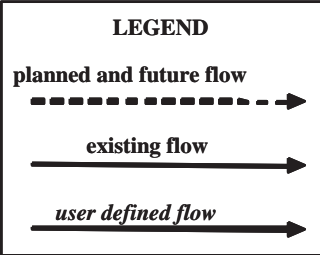
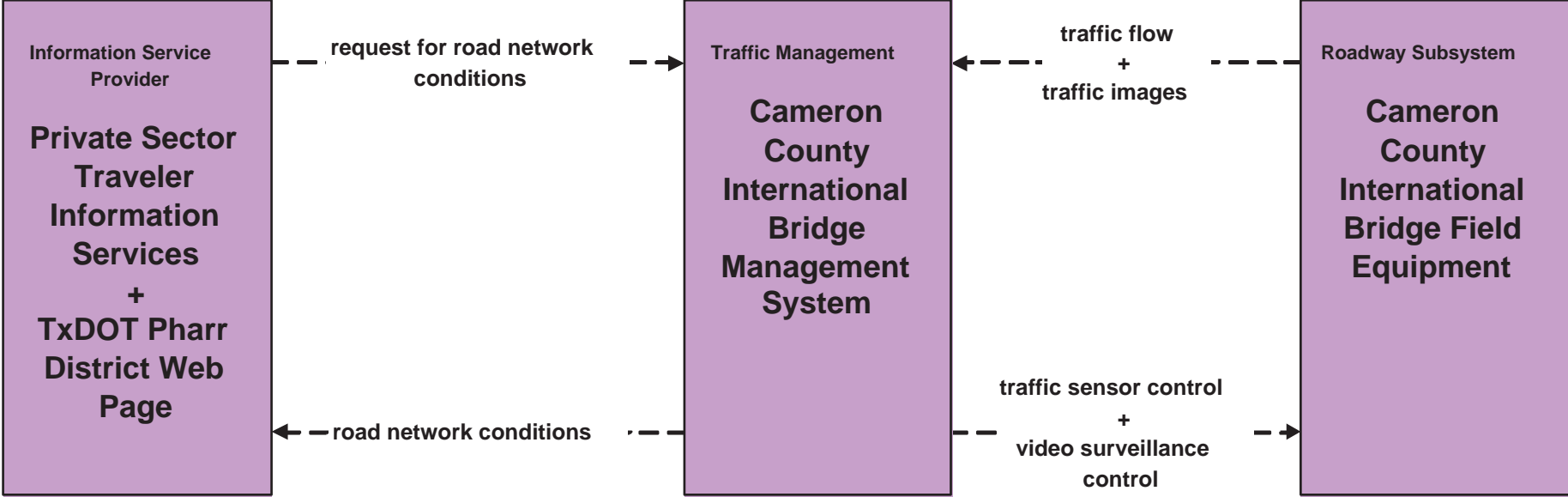


**Lower RGV Regional ITS Architecture**

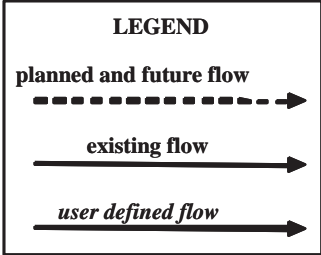
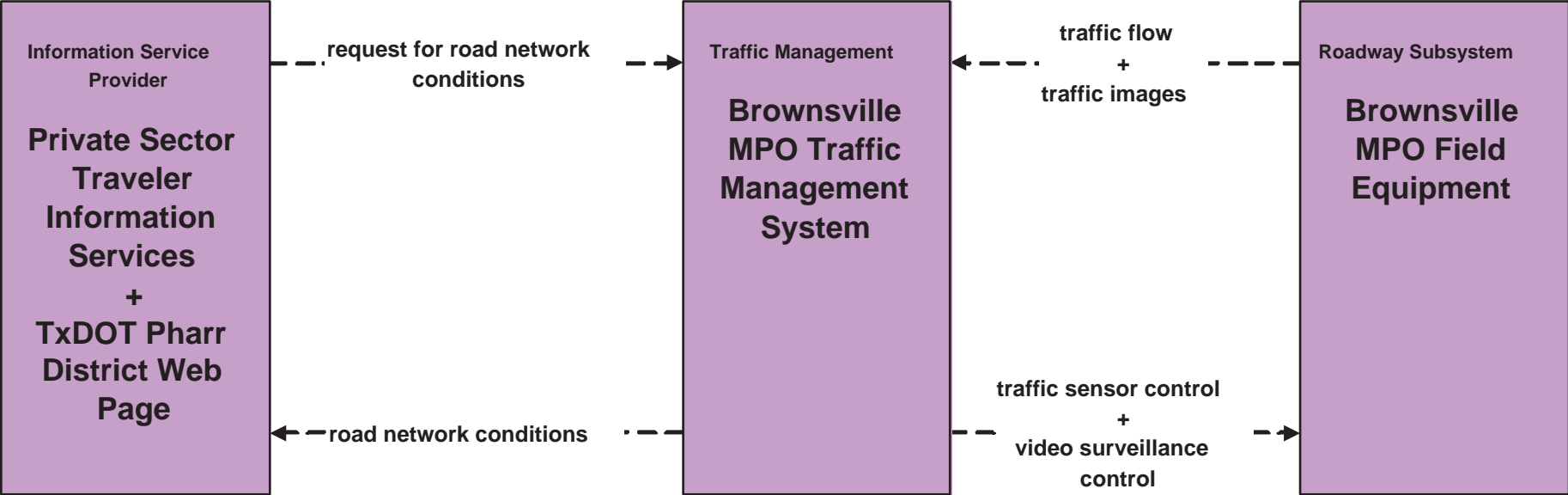
**Customized Market Package Diagrams**

**Advanced Traffic Management Systems  
(ATMS)**

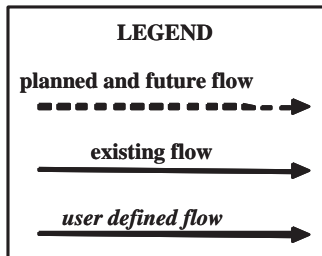
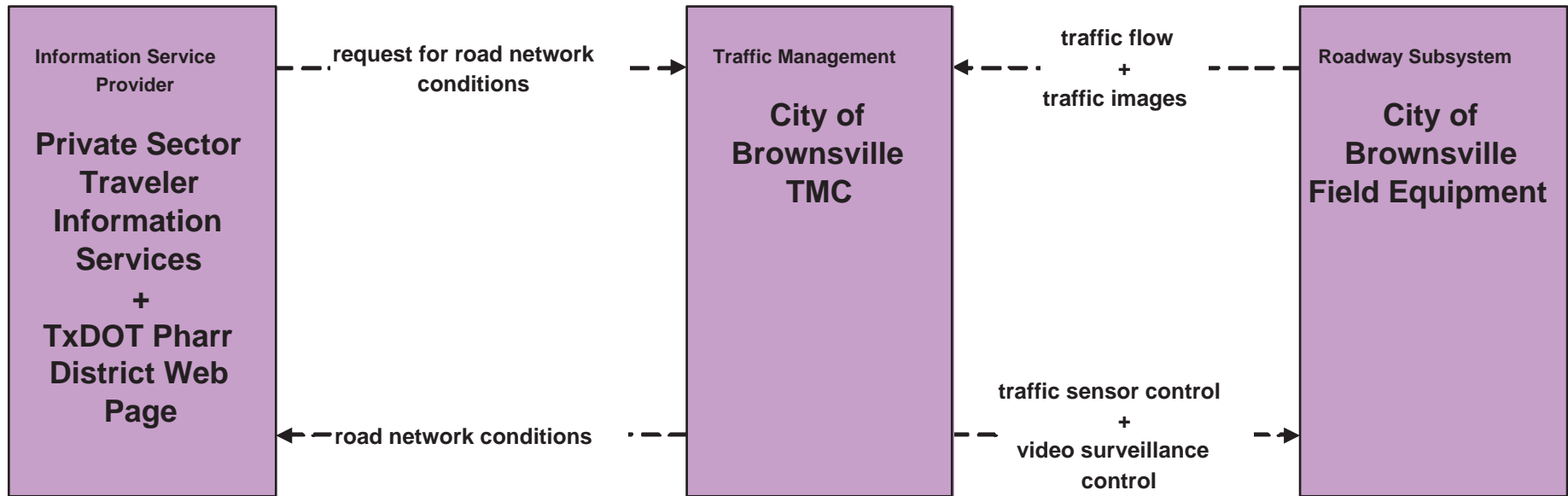
**ATMS01 - Network Surveillance**  
**Cameron County International Bridge Management System**



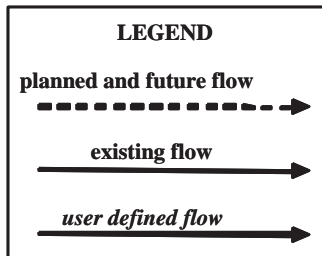
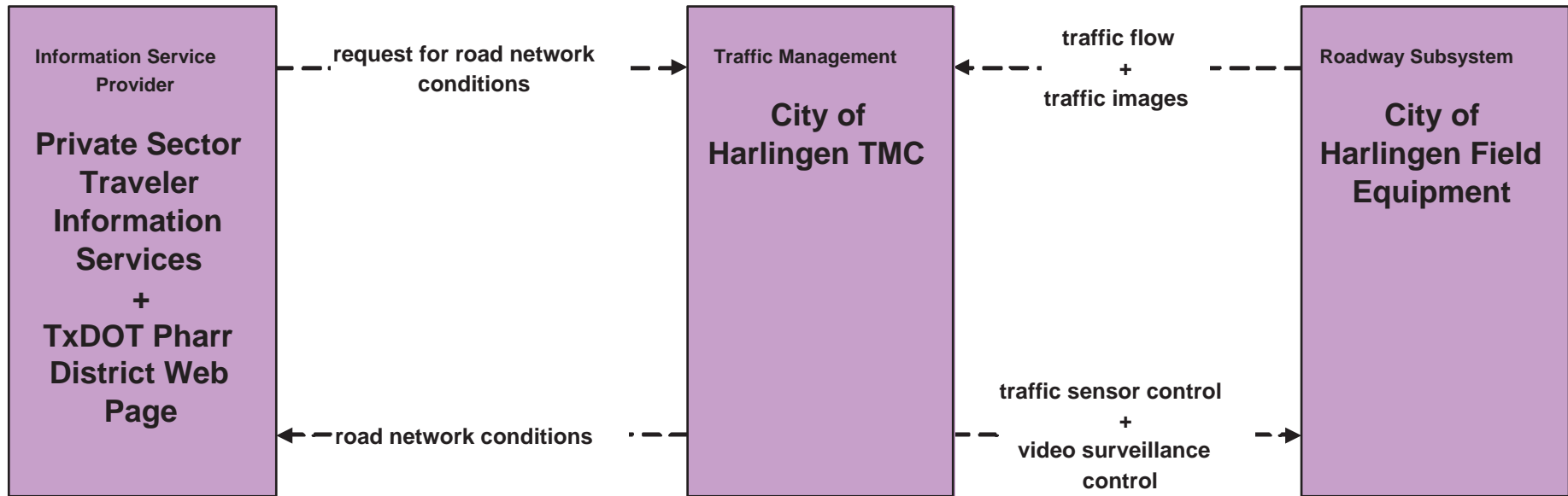
**ATMS01 - Network Surveillance**  
**Brownsville MPO Traffic Management System**



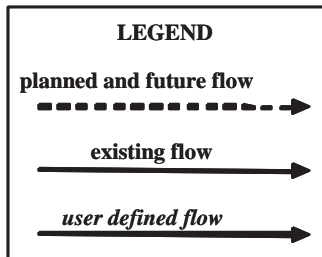
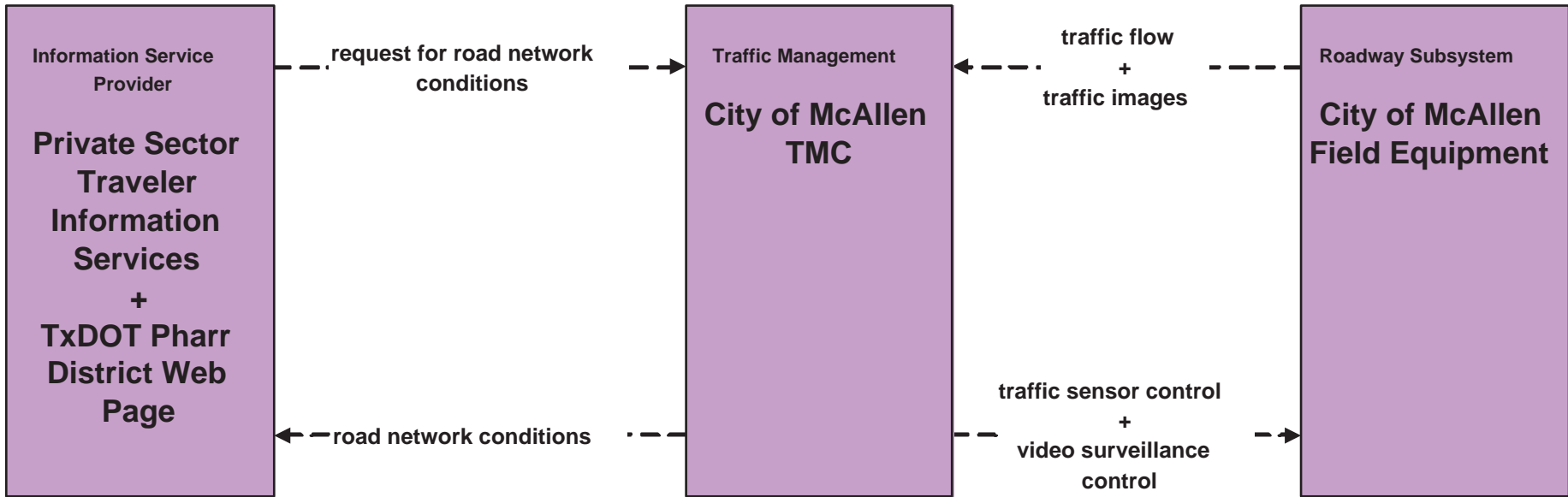
**ATMS01 - Network Surveillance**  
**City of Brownsville TMC**



# ATMS01 - Network Surveillance City of Harlingen TMC

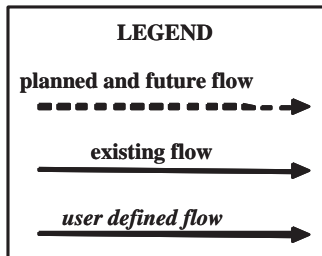
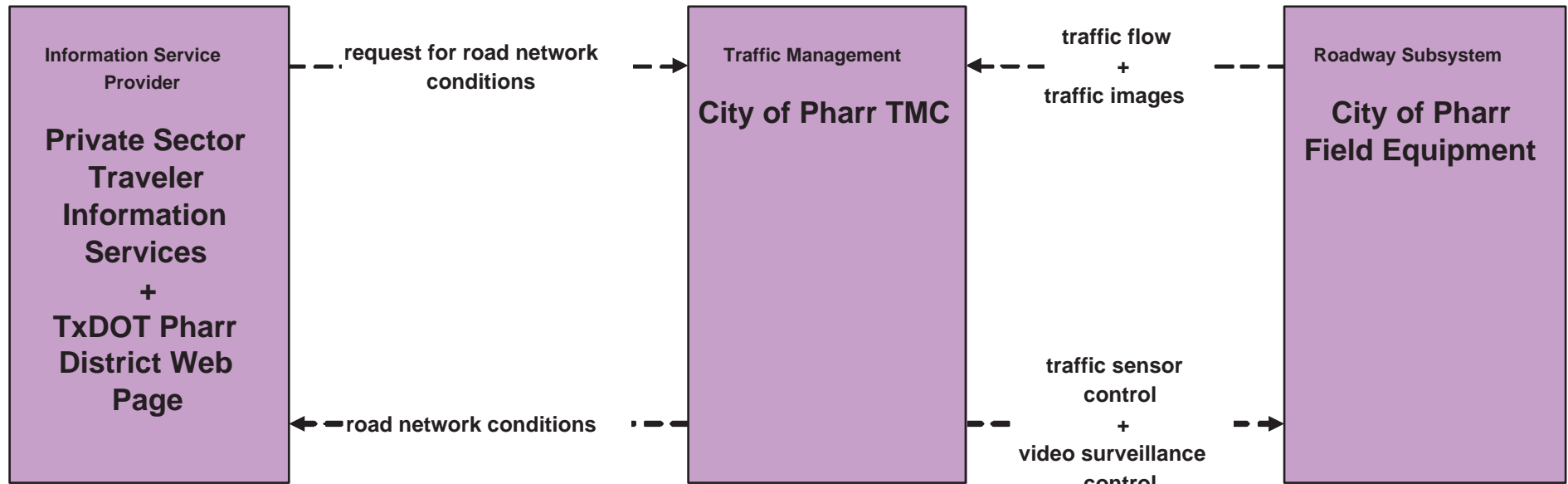


**ATMS01 - Network Surveillance**  
**City of McAllen TMC**

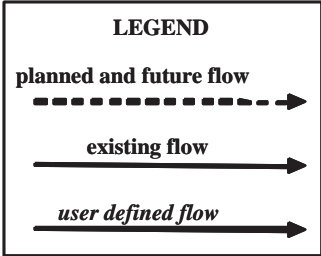
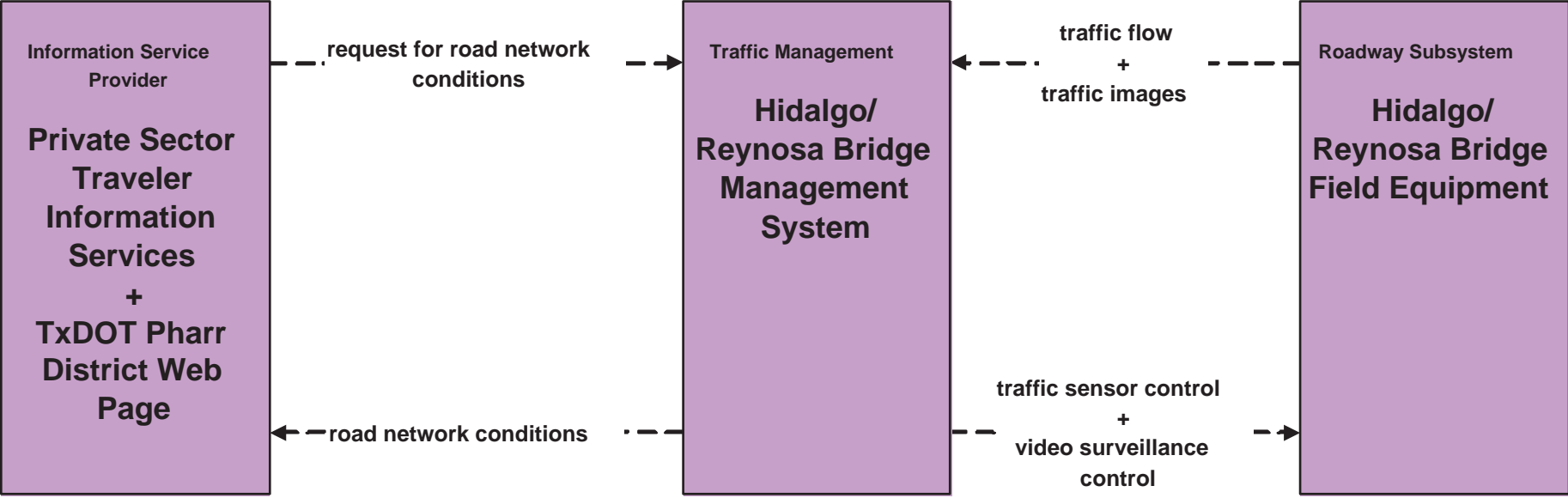


# ATMS01 - Network Surveillance

## City of Pharr TMC

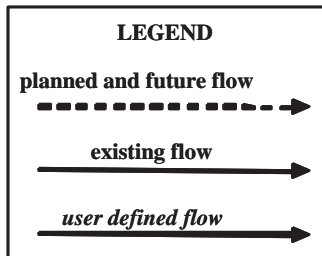
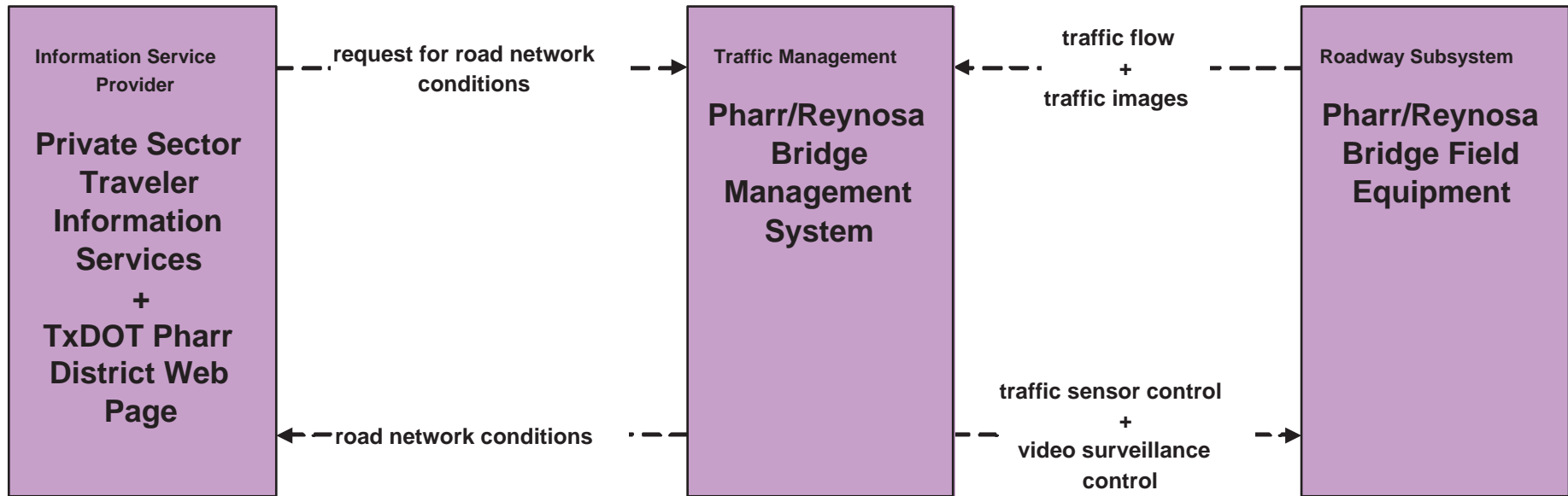


**ATMS01 - Network Surveillance  
Hidalgo/Reynosa Bridge Management System**

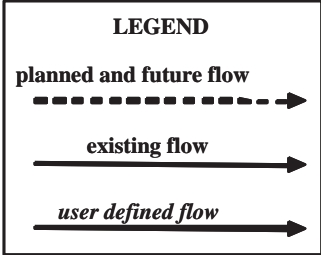
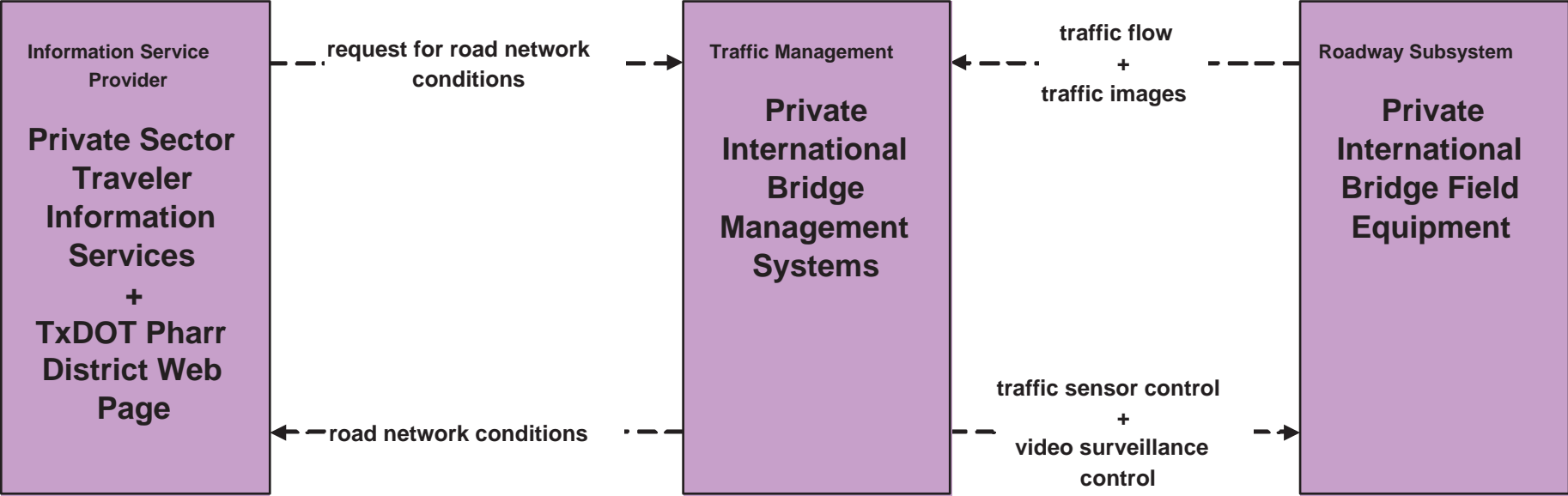




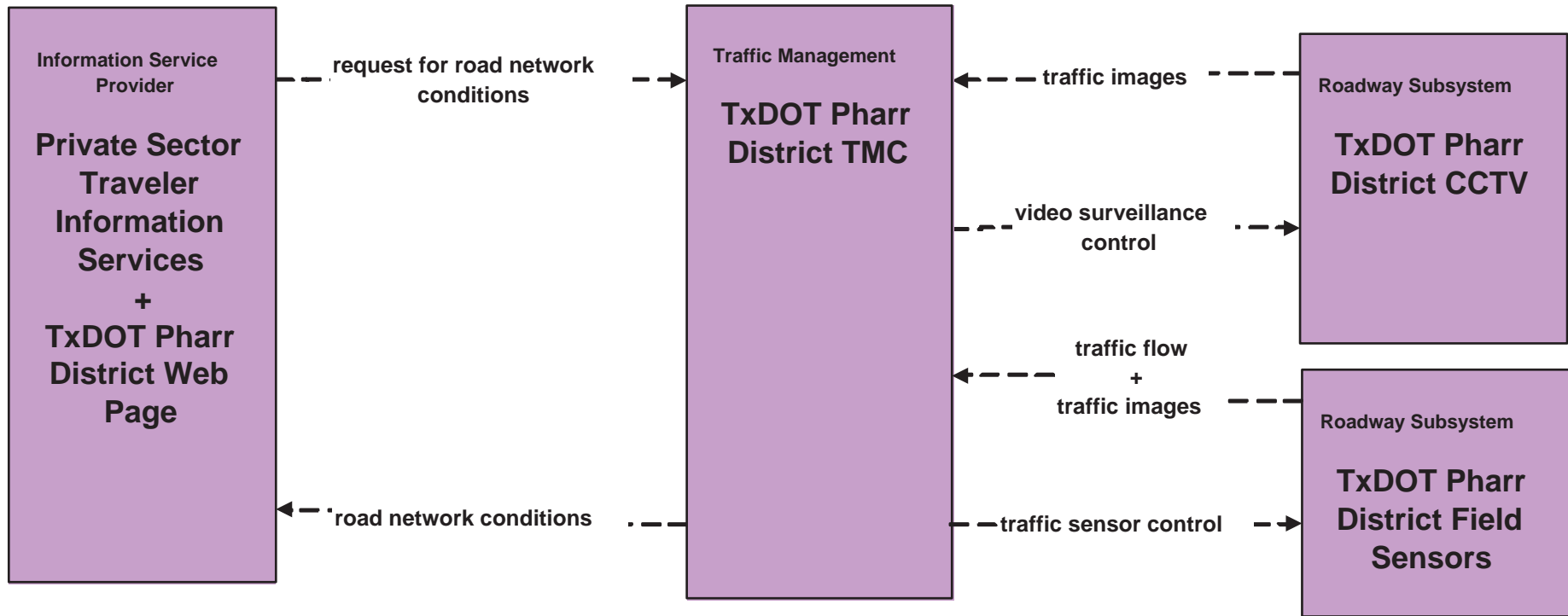
# ATMS01 - Network Surveillance Pharr/Reynosa Bridge Management System



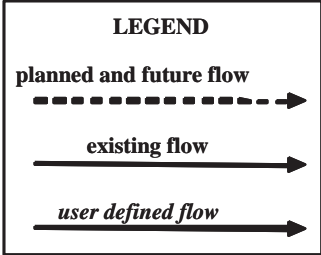
**ATMS01 - Network Surveillance**  
**Private International Bridge Management Systems**



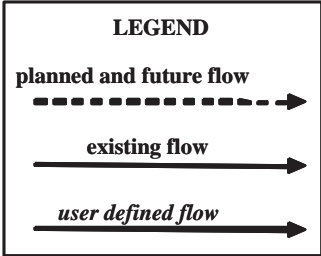
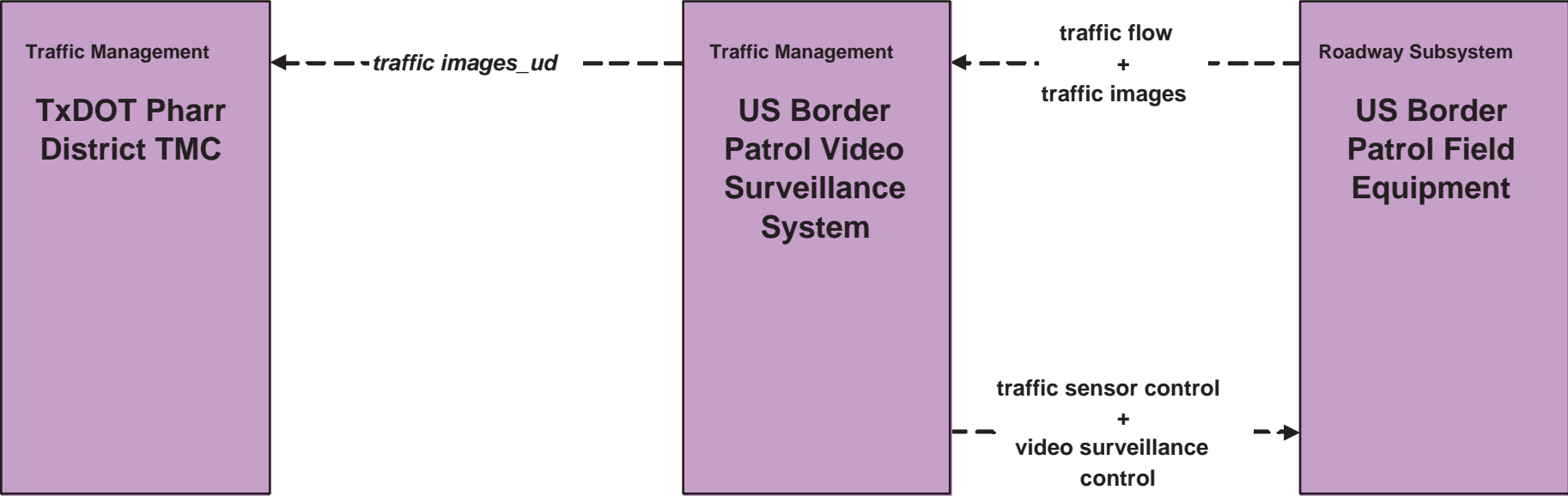
# ATMS01 - Network Surveillance TxDOT Pharr District TMC



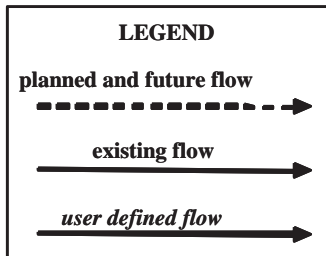
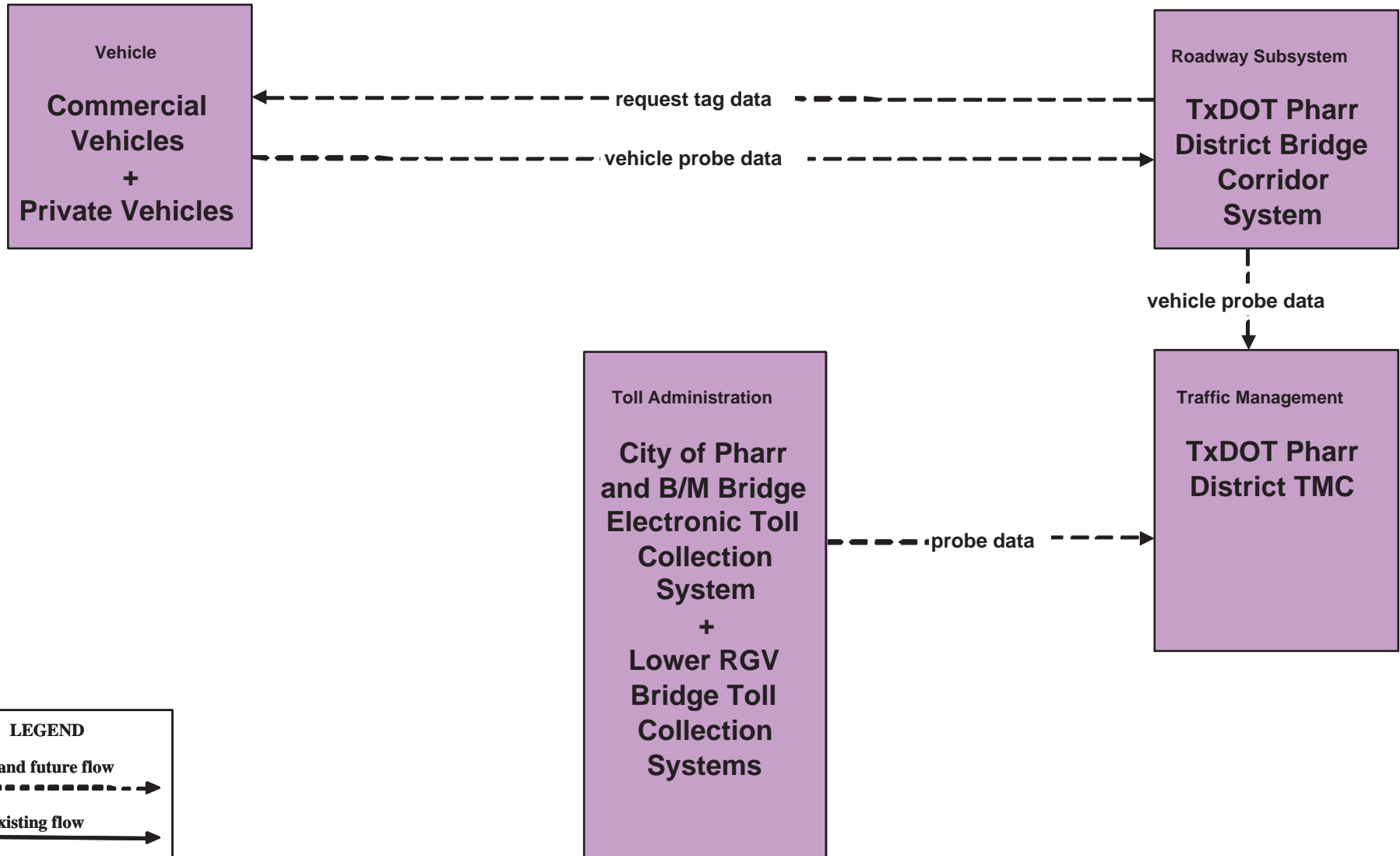
*Field Sensors includes VIVDS which can provide video.*



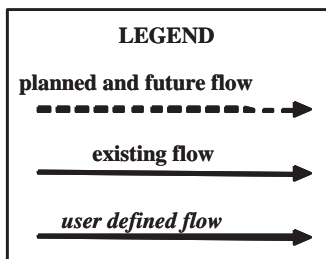
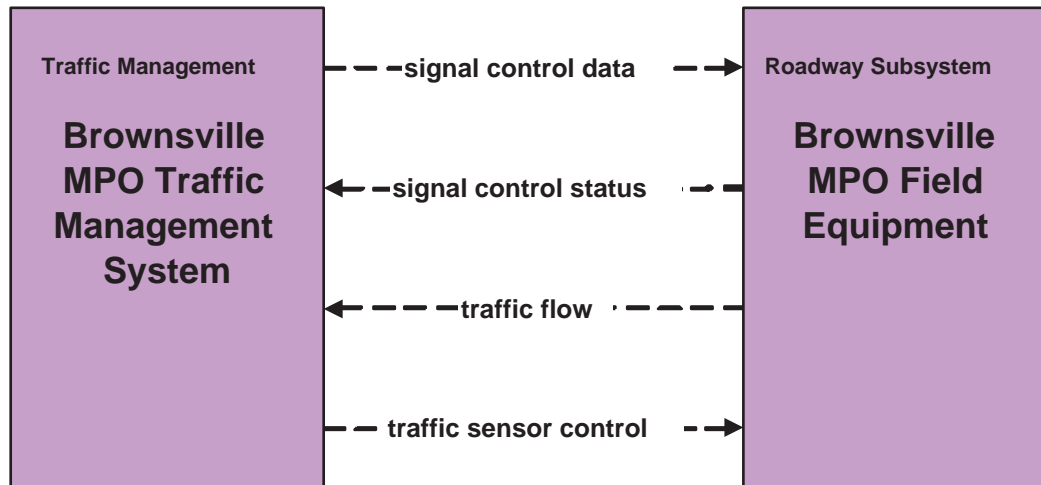
**ATMS01 - Network Surveillance  
US Border Patrol Video Surveillance System**



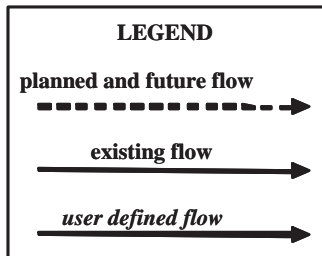
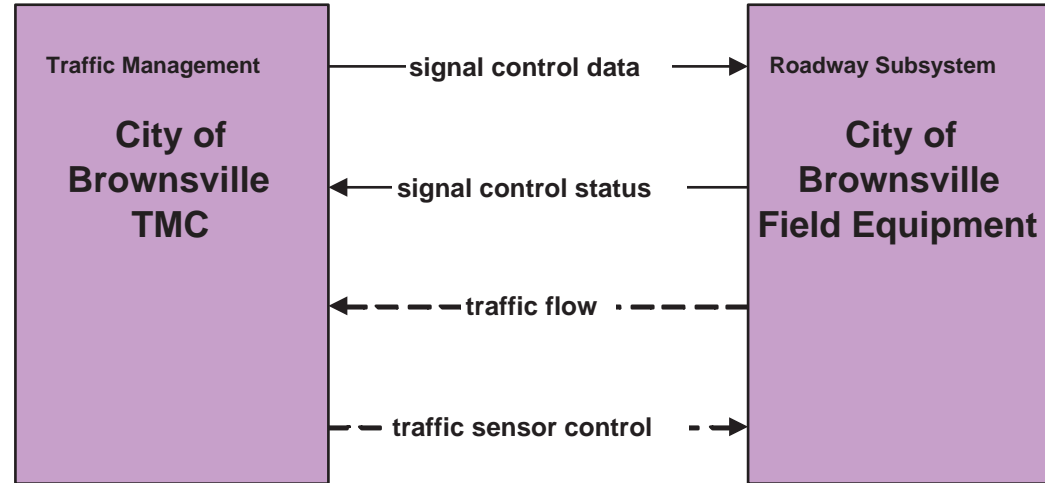
# ATMS02 - Probe Surveillance



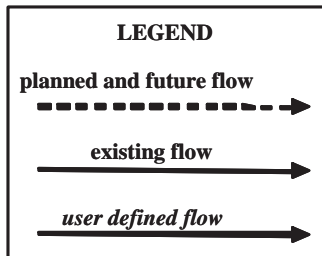
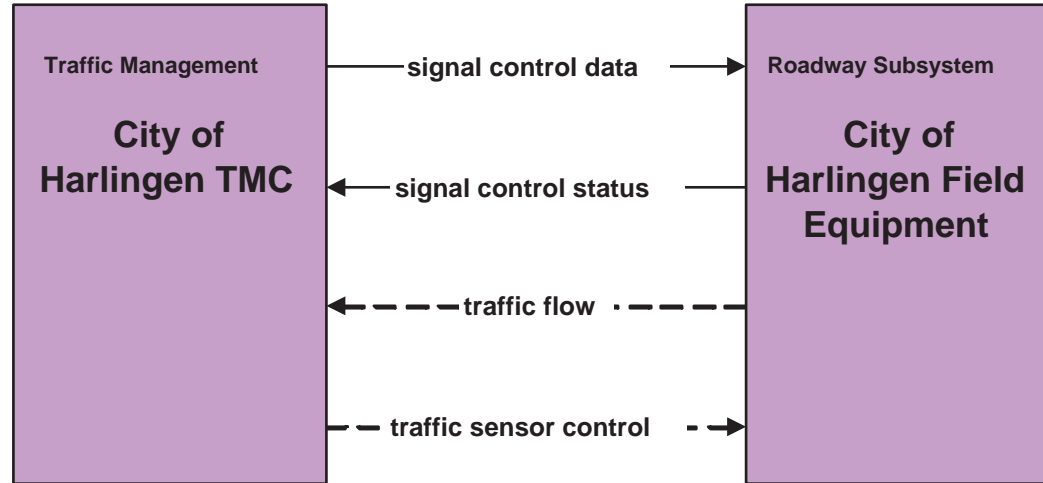
# ATMS 03 - Surface Street Control



# ATMS 03 - Surface Street Control

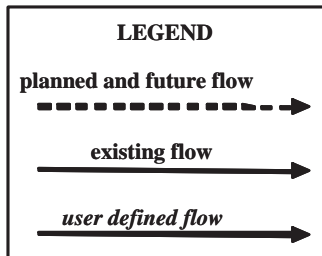
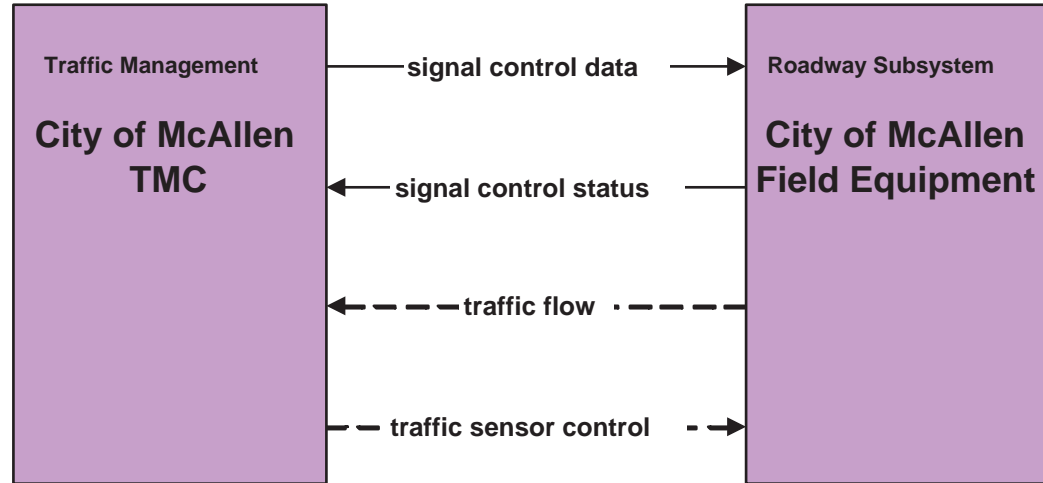


# ATMS 03 - Surface Street Control

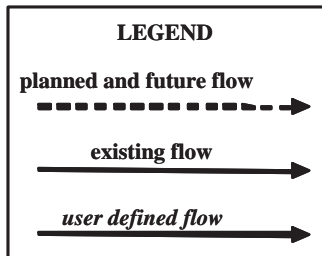
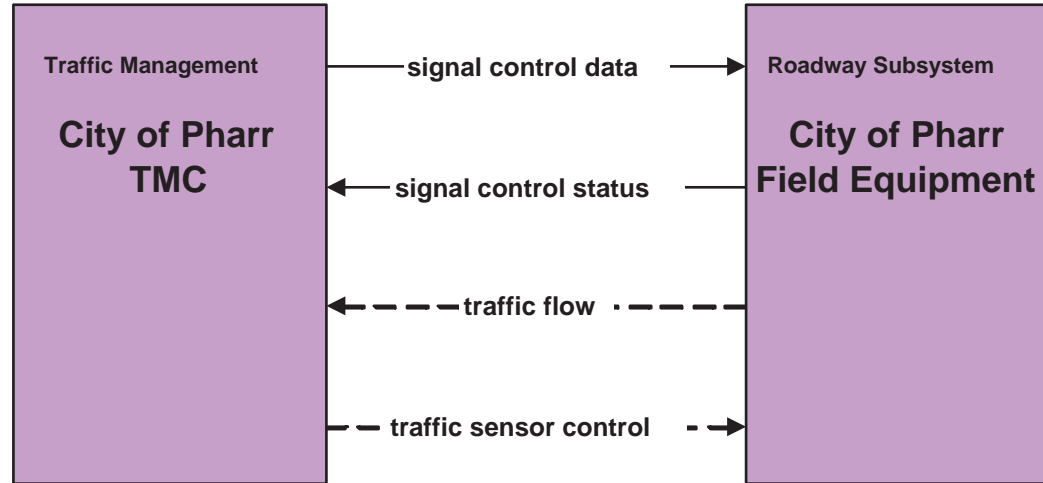




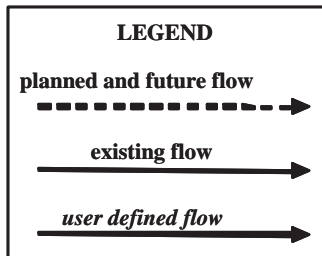
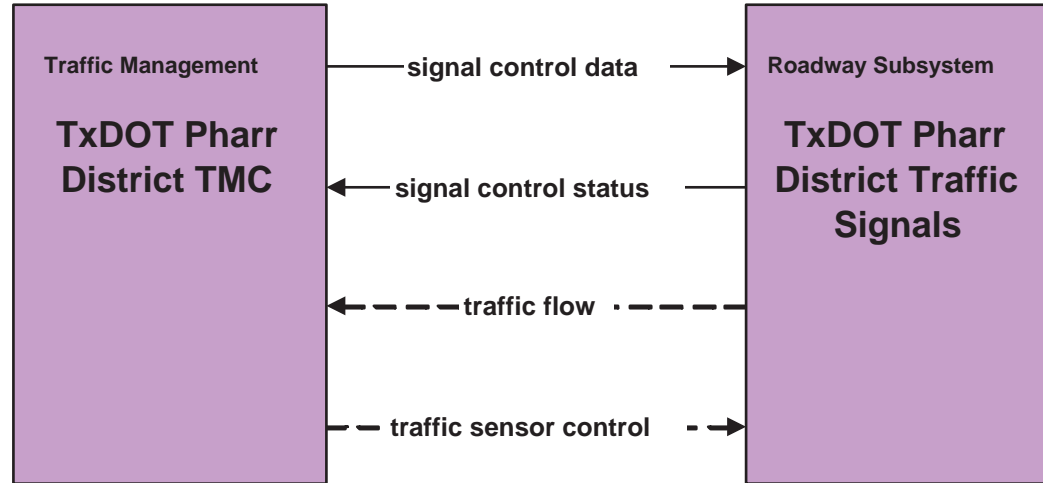
# ATMS 03 - Surface Street Control



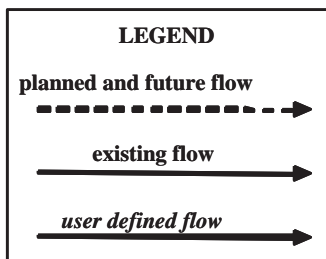
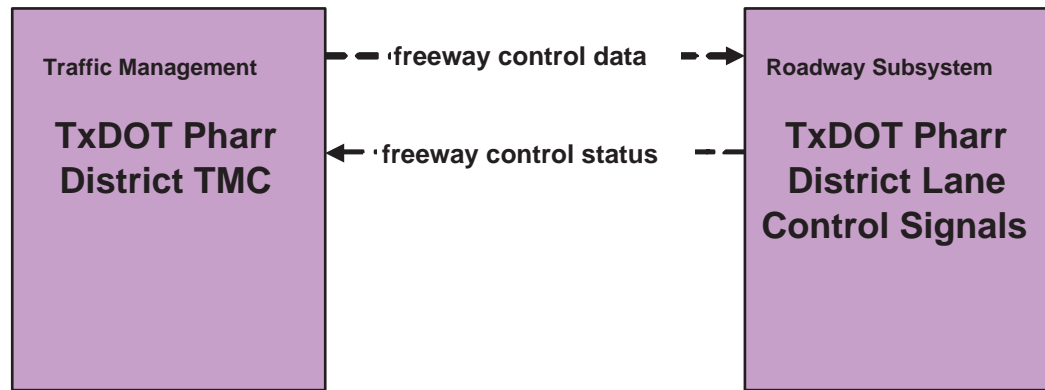
# ATMS 03 - Surface Street Control



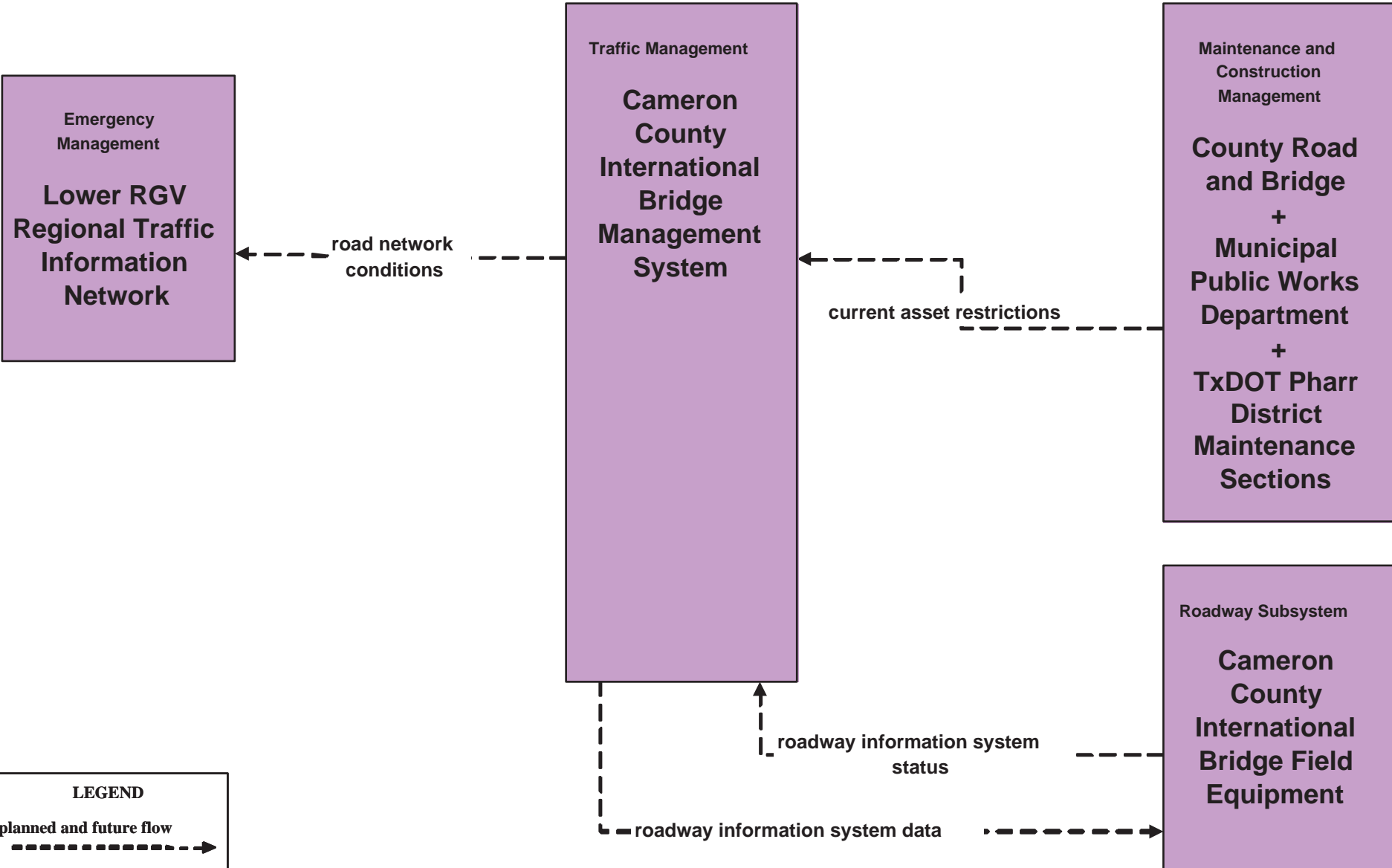
# ATMS 03 - Surface Street Control



# ATMS04 - Freeway Control



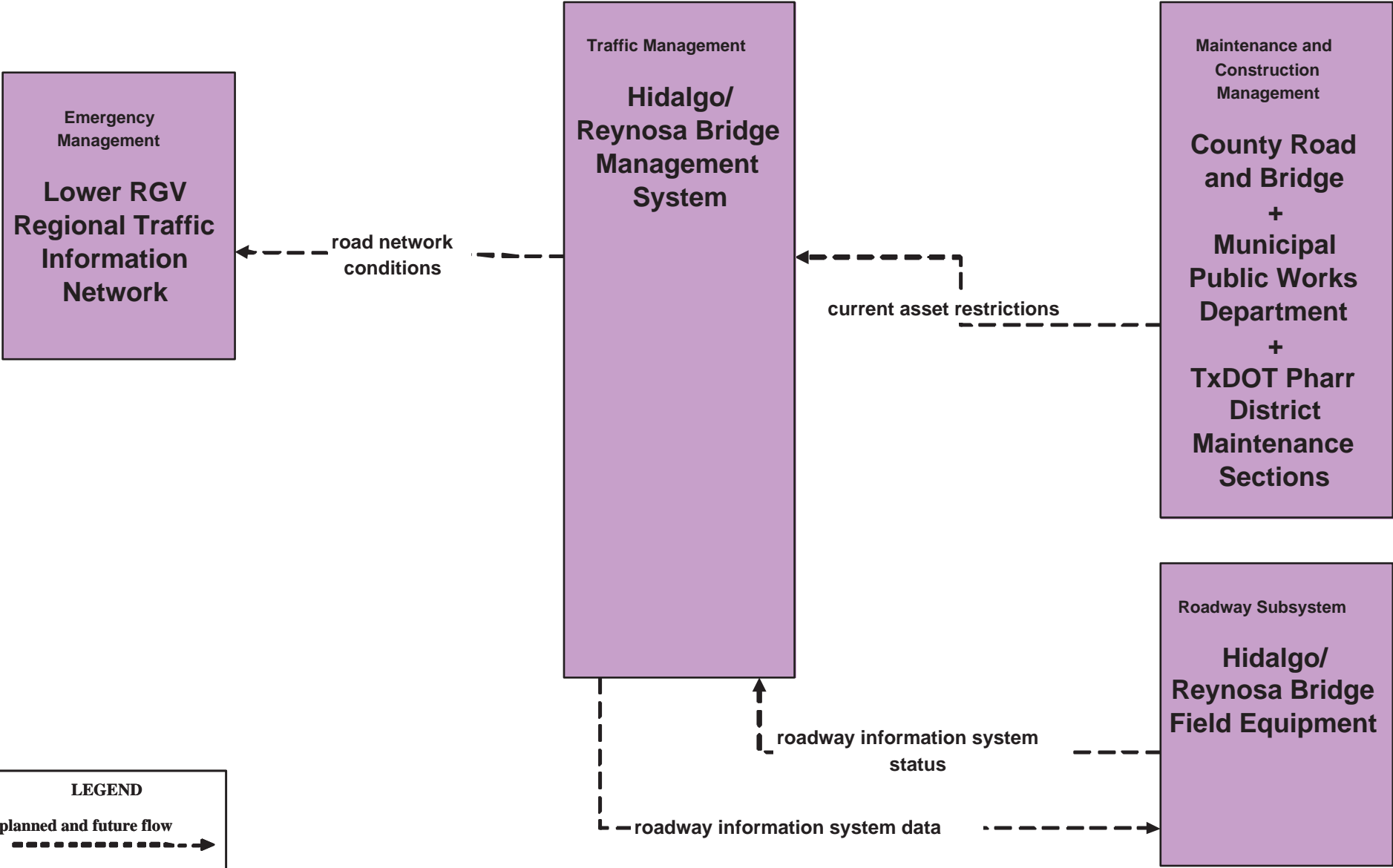
**ATMS06 - Traffic Information Dissemination  
Cameron County International Bridge Management System**



**LEGEND**

- planned and future flow** (dashed arrow)
- existing flow** (solid arrow)
- user defined flow** (solid arrow)

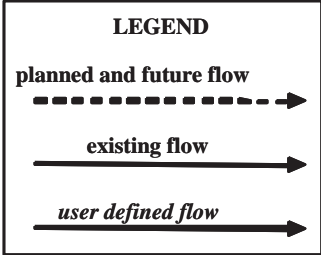
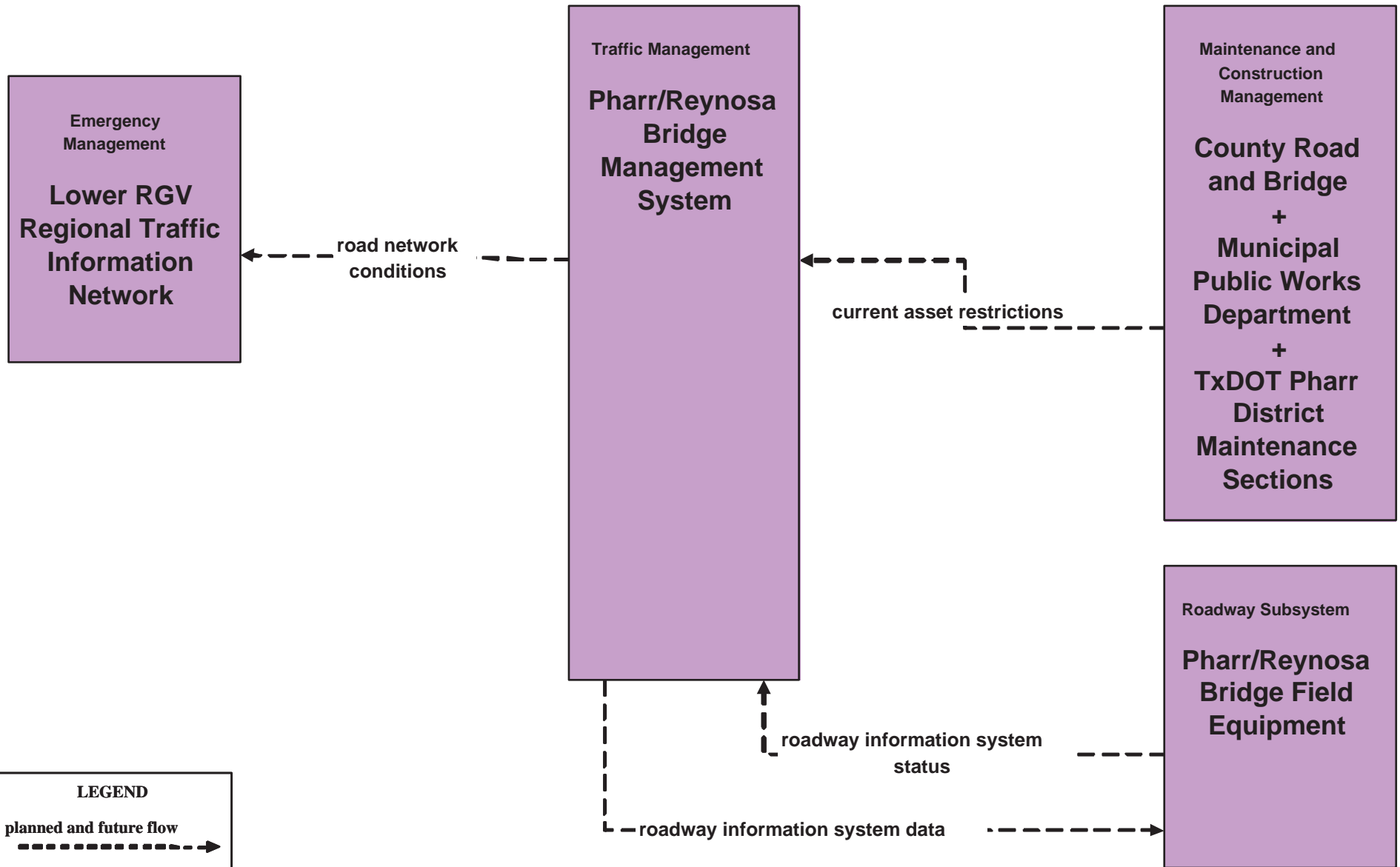
**ATMS06 - Traffic Information Dissemination  
Hidalgo/Reynosa Bridge Management System**



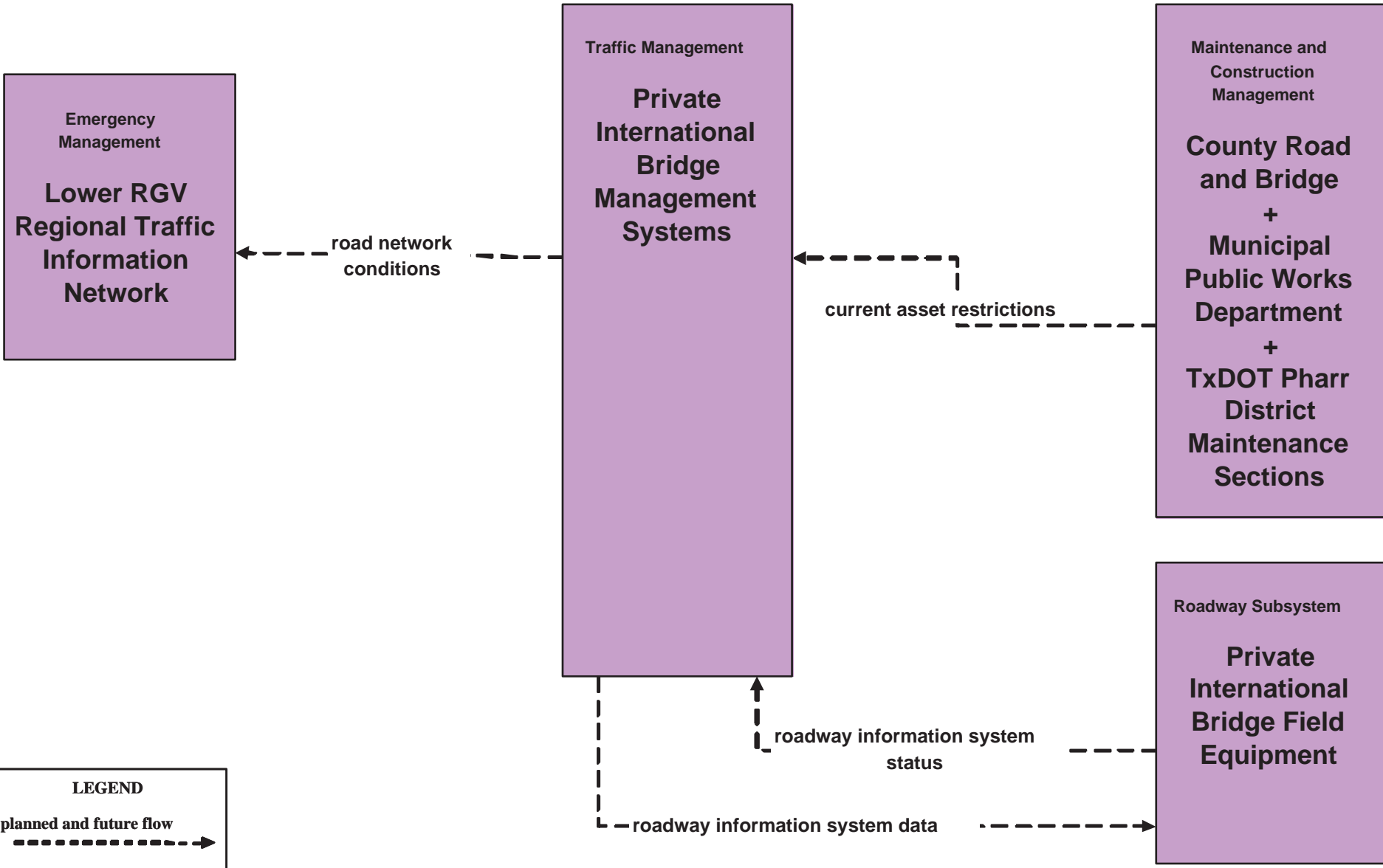
**LEGEND**

- planned and future flow* → (dashed arrow)
- existing flow* → (solid arrow)
- user defined flow* → (solid arrow)

# ATMS06 - Traffic Information Dissemination Pharr/Reynosa Bridge Management System



**ATMS06 - Traffic Information Dissemination  
Private International Bridge Management Systems**

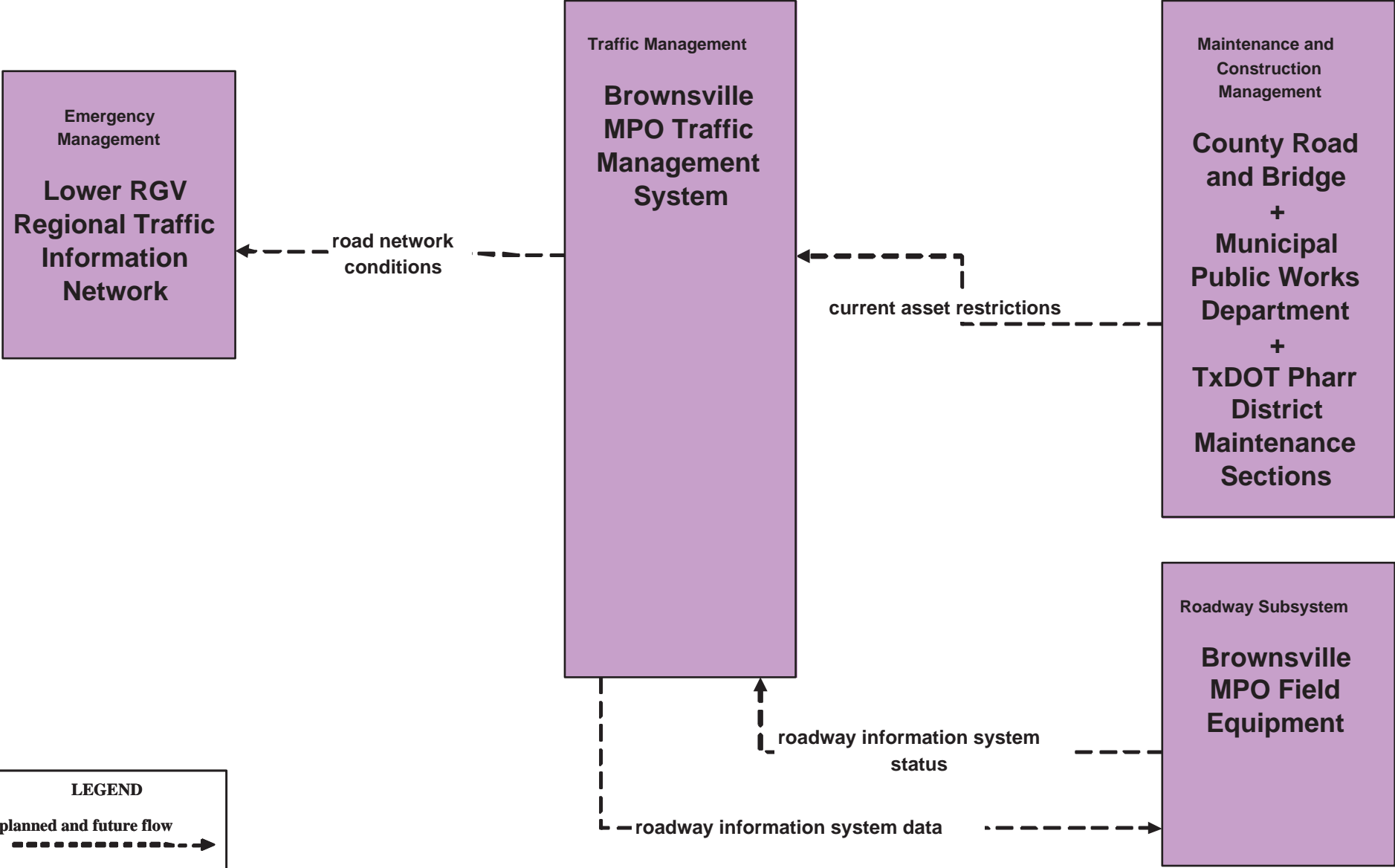


**LEGEND**

- planned and future flow* → (dashed line)
- existing flow* → (solid line)
- user defined flow* → (solid line with underline)



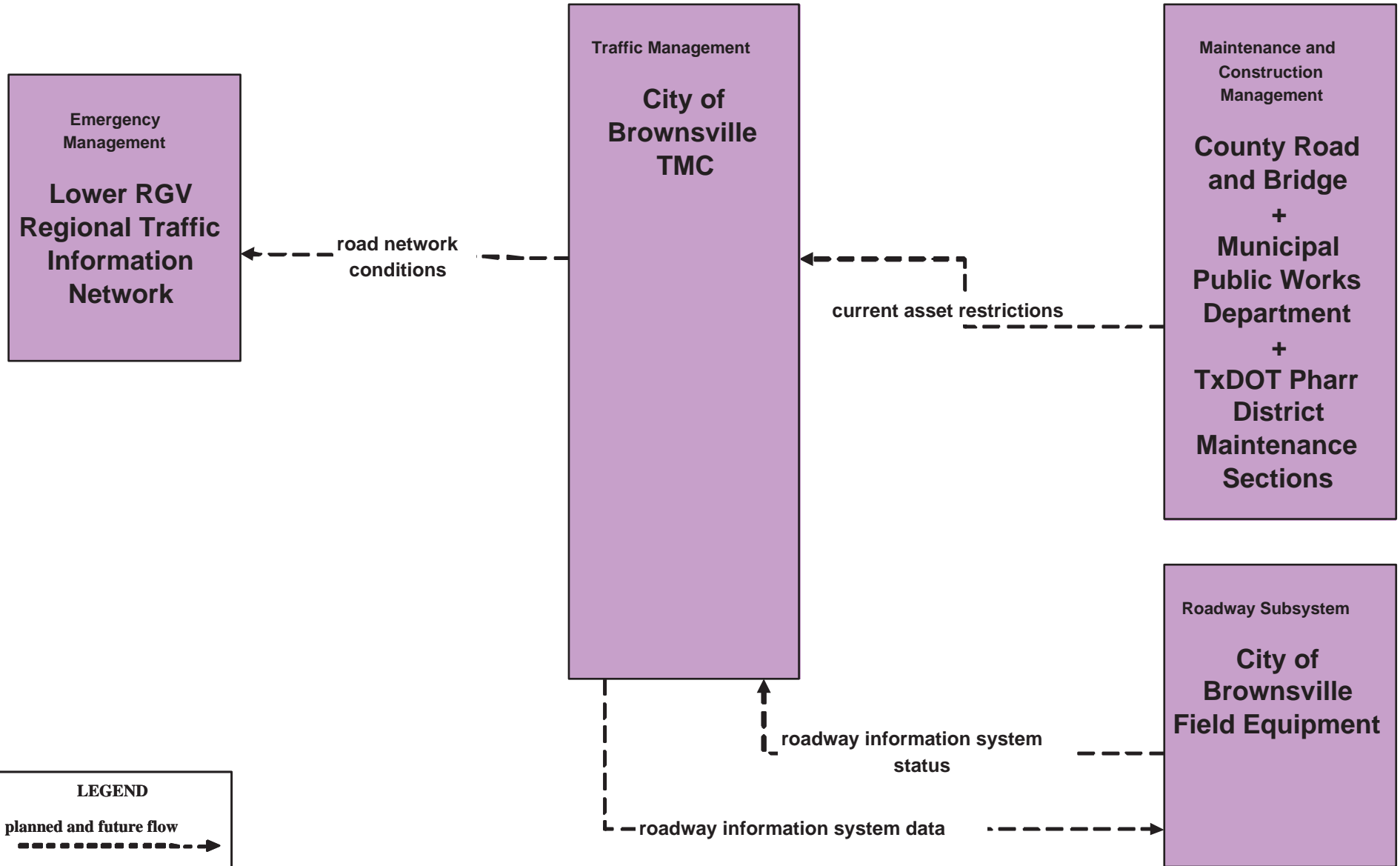
**ATMS06 - Traffic Information Dissemination  
Brownsville MPO Traffic Management System**



**LEGEND**

- planned and future flow* → (dashed arrow)
- existing flow* → (solid arrow)
- user defined flow* → (solid arrow)

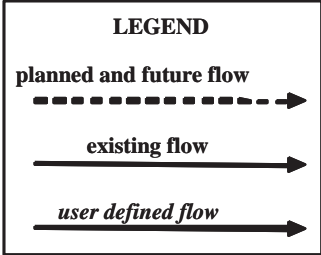
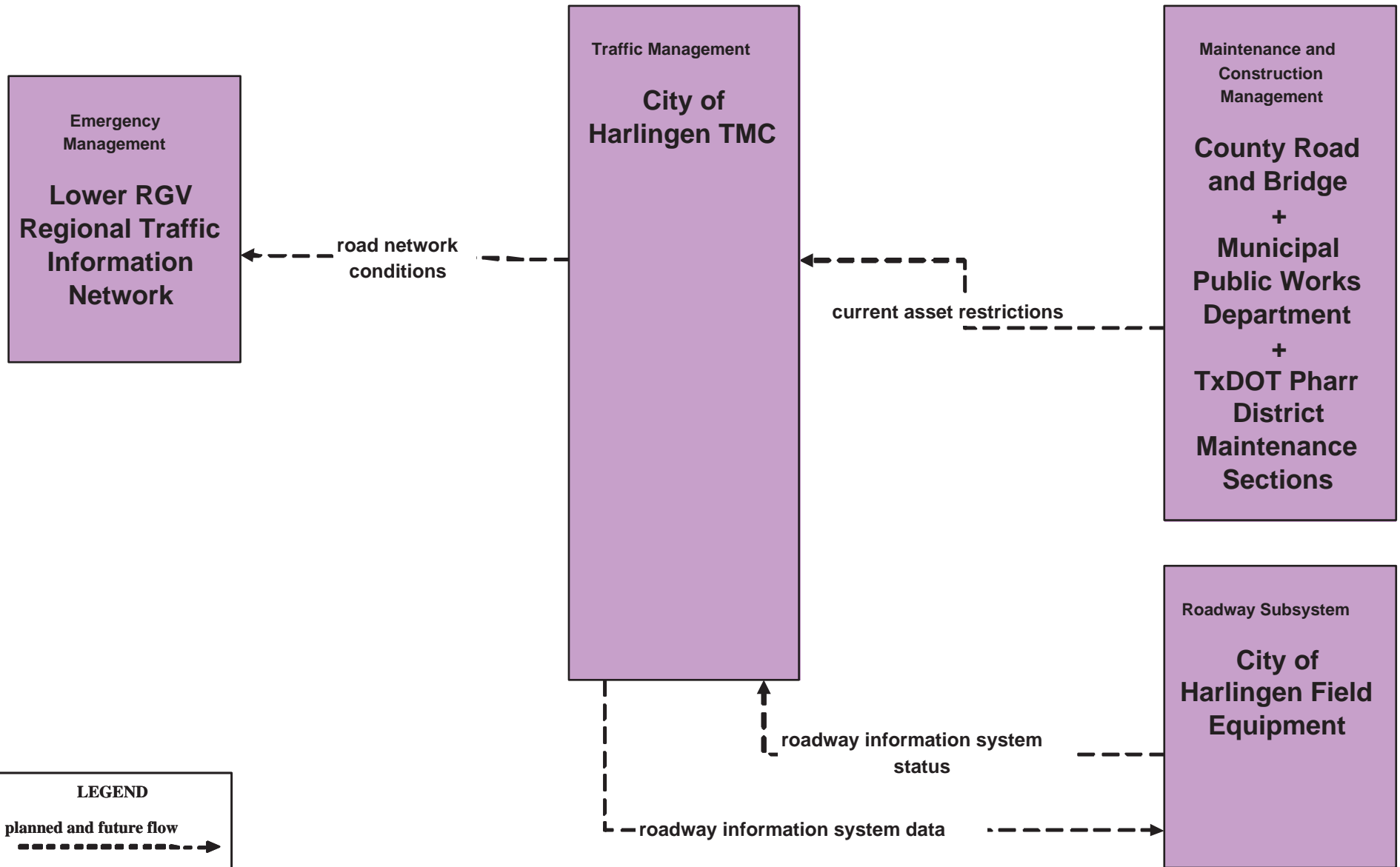
**ATMS06 - Traffic Information Dissemination  
City of Brownsville TMC**



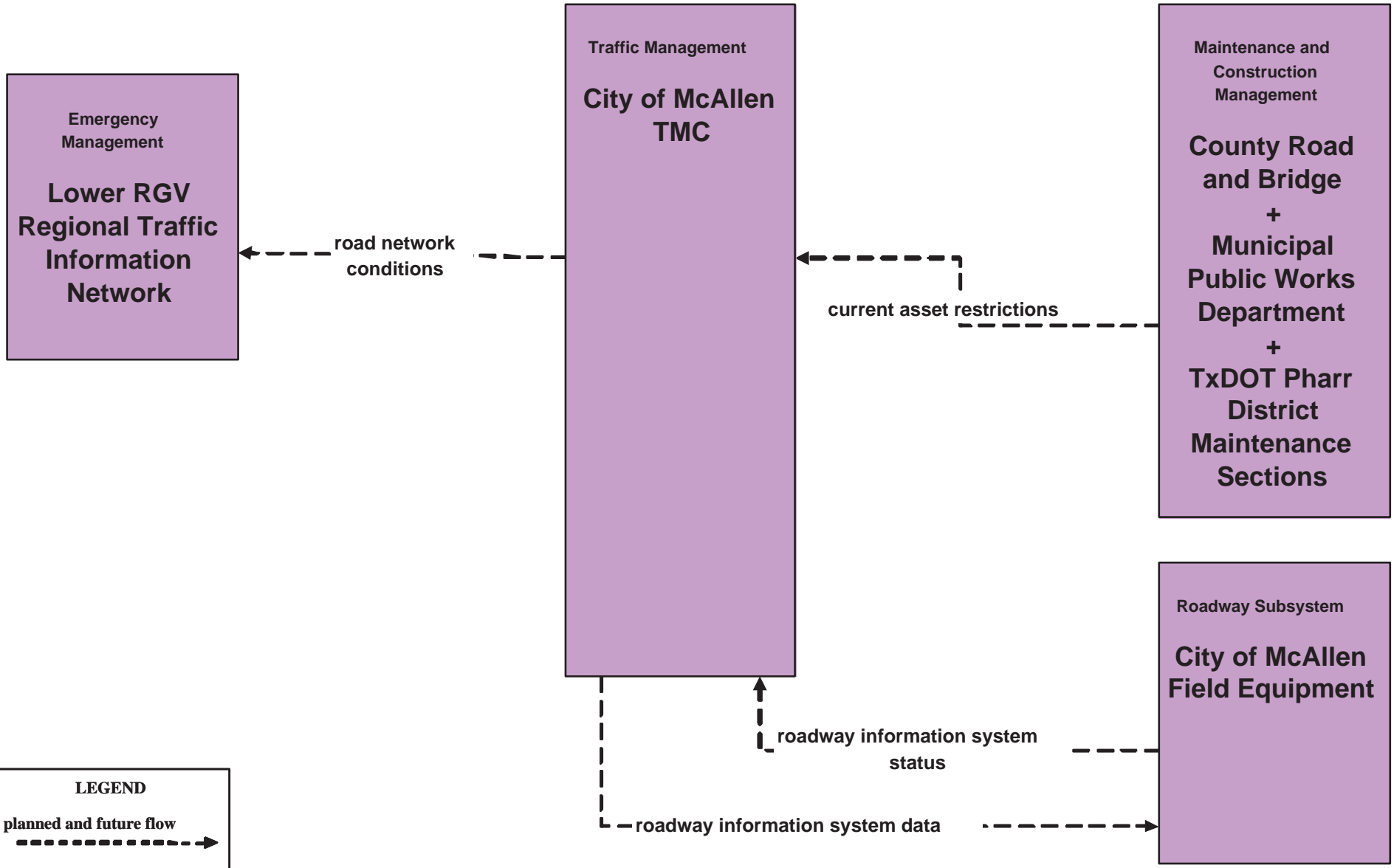
**LEGEND**

- planned and future flow** (dashed arrow)
- existing flow** (solid arrow)
- user defined flow** (solid arrow)

# ATMS06 - Traffic Information Dissemination City of Harlingen TMC



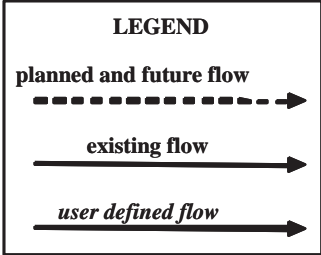
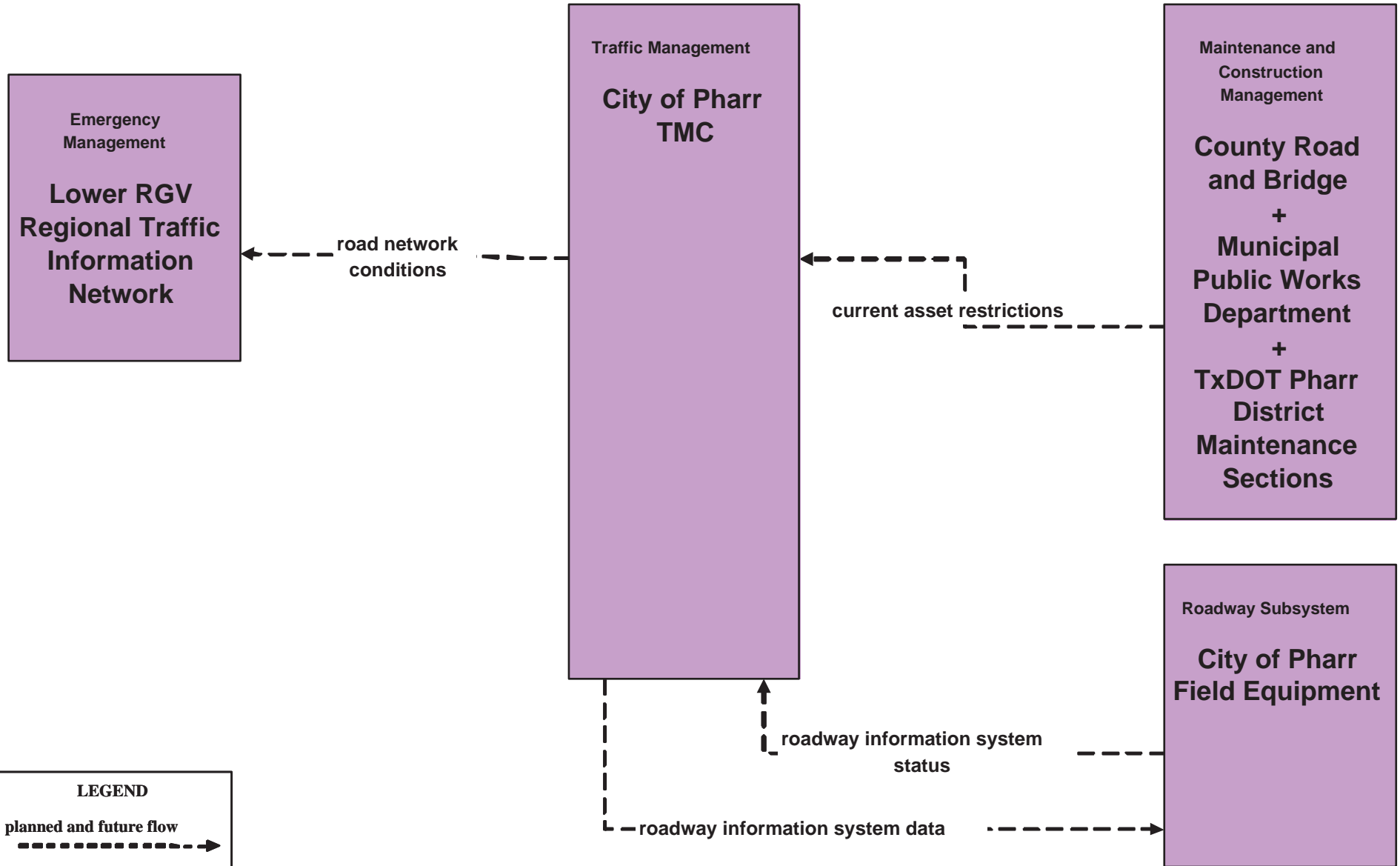
**ATMS06 - Traffic Information Dissemination  
City of McAllen TMC**



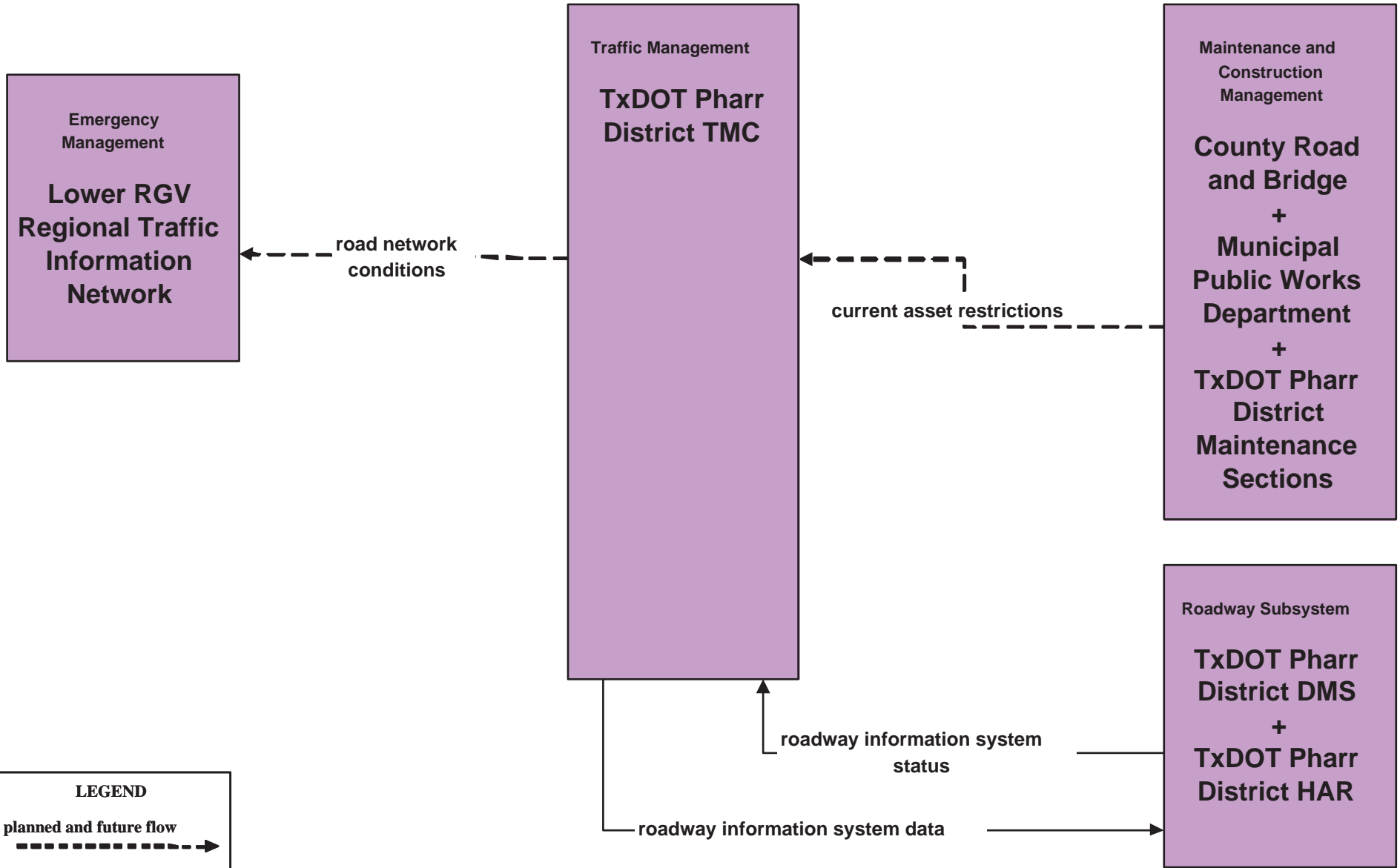
**LEGEND**

- planned and future flow** (dashed arrow)
- existing flow** (solid arrow)
- user defined flow** (solid arrow)

# ATMS06 - Traffic Information Dissemination City of Pharr TMC



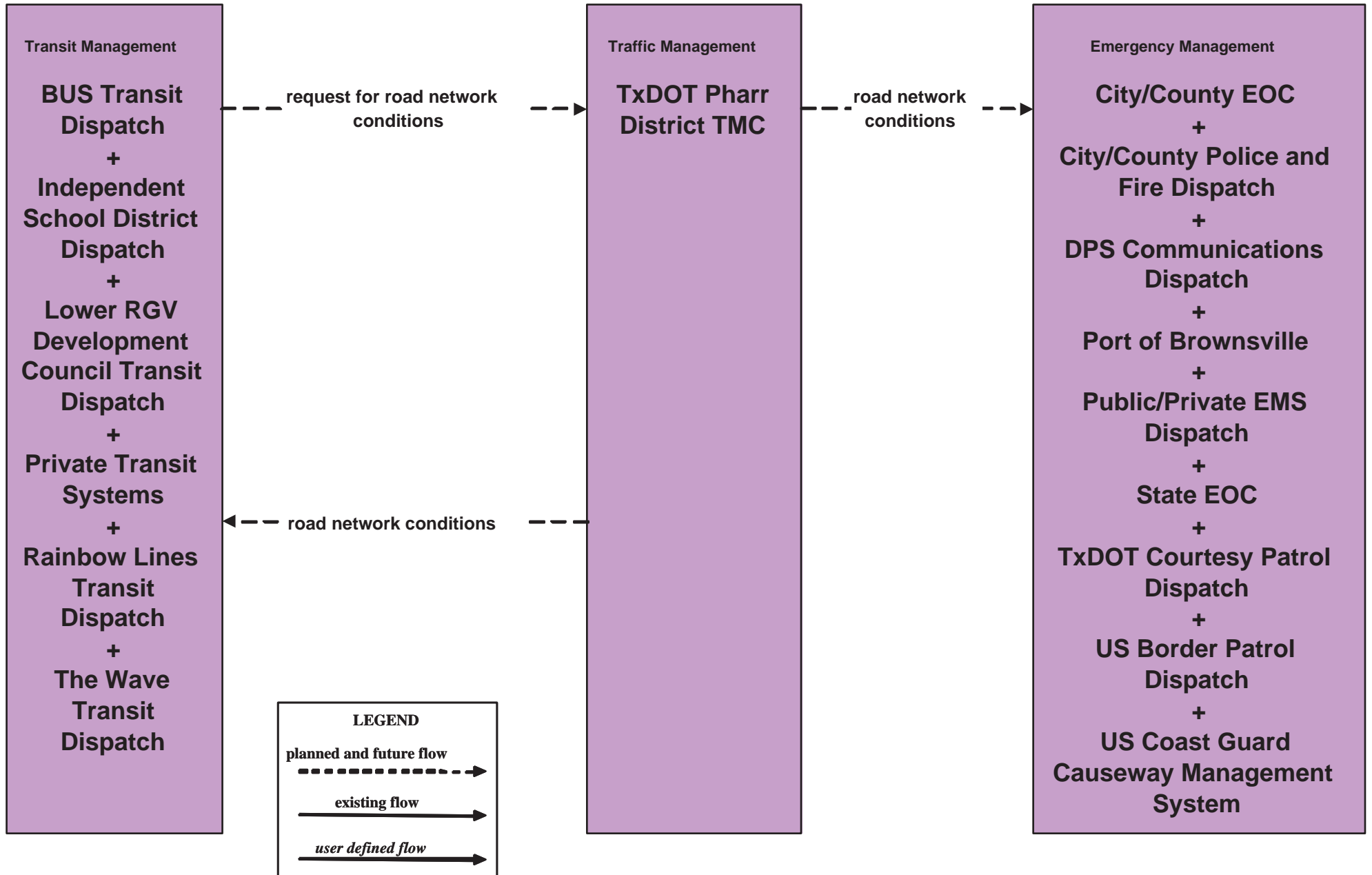
**ATMS06 - Traffic Information Dissemination  
TxDOT Pharr District TMC**



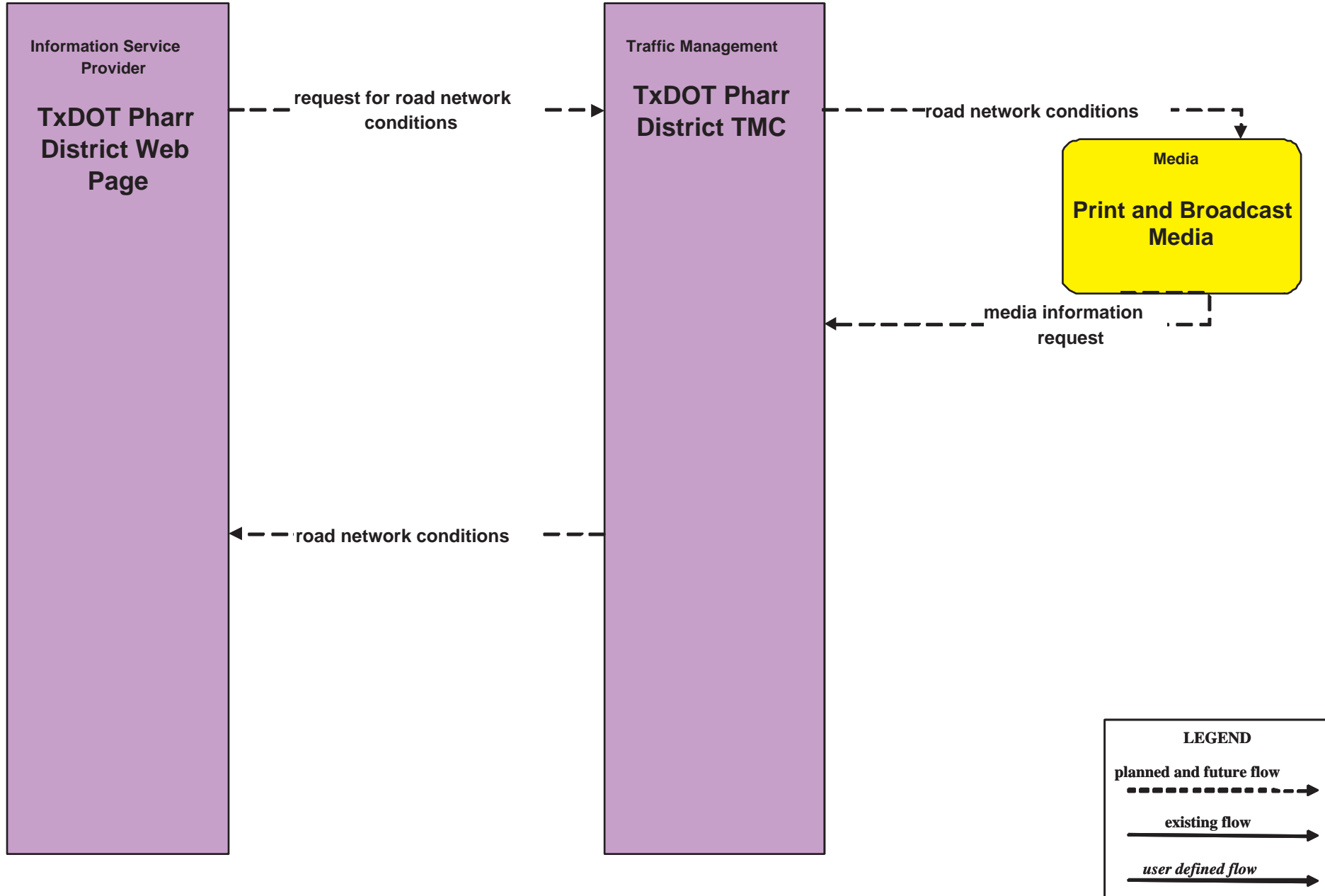
**LEGEND**

- planned and future flow** (dashed arrow)
- existing flow** (solid arrow)
- user defined flow** (solid arrow)

**ATMS06 - Traffic Information Dissemination  
TxDOT Pharr District TMC**

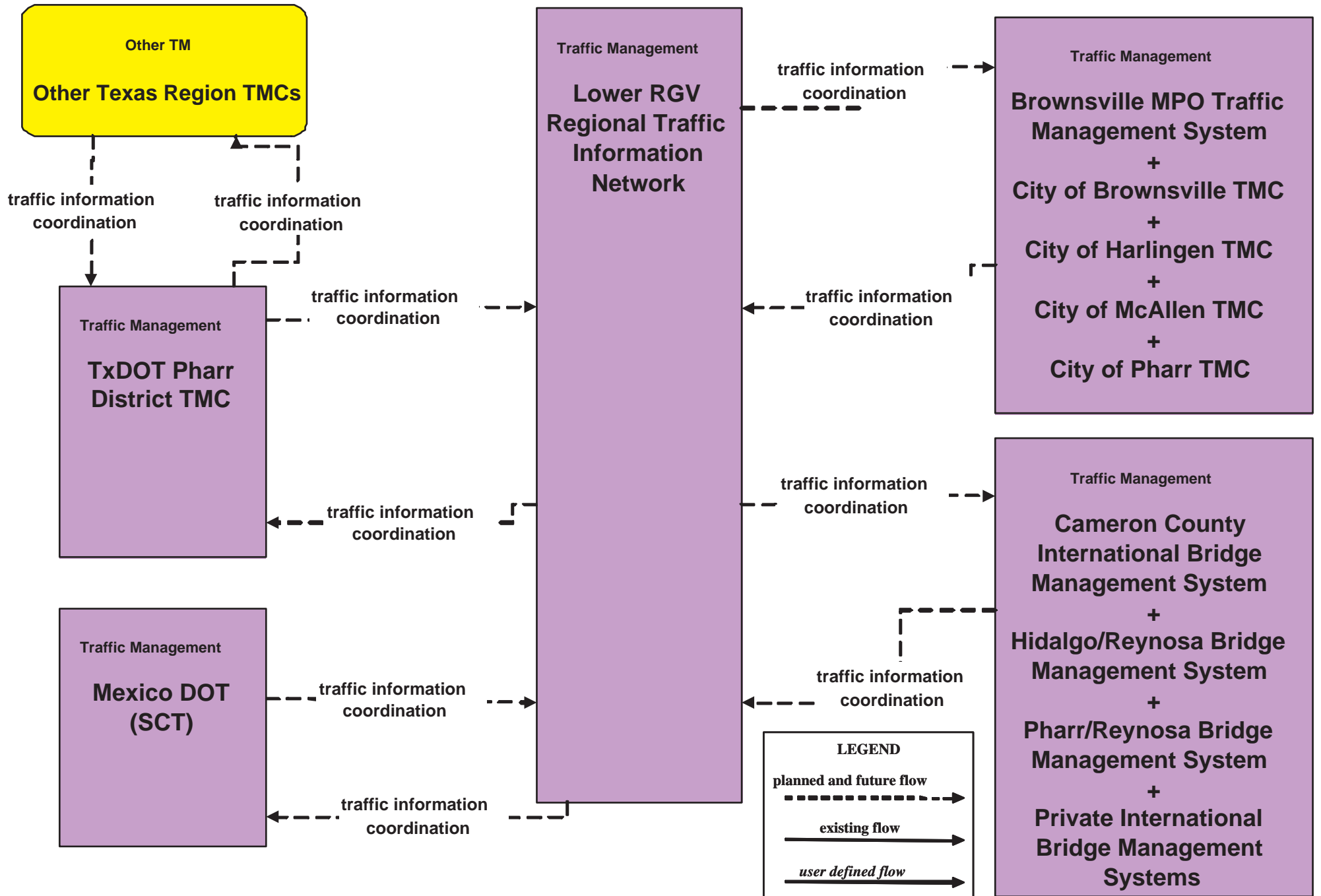


**ATMS06 - Traffic Information Dissemination  
TxDOT Pharr District TMC**

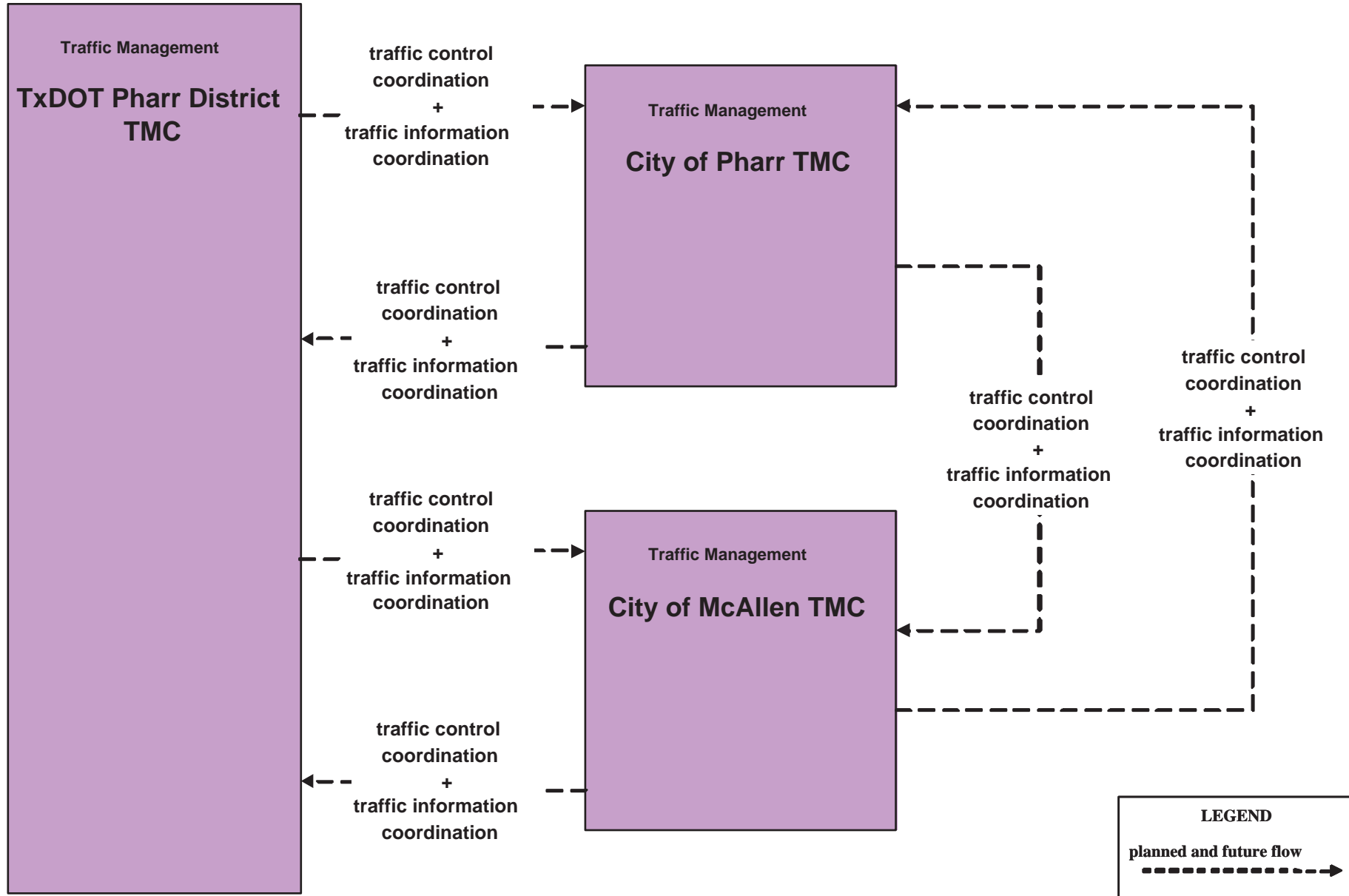




# ATMS07 - Regional Traffic Information

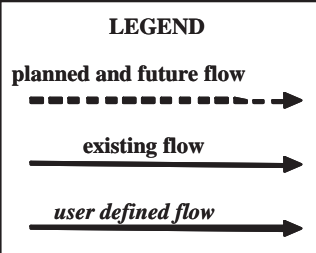
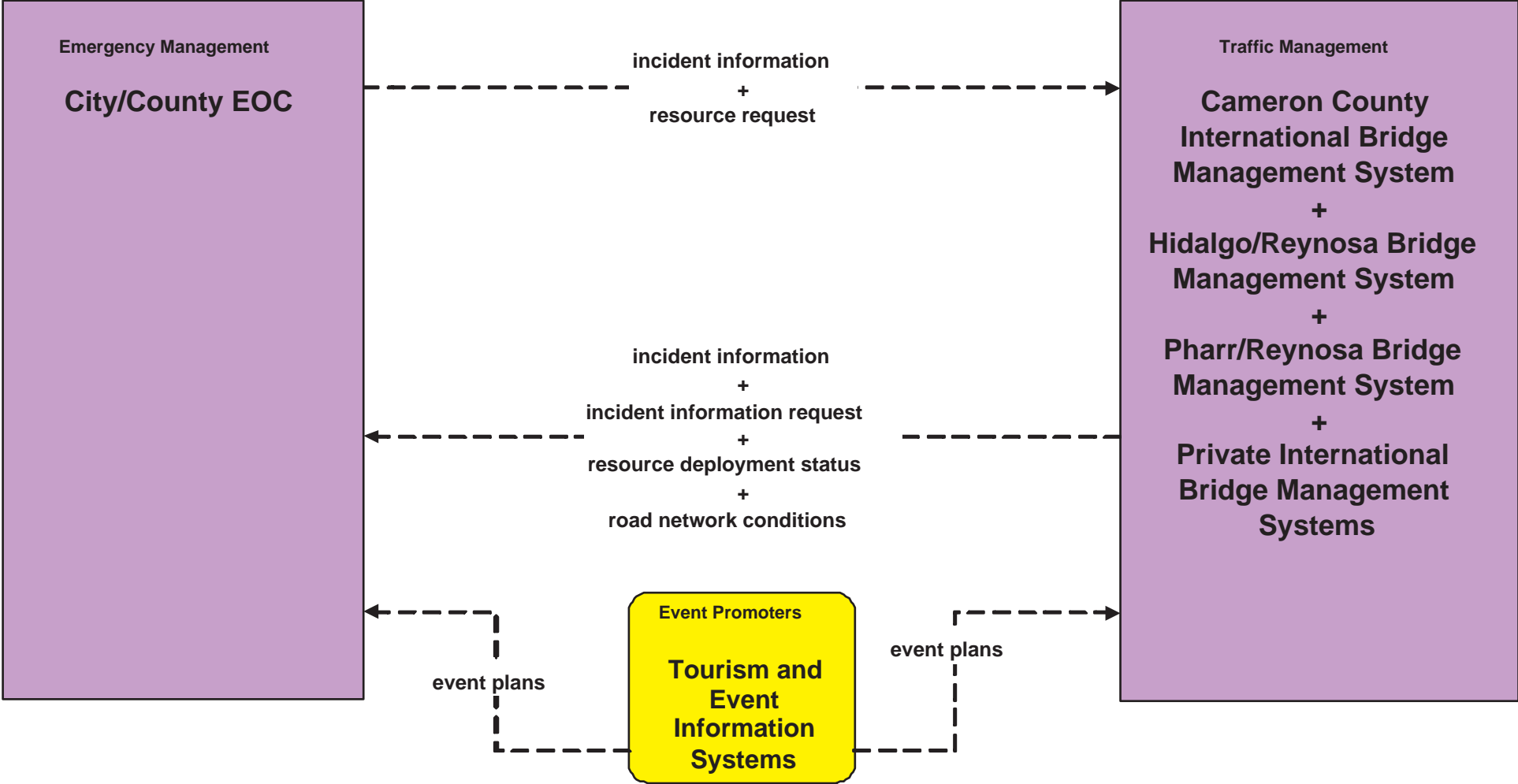


# ATMS07 - Regional Traffic Control



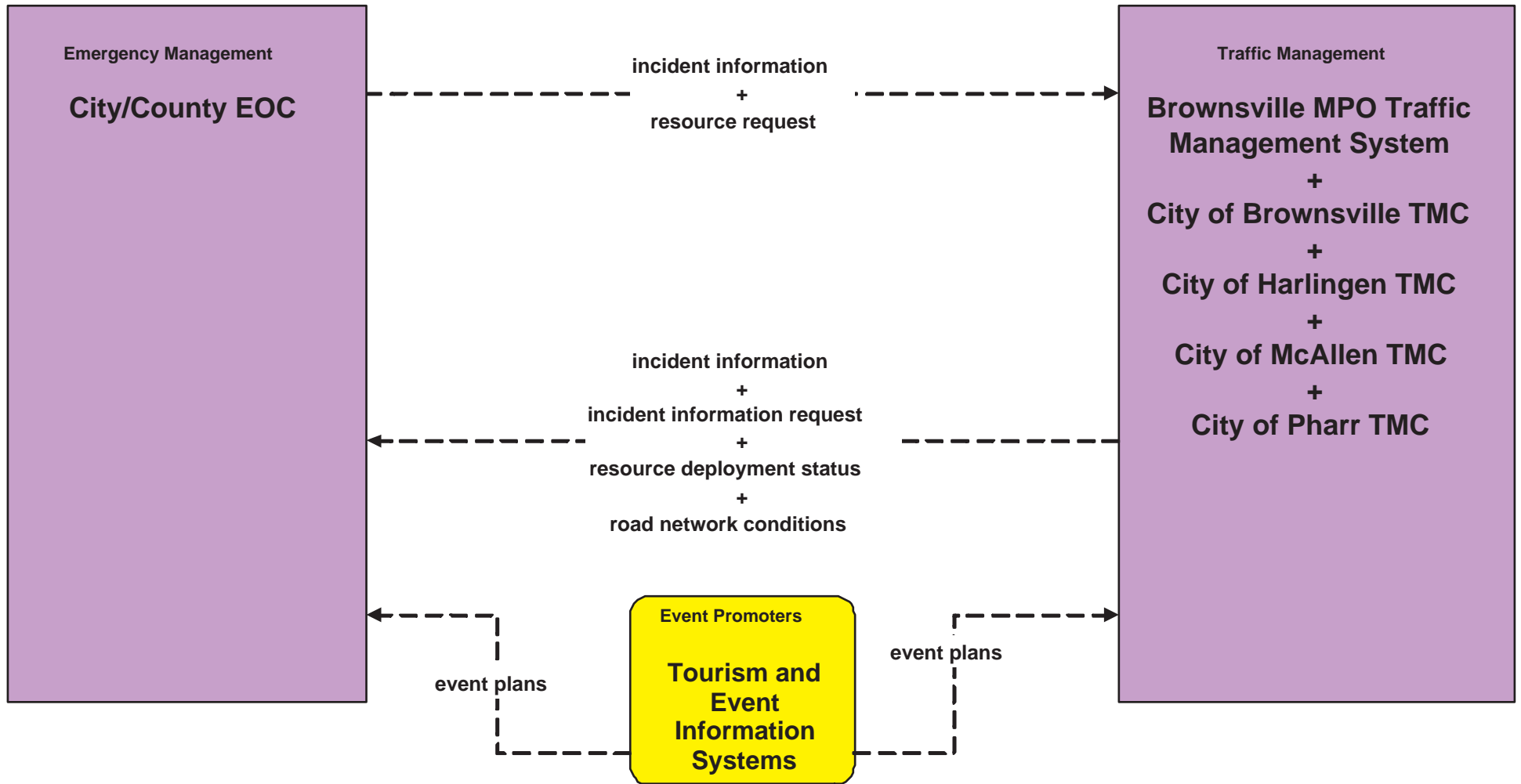
*Multijurisdictional Traffic Signal Control may be considered in the future for : Pharr, McAllen, and TxDOT*

**ATMS08 - Incident Management**  
**City/County EOC to Bridge Management Systems**

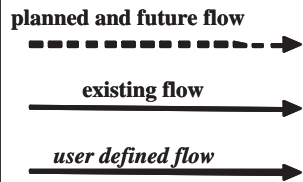


# ATMS08 - Incident Management

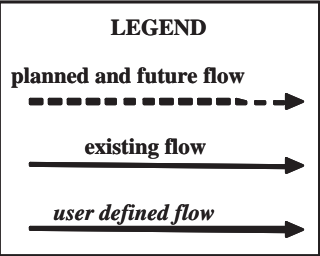
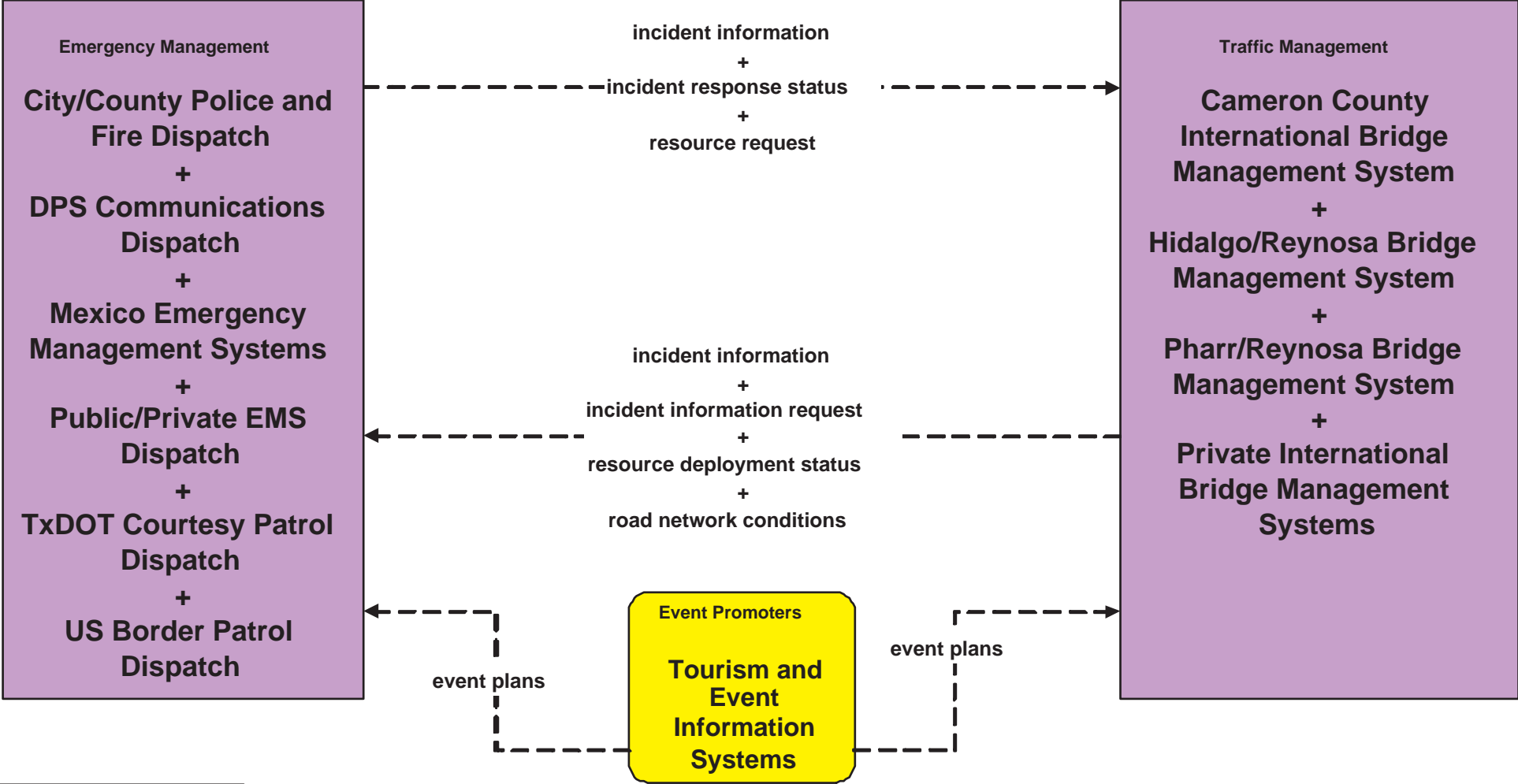
City/County EOC to Brownsville MPO, City of Brownsville, City of Harlingen, City of McAllen, and City of Pharr TMCs



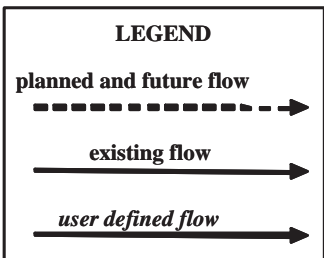
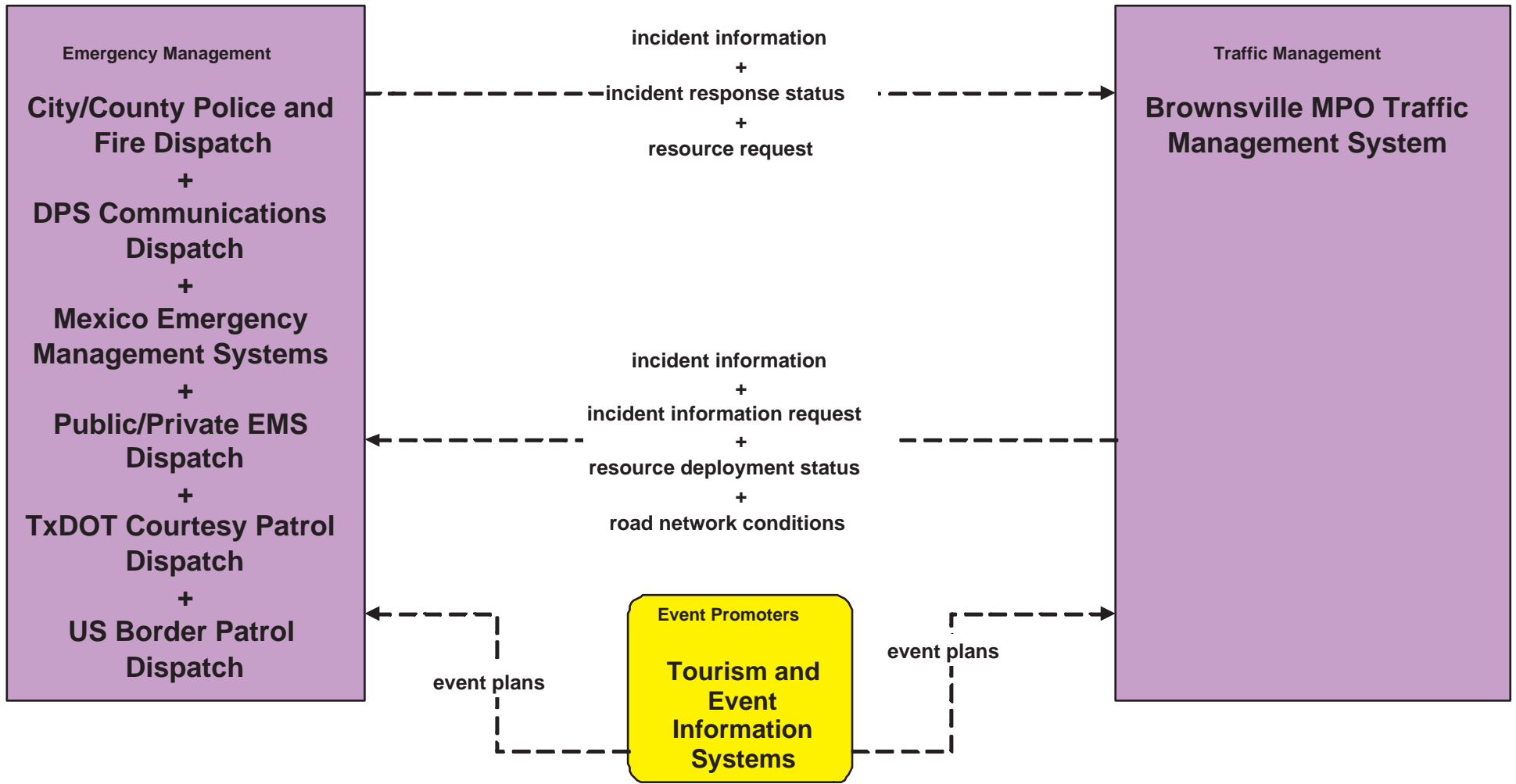
## LEGEND



**ATMS08 - Incident Management  
Non-EOC EM to Bridge Management System TM**

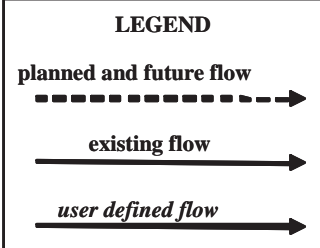
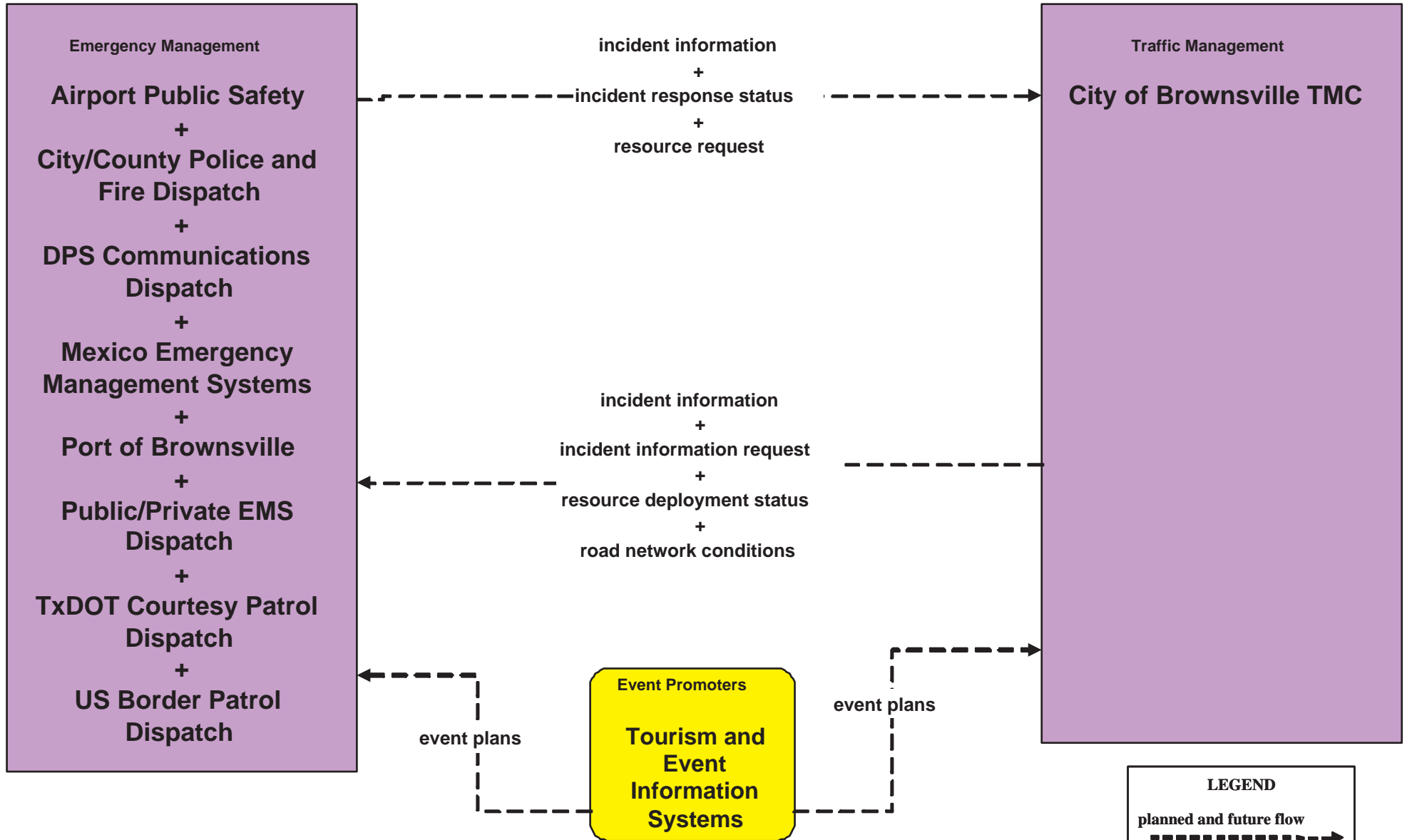


**ATMS08 - Incident Management**  
**Non-EOC EM to Brownsville MPO Traffic Management System**

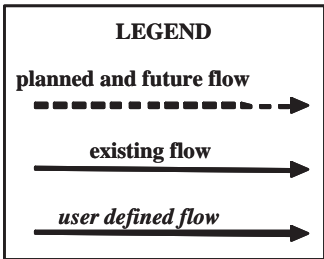
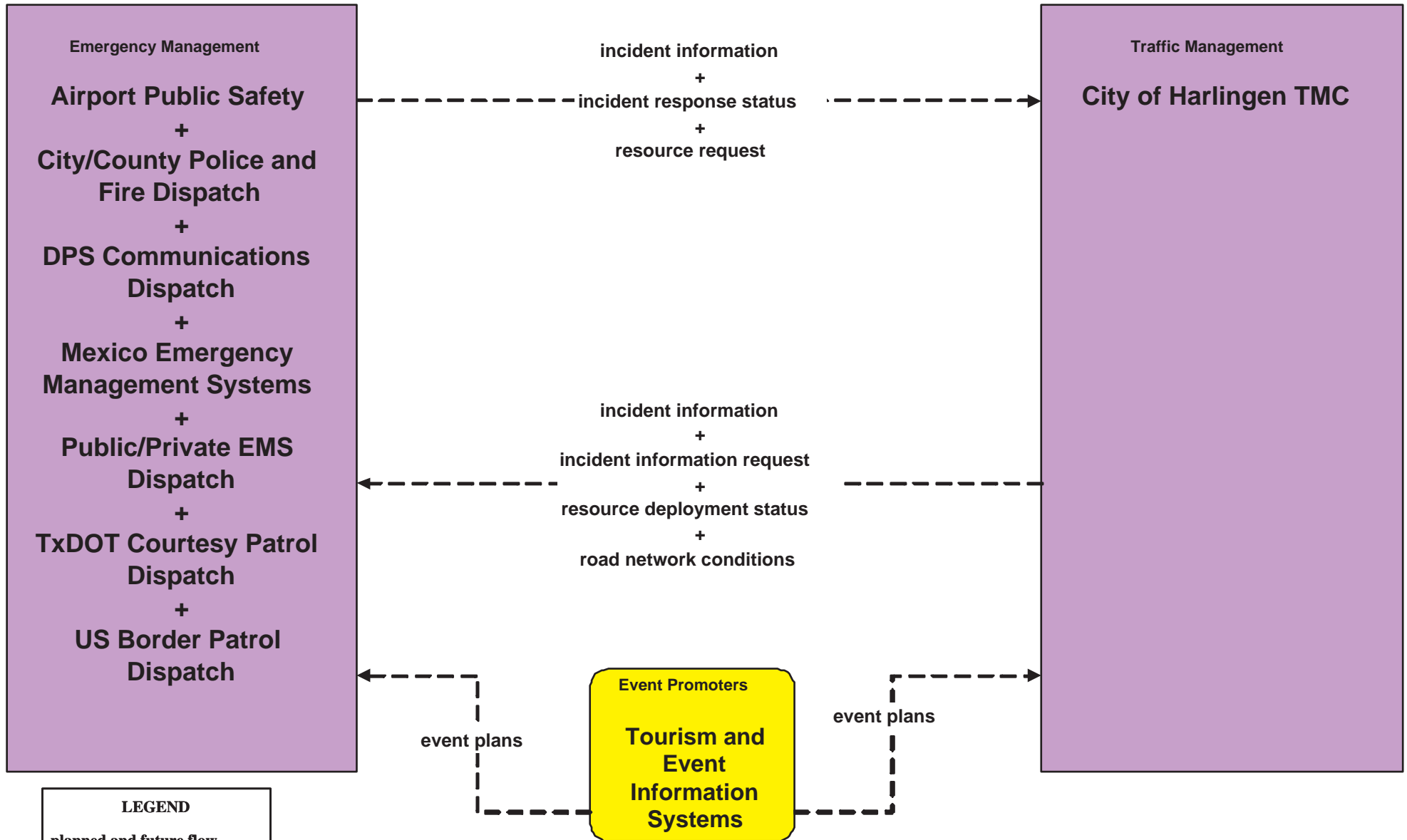


# ATMS08 - Incident Management

## Non-EOC EM to City of Brownsville TMC



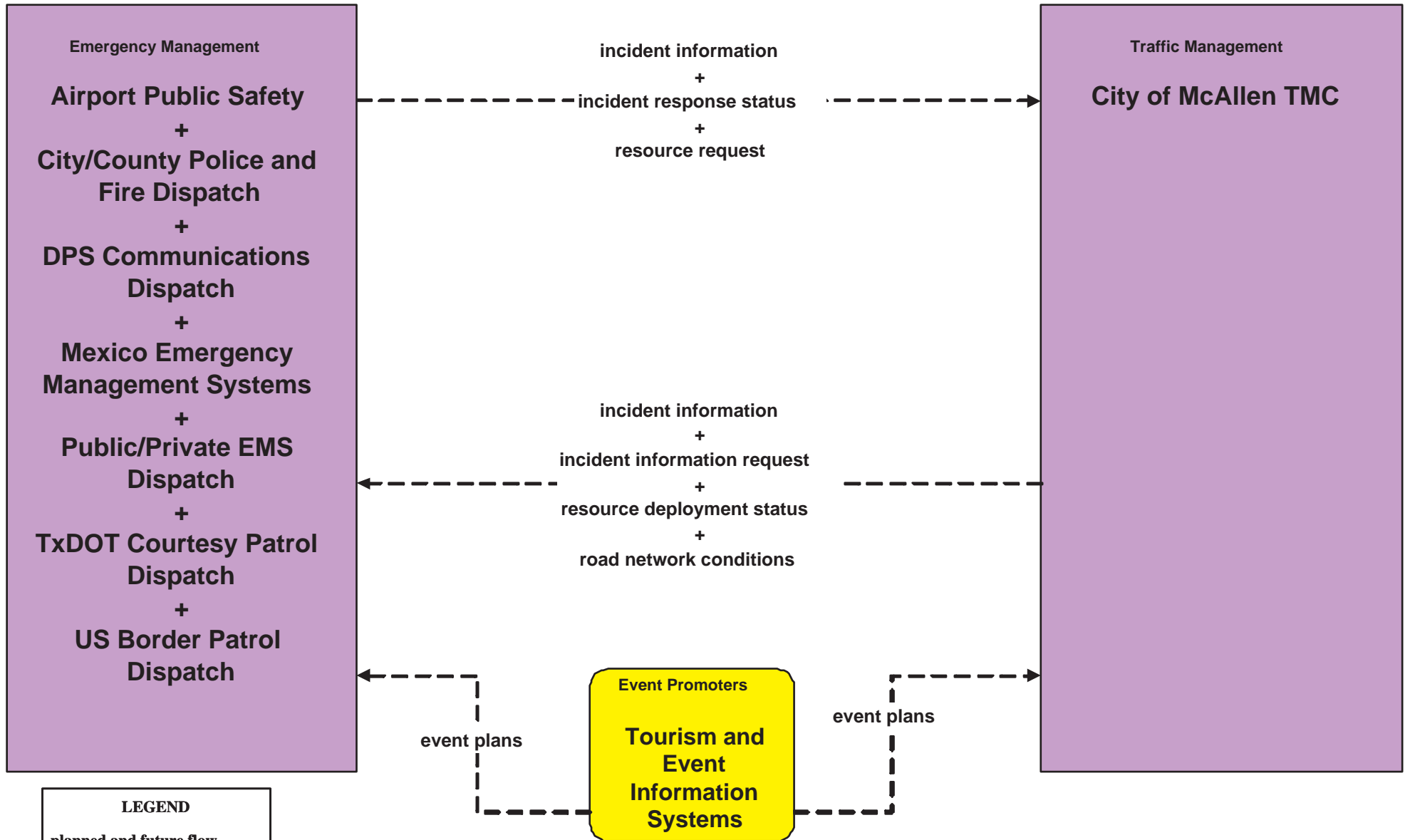
# ATMS08 - Incident Management Non-EOC EM to City of Harlingen TMC





# ATMS08 - Incident Management

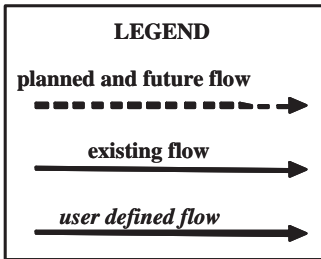
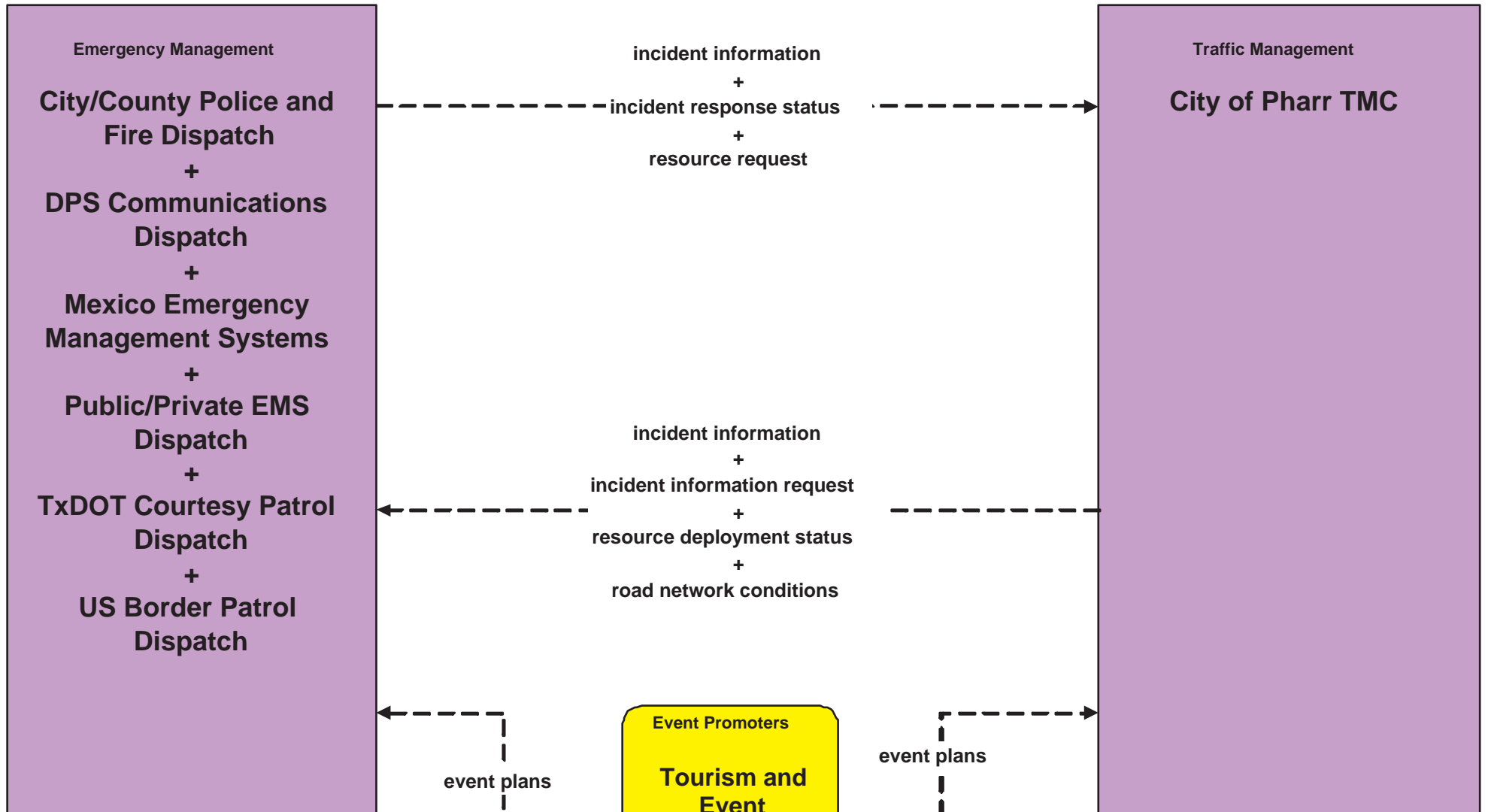
## Non-EOC EM to City of McAllen TMC



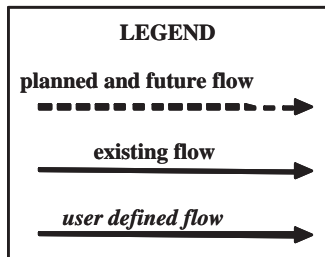
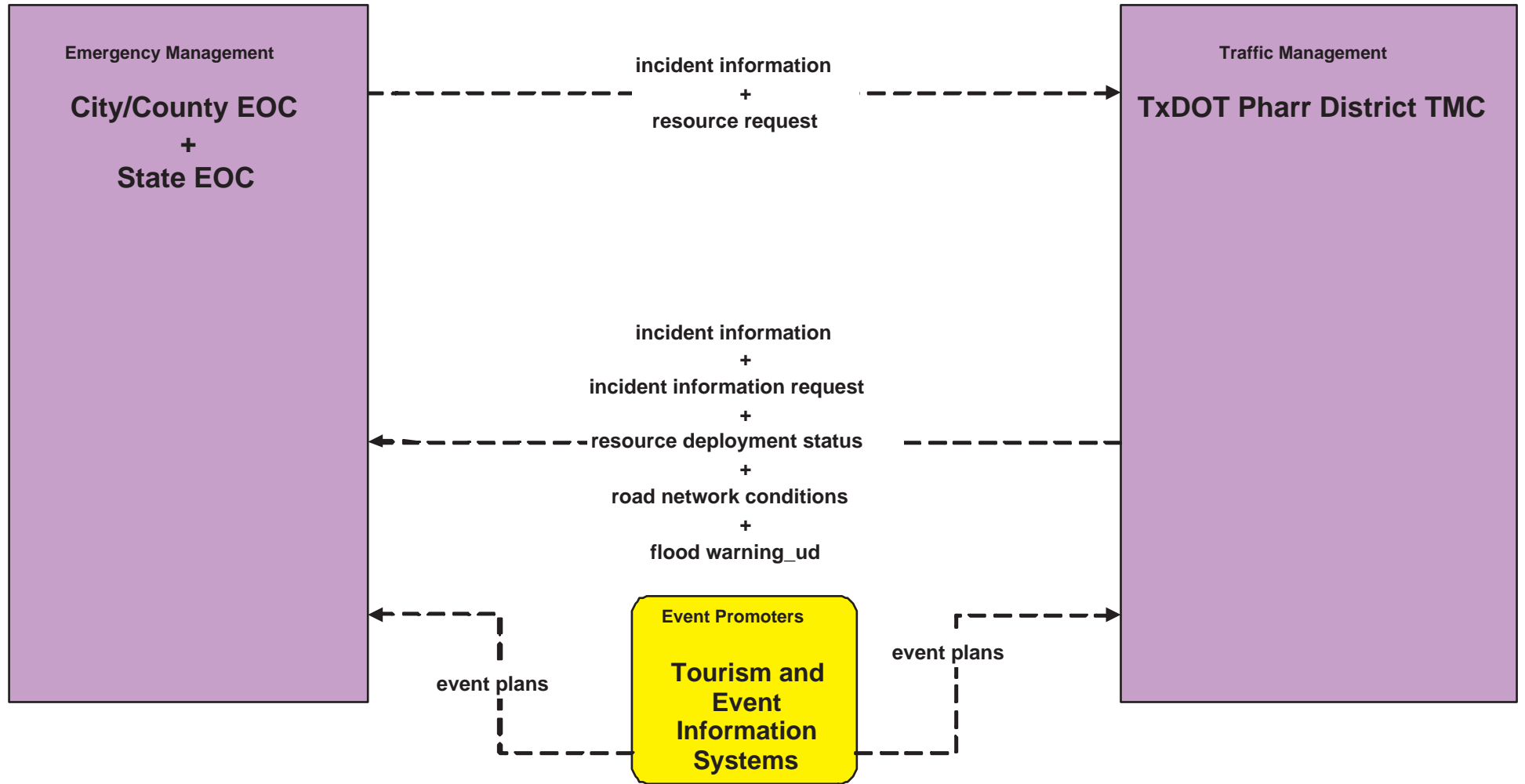
**LEGEND**

- planned and future flow
- existing flow
- user defined flow

# ATMS08 - Incident Management Non-EOC EM to City of Pharr TMC

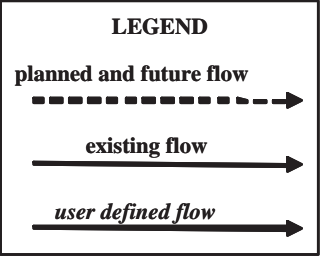
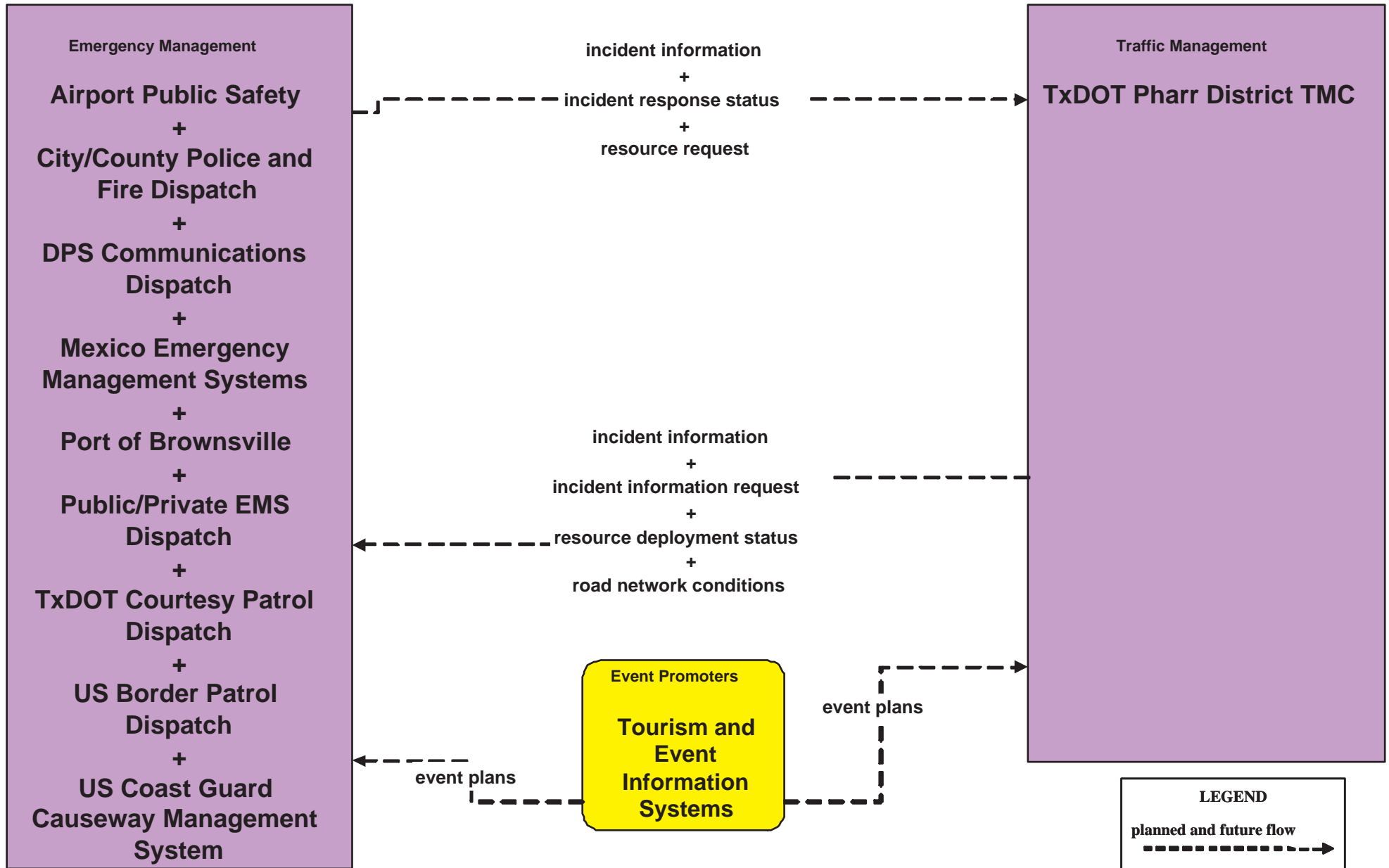


**ATMS08 - Incident Management**  
**State EOC, City/County EOC to TxDOT Pharr District TMC**

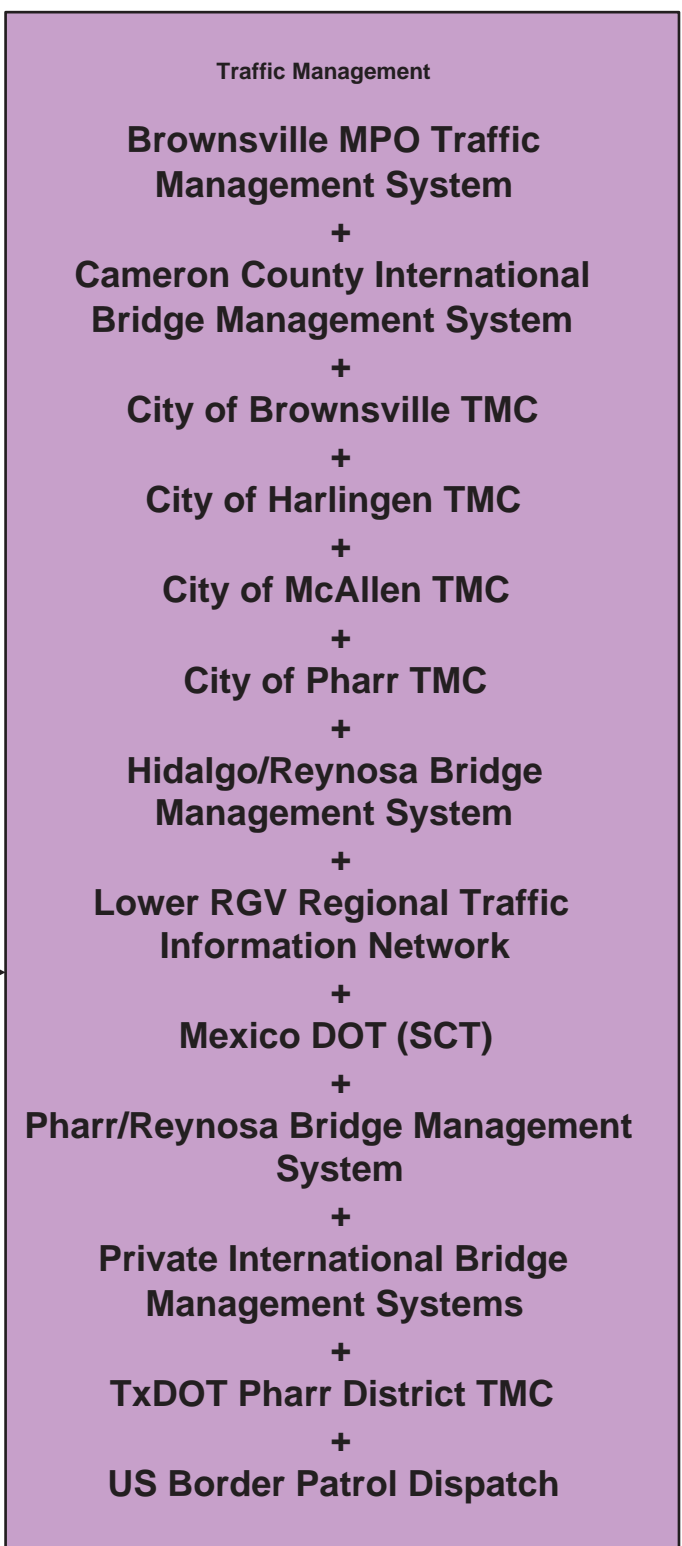
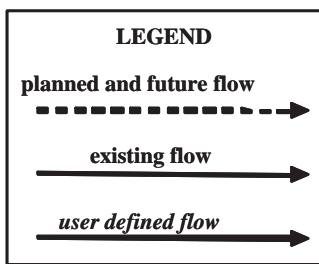
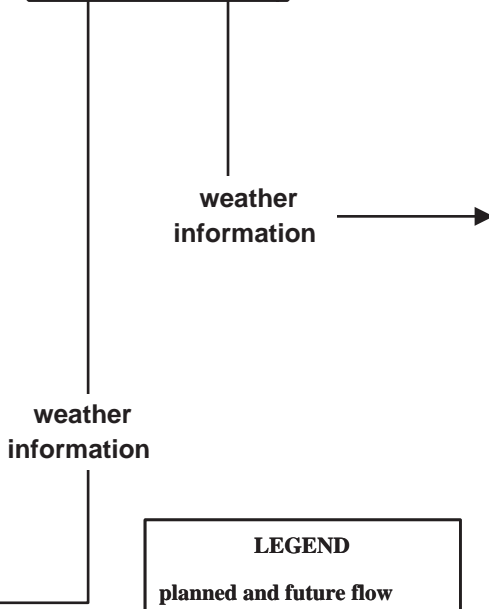
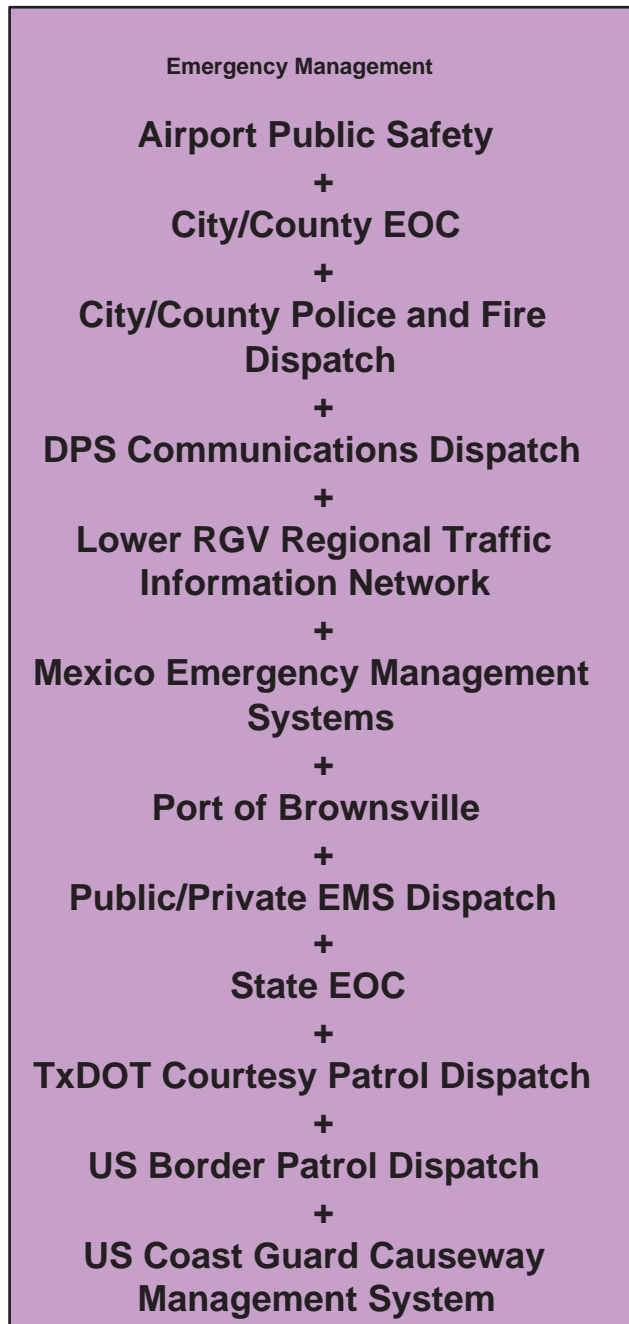


# ATMS08 - Incident Management

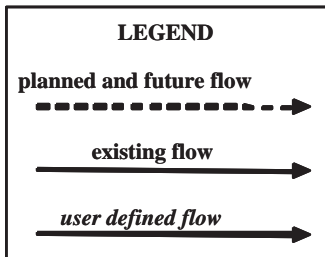
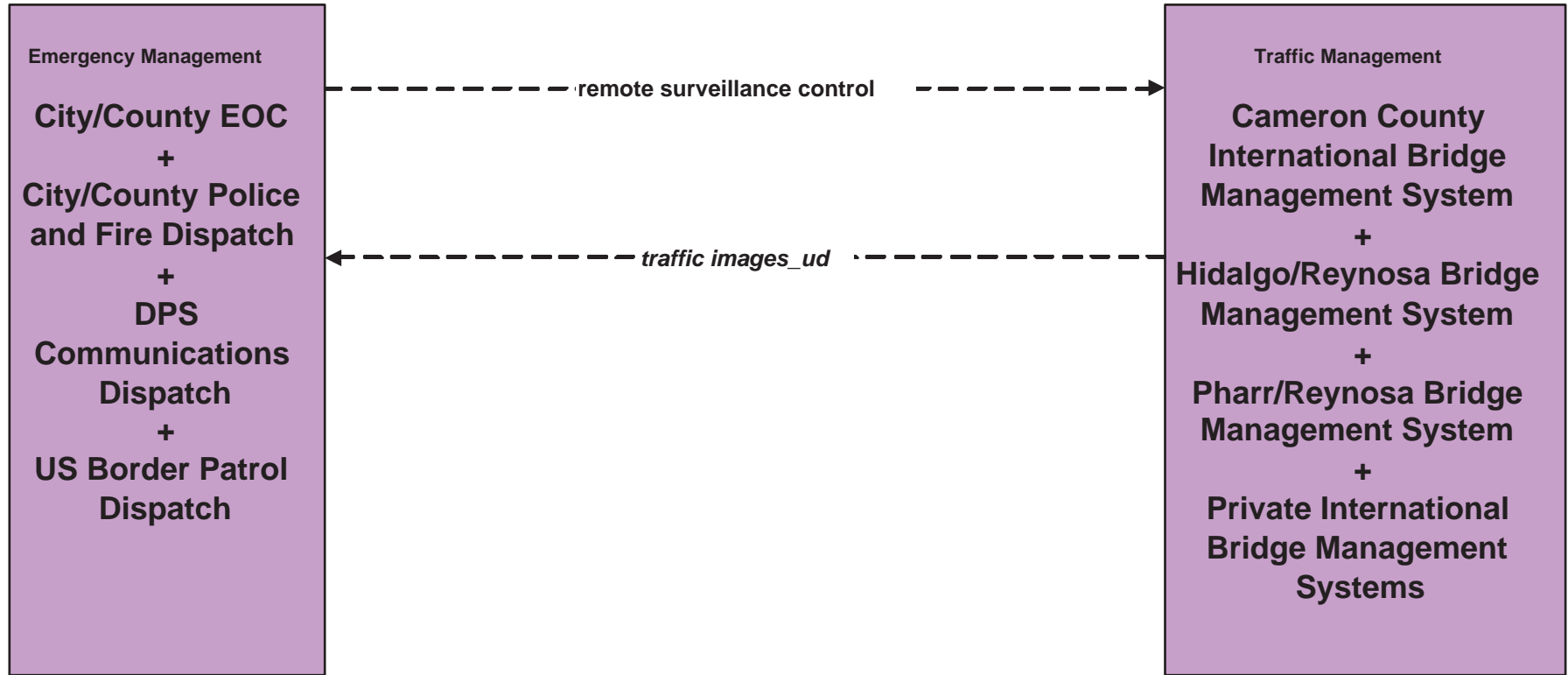
## Non-EOC EM to TxDOT Pharr District TMC



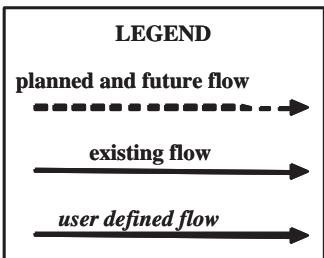
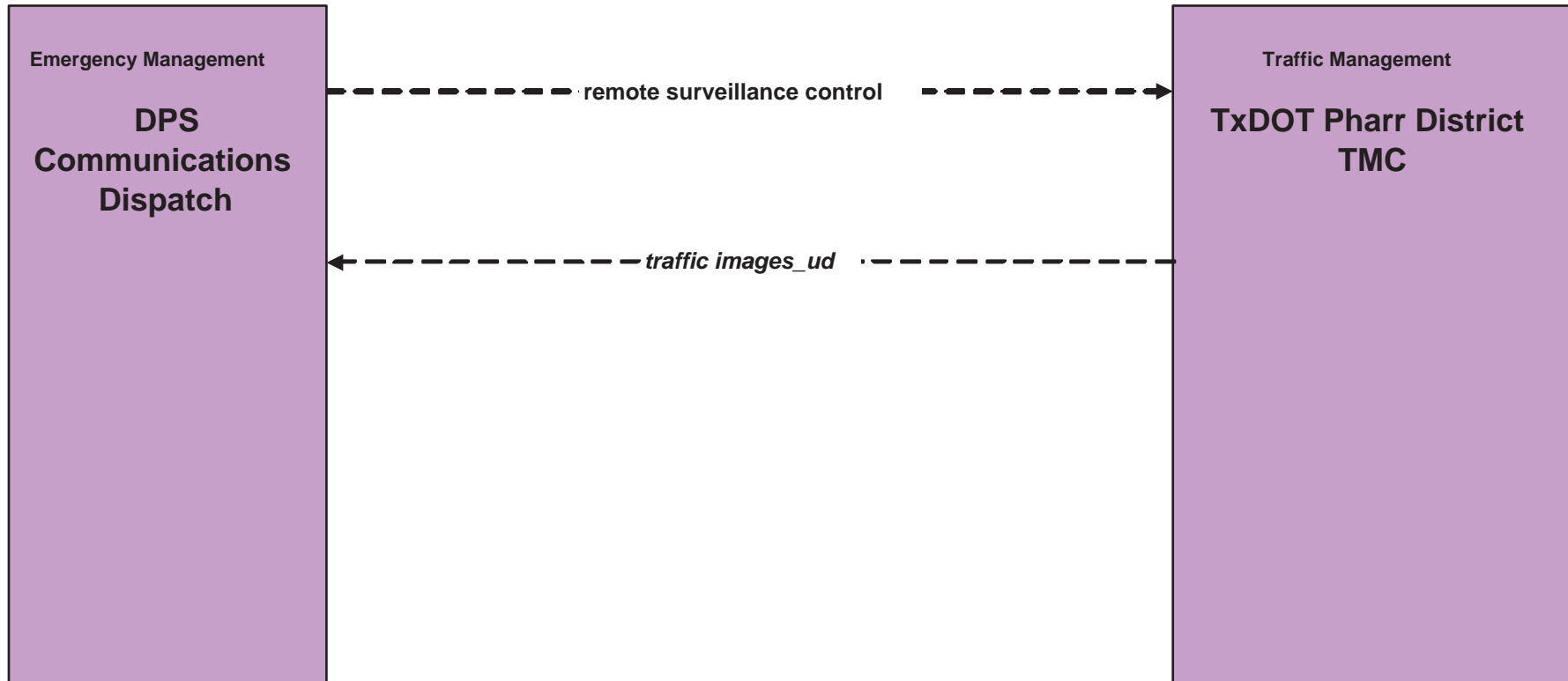
**ATMS08 - Incident Management  
Weather Service**



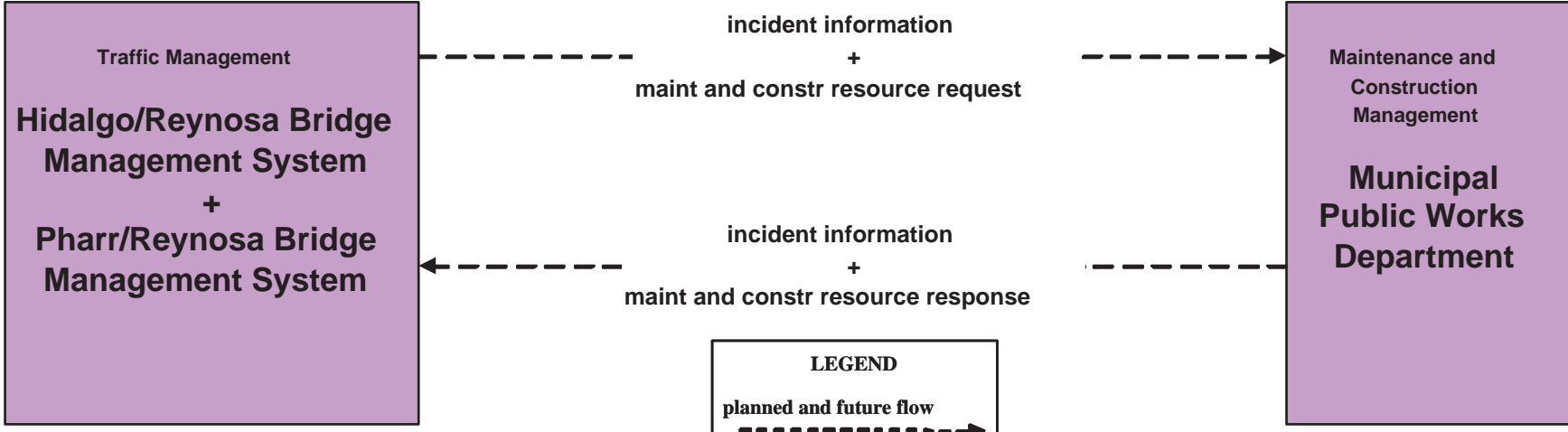
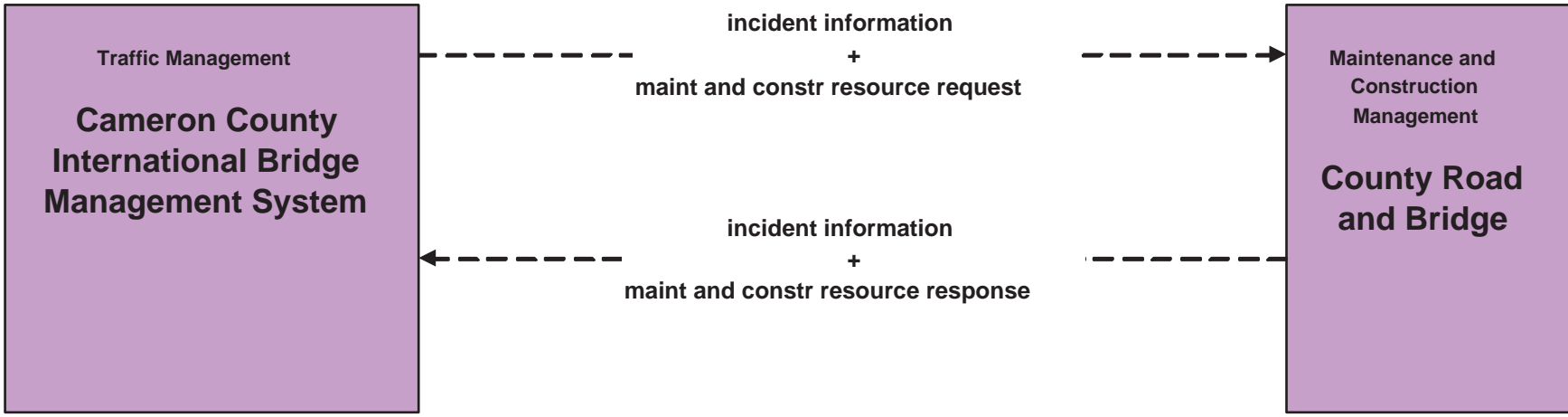
**ATMS08 - Incident Management  
Bridge Management Systems  
EM to TM Remote Surveillance Control**



**ATMS08 - Incident Management  
TxDOT Pharr District TMC  
EM to TM Remote Surveillance Control**



**ATMS08 - Incident Management  
Bridge Management Systems to MCM (1 of 2)**

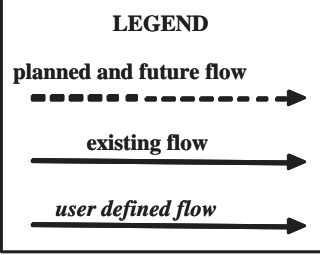
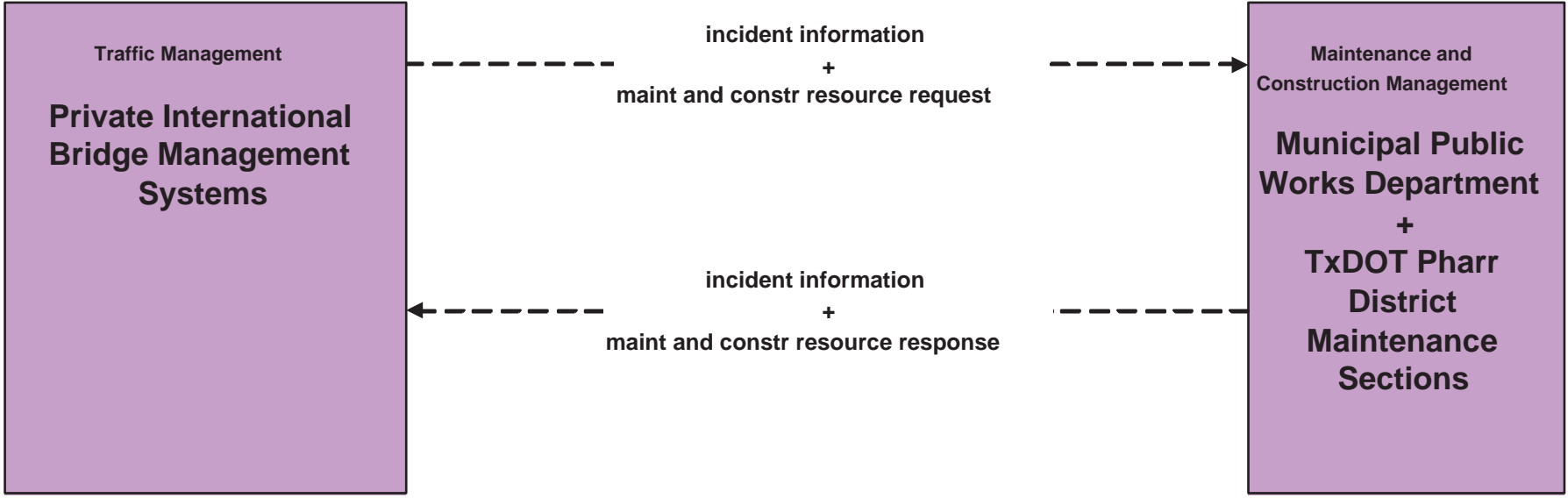


**LEGEND**

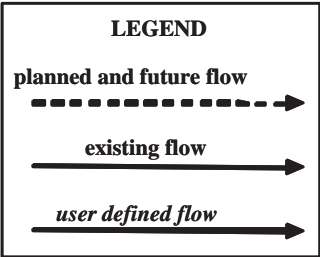
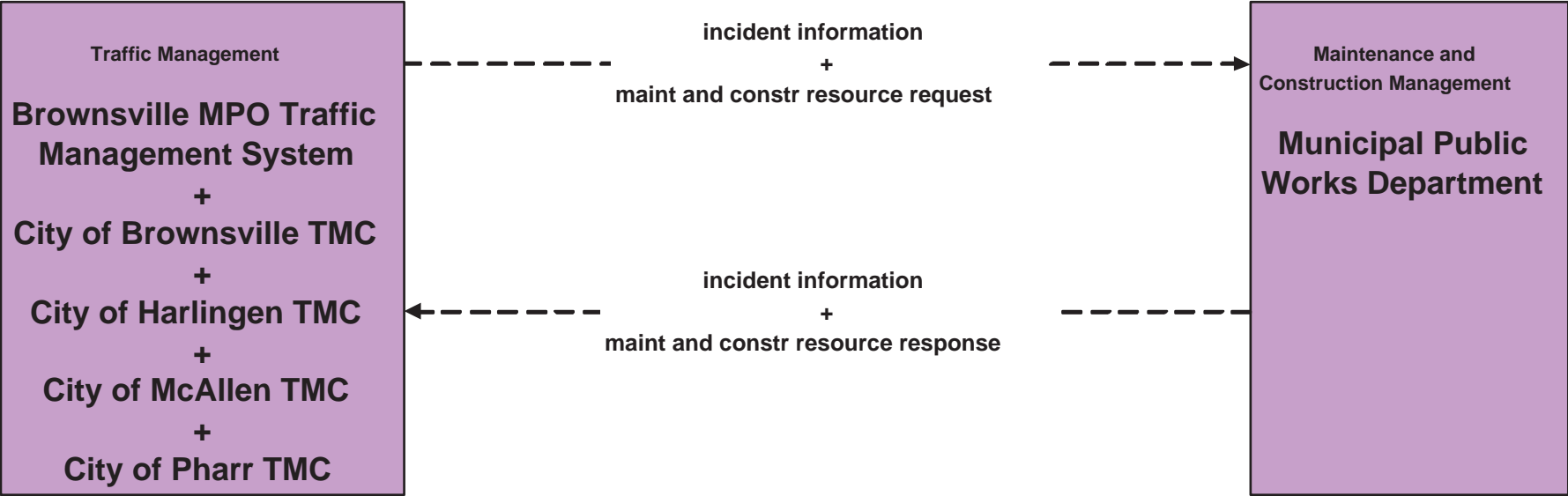
- planned and future flow
- existing flow
- user defined flow



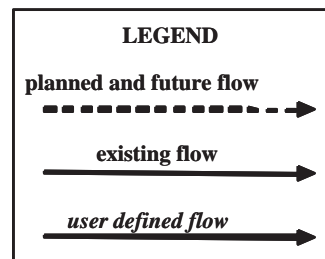
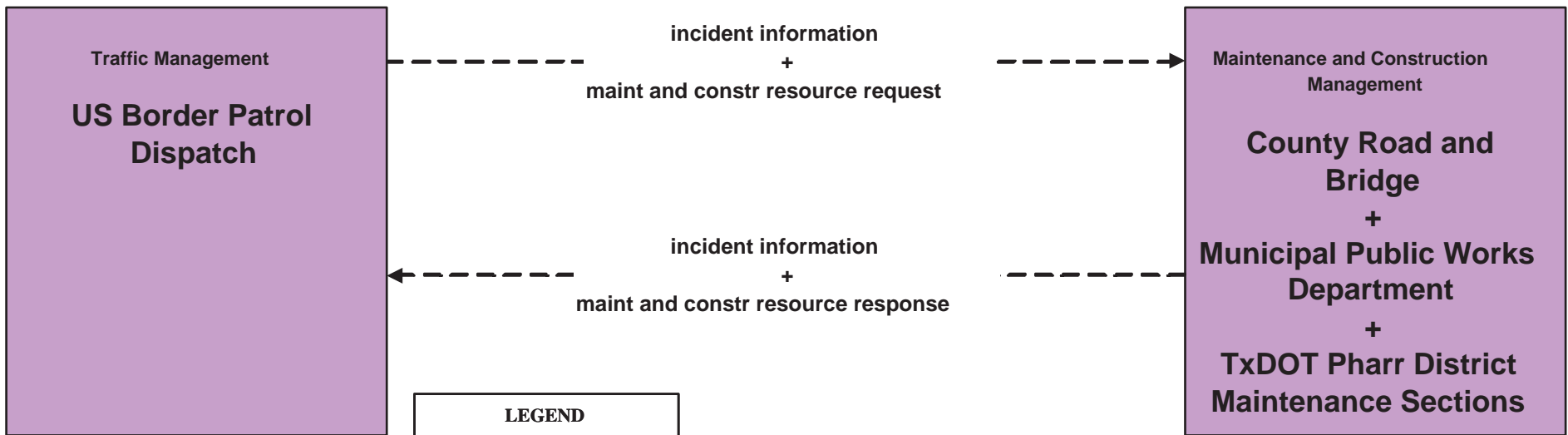
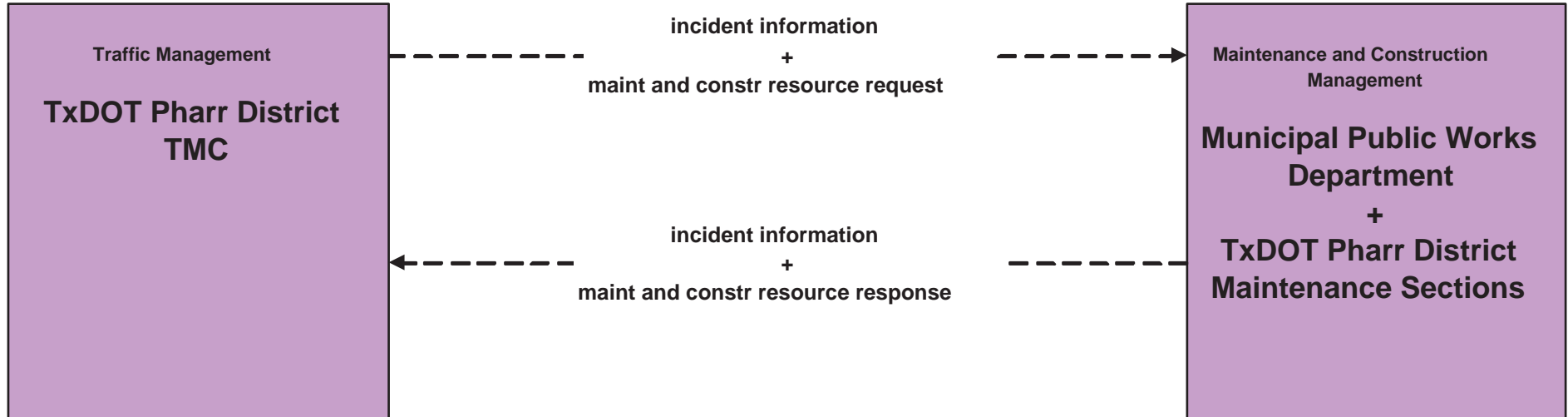
**ATMS08 - Incident Management  
Bridge Management Systems to MCM (2 of 2)**



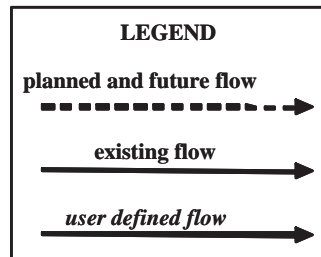
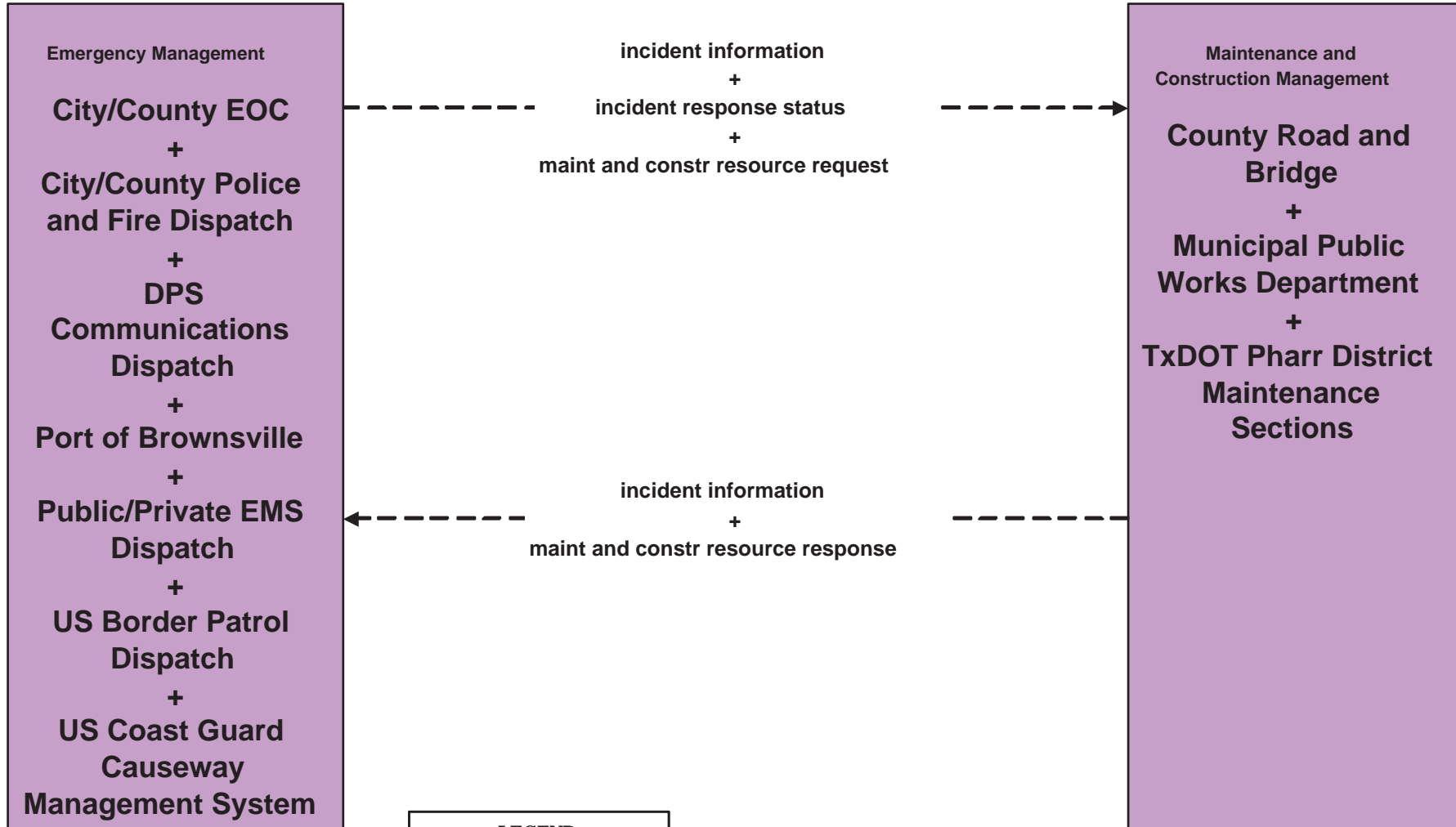
**ATMS08 - Incident Management**  
**Brownsville MPO, City of Brownsville, City of Harlingen, City of McAllen, and City of Pharr TMCs to MCM**



**ATMS08 - Incident Management**  
**TxDOT Pharr District TMC and US Border Patrol Dispatch to MCM**

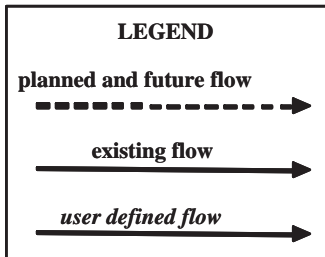
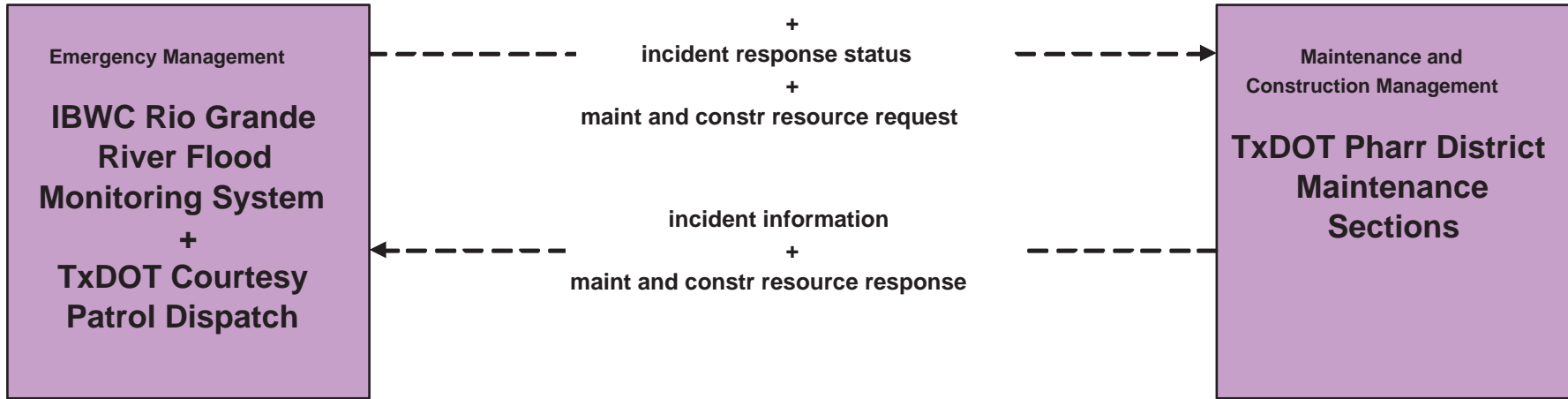


# ATMS08 - Incident Management EM to MCM (1 of 2)



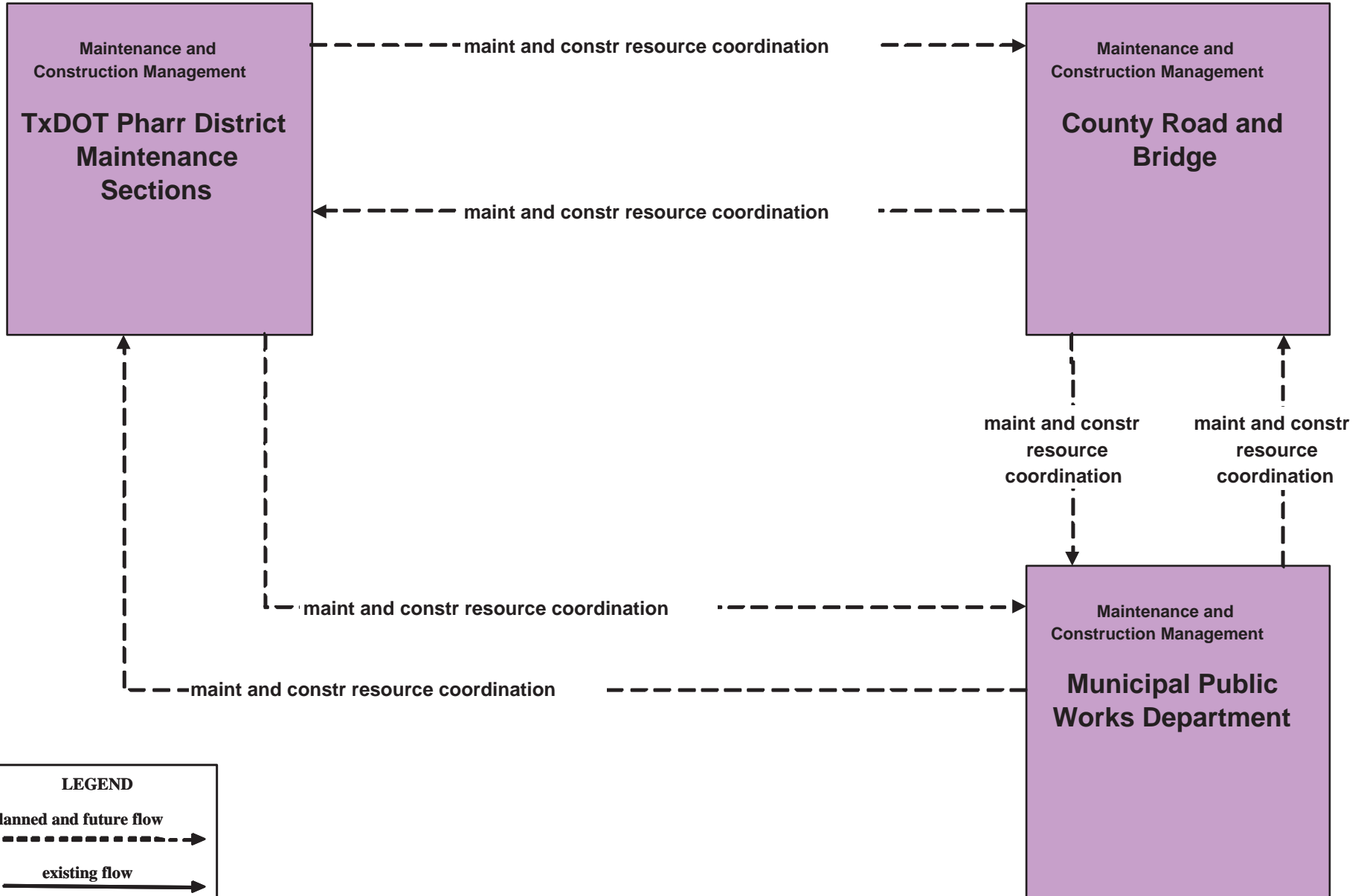
*State EOC communicates through DPS.*

# ATMS08 - Incident Management EM to MCM (2 of 2)



State EOC communicates through DPS.

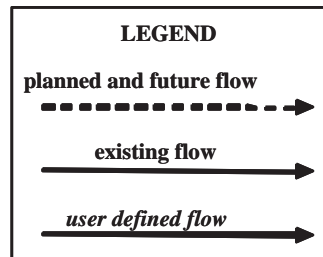
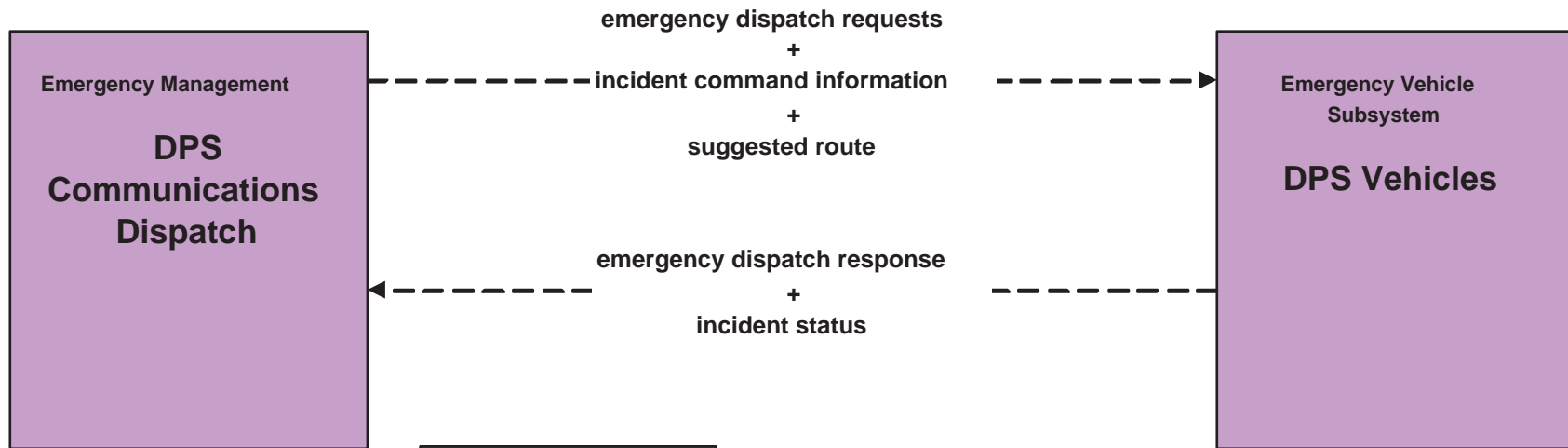
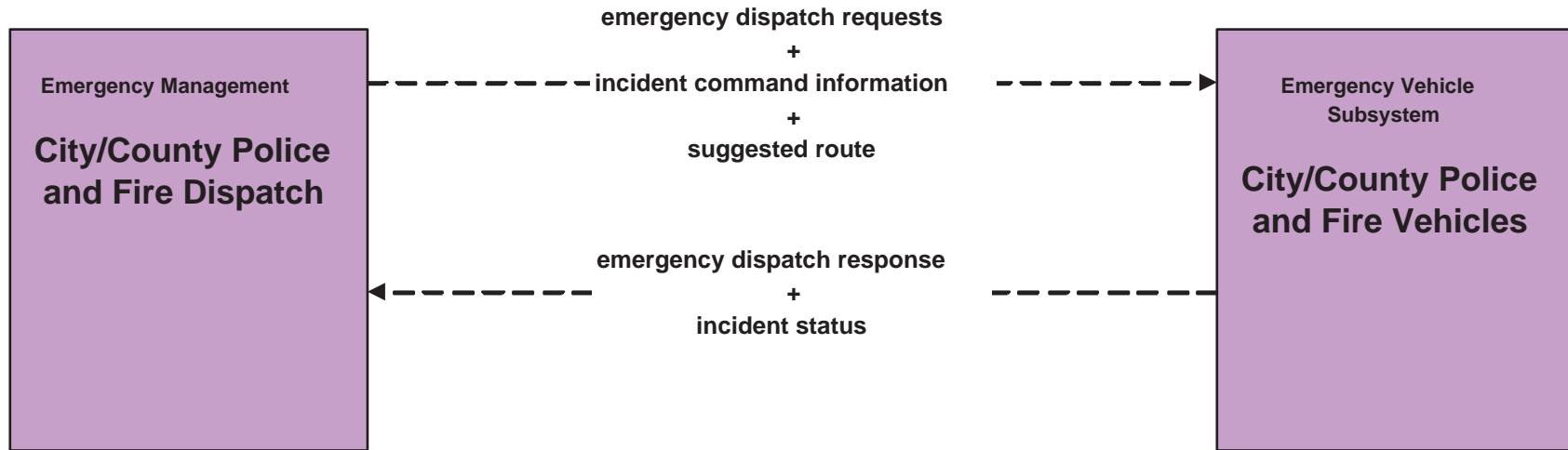
**ATMS08 - Incident Management  
MCM to MCM**



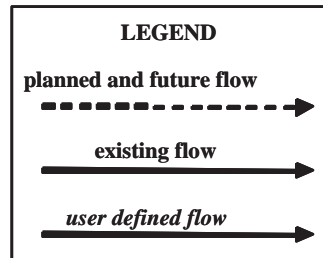
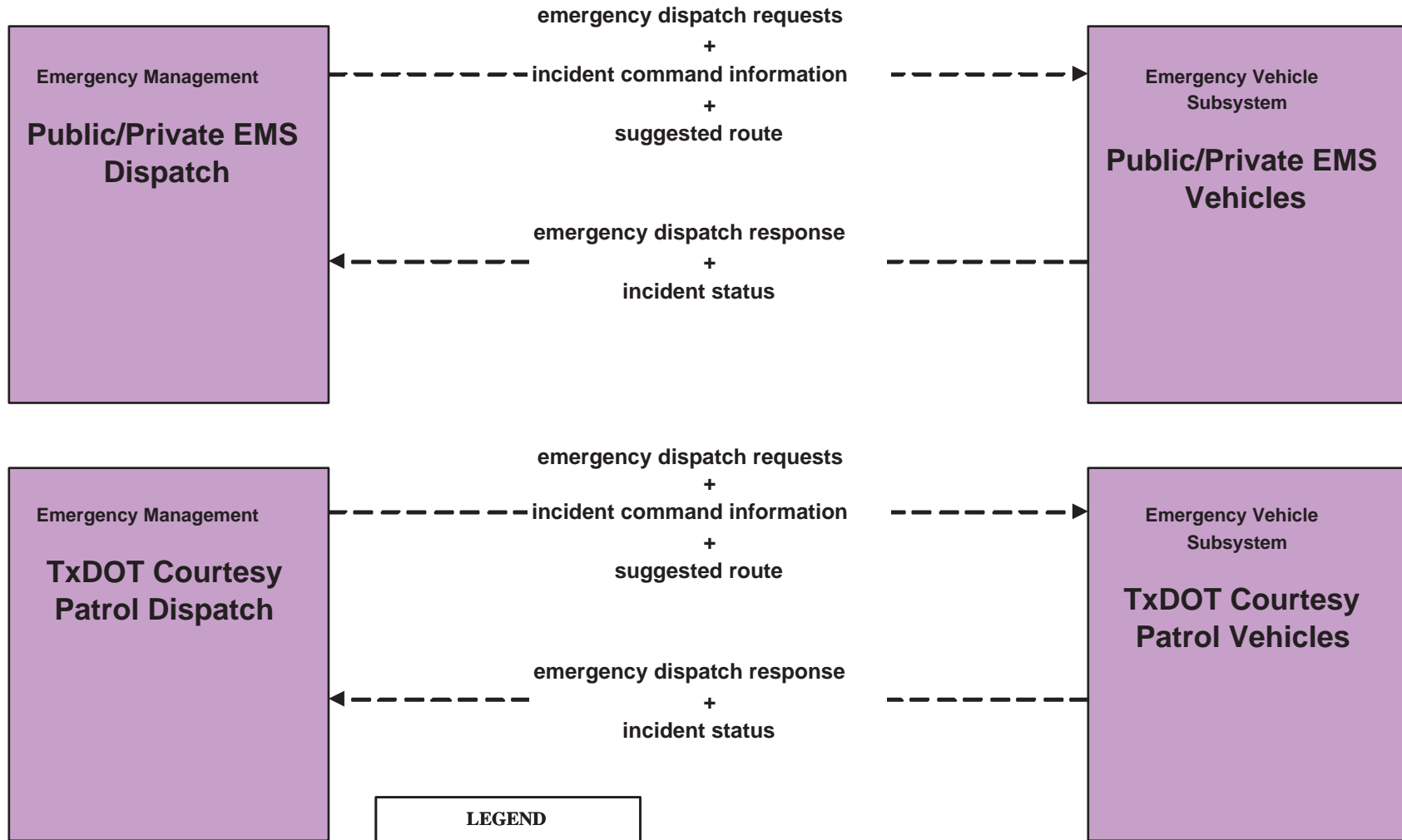
**LEGEND**

- planned and future flow** (dashed arrow)
- existing flow** (solid arrow)
- user defined flow** (solid arrow)

# ATMS08 - Incident Management EM to EV

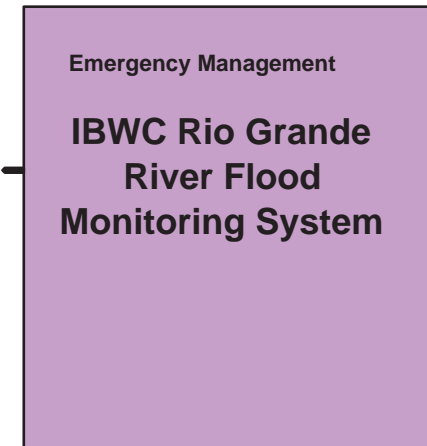
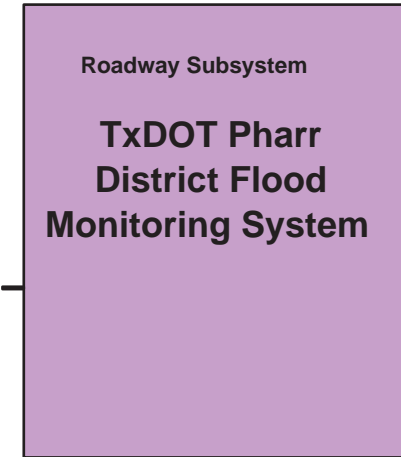
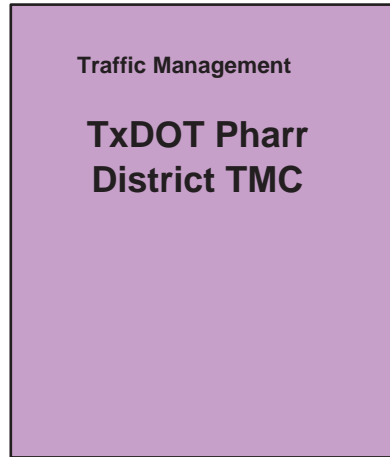


# ATMS08 - Incident Management EM to EV





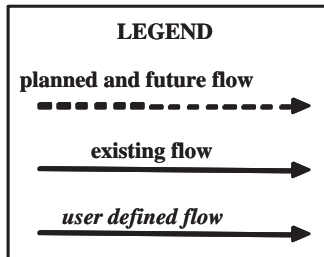
# ATMS08 - Incident Management Flood Monitoring



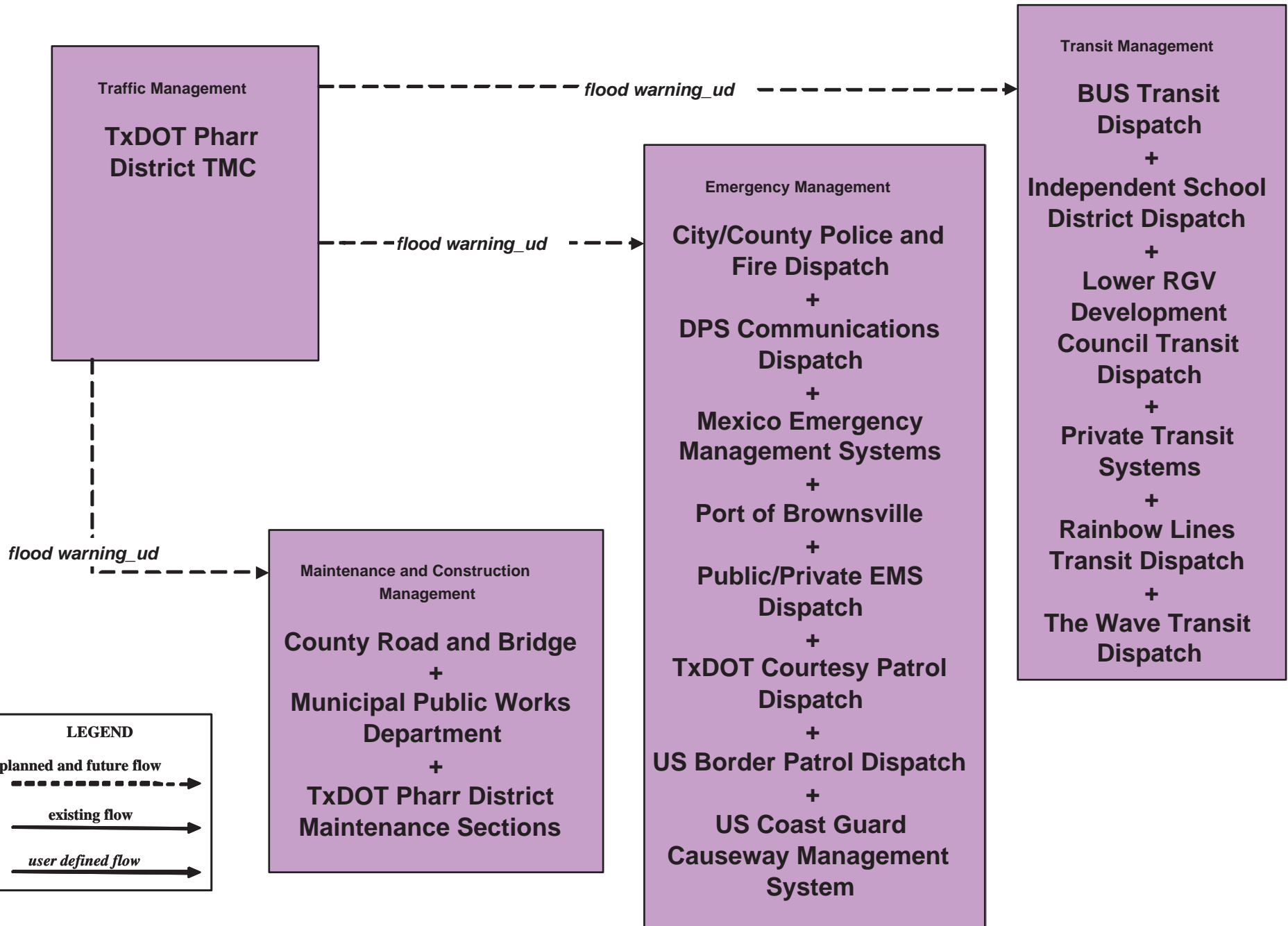
*-flood monitoring information\_ud*



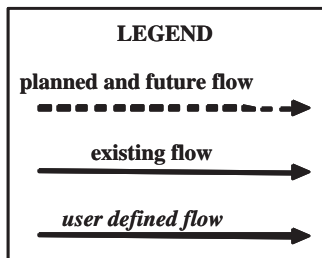
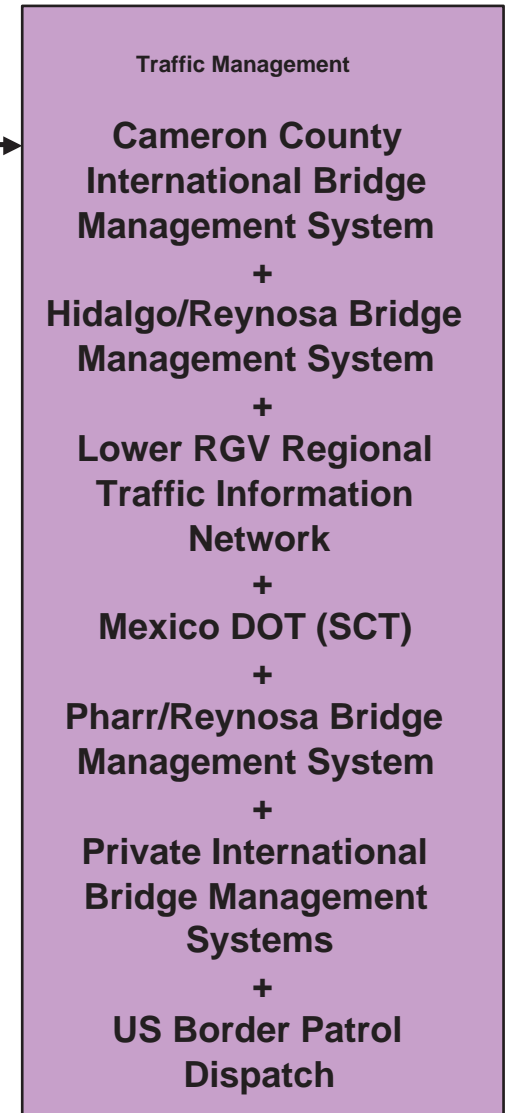
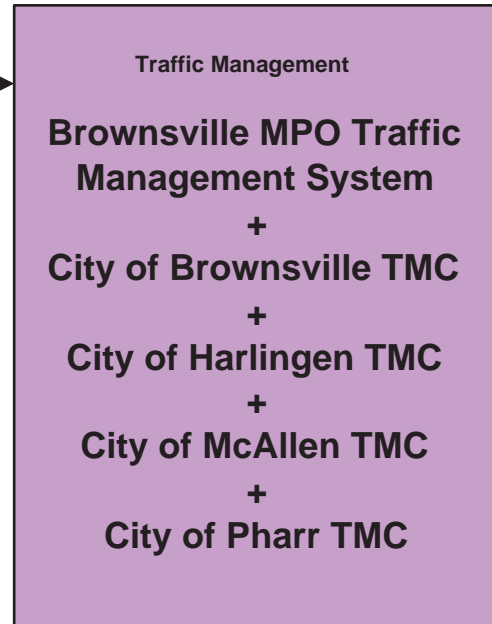
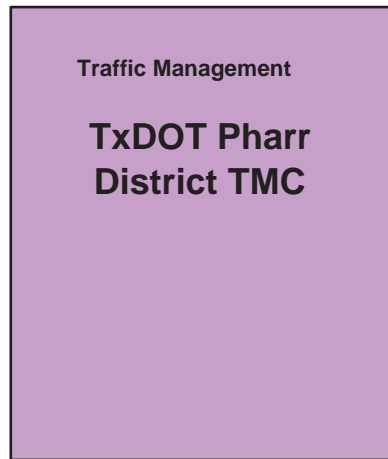
*-flood monitoring information\_ud*



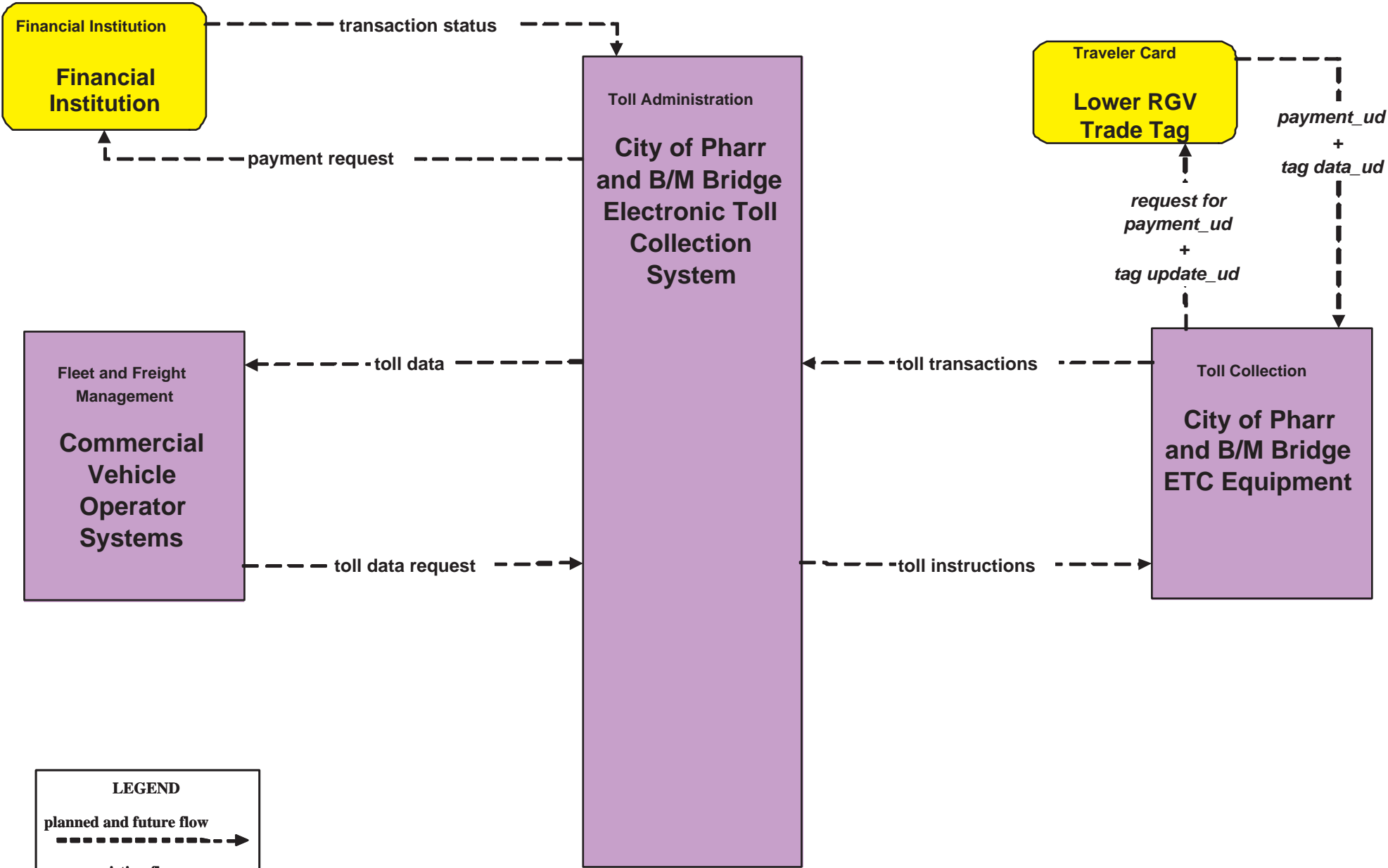
# ATMS08 - Incident Management Flood Warning



# ATMS08 - Incident Management Flood Warning



**ATMS10 - Electronic Toll Collection**  
**City of Pharr and B/M Bridge Electronic Toll Collection System**



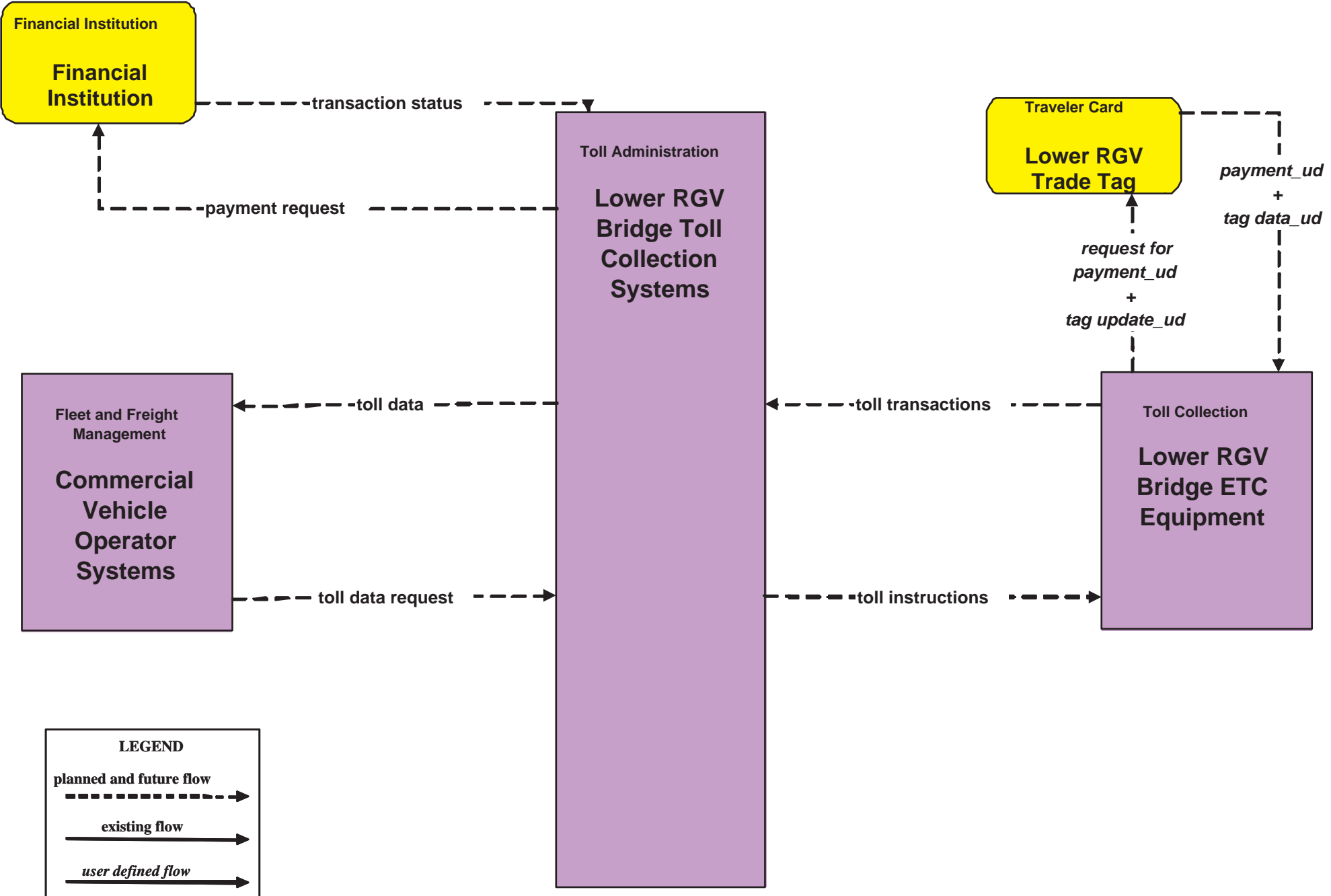
**LEGEND**

planned and future flow  
 ----->

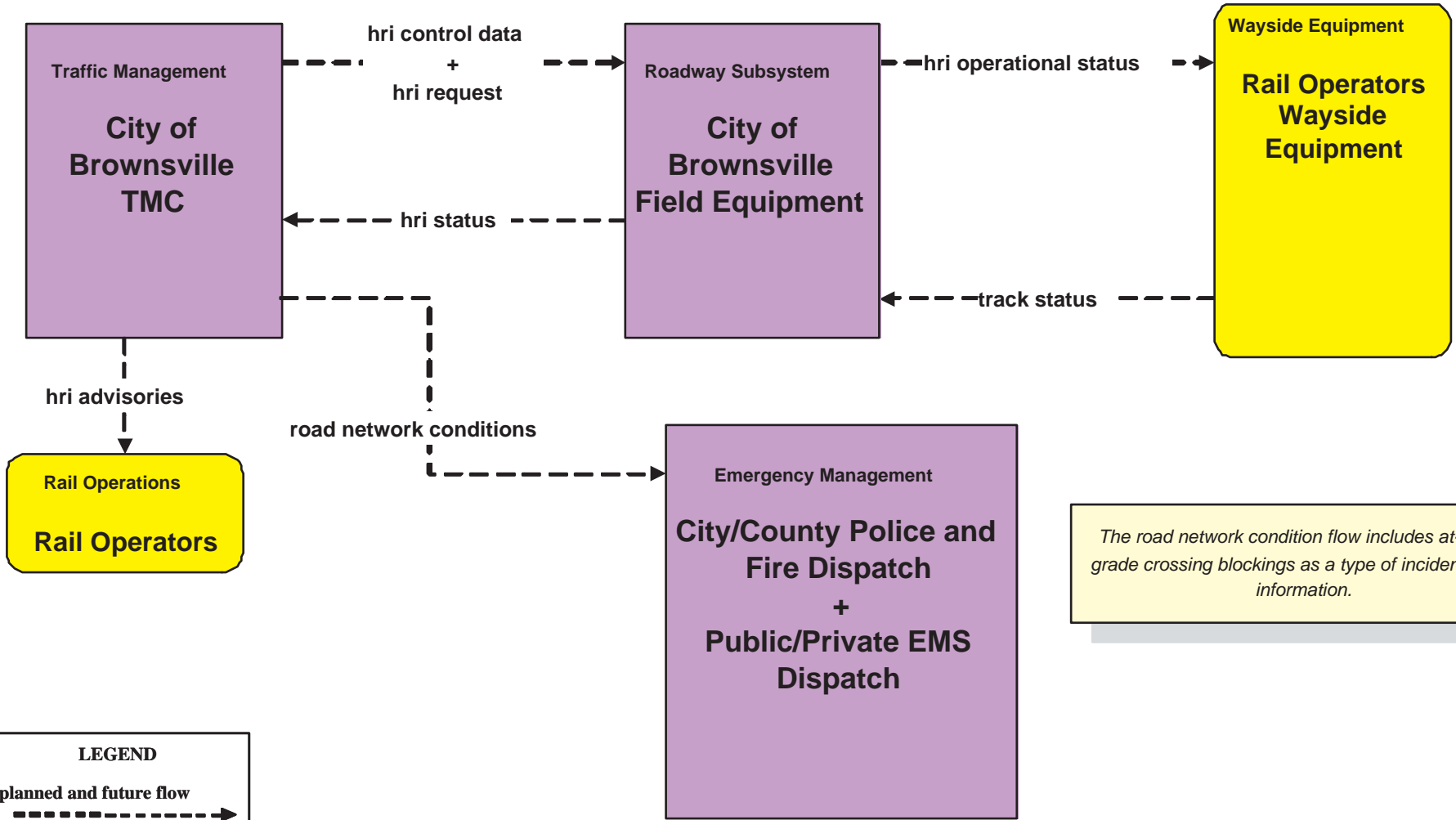
existing flow  
 \_\_\_\_\_>

user defined flow  
 \_\_\_\_\_>

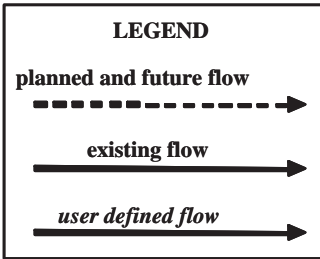
**ATMS10 - Electronic Toll Collection**  
**City of Pharr and B&M Bridge Electronic Toll Collection System**



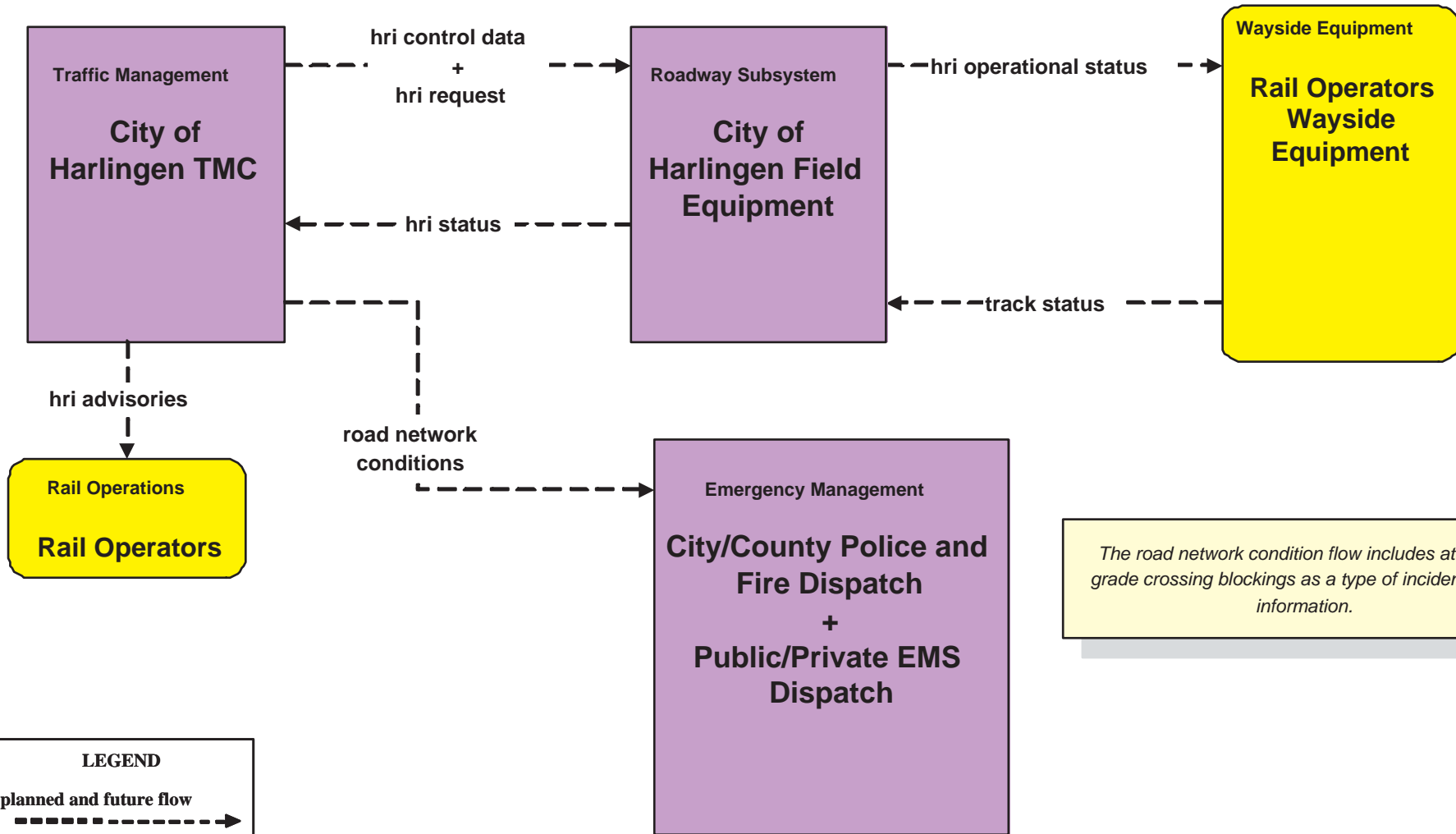
# ATMS 13 - Standard Railroad Crossing City of Brownsville



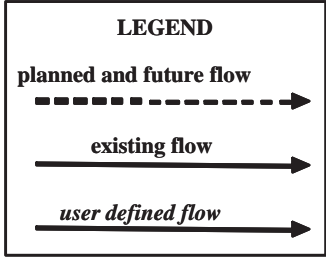
*The road network condition flow includes at-grade crossing blockings as a type of incident information.*



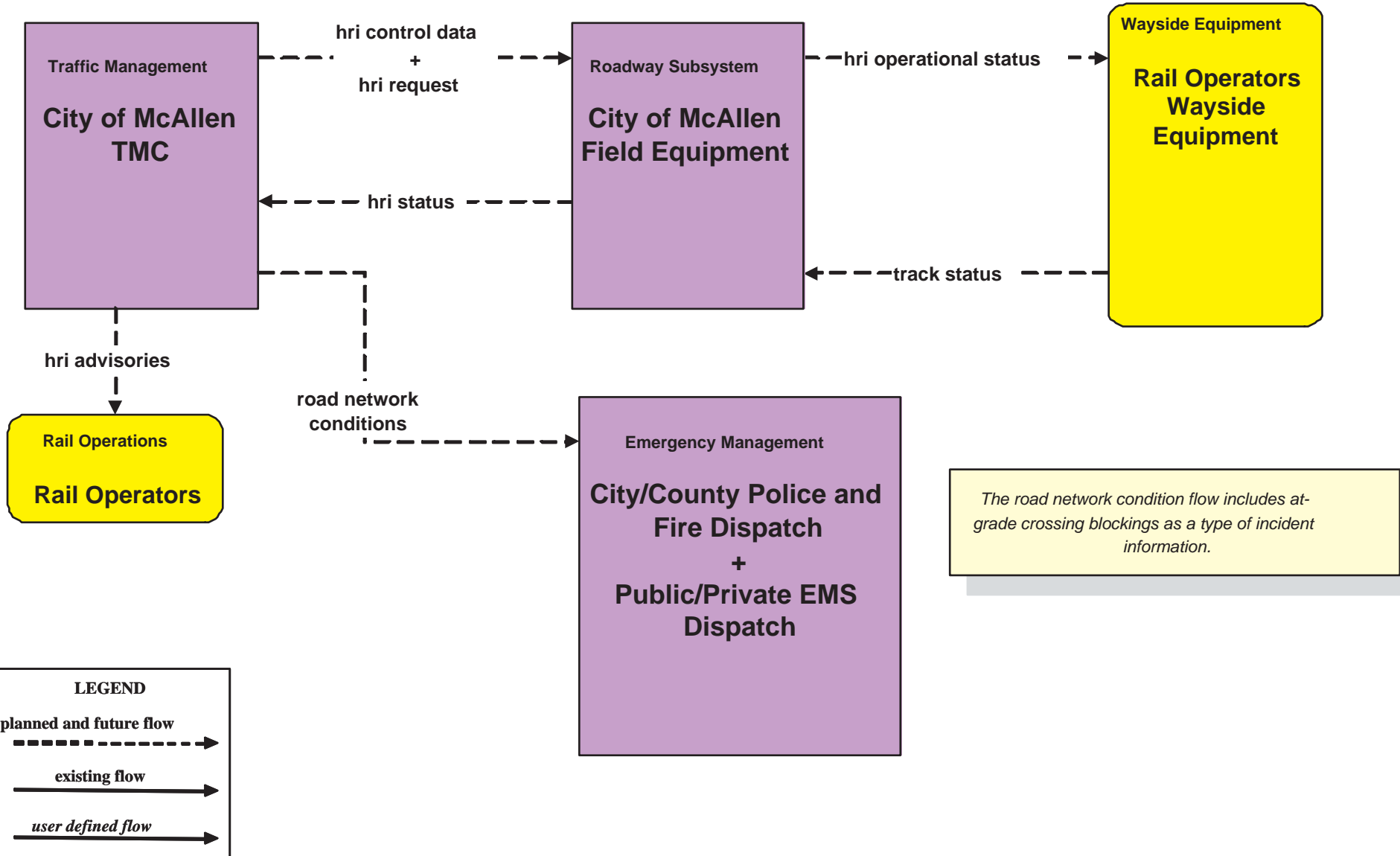
# ATMS 13 - Standard Railroad Crossing City of Harlingen



*The road network condition flow includes at-grade crossing blockings as a type of incident information.*

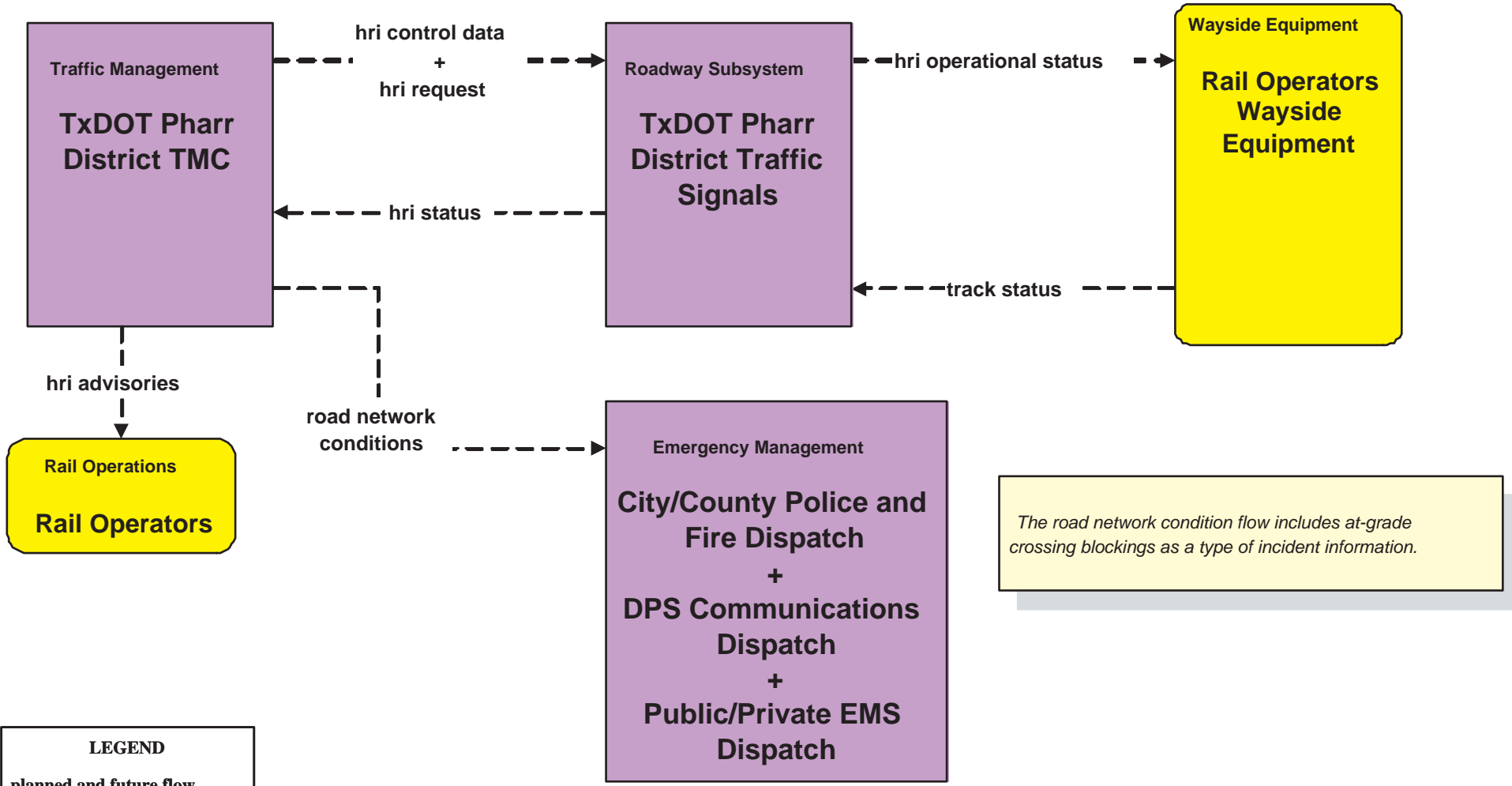


# ATMS 13 - Standard Railroad Crossing City of McAllen

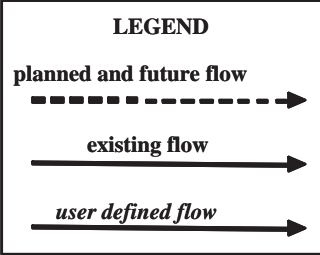




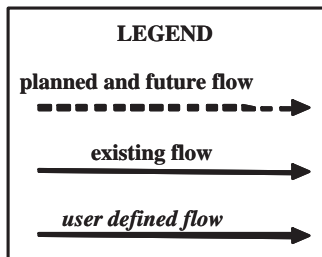
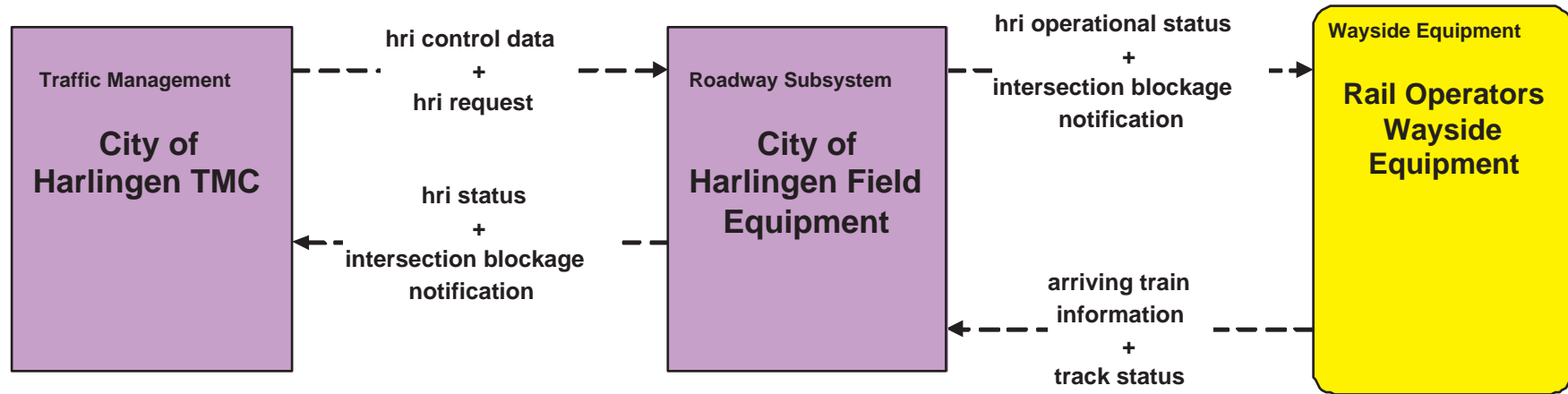
# ATMS 13 - Standard Railroad Crossing TxDOT Pharr District TMC



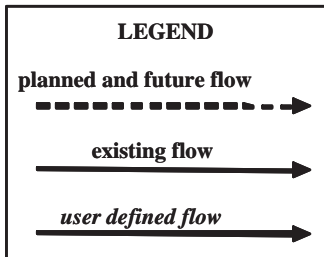
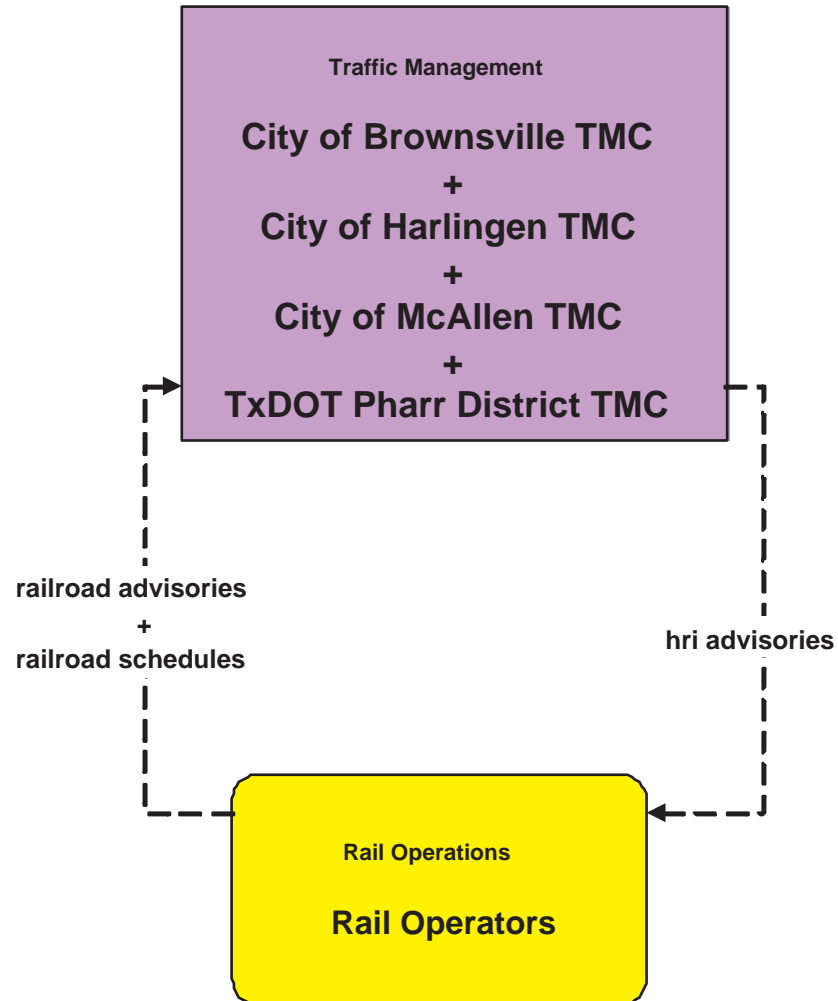
*The road network condition flow includes at-grade crossing blockings as a type of incident information.*



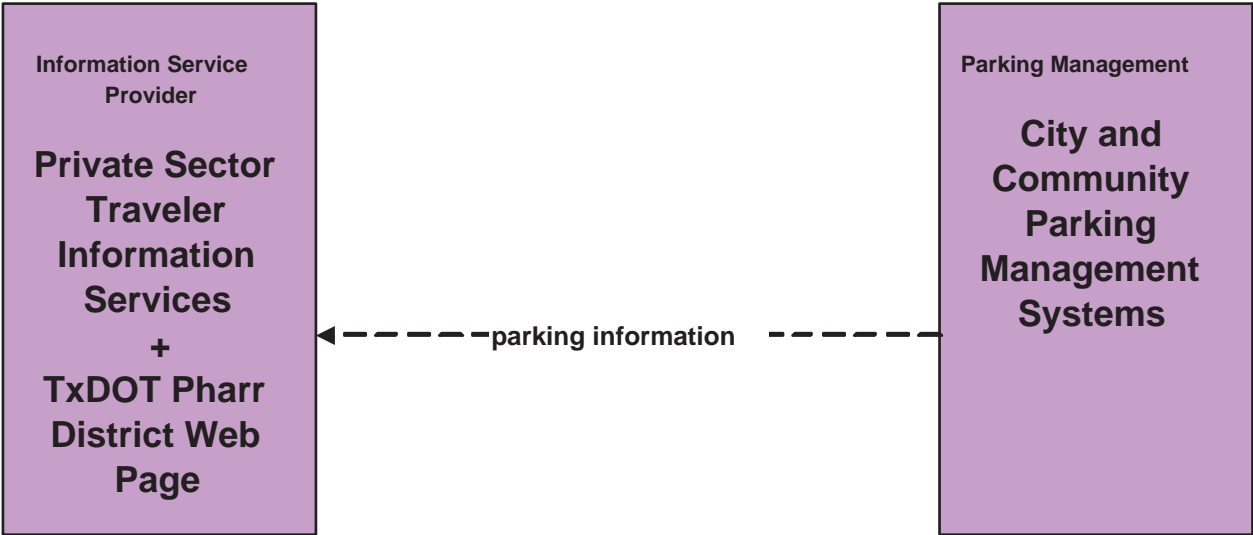
# ATMS14 - Advanced Railroad Crossing City of Harlingen






# ATMS15 - Railroad Operations Coordination



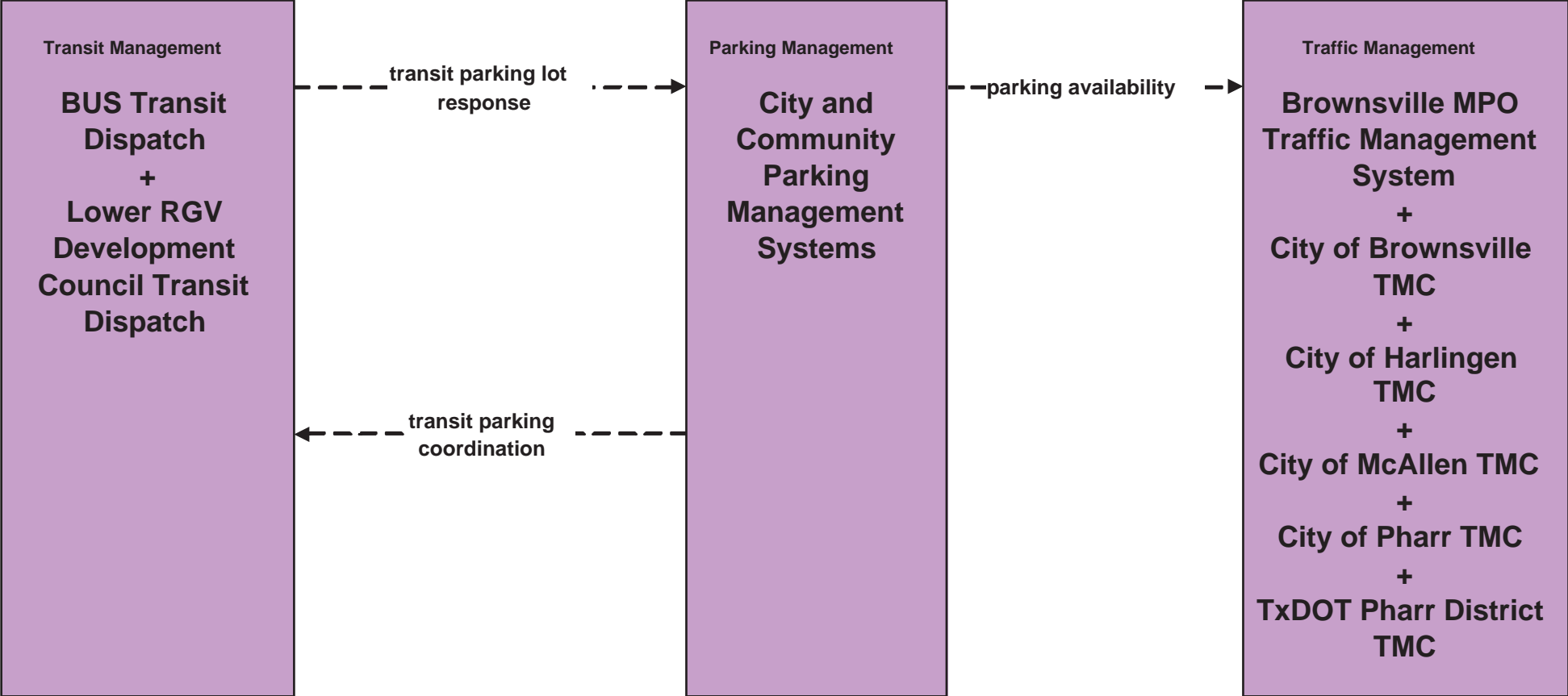
# ATMS16 - Parking Facility Management



**LEGEND**

- planned and future flow 
- existing flow 
- user defined flow 

# ATMS17 - Regional Parking Management



**LEGEND**

- planned and future flow
- existing flow
- user defined flow