

Evaluate base and future scenarios as detailed below:

- Consider an urban freeway AB (1 link of 7 miles) with 3 lanes/direction.
- In year 2008, ADT at A=80,000; ADT at B=100,000. Projected to increase by 50% in 25 years.
- 40% of ADT occurs under “peak” conditions.
- There is space for adding 2 lanes within available ROW in the base case. This is used to add 2 lanes in the future case.
- No Transit or HOVs for base. Future has BRT – 175 buses daily with occupancy 45.
- Speed limit – 60 mph.
- Land Use – 50% Residential, 30% Industrial/Commercial, 20% Institutional/Public. Unchanged in future.
- Pavement condition – current – 70; future – assume an increase to 90.
- Truck percentage – 10% for both base and future.
- No cost recovery, no TMC surveillance for both base and future.
- Assume average GPL occupancy – 1.1.
- Area is in attainment for all air quality standards.

Results:

- *For ADTs, average out between A and B*
- *Since only a few parameters (ADT, number of lanes, bus service, pavement condition and lane availability) change between base and future, you can make use of the “copy” function to copy data from the base to future, and just change these as necessary.*

Scaled Measure Values			
Measure No. and Description	Base	Future 1	
1a-Improve mobility on highways	0.94	0.91	▼
1b-Improve reliability of highway travel	0.80	0.71	▼
2a-Reduce crash rates and crash risk	0.49	0.24	▼
2b-Improve traffic incident detection and response	0.00	0.00	—
3a-Optimize land use mix for development potential	0.94	0.94	—
3b-Improve road-based freight movement	0.45	0.49	▲
4a-Maintain existing highway system quality	0.70	0.90	▲
4b-Reduce cost and impact of highway capacity expansion	0.50	0.00	▼
4c-Leverage non-traditional funding sources for highways	0.00	0.00	—
4d-Increase use of alternatives to single-occupant automobile travel	0.00	0.00	—
5a-Reduce adverse human health impacts and comply with ambient air quality standards	0.40	0.64	▲
5b-Reduce greenhouse gas emissions	0.46	0.17	▼

