

## **Appendix F**

### **ITS Unit Costs**

DBCCode	DeviceType	Life Cycle	Unit	Construction	O&M Costs	Decription
CCTV	CCTV	10	each	\$48,000.00	\$2,350.00	Installation including CCTV camera with PTZ control, CODEC mounting, camera tower and mounting and utilities
DMS	DMS1	10	each	\$272,500.00	\$11,600.00	Total costs include structure and utilities for overhead structure spanning one direction of travel (six lane facility assumed)
	DMS2	10	each	\$372,500.00	\$13,600.00	Total costs include structure and utilities for overhead structure spanning one direction of travel (six lane facility assumed)
	VMS	10	each	\$272,500.00	\$11,600.00	Used DMS 1
	AVMS	10	each	\$272,500.00	\$11,600.00	Used DMS 1
DTBL	DTBL	10	each	\$75,000.00	\$4,000.00	Based on FHWA Unit Costs Database for flashing beacon sign
LD	IL/LD	10	each	\$1,850.00	\$162.50	Cost per loop - Based on FHWA Unit Costs Database.
	TTMS	10	each	\$18,000.00	\$1,000.00	Guess - hold for Harshad's response
RTMS	RTMS	10	each	\$6,000.00	\$400.00	Based on FHWA Unit Costs Database
	CC	10	each	\$1,850.00	\$162.50	Used IL/LD
	VD	5	each	\$40,785.45	\$300.00	Capital cost estimate based on Amtech probe sensors, data collection, processing and ISP connection per site from I-4 corridor study. O&M costs estimated from the FHWA Unit Cost Database
VIDS	VIDS	10	each	\$30,000.00	\$400.00	Based on FHWA Unit Costs Database
	VID	10	each	\$30,000.00	\$400.00	License plate reader system with same price as VIDS

DBCCode	DeviceType	Life Cycle	Unit	Construction	O&M Costs	Decription
Call Boxes	CCB	10	each	\$4,000.00	\$50.00	Assume all new boxes are cellular.
	MCB	10	each	\$7,500.00	\$150.00	
ESS	AIS/ESS			\$20,000.00	\$1,000.00	Basis from D7 Plan
RWIS	RWIS	10	each	\$52,000.00	\$3,500.00	Environmental sensor consisting of pavement temperature sensor, subsurface temperature sensor, precipitation sensor, wind sensor, air temperature and humidity sensor and visibility sensor
RMS	RMS	5	each	\$56,000.00	\$3,500.00	Per meter (on-ramp) basic assembly from FHWA (50k), plus loop detectors(2 @ 6k)
HAR	HAR	10	each	\$32,000.00	\$1,000.00	
Fiber	FON	20	each	\$230,000.00	\$1,000.00	roadway, 1/2 mile spacing on pull boxes, within right-of-way, Inside plant every 2 miles based on SONET nodes with multiplexers, support equipments, utilities and installation
	TOWER	20	each	\$150,000.00	\$1,700.00	Microwave system tower, unit cost from FDOT needed.
AL	AL	20	each	\$70,000.00	\$400.00	Standard twisted copper wire installation.
HUB	HUB	10	each	\$107,500.00	\$1,000.00	Based on SONET node with multiplexer, support equipment, utilities and installation per site, typical spacing 2 miles
	HUR	20	each	\$300,000.00	\$6,000.00	Per on-ramp along corridors with one-way operations
	VWIM	10	each	\$344,000.00	\$109,750.00	Per location per direction, includes electronic clearance, overheight and overwidth detection
Detector Area	Detector Area	10	each	\$1,850.00	\$162.50	Same as loop detector.