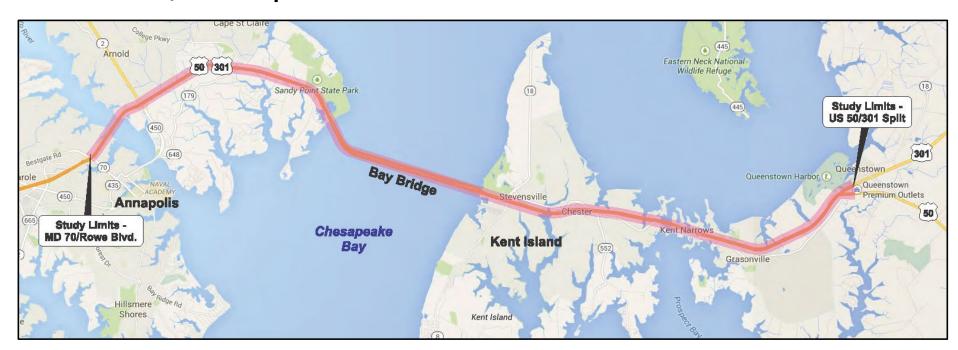
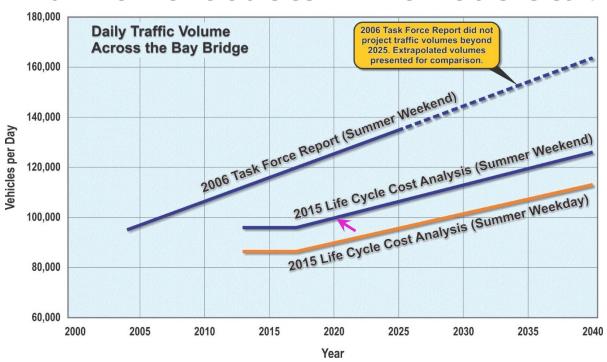
Life Cycle Cost Analysis (LCCA) Study Limits

 US 50/301 from Rowe Boulevard to the US 50/301 split





Traffic Forecasts - Previous Studies



- 2006 Task Force projected growth
 - Did not contemplate 2008 recessional leveling of volumes
- 2015 LCCA projected linear growth:
 - Approximately 100,000 daily volumes (summer weekend) by 2020



Traffic 2021 Actuals – June 3rd Week

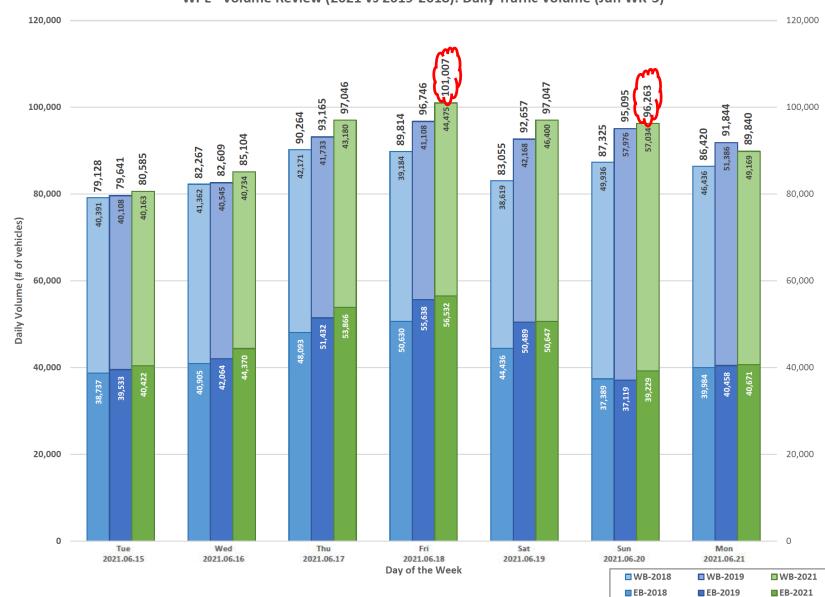
MDTA

Maryland

Transportation

Authority

WPL - Volume Review (2021 vs 2019-2018): Daily Traffic Volume (Jun WK-3)



Traffic 2021 Actuals – June 4th Week

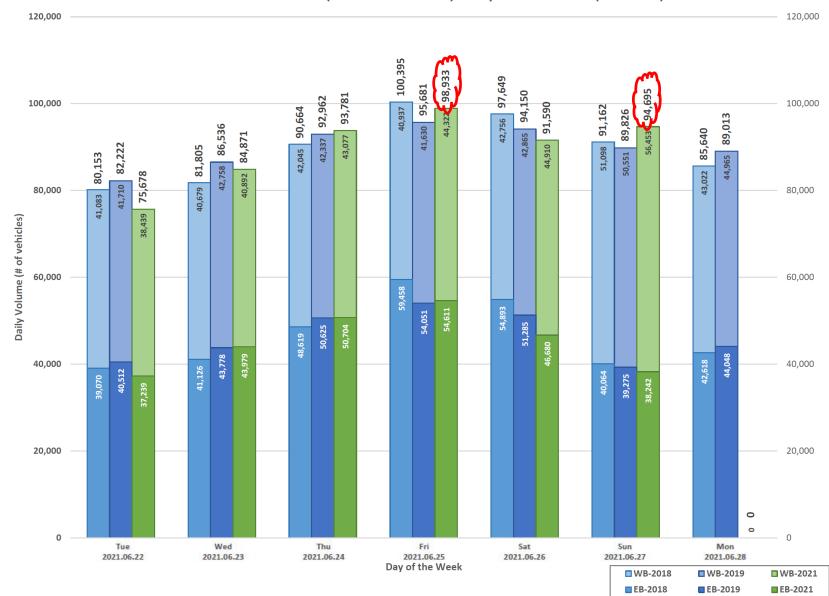
MDTA

Maryland

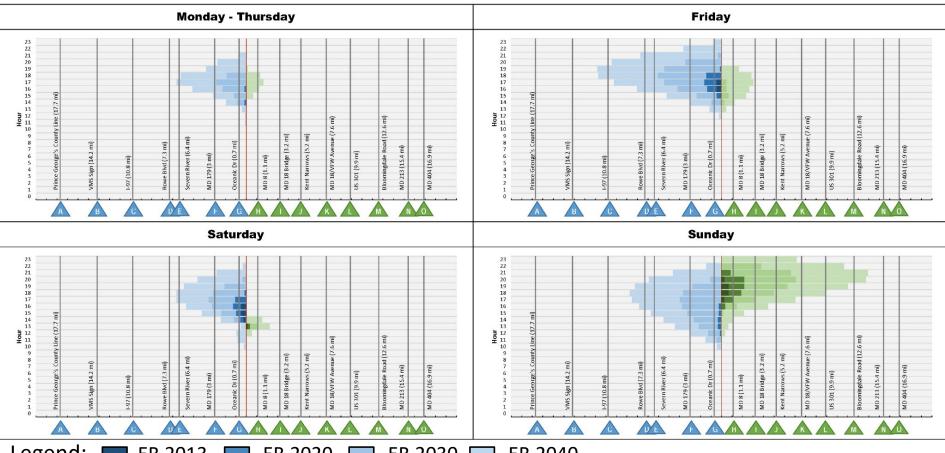
Transportation

Authority

WPL - Volume Review (2021 vs 2019-2018): Daily Traffic Volume (Jun WK-4)



Summer Queue Length (2013, 2020, 2030, 2040)



Legend: EB 2020 EB 2030

WB 2013 — - WB 2020 — - WB 2030 — - WB 2040

- 2015 LCCA projected:
 - Simultaneous EB and WB delays shown in 2020, and increasing over time
 - Nearly 130,000 daily volumes (summer weekend) by 2040
 - Queue lengths shown are based on conditions before AET and Severn River enhancements



Future Traffic Operations (Average Conditions)

Option	2015	2030	2040
	Operations	Operations	Operations
No Build (5 bridge lanes and 6 mainline lanes)	 Summer months¹: 1-3 hours/weekend day congestion Typically up to 1 mi. queues Non-Summer months: Minimal congestion on weekends 	 Summer months¹: 1-7 hours/daily congestion Up to 7 mi. queues Non-Summer months: Minor congestion on Fri. and Sat. 	 Summer months¹: 5-7 hours/daily congestion Up to 14 mi. queues Non-Summer months: Minor congestion on Fri. and Sat.

¹ Summer months: Memorial Day to Labor Day

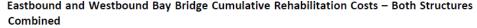
Additional considerations:

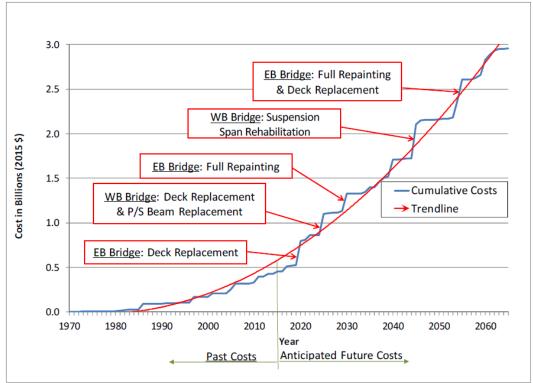
- Analysis is based on average conditions, not factoring incidents, inclement weather, construction operations, special events or holidays
- Observing traffic is spreading out more over the week, and delays observed in Fall and Spring periods



Structural Needs

- Preliminary structural evaluation for existing EB and WB bridges
- Existing bridges designed for a 50 year life. With EB (nearly 70 years) and WB (nearly 50 years), maintenance needs and functional traffic management will become more challenging as the bridges age beyond the original design intent.
- Maintaining the existing bridges will require ongoing maintenance and major rehabilitation projects (e.g., deck and superstructure replacement, painting, and major rehabilitations)
- From report "future projects could have a major, detrimental impact on available bridge capacity and operations"

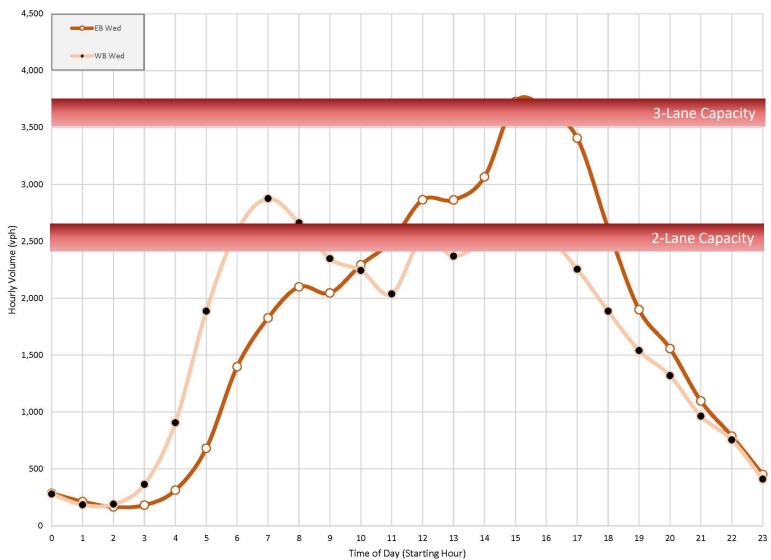






Traffic Volumes – Average Wednesdays, June 2021

Bay Bridge Traffic Volume: Average Vehicles per Hour by Day of the Week (June 2021)





Traffic Volumes – Average Wednesdays, June 2021

WB PEAK
PERIOD ENDS.
EB VOLUMES
BELOW 2-LANE
CAPACITY



EB LANE
CLOSURE
RESULTS IN
QUEUING





Traffic Volumes – Average Wednesdays, June 2021

EB PEAK
PERIOD
APPROACHES
3-LANE
CAPACITY. WB
VOLUMES AT
2-LANE
CAPACITY



VOLUMES
DECREASE –
QUEUES CLEAR



