Broward County Approved Signalization Equipment List

_			Manufacturer & Model			
Pay Item #	Description	Details	Preference*	Comments	Pay Item Specs	Not Approvable
	Directional Bore	HDPE. SDR 11. 2"	N/A		Section 630	
630-2-1X	Elock Couplings	Connects to HDPE to PVC	N/A			
	Conduit (Signals) Underground	2" diameter. Schedule 40 Rigid PVC	N/A	UL Listed	Section 630	
632-7-X	Signal Cable	IMSA Spec 19-1 Stranded. 14 AWG. 4, 7, 12, 20 conductor	N/A		Section 633, A632. Broward County Standards and Specifications "Communications Infrastructure"	
633-1-XXX	Fiber Optic Cable	Singlemode, Armored for trunk. Un-armored for local cable.	N/A	Fiber count will be specified by BCTED during plan review.	Broward County Standards and Specifications "Communications Infrastructure"	
633-3-XX	ITS Fiber Optic Connection, Splice Enclosure		N/A		Section 633, A783	
	ITS Fiber Optic Connection, Splice Tray	For installation of fusion optical fiber splices	N/A			
	ITS Fiber Optic Connection, Hardware	Patch Panel, Field Termination (Corning SPH-01P, 12 F, Wall-Mt Enclosure, Single Panel Housing, P/N: 313351 with Corning CCH-CP06-3C, 6 Port Panel, SC Loaded, SM, P/N: 227053	N/A			
635-2-1X	Pull Box	Cover "Traffic Signal". Composite polymer concrete. Heavy Duty w/ 2 bolts. Tier 22 boxes and lids. Sizes 13"x24"x12, 17"x30"x12"	Quazite, Amorcast, CDR, Oldcastle, NewBasis, Martin Enterprises		Section 635, A635	Pencell; FRP and plastic type construction
	Ground Rods	Copperclad or bonded. Electroplating on iron rod. 5/8" diameter. 10 feet long. Min 10 mils clad thickness	N/A			
	Cable to Ground Rod	Ceramic Box. Needs to match diameter of ground road	Cadweld, Topshot			
	Pull Box for Fiber Optics Cable	Sizes 24"x36"x36", 30"x48"x36". With 2 part lid in pull boxes where splice enclosures are located. Tier 22 boxes and lids. Cover "Traffic Fiber Optics".	Quazite, Amorcast, CDR, Oldcastle, NewBasis, Martin Enterprises	30"x60"x36" allowed only when requested by communications section	Section 635, A635. Broward County Standards and Specifications "Communications Infrastructure"	FRP and plastic type construction
	Electric Power Service	Underground			Section 639	
	Transient Voltage surge suppressor		SQUARE D. Zone Defender	ANSI/IEEE Certified		
639-1-XXX	Surge Arrestor	Surge protective device	SQUARE D SDSA1175T, Ditek	ANSI/IEEE Certified		
	Circuit Breaker		SQUARE D QO series or equal	UL Listed		
	Conduit	Rigid hot dipped galvanized steel	N/A	UL Listed		
	Bushings Weather Heads		N/A N/A	UL Listed UL Listed		
	Meter Socket		MilBank or Talon Type 3R Enclosure or FPL approved equal	Meter provided by FPL		
639-2-1	Electrical Service Wire	RHW. USE. #6 AWG. 7 strand count. 600 Volts	N/A	UL Listed		THHN. XHHW
639-3-11	Pole mounted electrical service disconnect	Load center. 70 Amp. Rainproof.	SQUARE D QO24L70RB or equal			
641-2-12	Prestressed Concrete power service pole (disconnect mount)	Minimum of 10' feet above ground. P2 Service pole	Dura-Stress, PreCast Specialties	Buried depth must meet manufacturer requirement.	Section 641	
646-1-1X	Aluminum Signals Pole	Aluminum Transform				
	Pedestrian Signal Pedestal Pole	Aluminum. Transformer square breakaway base.	N/A			
	Pedestrian Detector Post	Threaded pole. 4.5" OD. Schedule 40.	N/A	Painted mast arms on non		
649-2X-XX	Mast Arm Assembly	Galvanized preferred. Optional: Painted Solar black. Federal color 27038	QPL listed	County roads require a mast arm paint maintenance agreement.	Section 649. TSP for paint-over- galvanized steel mast-arm assemblies	
	Traffic Signal 3 or 5 Section				Section A650	
	Signal Housing	Aluminum. Horizontal configuration. 12"	PEEK, McCain, Econolite			
	Red Ball Yellow Ball	12". ITE spec. LED. Uniform ITE spec. LED. Uniform	DIALIGHT, Leotek IL Series, GE Lighting Solutions, Excellence,	Latest ITE standard		
650-1-XX	Green Ball	ITE spec. LED. Uniform	TraStar			
	Red Arrow	ITE spec for OMNI directional. 12"	DIALIGHT, Leotek LD Series, GE Lighting Solutions,	Latest ITE standard		
	Amber Arrow	ITE spec for OMNI directional				
	Green Arrow Signal Mast Arm Bracket	ITE spec for OMNI directional	Excellence, TraStar Engineered Castings Series 3075, Cost Cast 1916. Pelco			
	Signal Visors	Full Tunnel. Aluminum	1079 APL Listed PEEK, McCain	Must be same manufacturer		
				as housing		
		Louvered/slotted. Aluminum. Retroflective		Must be same manufacturer		

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653-1-1X	Pedestrian signals (1 or 2 way) Assembly				Section A653	
	Ped Insert	LED. 1 section. Countdown.	DIALIGHT, Leotek, GE Lighting, Excellence, TraStar	Latest ITE standard		
	Ped Housing	16" housing. aluminum. Z crate sunshield.	McCain, Peek			
	Ped Bracket Side of Pole	Aluminum	Engineered Castings. APL Listed			
	Slip fitter		Cost Cast 1910, Engineered Castings, Pelco SP-1034-FL			
	2 way bracket		Cost Cast, Engineered Castings, Pelco			
654-1-XX	In-Roadway Light Assembly			Municipality shall be responsible for maintenance and repair of in roadway light systems		
660-3-1X	Side-fire Microwave (Radar)	Side-fired Radar detection with multiple detection zones	Wavetronix Matrix or equal	Must be able to presence detect up to 6 lanes of traffic plus a bicycle lane and also have the ability to count vehicles. Use where video detection is not feasible.		
	Vehicle Detector Assembly (Video)	Straight on forward facing on Mast Arm, for Strain pole mounted video detection a system designed for side applications like Aldis shall be used or side fired Microwave detection (660-3-10)		Must meet the video detection validation procedures. Four (4) year minimum warranty on camera and modules.	Broward County Technical Specification. Note 15. Section 786.	
	Detection Software	2 camera cards or single camera card configured to TS2				
	Video Image Processor Set-up Keypad		N/A	Must be same manufacturer detection software		
	Video Monitor	9". Portable LCD	N/A	Optional Lilliput 7"		Rainbow
660-4-XX	Clamp Kit, Cable Mount/Bracket	Tilt & pan. Aluminum tube. Saddle bracket	Engineered Castings Series 3075, Pelco or Cost Cast			
	Vehicle Detection Camera	Wide dynamic range	Iteris, Flir/Traficon and Aldis, Autoscope Vision	Industrial Box Type Camera		2-piece camera lens combination heat transfer to camera window
	Composite Video Cable		Iteris, Flir/Traficon, and Aldis, Autoscope Vision	Shall be compatible with camera manufacturer		
	Video Encoder	Video access and remote management shall be provided with all video detection systems. MPEG4/H.264				
	Straight Crimp Type Plug		Cambridge CP88 or equal	Optional		
	Surge Protection Device	Video surge suppression	N/A	CCTV & coax data applications		
	Camera Housing	Sealed, with sunshield included	Iteris, Flir/Traficon and Aldis, Autoscope Vision	Window shall be a built-in, integral heated glass		Heat transfer to housing glass window
	Lighting Dissipators	Camera bracket mounted	N/A			
	Other	A TS2 type 1 SDLC protocol interface module (BIU not acceptable) from VIP's to controller via SDLC				
63-1-XXX	Emergency Vehicle Detection (Pre- emption)	GPS Fire-Rescue Pre-emption. Model 764 Phase selector with Auxiliary interface panel Model 768. AIP to interface with the model 3100 radio	GTT Opticom			
665-1-11	Pedestrian detector push buttons	2" diameter, ADA compliant, concave, snap wring	PELCO SP-1090-FL or equal		Section A665	
665-1-12	Accessible Pedestrian Detector		<u>SHALL</u> be Polara Engineering Navigator APS or Navigator EZ Communicator System, iNavigator 2-wire system	Refer to Polara iNavigator 2 Wire Field Wiring Recommendations Rev_2- 28-2020.pdf		4-wire systems
	Interconnect Junction Boxes and Cabinets		N/A	Long runs (~5000 feet) will require Type IV Cabinet. Vented cabinet required if signal amp is installed.	Broward County Standards and Specifications "Communications Infrastructure"	

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			Manufacture 0 Madal		Updated:	2/9/2023
Pay Item #	Description	Details	Manufacturer & Model Preference*	Comments	Pay Item Specs	Not Approvable
670-5-14X	Traffic Control Assembly	Components for complete TS2 type 1 functional 8 phase operation with peds and overlaps			Section 670	
	Traffic Controller	2070 v. 76.xx ATMS.NOW firmware	Trafficware 2070 LN2 ITS with 1C Processor Module (NEMA TS-2 TYPE 1 Cabinet Compatible) or equal			
	Conflict Monitor/ Malfunction Management Unit	16 channel/phases. 2070N. SDLC port. RS- 232/Ethernet Port.	NAZTEC MMU 516L-E, EDI MMU2-16LEip	Must come with software for laptop		
	Cabinet	TS2 Type 1. 16 load bays. Size- Type 6. Shelf mount. front and back doors.	Trafficware Group, 70006- TS2/FL	Sunshield on top face of cabinet required.		
	Additional Parts	1. Aluminum Type VI cabinet assembly a. Automatic internal generator transfer switch front and back doors b. 2 thermostat controller fans c. TS2 Type 1 cabinet wiring d. Roller bearing silde drawer e. FDOT load resistor panel f. Illuminated sign interface control panel with photocell (mounted inside sign) and breakers g. Door switches for light and one wired to lamp control on panel (door alarm) 2. TS2 power supply EDI PS-250 3. Five (5) BU's and SDLC interface for video detection 4. Flash transfer relays 5. 16 switch packs (Load switches) 6. Solid State Flasher(s) 7. Detector 16 channel rack including a 2 channel Opticom GPS Equipment: -Model 764 Phase Selector -Model 3100 Radio				
684-1-X	Field Hardened Fiber Ethernet Switch		Cisco IE3200-8T2S-E	Shall be fully compatible with existing network devices, SolarWinds SNMP software, BCTED ATMS server and equipment.	Section A784. Broward County Standards and Specifications "Communications Infrastructure"	
	Cellular Router		IR1101-A-K9, SL-IR1101-NA, IR1100-M-BLANK, IOT-OTHER, NO-IOT-SOLUTION, SIR1101UK9-173, IRM-1100- SPMI, IR1100-P-BLANK, P-LTE- MNA, MEAN WELL GST60A24- P1J Power Supply	Provides machine-to- machine network connectivity	To be developed per Broward County "Communication Infrastructure Standards & Specifications"	
	Systems Communications Carrier	Multi-Pair GPS Cable	N/A			
700-5-2X	Internally Illuminated Street Name Sign	50 Lumens per watt minimum. Rigid mounted. Lighting of translucent sign blank by LEDs. Must match dimensions and lettering sizes shown in plans	Transportation Control, Southern Manufacturing		Section 700, A699	
	Mounting Bracket		Engineered Castings Series 3075, Pelco			

* These are currently maintained by Broward County. Any other manufacturer must be operational with Broward County system AND must be approved to be equivalent by Broward County staff. Alternate materials other than those brand names specified may be submitted by the Contractor for consideration as an approved equal item, from the FDOT APL list, where applicable.