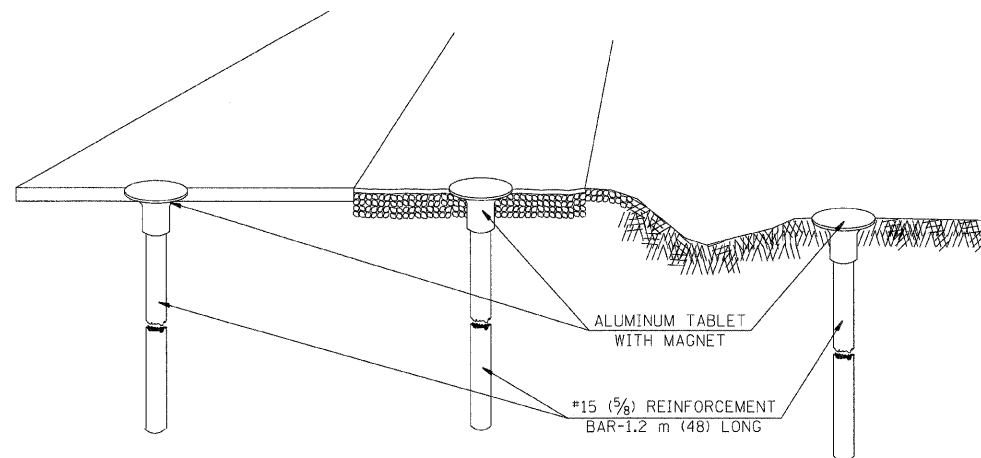


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
642	99-00124-03-PV	COLES	97	54
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

### SURVEY MARKER, TYPE 1 (SPECIAL)

TO BE USED IN FLEXIBLE PAVEMENT AND SHOULDER, A-3 BITUMINOUS TREATED SURFACE OVER AGGREGATE BASE COURSE AND TURF AREAS WITHIN THE RIGHT-OF-WAY LIMITS FOR RESETTling EXISTING CENTERLINE CONTROL POINTS AND LAND SURVEY MONUMENTS



IN FLEXIBLE PAVEMENT OR SHOULDER

IN BITUMINOUS TREATED SURFACE

IN TURF AREAS WITHIN R.O.W.

### GENERAL NOTES

1. WORK ON THIS ITEM SHALL NOT START UNTIL THE FINAL SURFACE IS COMPLETED.
2. THE ALUMINUM TABLET (FORKED) SHALL REST UPON THE BOTTOM OF THE 100 mm (4") CORE HOLE. IF THE HOLE IS TOO DEEP, EPOXY GROUT MUST BE USED TO DECREASE THE DEPTH AND ALLOWED TO HARDEN BEFORE PROCEEDING.
3. THE ALUMINUM TABLET SHALL BE ANCHORED IN THE 100 mm (4") DIAMETER HOLE IN THE NEW PAVEMENT WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 (725.01) OF THE STANDARD SPECIFICATIONS.
4. THE 100 mm (4") CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
5. THE CONTRACT PRICE, EACH, FOR SURVEY MARKER, TYPE 2 (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE ALUMINUM TABLET AND ALL LABOR AND MATERIAL TO SET THE MARKER IN PLACE, AS SPECIFIED, INCLUDING CORING THE NEW PAVEMENT.
6. ALL SURVEY MARKERS, TYPE 2 (SPECIAL) SHALL BE PLACED ± 6 mm (1/4") BELOW THE FINAL SURFACE.

### SPECIFICATIONS FOR ALUMINUM TABLET

SURVEY CAP FOR REBAR. 83 mm (3/4") CONVEX SURVEY CAP FOR 15 mm (5/8") REBAR WITH ILLINOIS DEPARTMENT OF TRANSPORTATION LOGO. THIS LOGO SHALL PROVIDE LETTERS RECESSED INTO THE SURFACE A MINIMUM OF 0.8 mm (1/32") FOR EASY AND LONG-TERM LEGIBILITY. THE ALUMINUM CAP FOR REBAR SHALL BE PRODUCED BY THE PROCESS OF ORBITAL FORGING TO PRODUCE A HIGH-STRENGTH AND DURABLE MARKER CAP WHICH WILL NOT CHIP OR BREAK AND PROVIDE A SMOOTH FINISH FOR STAMPING OF DATA IN THE FIELD. THE ALUMINUM CAP FOR REBAR SHALL BE TAPERED FOR A PERFECT COMPRESSION FIT. A SPECIAL PLASTIC INSULATOR SHALL BE INSTALLED TO PREVENT DISSIMILAR METAL CONTACT AND CORROSION. THE PLASTIC INSULATOR SHALL FORM READILY TO THE OUTER SHAPE OF THE REBAR AND TO THE INNER SHAPE OF THE ALUMINUM CAP SOCKET. THE PLASTIC INSULATOR SHALL BE LOW DENSITY POLYETHYLENE, A MINIMUM 38 mm (1 1/2") LONG AND CONFORM TO FEDERAL SPECIFICATION L-P 390.

COMPOSITION: ALUMINUM 98.3-98.7%; OTHER 1.3-1.7%; STRENGTH: YIELD 193 MPa (28 KSI), ULTIMATE 221 MPa (32 KSI). ELONGATION 15% [IN 50 mm (2")]. SPECIFICATIONS: ALUMINUM ALLOY 6101-0; ASTM B317-83 (EXCEPT TEMPER) AS FORGED. NO EXCEPTIONS.

### SPECIFICATION FOR REBAR

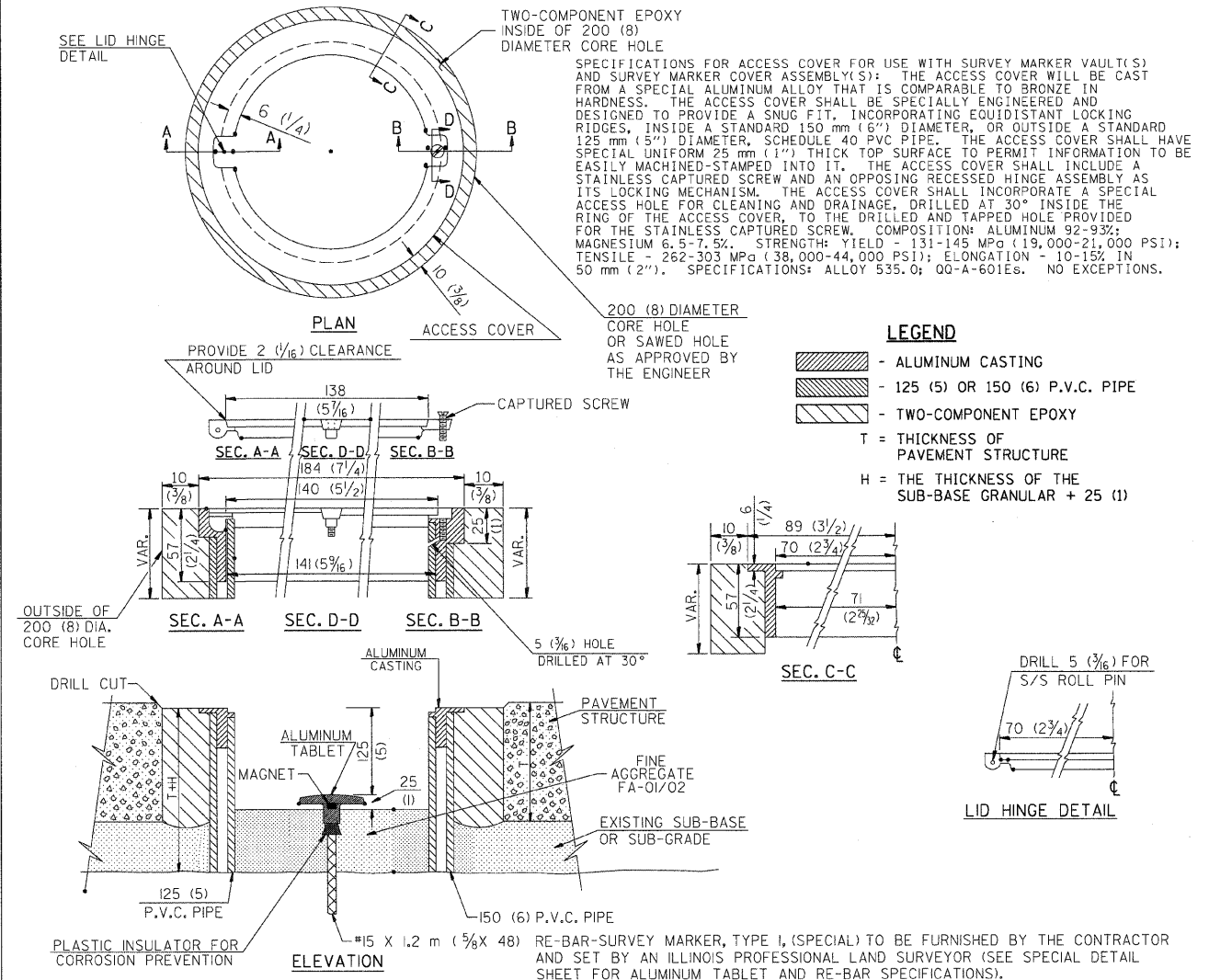
REBAR FOR ALUMINUM TABLET. REINFORCEMENT BAR SHALL BE #15 (5/8") X 1.2 m (48") (DEFORMED).

INSPECTION OF REINFORCEMENT BAR #15 (5/8") SHALL BE DONE BY DISTRICT PERSONNEL OF THE ILLINOIS DEPARTMENT OF HIGHWAYS, DIVISION OF HIGHWAYS.

All dimensions are in millimeters (inches) unless otherwise shown.

### DETAIL OF SURVEY MARKER VAULT

FOR RESET LAND SURVEY MONUMENTS IN RIGID AND COMPOSITE PAVEMENTS



### LEGEND

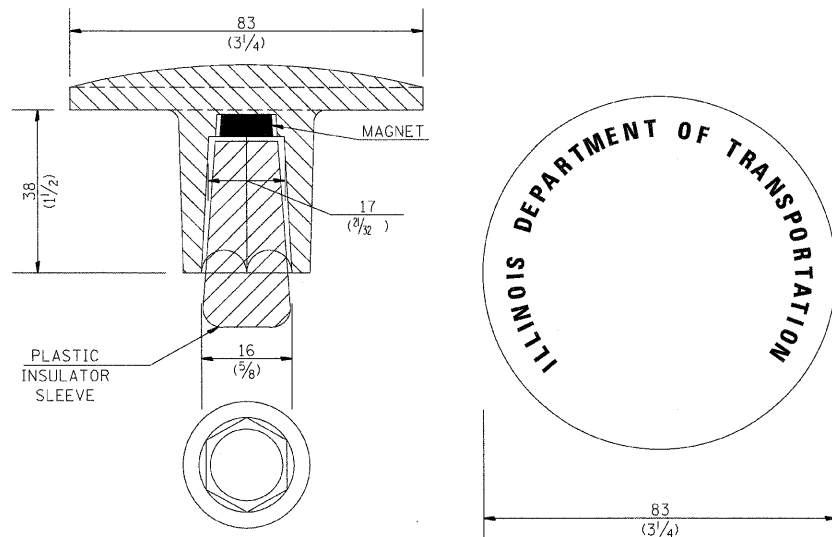
- ALUMINUM CASTING
- 125 (5) OR 150 (6) P.V.C. PIPE
- TWO-COMPONENT EPOXY
- T = THICKNESS OF PAVEMENT STRUCTURE
- H = THE THICKNESS OF THE SUB-BASE GRANULAR + 25 (1)

### GENERAL NOTES

1. ALUMINUM CASTING SHALL BE EITHER PLACED OVER A 125 mm (5") P.V.C. PIPE OR INSIDE OF A 150 mm (6") P.V.C. PIPE.
2. BACKFILL WITH FINE AGGREGATE-FA-01/02.
3. WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF CLASS I HAS BEEN COMPLETED.
4. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MARKER VAULT WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING CORING, EPOXY AND FA-01/02 AGGREGATE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
5. THE CASTING SHALL BE ANCHORED IN THE 200 mm (8") DIAMETER CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 1025.01 (725.01) OF THE STANDARD SPECIFICATIONS.
6. ALL SURVEY MARKER (VAULTS) SHALL BE PLACED 6 mm (1/4") ± BELOW THE FINAL SURFACE.
7. THE 200 mm (8") DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

### BILL OF MATERIAL

ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 125 mm OR 150 mm (5" OR 6") P.V.C. PIPE, SCHEDULE 40, ALUMINUM TABLET, STAMPED IN ACCORDANCE WITH STANDARD 2135, #15 X 1.2 m (5/8" X 48") RE-BAR, EPOXY AND FA-01/02 AGGREGATE.



DIMENSIONS SHOWN SHALL BE EXACT, OTHERS MAY VARY, BUT SHALL BE SHOWN ON SHOP DRAWINGS.

### GENERAL NOTES

1. THE CONTRACT UNIT PRICE, EACH, FOR SURVEY MARKER, TYPE 1, (SPECIAL) SHALL BE PAYMENT IN FULL FOR FURNISHING THE SURVEY MARKER.
2. ALL SURVEY MARKERS, TYPE 1 (SPECIAL) SHALL BE PLACED ± 6 mm (1/4") BELOW THE FINAL SURFACE.
3. WHEN THE TABLET AND REBAR ARE PLACED AS PART OF A SURVEY MARKER VAULT, THEY SHALL BE CONSIDERED AS INCLUDED IN THAT PAY ITEM AND THERE WILL BE NO PAYMENT FOR THE SURVEY MARKER, TYPE 1 (SPECIAL).

DESIGNED		CHECKED		CADD NO.	
NAME	DATE	NAME	DATE	NAME	DATE
AWH	8/17/91	PEK	8/17/91	D-1.05	

REVISIONS	
NAME	DATE
G.A.M.	11-95
D.L.P.	10-96

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SURVEY MARKER DETAILS  
 FAS 642  
 SEC NO. 99-00124-03-PV  
 COLES COUNTY, ILLINOIS

SCALE: NOT TO SCALE  
 DATE: 03/30/2009  
 DRAWN BY: DJP  
 CHECKED BY: SKM