIMITATIONS OF MISCELLANEOUS STORAGE) B) RESTAURANT DINNING AND SERVICE AREAS, C) MECHANICAL & ELECTRICAL ROOMS, D) PASSENGER-HANDLING AREAS.
MAXIMUM COVERAGE	130 SQ. FT. PER SPRINKLER
TEMPERATURE RATING	ORDINARY 155°, QUICK RESPONSE
DENSITY GPM/SQ. FT.	0.15 GPM OVER 1500 SQ. FT.
HOSE STREAM	250 GPM / DURATION 60-90 MINUTES
OCCUPANCY CLASSIFICATION	ORDINARY HAZARD GROUP 2
DESIGN AREAS	A) GENERAL STORAGE AREAS, (STORAGE LESS THAN 12' AND QUANTITY AND ARRANGEMENT NOT EXCEEDING THE LIMITATIONS OF MISCELLANEOUS STORAGE) B) CUSTODIAL ROOMS, C) MERCANTILE, D) LOADING DOCK, E) BAGGAGE HANDLING.
MAXIMUM COVERAGE	130 SQ. FT. PER SPRINKLER
TEMPERATURE RATING	ORDINARY 155°, QUICK RESPONSE
DENSITY GPM/SQ. FT.	0.20 GPM OVER 1500 SQ. FT.
HOSE STREAM	250 GPM / DURATION 60-90 MINUTES

PROJECT INFORMATION		
PROJECT LOCATION: ORLANDO-SANFORD INTERNATIONAL AIRPORT AT SANFORD, FLORIDA		PROJECT NAME: FIS/CUSTOMS BAGGAGE
61G15-32 COMPLIANCE NOTES		
61G15-32.003		
1.	SPRINKLER SYSTEM LAYOUT SHALL BE SUBMITTED BY A STATE OF FLORIDA LICENSED FIRE PROTECTION CONTRACTOR. THIS BUILDING SHALL BE FULLY SPRINKLED BY A WET PIPE SPRINKLER SYSTEM. CONTRACTOR SHALL LAYOUT AND PROVIDE AUTOMATIC WET PIPE FIRE SPRINKLER SYSTEM ALL APPLICABLE CODES SET FORTH BY THE AUTHORITY HAVING JURISDICTION. DISCHARGE FROM INDIVIDUAL HEADS IN THE HYDRAULICALLY MOST REMOTE/DEMANDING AREA SHALL BE HYDRAULICALLY CALCULATED TO AN ACCEPTABLE MARGIN OF SAFETY NOT LESS THAN 10 PSI FOR GROWTH AND FLUCTUATION IN AVAILABLE SUPPLY OF AREA. FIRE SPRINKLER SYSTEM SHALL INCLUDE MATERIALS, ACCESSORIES, AND EQUIPMENT INSIDE AND OUTSIDE THE BUILDING TO PROVIDE A COMPLETE AND READY FOR USE SPRINKLER SYSTEM. LAYOUT AND PROVIDE THE SPRINKLER SYSTEM TO GIVE FULL CONSIDERATION TO BLIND SPACES, PIPING, ELECTRICAL EQUIPMENT, DUCTS, HVAC EQUIPMENT, ACCESS SPACE NEEDED FOR MAINTENANCE OF EQUIPMENT AND OTHER CONSTRUCTION AND EQUIPMENT IN ACCORDANCE WITH DETAILED WORKING DRAWINGS TO BE SUBMITTED FOR APPROVAL. LOCATE SPRINKLER HEADS IN A CONSISTENT PATTERN WITH CEILING GRID, LIGHTS, DIFFUSER, REGISTERS, GRILLES AND ARCHITECTURAL FEATURES. DEVICES AND EQUIPMENT FOR FIRE PROTECTION SERVICES SHALL BE U.L. LISTED AND F.M. APPROVED FOR USE IN WET PIPE SYSTEM.	
2.	THE AUTOMATIC FIRE SUPPRESSION SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 13, CHAPTER 16 AND NFPA 25.	
3.	REFER HYDRAULIC DESIGN DATA LEGEND FOR HAZARD CLASSIFICATIONS AND REQUIRED DENSITIES..	
4.	1) FLORIDA FIRE PREVENTION CODE, 2014 2) NFPA 13, 2010 3) NFPA 24, 2010 4) NFPA 25, 2014 5) FLORIDA BUILDING CODE, 2014 6) FLORIDA ADMINISTRATIVE CODE 61G15-32.003 AND 61G15-32.004 7) LOCAL AND COUNTY CODES SET FORTH BY AUTHORITY HAVING JURISDICTION	
5.	DUE TO PIPE SIZES REQUIRED NO ADDITIONAL STRUCTURAL SUPPORT SHOULD BE REQUIRED.	
61G15-32.004		
2A	POINT OF SERVICE: EXISTING SYSTEM.	
2B	INSTALLATION SHALL BE IN ACCORDANCE WITH N.F.P.A. 13, 2010 ED. FIRE PREVENTION CODE 2014, STATE AND LOCAL AUTHORITIES.	
2C	REFER TO HYDRAULIC DESIGN DATA LEGEND ON THIS SHEET..	
2D	REFER TO 61G15-32.003 COMPLIANCE NOTE #1 AND HYDRAULIC DESIGN DATA LEGEND THIS SHEET..	
2E	SOURCE: EXISTING SYSTEM IS FED FROM 6" UNDERGROUND MAIN AND TAPS INTO EXISTING 10" WATER MAIN.	
2F	<div>FLOW TEST NOTE: CONTRACTOR SHALL PERFORM OR OBTAIN A CURRENT FLOW TEST FROM THE LOCAL UTILITIES PRIOR TO THE LAYOUT OF SHOP DRAWINGS. DATE OF FLOW TEST SHALL NOT EXCEED 6 MONTHS TO THE SUBMISSION OF SHOP DRAWINGS. FLOW TEST SHALL INCLUDE ALL INFORMATION AS INDICATED BELOW</div> <div>HYDRANT ID FLOW TEST DATE/TIME HYDRANT LOCATION STATIC GAUGE PRESSURE RESIDUAL GAUGE PRESSURE FLOW RATE SOURCE OF INFORMATION:</div>	
2G	ALL VALVES CONTROLLING WATER SUPPLY SHALL HAVE A RED TAMPER PROOF COVER WHICH WILL ACTIVATE AN ALARM OF TROUBLE SIGNAL WHEN	ADJUSTED.
2H	VERIFY THAT UTILITY PURVEYOR CONTINUOUSLY MONITORS THE WATER SUPPLY FOR MICRO BIOLOGICAL CONTAMINANTS WITH MAY CAUSE MICROBIAL CORROSION.	
2I	BUILDING SPRINKLER SYSTEM IS EXISTING.	
2J	ALL YARD AND INTERIOR FIRE PROTECTION COMPONENTS SHALL BE NEW U.L. LISTED AND FM APPROVED.	

MAXIMUM DISTANCE BETWEEN HANGERS								
NOMINAL PIPE SIZE (STEEL PIPE)	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"
		12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"

EXISTING STRUCTURAL FIREPROOFING REPAIR

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXISTING FIREPROOFING ON THE EXISTING STRUCTURE AS REQUIRED FOR THE INSTALLATION OF NEW SUPPORTS FOR PIPING INSTALLED UNDER THIS CONTRACT. THIS CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REPAIR OR RE-APPLICATION OF NEW FIREPROOFING AFTER ALTERATIONS TO THE EXISTING BUILDING FIREPROOFING ARE COMPLETED PER PHASE.

SHEET ADDED

FP-0.1

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION

PRE-BID MEETING SIGN-IN SHEET

January 4, 2017

Name	Address	Phone	E-Mail
KEITH KOLAKOWSKI COLLAGE CONSTRUCTION	585 TECHNOLOGY PARK LAKE MARY, FL 32746	407-829-2257	KKOLAKOWSKI@ COLLAGE-USA.COM
Russell Yeager BEUMER Group	2241 S. Watson Rd Suite 151 Arlington, TX 76010	682.248.3700	russell.yeager@ beumergroup.com Terrance.cooper@beumergroup.com
Tenille Whitten Five Star Airport alliance	11430 S 4800 W Suite D Salt Lake City UT 84104	801-388-6970	tenille.whitten@ fivestaraa.com
Pete Moore Dai-Fuku Logan Teleflex	4620-C Proximity Drive Louisville, KY 40213	402-687-5072	pete.moore@ loganteleflex.com
JASON SHIPPELL SAFD	550 POW KNIGHT LN SANDHURST, FL 32733	407 585 4161	jshippell@uscc.net
Steve Gillette Automatic Systems	9230 E 47th St Kansas City Mo 64133	816) 313-3540	Steven.gillette@ asi.com

PRE-BID MEETING SIGN-IN SHEET

January 4, 2017

Name	Address	Phone	E-Mail
Wayne Sweitzer West Construction	318 S Dixie Hwy, Lake Worth FL 33460	561-248-3862 561-588-2027	wsweitzer@westconstructioninc.net
Luke Flynn	1351 Lakeview Drive Orlando, FL 32720	386-747-9120	CentralFloridaSwitching@outlook.com
Nate Flynn	813 Springwood Dr. Orlando FL 32839	386-216-2972	nflynnCFbi@outlook.com
JOHN BAER	CPH	407 322 6841	JBAER@CPH CORP. COM
Bryan Messer	JSM + Associates Mt. Dora	352-383-2600	bryan.messer@jmandassociates.com
JERRY CROCICKER	SAA	4005	JCROCICKER@OSIA.NET
KENNY PARULAN	OSI	4525	KENNY.PARULAN@TBIUSINC.AERO

PRE-BID MEETING SIGN-IN SHEET

January 4, 2017

Name	Address	Phone	E-Mail
Robert Steele	750 Jackson, WP.	407 628- 754 4353	rsteale@gomezconstruction.com
Stephen Corrow Gomez Construction Co.	750 Jackson Ave. Winter Park, FL 32789	407-628-4353	SCORROW@ GomezConstruction.com
APM Construction Corp Jim Ploska	424 LONABELLA ST. 130 NSB FL 32168	386 967 7888	JPIOSKA@APMCON.COM STP @ APMCON.COM
JAMES THOMPSON ESI	1746 US Hwy 441 LEESBURG FL 34748	352 787-1322	JTHOMPSON@ ELECTRIC-SERVICES.COM
Rais Javed Mirza Power Engineering Corp.	6635 Narcoossee Rd Orlando FL 32822. Elect Contractor MBE/DBE	407-277-3150	Javed@Pegfl.com
RAYMOND THOMPSON ESI	1476 US Hwy 441 Leesburg FL 34748	352-787-1322	RTHOMPSON@ Electrx-Services.com
Key Lastra BND Associates	550 N. Leo Street SUITE 215 Tampa, FL 33609	678.654.6781	rlastra@bnpassociates.com
Matt Gaard CLX Engineering	645 Hickman Cir. Sanford FL 32771	352-552-8798	MGAARD@CLXENG.COM
MIKE SILLER CLX ENG.	645 Hickman Circle Sanford FL 32771	352-638-2877	MSILLER@CLXENG.COM

PRE-BID MEETING SIGN-IN SHEET

January 4, 2017

Name	Address	Phone	E-Mail
Diane Crews			
Frank Liberatore			
Jennifer Taylor			
George Speake			
Jeremy Owens			
Stacy Gntuhisthe			
Jason Terrieri			
6			

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Administration of Contract: Provide administrative requirements for the proper coordination and completion of work including the following:
 - 1. Supervisory personnel.
 - 2. Preconstruction conference.
 - 3. Project meetings, minimum of two per month; prepare and distribute minutes.
- B. Reports: Submit daily and special reports.
- C. Work Schedule: Submit progress schedule, updated monthly.
- D. Submittal Schedule: Prepare submittal schedule; coordinate with progress schedule.
- E. Schedule of Values: Submit schedule of values.
- F. Schedule of Tests: Submit schedule of required tests including payment and responsibility.
- G. Perform Surveys: Lay out the work and verifying locations during construction. Perform final site survey.
- H. Emergency Contacts: Submit and post a list of emergency telephone numbers and address for individuals to be contacted in case of emergency.
- I. Record Documents: Submit record drawings and specifications; to be maintained and annotated by Contractor as work progresses.

1.2 SUBMITTALS

- A. Types of Submittals: Provide types of submittals listed in individual sections and number of copies required below.
 - 1. Shop drawings, reviewed and annotated by the Contractor - 4 copies.
 - 2. Product data - 4 copies.
 - 3. Samples - 2, plus extra samples as required to indicate range of color, finish, and texture to be expected.
 - 4. Inspection and test reports - 4 copies.
 - 5. Warranties - 4 copies.
 - 6. Survey data - 4 copies.
 - 7. Closeout submittals - 4 copies.
 - 8. Project photographs - 12 digital images each month submitted on CD. Submit cumulative CD at each subsequent submittal. Label each image with date.
- B. Submittal Procedures: Comply with project format for submittals. Comply with submittal procedures established by Architect including Architect's submittal and shop drawing stamp. Provide required resubmittals if original submittals are not approved. Provide distribution of approved copies including modifications after submittals have been approved.
- C. Samples and Shop Drawings: Samples and shop drawings shall be prepared specifically for this project. Shop drawings shall include dimensions and details, including adjacent construction and related work. Note special coordination required. Note any deviations from requirements of the Contract Documents.

- D. Warranties: Provide warranties as specified; warranties shall not limit length of time for remedy of damages Owner may have by legal statute. Contractor, supplier or installer responsible for performance of warranty shall sign warranties.

PART 2 PRODUCTS - Not applicable to this Section

PART 3 EXECUTION - Not applicable to this Section

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. References and standards.
- D. Testing and inspection agencies and services.
- E. Control of installation.
- F. Mock-ups.
- G. Tolerances.
- H. Manufacturers' field services.
- I. Defect Assessment.

1.02 REFERENCE STANDARDS

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2014).
- B. ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2014.
- C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2013.
- D. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2012a.
- E. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2014a.
- F. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2013.
- G. IAS AC89 - Accreditation Criteria for Testing Laboratories; 2010.

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
- C. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Conformance with Contract Documents.
 - k. When requested by Architect, provide interpretation of results.

2. Test report submittals are for Architect's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
- D. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
 1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.
- E. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- F. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
 1. Submit report in duplicate within 30 days of observation to Architect for information.
 2. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- G. Erection Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.
 1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
 2. Data indicating inappropriate or unacceptable Work may be subject to action by Architect or Owner.

1.04 QUALITY ASSURANCE

- A. Testing Agency Qualifications:
 1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 3. Qualification Statement: Provide documentation showing testing laboratory is accredited under IAS AC89.

1.05 REFERENCES AND STANDARDS

- A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards where required by product specification sections.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.
- F. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Architect shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.06 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. As indicated in individual specification sections, Owner or Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Contractor Employed Agency:
 - 1. Testing agency: Comply with requirements of ASTM E329, ASTM E543, ASTM C1021, ASTM C1077, ASTM C1093, and ASTM D3740.
 - 2. Laboratory Qualifications: Accredited by IAS according to IAS AC89.
 - 3. Laboratory: Authorized to operate in the State in which the Project is located.
 - 4. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
 - 5. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 MOCK-UPS

- A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.
- B. Accepted mock-ups establish the standard of quality the Architect will use to judge the Work.
- C. Integrated Exterior Mock-ups: construct integrated exterior mock-up as indicated on Drawings. Coordinate installation of exterior envelope materials and products as required in individual Specification Sections. Provide adequate supporting structure for mock-up materials as necessary.
- D. Room Mock-ups: Construct room mock-ups as indicated on Drawings. Coordinate installation of materials, products, and assemblies as required in Specification Sections; finish according to requirements. Provide required lighting and any supplemental lighting where required to enable Architect to evaluate quality of the mock-up.
- E. Notify Architect and Owner Consultant fifteen (15) working days in advance of dates and times when mock-ups will be constructed.
- F. Provide supervisory personnel who will oversee mock-up construction. Provide workers that will be employed during the construction at Project.

- G. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.
- H. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- I. Obtain Architect's approval of mock-ups before starting work, fabrication, or construction.
 - 1. Architect will issue written comments within Ten (10) working days of initial review and each subsequent follow up review of each mock-up.
 - 2. Make corrections as necessary until Architect's approval is issued.
- J. Accepted mock-ups shall be a comparison standard for the remaining Work.
- K. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.
- L. Where possible salvage and recycle the demolished mock-up materials.

3.03 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required.
- B. Testing Agency Duties:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests and inspections required by Architect.
 - 7. Attend preconstruction meetings and progress meetings.
 - 8. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.

4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect.
- F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.05 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and items as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Architect 30 days in advance of required observations.
1. Observer subject to approval of Architect.
 2. Observer subject to approval of Owner.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION 01 40 00

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Substitution limitations and procedures.
- F. Procedures for Owner-supplied products.
- G. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Agreement.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.
- D. Specific Products to be Reused: The reuse of certain materials and equipment already existing on the project site is required.
 - 1. If reuse of other existing materials or equipment is desired, submit substitution request.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.

2.03 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions:
Submit a request for substitution for any manufacturer not named.

2.04 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. The deadline for substitution during the bidding process shall be 14 days before bid opening.
- B. Submit substitution requests by completing the appropriate form.
- C. Architect will consider requests for substitutions only within 15 days after date of Agreement.
- D. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- E. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- F. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- G. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- H. Substitution Submittal Procedure (after contract award):
 - 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 - 3. The Architect will notify Contractor in writing of decision to accept or reject request.

3.02 OWNER-SUPPLIED PRODUCTS

- A. Owner's Responsibilities:
 - 1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
 - 2. Arrange and pay for product delivery to site.
 - 3. On delivery, inspect products jointly with Contractor.
 - 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 5. Arrange for manufacturers' warranties, inspections, and service.
- B. Contractor's Responsibilities:
 - 1. Review Owner reviewed shop drawings, product data, and samples.
 - 2. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 - 3. Handle, store, install and finish products.
 - 4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.04 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Do not store products directly on the ground.
- J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- K. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- L. Prevent contact with material that may cause corrosion, discoloration, or staining.
- M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- N. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION 01 60 00

SPECIAL PROVISIONS

SECTION 13

CONSTRUCTION TIME AND LIQUIDATED DAMAGES

I. GENERAL

This project consists of several project elements, which are defined throughout the contract documents. The specific details pertaining to contract sequence and time are an important aspect of the project for planning of the various operational requirements of the airport. The Contractor shall be required to comply with the general intent of the phasing, scheduling and duration of the project as outlined in the contract documents or as otherwise approved by submittals allowed by the documents.

II. CONSTRUCTION TIME

1. The construction plans and specifications set forth the time allocated to each of the elements of work required as part of this contract. **The time allotted for each phase is shown in Table 13-1 "Construction Time"**. The work shall be completed within the times established or as otherwise approved or liquidated damages in the amounts specified hereafter shall be assessed.
2. The Contractor must request and receive written approval from the Engineer for acceptance of the work included in each of the schedules, phases or work prior to satisfying the requirements of being "complete". **Adequate time shall be allotted to the Owner and Engineer for inspection purposes.**
3. The specified times for each of the project phases shall be outlined in these specifications or as otherwise agreed to in writing among the Owner, Engineer and Contractor based upon the actual contract work awarded. The specified times for the project are identified in the following table:

TABLE 13-1, CONSTRUCTION TIME		
Phase	Description	Duration in Calendar Days
	Notice-To-Proceed Production/Shop Drawing	
0	Submittal (shop drawing) preparation and review. Order long lead items and material procurement.	120
	Notice-To-Proceed	
1	Phase 1 – West Belt Area	30
2	Phase 2 – East Belt Area	30
3	Phase 3 – Southern Area	30
4	Close-out (Final Completion)	30
	Total Calendar Days	240

As can be seen above, the total contract time for work to achieve final completion under the Contract is **240 calendar days (include procurement/submittal period)**. The Contractor shall proceed to close-out the project expeditiously. The Final Close-out Date shall be **30** days after the Substantial Completion Date.

III. CONSTRUCTION SCHEDULE

1. The Contractor shall prepare and submit a detailed schedule for his operations within the general limits and phasing restrictions included in the contract documents. This schedule shall be based upon the actual work ultimately awarded. This schedule shall be reviewed with the Owner, Engineer and Contractor in order to establish the final approved schedule as it relates to this Special Provision.

IV. LIQUIDATED DAMAGES

1. Should the Contractor fail to achieve substantial completion of the project by the Substantial Completion Date, the rates for liquidated damages shall be \$1,500 per day beyond the contractual period listed above and shown on Table 13-1.

2. Should the Contractor fail to achieve final close-out of the project by the Final Acceptance Date, the rates for liquidated damages shall be \$500 per day beyond the **30-day** close-out period.
3. **Liquidated damages shall be deducted from payments due to the Contractor. Notwithstanding the Sanford Airport Authority will not waive any rights to other remedies.**

V. MEASUREMENT AND PAYMENT

No separate measurement or payment for the above requirements shall be made. All costs necessary to cover these items and services shall be considered incidental to the project requirements.

END OF SPECIAL PROVISION NO. 13

INTERIOR FINISHES

- CARPET**

C1 MFG: SHAW
STYLE: LEGACY-WISDOM
COLOR: TBD

BASE

B1 MFG: ROPPE
SIZE: 4"
COLOR: TBD

TERRAZZO TILE

TZ1 MFG: THE STONEHARD GROUP
SIZE: 12" X 12"
COLOR: TBD

TZ2 MFG: THE STONEHARD GROUP
SIZE: 12" X 12"
COLOR: TBD

TZ3 MFG: THE STONEHARD GROUP
SIZE: 12" X 12"
COLOR: TBD

SEALED CONCRETE

SC MFG: TBD
STAIN: GREY

CEILINGS

CL1 CEILINGS THROUGHOUT
UNLESS OTHERWISE NOTED
MFG: TBD
STYLE: TBD
COLOR: TBD

CL2 GYPSUM BOARD SOFFITS
REFER TO PAINT COLOR
- INTERIOR PAINT**

P1 ALL WALLS UNLESS NOTED
OTHERWISE
MFG: SHERWIN WILLIAMS
COLOR: TBD
FINISH: EGGSHELL

P2 **DOORS & FRAMES**
MFG: SHERWIN WILLIAMS
COLOR: TBD
FINISH: SEMI-GLOSS

P3 **CEILING PAINT**
MFG: SHERWIN WILLIAMS
COLOR: TBD
FINISH: FLAT

P4 **EXISTING FRP PANELS**
MFG: SHERWIN WILLIAMS
TYPE: WATER BASE EPOXY
COLOR: TBD
FINISH: EGGSHELL
EXISTING FRP TO BE SANDED AND
CLEANED THOROUGHLY PRIOR TO
APPLICATION OF BONDING PRIMER,
1 COAT SMOOTH TUFF SURFACE,
TEXTURE WITH SPLATTERED
ORANGE PEEL AND 2 COATS OF
PAINT. REFER TO SPECIFICATIONS.

COLUMN COVERS

CC MFG: GORDON
PRODUCT: SQUARE COLUMN
ENCLOSURE
FINISH: TEXTURED STAINLESS STEEL
TYPICAL AT ALL COLUMNS FLOOR TO
CEILING

WALL CAP

WC MFG: DUPONT
PRODUCT: CORIAN SOLID SURFACE
COLOR: TBD

FINISH LEGEND

CARPET

TERRAZZO TILE

TERRAZZO TILE ACCENT

FLOOR FINISH TRANSITION

TERRAZZO TILE ACCENT

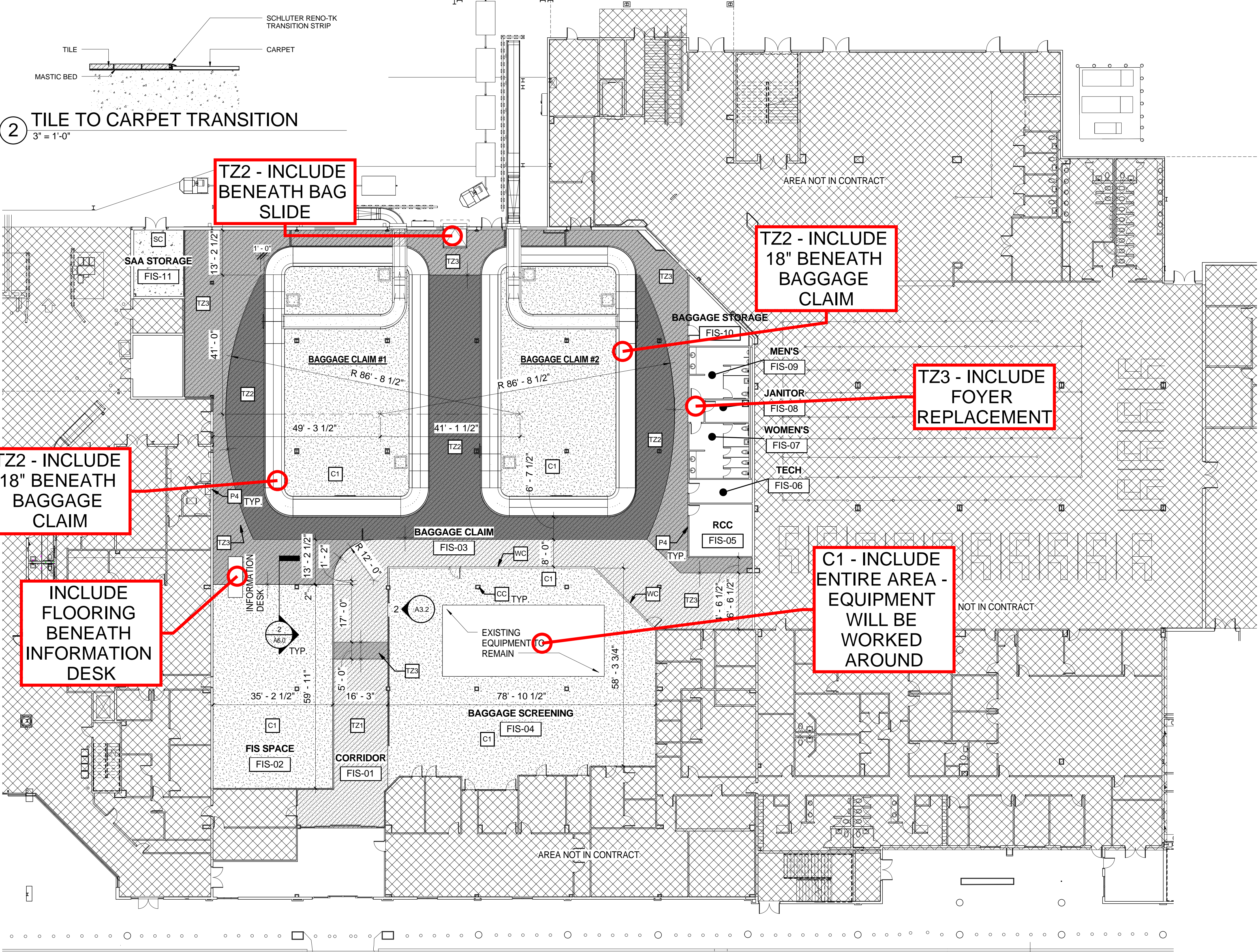
SEALED CONCRETE

AREA NOT IN CONTRACT

FLOOR TILE INSTALLATION NOTES:

1. ALL CONCRETE FLOORS MUST BE TESTED FOR MOISTURE AND PH PRIOR TO INSTALLATION.
2. REFER TO SPECIFICATIONS FOR MOISTURE AND PH LEVEL TOLERANCES.
3. SUBSTRATE MUST BE FLAT WITHIN THE EQUIVALENT OF 1/8" IN 10'-0"
4. SUBSTRATE MUST BE FREE OF ADHESIVE, SEALERS, PAINT, COATINGS, FINISHES, DIRT, FILM-FORMING CURING COMPOUNDS, OR OTHER SUBSTANCES THAT MAY AFFECT THE ADHESION OF THE FLOORING.
5. ALL MATERIALS MUST BE ON SITE IN THE ROOM WHERE THEY WILL BE INSTALLED 48 HOURS BEFORE INSTALLATION. TILE MUST BE STORED BEHIND TEMPORARY CONSTRUCTION WALL.
6. DO NOT INSTALL FLOOR TILE BEFORE ALL OTHER TRADES ARE FINISHED.
7. CLOSE SPACES TO TRAFFIC 12 HOURS BEFORE INSTALLATION AND 24 HOURS AFTER INSTALLATION IS COMPLETE.

FINISH SCHEDULE - F.I.S. - FIRST FLOOR								
RM. NO.	ROOM NAME	FLOOR	BASE	WALL FINISHES				NOTES
				North Finish	East Finish	South Finish	West Finish	
FIS-01	CORRIDOR	FRITZ TILE	VINYL	PAINT	PAINT	N/A	N/A	EXISTING CEILING TO REMAIN
FIS-02	FIS SPACE	CARPET	VINYL	PAINT	PAINT	PAINT	PAINT	EXISTING CEILING TO REMAIN
FIS-03	BAGGAGE CLAIM	FRITZ TILE	VINYL	PAINT	PAINT	PAINT	PAINT	CEILING PANELS / GYP.BD.SOFFITS
FIS-04	BAGGAGE SCREENING	CARPET	VINYL	PAINT	N/A	PAINT	PAINT	EXISTING CEILING TO REMAIN
FIS-05	RCC	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-06	TECH	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-07	WOMEN'S	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-08	JANITOR	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-09	MEN'S	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-10	BAGGAGE STORAGE	-	-	-	-	-	-	ALL EXISTING FIINSHES TO REMAIN
FIS-11	SAA STORAGE	SEALED CONCRETE	VINYL	PAINT	PAINT	PAINT	PAINT	EXISTING CEILING TO REMAIN

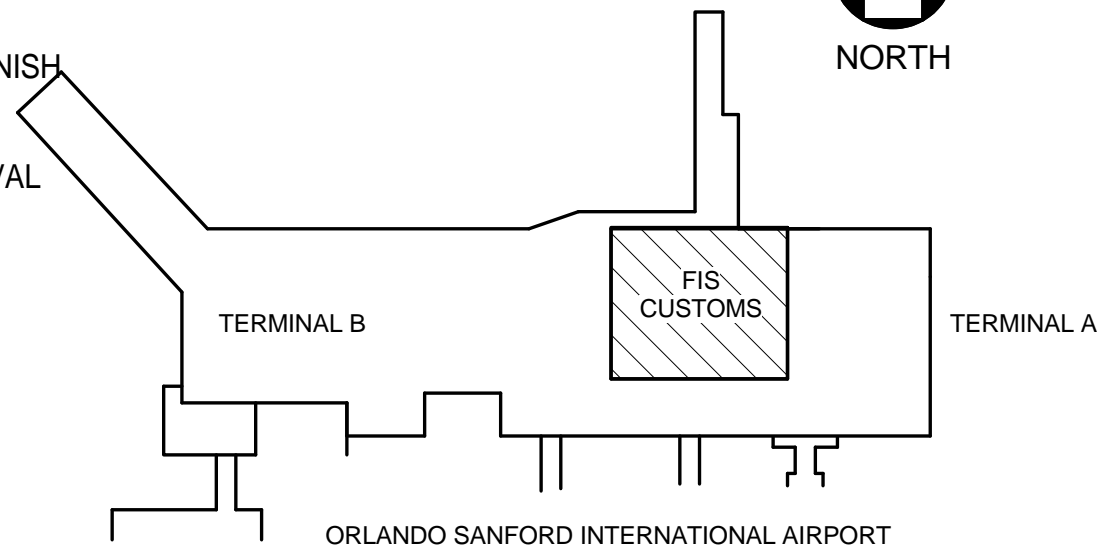


GENERAL NOTES

1. REFER TO CEILING PLANS FOR CEILING FINISH LOCATION.
2. INTERIOR FINISHES THROUGHOUT SPACE SHALL COMPLY WITH BUILDING CODE FOR MINIMUM FLAME SPREAD. ANY FINISH THAT IS NON-COMPLIANT SHALL BE SUBMITTED TO THE ARCHITECT FOR RE-SELECTION.
3. (3) SAMPLES OF EACH SPECIFIED FINISH COLOR AND MATERIAL SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
4. TYPICAL FLOOR COVERING TRANSITION SHALL BE AT CENTERLINE OF DOOR UNLESS NOTED OTHERWISE. REFER TO DETAILS AND SPECIFICATIONS FOR TRANSITION BETWEEN FINISHES. SUBMIT SAMPLES TO ARCHITECT FOR APPROVAL.
5. CLEAN/REPAIR ALL EXISTING WALLS TO LIKE NEW CONDITION PRIOR TO APPLYING NEW FINISH.
6. PROTECT ALL NEW INSTALLED FINISHES AND EXISTING TO REMAIN FINISHES IN AREA OF WORK FROM DAMAGE AND DEBRIS. REFER TO SPECIFICATIONS FOR PROPER MAINTENANCE OF NEWLY INSTALLED FINISHES DURING ON GOING CONSTRUCTION.
7. ALL DOORS AND FRAMES IN BAGGAGE CLAIM AREA TO BE PAINTED TO MATCH ADJACENT UPPER WALL FINISH. PAINT SHALL BE APPLIED TO ROOM SIDE ONLY.

1 FIS BAGGAGE BELT FINISH PLAN

1/16" = 1'-0"



KEY PLAN

cph

www.cphcorp.com

**A Full Service
A & E Firm**

Architects
Engineers
Environmental
Landscape Architects
M / E / P
Planners
Surveyors
Traffic /
Transportation

Offices in:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

REVISIONS		DATE	DESCRIPTION	BY
#				
Designed by:				
Drawn by:				
Checked by:				
Approved by:				
Scale:	As Indicated			
Date:	11-28-2016			
Job No.:	S12014			
File:	C:\Users\jordan\Documents\AIRPORT TERMINAL EXPANSION - Interior Baggage Belt.rvt			
Plans Prepared By CPH, Inc.				
500 West Fulton St. Sanford, FL 32771 Ph: 407.322.6841				
Licenses: Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2000926 Lndscp. Lic. No. LC0000298				

FIS BAGGAGE BELT FINISH PLAN

ORLANDO SANFORD INTERNATIONAL AIRPORT FIS
BAGGAGE BELT IMPROVEMENTS
ORLANDO SANFORD INTERNATIONAL AIRPORT
SANFORD, FLORIDA

Sheet No.

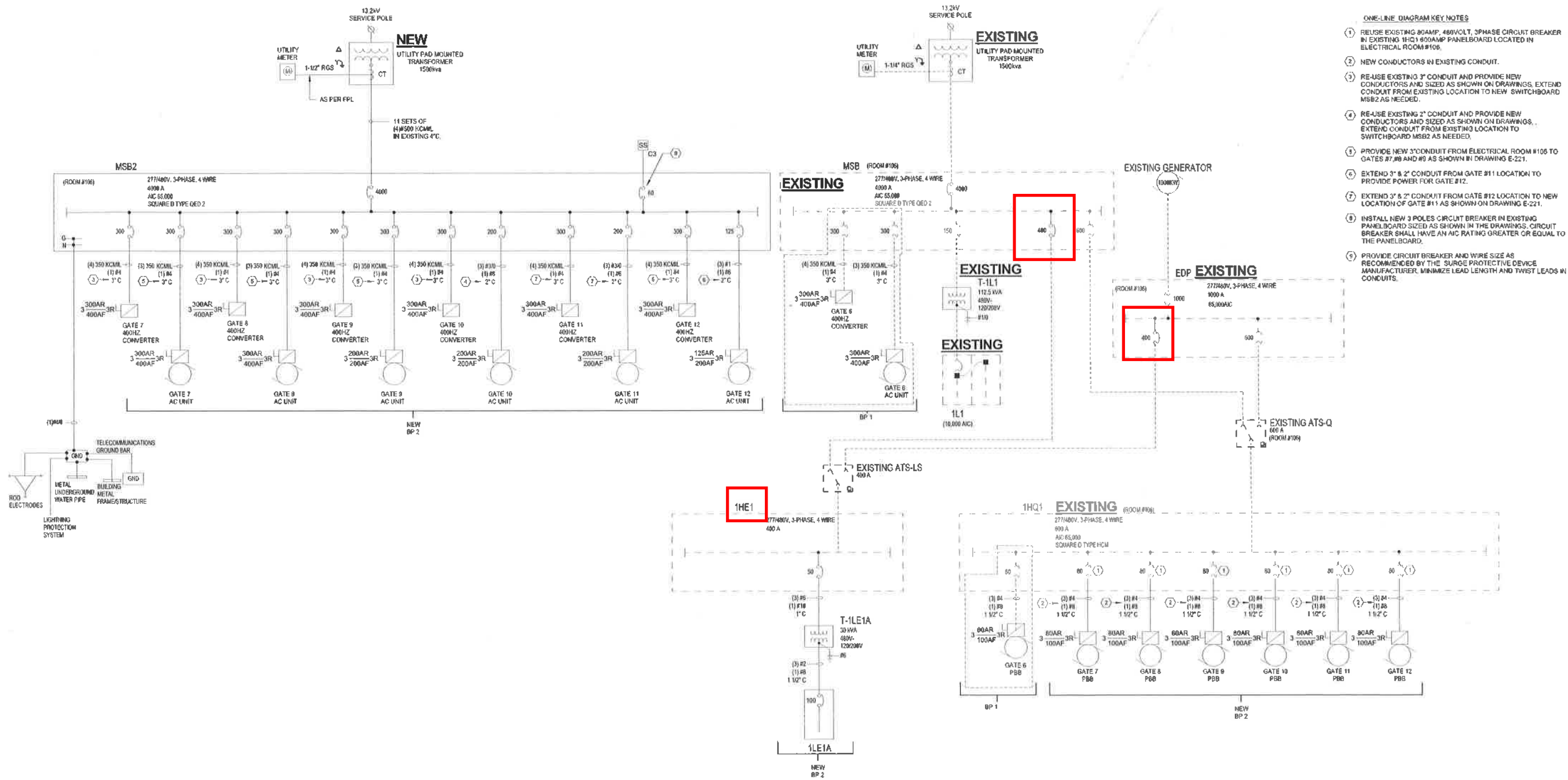
A6.0

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION

ADDENDUM #2 - FLOORING EXHIBIT

Source Feeding Panel 1HE1

DOMESTIC AIRPORT ELECTRICAL ROOM #106



RECORD DRAWINGS

THIS RECORD DOCUMENT HAS BEEN PREPARED, IN PART BASED UPON INFORMATION FURNISHED BY MARK CONSTRUCTION CORPORATION AND JOHN B. WEBB & ASSOCIATES, INC. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DOCUMENT OR FOR ANY ERRORS OR OMISSIONS THAT MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT OF INCORRECT INFORMATION PROVIDED TO THE ENGINEER. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY.

REVISIONS	
DATE	DESCRIPTION



CLIENT

PROJECT

PASSENGER BOARDING BRIDGE REPLACEMENT
BID PACKAGE 2
ORLANDO SANFORD INTERNATIONAL AIRPORT
SANFORD, FLORIDA

SHEET TITLE

ELECTRICAL ONE-LINE
DIAGRAM

ATKINS

482 South Keller Road | Tel. (407) 647-7275
Orlando, FL 32810 | Fax (407) 606-4500
www.atkinsglobal.com/northamerica

ENGINEER OF RECORD:

Geary F. Hershbach, PE
Florida P.E. No. 47215
Date:

JOB NO.: 100032356
DRAWN: LF
DESIGN: LF
CHECKED: GH
DATE: MAY 2016

E-241

Source Feeding EDP2

DIVISION 16
ELECTRICAL SPECIFICATIONS
SECTION 16026
CODES, FEES, AND STANDARDS

UNLESS SPECIFICALLY NOTED TO THE CONTRARY, FURNISH ALL EQUIPMENT, MATERIALS LABOR, AND INSTALL AND TEST IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE FOLLOWING CODES AND STANDARDS:

1. NFPA-70 (2002) NATIONAL ELECTRICAL CODE
2. ACCESSIBILITY REQUIREMENTS MANUAL, DEPARTMENT OF COMMUNITY AFFAIRS
3. FLORIDA BUILDING CODE (2004)
4. ANSI: AMERICAN STANDARDS INSTITUTE, INC.
5. ASTM: AMERICAN SOCIETY FOR TESTING AND MATERIALS
6. NEMA: NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
7. NESC: NATIONAL ELECTRIC SAFETY CODE
8. NFPA: NATIONAL FIRE PROTECTION ASSOCIATION
9. UL: UNDERWRITERS' LABORATORIES, INC.
10. APPLICABLE LOCAL CODES

OBTAIN PERMITS AND INSPECTIONS FROM AUTHORITIES HAVING JURISDICTION. DELIVER CERTIFICATES OF INSPECTION TO THE OWNER AT TIME OF ACCEPTANCE INSPECTION.

STANDARDS

ALL MATERIALS SHALL BE NEW, FREE OF DEFECTS, AND SHALL BE UL LISTED, BEAR THE UL LABEL OR BE LABELED OR LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY. WHERE NO LABELING OR LISTING SERVICE IS AVAILABLE FOR CERTAIN TYPE OF EQUIPMENT, TEST DATA SHALL BE SUBMITTED TO PROVE TO THE OWNER THAT EQUIPMENT MEETS OR EXCEEDS AVAILABLE STANDARDS.

SECTION 16050
BASIC REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. THE OTHER CONTRACT DOCUMENTS COMPLEMENT THE REQUIREMENTS OF THIS SECTION.

1.2 SCOPE

A. THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, FURNISHING A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS.

B. DRAWINGS FOR THE WORK ARE DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF THE WORK AND TO INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS CONDUIT FITTINGS, ACCESS PANELS, SLEEVES, PULL AND JUNCTION BOXES MAY NOT BE SHOWN. WHERE SUCH ITEMS ARE REQUIRED BY CODE OR BY OTHER SECTIONS, SUCH ITEMS SHALL BE INCLUDED.

C. EQUIPMENT SPECIFICATION MAY NOT DEAL INDIVIDUALLY WITH MINUTE ITEMS SUCH AS COMPONENTS, PARTS, CONTROLS AND DEVICES WHICH MAY BE REQUIRED TO PRODUCE THE EQUIPMENT PERFORMANCE SPECIFIED OR AS REQUIRED TO MEET THE EQUIPMENT WARRANTIES. WHERE SUCH ITEMS ARE REQUIRED, THEY SHALL BE INCLUDED BY THE SUPPLIER OF THE EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED.

D. COORDINATE WITH ALL TRADES IN SUBMITTAL OF SHOP DRAWINGS. SHOP DRAWINGS SHALL DETAIL SPACE CONDITIONS TO THE SATISFACTION OF ALL CONCERNED TRADES, SUBJECT TO REVIEW AND FINAL ACCEPTANCE BY THE ARCHITECT. IN THE EVENT THAT THE CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES OR SO AS TO CAUSE ANY INTERFERENCE WITH WORK OF OTHER TRADES, THE NECESSARY CHANGES SHALL BE MADE IN THE WORK TO CORRECT THE CONDITION, AT NO ADDITIONAL COST TO THE OWNER.

1.3 SUPERVISION OF THE WORK

A. PROVIDE FIELD SUPERINTENDENT WHO HAS HAD A MINIMUM OF FOUR (4) YEARS PREVIOUS SUCCESSFUL EXPERIENCE ON PROJECTS OF COMPARABLE SIZES AND COMPLEXITY. SUPERINTENDENT SHALL BE PRESENT AT ALL TIMES THAT WORK UNDER THIS DIVISION IS BEING INSTALLED OR AFFECTED.

1.4 DELIVERY AND STORAGE

A. HANDLE, STORE AND PROTECT EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND WITH THE REQUIREMENTS OF NFPA 70B, APPENDIX J, TITLED "EQUIPMENT STORAGE AND MAINTENANCE DURING CONSTRUCTION". REPLACE DAMAGED OR DEFECTIVE ITEMS WITH NEW ITEMS.

1.5 ELECTRICAL CONNECTIONS

A. CONNECTIONS SHALL BE TIGHTENED TO THE TORQUE VALUES RECOMMENDED BY THAT DEVICE MANUFACTURERS INSTRUCTIONS. IF THESE VALUES ARE NOT LISTED, TIGHTEN TO POUND-INCH OR POUND-FOOT VALUES RECOMMENDED IN UL STANDARD 486B, A SUMMARY OF WHICH MAY BE FOUND IN SECTION 110-14 OF THE NATIONAL ELECTRIC CODE HANDBOOK.

1.6 INTERRUPTIONS OF SERVICE

A. POWER INTERRUPTIONS SHALL BE HELD TO AN ABSOLUTE MINIMUM. ALL INTERRUPTIONS TO EXISTING BUILDINGS REQUIRED SHALL BE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE IN WRITING 14 DAYS PRIOR TO THE TIME THE INTERRUPTION IS REQUESTED TO PERMIT SCHEDULING WITH THE OWNER'S STAFF.

B. ALL POWER INTERRUPTION SHALL BE COORDINATED WITH OWNER A MINIMUM OF 24-HOURS PRIOR TO PLANNED INTERRUPTION

1.7 TESTS

A. SYSTEMS SHALL BE TESTED BY THE CONTRACTOR AND PLACED IN PROPER WORKING ORDER PRIOR TO DEMONSTRATING SYSTEMS TO OWNER.

B. PERFORM SUCH TESTS AS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE SITE.

1.11 FIRE STOPPING

A. PENETRATIONS OF RATED WALLS AND FLOORS SHALL BE SEALED TO PREVENT PASSAGE OF FIRE, SMOKE, TOXIC GASES AND WATER. MAINTAIN THE FIRE/OR SMOKE RATING OF ALL RATED WALL AND FLOORS.

B. SEALING MATERIAL SHALL BE PERFORMED WITH THE USE OF MATERIAL SPECIFICALLY INTENDED FOR THE PURPOSE AND APPLICATION. METHOD OF INSTALLATION SHALL CONFORM TO THE MANUFACTURERS INSTRUCTIONS AND TO APPLICABLE CODES AND STANDARDS.

1.12 RECORD DRAWINGS

A. AT THE JOB SITE, MAINTAIN A SET OF PRINTS ON WHICH ARE RECORDED ALL FORMAL FIELD CHANGES AND OTHER PORTIONS OF THE WORK THAT VARY SIGNIFICANTLY FROM THE CONTRACT DOCUMENTS. INDICATE ACTUAL ROUTING OF ELECTRICAL FEEDERS.

B. DELIVER RECORD DRAWINGS TO THE OWNER.

SECTION 16111
RACEWAYS

RIGID STEEL CONDUIT

HOT-DIPPED GALVANIZED, THREADED TYPE CONFORMING TO ANSI C80.1 AND UL 6. USE WHERE EXPOSED TO THE EXTERIOR.

ELECTRICAL METALLIC TUBING (EMT) AND INTERMEDIATE METAL CONDUIT (IMC)

BELOW GRADE CONDUIT SHALL BE SCHEDULE-40 PVC.

SECTION 16120
WIRES AND CABLES (600 VOLTS AND LESS)

WIRE AND CABLE

ALL CONDUCTORS SHALL BE COPPER.

TYPE THHN/THWN, SINGLE CONDUCTOR, NO. 12 MINIMUM FOR GENERAL USE WIRING.

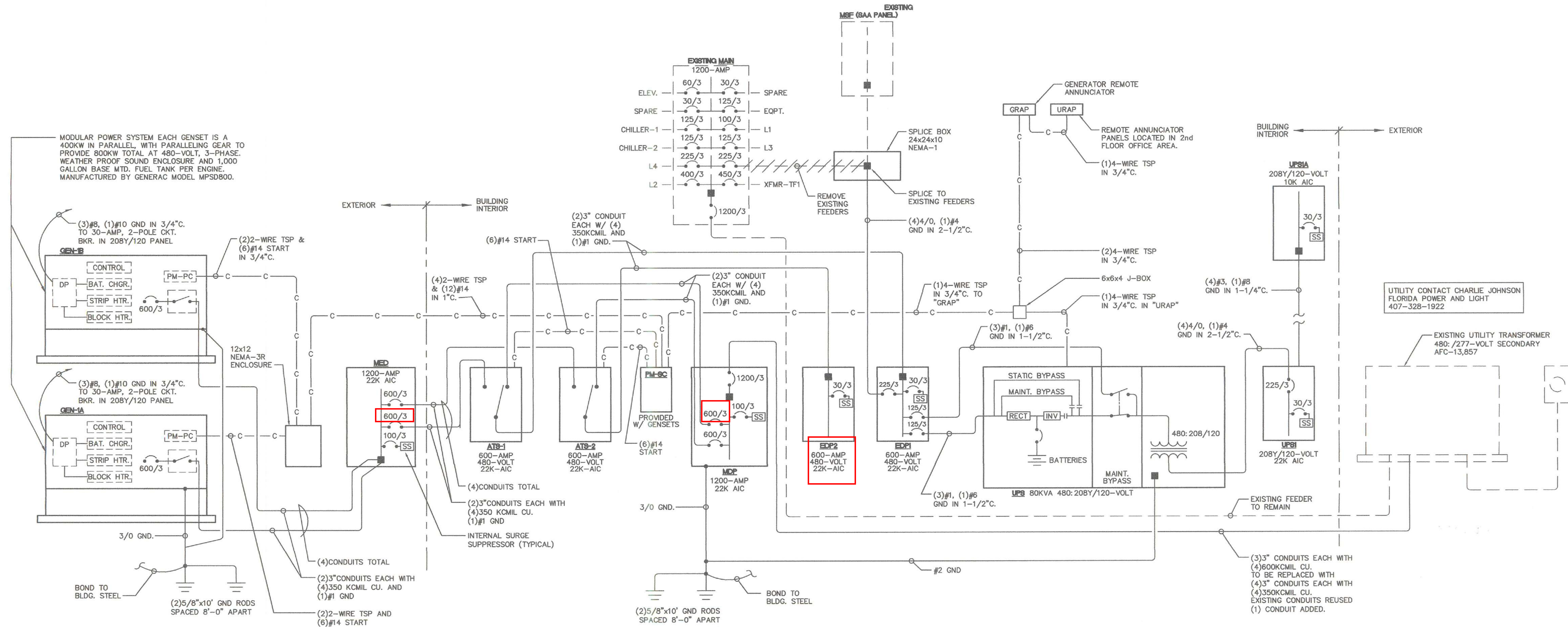
CONDUCTOR SIZES FOR LIGHTING, RECEPTACLES AND SMALL MOTOR BRANCH CIRCUITS, WITH LESS THAN 30 AMPERECONNECTED LOAD, MAY NOT BE SHOWN ON DRAWING. CONDUCTORS FOR SUCH CIRCUITS SHALL BE SIZED AS FOLLOWS:

1. 120 VOLT CIRCUITS: CONDUCTOR SIZE FOR BRANCH CIRCUITS 75 FEET IN LENGTH FOR BRANCH CIRCUIT PANEL TO CENTER OF LOAD SHALL NOT BE SMALLER THAN NO. 12; UP TO 125 FEET NOT SMALLER THAN NO. 10, UP TO 175 FEET NOT SMALLER THAN NO. 8.
2. 277 VOLT CIRCUITS: CONDUCTOR SIZE FOR BRANCH CIRCUITS 150 FEET IN LENGTH FOR BRANCH CIRCUIT PANEL TO CENTER OF LOAD SHALL NOT BE SMALLER THAN NO. 12; UP TO 200 FEET NOT SMALLER THAN NO. 10, UP TO 350 FEET NOT SMALLER THAN NO. 8.

SECTION 16450
GROUNDING

CONDUCTORS

PROVIDE ELECTRICAL GROUNDING CONDUCTORS FOR GROUNDING CONNECTIONS MATCHING POWER SUPPLY WIRING MATERIALS AND SIZED ACCORDING TO NEC. CONDUCTORS SHALL BE COPPER.



EXISTING ONE-LINE DIAGRAM - POWER
NOT TO SCALE

RECORD DOCUMENTS JULY 2006

By				
Description				
Date				
Rev				

Electric Services, Inc.
1746 U.S. Highway 441
Leeburg, FL 34466-7055
(PH) 352-787-1322
(FAX) 352-787-7871
EB #9435 : EC #1415

PROJECT DESCRIPTION:
SAA FIS Modifications
Orlando Sanford International Airport
Sanford, Florida

SHEET TITLE:
ONE-LINE DIAGRAM AND
SPECIFICATIONS -
ELECTRICAL

DRAWN	CHECKED
JEN	WTB
DATE	3/31/06
PROJECT NUMBER	E6009.01
DRAWING NUMBER	E-2
CAD FILE	E6009.01E-2