

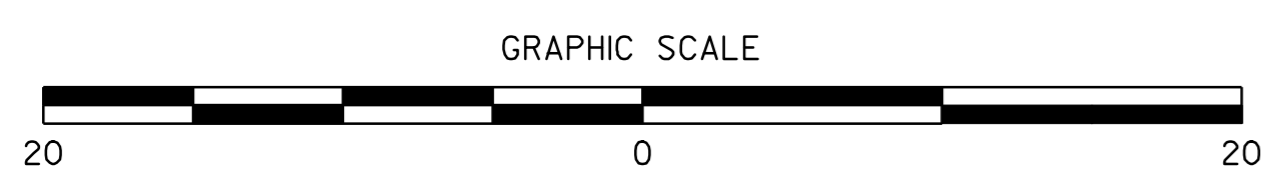
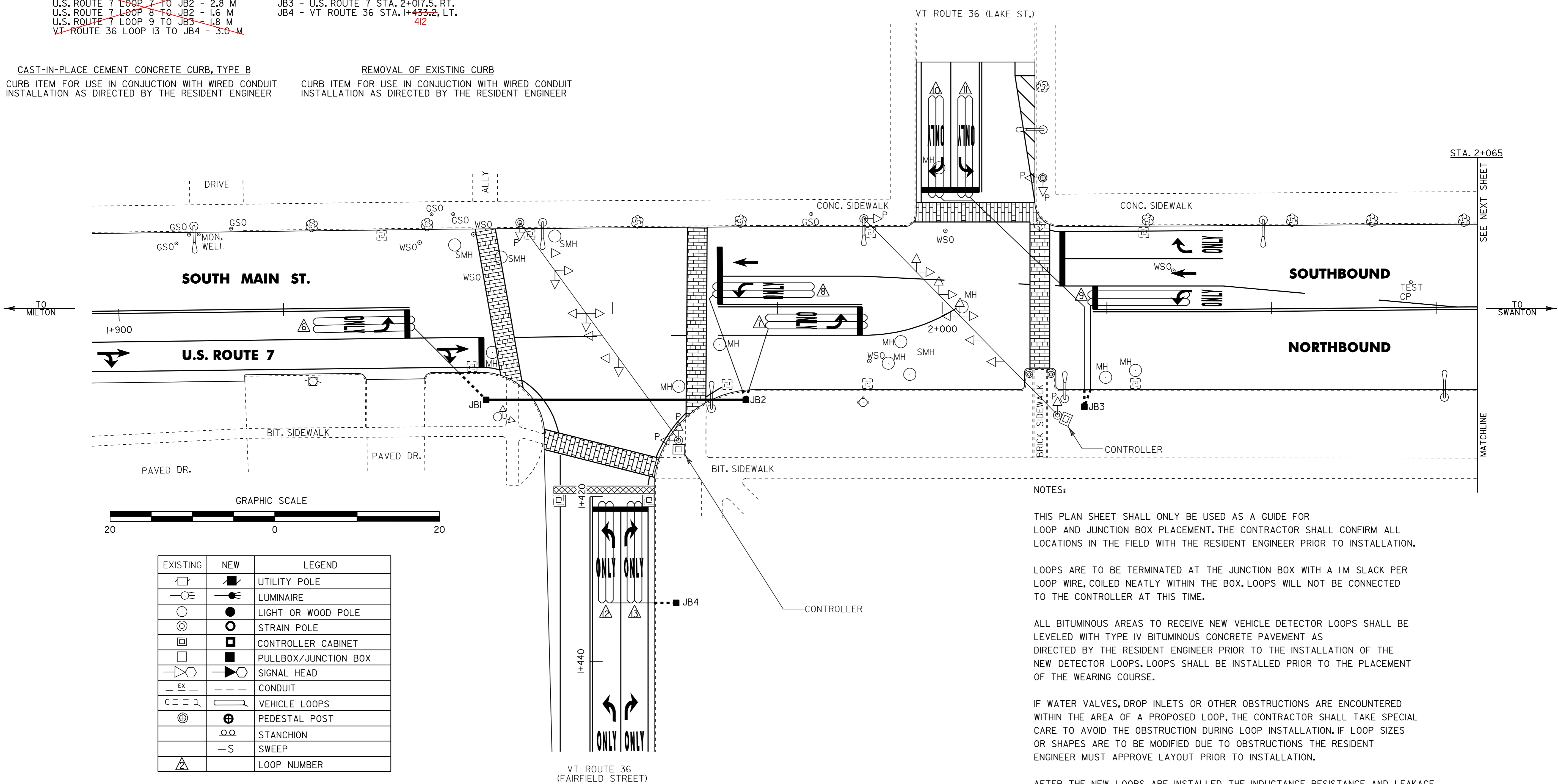
U.S. ROUTE 7 / FAIRFIELD STREET / LAKE STREET INTERSECTION

~~WIRED CONDUIT~~
~~U.S. ROUTE 7 LOOP 6 TO JBI - 3.6 M~~
~~U.S. ROUTE 7 JBI TO JB2 - 34.8 M~~
~~U.S. ROUTE 7 LOOP 8 TO JB2 - 2.8 M~~
~~U.S. ROUTE 7 LOOP 8 TO JB2 - 1.6 M~~
~~U.S. ROUTE 7 LOOP 9 TO JB3 - 1.8 M~~
~~VT ROUTE 36 LOOP 13 TO JB4 - 3.0 M~~

JUNCTION BOX
 JBI - U.S. ROUTE 7 STA. 1+943.6, RT.
 JB2 - U.S. ROUTE 7 STA. 1+978.4, RT.
 JB3 - U.S. ROUTE 7 STA. 2+017.5, RT.
 JB4 - VT ROUTE 36 STA. 1+433.2, LT.
 412

CAST-IN-PLACE CEMENT CONCRETE CURB, TYPE B
 CURB ITEM FOR USE IN CONJUNCTION WITH WIRED CONDUIT
 INSTALLATION AS DIRECTED BY THE RESIDENT ENGINEER

REMOVAL OF EXISTING CURB
 CURB ITEM FOR USE IN CONJUNCTION WITH WIRED CONDUIT
 INSTALLATION AS DIRECTED BY THE RESIDENT ENGINEER



EXISTING	NEW	LEGEND
		UTILITY POLE
		LUMINAIRE
		LIGHT OR WOOD POLE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
		CONDUIT
		VEHICLE LOOPS
		PEDESTAL POST
		STANCHION
		SWEEP
		LOOP NUMBER

NOTES:

THIS PLAN SHEET SHALL ONLY BE USED AS A GUIDE FOR LOOP AND JUNCTION BOX PLACEMENT. THE CONTRACTOR SHALL CONFIRM ALL LOCATIONS IN THE FIELD WITH THE RESIDENT ENGINEER PRIOR TO INSTALLATION.

LOOPS ARE TO BE TERMINATED AT THE JUNCTION BOX WITH A 1M SLACK PER LOOP WIRE, COILED NEATLY WITHIN THE BOX. LOOPS WILL NOT BE CONNECTED TO THE CONTROLLER AT THIS TIME.

ALL BITUMINOUS AREAS TO RECEIVE NEW VEHICLE DETECTOR LOOPS SHALL BE LEVELED WITH TYPE IV BITUMINOUS CONCRETE PAVEMENT AS DIRECTED BY THE RESIDENT ENGINEER PRIOR TO THE INSTALLATION OF THE NEW DETECTOR LOOPS. LOOPS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE WEARING COURSE.

IF WATER VALVES, DROP INLETS OR OTHER OBSTRUCTIONS ARE ENCOUNTERED WITHIN THE AREA OF A PROPOSED LOOP, THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID THE OBSTRUCTION DURING LOOP INSTALLATION. IF LOOP SIZES OR SHAPES ARE TO BE MODIFIED DUE TO OBSTRUCTIONS THE RESIDENT ENGINEER MUST APPROVE LAYOUT PRIOR TO INSTALLATION.

AFTER THE NEW LOOPS ARE INSTALLED, THE INDUCTANCE RESISTANCE AND LEAKAGE TO GROUND SHALL BE TESTED USING PROPERLY CALIBRATED EQUIPMENT. THE TEST RESULTS SHALL BE COMPARED WITH THE CALCULATED VALUES AND RECORDED ON THE PLANS. ALL LOAD TESTING SHALL BE PERFORMED AS PER VTrans STANDARD E-172M.

CALCULATED VALUES AT THE JUNCTION BOXES ARE BASED ON DIRECT CONDUIT ROUTING AS SHOWN ON THIS SHEET. ANY JUNCTION BOX MODIFICATION AND/OR RELOCATION PRIOR TO LOOP CONNECTION WILL REQUIRE RECALCULATION OF THESE VALUES.

ALL WORK NOT COVERED BY ITEMS, 678.23 & 678.26 SHALL BE SUBSIDIARY TO ITEM 678.22, VEHICLE DETECTOR LOOP. FOR ADDITIONAL DETAILS SEE VTrans STANDARDS E-172M & E-173M.

ALL DIMENSIONS IN MILLIMETERS EXCEPT WHERE OTHERWISE INDICATED.

VEHICLE DETECTOR LOOPS												
LAYOUT SHEET	LOOP NO.	LANE	CALL Ø	SIZE (M)	TYPE & NO. TURNS	DELAY OR PRESENCE	INDUCTANCE (µH)		RESISTANCE (OHMS)		LEAKAGE TO GROUND (MEGOHMS)	LOCKING MEMORY
							CALC.	ACT.	CALC.	ACT.		
U.S. ROUTE 7 - 13	6	NORTHBOUND LEFT ONLY (U.S. ROUTE 7)		1.8 X 12.0	QUAD - 1	PRESENCE	145		0.799			YES
U.S. ROUTE 7 - 14	7	NORTHBOUND LEFT ONLY (U.S. ROUTE 7)		1.8 X 12.0	QUAD - 1	PRESENCE	112		0.382			YES
U.S. ROUTE 7 - 14	8	SOUTHBOUND LEFT ONLY (U.S. ROUTE 7)		1.8 X 12.0	QUAD - 1	PRESENCE	118		0.448			YES
U.S. ROUTE 7 - 14	9	SOUTHBOUND LEFT ONLY (U.S. ROUTE 7)		1.8 X 12.0	QUAD - 1	PRESENCE	115		0.414			YES
U.S. ROUTE 7 - 14	10	EASTBOUND RIGHT ONLY (LAKE STREET)		1.8 X 12.0	QUAD - 1	DELAYED	135		0.667			NO
U.S. ROUTE 7 - 14	11	EASTBOUND LEFT ONLY (LAKE STREET)		1.8 X 12.0	QUAD - 1	PRESENCE	132		0.627			YES
VT ROUTE 36 - 1	12	WESTBOUND LEFT ONLY (FAIRFIELD STREET)		1.8 X 12.0	QUAD - 1	PRESENCE	113		0.387			YES
VT ROUTE 36 - 1	13	WESTBOUND RIGHT ONLY (FAIRFIELD STREET)		1.8 X 12.0	QUAD - 1	DELAYED	110		0.346			NO

VEHICLE DETECTOR LOOP LAYOUT DETAIL #2

PROJECT NAME: ST. ALBANS CITY

PROJECT NUMBER: STP_9804(1)S

FILE NAME: 2p9ve297d1502pd150.dgn

DESIGNED BY: D-H

IPARM FILE NAME: pd150cd41

PLOT DATE: 01-FEB-2006 07:4

DRAWN BY: D-H

CHECKED BY: _____

SHEET 10 OF 105

