



US 85, I-76 to 124th Ave-NEPA & Preliminary Design Project - Alternatives Review

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March 12, 2018



Background-US 85 PEL Study

- CDOT initiated a Planning & Environmental Linkage (PEL) study in Spring 2014 for US-85 from I-76 to Nunn (WY border)
- Study Purpose was to identify transportation improvements along the US 85 corridor to:
 - Improve safety
 - reduce existing and future traffic congestion
 - provide efficient access for existing and future development, and
 - improve mobility and connectivity for all transportation modes
- A multi-level screening process was used to develop, refine, and evaluate alternatives for the corridor
- Alternatives were reviewed with City Council in October 2016
- The final document was completed in April 2017



Additional Background

- Union Pacific & CDOT were in discussions about land acquisition for existing alignment of US 85 & possible improvements for UP benefit in exchange
- Union Pacific felt a 2-mile siding at or near 104th Ave with grade separation of the 104th Ave crossing would best improve their operations
- This led CDOT to initiate the current NEPA & 30% design effort
- Weld County & Adams County jointly submitted an InfraGrant application in November 2017 for partial funding for 120th/US 85 interchange
- Commerce City pledged \$7M as a local funding match to support the grant application
- 2018 Work Plan identifies 20th Ave interchange for completion by EOY 2022

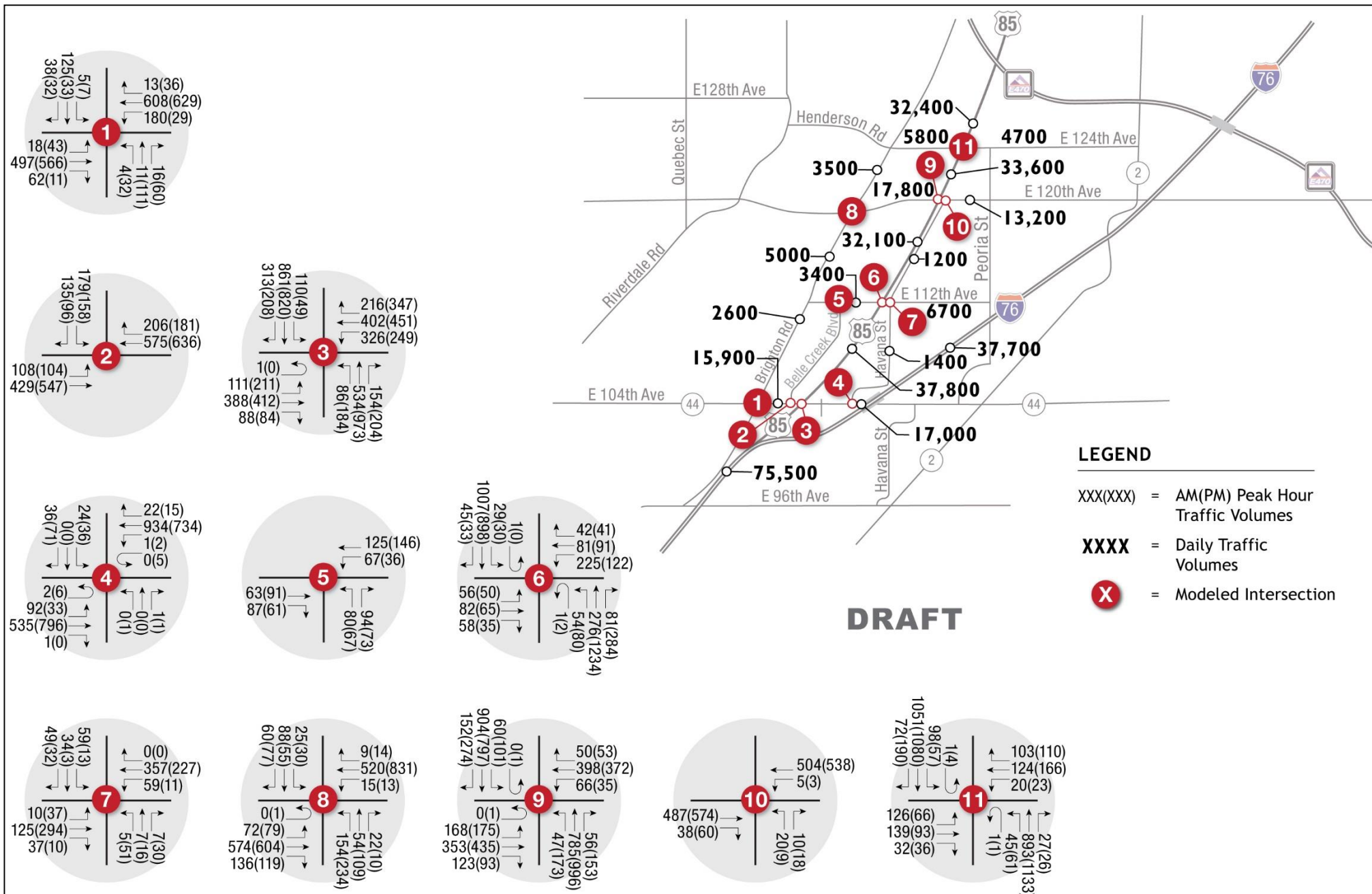


Current Project Efforts

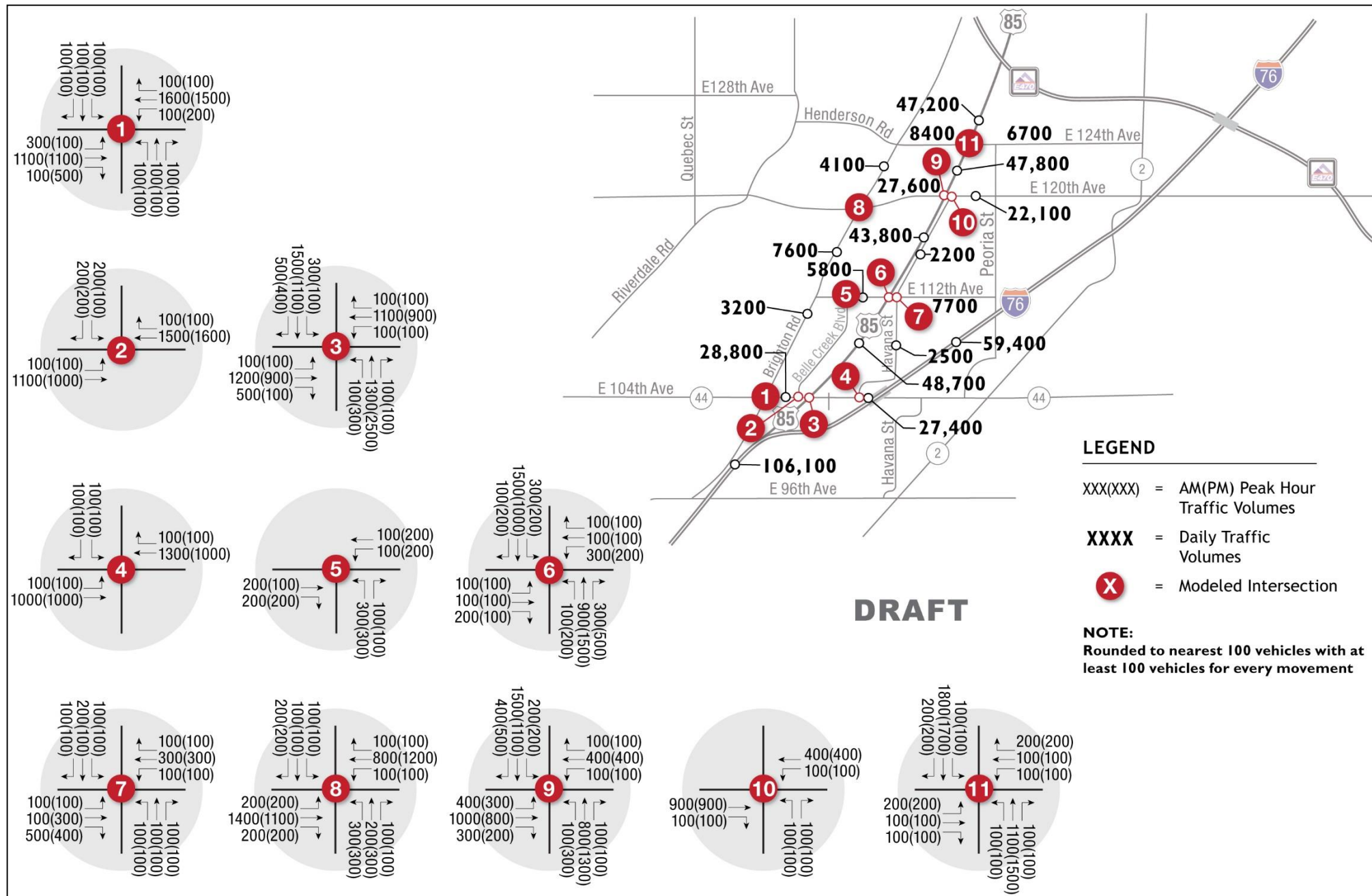
- National Environmental Policy Act (NEPA) evaluation & 30% design
- Survey
- Utilities
- Environmental Resource Analysis Update (from PEL)
- Traffic Modeling
- Tiers 1-3 Alternatives Evaluation & Screening
- Identification of Preferred Alternative
- Final report
- Preliminary design plans (30% complete)

- Objective is to be “shovel ready” for final design & construction once funding is identified



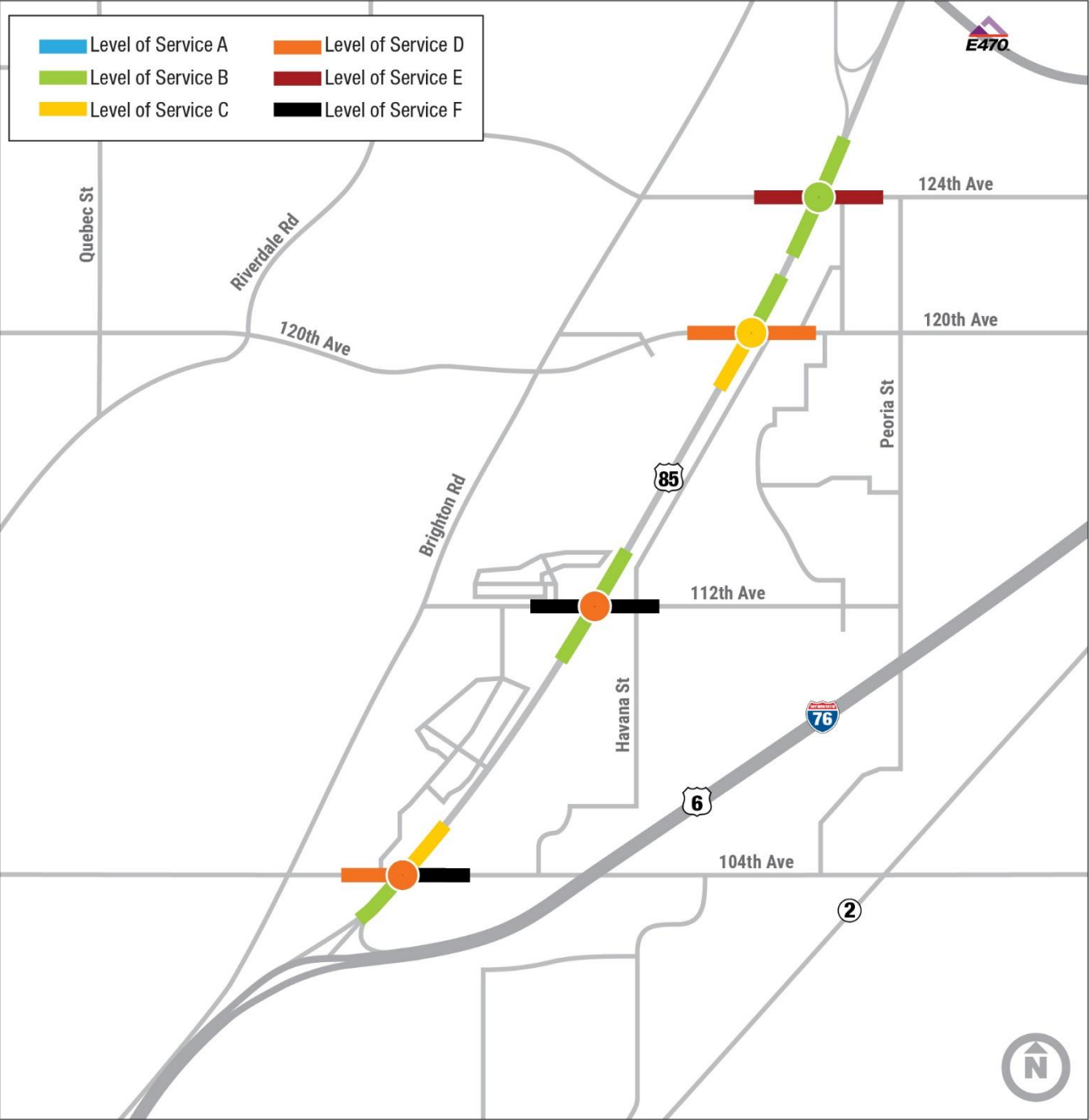


Existing Traffic Data



2040 No Action Traffic Data





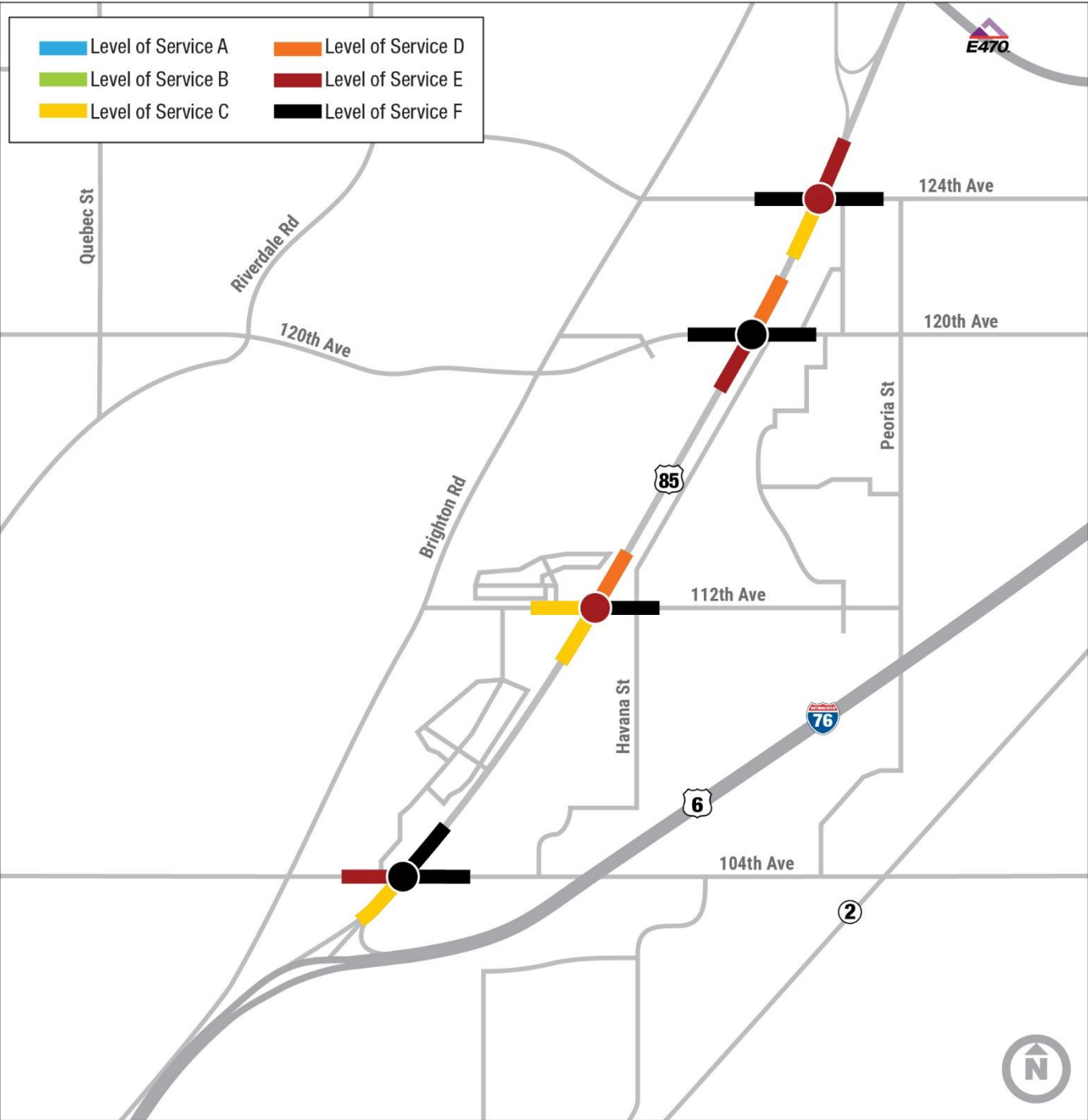
Existing (2017) LOS (AM)





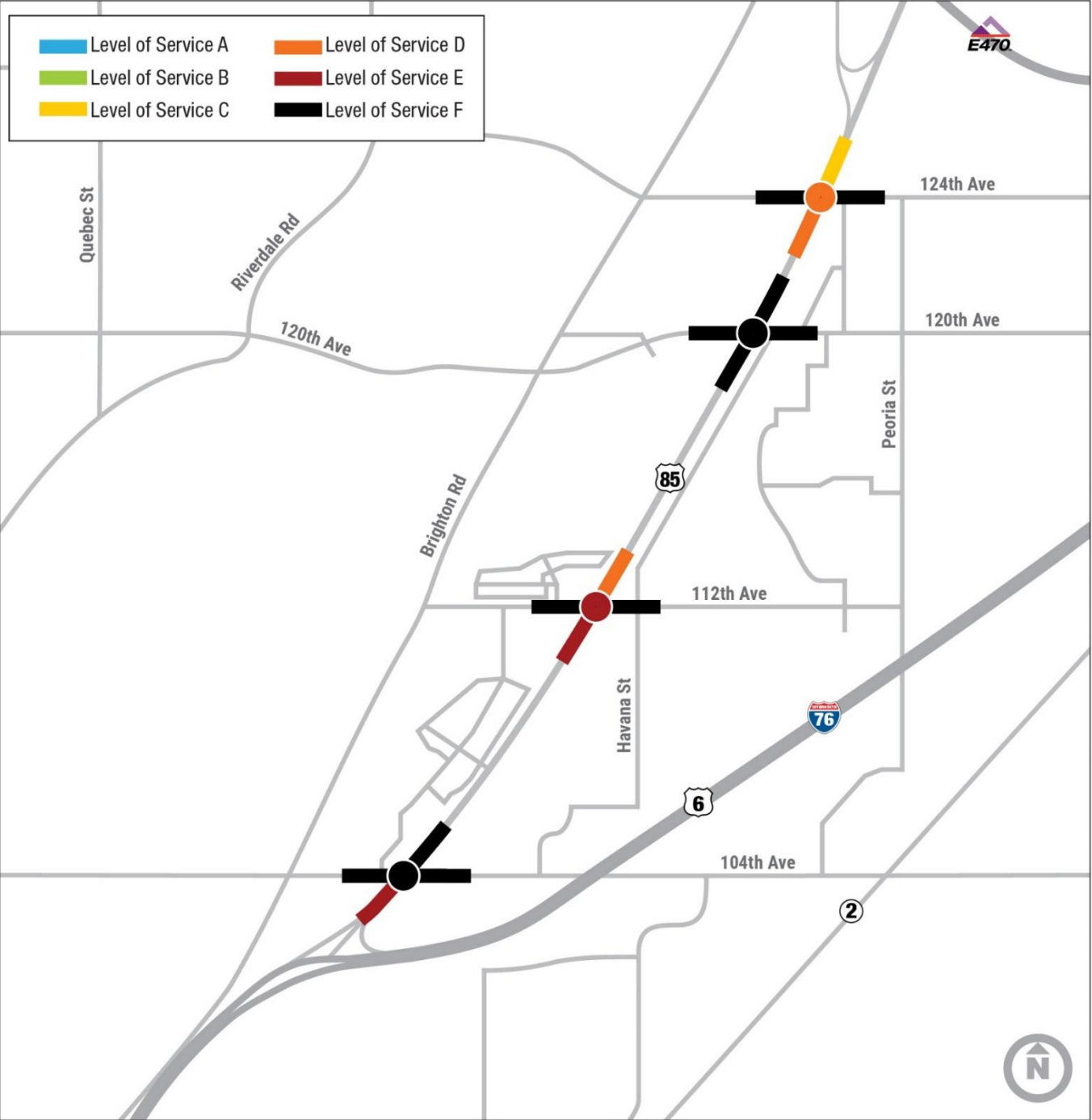
Existing (2017) LOS (PM)





2040 No Action LOS (AM)





2040 No Action LOS (PM)



Crash Analysis-All Crashes

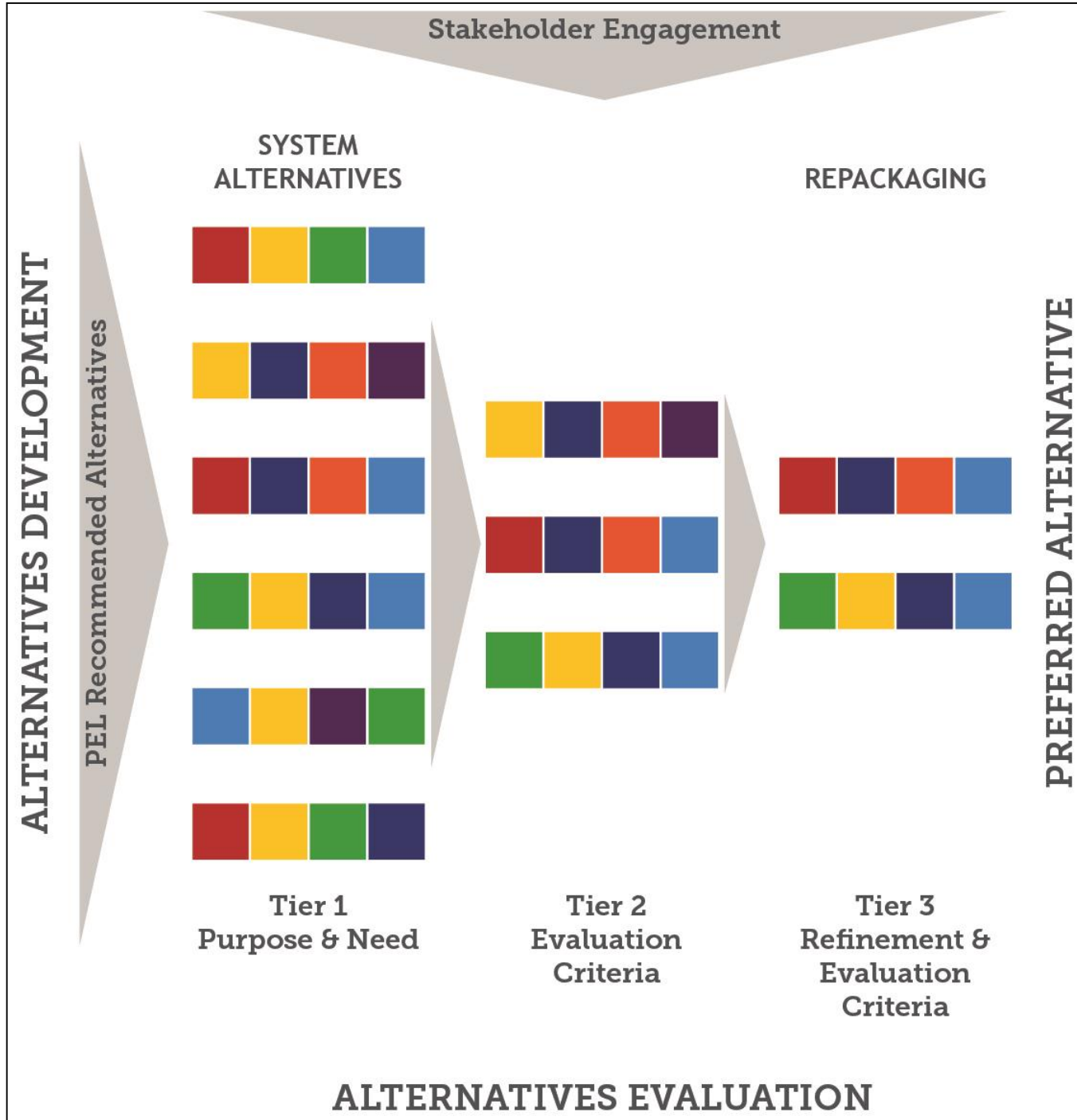
Time Period	PDO	Injury	Fatality	Total
7/2011-6/2012	93	20	0	113
7/2012-6/2013	67	25	0	92
7/2013-6/2014	92	24	0	116
7/2014-6/2015	105	32	1	138
7/2015-6/2016	90	39	3	132
Total	447	140	4	591
Average	89.4	28.0	0.8	118.2



Crash Analysis-At Intersections

Intersection	PDO	Injury	Fatality	Total
104 th Avenue	83	30	0	113
Longs Peak Drive	5	2	0	7
112 th Avenue	51	13	1	65
120 th Avenue	54	30	1	85
124 th Avenue	33	5	1	39
Total	226	80	3	309
Average	45.2	16.0	0.6	61.8





Alternatives Analysis & Screening





US 85 (I-76 to 124th Avenue) NEPA

Level 2 Evaluation Results

- ❖ **Eliminated System Alternative 5B Relocated Alignment**
 - ❖ It reduces existing development opportunities along US 85 with the creation of a barrier (relocated US 85) along the new Havana Alignment. Properties east of the UPRR between 104th Avenue and 112th Avenue would have reduced access to US 85. With the closure of 124th Avenue and reduced access at 112th Avenue (only northbound access to US 85 from 112th Avenue and southbound access to 112th Avenue from southbound US 85), full movement access to US 85 would be reduced to the US 85/120th Avenue interchange. The US 85/120th Avenue interchange would be the only full movement access between I-76 and E-470, which is a distance of approximately 3.4 miles.
 - ❖ Local street access is impacted and there are opportunities for re-establishing local networks, however, it creates out of direction access for 104th and 112th Avenue. This out of direction travel does not maintain local street network circulation.



**Eliminated
Alternative**



Alternatives Review

Alt. 1A: Railroad Crossing Safety
(see attached schematic)

Intersection	Proposed Modification/ New Configuration
104 th Avenue	Diverging Diamond Interchange
Longs Peak Drive	Close/no access
112 th Avenue	Partial Cloverleaf Interchange
120 th Avenue	Diverging Diamond Interchange
124 th Avenue	Bridge over US 85/no access



Alternatives Review

Alt. 2: Access Control Recommendations (see attached schematic)

Intersection	Proposed Modification/ New Configuration
104 th Avenue	Partial Cloverleaf Interchange
Longs Peak Drive	Close/no access
112 th Avenue	Skewed SPUI Interchange
120 th Avenue	Diamond Interchange
124 th Avenue	Close/no access



Alternatives Review

Alt. 3: Use Existing Infrastructure

*including improvements to local streets to get traffic to 104th & 120th
(see attached schematic)

Intersection	Proposed Modification/ New Configuration
104 th Avenue	SPUI Flyover Interchange
Longs Peak Drive	Close/no access
112 th Avenue	Close/no access
120 th Avenue	Tight Diamond Interchange
124 th Avenue	Close/no access



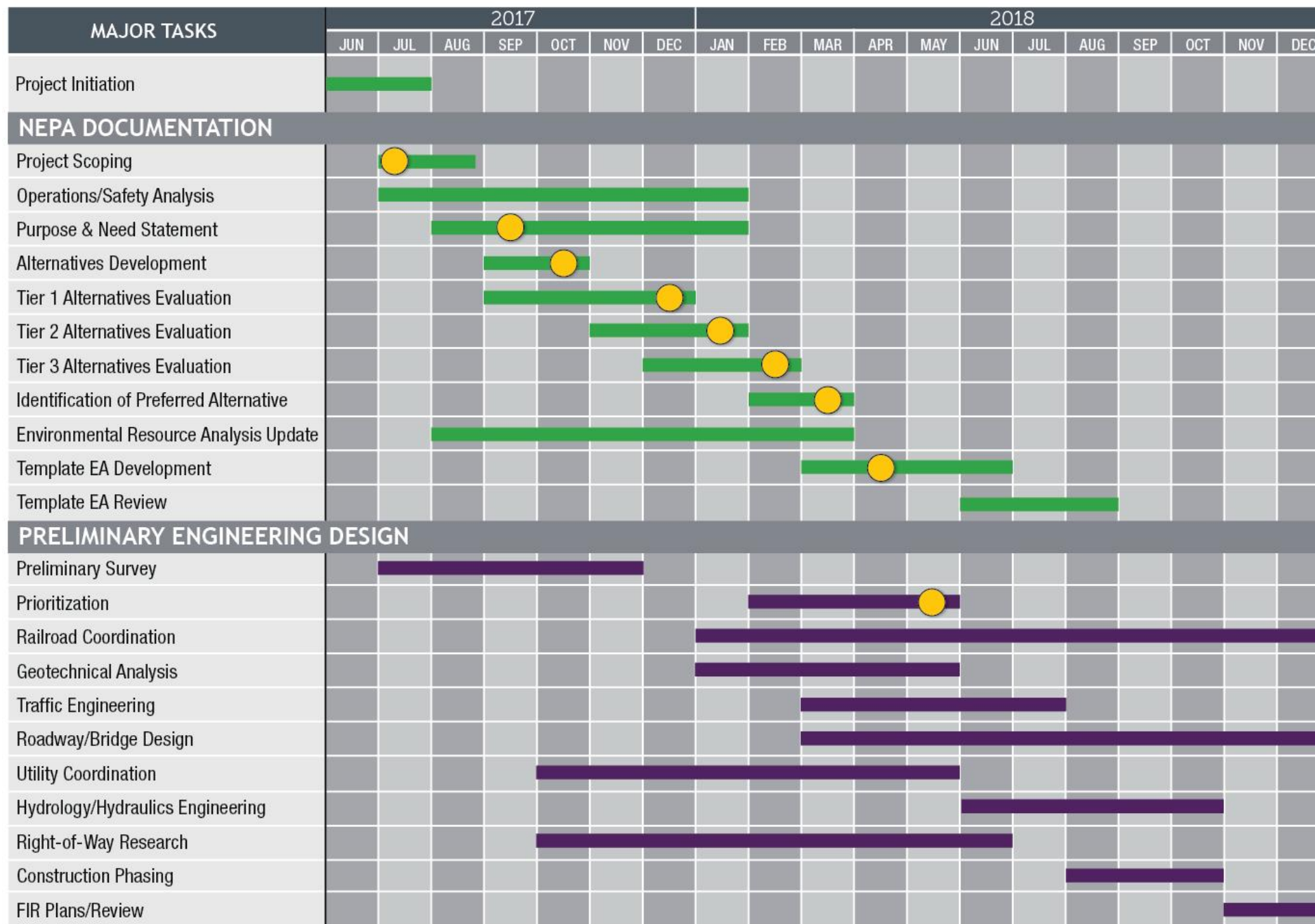
Interchange Concepts

Various detailed interchange concepts have been developed for each intersection:

- 104th Avenue
- 112th Avenue
- 120th Avenue
- 124th Avenue

(see attached schematics)





● Technical Advisory Committee (TAC) Meeting



Project Schedule



Next Steps

- Public Open House Meeting, March 20 at Belle Creek Community Center
- Traffic Analysis on various configurations
- Tier 3 Alternatives Screening
- Identification of Preferred Alternative
- Preliminary Design (by end of 2018)





Questions?

