**Worksheet – 0-6704 Workshop**

**Traffic control plan summary**: The contractor wants to replace guardrail with concrete barrier on a Texas highway. They present a traffic control plan that proposes to close two of the four available lanes completely for 30 days. Should we approve this traffic control plan?

Step 1: Assess Current Conditions - Traffic Volume and Roadway Capacity

* Open “Handout Spreadsheet” Excel file. Copy data from Hourly Flow tab to the Worksheet tab.
* Enter the correct number of lanes.
* Is volume currently less than capacity for all hours of the day?

Step 2: Assess Work Zone Conditions - Roadway Capacity and Predicted Traffic Volume

* Assume a 15% diversion rate
* Enter the number of lanes proposed to remain open during the work zone for each hour of the day.
* Is volume currently less than capacity for all hours of the day? If not, for which hours is volume less than capacity?

Step 3: Revisit the Traffic Control Plan (optional)

* Adjust the number of lanes proposed to be closed during each hour of the day and then reassess the work zone conditions. Repeat until a satisfactory plan is found.

Step 4: Select Merge Control

* Given the proposed configuration and the predicted traffic volumes, what merge condition would work best?

Step 5: Select Sign Placement

* You suggest to the contractor that they only work overnight (7pm to 7am). He sees your volume-to-capacity chart and wants to know if he can start at 6pm. Enter the volume for this hour into the “TxDOT-training-queue-protected” worksheet to assess the queue lengths. Can we make a recommendation based on this information?
* You decide to collect more detailed information and get the following counts at fifteen minute intervals

7-7:15: 1562 vphpl

7:15-7:30: 1496 vphpl

7:30-7:45: 1558 vphpl

7:45-8:00: 919 vphpl

Use the tool to assess the queue lengths with this more disaggregate data. Where could a sign be placed to facilitate early merging? What merge concept/sign placement concept would you recommend? Would you allow the closure to begin at 6pm?