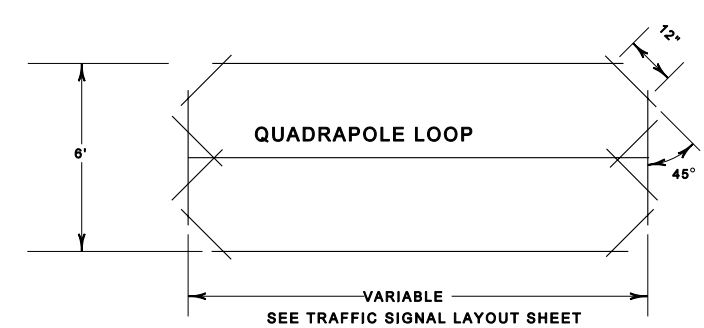
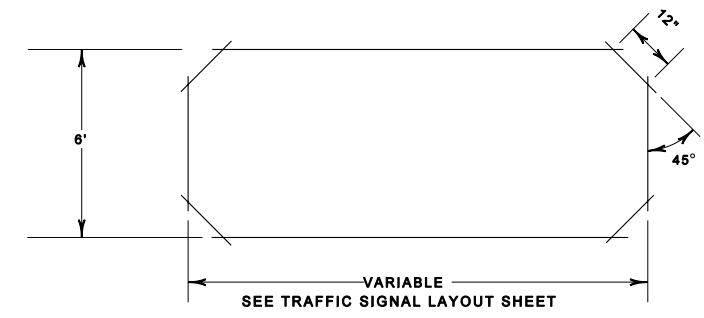
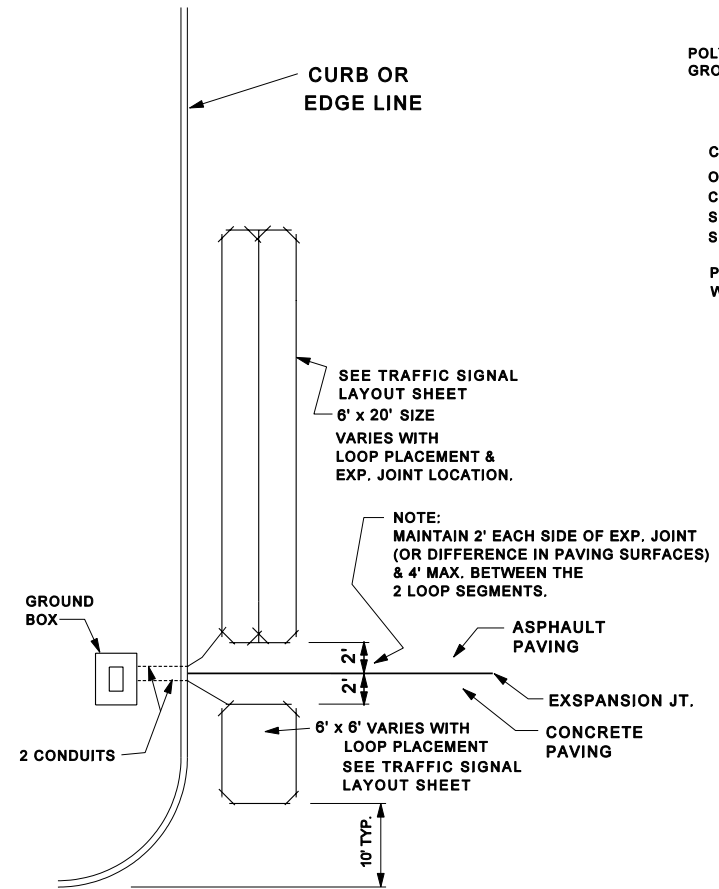


TYPICAL LOOP PLACEMENT



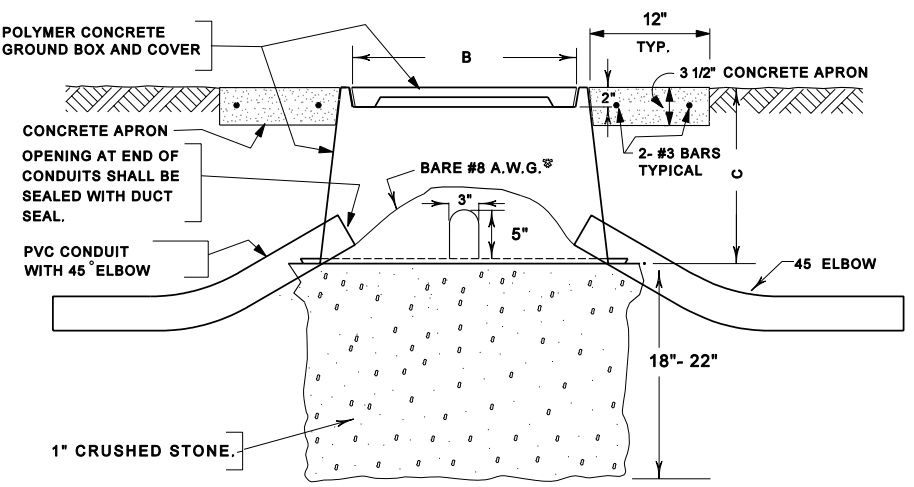
QUADRAPOLE LOOPS SHALL BE INSTALLED IN ALL CASES EXCEPT WHERE INDICATED ON THE PLAN SHEETS.



LOOP PLACEMENT @ EXPANSION JT. OR DIFFERENT PAVING SURFACES

LOOP WIRE TURNS DETAIL	
LENGTH OF LOOP	NO. OF TURNS
6' TO 10' LONG	4
11' TO 20' LONG	3
20' TO 40' USE QUADRAPOLE	2 - 4 - 2

- NOTE :
- DO NOT SAW CUT ACROSS A TRANSVERSE CONTROL/EXPANSION JOINT OR DIFFERENCE IN PAVING SURFACES WITHOUT ENGINEER'S APPROVAL.
  - INSTEAD PROVIDE A LOOP STARTING AT 2'-0" EACH SIDE OF EXPANSION JOINT AND RUN BOTH LOOP LEAD-INS NEXT TO EXPANSION JOINT AND DRILL CURB FOR EACH LOOP (2) LEAD-IN WIRES AS NORMAL. SEE TRAFFIC SIGNAL LAYOUT SHEET FOR LOOP PLACEMENT.

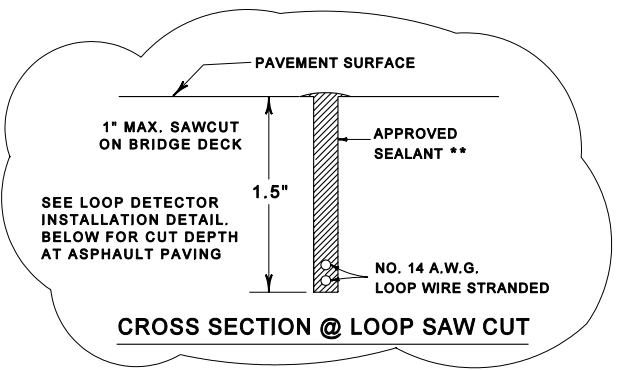


SECTION A-A  
SHOWING DIMENSIONS OF BOX AND ACCOMPANYING FIELD INSTALLATION

\* ONE BARE No. 8 A.W.G. SOLID COPPER WIRE SHALL BE RUN IN ALL CONDUIT TO FORM A CONTINUOUS GROUNDED SYSTEM

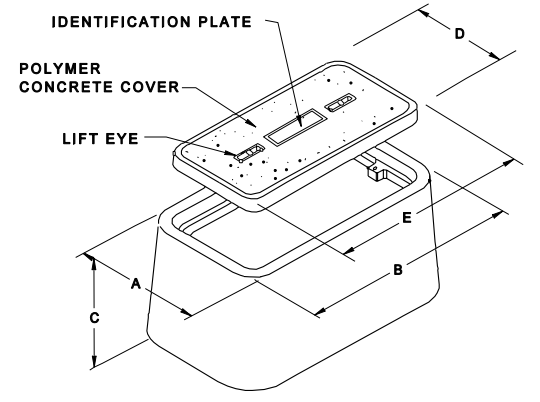
GROUND BOX NOTES

GROUND BOXES AND COVERS SHALL BE MANUFACTURED FROM REINFORCED POLYMER CONCRETE (RPM) COMPOSED OF BOROSILICATE GLASS FIBER, A CATALYZED POLYESTER RESIN AND AN AGGREGATE. SIDE WALLS MAY BE FIBER REINFORCED POLYMER. BOTTOM EDGE OF BOX OR EXTENSION SHALL BE FOOTED WITH A MINIMUM 1 1/4" FLANGE. COVER LIFT EYE-----MOLDED WITH COVER  
COVER LETTERING-----1" INCISED LETTERS "LIGHT & SIGNAL"  
GROUND BOX AND COVER MUST BE ABLE TO WITHSTAND A MINIMUM 12,000 LB PER WHEEL LOAD. LOAD REQUIREMENTS SHALL BE TESTED BY AN INDEPENDENT LABORATORY AND A CERTIFICATION OF SUCH TESTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.  
THE GROUND BOXES FOR THIS PROJECT SHALL MEET THE REQUIREMENTS SHOWN ABOVE. THE CONTRACTOR WILL BE PERMITTED TO FURNISH LIKE MATERIALS OF ANY MANUFACTURER PROVIDED THEY ARE OF EQUAL QUALITY AND COMPLY WITH THE SPECIFICATIONS.



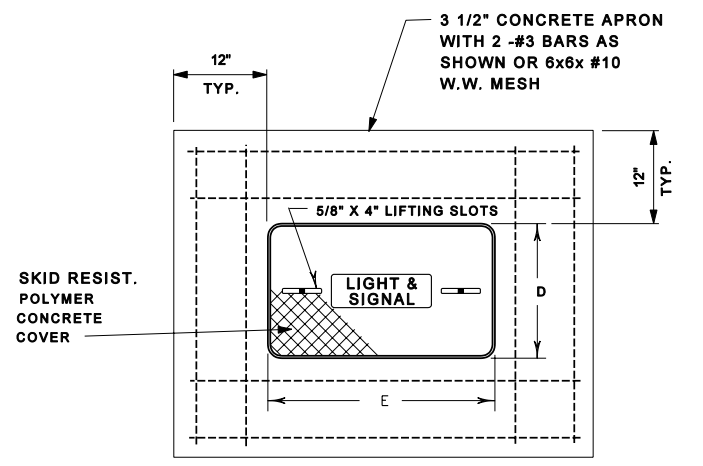
CROSS SECTION @ LOOP SAW CUT

\*\* 3M, PRECO, SEALEX, AND BONDO SEALANTS ARE APPROVED FOR USE. OTHER SEALANTS MAY BE SUBMITTED FOR CONSIDERATION.



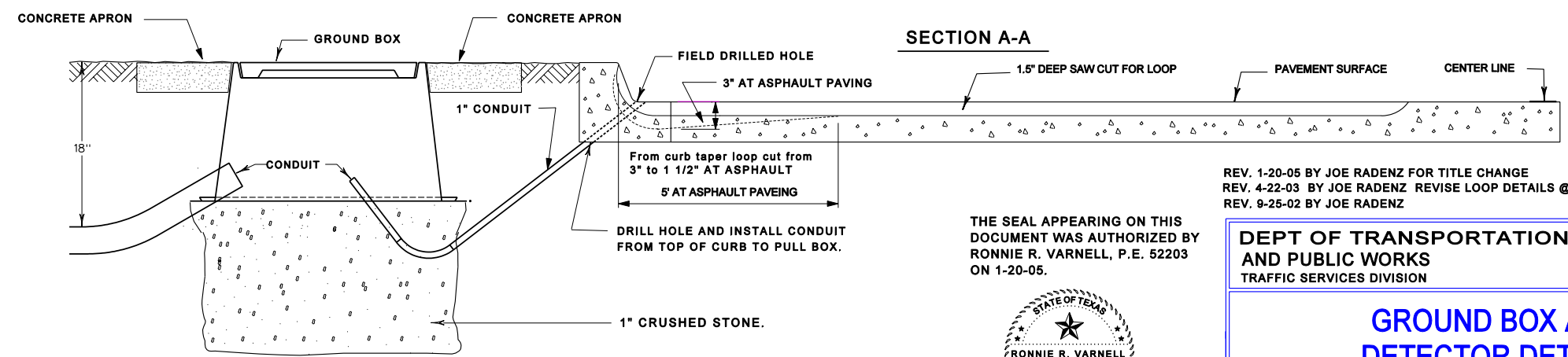
PULLBOX	NOMINAL BOX DIMENSIONS			NOMINAL COVER DIMENSIONS	
	A	B	C	D	E
SMALL	16 1/4"	23 1/4"	12"	11 3/8"	18 1/8"
LARGE	20 3/4"	32 1/2"	12"	19 1/2"	31 1/2"

GROUND BOX DETAIL



COVER

NOTES:  
WIRE USED FOR A LOOP SHALL BE OF A SINGLE CONDUCTOR STRANDED NO. 14 A.W.G. TYPE XHHW OR THWN TO THE NEAREST POSSIBLE GROUND BOX. FROM THIS POINT TO THE CONTROLLER, FOUR CONDUCTOR NO. 18 SHIELDED CABLE SHALL BE USED. THE PAVEMENT SHALL BE CUT TO A DEPTH OF 1.5 INCHES PRIOR TO INSTALLING THE LOOP WIRE. ALL LOOSE MATERIAL SHALL BE BLOWN OUT OF THE CUT. IMMEDIATELY AFTER THE INSTALLATION OF THE LOOP WIRE, THE WIRE SHALL BE SEALED WITH AN APPROVED SEALING MATERIAL. AT THE CURB SPLICES, THE WIRES SHALL HAVE A SOLDERED CONNECTION, COMPLETE USING A SILICON BASED WATER TIGHT SEAL (3M™ DBY-6 SPLICE KIT ; PART NO. 054007-09757). ALL LOOP LEAD-IN WIRES SHALL BE TWISTED A MINIMUM OF FIVE (5) TIMES PER FOOT.



TYPICAL LOOP VEHICLE DETECTOR INSTALLATION

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RONNIE R. VARNELL, P.E. 52203 ON 1-20-05.



REV. 1-20-05 BY JOE RADENZ FOR TITLE CHANGE  
REV. 4-22-03 BY JOE RADENZ REVISE LOOP DETAILS @ EXPNSION JOINTS etc.  
REV. 9-25-02 BY JOE RADENZ

DEPT OF TRANSPORTATION AND PUBLIC WORKS  
TRAFFIC SERVICES DIVISION



GROUND BOX AND DETECTOR DETAILS

DESIGNED BY: JOE RADENZ DATE: 4-00	CHECKED BY: RONNIE VARNELL DATE: 4-22-03
DRAWN BY: JOE RADENZ DATE: 4-00	APPROVED BY: RONNIE VARNELL DATE: 4-22-03
SCALE: N.T.S.	DRAWING No.: S2 SHEET No. OF