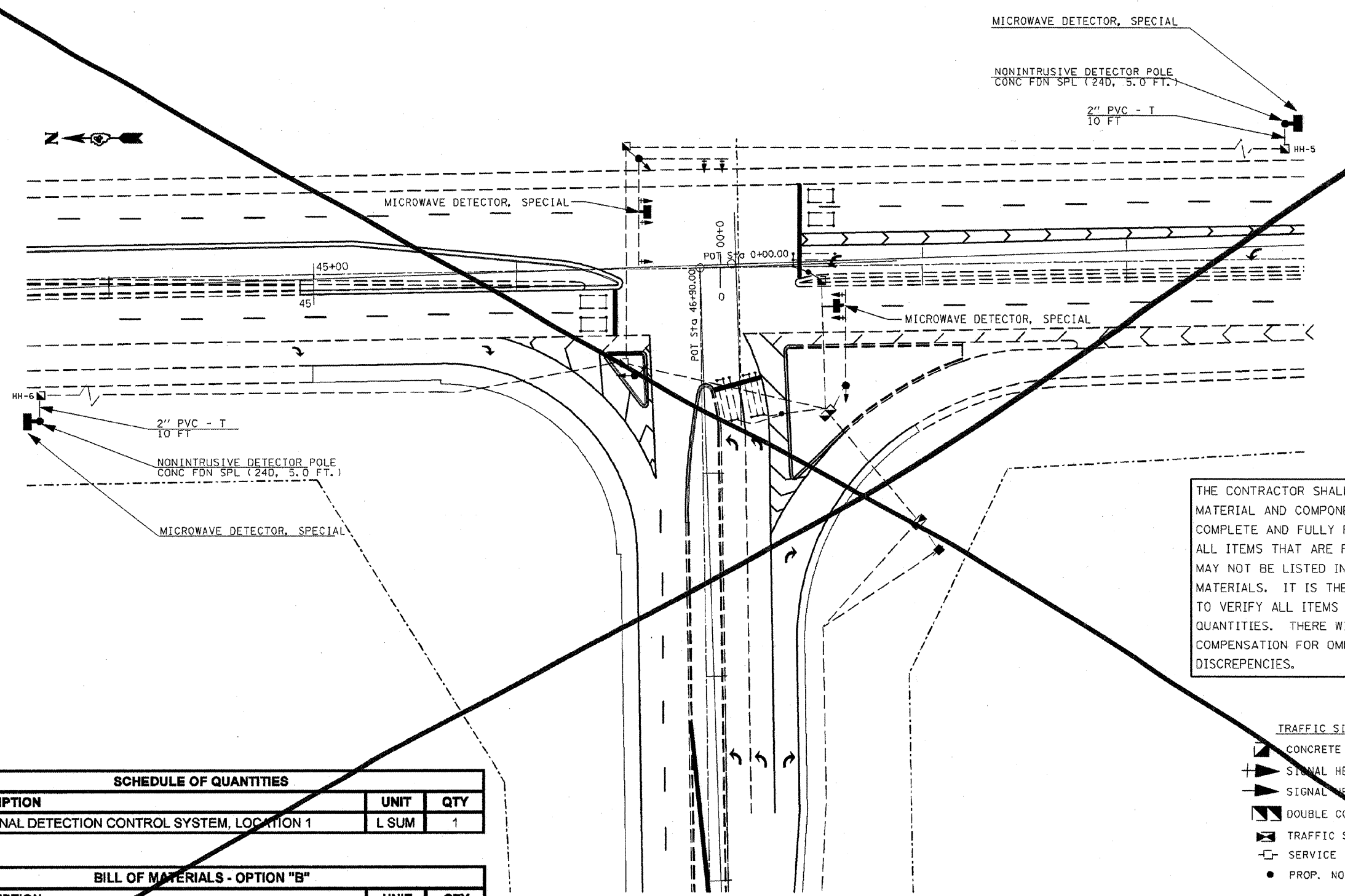


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	72-16-11RS	PEORIA	89	
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL AND COMPONENTS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM. ALL ITEMS THAT ARE REQUIRED FOR INSTALLATION MAY NOT BE LISTED IN THE PROPOSED BILL OF MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ITEMS AND THEIR RESPECTIVE QUANTITIES. THERE WILL BE NO ADDITIONAL COMPENSATION FOR OMISSIONS AND/OR QUANTITY DISCREPENCIES.

- TRAFFIC SIGNAL LEGEND
- ▣ CONCRETE HANDHOLE
  - + SIGNAL HEAD WITH BACKPLATE
  - ▴ SIGNAL HEAD
  - ▢ DOUBLE CONCRETE HANDHOLE
  - ⊠ TRAFFIC SIGNAL CONTROLLER
  - SERVICE INSTALLATION
  - PROP. NONINTRUSIVE DETECTOR POLE

SCHEDULE OF QUANTITIES		
ITEM DESCRIPTION	UNIT	QTY
TRAFFIC SIGNAL DETECTION CONTROL SYSTEM, LOCATION 1	L SUM	1

BILL OF MATERIALS - OPTION "B"		
ITEM DESCRIPTION	UNIT	QTY
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	20
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	20
MICROWAVE DETECTOR, SPECIAL	EACH	4
NONINTRUSIVE DETECTOR POLE, 30 FT	EACH	2
CONCRETE FOUNDATION, SPL (24" DIA., 5 FT DEPTH)	EACH	2
ELECTRIC CABLE IN CONDUIT (TYPE VARIES)	FOOT	AS REQ'D

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL 6 & IL 29  
 DETECTION CONTROL SYSTEM  
 OPTION "B"  
 PEORIA COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_ DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

TRAFFIC SIGNALS  
 SHEET 11 OF 18

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PLOT DATE = 12/17/2007  
 FILE NAME = S:\GEN\DRW\STAMP\NS\SIB\DRP\NEW\Native Contracts\68110\Cover sheet & 500.dgn  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = bruceh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	72-16-1RS	PEORIA	89	65
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	

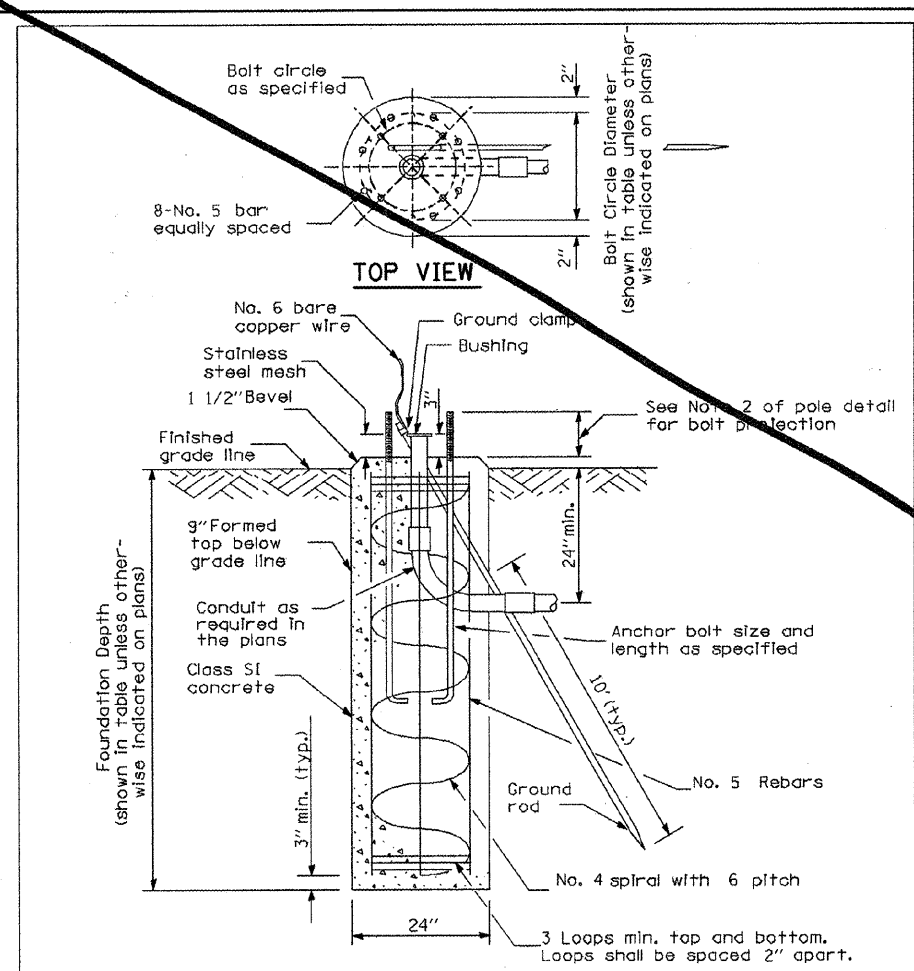
TABLE 2 - MICROWAVE DETECTOR INSTALLATION DETAILS

HORIZONTAL OFFSET FT	MOUNTING HEIGHT FT		
	MINIMUM	MAXIMUM	RECOMMENDED
10.0	17.0	20.0	17.0
15.0	17.0	20.0	17.0
20.0	17.0	20.0	17.0
25.0	17.0	25.0	20.0
30.0	23.0	25.0	23.0
35.0	25.0	25.0	25.0
40.0	25.0	25.0	25.0
45.0	25.0	25.0	25.0
50.0	25.0	25.0	25.0

DIMENSIONS REFERENCED FROM THE EDGE OF PAVEMENT.

NOTES:

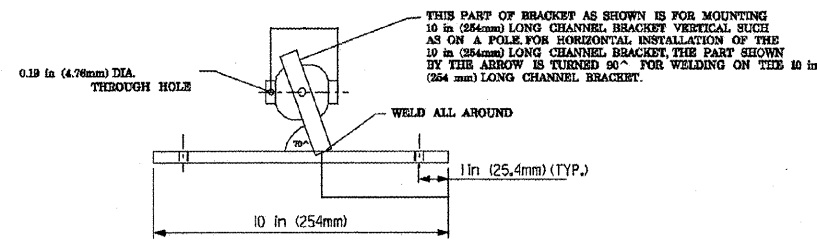
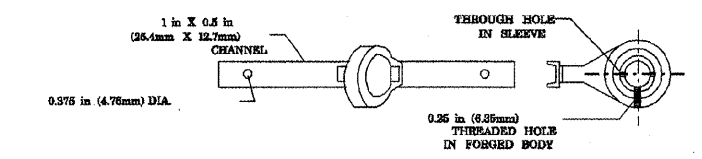
1. DETECTOR UNIT TO BE AIMED AT CENTER OF DETECTION ZONE. WHEN TWO DETECTORS ARE USED IN TANDEM AT A GIVEN LOCATION, DETECTION ZONE SHALL INCLUDE ALL TRAVEL LANES IN A SINGLE DIRECTION NEAREST EACH DETECTOR. WHEN A SINGLE DETECTOR IS USED AT A GIVEN LOCATION, THE DETECTOR ZONE SHALL INCLUDE ALL TRAVEL LANES IN BOTH DIRECTIONS. FINAL SETUP AND CALIBRATION TO BE PERFORMED BY MANUFACTURER'S FIELD REPRESENTATIVE IN CONJUNCTION WITH THE SYSTEMS INTEGRATOR.
2. DETECTOR UNIT TO BE MOUNTED ON PROPOSED STEEL POLE AS INDICATED ON THE PLANS.



Pole Height	Bolt Circle Diameter	Foundation depth
30'	15.0"	5'-0"

Notes:

1. The Engineer shall determine the class of soil during excavation. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 100 kPa (1.0 tsf). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. The anchor bolts and raceways shall be properly secured in place.
3. Concrete shall be class "SI" Concrete and the foundation must be cured for ten (10) days before the pole is erected.
4. The cable trench shall be backfilled and firmly compacted before the poles are erected.
5. For sloping grades, the foundation design depth shall be increased by the corresponding cross slope shaft depth increase factor given by:
  - A. Cohesive soil - cross slope shaft increase factor 0.009 x (slope angle) + 1.0
  - B. Granular soil - cross slope shaft increase factor 0.00005 x (slope angle) + 1.0
6. Install grounding system in accordance with Section 807 of the IDOT Standard Specifications.

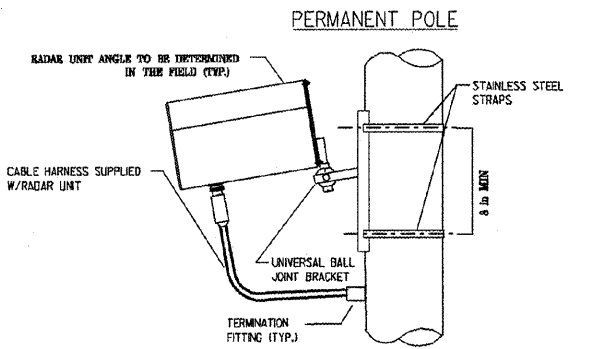
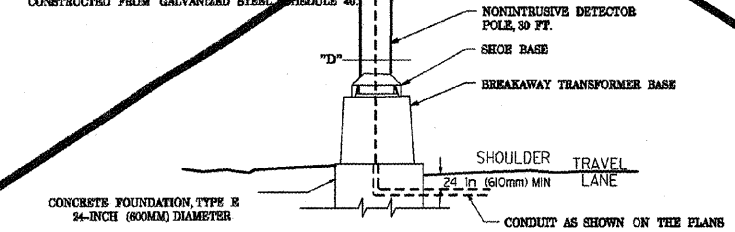


DETECTOR ASSEMBLY (SUPPLIED BY MANUFACTURER)

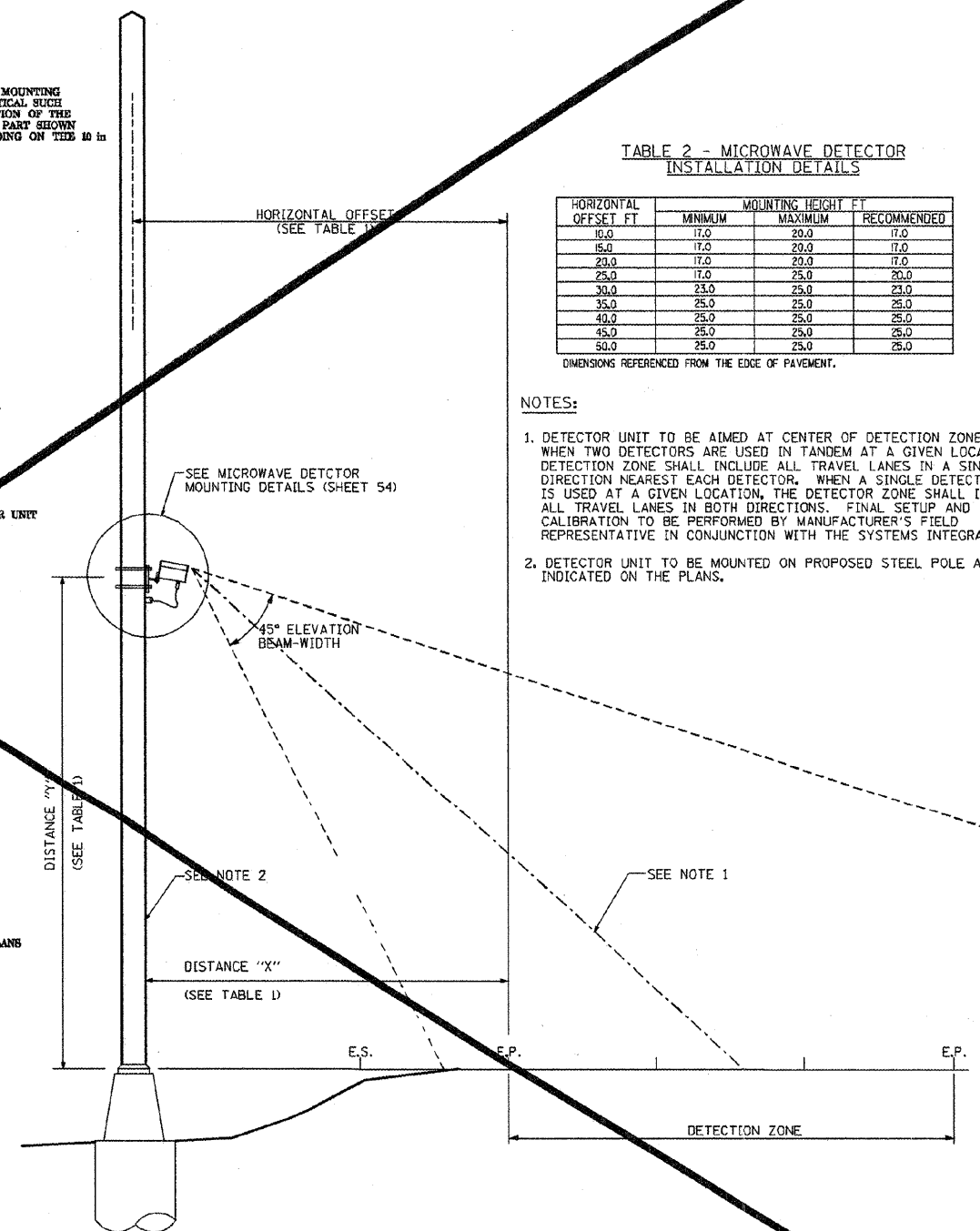
DETECTOR POLE			
SHAFT LENGTH	SHOE BASE BOLT CIRCLE	TRANS. BASE BOLT CIRCLE	POLE BASE DIA. (D)
28 ft	11.0 in	12.0 in	8.0 in

NOTES:

1. ALL CABLES TO BE INSTALLED WITHIN CONDUIT AS NOTED.
2. CABLE/CONDUITS SHALL NOT ENTER TOPS OF ENCLOSURES, CABINETS OR FULL JUNCTION BOXES.
3. CABLE HARNESS FROM POLE MOUNTED EQUIPMENT IS SUPPLIED WITH ITS ASSOCIATED EQUIPMENT. ALL STAINLESS STEEL STRAPS FOR FASTENING CABLES, BRACKETS, ETC. ARE PAID FOR AS PART OF ITS ASSOCIATED EQUIPMENT. PROVIDE DRIP LOOP AT EACH CABLE TERMINATOR.
4. POLE AND ASSOCIATED COMPONENTS SHALL BE CONSTRUCTED FROM GALVANIZED STEEL SCHEDULE 40.



MICROWAVE DETECTOR MOUNTING DETAILS



TYPICAL MICROWAVE DETECTOR INSTALLATION CROSS SECTION VIEW

REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL 6 & IL 29  
 DETECTION CONTROL SYSTEM  
 OPTION "B"  
 MICROWAVE DETECTOR DETAILS  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

△- This Sheet Deleted 2-15-08

PLOT DATE = 12/17/2007  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = bncabin