

Dallas Parkway

DNT Frontage Roads

Plano Parkway to Park Boulevard



HISTORY

- NTTA Value Engineering Study - 2009
- DNT - Keller Springs to SH 121
- Operational / capacity improvements



AREAS OF FOCUS

- Heavy weaving movements
- PGBT direct connectors / Park Blvd.



PROJECT CONSTRAINTS

- Provide easy access to commercial activity centers
- No increase in congestion on the service roads
- Minimize acquisition of right-of-way



RESULTS OF STUDY

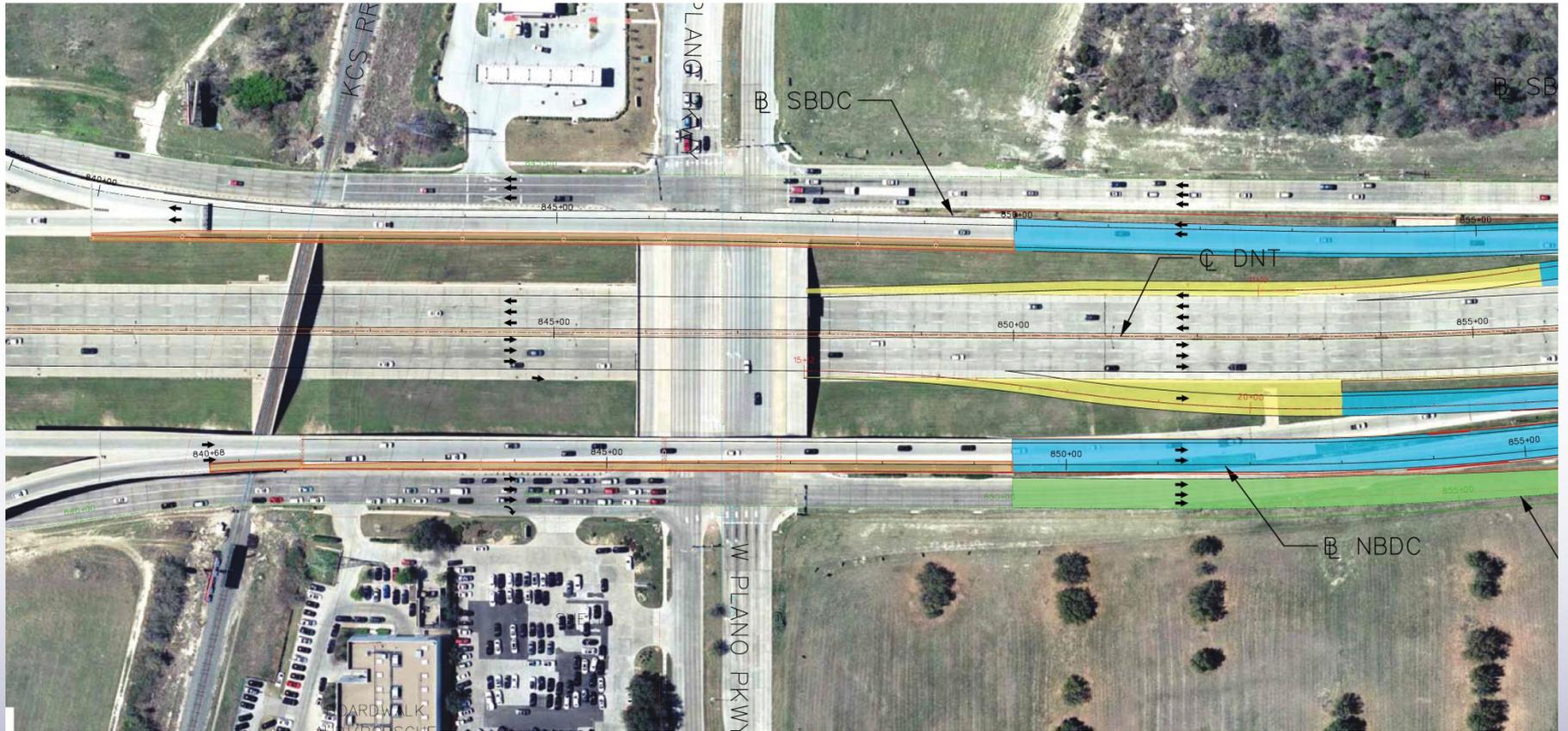
- Widen direct connector ramps
- Braid the D/C and Park Blvd. ramps

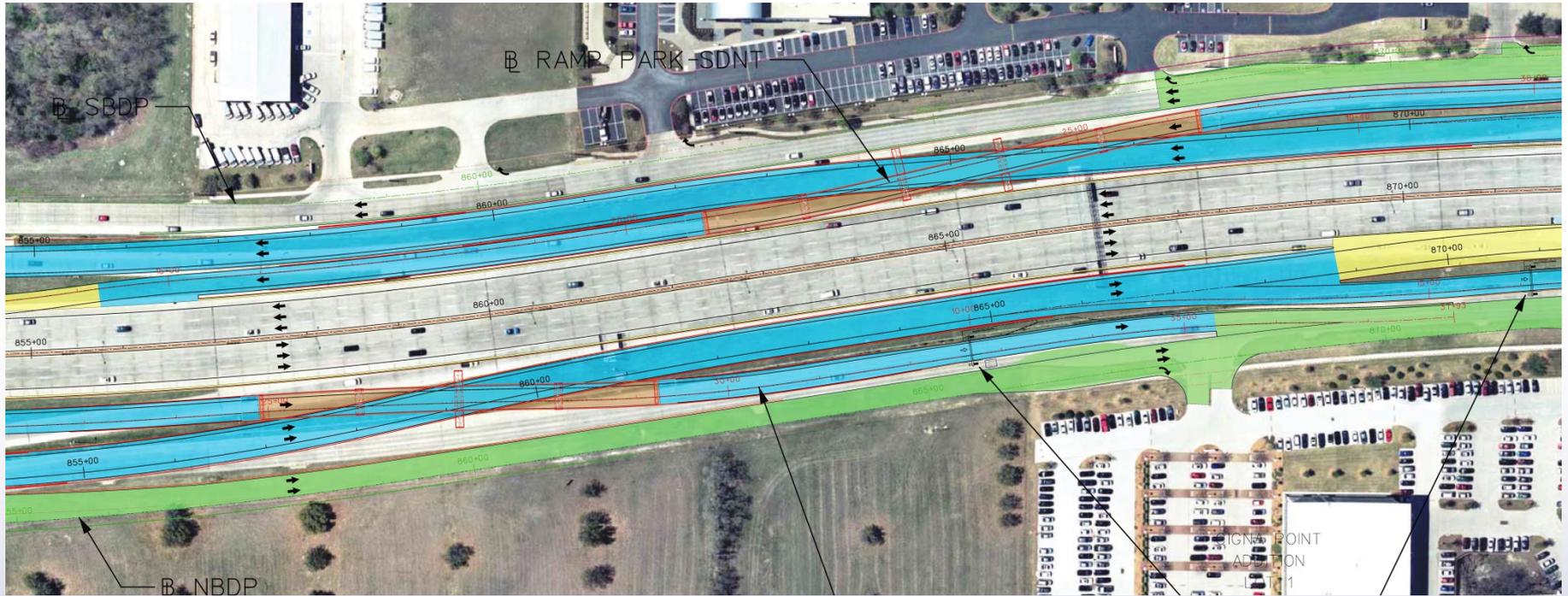


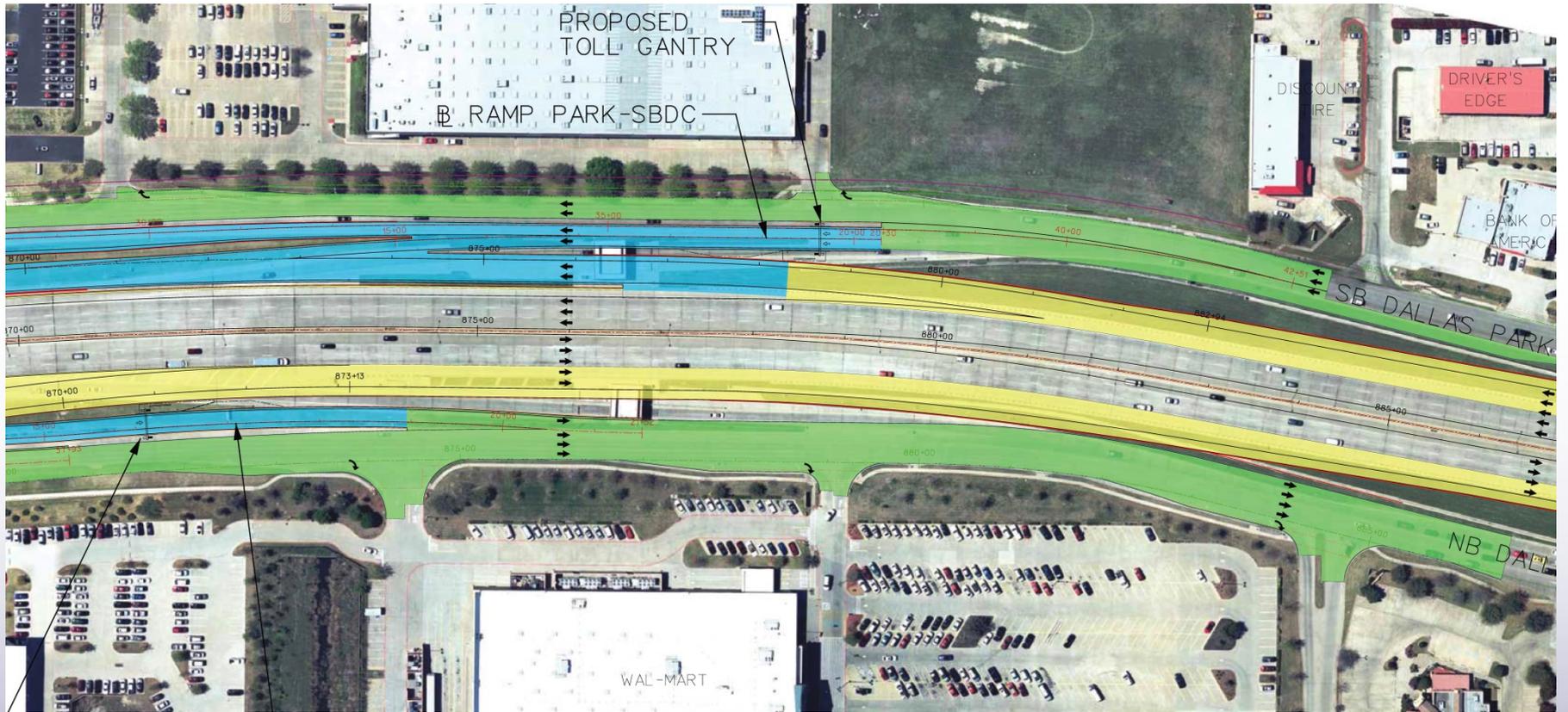
PLANO CONCERNS

- Proposed plan includes a short section of two lane frontage roads
- Degradation of the level of service during peak traffic periods
- Development on SB side is too close to add third lane













Memorandum

TO: Bruce Glasscock, City Manager

FROM: Jack Carr, P.E., Director of Engineering

THRU: Frank Turner, Deputy City Manager

DATE: April 18, 2014

SUBJECT: North Texas Tollway Authority - Proposed Construction along DNT

Summary

- In 2009, the North Texas Tollway Authority (NTTA) completed a Value Study for the operational and capacity improvements along the Dallas North Tollway from Keller Springs to SH 121.
- The value study included an intensive workshop that was conducted with a multidisciplinary team in December 2008.
- One of the focus areas was the elimination of the heavy weaving movements between the PGBT direct connectors and Park Boulevard by braiding the DNT entrance and exit ramps from/to Park Boulevard underneath the direct connectors, which are to proposed to be widened to two lanes to accept additional traffic from the direct connectors (NB) and from DNT main lanes (SB).
- The constraints identified for the study included:
 - Provide easy access to the mall and surrounding commercial activity centers along Park Boulevard.
 - Not increase congestion on the service roads.
 - Minimize the acquisition of right-of-way.
- As a result of the value study, NTTA has finalized their plan as shown on the attached pages.
- The primary concern to the City of Plano is related to the number of lanes along the frontage roads between Plano Parkway and Park Boulevard where three lanes cannot be accommodated.
- City of Plano Traffic Engineering Division has studied the current and future traffic volumes along these sections and has compared them to the resulting capacity. After considering other alternatives and the associated constraints, the Traffic Engineering Division concurs that two lane frontage roads along the short segments, as proposed by NTTA, is the best option available.

Southbound Frontage Road

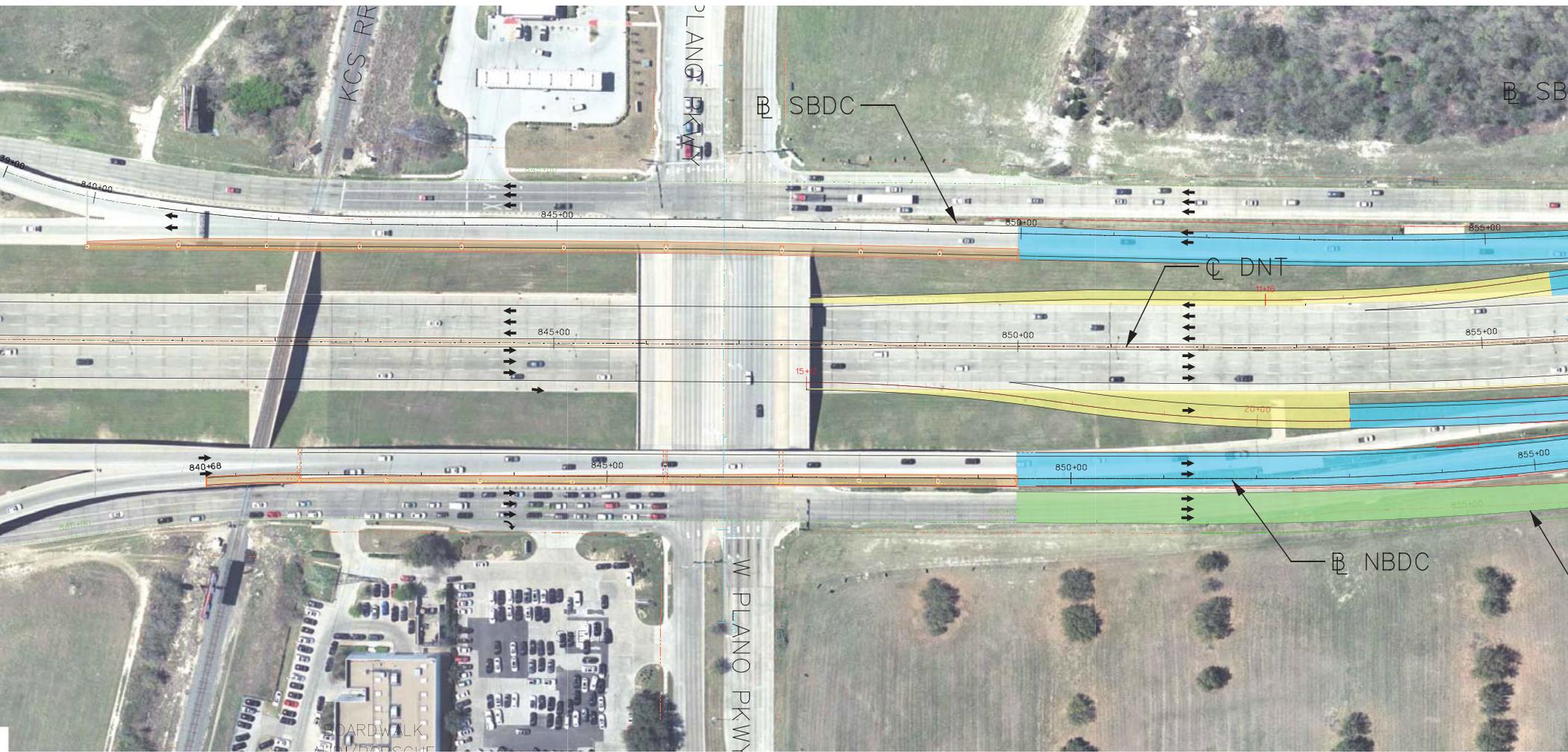
- Development has occurred in close proximity to the southbound frontage road and widening the frontage road to three lanes will damage the existing development; therefore, the option preferred by NTTA is to narrow the southbound frontage road from the existing three lanes to two lanes.

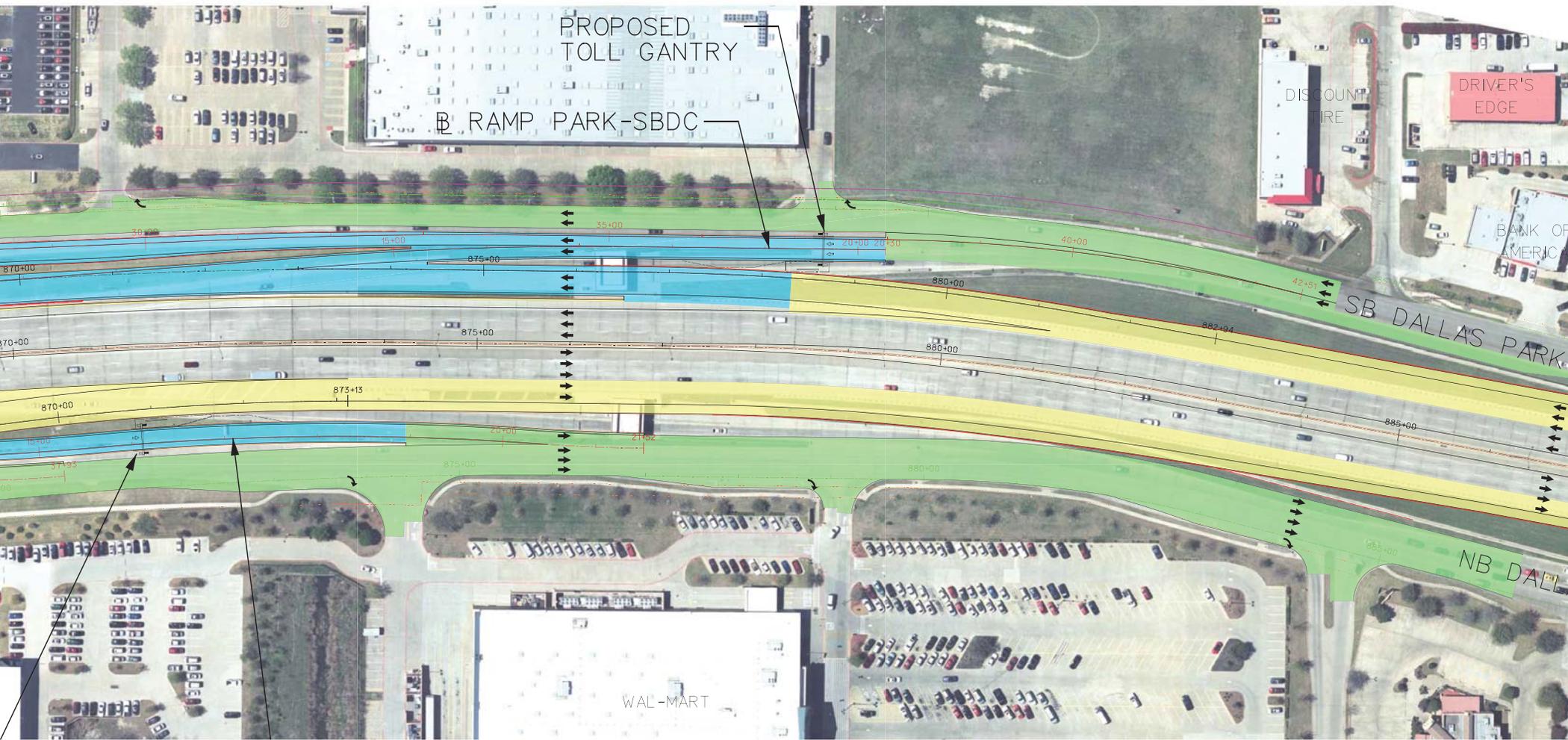
Northbound Frontage Road

- On the northbound frontage road, land is available for the acquisition the right-of-way necessary to construct three lanes; however, the lane configuration is better with the two lanes as proposed. (The exit ramp flows into the third lane without the need to merge with frontage road traffic).

Staff Recommendation

- While there will be a degradation in the level of service during peak traffic periods, the current traffic volume and future traffic volume on the frontage roads in this section can be accommodated by two lanes as proposed by the NTTA; therefore, staff recommends the City of Plano support the layout as proposed.





PROPOSED
TOLL GANTRY

RAMP PARK-SBDC

DISCOUNT
TIRE

DRIVER'S
EDGE

BANK OF
AMERICA

SB DALLAS PARKWAY

NB DALLAS PARKWAY

WAL-MART



