

Memorandum



To: John Toone
From: Patrick Chan
Date: September 10, 2008
Re: King County Transit Speed & Reliability Program
Contract No. E03059E
King County ITS Project Architecture – Turbo Architecture Database
cc: Polly Okunieff, Bruce Eisenhart

Enclosed with this memo is a copy of the Turbo Architecture Database containing the King County ITS Project Architecture. This Turbo Architecture Database was derived from the Final Puget Sound Regional Council (PSRC) Regional ITS Architecture Turbo Architecture database, dated August 2006 (Final PSRC Regional ITS Architecture 08-2006-v4.tbo). Using the PSRC Turbo Architecture database, the following changes were made:

1. The Turbo Architecture database was updated from Version 3.1 of Turbo Architecture to Version 4.0 of Turbo Architecture. This, in effect, updated the King County ITS Project Architecture to be based on Version 6.0 of the U.S. National ITS Architecture instead of Version 5.1 of the U.S. National ITS Architecture.
2. A project architecture, King County Project Architecture, was added to the database and those elements involving King County were assigned to the project architecture. This project architecture allows the user to view only those portions of the PSRC Regional ITS Architecture that have been assigned to King County, instead of viewing the entire PSRC Regional ITS Architecture.
3. Element instances were added to the Turbo Architecture. Element instances allow a user to define more detailed information for a project architecture that are still traceable to an ITS element already defined in the regional ITS architecture. For example, the PSRC Regional ITS Architecture defines an Auburn ITS Field Devices element. For the King County Project Architecture, three ITS element instances were created from that Auburn ITS Field Devices element: Auburn CCTV Cameras, Auburn Traffic Signals, and Auburn Vehicle Detection. Each element instance provides more specific information about the element for the King County Project Architecture without losing the traceability to the PSRC Regional ITS Architecture.

Other element instances that were created are:

Issaquah ITS Field Devices – Issaquah CCTV Cameras, Issaquah Traffic Signals, Issaquah Vehicle Detection Devices

Kent ITS Field Devices – Kent CCTV Cameras, Kent Traffic Signals, Kent Vehicle Detection Devices

King County ITS Field Devices – King County CCTV Cameras, King County Dynamic Message Signs, King County HAR, King County Permanent Traffic Counters, King County Speed Monitoring/Warning Devices, King County TPRG, King County Traffic

Signals, King County Vehicle Detection Devices, and King County Weather Environmental Sensors

Kirkland ITS Field Devices – Kirkland CCTV Cameras, Kirkland Traffic Signals

Redmond ITS Field Devices – Redmond CCTV Cameras, Redmond Traffic Signals

Renton ITS Field Devices – Renton CCTV Cameras, Renton Traffic Signals, Renton Vehicle Detection Devices

WSDOT ITS Field Devices – WSDOT CCTV Cameras, WSDOT Dynamic Message Signs, WSDOT Traffic Signals, WSDOT Vehicle Detection Devices, and WSDOT Weather Environmental Sensors

4. Added several user defined architecture flows to the architecture. Architecture flows added are: *bus arrival signs system status_ud*, *corridor management actions_ud*, *estimated arrival time_ud*, *incident response actions_ud*, *parking information_ud*, *traffic images_ud*, *transit priority control data_ud*, and *transit priority data_ud*. Note: some of the added architecture flows are extensions of existing architecture flows already defined in the U.S. National ITS Architecture Version 6.0. For example, the architecture flow *traffic images*, already exists, but was not defined between the Traffic Management and Information Service Provider subsystems, so that definition was added. In addition, the *transit location information* was a user defined architecture flow in the PSRC Regional ITS Architecture, but was renamed *transit location information_ud* to more clearly indicate it is a user defined flow.
5. Added the following ITS Elements to the PSRC Regional ITS Architecture: *Drivers*, *Media*, *National Weather Service*, and *King County Metro Bus Arrival Signs*.
6. Per request of Washington DOT, renamed the stakeholder WSDOT/WSF to WSDOT.

If there should be any more questions about the Turbo Architecture database, please feel free to contact at 718-767-5120, or at patrick.chan@consystec.com.