TRANSPORTATION BULLETIN

Illinois Department of Transportation

ADDENDUM NO. 2

Dated: June 13, 2012

For: Transportation Bulletin
Letting Date: June 15, 2012
Volume 15, No. 19r Dated: May 11, 2012 REVISED: June 5, 2012

Item No. 15A – Extend Taxiway Y, Construct ARFF Response Road, Realign Perimeter Road & Associated Improvements

Abraham Lincoln Capital Airport
Springfield, Illinois
IL Project No.: SPI-4156
AIP Project No.: 3-17-0096-XX
Contract No.: CA014

REASON FOR ADDENDUM:

Delete work for pay item **AR801236** – Lighting Control Modifications from the Construction Plans, Special Provisions, & Schedule of Prices.

To All Plan Holders

REVISE SCHEDULE OF PRICES

Page 5 **REPLACE** Page 5 of the original Schedule of Prices, dated 05/09/12, with the *Revised* Addendum # 2 Schedule of Prices Page 5, dated 06/09/12.

REVISE SPECIAL PROVISIONS

Item 109 **REPLACE:** The original Pages 62 to 66 of 77 (Item 109) of the Special Provisions with the attached *Revised* Addendum #2 sheets 62 to 66 of 77 (Item 109).

REVISE CONSTRUCTION PLANS

Sheet 03 **REPLACE:** Plan Sheet 03 of 106 with the attached *Revised* Addendum # 2 Sheet 03.

Sheets 70-73 **DELETE:** The original sheets 70 to 73 of 106 from the Construction Plans.

Sheet 74 **REPLACE:** Sheet 74 of 106 with the attached *Revised* Addendum #2 Sheet 74.

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
AR800234	DEMOLISH STRUCTURE	L.S.	1.000	X			=		
AR800241	CLASS E FENCE 10' W/2' BURIED	L.F.	643.000	X			=		
AR800250	2-1/C #8 5 KV UG CABLE IN UD	L.F.	3,310.000	X			=		
AR800293	DUCT MARKER-IN PAVEMENT	EACH	30.000	X			=		
AR800308	EXPLORATORY EXCAVATION	EACH	5.000	X			=		
AR800317	PAVEMENT SENSOR	EACH	2.000	X			=		
AR800397	TEMPORARY FENCE	L.S.	1.000	X			=		
AR801233	SEMI-FLUSH MITL IN TURF	EACH	1.000	X			=		
				X			=		
AR901510	SEEDING	ACRE	13.000	X			=		
AR904510	SODDING	S.Y.	1,855.000	X			=		
AR908510	MULCHING	ACRE	12.000	X			=		
AR908520	EXCELSIOR BLANKET	S.Y.	6,410.000	X			=		
AR910200	ROADWAY SIGN	EACH	3.000	X			=		
AR910915	REMOVE ROADWAY SIGN	EACH	1.000	X			=		

TOTAL $

NOTE:
*** PLEASE TURN PAGE FOR IMPORTANT NOTES ***

REVISED – ADDENDUM #2
ITEM 109 – INSTALLATION OF AIRPORT TRANSFORMER VAULT AND VAULT EQUIPMENT

DESCRIPTION

109-1.1 ADD: This item shall consist of the addition of one (1) L-828 regulator, 10 KW, 480V Input, 3-Step, 6.6A Output in the existing Regulator Vault Building, ~~modifications to the existing L-890 Airfield Lighting Control and Monitoring System (ALCMS) to accommodate the new regulator and to make other changes as requested by ATCT personnel, and the addition of a roaming maintenance computer to the L-890 ALCMS.~~

~~NOTE: the existing L-890 ALCMS was installed by Siemens/ADB in 2008. To maintain sole source responsibility for warranty and maintenance the modifications and additions to the L-890 ALCMS shall also be by ADB.~~

Exterior field installed cable from airfield edge lights and visual navaids to existing vault will be paid for separately under applicable unit prices of Item 108, "Installation of Underground Cable for Airports" up to the connection to vault equipment.

Items of underground duct work shall be paid for under applicable unit prices of Item 110, "Airport Underground Electrical Duct Banks and Conduits."

EQUIPMENT AND MATERIALS

109.2.1 GENERAL

REVISE: Paragraph (a) as follows:

Airport lighting equipment and materials covered by Federal Aviation Administration (FAA) specifications shall have the prior approval of the FAA, and shall be listed in Advisory Circular (AC) 150/5345-53, Current Edition, Airport Lighting Equipment Certification Program, including the current Addendum. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification when requested by the Engineer. The Contractor is responsible for using the latest editions of the referenced FAA Advisory Circulars, including any changes, in effect at the time of bidding. The advisory circulars may be obtained free of charge on the internet at the following address:

http://www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/

The Contractor shall ascertain that all lighting system components furnished by him (including FAA approved equipment) are compatible in all respects with each other and the remainder of the new/existing system. Any non-compatible components furnished by the Contractor shall be replaced by him at no additional cost to the airport sponsor with a similar unit, approved by the Engineer (different model or different manufacturer) that is compatible with the remainder of the airport lighting system.

All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify pertinent products or models applicable to this project. Indicate all optional equipment and delete non-pertinent data. Submittals for components of electrical equipment

and systems shall identify the equipment for which they apply on each submittal sheet. Markings shall be boldly and clearly made with arrows or circles (highlighting is not acceptable). Contractor is solely responsible for delays in project accruing directly or indirectly from late submissions or resubmissions of submittals.

The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the plans and specifications. The Contractor's submittals (five (5) copies) shall be neatly bound in a properly sized 3-ring binder, tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials or procedures, which, in the Engineer's opinion, does not meet the system design and the standards and codes, specified herein.

All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for a period of at least twelve (12) months from final acceptance by the Owner. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner.

109-2.2 Through 109-2.4

DELETE: These Sections.

109-2.6 Through 109-2.17

DELETE: These Sections.

109-2.18 FAA-APPROVED EQUIPMENT

DELETE: This Section.

ADD: The following FAA approved equipment is to be used on this project:

1. L-828, Constant Current Regulator, 10 KW, 480V Input, 3-Step, 6.6 A Output. One (1) regulator will be required. Regulator shall be Ferroresonant or Saturable Reactor design. All-Solid-State design regulators are not acceptable. Regulator shall be a self-contained unit of the static type with no moving parts requiring attention or service. Internal input fusing shall be provided. Positive open circuit and over-current protection in the event of a fault shall be provided. All control circuitry shall be behind a hinged door for accessibility. Input and output lightning arrestors shall be included. Power factor capacitor shall be provided and provide a power factor of 96% or better, at full load and maximum brightness. All controls, including brightness relays, shall be in the air-filled control cabinet. Regulator shall have provision for both external 120V control and internal 120V control. Regulator shall be equipped with internally mounted remote control operated primary contractor with 120VAC operating coil. Provide engraved phenolic nameplate for regulator. Nameplate shall be engraved three-layer laminated plastic, black letters on white background. Legend shall read as follows:

   TXY Y, Y1, Y2 (CKT T-9)

2. Airfield edge light and isolation transformer used as indicator light at regulator shall comply with requirements of Item125 of these specifications.

3. Plug cutout, Crouse-Hinds Type S-1, Catalog #30775, or equivalent.

4. ~~Additions and Modifications to L-890 Airfield Lighting Control and Monitoring System (ALCMS) shall include the following:~~

~~a. Furnish one (1) new ACE-2® distributed control and monitoring unit.~~

~~b. Furnish and install new extensions to the redundant vault communication network and UPS power including conduit and wiring as needed.~~

~~c. Modify the ALCMS programming and graphic displays to accommodate the new Taxiway Y, Y1, Y2 regulator.~~

~~d. Per FAA ATCT personnel request, modify the ALCMS programming and graphic displays as detailed on the plans.~~

~~e. Furnish a roaming maintenance computer to allow for remote connection to the ALCMS system from a maintenance vehicle or other remote location. The roaming maintenance computer shall be a notebook computer with docking station to allow the unit to be docked and re-charged. A 2.4 GHz radio and remote antenna with magnet for temporary vehicle roof-top mounting shall be provided. The computer shall provide real-time control and monitoring of the airfield lighting system when in range of the wireless coverage. The wireless computer shall use wireless Ethernet to provide wireless roaming access to the ALCMS system. The Roaming Maintenance Computer shall meet or exceed the following requirements:~~

~~1) Type:~~	~~Toughbook Laptop, or equivalent, with docking station~~
~~2) Processor Type:~~	~~Intel Pentium® 4~~
~~3) Processor Clock Rate~~	~~2.5 GHz or better~~
~~4) Memory Capacity~~	~~512MBytes RAM~~
~~5) Hard Disk Drive~~	~~100Mbytes or larger~~
~~6) Floppy Diskette Drive~~	~~1.44 MB, 3.5”~~
~~7) 2 X USB Ports~~	~~2 USB Ports~~
~~8) Cache Memory~~	~~L2 512KB~~
~~9) CD-ROM~~	~~52X~~
~~10) Video (Integrated)~~	~~SVGA, 8MB VRAM, minimum support 1280 x 1024~~
~~11) LCD Screen~~	~~12” diagonal viewing area or greater~~
~~12) Operating System~~	~~Window XP™ Pro~~

109-2.19 OTHER ELECTRICAL EQUIPMENT

ADD:

1. Furnish one (1) 30A, 3-Pole, 480 VAC, thermal magnetic circuit breaker in busway plug-in housing, suitable for use with existing Square D plug-in busway. The Amp Interrupting Rating (AIR) of the proposed circuit breaker shall have a minimum rating of the existing circuit breakers.

2. Liquidtight flexible metal conduit shall consist of polyvinyl jacket over flexible hot dip galvanized steel tubing. Flexible conduit shall be completely sealed from liquids, dust, dirt and fumes, be resistant to oil, gasoline, grease and abrasion. Jacket shall also be sunlight resistant. Flexible conduit shall be U.L. listed and comply with Article 351 of NEC. Flexible conduit shall be Flexi-Guard Type UAG, as manufactured by O-Z/Gedney, or equal. Conduit and installation shall comply with all requirements in NEC Article 350.

109-2.20

DELETE: This Section.

ADD:

THHN/THWN Wire: Cable shall be 600 Volt rated, sized as indicated on the drawings. Cable shall comply with Underwriters Laboratories Standard U.L. 83. Cables shall be rated 90°C in dry locations 75°C in wet locations.

~~Redundant Communication Cable (Twisted Pair): Cable shall be as specified by the L-890 ALCMS Supplier.~~

109-2.21

DELETE: This Section.

CONSTRUCTION METHODS

109-3.2 Through 109-3.9

DELETE: These Sections.

109-3.11 DELETE: This Section.

ADD: Constant current regulator, isolation transformer, Taxiway edge light, series circuit cutouts, L-823 connectors, mounting panel, 480V circuit breaker, conduits and wiring shall be installed per manufacturer's instruction and as detailed on the plans and specified herein.

109-3.12 Through 109-3.17

DELETE: These Sections.

109-3.18 TESTING

ADD: Prior to commencing work in the existing Vault, the Contractor shall measure the input Voltage and Amperage to each Taxiway regulator affected by the proposed work with each existing regulator at full brightness (Step 3 for Taxiway regulators), using a True RMS meter, Fluke 87, or equivalent. At this time, the number of edge lights that are "Out" at the time of testing shall also be recorded. The amperage and voltage readings for each taxiway regulator and number of edge lights out of service shall be recorded and turned over to the Resident Inspector.

METHOD OF MEASUREMENT

109-4.1 THRU 109-4.3

DELETE: These Sections.

ADD:

109-4.1 VAULT MODIFICATIONS

The quantity of vault modifications to be paid for shall consist of furnishing and installing the 480V circuit breaker, plug cutouts, Taxiway indicating light, isolation transformer, L-823 connectors, mounting panel, etc., and related conduit and wiring to be installed inside of the vault. ~~Note that conduit and wiring for the L-890 ALCMS redundant communication cable/UPS power shall not be included in this item.~~ Item shall include all labor, equipment and material as needed to provide a complete, operational and accepted item of work.

109-4.2 REGULATORS

The quantity of regulators to be paid for shall consist of furnishing and installation of regulators of each size, and all labor and materials necessary for a complete and accepted installation. Note that this pay item is for the regulators only. Associated equipment (series cutouts, plug cutouts, indicating lights, enclosures, mounting panels, etc.) and all conduit and wiring to be installed inside of the vault are part of the Vault Modifications pay item. Item shall include all labor, equipment and material as needed to provide a complete, operational and accepted item of work.

~~109-4.3 LIGHTING CONTROL MODIFICATIONS~~

~~The quantity of lighting control modifications shall consist of furnishing and installing the ACE-2® unit in existing vault and connection to the existing redundant communication network and UPS power, including conduit and wiring. This item shall also include the programming and graphic screen modifications and additions as detailed on the plans and specified herein. This item shall also include the furnishing and installation of a roaming maintenance computer, including computer, docking station, 2.4 GHz radios, remote magnetic mount antenna, ALCMS programming changes, and all conduit and wiring as needed. Item shall include all labor, equipment and material as needed to provide a complete, operational and accepted item of work.~~

BASIS OF PAYMENT

109-5.1 Payment will be made under:

Item AR109210 – Vault Modifications – per lump sum.

Item AR109321 – 10 KW Regulator, Style 1 – per each.

~~Item AR801236 – Lighting Control Modifications – per lump sum.~~

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
AR108158	1/C #8 5 KV UG CABLE IN UD	LF	18260
AR108706	1/C #6 COUNTER POISE	LF	9405
AR109210	VAULT MODIFICATIONS	LS	1
AR109321	10 KW REGULATOR, STYLE 1	EA	1
AR110014	4" DIRECTIONAL BORE	LF	1235
AR110504	4-WAY CONCRETE ENCASED DUCT	LF	285
AR110550	SPLIT DUCT	LF	367
AR110967	RELOCATE ELECTRICAL MANHOLE	EA	1
AR125415	MITL-BASE MOUNTED	EA	18
AR125416	MITL-BASE MOUNTED-LED	EA	119
AR125420	TAXIWAY LIGHT INPAVEMENT	EA	1
AR125441	TAXI GUIDANCE SIGN, 1 CHARACTER	EA	2
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EA	1
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EA	3
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA	7
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EA	4
AR125901	REMOVE STAKE MOUNTED LIGHT	EA	62
AR125902	REMOVE BASE MOUNTED LIGHT	EA	25
AR125904	REMOVE TAXI GUIDANCE SIGN	EA	5
AR125906	REMOVE SPLICE CAN	EA	3
AR150510	ENGINEER'S FIELD OFFICE	LS	1
AR151450	CLEARING AND GRUBBING	AC	1
AR152410	UNCLASSIFIED EXCAVATION	CY	9816
AR155540	BY-PRODUCT LIME	TON	180
AR155608	SOIL PROCESSING - 8"	SY	11150
AR156510	SILT FENCE	LF	2550
AR156513	SEPARATION FABRIC	SY	215
AR156520	INLET PROTECTION	EA	9
AR162900	REMOVE CLASS E FENCE	LF	635
AR208540	OVERSIZED AGGREGATE	TON	85
AR209600	GEOTEXTILE FABRIC	SY	130
AR209604	CRUSHED AGG. BASE COURSE - 4"	SY	1836
AR209606	CRUSHED AGG. BASE COURSE - 6"	SY	8180
AR209612	CRUSHED AGG. BASE COURSE - 12"	SY	5069
AR401610	BITUMINOUS SURFACE COURSE	TON	1369
AR401655	BUTT JOINT CONSTRUCTION	SY	587
AR401900	REMOVE BITUMINOUS PAVEMENT	SY	3541
AR403610	BITUMINOUS BASE COURSE	TON	2825
AR403630	BITUMINOUS BASE TEST SECTION	EA	1
AR501510	10" PCC PAVEMENT	SY	1836
AR501530	PCC TEST BATCH	EA	1
AR501900	REMOVE PCC PAVEMENT	SY	118
AR602510	BITUMINOUS PRIME COAT	GAL	5373
AR603510	BITUMINOUS TACK COAT	GAL	2520
AR620510	PAVEMENT MARKING	SF	57000
AR620900	PAVEMENT MARKING REMOVAL	SF	1425
AR701518	18" RCP, CLASS IV	LF	579
AR701530	30" RCP, CLASS IV	LF	582
AR701542	42" RCP, CLASS IV	LF	1451
AR701900	REMOVE PIPE	LF	2033
AR705524	4" PERFORATED UNDERDRAIN W/SOCK	LF	1862
AR705544	4" NON PERFORATED UNDERDRAIN	LF	75
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EA	1
AR705640	UNDERDRAIN CLEANOUT	EA	5
AR751410	INLET	EA	4
AR751415	INLET - SPECIAL	EA	1
AR751426	INLET - 6'x6'	EA	4
AR751427	INLET - 7'x7'	EA	1
AR751900	REMOVE INLET	EA	5
AR754610	PAVED DITCH	LF	575
AR800234	DEMOLISH STRUCTURE	LS	1
AR800241	CLASS E FENCE - 10' W/2' BURIED	LF	643
AR800250	2 - 1/C #8 5KV UG CABLE IN UD	LF	3310
AR800293	DUCT MARKER - IN PAVEMENT	EA	30
AR800308	EXPLORATORY EXCAVATION	EA	5
AR800317	PAVEMENT SENSOR	EA	2
AR800397	TEMPORARY FENCE	LS	1
AR801233	SEMI-FLUSH MITL IN TURF	EA	1
AR801236	LIGHTING CONTROL MODIFICATIONS	LS	1
AR901510	SEEDING	AC	13
AR904510	SODDING	SY	1855
AR908510	MULCHING	AC	12
AR908520	EXCELSIOR BLANKET	SY	6410
AR910915	REMOVE ROADWAY SIGN	EA	1
AR910200	ROADWAY SIGN	EA	3

2

K:\SpringfieldAp\1103504\Draw\Sheets
FILE: SUMMARY OF QUANTITIES – Add #:
UPDATE BY: TJ Heavisides
PLOT DATE: 6/13/2012 9:17 AM

CA014

REVISIONS

NUMBER	BY	DATE
2	WDP	6-12-12

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

SPRINGFIELD AIRPORT AUTHORITY
ABRAHAM LINCOLN CAPITAL AIRPORT
SPRINGFIELD, ILLINOIS

EXTEND TAXIWAY Y

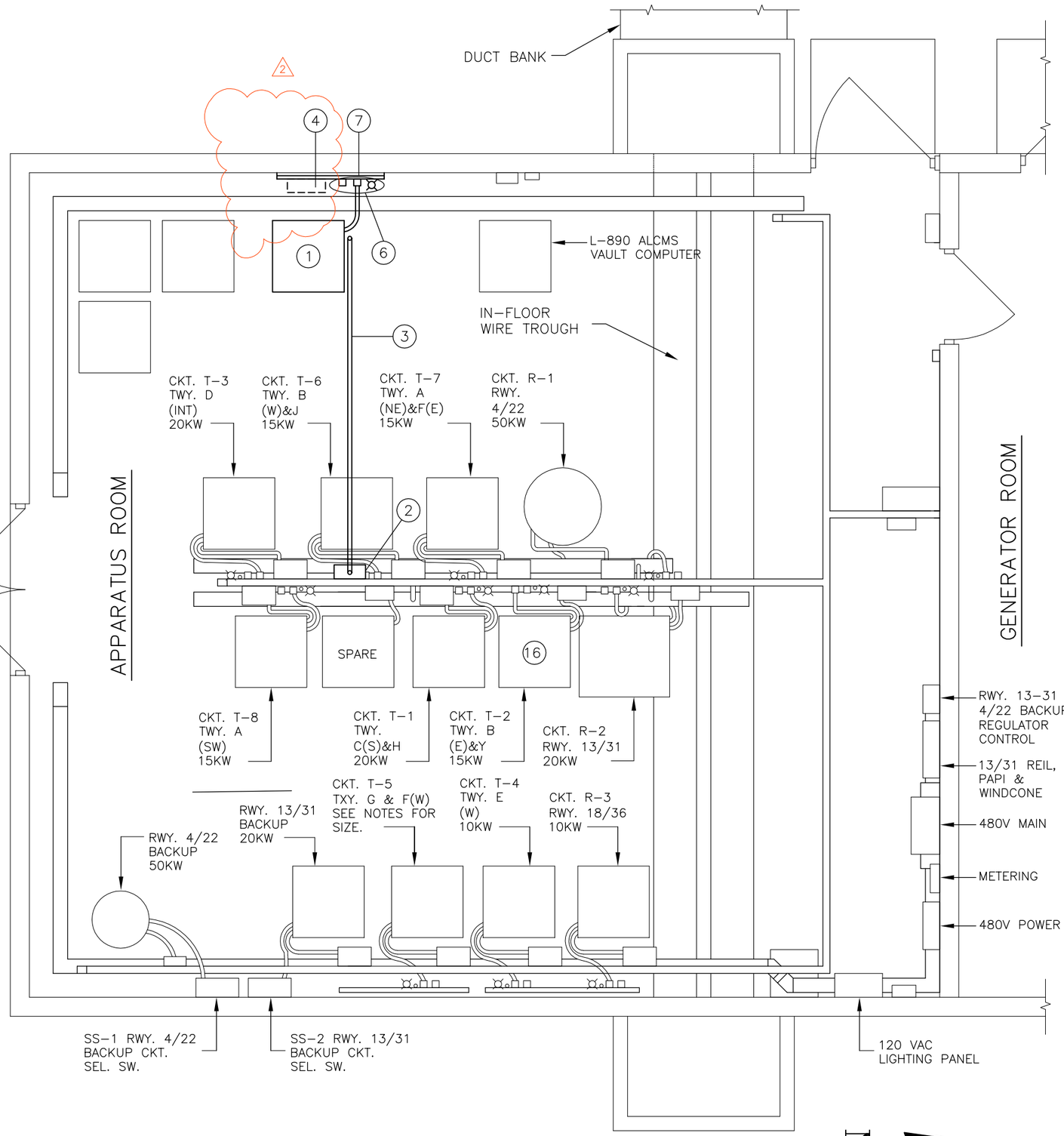
SUMMARY OF QUANTITIES

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

DESIGN BY:	RLV/JMW
DRAWN BY:	CMT
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	APRIL 27, 2012
JOB No:	110350400

SPI-4156
3-17-0096-XX

SHEET 03 OF 106 SHEETS



VAULT PLAN
1/4" = 1'-0"

KEYED NOTES

1 NEW TAXIWAY Y, Y1, Y2 REGULATOR (CKT. T-9), L-828, 10 KW, 480V INPUT, 3-STEP 6.6A OUTPUT. PROVIDE ENGRAVED NAMEPLATE READING:

TXY Y
CKT T-9

2 NEW SQUARE D 480V, 30A, 3P PLUG-IN BUSWAY FEEDER CIRCUIT BREAKER. INSTALL IN EXISTING OVERHEAD SQUARE D BUSWAY. (NOTE: ONLY TWO POLES SHALL BE USED.) PROVIDE ENGRAVED NAMEPLATE READING "TXY Y".

3 NEW TWO #10 THWN, ONE #10 GROUND IN 3/4" GRS CONDUIT TO NEW REGULATOR. CONNECTION TO REGULATOR SHALL BE VIA LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

2 4 PROVIDE SPACE FOR FUTURE ACE® UNIT.

5 (DELETED)

6 NEW TAXIWAY EDGE LIGHT, PLUG CUTOUT AND GROUNDING DISCONNECT.

7 NEW MOUNTING PANEL, SIZED AS REQUIRED, PAINTED WHITE. ATTACH TO EXISTING STRUT-TYPE FRAMING.

2 8 NEW PLUG CUTOUT USED AS GROUNDING DISCONNECT.

9 NEW PLUG CUTOUT.

10 NEW TAXIWAY EDGE LIGHT AND L-830 ISOLATION TRANSFORMER.

11 NEW #6 GROUND WIRE CLAMPED TO EXISTING GROUND BUS.

12 NEW #8, L-824, 5 KV, TYPE C CABLE, CLAMPED TO EXISTING GROUND BUS.

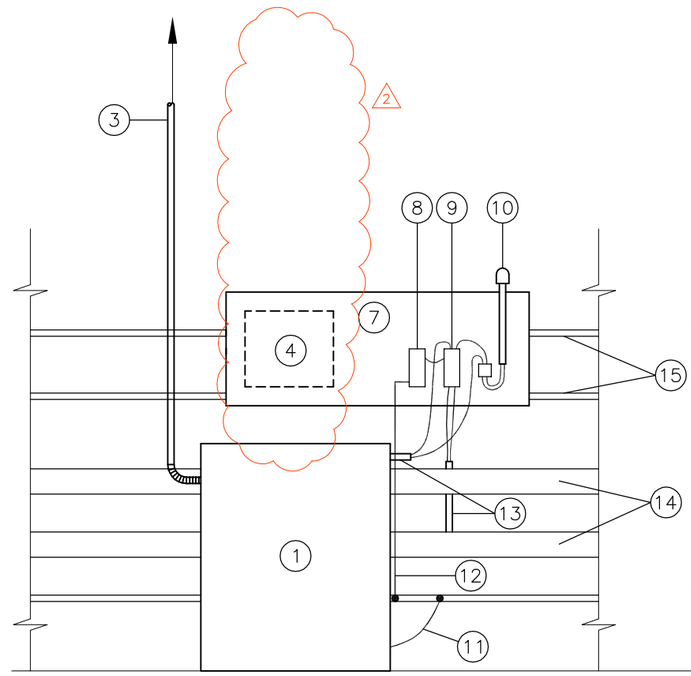
13 NEW #8, L-824, 5 KV, TYPE C CABLES IN LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

14 EXISTING HIGH VOLTAGE (SERIES CIRCUIT) AND LOW VOLTAGE WIREWAYS.

15 EXISTING STRUT-TYPE FRAMING.

16 REMOVE EXISTING NAME PLATE AND REPLACE WITH NEW ENGRAVED NAMEPLATE READING:

TXY B (EAST)
CKT T-2



TAXIWAY Y REGULATOR ELEVATION
1/2"=1'-0"

K:\SpringfieldAp\1103504\Draw\Sheets
FILE: VAULT IMPROVEMENTS – Add #2.dv
UPDATE BY: TJ Heavisides
PLOT DATE: 6/13/2012 9:22 AM

REVISIONS

NUMBER	BY	DATE
2	WDP	6-12-12

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

SPRINGFIELD AIRPORT AUTHORITY
ABRAHAM LINCOLN CAPITAL AIRPORT
SPRINGFIELD, ILLINOIS

EXTEND TAXIWAY Y

VAULT IMPROVEMENTS

CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS
License No. 184-000613

DESIGN BY:	RLV/JMW
DRAWN BY:	CMT
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	APRIL 27, 2012
JOB No:	110350400

SPI-4156
3-17-0096-XX

SHEET 74 OF 106 SHEETS