



# 9F16: Two Loop Detectors Installed in New Concrete Pavement Round CSCP Pull Box 45 Degree Elbows to Pull Box

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

THE GROUND RESISTANCE READING OF THE LOOP SHALL READ "INFINITY" TO GROUND ON AN OHMMETER USING A MULTIPLIER SCALE OF 1MEGOHM AND AN INPUT RESISTANCE OF 11MEGOHMS MINIMUM BEFORE SPLICING THE LOOP TO THE LEAD-IN CABLE.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

ALL PVC LEAD-OUT CONDUIT CONTAINING LOOP LEAD-IN CABLES SHALL BE 2".

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

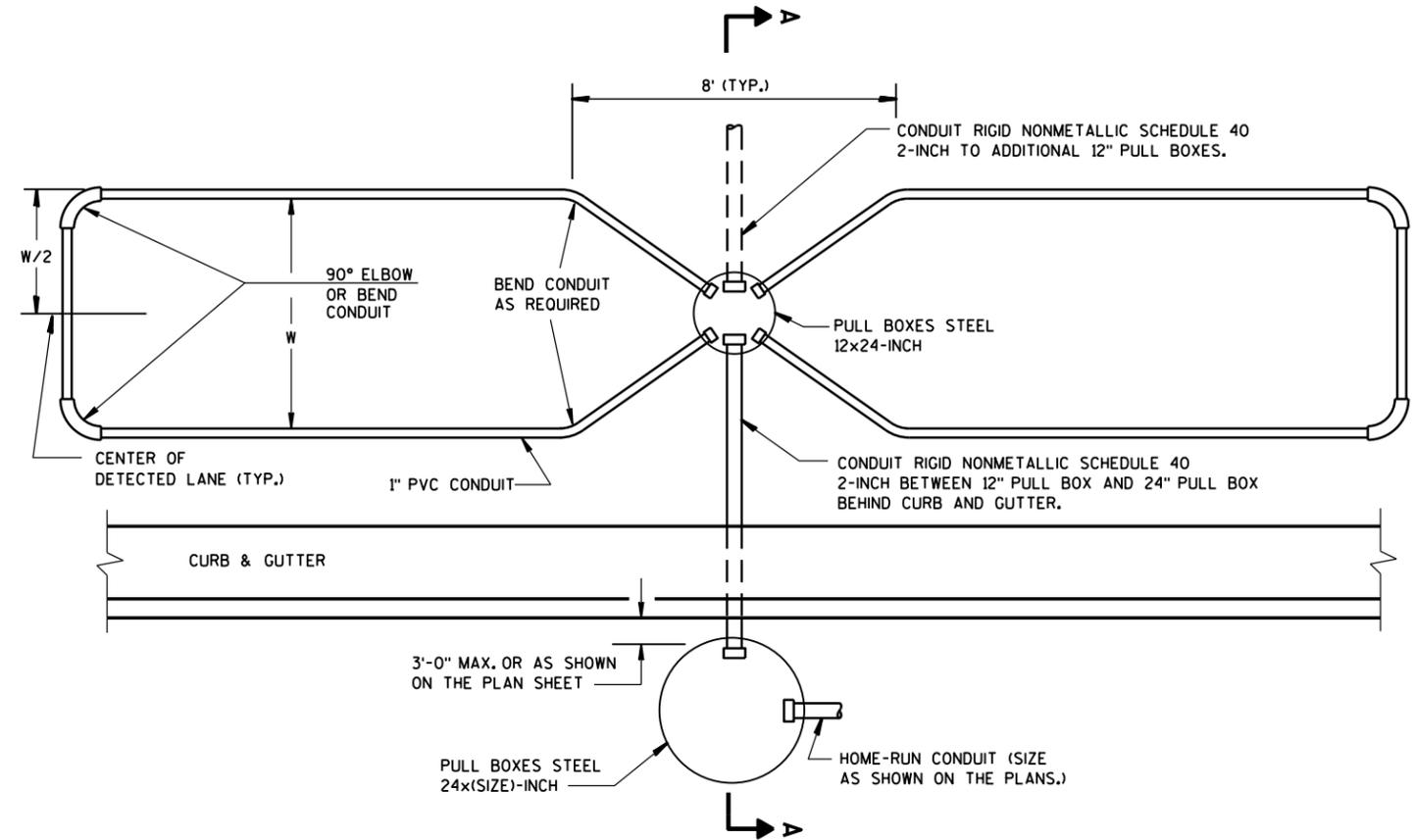
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, INTO THE PULL BOX IN THE PAVEMENT, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

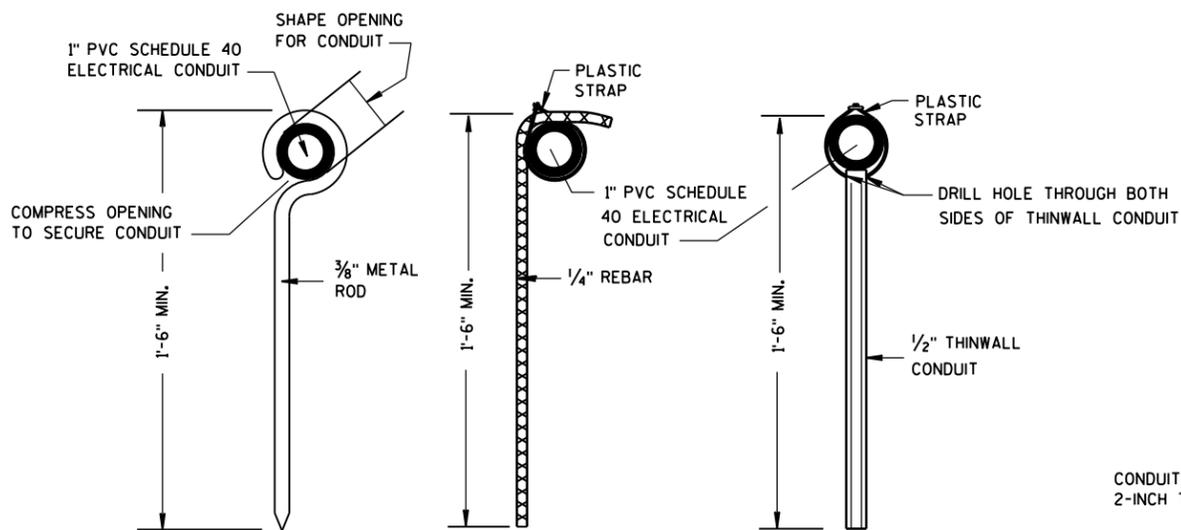
PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED. ANY DAMAGE THAT OCCURS DUE TO FAILURE TO PROTECT THE INSTALLATION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE ACCOMPLISHED UNDER THE DIRECTION OF THE PROJECT ENGINEER.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

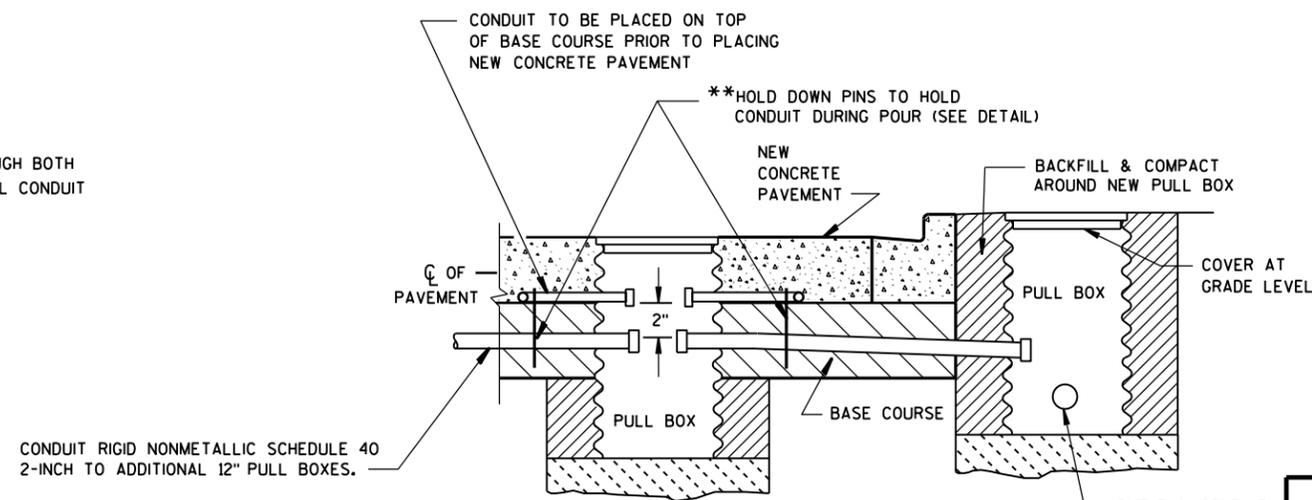


TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULL BOX



TYPICAL DETAILS FOR HOLD DOWN PINS

\*\*HOLD DOWN PINS ARE REQUIRED TO STABILIZE THE LOOP TO MEET THE DIMENSIONAL AND PHYSICAL CONSTRUCTION REQUIREMENTS OF THE PLANS. THE NUMBER OF HOLD DOWN PINS SHALL BE DETERMINED IN THE FIELD, BY THE PROJECT ENGINEER.



SECTION A-A  
CURB & GUTTER  
LOOP DETECTOR INSTALLATION DETAIL

TWO LOOP DETECTORS INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULL BOX 45 DEGREE ELBOWS TO PULL BOX

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE: Sept. 2014 /S/ Ahmet Demirbilek  
STATE ELECTRICAL ENGINEER  
FHWA

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**References:**

NONE

**Bid items associated with this drawing:**

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
652.0800	Conduit Loop Detector .....	LF
653.0100 - 0150	Pull boxes Steel (inch) .....	EACH
655.0700	Loop Detector Lead In Cable .....	LF
655.0800	Loop Detector Wire .....	LF

**Standardized Special Provisions associated with this drawing:**

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

**Other SDDs associated with this drawing:**

<a href="#">SDD 9b2</a>	Conduit
<a href="#">SDD 9b4</a>	Pull Box

**Design Notes:**

NONE

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