COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	R2A

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	KY 237 MUP	COUGAR SIDE-WALK	KY 20 SIDE-WALK	TOTAL PROJECT
1010	NON-PERFORATED PIPE-4IN	LF	277			277
1310	REMOVE PIPE	EACH	140			140
1584	CAP DROP BOX INLET	EACH	1			1
1718	REMOVE INLET	EACH	3			3
1740	CORED HOLE DRAINAGE BOX CON-4IN	EACH	2			2
1811	STANDARD CURB AND GUTTER MOD	LF		55	649	704
2159	TEMPORARY DITCH	LF	7,602			7,602
2160	CLEAN TEMPORARY DITCH	LF	3,801			3,801
2203	STRUCTURAL EXCAVATION - UNCLASSIFIED	CUYD	40			40
2230	EMBANKMENT IN PLACE	CUYD	29,182			29,182
2545	CLEARING AND GRUBBING	LS	1			1
2555	CONCRETE CLASS B	CUYD	104			104
2562	TEMPORARY SIGNS	SQFT	345			345
2568	MOBILIZATION	LS	1			1
2569	DEMOBILIZATION	LS	1			1
2585	EDGE KEY	LF	125			125
2607	FABRIC GEOTEXTILE CLASS II FOR PIPE	SQYD	5,042		266	5,308
2611	HANDRAIL- TYPE A-1	LF	650			650
2650	MAINTAIN AND CONTROL TRAFFIC	LS	1			1
2676	MOBILIZATION FOR MILL & TEXT	LS	1			1
2701	TEMPORARY SILT FENCE	LF	7,602			7,602
2703	SILT TRAP TY A	EACH	30			30
2704	SILT TRAP TY B	EACH	30			30
2705	SILT TRAP TY C	EACH	30			30
2706	CLEAN SILT TRAP TY A	EACH	30			30
2707	CLEAN SILT TRAP TY B	EACH	30			30
2708	CLEAN SILT TRAP TY C	EACH	30			30
2720	SIDEWALK-4 IN CONCRETE (2)	SQYD	172	473	434	1,079
2726	STAKING	LS	1			1
5950	EROSION CONTROL BLANKET	SQYD	5,817			5,817
5952	TEMPORARY MULCH	SQYD	95,279			95,279
5953	TEMP SEEDING AND PROTECTION	SQYD	71,459			71,459
5963	INITIAL FERTILIZER	TON	4			4
5964	20-10-10 FERTILIZER	TON	6			6
5985	SEEDING AND PROTECTION	SQYD	120,084			120,084
5992	AGRICULTURAL LIMESTONE	TON	74			74
6406	SBM ALUM SHEET SIGNS .080 IN	SQFT	205.75	9		214.75
6410	STEEL POST TYPE 1	LF	417.5	27	28	472.5
6565	PAVE MARKING-THERMO X-WALK-6 IN	LF	1,994	364	192	2,550
6568	PAVE MARKING-THERMO STOP BAR-24 IN	LF	120	13		133
6598	PAVEMENT MARKING REMOVAL	SQFT	231			231
22664EN	WATER BLASTING EXISTING STRIPE	LF	394			394
14018	W FIRE HYDRANT ADJUST	EACH	2			2
14113	W VALVE BOX ADJUST	EACH	5			5
15094	S MANHOLE ADJUST TO GRADE	EACH	5			5
270758ED	REMOVE AND RESET PERF PIPE HEADWALL	EACH	10			10
20418ED	REMOVE & RELOCATE SIGNS	EACH	0	1	2	3
23143ED	KPDES PERMIT & TEMP EROSION CONTROL	LS	1			1
23158ES505	DETECTABLE WARNINGS	SQFT	540	99	86	725
23274EN11F	TURF REINFORCEMENT MAT 1	SQYD	11,868			11,868
24631EC	BARCODE SIGN INVENTORY	EACH	73	2	4	79
21289ED	LONGITUDINAL EDGE KEY	LF		715	60	775
4780	FUSED CONNECTOR KIT	EACH	39			39
4792	CONDUIT 1 INCH RIGID STEEL	LF	10			10
4795	CONDUIT 2 INCH RIGID STEEL	LF	265			265
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	2			2
4820	TRENCHING AND BACKFILLING	LF	875			875
4830	LOOP WIRE	LF	555			555
4844	CABLE-NO 14/5C	LF	3,430			3,430
4850	CABLE-NO 14/1 PAIR	LF	10,040			10,040
4885	MESSENGER WIRE - 10,800 LB	LF	350			350
4895	LOOP SAW SLOT AND FILL	LF	230			230
4942	REMOVE & INSTALL POLE	EACH	1			1
20093NS835	INSTALL PEDESTRIAN HEAD LED	EACH	14			14
21743NN	INSTALL PEDESTRIAN DETECTOR	EACH	16			16
23157EN	TRAFFIC SIGNAL POLE BASE	CUYD	4.06			4.06
23222EC	INSTALL SIGNAL PEDESTAL	EACH	11			11
24900EC	PVC CONDUIT - 1 1/4" - SCHEDULE 80 PVC	LF	490			490
24901EC	PVC CONDUIT - 2" - SCHEDULE 80 PVC	LF	110			110
24955ED	REMOVE SIGNAL EQUIPMENT	EACH	7			7

PAVING AREAS

ITEM	KY 237 MUP	COUGAR SIDEWALK	KY 20 SIDEWALK
	SQ. YD.		
1.25" CL 2 ASPH SURF 0.38D PG64-22	15,592		25
3.00" CL 2 ASPH BASE 1.00D PG64-22	15,904		25
2.00" CRUSHED STONE BASE	164	448	423
4.00" CRUSHED STONE BASE	16,699		46
ASPHALT PAVE MILLING & TEXTURING	100		
CEM CONC ENT PAVEMENT-8 IN			21

PAVING SUMMARY

ITEM CODE	ITEM	UNIT	KY 237 MUP	COUGAR SIDEWALK	KY 20 SIDEWALK	TOTAL PROJECT
003	CRUSHED STONE BASE (1)	TON	3,859	52	59	3,970
212	CL 2 ASPH BASE 1.00D PG64-22	TON	2,624		4	2,628
301	CL 2 ASPH SURF 0.38D PG64-22	TON	1,072		2	1,074
2101	CEM CONC ENT PAVEMENT-8 IN	SQYD			21	21
2677	ASPHALT PAVE MILLING & TEXTURING	TON	8			8

NOTES

ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, UNLESS NOTED OTHERSWISE.

(1) ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH.

(2) INCLUDES QUANTITY FOR CONCRETE APRONS

EARTHWORK QUANTITIES

EXCAVATION INCLUDES:
13,405 CU YDS COMMON

EMBANKMENT INCLUDES:
29,182 CU YDS EMBANKMENT

NOTE:

ESTIMATE FOR EARTHWORK CALCULATIONS FOR DESIGN ONLY. THE CONTRACTOR IS ADVISED THAT THE EARTHWORK CALCULATIONS SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE AND SWELL FACTORS ARE THE CONTRACTORS RESPONSIBILITY.

GENERAL & PAVING SUMMARY SHEET

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T01

THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND OTHER SPECIAL NOTES AND SPECIFICATIONS WILL APPLY ON THIS PROJECT. SEE SECTION 706, 723, AND 112 FOR MEASUREMENT AND OTHER DETAILS. SEE SECTION 602 FOR SPRIAL REINFORCEMENT SPLICING.

THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS. SUBMISSIONS OF A BID WILL BE CONSIDERED AN AFFIRMATION OF THIS INSPECTION HAVING BEEN COMPLETED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP MATERIALS FOR INSTALL ITEMS AT KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622). THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR MATERIAL RELEASE. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN LONG DELAYS OR REFUSAL TO DISTRIBUTE MATERIALS UPON ARRIVAL.

1. CONTRACTOR SHALL SECURE THE SIGNATURES OF KYTC'S PROJECT ENGINEER AND THE ELECTRICAL CONTRACTOR'S FOREMAN ON THE PROJECT MATERIALS RELEASE FORM. IF THE RELEASE FORM IS NOT IN THE PROPOSAL, CONTACT TED SWANSEGAR OR KERRY ROBERTS WITH THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5540/502-782-5536) OR EMAIL (TED.SWANSEGAR@KY.GOV/KERRY.ROBERTS@KY.GOV).

2. CONTRACTOR SHALL CONTACT THE WAREHOUSE TO PREARRANGE PICK UP OF MATERIALS. CONTRACTOR SHALL EMAIL THE PROJECT MATERIALS RELEASE FORM WITH REQUIRED SIGNATURES TO THE WAREHOUSE AT KIM.STAMPER@KY.GOV AND SHALL NOTIFY THE WAREHOUSE BY PHONE (502-782-8994/502-330-8153) OR EMAIL KIM.STAMPER@KY.GOV AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL.

3. CONTRACTOR SHALL ALSO CONTACT THE SIGNAL SYSTEM BRANCH OF THE DIVISION OF TRAFFIC OPERATIONS BY PHONE (502-782-5543/502-782-5547) OR EMAIL (JOE.THOMPSON@KY.GOV/LARRY.IRISH@KY.GOV) AT LEAST TWO (2) WORKING DAYS PRIOR TO ARRIVAL TO FACILITATE PROGRAMMING OF ROUTERS.

4. CONTRACTOR SHALL ARRIVE AT THE KYTC'S DIVISION OF EQUIPMENT WAREHOUSE (1239 WILKINSON BOULEVARD, FRANKFORT, KY 40622) AT THE PREARRANGED DATE/TIME FOR MATERIAL PICK UP. TO FACILITATE THIS PROCESS, ENSURE CONTRACTOR'S DELIVERY DRIVER HAS A COPY OF THE PROJECT MATERIALS RELEASE FORM WITH THE REQUIRED SIGNATURES.

ADD SENTENCE TO SECTION 835.17: ALL WIRE SHALL HAVE WORDING ADDED TO THE OUTER JACKET THAT STATES : "PROPERTY OF KENTUCKY TRANSPORTATION CABINET 502 564 0501".

CONSTRUCTION AND MEASUREMENT NOTES THAT ARE CONTRARY TO SECTION 723

SUBSECTION: 03.02 POLES AND BASES INSTALLATION. B)
REVISION: REPLACE ENTIRE TABLE WITH THE FOLLOWING:

MAXIMUM SERVICE FORCES		DRILLED SHAFT DATA							
MAX SERVICE MOMENT (FT-KIPS)	DIAMETER (IN.)	DEPTH (FEET) < 2:1 GROUND SLOPE		DEPTH (FEET) 2:1 GROUND SLOPE*		VERTICAL BARS		TIES OR SPIRAL BAR SIZE	TIES OR SPIRAL SPACING OR PITCH (IN.)
		SOIL	ROCK	SOIL	ROCK	SIZE	TOTAL		
0-9.9	36	6	6	6.5	6	13	#8	#4	12
10-19.9	36	7	6	8	6	13	#8	#4	12
20-29.9	36	8	6	9	6	13	#8	#4	12
30-39.9	36	9	6	10	6	13	#8	#4	12
40-49.9	36	9.5	6	10.5	6	13	#8	#4	12
50-59.9	36	10	6	11	6	13	#8	#4	12
60-69.9	36	11	6	12	6	13	#8	#4	12
70-99.9	36	12.5	6	13.5	6	13	#8	#4	12
100-149.9	36	14.5	6	16	6	13	#8	#4	12
150-199.9	36	15.5	6	17.5	6	13	#8	#4	12
200-249.9	36	17	6	19.5	6	13	#8	#4	12
250-299.9	36	18.5	6.5	21	6.5	13	#8	#4	12
300-399.9	36	21	7	25	7	18	#8	#4	6
400-499.9	42	21.5	7.5	25	7.5	18	#8	#4	6
500-600	48	22.5	7.5	25.5	7.5	19	#9	#4	12

SUBSECTION: 03.13 LOOP INSTALLATION.
REVISION: REPLACE FIRST SENTENCE NOTE WITH THE FOLLOWING:
TWIST UNSHIELDED LOOP WIRES (IMSA 51-7) WITH 3 TO 5 TURNS PER FOOT FROM THE START OF THE HOMERUN TO THE JUNCTION BOX, CABINET, OR POLE. SLOT CAN BE WIDEN TO 1/2" to 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

SUBSECTION: 04.22 REMOVE SIGNAL EQUIPMENT. (PERMIT ONLY)
REVISION: REPLACE ENTIRE NOTE WITH THE FOLLOWING:
THE DEPARTMENT WILL MEASURE THE QUANTITY AS A EACH REMOVAL OF SIGNAL EQUIPMENT. THE CONTRACTOR SHALL DISPOSE ALL MATERIALS REMOVED FROM THE PROJECT IN ACCORDANCE WITH CABINET POLICY. THE CONTRACTOR SHALL TAKE ALL STEEL AND ALUMINUM POLES TO THE EQUIPMENT WAREHOUSE IN FRANKFORT, KENTUCKY. ALL OTHER MATERIALS (WITH EXCEPTION OF PLASTIC ITEMS AND WOOD POLES) SHALL BE TAKEN TO LOCATIONS IDENTIFIED BY THE DISTRICT TRAFFIC ENGINEER. THE CONTRACTOR SHALL CONTACT THE DIVISION OF EQUIPMENT (502-564-3916) TO SCHEDULE A TIME TO DELIVER STEEL AND ALUMINUM POLES TO THE EQUIPMENT WAREHOUSE. THE TRANSPORTATION OF THE MATERIALS WILL CONSIDER THEM INCIDENTAL TO THIS ITEM OF WORK.

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

CONRAD	GATEWAY	CONNER	COUGAR	HEBRON FIRE	KY 20	AWF	TOTALS	UNITS	CODE		ITEM DESCRIPTION
0	6	11	8	6	8	0	39	EACH	4780		FUSED CONNECTOR KIT
0	5	0	0	5	0	0	10	LIN FT	4792		CONDUIT 1 INCH RIGID STEEL
30	40	30	75	50	40	0	265	LIN FT	4795		CONDUIT 2 INCH RIGID STEEL
0	1	0	0	1	0	0	2	EACH	4811		ELECTRICAL JUNCTION BOX TYPE B
45	360	110	115	115	130	0	875	LIN FT	4820		TRENCHING AND BACKFILLING
0	280	0	0	275	0	0	555	LIN FT	4830		LOOP WIRE
555	770	965	255	215	670	0	3430	LIN FT	4844		CABLE-NO. 14/7C
1614	1957	1580	375	1145	3367	0	10040	LIN FT	4850	*	CABLE-NO. 14/1 PAIR
0	0	0	0	0	0	350	350	LIN FT	4885		MESSENGER WIRE - 10,800 LB
0	117	0	0	112	0	0	230	LIN FT	4895		LOOP SAW SLOT AND FILL
0	0	0	0	0	0	1	1	EACH	4932		INSTALL STEEL STRAIN POLE
0	2	4	3	2	3	0	14	EACH	20093NS835		INSTALL PEDESTRIAN HEAD LED
2	2	4	3	2	3	0	16	EACH	21743NN		INSTALL PEDESTRIAN DETECTOR
0	0	0	0	0	0	4.06	4.06	CU YD	23157EN		TRAFFIC SIGNAL POLE BASE
0	2	3	2	2	2	0	11	EACH	23222EC		INSTALL SIGNAL PEDESTAL
0	3150	50	40	35	50	0	490	LIN FT	24900EC		PVC CONDUIT - 1 1/4" - SCHEDULE 80 PVC
15	0	30	0	25	40	0	110	LIN FT	24901EC		PVC CONDUIT - 2" - SCHEDULE 80 PVC
1	1	1	1	1	1	1	7	EACH	24955ED		REMOVE SIGNAL EQUIPMENT

* WHERE AFFECTED, LOOP LEAD-IN WIRE SHALL BE REPLACED ALL THE WAY TO THE CONTROLLER.

NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR SIGNAL TIMING ADJUSTMENTS. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

3-8-2021

DESIGNED BY:
DATE SUBMITTED:

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

BOONE

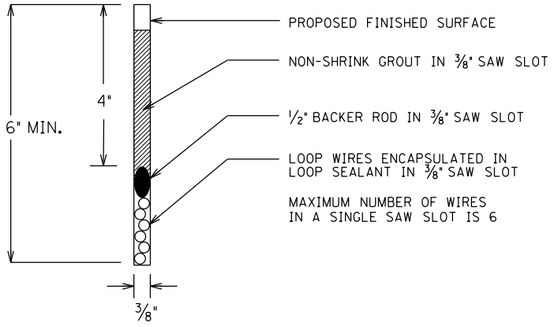
PROJECT NUMBERS:

TRAFFIC SIGNAL
ESTIMATE OF QUANTITIES
MEASUREMENT, CONST, AND MISC NOTES

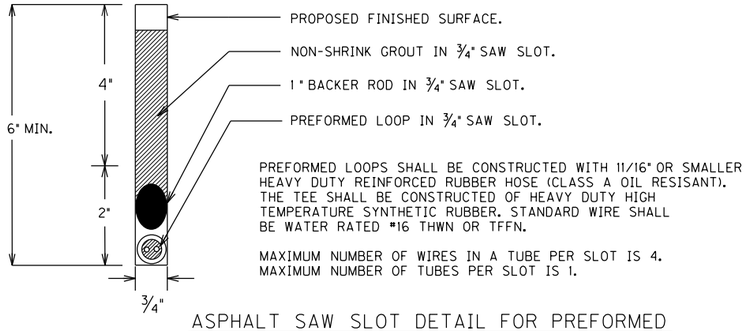
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T02

TWIST UNSHIELDED LOOP WIRES (IMSA 51-7) WITH 3 TO 5 TURNS PER FOOT FROM THE START OF THE HOMERUN TO THE JUNCTION BOX, CABINET, OR POLE. SLOT CAN BE WIDEN TO 1/2" to 5/8" TO HELP WITH THE INSTALLATION OF THE TWISTED WIRE.

SECTION B-B (TWIST NOTE)
-FOR CANCELING OUT CROSSTALK



SECTION A-A (SAW SLOT DETAIL)

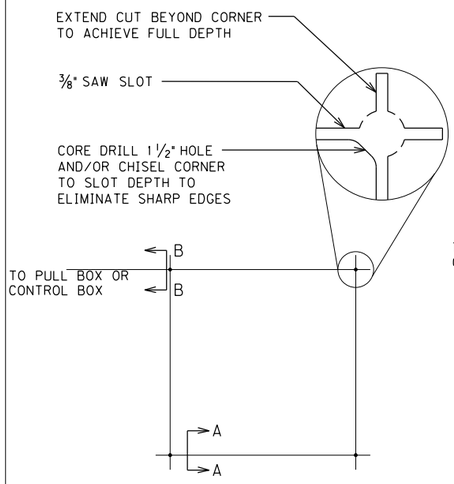


PREFORMED LOOPS SHALL BE CONSTRUCTED WITH 11/16" OR SMALLER HEAVY DUTY REINFORCED RUBBER HOSE (CLASS A OIL RESISANT). THE TEE SHALL BE CONSTRUCTED OF HEAVY DUTY HIGH TEMPERATURE SYNTHETIC RUBBER. STANDARD WIRE SHALL BE WATER RATED #16 THWN OR TFFN.

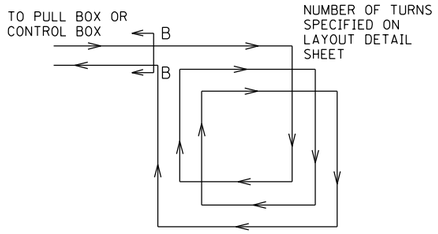
MAXIMUM NUMBER OF WIRES IN A TUBE PER SLOT IS 4.
MAXIMUM NUMBER OF TUBES PER SLOT IS 1.

ASPHALT SAW SLOT DETAIL FOR PREFORMED
Use detail for concrete application if concrete is 4" or less

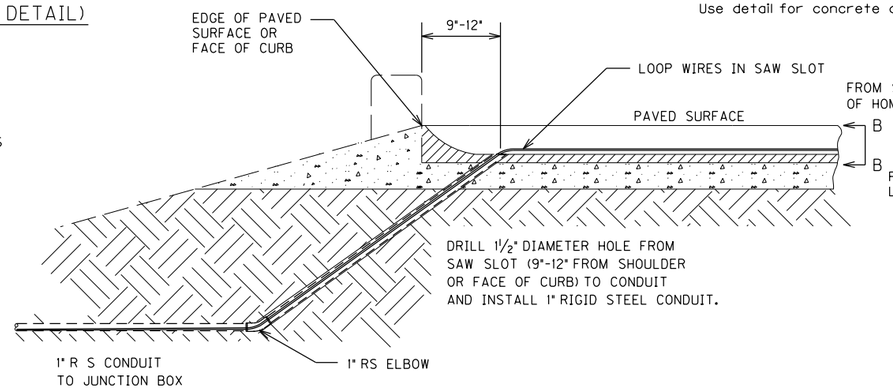
PREFORMED LOOP
CROSS SECTION



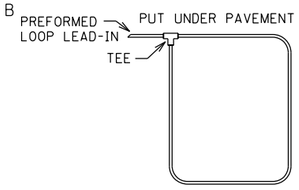
SAW CUT PLAN



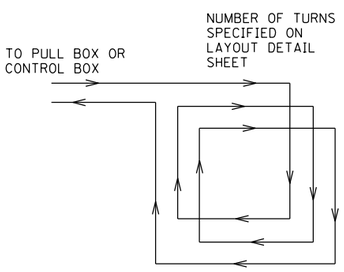
LOOP WIRE PLAN



SAW SLOT EDGE OF PAVEMENT TRANSITION

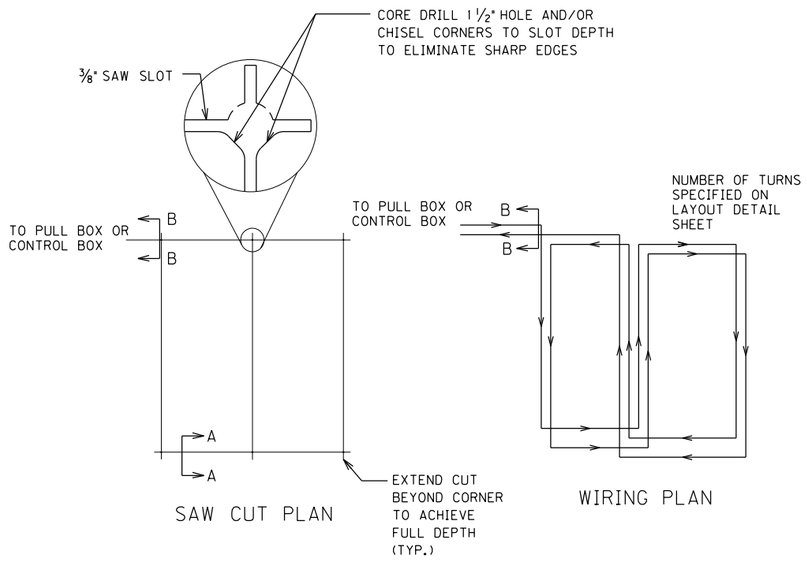


PREFORMED LOOP DIAGRAM



LOOP WIRE PLAN

6'X6' LOOP



SAW CUT PLAN

WIRING PLAN

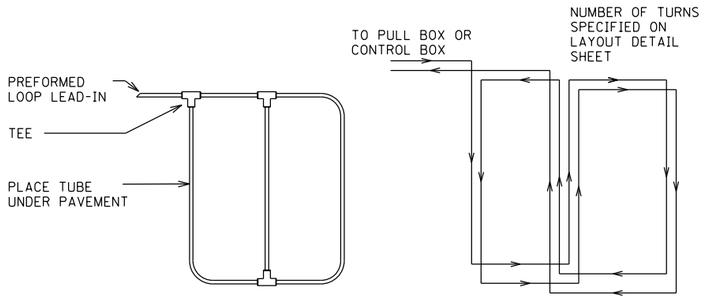
6'X30' QUADRAPOLE LOOP

CONSTRUCTION DETAILS FOR LOOP SAW SLOT AND FILL BID ITEM:
THE FOLLOWING IS A TYPICAL STEP BY STEP PROCEDURE FOR THE INSTALLATION OF A LOOP.

- CAREFULLY MARK THE SLOT TO BE CUT, PERPENDICULAR TO THE FLOW OF TRAFFIC AND CENTERED IN THE LANE.
- MAKE EACH SAW-CUT 3/8 INCH WIDE AND AT A DEPTH SUCH THAT THE TOP OF THE BACKER ROD IS A MINIMUM OF 4 INCHES BELOW THE SURFACE OF ASPHALT PAVEMENT.
- DRILL A 1 1/2 INCH CORE HOLE AT EACH CORNER AND USE A CHISEL TO SMOOTHE CORNERS TO PREVENT SHARP BENDS IN THE WIRE.
- CLEAN ALL FOREIGN AND LOOSE MATTER OUT OF THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS USING A HIGH PRESSURE WASHER.
- COMPLETELY DRY THE SLOTS, DRILLED CORES, AND WITHIN 1 FOOT ON ALL SIDES OF THE SLOTS.
- MEASURE 9-12 INCHES FROM THE EDGE OF THE PAVED SURFACE (SHOULDER BREAK OR FACE OF CURB) AND DRILL A 1 1/2 INCH HOLE ON A 45 DEGREE ANGLE TO THE CONDUIT ADJACENT TO THE ROADWAY.
- CLOSELY INSPECT ALL CUTS, CORES, AND SLOTS FOR JAGGED EDGES OR PROTRUSIONS PRIOR TO THE PLACEMENT OF THE WIRE. ALL JAGGED EDGES AND PROTRUSIONS SHALL BE GROUND OR RE-CUT AND CLEANED AGAIN.
- INSTALL 1" RIGID STEEL CONDUIT IN 45 DEGREE DRILLED SLOT. CONNECT CONDUIT TO 1" RIGID STEEL CONDUIT ADJACENT TO THE ROADWAY WITH RIGID STEEL ELBOW.
- PLACE THE LOOP WIRE SPLICE-FREE FROM THE TERMINATION POINT. SEE SECTION B-B NOTE.
- PUSH THE WIRE INTO THE SAW SLOT WITH A BLUNT OBJECT SUCH AS A WOODEN STICK. MAKE SURE THAT THE LOOP WIRE IS PUSHED FULLY TO THE BOTTOM OF THE SAW SLOT. SCREWDRIVERS SHALL NOT BE USED.
- INSTALL DUCT SEALANT TO A MINIMUM OF 1 INCH DEEP INTO THE CORED 1 1/2 INCH HOLE.
- APPLY LOOP SEALANT FROM THE BOTTOM UP AND FULLY ENCAPSULATE THE LOOP WIRES IN THE SAW SLOT. THE WIRE SHOULD NOT BE ABLE TO MOVE WHEN THE SEALANT HAS SET.
- COVER THE ENCAPSULATED LOOP WIRE WITH A CONTINUOUS LAYER OF BACKER ROD ALONG THE ENTIRE LOOP AND HOME RUN SAW SLOTS SUCH THAT NO VOIDS ARE PRESENT BETWEEN THE LOOP SEALANT AND BACKER ROD.
- FINISH FILLING THE SAW CUT WITH NON-SHRINKABLE GROUT PER MANUFACTURER'S INSTRUCTIONS. ALLEVIATE ALL AIR POCKETS AND REFILL LOW SPACES. THERE SHALL BE NO CONCAVE PORTION TO THE GROUT IN THE SAW SLOT. ANY EXCESS GROUT SHALL BE CLEANED FROM THE ROADWAY TO ALLEVIATE TRACKING.
- CLEAN UP THE SITE AND DISPOSE OF ALL WASTE OFF THE PROJECT.
- ENSURE THAT THE GROUT HAS COMPLETELY CURED PRIOR TO SUBJECTING THE LOOP TO TRAFFIC. CURING TIME VARIES WITH TEMPERATURE AND HUMIDITY.

6'x6' PREFORMED LOOP

PREFORMED LOOP LEAD-IN SHALL BE TWISTED WITH THREE TO FIVE TURNS PER FOOT UNTIL TERMINATED AT FIELD CONNECTIONS IN THE CABINET OR CONNECTED TO SHIELDED CABLE.



PREFORMED LOOP DIAGRAM

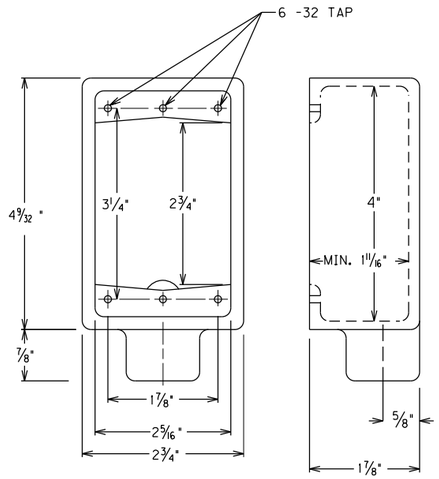
LOOP WIRE PLAN

6'x30' QUADRAPOLE PREFORMED LOOP

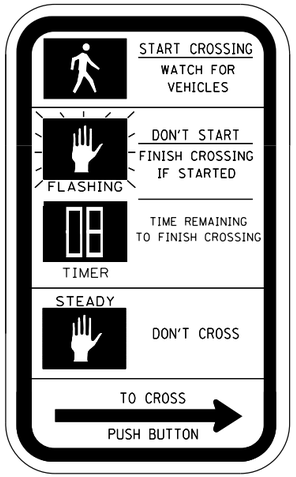
8/20/2019

LOOP DETAILS

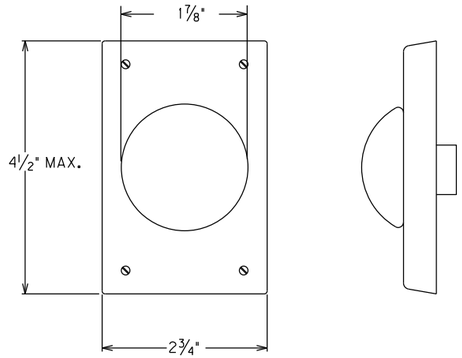
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T03



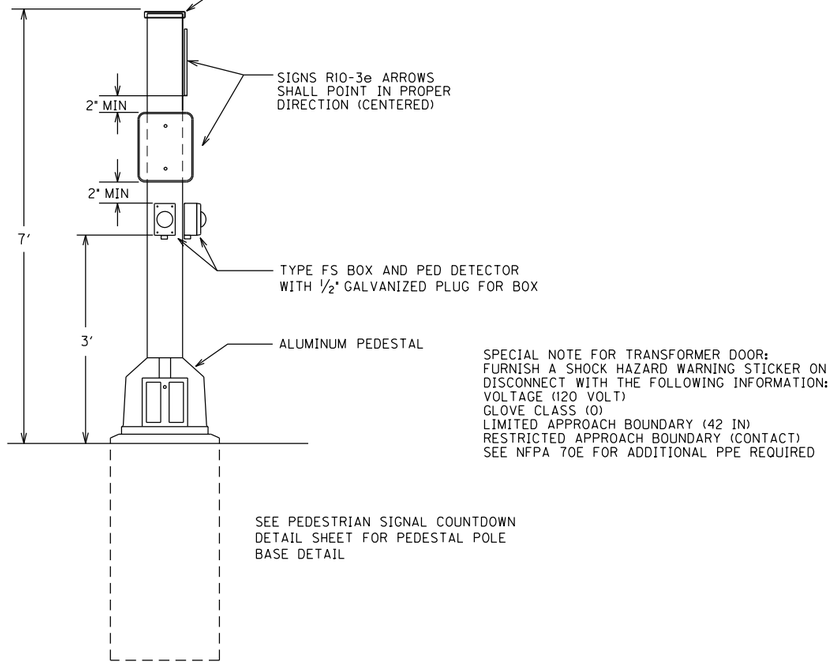
TYPE FS BOX FOR PED DETECTOR FOR USE WITH STEEL STRAIN POLE, WOOD POST, PEDESTAL, AND WOOD POLE



R10-3e SIGN (9" X 15") FOR COUNTDOWN ONLY

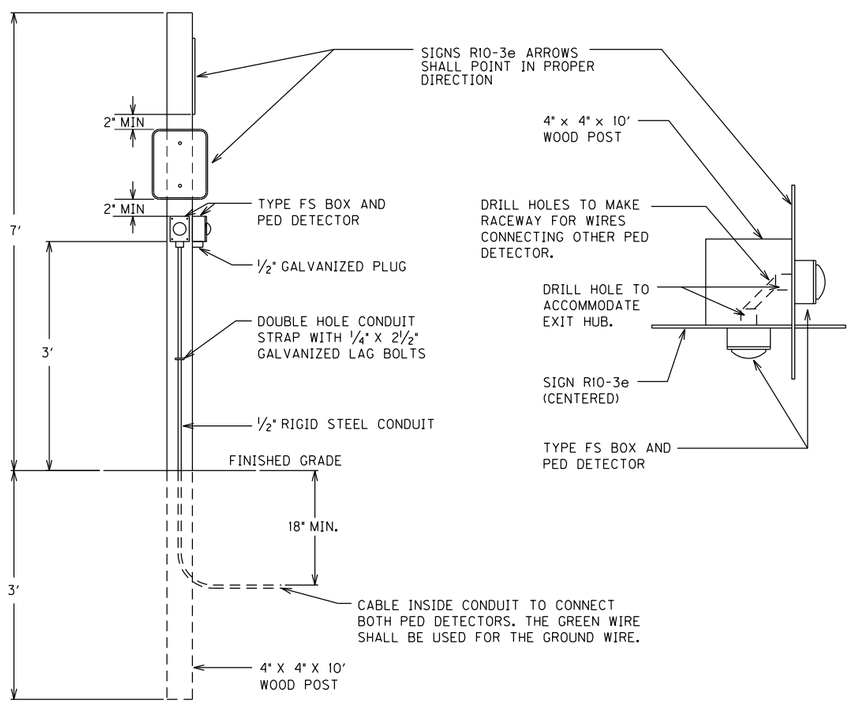


PED DETECTOR



PEDESTAL POST DETAIL FOR PED DETECTORS & SIGNS

#9 X 1 1/2" PAN HEAD OR ROUND HEAD WOOD SCREWS TO SECURE BOX TO POST. MINIMUM OF 2 SCREWS FOR EACH BOX. SCREWS SHALL BE INSTALLED DIAGONALLY.

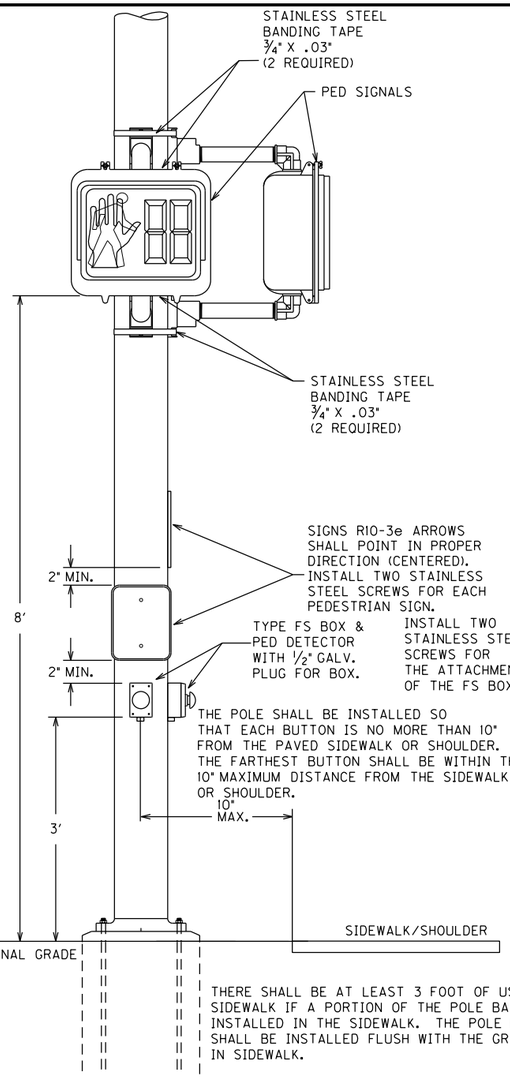


PED DETECTOR ON WOOD POST DETAIL

4/23/2020

PEDESTRIAN DETECTOR DETAIL

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T04



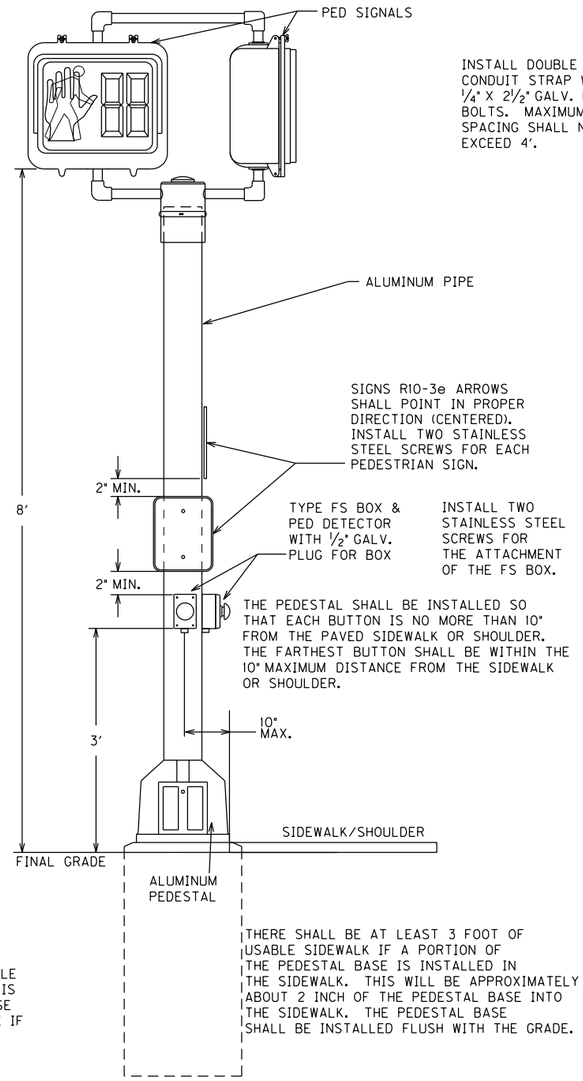
SEE POLE BASE DETAIL SHEET FOR CONCRETE BASE DETAIL AND GROUNDING DETAILS

CONTRACTOR SHALL DRILL HOLES IN THE STEEL STRAIN POLE AND THE TYPE FS BOX NOT EXCEEDING ½" IN DIAMETER. CONTRACTOR SHALL USE A ROUND FILE TO REMOVE ALL BURRS AND SHARP EDGES FORM THE HOLES. WIRES SHALL BE PROTECTED WITH HEAT SHRINK TUBING OR VINYL TAPE WHERE THEY PASS THROUGH THE HOLES.

STEEL STRAIN POLE DETAIL FOR PED DETECTORS AND PED SIGNALS

NOTE:

ALL GROUNDING AND SPARE CONDUITS THAT ARE INSTALLED IN THE CONCRETE PEDESTAL POLE BASE ARE INCIDENTAL TO BID ITEM "23222EC". THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE CONCRETE BASE. AN ARROW SHALL BE ETCHED INTO THE TOP OF THE PEDESTAL BASE TO SHOW LOCATION AND DIRECTION OF THE SPARE CONDUIT.



SEE PEDESTAL POLE BASE DETAIL FOR CONCRETE BASE DETAIL AND GROUNDING DETAILS

CONTRACTOR SHALL DRILL HOLES IN THE PIPE AND THE TYPE FS BOX NOT EXCEEDING ½" IN DIAMETER. CONTRACTOR SHALL USE A ROUND FILE TO REMOVE ALL BURRS AND SHARP EDGES FROM THE HOLES. WIRES SHALL BE PROTECTED WITH HEAT SHRINK TUBING OR VINYL TAPE WHERE THEY PASS THROUGH THE HOLES.

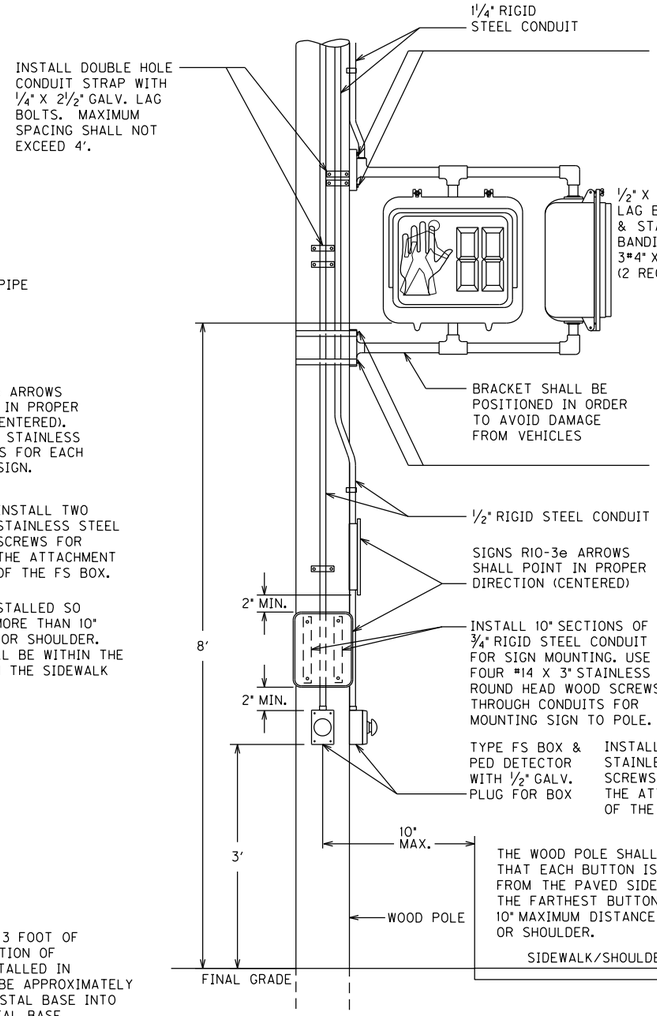
PEDESTAL POLE DETAIL FOR PED DETECTORS AND PED SIGNALS

GROUNDING REQUIREMENTS:

CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO THE TRANSFORMER BASE.

LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.

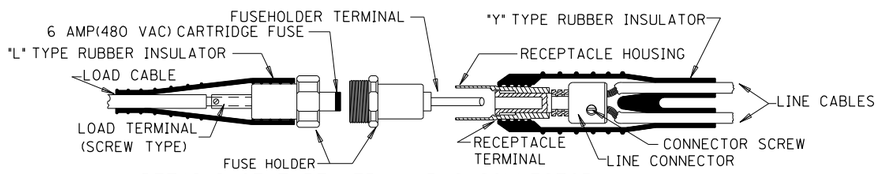
PEDESTAL POLE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO A GROUND LUG ON THE TRANSFORMER BASE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.
ALL GROUND RODS SHALL BE 24" FROM THE CONCRETE POLE BASE.



#9 X 1½" STAINLESS STEEL PAN HEAD OR ROUND HEAD WOOD SCREWS SHALL BE USED TO SECURE TYPE FS BOX TO POLE. A MINIMUM OF 2 SCREWS PER BOX, INSTALLED DIAGONALLY, SHALL BE USED.

WOOD POLE DETAIL FOR PED DETECTORS AND PED SIGNALS

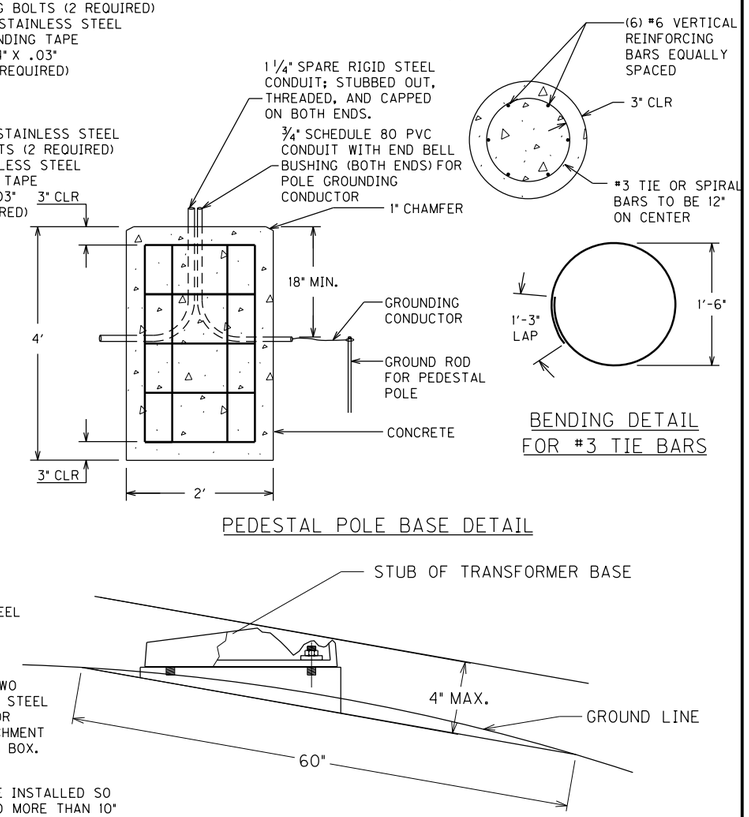
BREAKAWAY FUSE CONNECTOR KIT



DETAILS OF TYPE HEB-JW-RYC CONNECTOR

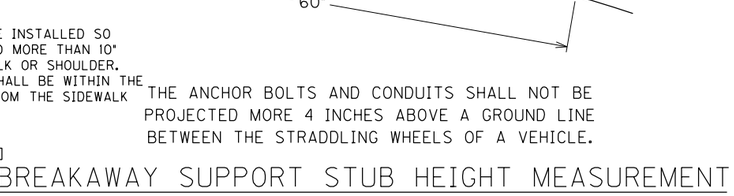
TYPE HEB-JW-RYC CONNECTOR SHOWN

SPECIAL NOTE FOR THE TRANSFORMER BASE: FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRAIN HEADS AND SIGNALS HEADS. PEDESTRAIN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICESIN THE TRANSFORMER BASE. THERE SHALL BEA METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.



BENDING DETAIL FOR #3 TIE BARS

PEDESTAL POLE BASE DETAIL



THE ANCHOR BOLTS AND CONDUITS SHALL NOT BE PROJECTED MORE 4 INCHES ABOVE A GROUND LINE BETWEEN THE STRADDLING WHEELS OF A VEHICLE.

BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT

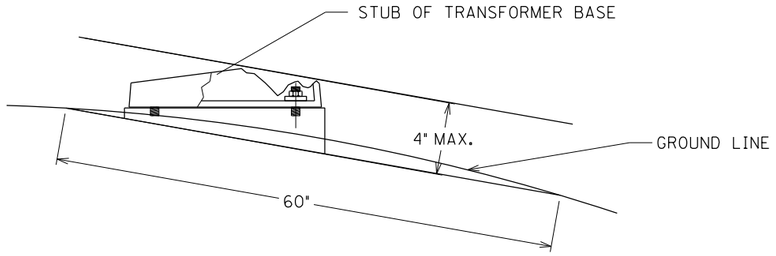
NOTE:
THE PEDESTAL BASE DOOR SHALL HAVE A 4" BY 6" SHOCK HAZARD WARNING STICKER INSTALL 3" FROM THE TOP OF THE DOOR. THE STICKER SHALL BE METALCRAFT PLY695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBONATE MATERIAL, AND WITH MC53FL PRESSURE SENSITIVE ADHESIVE OR APPROVAL EQUAL. THIS SHALL BE INCIDENTAL TO THE PROJECT.

SPECIAL NOTE FOR THE TRANSFORMER BASE:
FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:
VOLTAGE (120 VOLT)
GLOVE CLASS (0)
LIMITED APPROACH BOUNDARY (42 IN)
RESTRICTED APPROACH BOUNDARY (CONTACT)
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

PEDESTRIAN SIGNAL COUNTDOWN DETAIL

FILE NAME: C:\PW_WORKDIR\PEWIN_DAWN-S\DMS4881\T4.DGN
USER: down-s
DATE PLOTTED: September 11, 2020
E-SHEET NAME:
MicroStation v8.11.9.832
4/28/2020

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T05



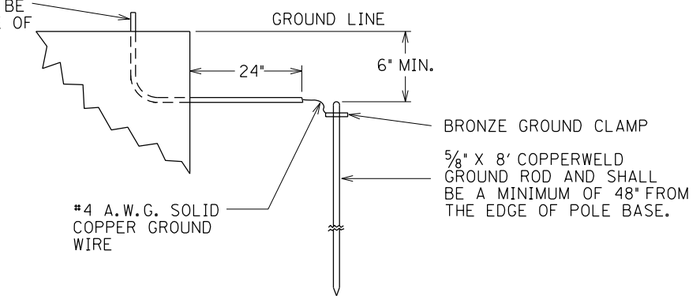
THE ANCHOR BOLTS AND CONDUITS SHALL NOT BE PROJECTED MORE 4 INCHES ABOVE A GROUND LINE BETWEEN THE STRADDLING WHEELS OF A VEHICLE.

BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT

DUCTED CABLE INSTALLED THROUGH 3" CONDUIT CROSSINGS TO LUMINAIRE POLE BASE: INSTALL DUCTED CABLE INTO THE POLE BASE. THE DUCT SHOULD BE EXTENDED 1" ABOVE THE CONDUIT. THE CONDUIT SWEEP SHOULD BE INSTALL ACCORDING TO THE MANUFACTURER OF THE DUCTED CABLE TO PREVENT THE DUCTED CABLE FROM CRIMPING.

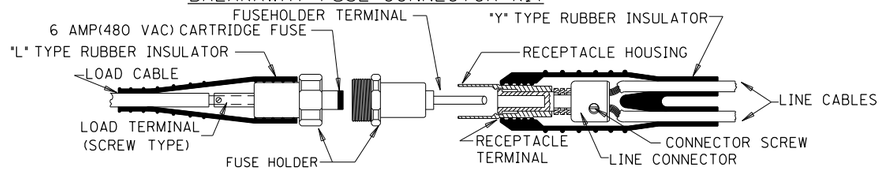
IF DUCTED CABLE INSTALLED BETWEEN POLE BASES:
INSTALL RIGID STEEL/DUCTED CABLE COUPLING. USE BONDUIT CONDUIT ADHESIVE OR APPROVED EQUAL TO CONNECT THE RIGID STEEL TO DUCTED CABLE. RACEWAYS SHALL BE THE SAME SIZE AS THE DUCTED CABLE WHICH ATTACHS TO THE RIGID STEEL CONDUIT. ALTERNATELY IF DUCTED CABLE IS USED, THE CONTRACTOR CAN INSTALL RIGID STEEL CONDUIT TWO TIMES THE SIZE OF THE DUCT AND RUN THE DUCT INSIDE THIS CONDUIT. THE SWEEP FOR THE CONDUIT SHALL BE INCREASED TO ADHERE TO THE BENDING RADIUS RECOMMENDED BY THE MANUFACTURER OF THE DUCT.

GROUNDING DETAIL

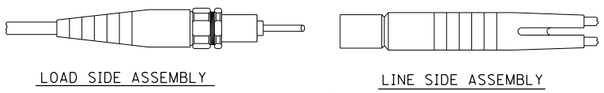


SPECIAL NOTE FOR THE TRANSFORMER BASE: FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRAIN HEADS AND SIGNALS HEADS. PEDESTRAIN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BEA METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

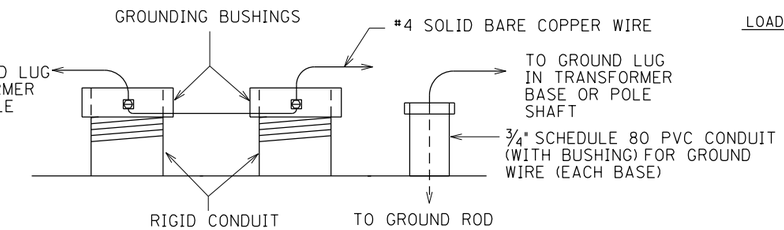
BREAKAWAY FUSE CONNECTOR KIT



DETAILS OF TYPE HEB-JW-RYC CONNECTOR



TYPE HEB-JW-RYC CONNECTOR SHOWN



TYPICAL GROUNDING DETAIL

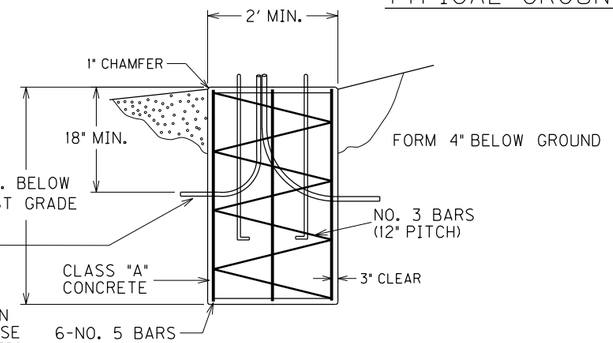
GROUNDING REQUIREMENTS:

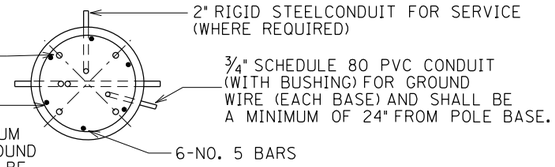
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO TRANSFORMER BASE.

POLE/TRANSFORMER BASE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE TRANSFORMER BASE/POLE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.

NOTES:

ALL CONDUITS USED FOR THE GROUNDING, SPARES AND CONDUCTORS THAT ARE INSTALLED IN THE POLE BASE ARE INCIDENTAL TO BID ITEM "4740". THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT PAST THE EDGE OF THE POLE BASE.

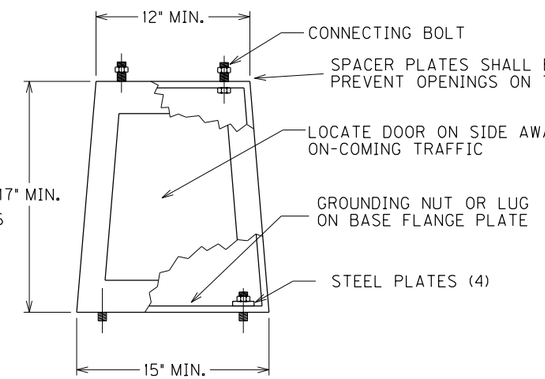




ALL POLE BASES SHALL HAVE A MINIMUM OF TWO CONDUITS (NOT INCLUDING GROUND CONDUIT). THE SPARE CONDUIT SHALL BE 180 DEGREE FROM THE CONDUIT FOR THE CONDUCTORS.

NOTE: PRECAST CONCRETE BASES ARE NOT ACCEPTABLE

FOUNDATION DETAIL

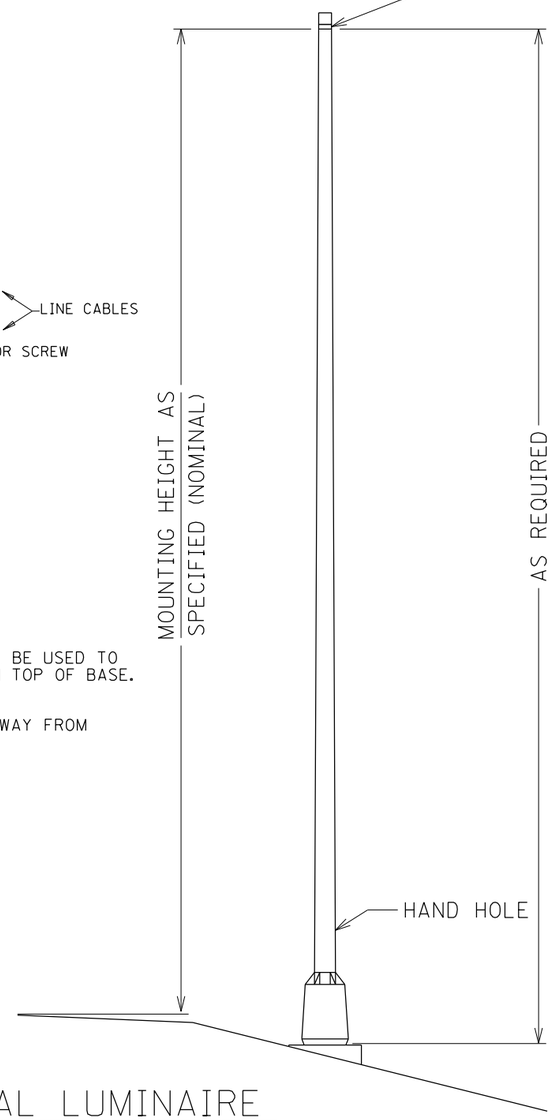


CONCRETE BASES SHALL BE POURED LEVEL. NO MORE THAN A ⅜" GAP SHALL EXIST BETWEEN CONCRETE BASE AND TRANSFORMER BASE WHEN THE POLE IS PLUMBED.

TYPICAL CAST ALUMINUM TRANSFORMER BASE

NOTE:
THE TRANSFORMER BASE DOOR SHALL HAVE A 4" BY 6" SHOCK HAZARD WARNING STICKER INSTALL 3" FROM THE TOP OF THE DOOR. THE STICKER SHALL BE METALCRAFT PLY695 PREM STYLEMARK LABEL WITH .007 THICKNESS, WITH UV WHITE POLYCARBINATE MATERIAL, AND WITH MC53FL PRESSURE SENSTIVE ADHESIVE OR APPROVAL EQUAL. THIS SHALL BE INCIDENTAL TO PROJECT.

ALUMINUM POLE CAP WITH STAINLESS STEEL SET SCREWS

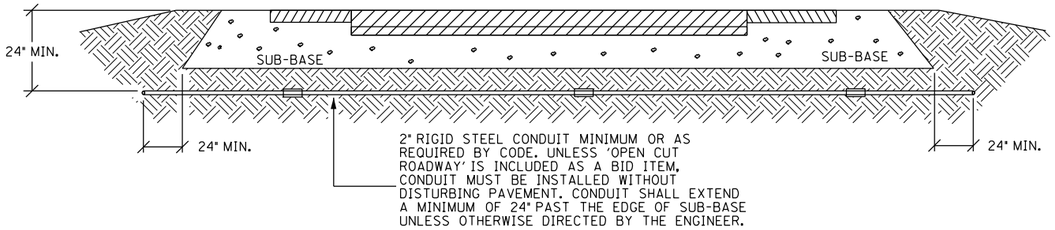


SIGNAL LUMINAIRE

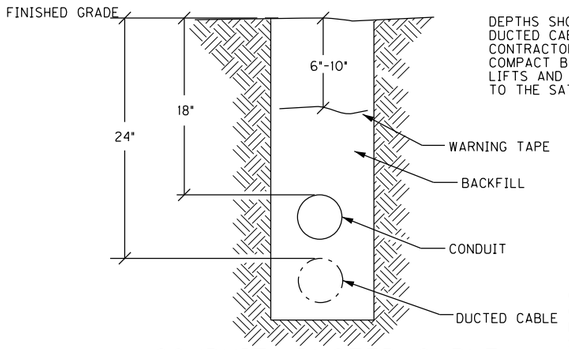
SPECIAL NOTE FOR THE TRANSFORMER BASE:
FURNISH A SHOCK HAZARD WARNING STICKER ON DISCONNECT WITH THE FOLLOWING INFORMATION:
VOLTAGE (120 VOLT)
GLOVE CLASS (0)
LIMITED APPROACH BOUNDARY (42 IN)
RESTRICTED APPROACH BOUNDARY (CONTACT)
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED

SIGNAL
TRANSFORMER BASE DETAIL

4/28/2020



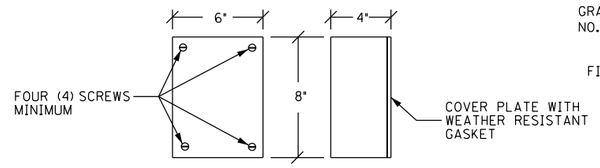
CONDUIT INSTALLATION UNDER EXISTING PAVEMENT DETAIL



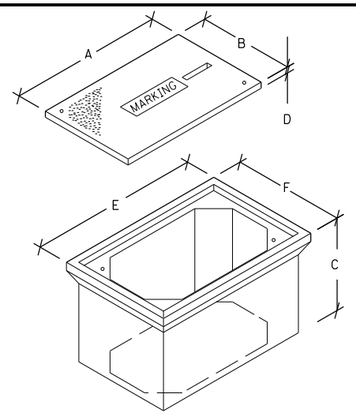
DEPTHS SHOWN FOR CONDUIT AND DUCTED CABLE ARE MINIMUMS. CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN 9" MAXIMUM LIFTS AND RETORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER.

CONDUIT, DUCTED CABLE, AND WARNING TAPE TRENCH

ABOVE GROUND BOX SHALL BE FABRICATED FROM MINIMUM 12 GAUGE STEEL AND GALVANIZED AFTER FABRICATION. BOXES SHALL HAVE NO KNOCKOUTS AND SHALL BE PROVIDED WITH A PLATE COVER WITH A WEATHER RESISTANT GASKET AND A MINIMUM OF FOUR SCREWS FOR ATTACHING THE PLATE COVER TO THE BOX. CABLE CLAMPS SHALL BE PROVIDED FOR CABLES ENTERING AND EXITING THE BOX.

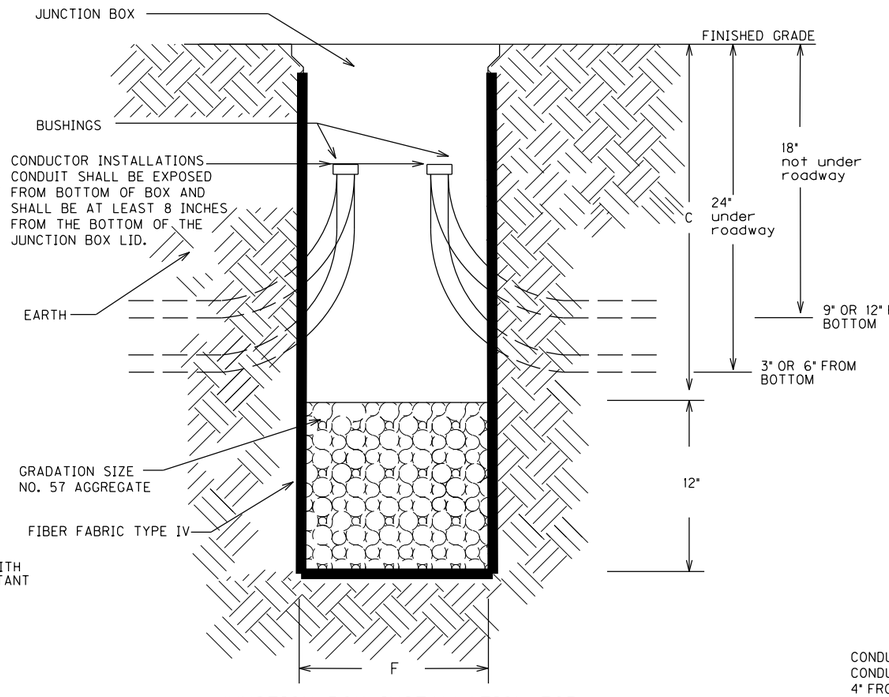


ABOVE GROUND BOX



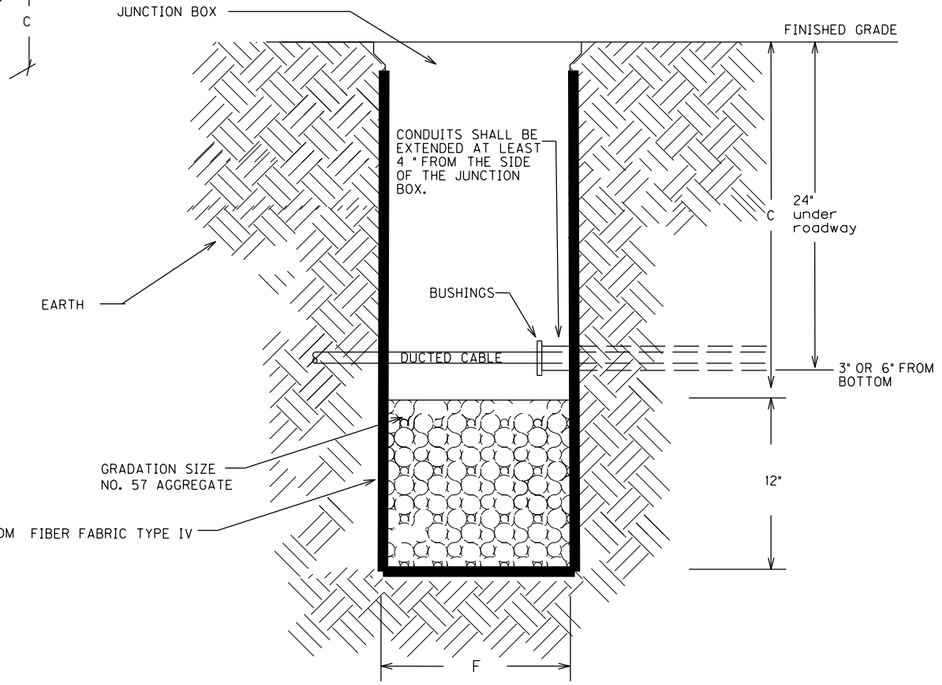
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1¾" •	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

• MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED

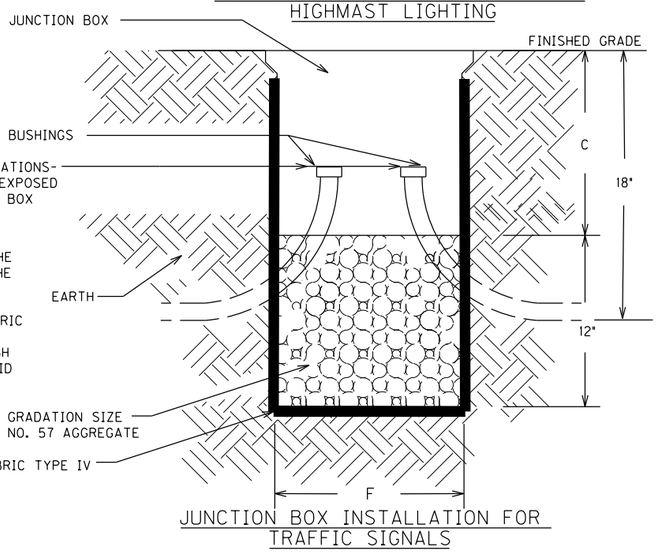


JUNCTION BOX INSTALLATION FOR CONVENTIONAL LIGHTING

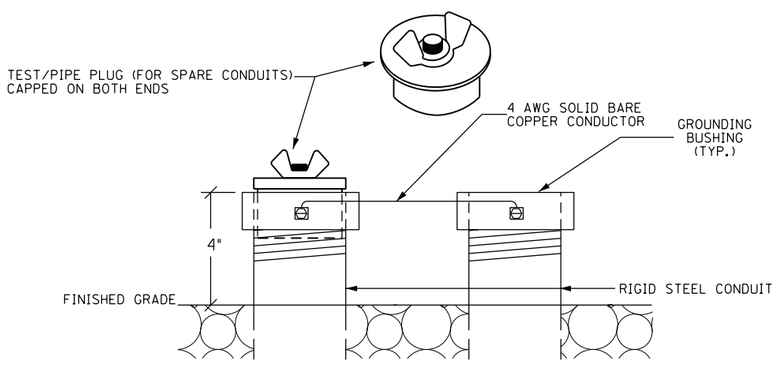
BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE "X CUT" ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 20392NS835.



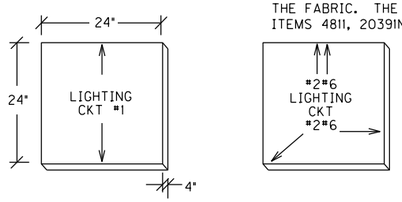
JUNCTION BOX INSTALLATION FOR HIGHMAST LIGHTING



JUNCTION BOX INSTALLATION FOR TRAFFIC SIGNALS



TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL



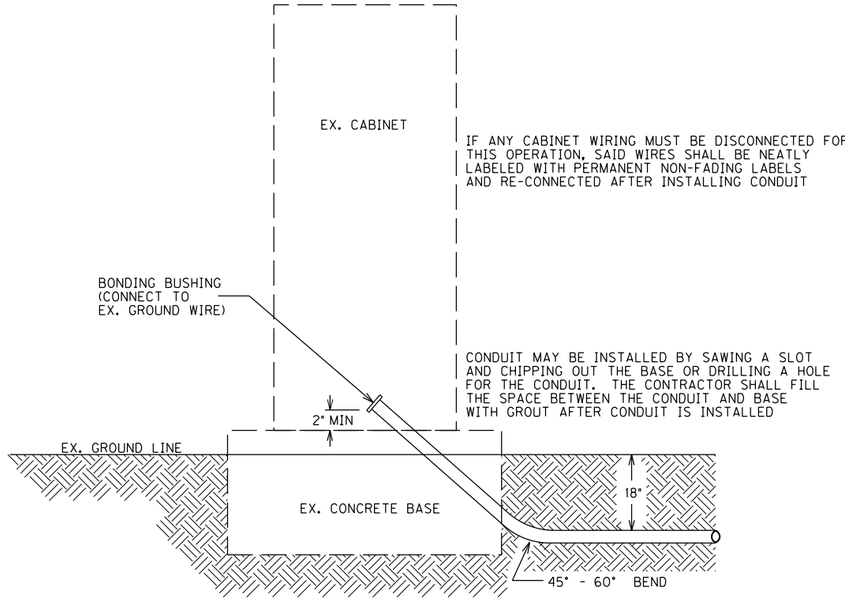
CONCRETE CABLE MARKERS

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T06

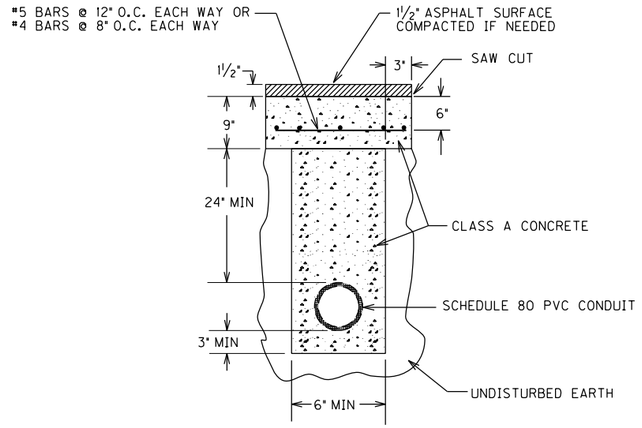
TRAFFIC SIGNAL AND ROADWAY LIGHTING JUNCTION BOX AND CONDUIT DETAILS

3/13/2017

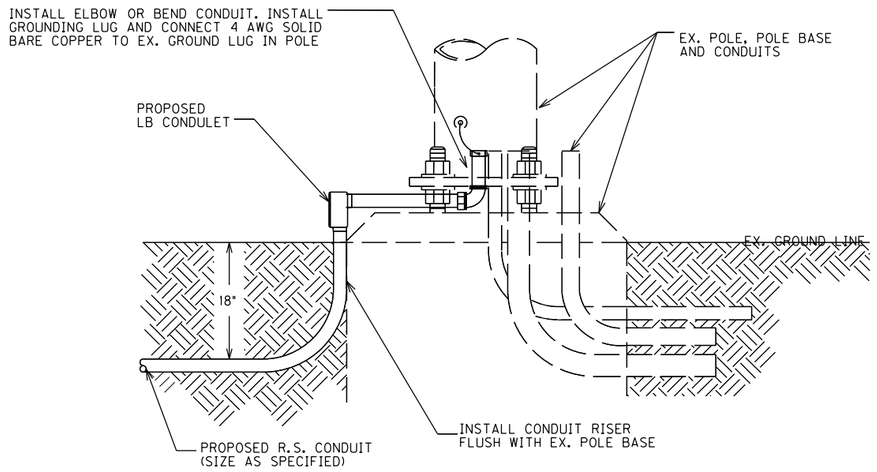
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T07



CONDUIT INSTALLATION IN EX. CABINET BASE



OPEN CUT PAVEMENT DETAIL



CONDUIT INSTALLATION IN EX. POLE BASE

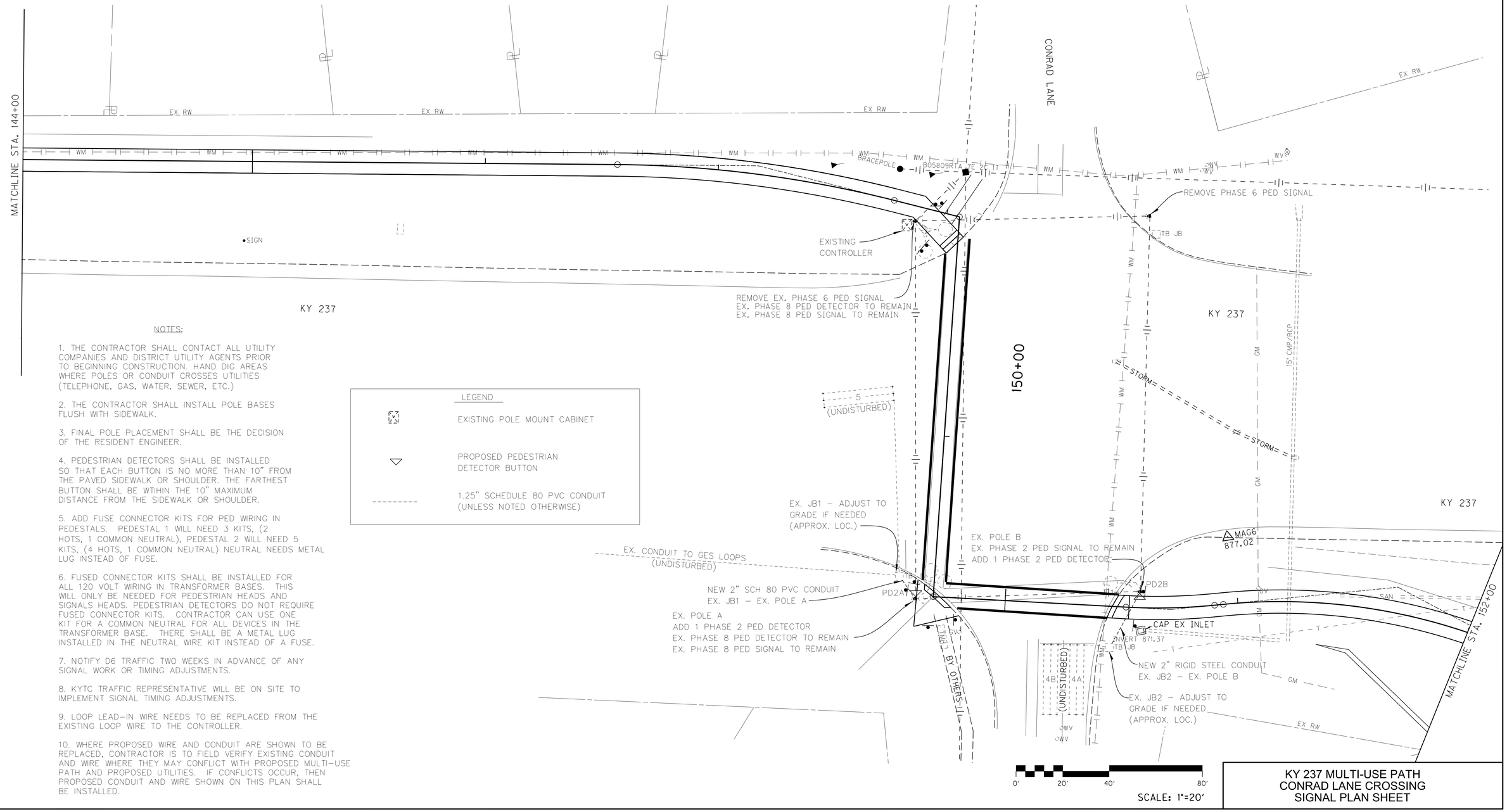
CONDUIT INSTALLATIONS IN EXISTING LOCATIONS

3/10/2017

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T08

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
1–#14/7C	EX. CONTROLLER	PD 2A	PD #2A
1–#14/7C	EX. CONTROLLER	PD 2B	PD #2B
1–#14/1 PAIR	EX. CONTROLLER	EX JB1	LOOP 5
2–#14/1 PAIR	EX. CONTROLLER	EX JB1	GES LOOPS 2A, 2B
2–#14/1 PAIR	EX. CONTROLLER	EX JB1	GES LOOPS 2C, 2D
2–#14/1 PAIR	EX. CONTROLLER	EX JB2	LOOPS 4A, 4B



NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)

2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.

3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.

4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.

5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 WILL NEED 3 KITS, (2 HOTS, 1 COMMON NEUTRAL), PEDESTAL 2 WILL NEED 5 KITS, (4 HOTS, 1 COMMON NEUTRAL) NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.

6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.

8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

9. LOOP LEAD–IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.

10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED MULTI–USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

LEGEND

- EXISTING POLE MOUNT CABINET
- PROPOSED PEDESTRIAN DETECTOR BUTTON
- 1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)

KY 237 MULTI-USE PATH
CONRAD LANE CROSSING
SIGNAL PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T09

SIGNAL HEADS

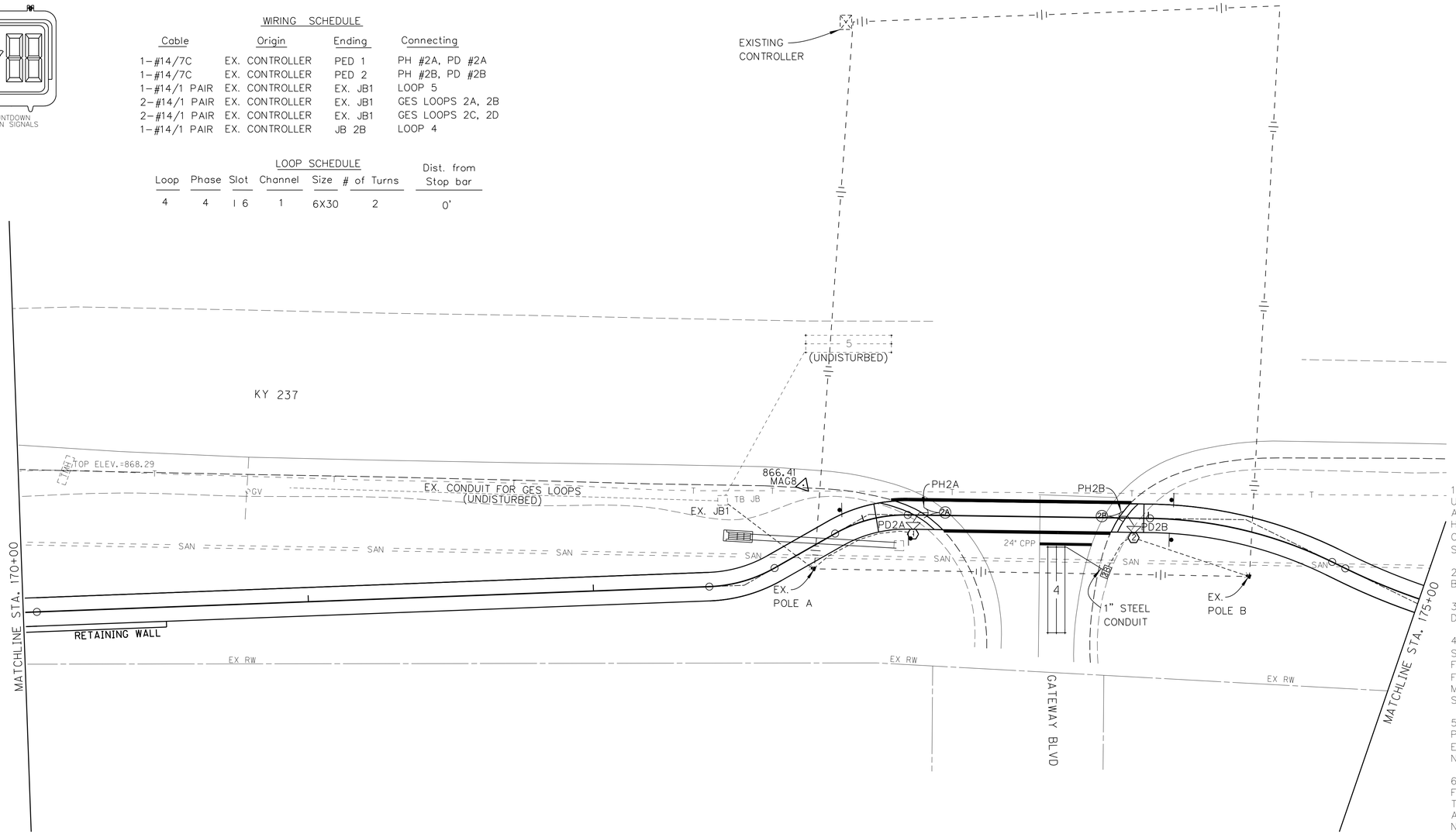
ALL COUNTDOWN PEDESTRIAN SIGNALS

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
1-#14/7C	EX. CONTROLLER	PED 1	PH #2A, PD #2A
1-#14/7C	EX. CONTROLLER	PED 2	PH #2B, PD #2B
1-#14/1 PAIR	EX. CONTROLLER	EX. JB1	LOOP 5
2-#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2A, 2B
2-#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2C, 2D
1-#14/1 PAIR	EX. CONTROLLER	JB 2B	LOOP 4

LOOP SCHEDULE

Loop	Phase	Slot	Channel	Size	# of Turns	Dist. from Stop bar
4	4	16	1	6X30	2	0'



LEGEND

- EXISTING POLE MOUNT CABINET
- PROPOSED PEDESTAL W/ PED BUTTON(S)
- 1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)
- QUADRAPOLE LOOP DETECTOR
- JB — JUNCTION BOX TYPE B

-INSTALL PEDESTAL 1 (STA. 173+18, 7' RT.)
-INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 1
-INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 1
-INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 1 TO EX. POLE A
-INSTALL 2" RIGID STEEL CONDUIT FROM EX. JB1 TO EX. POLE A
-SPLICE LOOP WIRE AND ADD EXISTING 14/1 PAIR TO 5-PAIR LOOP LEAD-INS INSIDE EX. JB1
-INSTALL PEDESTAL 2 (STA. 173+95, 7' RT.)
-INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 2
-INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 2
-INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 2 TO EX. POLE B
-INSTALL JB 2B
-INSTALL 1" RIGID STEEL CONDUIT FROM EDGE OF PAVEMENT TO JB 2B
-INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM JB 2B TO PEDESTAL 2
-SPLICE LOOP WIRE TO 1-PAIR LOOP LEAD-IN INSIDE JB 2B

NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)

2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.

3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.

4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.

5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 AND 2 WILL NEED 3 KITS EACH, (2 HOTS, 1 COMMON NEUTRAL), NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.

6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.

8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

9. LOOP LEAD-IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.

10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED MULTI-USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

0' 20' 40' 80'

SCALE: 1"=20'

KY 237 MULTI-USE PATH
GATEWAY BOULEVARD CROSSING
SIGNAL PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T10

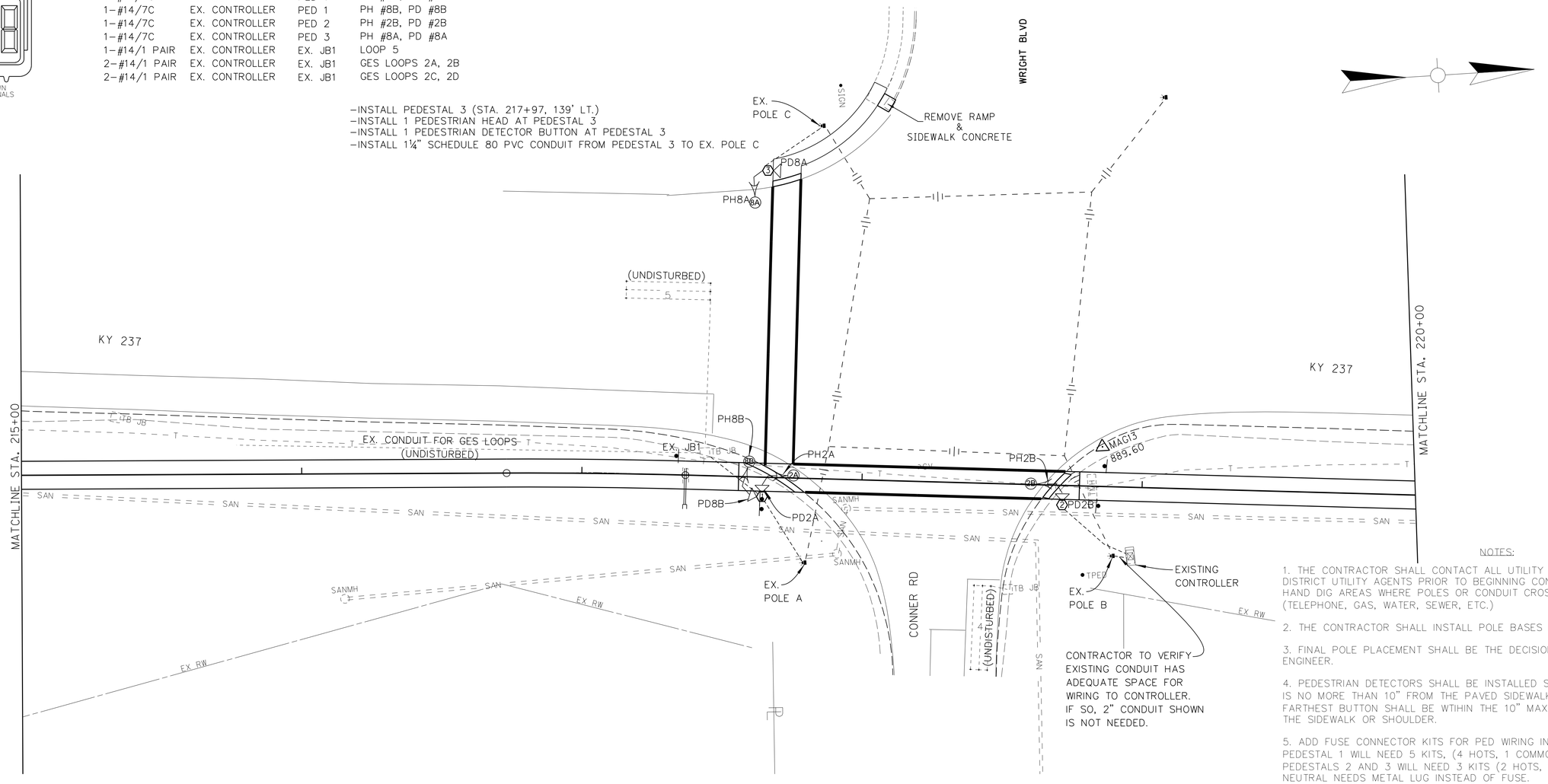
SIGNAL HEADS

ALL COUNTDOWN PEDESTRIAN SIGNALS

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
1–#14/7C	EX. CONTROLLER	PED 1	PH #2A, PD #2A
1–#14/7C	EX. CONTROLLER	PED 1	PH #8B, PD #8B
1–#14/7C	EX. CONTROLLER	PED 2	PH #2B, PD #2B
1–#14/7C	EX. CONTROLLER	PED 3	PH #8A, PD #8A
1–#14/1 PAIR	EX. CONTROLLER	EX. JB1	LOOP 5
2–#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2A, 2B
2–#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2C, 2D

–INSTALL PEDESTAL 3 (STA. 217+97, 139' LT.)
–INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 3
–INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 3
–INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 3 TO EX. POLE C



–INSTALL PEDESTAL 1 (STA. 217+65, 7' RT.)
–INSTALL 2 PEDESTRIAN HEADS AT PEDESTAL 1
–INSTALL 2 PEDESTRIAN DETECTOR BUTTONS AT PEDESTAL 1
–INSTALL 2" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 1 TO EX. POLE A
–INSTALL 2" RIGID STEEL CONDUIT FROM EX. JB1 TO PEDESTAL 1
–SPLICE LOOP WIRE AND EXISTING 14/1 PAIR TO 5–PAIR LOOP LEAD–INS INSIDE EX. JB1
–INSTALL PEDESTAL 2 (STA. 218+72, 7' RT.)
–INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 2
–INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 2
–INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 2 TO EXISTING CONTROLLER
–INSTALL 2" SCHEDULE 80 PVC CONDUIT FROM EX. POLE B TO EXISTING CONTROLLER

LEGEND

- EXISTING BASE MOUNT CABINET
- PROPOSED PEDESTAL W/ PED BUTTON(S)
- 1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)

NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)
2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.
3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.
4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.
5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 WILL NEED 5 KITS, (4 HOTS, 1 COMMON NEUTRAL), PEDESTALS 2 AND 3 WILL NEED 3 KITS (2 HOTS, 1 COMMON NEUTRAL), NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.
6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORME BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.
7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.
8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.
9. LOOP LEAD–IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.
10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

0' 20' 40' 80'

SCALE: 1"=20'

KY 237 MULTI-USE PATH
CONNER ROAD CROSSING
SIGNAL PLAN SHEET

FILE NAME: C:\PW_WORKDIR\PEYVIN_DAWN-SIDMS48811\T10.DGN
USER: dawn-s
DATE PLOTTED: June 22, 2021
E-SHEET NAME:
MicroStation v8.11.9.536

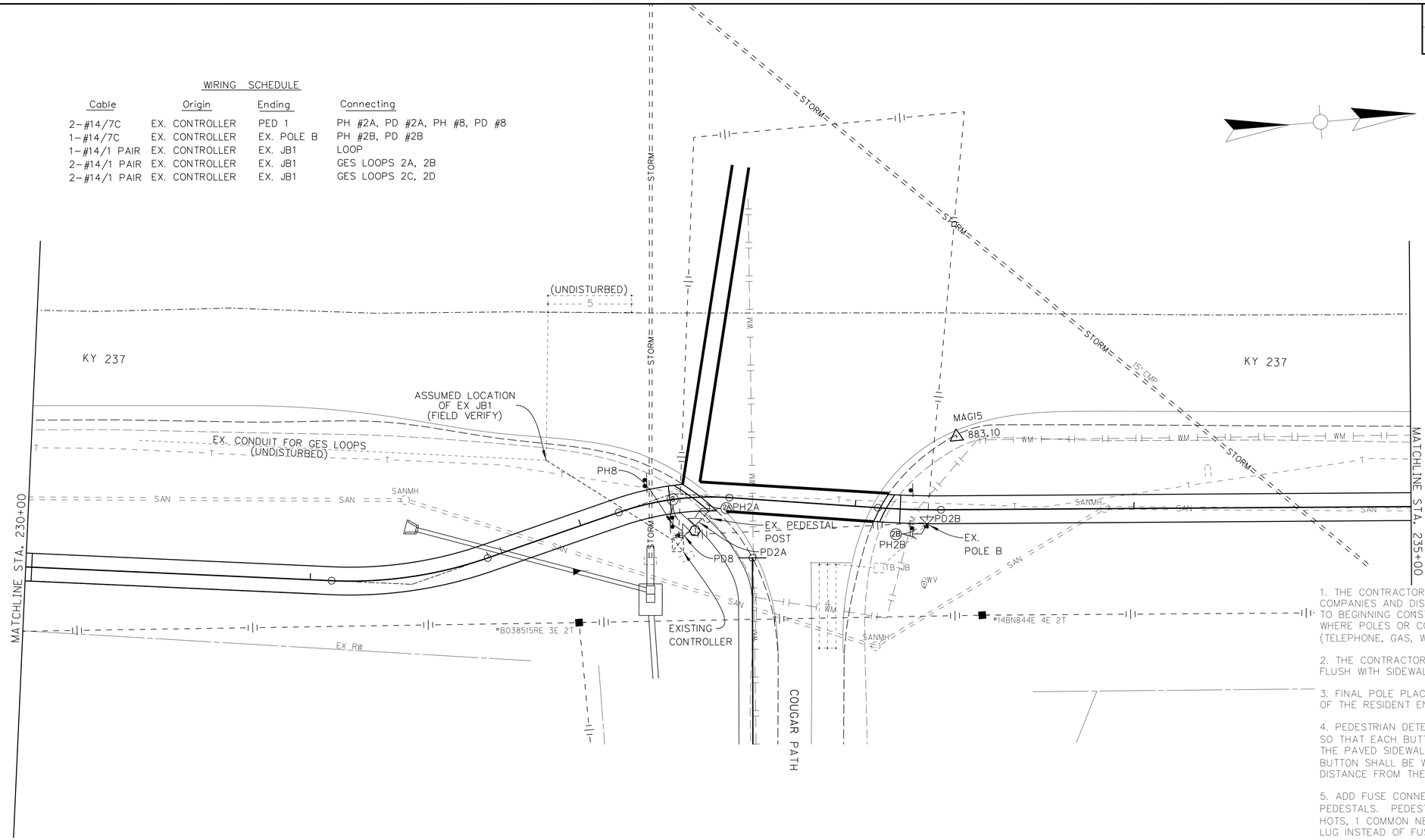
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T11

SIGNAL HEADS


ALL COUNTDOWN PEDESTRIAN SIGNALS

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
2-#14/7C	EX. CONTROLLER	PED 1	PH #2A, PD #2A, PH #8, PD #8
1-#14/7C	EX. CONTROLLER	EX. POLE B	PH #2B, PD #2B
1-#14/1 PAIR	EX. CONTROLLER	EX. JB1	LOOP
2-#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2A, 2B
2-#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2C, 2D



-REMOVE, AND REUSE, IF POSSIBLE, THE EXISTING PEDESTAL POST, PEDESTRIAN LIGHT,SIGNAGE, ETC. FOR NORTH BOUND CROSSWALK. CONTRACTOR TO PROVIDE ANCHOR BOLTS IF PEDESTAL IS RELOCATED.
-INSTALL PEDESTAL 1 (STA. 232+47, 7' RT.)
-FIELD VERIFY EX. JB1 LOCATION
-INSTALL 2" RIGID STEEL CONDUIT FROM EX. JB1 TO CONTROLLER
-SPLICE LOOP WIRE AND EXISTING 14/1 PAIR WIRE TO 5-PAIR LOOP LEAD-INS INSIDE EX. JB1
-INSTALL 2 PEDESTRIAN HEADS AT PEDESTAL 1
-INSTALL 2 PEDESTRIAN DETECTOR BUTTONS AT PEDESTAL 1
-INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 1 TO EX. POLE A
-INSTALL 1 PEDESTRIAN HEAD AT EXISTING POLE B
-INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT EXISTING POLE B

LEGEND

⊠	EXISTING POLE MOUNT CABINET
○	EXISTING PEDESTAL
②	PROPOSED PEDESTAL W/ PED BUTTON(S)
---------	1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)

NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)

2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.

3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.

4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.

5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 WILL NEED 5 KITS, (4 HOTS, 1 COMMON NEUTRAL), NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.

6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.

8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

9. LOOP LEAD-IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.

10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED MULTI-USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

0' 20' 40' 80'
SCALE: 1"=20'

KY 237 MULTI-USE PATH
COUGAR PATH CROSSING
SIGNAL PLAN SHEET

FILE NAME: C:\PW_WORKDIR\PEWIN_DAWN-S\DMS48811\T11.DGN
USER: dawn-s
DATE PLOTTED: June 22, 2021
E-SHEET NAME:
MicroStation v8.11.9.536

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T12

SIGNAL HEADS

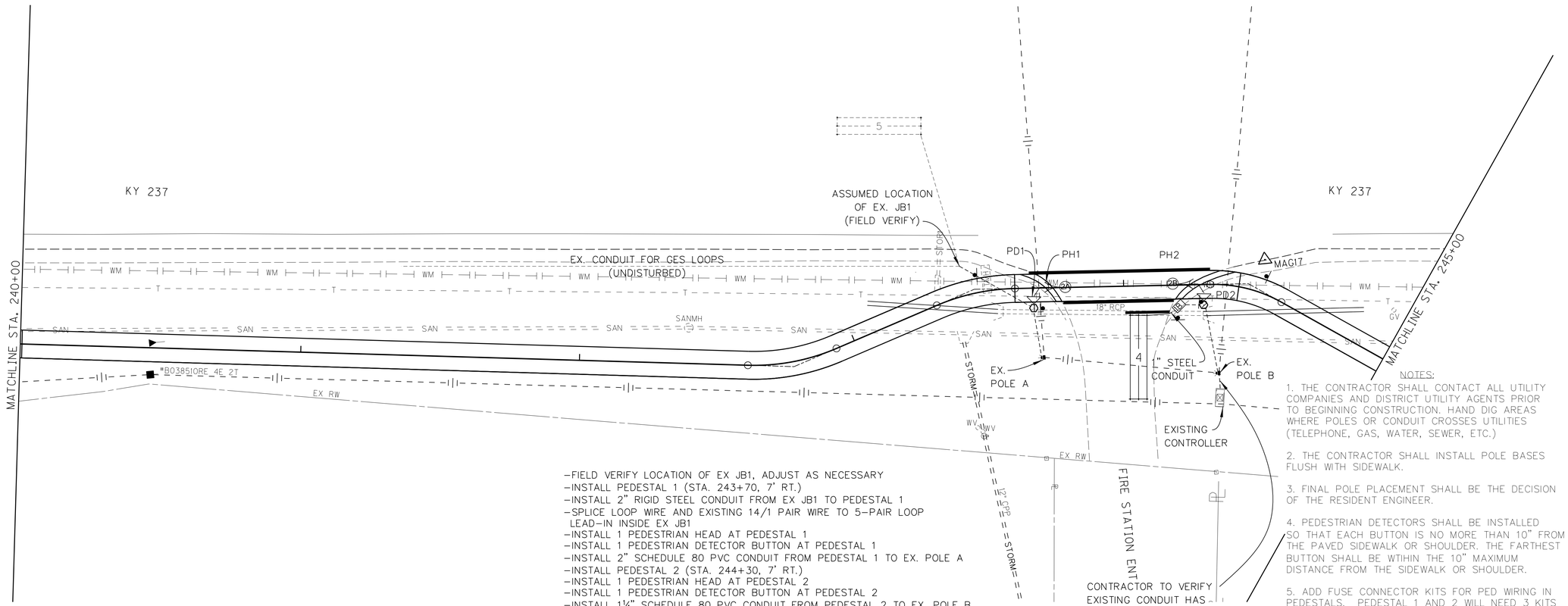
ALL COUNTDOWN PEDESTRIAN SIGNALS

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
1–#14/7C	EX. CONTROLLER	PED 1	PH #1, PD #1
1–#14/7C	EX. CONTROLLER	PED 2	PH #2, PD #2
2–#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2A, 2B
2–#14/1 PAIR	EX. CONTROLLER	EX. JB1	GES LOOPS 2C, 2D
1–#14/1 PAIR	EX. CONTROLLER	EX. JB1	LOOP 5
1–#14/1 PAIR	EX. CONTROLLER	JB 2	LOOP 4

LOOP SCHEDULE

Loop	Phase	Slot	Channel	Size	# of Turns	Dist. from Stop bar
4	4	I 6	1	6X30	2	0'



- FIELD VERIFY LOCATION OF EX JB1, ADJUST AS NECESSARY
- INSTALL PEDESTAL 1 (STA. 243+70, 7' RT.)
- INSTALL 2" RIGID STEEL CONDUIT FROM EX JB1 TO PEDESTAL 1
- SPLICE LOOP WIRE AND EXISTING 14/1 PAIR WIRE TO 5-PAIR LOOP LEAD-IN INSIDE EX JB1
- INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 1
- INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 1
- INSTALL 2" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 1 TO EX. POLE A
- INSTALL PEDESTAL 2 (STA. 244+30, 7' RT.)
- INSTALL 1 PEDESTRIAN HEAD AT PEDESTAL 2
- INSTALL 1 PEDESTRIAN DETECTOR BUTTON AT PEDESTAL 2
- INSTALL 1¼" SCHEDULE 80 PVC CONDUIT FROM PEDESTAL 2 TO EX. POLE B
- INSTALL 2" SCHEDULE 80 PVC CONDUIT FROM EX. POLE B TO EX. CONTROLLER
- INSTALL JB 2B
- INSTALL 1" RIGID STEEL CONDUIT FROM EDGE OF PAVEMENT TO JB2B
- SPLICE LOOP WIRE TO 1-PAIR LOOP LEAD-IN INSIDE JB2B

CONTRACTOR TO VERIFY EXISTING CONDUIT HAS ADEQUATE SPACE FOR WIRING TO CONTROLLER. IF SO, 2" CONDUIT SHOWN IS NOT NEEDED.

LEGEND

- EXISTING BASE MOUNT CABINET
- PROPOSED PEDESTAL W/ PED BUTTON(S)
- 1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)
- QUADRAPOLE LOOP DETECTOR
- JUNCTION BOX TYPE B

NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)
2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.
3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.
4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.
5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 AND 2 WILL NEED 3 KITS EACH, (2 HOTS, 1 COMMON NEUTRAL), NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.
6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.
7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.
8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.
9. LOOP LEAD-IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.
10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSE MULTI-USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

0' 20' 40' 80'

SCALE: 1"=20'

KY 237 MULTI-USE PATH
HEBRON FIRE DEPARTMENT ENTRANCE
SIGNAL PLAN SHEET

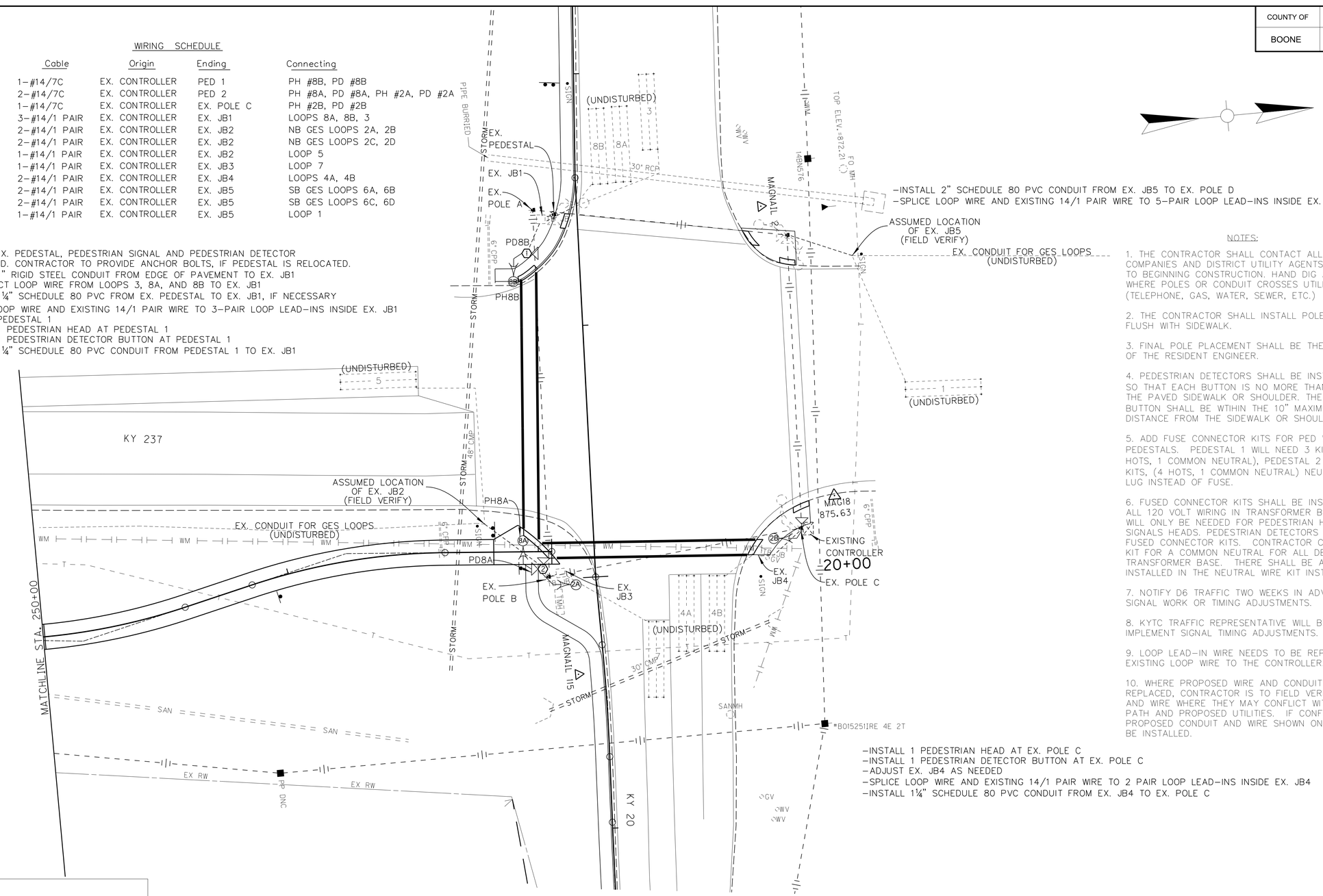
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T13

SIGNAL HEADS

ALL COUNTDOWN PEDESTRIAN SIGNALS

WIRING SCHEDULE

Cable	Origin	Ending	Connecting
1–#14/7C	EX. CONTROLLER	PED 1	PH #8B, PD #8B
2–#14/7C	EX. CONTROLLER	PED 2	PH #8A, PD #8A, PH #2A, PD #2A
1–#14/7C	EX. CONTROLLER	EX. POLE C	PH #2B, PD #2B
3–#14/1 PAIR	EX. CONTROLLER	EX. JB1	LOOPS 8A, 8B, 3
2–#14/1 PAIR	EX. CONTROLLER	EX. JB2	NB GES LOOPS 2A, 2B
2–#14/1 PAIR	EX. CONTROLLER	EX. JB2	NB GES LOOPS 2C, 2D
1–#14/1 PAIR	EX. CONTROLLER	EX. JB2	LOOP 5
1–#14/1 PAIR	EX. CONTROLLER	EX. JB3	LOOP 7
2–#14/1 PAIR	EX. CONTROLLER	EX. JB4	LOOPS 4A, 4B
2–#14/1 PAIR	EX. CONTROLLER	EX. JB5	SB GES LOOPS 6A, 6B
2–#14/1 PAIR	EX. CONTROLLER	EX. JB5	SB GES LOOPS 6C, 6D
1–#14/1 PAIR	EX. CONTROLLER	EX. JB5	LOOP 1



NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)

2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.

3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.

4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.

5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 WILL NEED 3 KITS, (2 HOTS, 1 COMMON NEUTRAL), PEDESTAL 2 WILL NEED 5 KITS, (4 HOTS, 1 COMMON NEUTRAL) NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.

6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

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8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

9. LOOP LEAD–IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.

10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED MULTI–USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

LEGEND

- EXISTING POLE MOUNT CABINET
- EXISTING PEDESTAL
- PROPOSED PEDESTAL W/ PED BUTTON(S)
- 1.25" SCHEDULE 80 PVC CONDUIT (UNLESS NOTED OTHERWISE)

0′ 20′ 40′ 80′

SCALE: 1"=20′

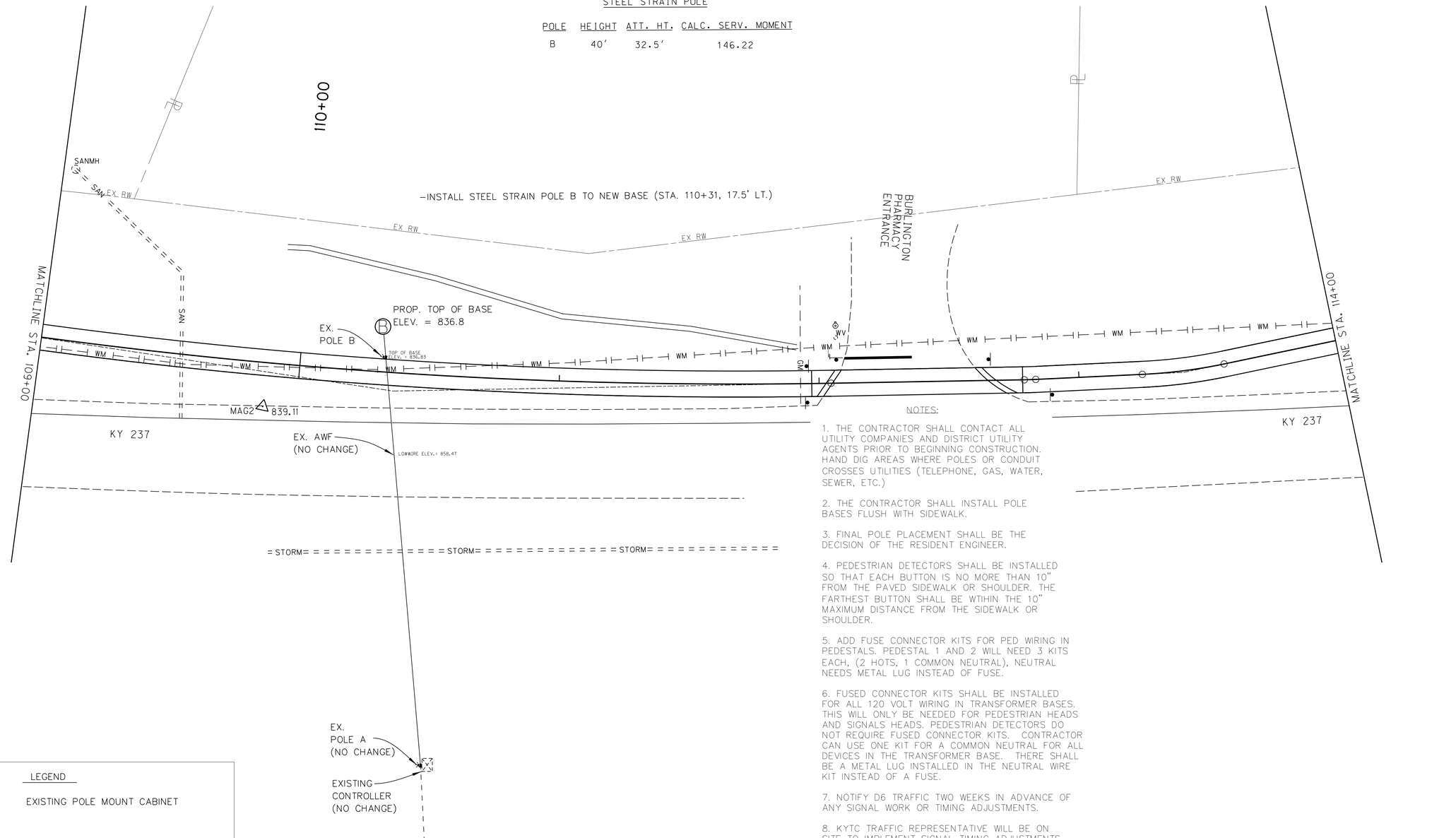
KY 237 MULTI-USE PATH
KY 20 (PETERSBURG RD) CROSSING
SIGNAL PLAN SHEET

FILE NAME: C:\PW_WORKDIR\PEWIN_DAWN-SIDMS488111T13.DGN
USER: dawn-s
DATE PLOTTED: June 22, 2021
E-SHEET NAME:
MicroStation v8.11.9.536

COUNTY OF	ITEM NO.	SHEET NO.
BOONE	6-440.00	T14

STEEL STRAIN POLE

POLE	HEIGHT	ATT. HT.	CALC. SERV. MOMENT
B	40'	32.5'	146.22



LEGEND

- EXISTING POLE MOUNT CABINET
- PROPOSED STEEL STRAIN POLE
- 10,800 LB MESSENGER WIRE

NOTES:

1. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND DISTRICT UTILITY AGENTS PRIOR TO BEGINNING CONSTRUCTION. HAND DIG AREAS WHERE POLES OR CONDUIT CROSSES UTILITIES (TELEPHONE, GAS, WATER, SEWER, ETC.)

2. THE CONTRACTOR SHALL INSTALL POLE BASES FLUSH WITH SIDEWALK.

3. FINAL POLE PLACEMENT SHALL BE THE DECISION OF THE RESIDENT ENGINEER.

4. PEDESTRIAN DETECTORS SHALL BE INSTALLED SO THAT EACH BUTTON IS NO MORE THAN 10" FROM THE PAVED SIDEWALK OR SHOULDER. THE FARTHEST BUTTON SHALL BE WTIHIN THE 10" MAXIMUM DISTANCE FROM THE SIDEWALK OR SHOULDER.

5. ADD FUSE CONNECTOR KITS FOR PED WIRING IN PEDESTALS. PEDESTAL 1 AND 2 WILL NEED 3 KITS EACH, (2 HOTS, 1 COMMON NEUTRAL), NEUTRAL NEEDS METAL LUG INSTEAD OF FUSE.

6. FUSED CONNECTOR KITS SHALL BE INSTALLED FOR ALL 120 VOLT WIRING IN TRANSFORMER BASES. THIS WILL ONLY BE NEEDED FOR PEDESTRIAN HEADS AND SIGNALS HEADS. PEDESTRIAN DETECTORS DO NOT REQUIRE FUSED CONNECTOR KITS. CONTRACTOR CAN USE ONE KIT FOR A COMMON NEUTRAL FOR ALL DEVICES IN THE TRANSFORMER BASE. THERE SHALL BE A METAL LUG INSTALLED IN THE NEUTRAL WIRE KIT INSTEAD OF A FUSE.

7. NOTIFY D6 TRAFFIC TWO WEEKS IN ADVANCE OF ANY SIGNAL WORK OR TIMING ADJUSTMENTS.

8. KYTC TRAFFIC REPRESENTATIVE WILL BE ON SITE TO IMPLEMENT SIGNAL TIMING ADJUSTMENTS.

9. LOOP LEAD-IN WIRE NEEDS TO BE REPLACED FROM THE EXISTING LOOP WIRE TO THE CONTROLLER.

10. WHERE PROPOSED WIRE AND CONDUIT ARE SHOWN TO BE REPLACED, CONTRACTOR IS TO FIELD VERIFY EXISTING CONDUIT AND WIRE WHERE THEY MAY CONFLICT WITH PROPOSED MULTI-USE PATH AND PROPOSED UTILITIES. IF CONFLICTS OCCUR, THEN PROPOSED CONDUIT AND WIRE SHOWN ON THIS PLAN SHALL BE INSTALLED.

0' 20' 40' 80'

SCALE: 1"=20'

KY 237 MULTI-USE PATH
OVERHEAD SCHOOL FLASHERS
SIGNAL PLAN SHEET

FILE NAME: C:\PW_WORKDIR\PEVIN_DAWN-SDMS4881\1\T14.DGN
USER: dawn-s
DATE PLOTTED: June 23, 2021
E-SHEET NAME:
Power InRoads v8.11.9.397