





## Reason for Panel

- Secretary Hammond reconvened the Tolling Expert Review Panel to:
  - Evaluate current status of CSC and RT 520 Tolling Projects
  - Review projects and determine if any mid-course corrections are needed or required to expedite completions
  - Advise and assist WSDOT regarding CSC Project and the start of tolling on 520
  - Prepare Report that contains detailed findings and any applicable recommendations for current and future tolling projects



# Panel Membership



**J.J. Eden**

**AECOM**



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## FORMER TOLL AGENCY EMPLOYMENT

**NC Turnpike  
PA Turnpike  
ATI**

**DRPA**

**E-ZPASS IAG  
SJTA  
NJDOT**

**CTRMA  
OOCEA**



# JTC 2009 ERP Recommendations

- Tolling on 520 will be unique
  - High Volumes (most “start-ups” have low volume)
  - Time of Day Charging
  - All Electronic Tolling (no cash methods)
  - Ongoing construction
  - Tolling on a floating bridge
- Single Customer Center
  - CSC migration from one vendor to another



# JTC 2009 ERP Recommendations

- WSDOT Organization
  - Called for a strong toll project leadership structure
- Business Rules Development
  - Complete
  - Practical
  - Adjustable when needed
  - Clearly understood by all parties



# Recommendations on CSC Operations

- Develop in two phases:
  - SR 520 up and running
  - Ultimate solution implemented later
- Determine frequency of use
- Perform market research
- Establish pricing to affect customer account behavior



# Technology Recommendations

- WSDOT has made the decision to adapt existing technologies through the implementation of the SR 520 tolling project
- To minimize costs of technology conversion in the future:
  - WSDOT should distribute transponders to customers who use SR 520 frequently
  - Optimize the use of prepaid video accounts
  - Determine pricing differentials for various account types



# Video Recommendations

- Use dual optical character recognition engines
- Deploy the most accurate video technology
- Utilize fingerprint technologies to minimize manual review
- Use email and telephone search sites rather than postage
- Allow a grace period for settling violations without penalties



# Organizational Recommendations

- Focus on toll business functions as opposed to the civil development of a project
- Key functions for the Tolls Division are:
  - Financial Strategy and Operations –Financial planning, bond issuance, revenue accounting, project cost accounting
  - Toll Systems Development & Procurement –Hardware, software, installation, maintenance, other systems
  - Toll Operations Management –Day to operational support, staffing, business rules
- Importance of flexibility
- Outside expertise –Consider the use of a Toll General Engineering Consultant



# SR 520 Recommendations

- Don't allow the SR 520 schedule to drive major policy decisions and business rules
- Consider interim solution –implementation of tolls on SR 520 in two phases:
  - Phase 1 –parallel to developing business rules and an electronic toll framework, implement a simplified SR 520 lane solution
  - Phase 2 –develop the ultimate lane solution based on electronic toll framework and technology selection



# State of the Toll Industry

- The industry is going through rapid changes
  - Societal payment characteristics
    - Larger number of customers don't carry cash
  - Demand for new systems that provide more financial control
    - Transition from cash systems to accounts receivable systems
  - Transponder technology: active vs passive
  - Video system technology
    - Monitoring
    - Enforcement
    - Billing





# State of the Toll Industry

- Open Standards are now emerging
  - Vendors resistance
  - Proprietary systems are proven
- Interoperability across toll systems is being sought
  - Congress
  - Customers
  - Commercial interests
    - Trucking
    - Fleets
    - Rental cars
    - Independent truckers



# State of the Toll Industry

- All Electronic Tolling (AET) makes a number of changes
  - Reduce capital costs
  - Cameras feed toll system not violations system
  - Former violators are now customers
  - Changes focus from gross revenue to maximizing net revenue
    - reduces operations and toll collection costs
  - Allows for flexibility of system management, time of day pricing
  - Tolling technologies: optical character recognition, optical plate recognition and vehicle finger printing



# Panel Activities

- Evaluate project status
  - Conduct interviews with
    - Department Leadership
    - Legislators
    - Key Department Staff
    - Consultants
    - Contractors
  - Document review of
    - Contract documents
    - Testing documents
    - Business rules



# WSDOT's Contracting Direction

- The EPR found hardworking, dedicated staff working towards a great toll system for the people of Washington.
- Set high standards for industry
  - Challenge industry to look to the future, especially in financial reporting
  - Setting new financial reporting processes
  - Choose open standards where possible
- Propose an aggressive program
  - Push vendors beyond any current systems
  - Seek highly competitive pricing



# Principles for Moving Forward

## Two Phase Approach

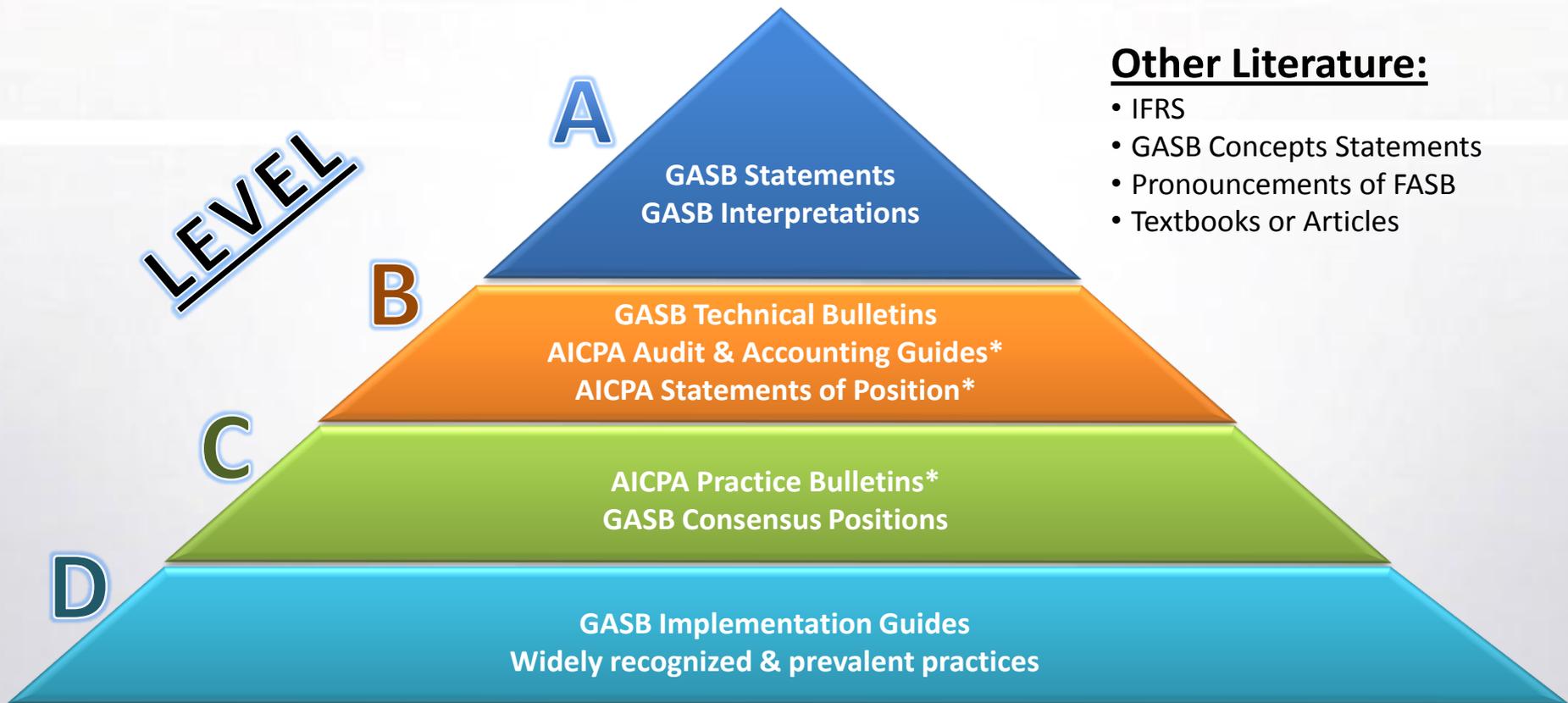
- Keep the customer first in all decisions
  - Customers need to feel secure, comfortable in their payment methods and that they are being treated equitably
  - The system must earn Public Trust
- Remember the reasons for tolling
  - Raise revenue to pay for much needed capital improvements
  - Ensure efficient operations of the facilities
  - Improve peak hour traffic flows



# Critical Success Factors

- State-wide interoperability
  - All transponders have to be valid on all facilities, current and future
- Start tolling on 520 as soon as possible
  - Presumed vendors would easily modify their systems to meet requirements
- Promoting competition among vendors
  - Resulted in managing cooperation
- Ensuring GAAP compliance and matching WSDOT requirements with vendor understanding

# GAAP Hierarchy



\* If applicable and / or cleared by GASB

# Example: Sale of a Product

## Manual

Accountant will record:

- Revenue
- Collection of:
  - ✓ Cash or
  - ✓ Issuance of invoice (receivable)
- Cost of goods sold
- Reduction of inventory

Accountant posts transaction:

- Daily, weekly, or monthly

## Electronic

System will record:

- Revenue
- Collection of:
  - ✓ Cash or
  - ✓ Issuance of invoice (receivable)
- Cost of goods sold
- Reduction of inventory

System posts transaction:

- Daily, weekly, or monthly



**GAAP Compliance**





# Principles for Moving Forward

- Business Rules
  - Develop with the Customer in mind.
    - Everyone must be treated fairly.
    - Customers should not be inconvenienced by unnecessary bills.
  - Implemented Systems Need To
    - work together and with WSDOT's current systems.
    - be able to collect tolls effectively.
    - allocate revenue and costs to individual facilities



# Short Term vs Long Term Objectives

- Short Term
  - Collecting tolls on all facilities
  - Customer relations
  - Accurate financial data
- Long Term
  - Fully functioning audit system
  - Expandability
  - Flexibility in system and tolling modifications



# Preliminary Assessments

## 1. Know Where You Are

- Software must be frozen during all tests.
- Run a test from end to end
- Establish prioritization of test results

## 2. Reinforce Project Leadership

- Vendor must take direction from one person
- Vendor must have strong controlling leadership
- Competing team needs must be addressed quickly
- Redefine Internal Stakeholders relationships



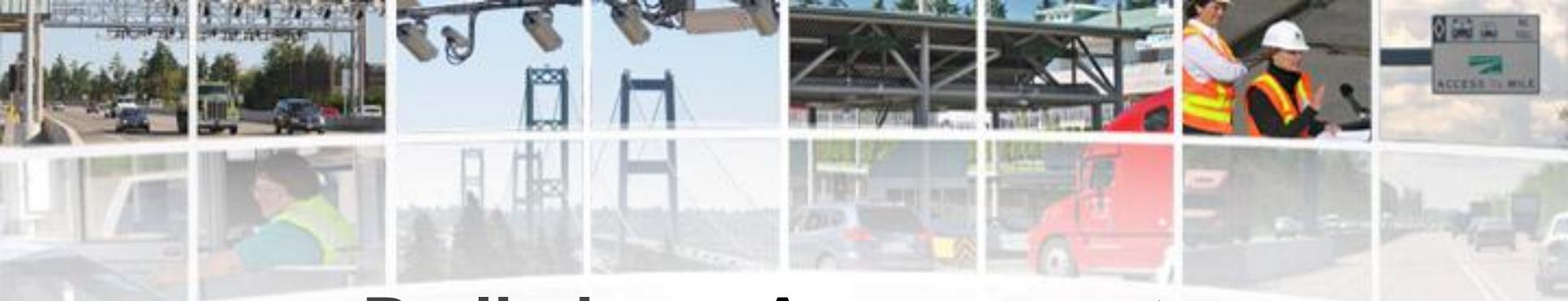
# Preliminary Assessments

## 3. Identify Best Practices

- Focus on customer acceptance and collecting tolls
- Offer and advertise a variety of products to encourage infrequent customers to pay before they go or shortly after using a facility

## 4. Clearly Establish Roles in Procurement

- IT
- Accounting
- Traffic management
- Engineering and design
- Effective, thorough and efficient tolling is required to pay the bills



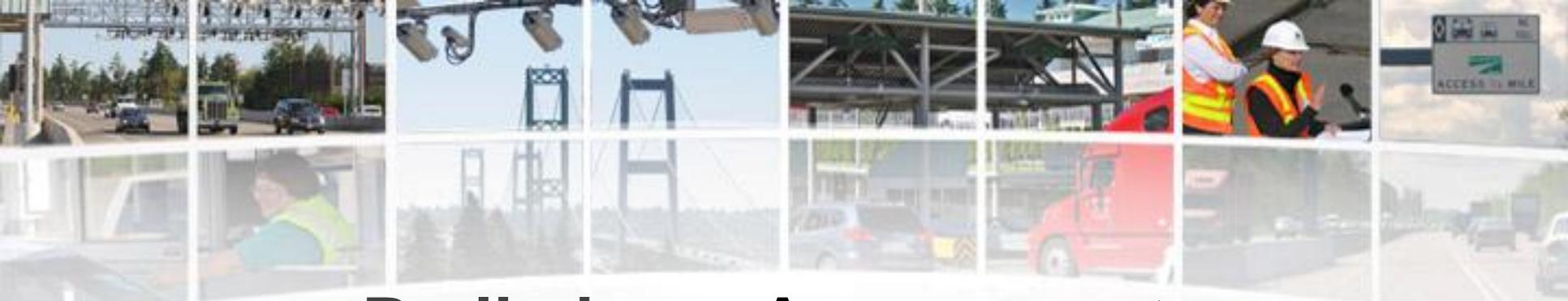
# Preliminary Assessments

## 5. Be Realistic with the Budget

- Damages will not complete the project
- Efficiency requires all team members to work together
- Uncollectable transactions must be part of the equation

## 6. Operations Must Work

- Current operations (TNB & 167) must continue to work without current problems
- Standards for operations do not have to be identical initially
- Try to avoid unclear lines of authority and responsibility



# Preliminary Assessments

7. Hardware and Software must work together to support operations
  - Temporary work around may be needed
  - Transparent functionality to customer
  - Provide all needed reports and data
  - Continuous assessment of hardware and software
    - Flexibility to include operational improvements or enhancements
    - Modification ability
8. Once issues are identified, resolve immediately minimizing impacts on existing system and processes



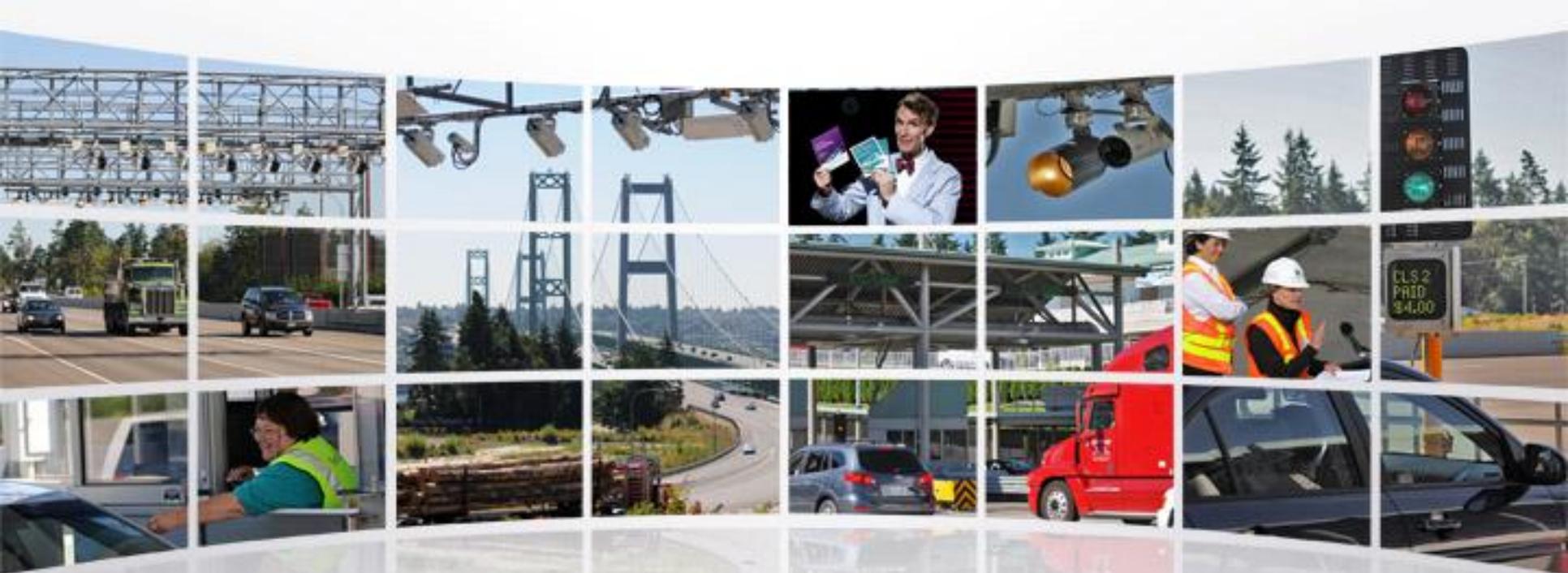
# Contingency Planning

- Critical element for both agency and vendor
  - Identify and prioritize risks
  - Modify the overall program to mitigate high priority risks
  - Anticipate costs and time to address
  - Create float for unanticipated issues into the schedule
  - Course-changing decisions
- Observations on vendor performance
- Full access to data



# Next Steps

- Further refine the ERP analysis
  - Look at testing results
  - Complete analysis of documents
  - Review issues with staff
- Make final recommendations
  - Make the tolling work quickly on 520
  - Suggest processes for a thorough and efficient system
  - Recommend operational adjustments
- Complete our full assessment of readiness
  - Accurate data in the system
  - Payment systems work
  - Reports available
  - Happy customers



# Questions?