| Product Type  | Typical Product Sample Description | Minimum Quantity | TERL Recommended Packaging & Shipping | Typical TERL Receiving Method | Onsite Installation and Training Requirements |
| --- | --- | --- | --- | --- | --- |
| 102 Maintenance of Traffic |
| Automated Flagger Assistance Device (AFAD) | Item with all options maximizing battery draw | 1 system(2 AFADs) | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Portable Changeable Message Sign | Item with all options maximizing battery draw | 1 each | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Portable Radar Speed Display Unit | * One sample per display size with all options maximizing battery draw
* Activation/calibration tool for testing if test mode activation is not programmable
 | 1 each | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Portable Regulatory Sign | Item with all options maximizing battery draw | 1 each | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Portable Traffic Signal (PTS) | Item with all options maximizing battery draw | 1 system(2 PTS) | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Trailer Mounted Arrow Board | 25 lamp assembly with all options maximizing battery draw | 1 each | Freight on flatbed or towed | For flatbed, written authorization from vendor to offload using TERL forklift |  |
| Truck Mounted Changeable Message Sign | Item with smallest characters and vehicle mounting hardware | 1 each | N/A(at vendor’s discretion) |  |  |
| Vehicle Mounted Arrow Board | 25 lamp assembly and vehicle mounting hardware | 1 each | N/A(at vendor’s discretion) |  |  |
| 620 Grounding and Lightning Protection |
| Surge Protective Device (SPD) at Point of Use | Item with highest count of power outlets | 1 each | General Parcel Shipping |  |  |
| Surge Protective Device for 120 V or 120/240V Power | 120/240 V version | 1 each | General Parcel Shipping |  |  |
| Surge Protective Device for Low Voltage Power, Control, Data and Signal Systems | Representative samples of SPDs matching circuit descriptions in specifications | 1 each | General Parcel Shipping |  |  |
| 635 Pull, Splice and Junction Boxes |
| Pull Box and Cover; andSplice Box | * Cover and hardware ONLY
* Photos of cover and box for each depth including FDOT required markings
 | 1 each | N/A(at vendor’s discretion) |  |  |
| 641 Prestressed Concrete Poles |
| Camera Lowering Device | Item with external mount and shortest height | 1 each | General Parcel Shipping |  | Required |
| 650 Vehicular Traffic Signal Assemblies |
| 12" Die Cast All LED Vehicle Signal Assembly | One 3-section assembly with all LED modules installed | 1 assembly | General Parcel Shipping |  |  |
| 12" Die Cast Vehicle Signal Housing | One section with tunnel visor | 1 each | General Parcel Shipping |  |  |
| 12" LED Arrow Signal Module | One for each color (green, yellow, red) | 3 (1 each) | General Parcel Shipping |  |  |
| 12" LED Signal Module | One for each color (green, yellow, red) | 3 (1 each) | General Parcel Shipping |  |  |
| 12" Polycarbonate Vehicle Signal Housing | One section with tunnel visor | 1 each | General Parcel Shipping |  |  |
| Backplate (Retroreflective) | One backplate for 3-section signal assembly | 1 each | General Parcel Shipping |  |  |
| Light Rail Transit Signal | One LED module | 1 each | General Parcel Shipping |  |  |
| Louvers | One for each three-section signal head | 3 (1 each) | General Parcel Shipping |  |  |
| Plastic Vehicle Signal Assembly | One three-section | 1 assembly | General Parcel Shipping |  |  |
| Programmable Visibility LED Lamp for Optically Programmable Signal | One for each color (green, yellow, red) | 3 (1 each) | General Parcel Shipping |  |  |
| 653 Pedestrian Signal Assemblies |
| * 16" X 18" Die Cast Aluminum Pedestrian Signal
* 16" X 18" Polycarbonate Pedestrian Signal
 | One assembly with LED module and housing | 1 assembly | General Parcel Shipping |  |  |
| * 16" X 18" Die Cast Pedestrian Signal Housing
* 16" X 18" Polycarbonate Pedestrian Signal Housing
 | One housing with visor or egg crate | 1 each | General Parcel Shipping |  |  |
| * Brackets for Die Cast Pedestrian Signal
* Pedestrian Signal Bracket Sand Cast
* Polycarbonate Pedestrian Signal Bracket
 | Hardware for mounting one pedestrian signal | 1 complete set of brackets | General Parcel Shipping |  |  |
| 654 Midblock Crosswalk Enhancement Assemblies |
| In-Roadway Light Assembly | * Assembly including one cabinet minimum, two light strings and two push buttons
* For solar powered system, minimum of five lights for each light string
 | 1 assembly | General Parcel Shipping |  | Required |
| Rectangular Rapid Flashing Beacon Assembly (RRFB) | * Assembly including one cabinet minimum, three light bars and three push buttons
* One AC/two solar versions
* APL-listed passive pedestrian detector, if passive pedestrian detection is offered with product
 | 1 assembly  | N/A(at vendor’s discretion) |  |  |
| RRFB – Accessible Pedestrian Pushbutton | Assembly including sign | 1 assembly | General Parcel Shipping |  |  |
| 659 Mast Arm, Span Wire and Pole Mounting Assemblies |
| * Mast Arm Mounting Assemblies for Signals, Signs, Cameras and Detectors
* Span Wire Mounting Assemblies for Signals, Signs, Cameras and Detectors
* Pole and Pedestal Mounting Assemblies
 | * Assembly with all options
* One for each mounting option
 | 1 assembly for each mounting option as described | General Parcel Shipping |  |  |
| 660 Vehicle Detection System |
| Dilemma Zone Protection System | Detection system assembly including all components for each detection technology and (if required) power supply | 1 system | N/A(at vendor’s discretion) |  | Required |
| Traffic Data Detection System – Microwave | Detection system assembly including harness, mounting hardware and (if required) power supply | 1 system | N/A(at vendor’s discretion) |  | Required |
| Traffic Data Detection System – Video | Detection system assembly including harness, mounting hardware and (if required) power supply  | 1 system | N/A(at vendor’s discretion) |  | Required |
| Vehicle Detector – AVI (Automatic Vehicle Identification) | Detection system assembly including harness, mounting hardware and (if required) power supply | 1 system | General Parcel Shipping |  | Required |
| * Vehicle Detector – Loop 2 Channels TS2 Type A (no Timings)
* Vehicle Detector – Loop 2 Channels TS2 Type C (with Timings)
* Vehicle Detector – Loop 4 Channels TS2 Type B (no Timings)
* Vehicle Detector – Loop 4 Channels TS2 Type D (with Timings)
 | One for each APL listing type and (if required) power supply | 1 of each type | General Parcel Shipping |  | Required |
| * Vehicle Detector – Microwave
* Vehicle Detector – Thermal
* Vehicle Detector – Video
* Vehicle Detector – LiDAR
 | Detection system assembly including harness, mounting hardware and (if required) power supply | 1 system | General Parcel Shipping General Parcel Shipping |  | Required |
| * Vehicle Loop Detector 1 Channel Auto Shelf Mount
* Vehicle Loop Detector 1 Channel Manual Shelf Mount
* Vehicle Loop Detector 2 Channels Auto Rack Mount
* Vehicle Loop Detector 2 Channels Auto Shelf Mount
* Vehicle Loop Detector 4 Channels Auto Rack Mount
* Vehicle Loop Detector 4 Channels Auto Shelf Mount
 | One for each APL listing type and (if required) power supply | 1 of each type | General Parcel Shipping |  | Required |
| Wireless Magnetometer Detection System | Detection system assembly including minimum number of sensors necessary to detect motorcycles and (if required) power supply | 1 system | General Parcel Shipping |  | Required |
| Wrong Way Vehicle Detection System | Detection system assembly including cabinet(s), 2 wrong way signs, and AC and solar versions | 1 each(as applicable) | General Parcel Shipping |  | Required |
| 663 Signal Priority and Preemption Systems |
| Preemption System | Preemption system assembly including all vehicle and in-cabinet equipment per detection type | 1 each | General Parcel Shipping |  | Required |
| 665 Pedestrian Detection System |
| * Accessible (Audible/Tactile) Pedestrian Detector
* Mid-Block Pedestrian Detector
* Passive Pedestrian Detector
 | Assembly including saddle, sign and mounting hardware for each APL listing type | 2 each | General Parcel Shipping |  |  |
| Standard Pedestrian Detector | Assembly including saddle and mounting hardware | 1 each | General Parcel Shipping |  |  |
| 671 Traffic Controllers |
| ATC Controller for NEMA, Caltrans and ATC Cabinets | Controller with power cable for each APL listing type | 1 each | General Parcel Shipping |  | Required\*  |
| \*Also includes on-site verification by vendor of functionality requirements per specification for new submittals (once per software version) |
| 676 Traffic Cabinets |
| * 170 Controller Cabinet
* 170 Wired Cabinet Type 33
* 170 Wired Cabinet Type 334
* 170 Wired Cabinet Type 336
* 170 Wired Cabinet Type 552
* 170 Wired Cabinet Type 662
* 170/2070 Wired Cabinet Type 333
 | Assembly including:* Conflict Monitor, Malfunction Management Unit, or Model 208 or 210 Monitor Unit
* Power Supply or Model 206L Power Supply Unit
* Load Switches (16 each)
* Flasher
* Flash Transfer Relay or Model 430 Flash Transfer Relay
* Power Distribution Assembly
* Input File
* Time Switch
* Generator compartment and connection cable
* Door keys
* Door handle for 552 and 662 cabinets (located in generator or police compartment)
* Cable to power cabinet
 | 1 assembly | Bolted to pallet, encased in cardboard and shrink-wrapped |  |  |
| * 170 Unwired Cabinet Type 332/334
* 170 Unwired Cabinet Type 336
* 170 Unwired Cabinet Type 336 Stretch
 | Assembly including:* Generator compartment and connection cable
* Door keys
* Door handle for 552 and 662 cabinets (located in generator or police compartment)
 | 1 assembly | Bolted to pallet, encased in cardboard and shrink-wrapped |  |  |
| ITS Field Cabinet | Assembly including:* Power Supply
* Power Distribution Assembly
* Generator compartment and connection cable
* Door keys
* Sunshield
* Cable to power cabinet
 | 1 assembly | Bolted to pallet, encased in cardboard and shrink-wrapped |  |  |
| * Controller Cabinet Unwired Type I
* Controller Cabinet Unwired Type II
* Controller Cabinet Unwired Type III
* Controller Cabinet Unwired Type IV
* Controller Cabinet Unwired Type V
* Controller Cabinet Unwired Type VI
* Small Equipment Enclosure
 | Assembly including:* Generator compartment and connection cable (as applicable)
* Door keys for each cabinet type
 | 1 assembly | Bolted to pallet, encased in cardboard and shrink-wrapped |  |  |
| * Hybrid NEMA TS1 - TS2
* Wired Cabinet Assembly Type I
* Wired Cabinet Assembly Type II
* Wired Cabinet Assembly Type III
* Wired Cabinet Assembly Type IV
* Wired Cabinet Assembly Type V
* Wired Cabinet Assembly TS-2 Size 6
* Wired Cabinet Assembly TS-2 Size 7
 | Assembly including:* Conflict Monitor or Malfunction Management Unit
* Power Supply
* Load Switches (16 each)
* Flasher
* Flash Transfer Relay
* Power Distribution Assembly
* Input File
* Time Switch
* Generator compartment and connection cable
* Door keys for each cabinet type
* Cable to power cabinet
 | 1 assembly | Bolted to pallet, encased in cardboard and shrink-wrapped |  |  |
| Detector Rack TS2 Wired Cabinet Assembly | Assembly including power supply | 1 assembly |  |  |  |
| 678 Traffic Controller Accessories |
| * Bus Interface Unit (TS2)
* Cabinet Power Supply (170)
* Cabinet Power Supply (TS2)
* Conflict Monitor for 170 Controllers
* Conflict Monitor for 170/2070 Controllers
* Conflict Monitor Type 12
* Conflict Monitor Type 18
* Flasher Type 1
* Flasher Type 3
* GPS Time Switch
* Load Switch
* Malfunction Management Unit Type 16
* Time Switch Type 1
* Time Switch Type 2
 | One assembly per APL listing type | 1 each | General Parcel Shipping |  |  |
| 680 System Control Equipment |
| Adaptive Signal Control System | Assembly including all components required for detection and communication, power supply and cabling | 1 assembly | General Parcel Shipping |  | Required |
| 682 Video Equipment |
| * Camera – Dome
* Camera – External Positioner
* Camera – Fixed
 | * Assembly including power supply and all pipe mounting hardware
* Power over Ethernet (PoE) injector for IP camera
 | 1 assembly | General Parcel Shipping |  |  |
| 684 Network Devices |
| Device Server | Each media type (e.g., Ethernet, RS232/485) | 1 each | General Parcel Shipping |  |  |
| Managed Field Ethernet Switch | Item with highest port count along with small form-factor pluggable (SFP) (fiber and copper, as applicable) and fiber transceivers | 1 each(as applicable) | General Parcel Shipping |  |  |
| Media Converter | Each media type (e.g., Ethernet and fiber) | 1 each | General Parcel Shipping |  |  |
| 685 Traffic Control System Auxiliaries |
| Uninterruptible Power Supply | * Item with batteries for traffic signal and ITS cabinets
* Cabinet and power cable if assembly includes cabinet
 | 1 each | N/A(at vendor’s discretion) |  |  |
| 700 Highway Signing |
| Dynamic message sign – DMS LED Retrofit Kit | * If vendor has DMS of same type as retrofit kit, already listed on the APL: No required sample
* If not: Assembly including modules, power supply and old DMS to be retrofitted
 | 1 sign | Bolted to pallet, encased in cardboard and shrink-wrapped or freight on flatbed | Vendor must provide, coordinate, and schedule delivery, including crane for unloading | Required |
| Dynamic Message Sign – Embedded DMS  | Any size with uninterruptible power supply and cabinet | 1 sign | Bolted to pallet, encased in cardboard and shrink-wrapped |  | Required |
| Dynamic Message Sign – Front Access DMS | Any size with uninterruptible power supply and cabinet | 1 sign | Bolted to pallet, encased in cardboard and shrink-wrapped or freight on flatbed | Vendor must provide, coordinate, and schedule delivery, including crane for unloading | Required |
| Dynamic Message Sign – Walk-In DMS  | Minimum size meeting specification with uninterruptible power supply and cabinet | 1 sign | Freight on flatbed | Vendor must provide, coordinate, and schedule delivery, including crane for unloading | Required |
| Electronic Display Sign (EDS) – Blank-Out Sign | “No Left Turn” sign | 1 sign | N/A(at vendor’s discretion) |  |  |
| Electronic Display Sign (EDS) – Electronic Regulatory Sign | Assembly with highest LED count | 1 sign | N/A(at vendor’s discretion) |  |  |
| Electronic Display Sign (EDS) – Electronic Speed Feedback Sign | Assembly configured with all available options and largest LED font available | 1 sign | N/A(at vendor’s discretion) |  |  |
| Electronic Display Sign (EDS) – Electronic Warning Sign | Assembly with highest LED count | 1 sign | N/A(at vendor’s discretion) |  |  |
| Illuminated Sign – Highlighted Sign | “STOP” sign | 1 sign | N/A(at vendor’s discretion) |  |  |
| Illuminated Sign – Internally Illuminated Sign | Item with highest width meeting requirements | 1 sign | N/A(at vendor’s discretion) |  |  |
| Sign Beacon | * Assembly with highest beacon count and solar panel(s)
* Hardware components if AC version utilizes significantly different components
 | 1 each(as applicable) | N/A(at vendor’s discretion) |  |  |
| 706 Raised Pavement Markers and Bituminous Adhesive |
| Internally Illuminated Raised Pavement Marker (Class F) | Each color (white, red, and yellow) and bi-directional | 1 each | General Parcel Shipping |  |  |