

**Texas Department of Transportation
Book 2 – Technical Provisions**

Grand Parkway Project

**Attachment 21-1
Toll Systems Responsibility Matrix**

ATTACHMENT 21- 1

Texas Department of Transportation

Toll Systems Responsibility Matrix

LEGEND		Work Description		
Primary Responsibility	A	1	2	3
Support Responsibility	B	Design	Procure	Install and/or Construct
Coordination Responsibility Only	C			
No Responsibility	D			

Element/Task/Component/ Sub-system	D/B CDA Developer (D/B)			System Integrator (SI)			Comments Other Responsibility/Information
	1	2	3	1	2	3	
FACILITIES							
Toll Plaza Layout	A	A	A	B	D	D	SI to provide system design. D/B to incorporate into Project Design. Preliminary plaza locations provided in existing schematics.
Metered power service to roadside equipment cabinet	A	A	A	B	D	C	SI to provide power requirements and special requirement for construction of utilities near toll collection point.
Complete backup power systems: generators, automatic transfer switches, and fuel tanks	C	D	B	A	A	A	
Foundation and conduits for backup power systems	A	A	A	B	D	C	D/B to provide foundations and conduits between foundations. SI will ensure foundations and conduits are adequate.
Uniform Uninterruptible Power Supplies	C	C	C	A	A	A	
Lightning Protection & Grounding	A	A	A	B	C	C	
Duct Bank	A	A	A	B	D	C	D/B to install conduit Duct Bank complete with pull strings
Fiber Optic cables in Duct Bank for Toll Systems	A	A	A	B	D	C	
Data/Communication service to roadside equipment cabinet	A	A	A	B	D	C	SI to provide power and communication/data requirements. D/B to install up to the roadside equipment cabinet.
Data/Communication wire/fiber from roadside equipment cabinet to toll systems equipment	C	C	C	A	A	A	SI to install from roadside equipment cabinet to toll systems equipment.

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Pavement, inclusive of special nonferrous zones and conduit stub outs for in pavement sensors	A	A	A	B	D	C	SI to provide any special requirements for pavement design
Pavement sensors	C	C	C	A	A	A	SI to saw cut and install pavement sensors
Gantries including special framing for equipment mounts	A	A	A	B	D	C	SI to provide requirements for specific equipment mounts, conduits, J boxes, power and data wiring. D/B to incorporate into structural design
Toll Equipment mounts on Gantries	B	D	C	A	A	A	SI to install any required equipment mounts on gantries. SI to coordinate with D/B during the design phase to incorporate any required framing to support equipment mounts.
Roadside equipment cabinet slabs	A	A	A	B	D	C	SI to provide requirements for size of slab needed.
Roadside equipment cabinets (including HVAC systems)	B	D	C	A	A	A	SI to install complete
Lane Controller Hardware	D	D	C	A	A	A	D/B will coordinate access to roadway for installations.
Communication Equipment	D	D	C	A	A	A	D/B will coordinate access to roadway for installations.
ELECTRONIC TOLL COLLECTION SUB-SYSTEMS (ETC)							
Installation/Electrical Design and Plans	C	D	C	A	A	A	
Automatic Vehicle Classification System and Image Capturing System (ICS) Hardware	C	C	C	A	A	A	
Roadside Equipment Cabinets	D	D	C	A	A	A	D/B will coordinate access to roadway for installations.

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Computer rack system, routers, hubs, switches, firewalls, VPN, modems, patch/distribution panels,	D	D	C	A	A	A	D/B will coordinate access to roadway for installations.
Toll Plaza Host Computer	D	D	C	A	A	A	
Back-up Host Computer	D	D	D	A	A	A	
Support equipment at TxDOT or HCTRA Customer Service Center	D	D	D	A	A	A	
Workstations/Printers	D	D	D	A	A	A	
Commissioning and Operational Testing	D	D	C	A	A	A	
Lane controller software	D	D	D	A	A	A	
Plaza Computer Software	D	D	D	A	A	A	
Host Computer Software	D	D	D	A	A	A	
Toll Collection System Application Software	D	D	D	A	A	A	
Security Access System Software	D	D	D	A	A	A	
Maintenance Online Management System Software	D	D	D	A	A	A	
Factory Acceptance Test	D	D	C	A	A	A	D/B will coordinate access to roadway for testing.
Project Acceptance Test	D	D	C	A	A	A	D/B will coordinate access to roadway for testing.
Training	D	D	D	A	A	A	
Documentation	D	D	D	A	A	A	
FCC Licenses/Regulations as applies to toll systems	D	D	D	A	A	A	
Tolling location phone service	A	A	A	B	C	C	