

**Transmission & Distribution**  
**Material & Installation Specification**

**Group Operated Air Break Switch, "GOAB"**

**I. Quantity**

The base bid shall include the indicated quantities of the specified sizes of GOAB supplied and installed as hereinafter specified.

**II. Material**

**GENERAL**

- A. GOAB switches conforming to the Division of Power GOAB specification and approved shop drawings shall be installed where indicated on the project drawings.

**PRODUCT REQUIREMENTS**

- A. GOAB switch described in this section shall be completely assembled and adjusted at the factory and shall be shipped in one piece, ready to install.
- B. GOAB shall be configured for vertical mount – horizontal operation, with a vertical operating mechanism extended to ground level for operation from the ground. GOAB shall include operating handle, mounting brackets and enough pipe extensions to accommodate a 50' pole height. Vertical operating section shall also include an insulated section to isolate the operator from the GOAB.
- C. Options shall be included as follows:
  - 1. Insulating section in the vertical operating shaft.
  - 2. Dead ending extension link assemblies.
  - 3. Ice shield.
  - 4. Harsh environment at contacts.

- D. Basis of design is CHANCE CAT #AR114SSP. Engineer approved equals that meet every aspect of this specification and the project configuration may be submitted for approval. See the specification below:

kV			Amperes			Fault close rating	
Nominal	Max	BIL	Continuous	Interrupting	Peak	1 time	3 time
25	29	150	900	900	65k	25 kA	20 kA

**SAMPLING, INSPECTION, AND TEST PROCEDURES**

- A. Any GOAB, which has been delivered to the job site and is found to not meet the specifications, will be rejected. GOAB's so rejected will be replaced by the contractor at his expense.
- B. Reasons to reject a GOAB shall be as follows: If GOAB has visible damage or is out of adjustment due to shipping. If a GOAB cannot be field adjusted as described in manufacturers' instructions. If any sign of rust, corrosion or deformation is evident.

**DELIVERY, STORAGE, AND HANDLING**

- A. Do not drag GOAB's along the ground. Do not uncrate or un-package GOAB until positioned at base of pole ready to raise into final position.

**WARRANTY**

- A. GOAB shall be warranted for a minimum of one and one half (1 1/2) years from date of delivery and one (1) year from date of installation. Should any problems occur during the warranty period, the contractor shall, upon written notification and entirely at their expense, correct the problem by replacing the defective GOAB within sixty (60) days of receipt of the written notification.

**III. Installation**

- A. Lift and handle GOAB's with care and in such a way as to avoid damage to the pole and GOAB.
- B. Install GOAB square with pole and brace per manufacturer's instructions.
- C. After energizing and applying intended load, infra-red scan GOAB for hot spots. Correct hot spots as required. If hot spots cannot be corrected to the satisfaction of Engineer, replace GOAB with new entirely at the contractor's expense.

CITY OF COLUMBUS DEPT. OF PUBLIC UTILITIES – DIVISION OF POWER GROUP OPERATED AIR BREAK SWITCH "GOAB"		
DRAWN BY: AEC	DATE: 01/01/2018	<b>TDMIS-902</b>
APPROVED: <i>[Signature]</i>		
	SHEET 1 of 3	

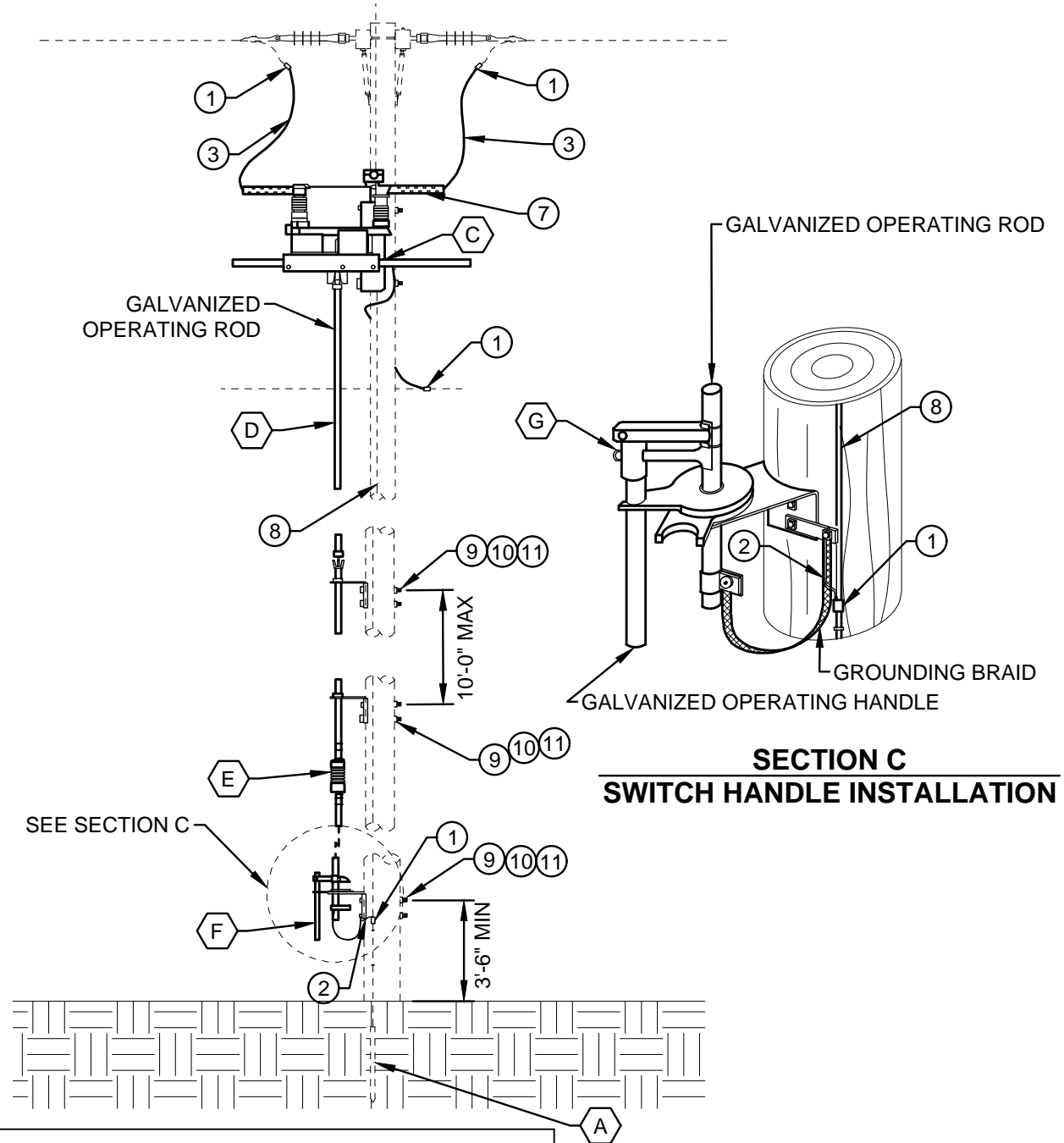
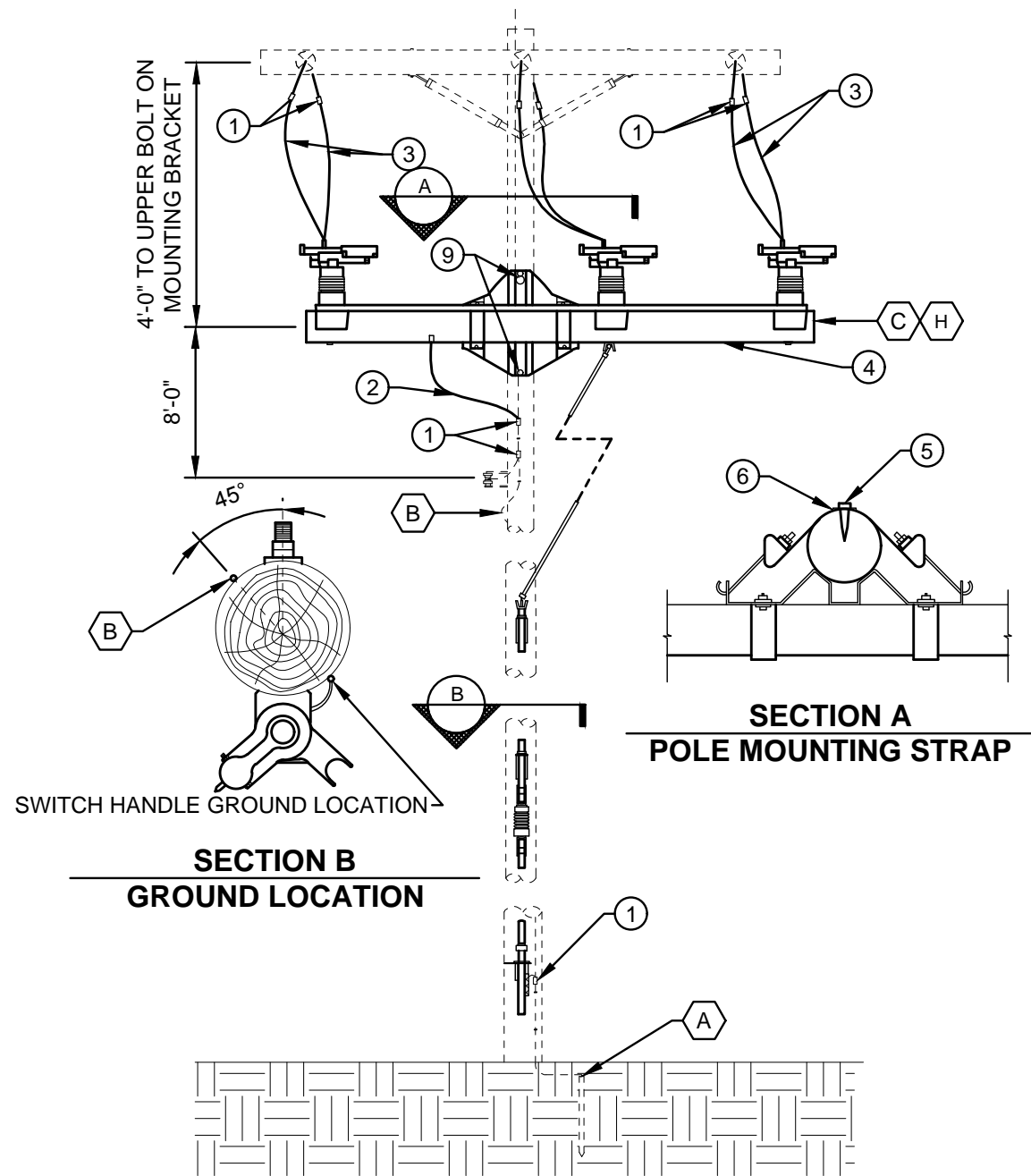
**IV. Method of measurement**

Shall include all required hardware, connectors, operation mechanism, rise conductors, grounding, labor, equipment, and transportation as required to provide a complete operational apparatus.

**V. Basis of payment**

<b>Items</b>	<b>Unit</b>	<b>Description</b>
TDMIS-902	Each	Group operated air break switch module

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**CODED NOTES:**

- A** REFER TO TDMIS-7 FOR POLE GROUNDING DETAILS.
- B** EXTEND #6 COPPER GROUND TO GROUND CONNECTION ON SWITCH MOUNTING BRACKET ON ARM.
- C** FACTORY SUPPLIED CROSSARM MAY BE METAL, GROUND BASE TO GROUND WIRE.
- D** CUT OPERATING ROD TO REQUIRED LENGTH. CHECK MANUFACTURE'S INSTRUCTIONS FOR DETAILS OF INSTALLATION.
- E** INSULATOR, IF PROVIDED, SHALL BE LOCATED BELOW THE LOWEST GUIDE ABOVE THE HANDLE ZONE.
- F** WITH THE OPERATING HANDLE AS FAR AS IT WILL GO IN THE CLOSING DIRECTION, THE MAIN CONTACTS ON ALL THREE SWITCH POLES SHALL BE IN THE CLOSED POSITION. PROVIDE FINAL CONTACT ADJUSTMENTS AS REQUIRED TO ASSURE ALL CONTACTS OPEN AND CLOSE SIMULTANEOUSLY PER MANUFACTURE'S RECOMMENDATIONS.
- G** DIVISION OF POWER TO SUPPLY PADLOCK TO SECURE SWITCH IN EITHER OPEN OR CLOSED POSITION.
- H** INSTALL ONE LIGHTNING ARRESTER PER PHASE ON POLES ADJACENT TO GOAB

**ITEM LIST**

ITEM #	DESCRIPTION	PART #	QTY.
①	COMPRESSION CONNECTOR, MATERIAL AND SIZE AS REQUIRED	*	7
②	CONDUCTOR, #6, COPPER, STRANDED, SOFT DRAWN	*	1
③	4/0 AWG. XHHW COPPER WIRE	19959	AS REQ.
④	SWITCH, DISCONNECT, 600 AMP, 15KV ,125KV BIL	20498	1
⑤	1/2"X5" LAG SCREW, GALVANIZED	18985	1
⑥	1/2" ROUND WASHER	*	1
⑦	COMPRESSION PAD CONNECTOR	*	6
⑧	CONDUCTOR, #6, COPPER, SOLID, SOFT DRAWN, REFER TO TDMIS-7	-	-
⑨	5/8" BOLT, LENGTH AS REQUIRED.	*	AS REQ.
⑩	SQUARE WASHER	*	AS REQ.
⑪	DOUBLE COIL SPRING LOCK	18895	AS REQ.

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SCALE: NTS	SHEET: 3 OF 3	