Appendix C

No Build Analyses

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING
610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

TECHNICAL MEMORANDUM

Springfield TSP

Future Conditions No Build Results

Date:	December 14, 2012	Project #:10295
To:	David Reesor, City of Springfield	
From:	Julia Kuhn, PE, Matt Kittelson, PE, and Joe Bessman, PE, PTOE	
cc:	Kristin Hull, CH2M Hill	

This technical memorandum presents the year 2035 No Build Analysis for the Springfield Transportation System Plan (TSP). The analysis primarily focuses on the ability of the street system to accommodate future growth in traffic demand. The quality of service that may be experienced by pedestrians, cyclists and transit riders was not specifically analyzed as part of the No Build evaluation. Within this memorandum, generalized needs associated with these "active" modes of travel are highlighted; these needs will be affected by the conditions projected to occur on the streets and at intersections. The analyses and findings contained in this memorandum can be used to inform the identification and evaluation of future multimodal transportation system alternatives that meet the goals, policies and criteria guiding the TSP.

All of the technical analyses summarized herein assume that the City will continue to see growth in employment and population between now and the year 2035 in a manner consistent with the existing Comprehensive Plan land use designations, within the existing Urban Growth Boundary (UGB) and consistent with the statewide and regional growth forecasts. At the same time, the analyses assume that the street, transit, pedestrian and bicycle systems will remain as they exist today. This "do nothing" approach from a transportation perspective is commonly used as a foundation by which cities can test the effectiveness of potential projects, policies, and programs. This testing of alternatives helps policy makers to weigh trade-offs regarding future funding priorities in a manner that ensures that the transportation system supports and enhances the continued economic growth, and contributes to the community vision in a manner that is safe, sustainable, fundable and diverse.

The remainder of this memorandum outlines the analyses assumptions and findings. In addition, examples of strategies that the city may consider in the future to address some of the No Build deficiencies are also highlighted.

LAND USE ASSUMPTIONS

Staff from the cities of Eugene and Springfield, Lane County and Lane Council of Governments (LCOG) worked collaboratively to estimate year 2035 population and employment growth within the region as

well as within individual areas of each city. This interagency collaboration ensures that the No Build analyses for Eugene, Springfield and Coburg are based on the same fundamental assumptions and that the population and employment forecasts are "coordinated" for compliance with state transportation and land use planning requirements. Table 1 shows the existing and future population and employment estimates for the City of Springfield.

Table 1. Land Use Estimates[1]

	Year 2010	Year 2035*	Growth
Population	67,683	84,830	17,147 (25%)
Households	28,300	35,490	7,190 (25%)
Employees	29,300	40,240	10,940 (37%)

*For the purposes of the 2035 No Build analyses, land use growth was concentrated only in the existing Urban Growth Boundary (UGB). Although the City is considering possible expansions to the UGB, decisions on whether and/or where to expand the UGB have not been made. The impact of growth occurring outside the existing UGB would be addressed in an update to the TSP once these decisions have been made.

TRANSPORTATION SYSTEM ASSUMPTIONS

City of Springfield plans, TransPlan and the Regional Transportation Plan (RTP) have previously identified a variety of street, pedestrian, bicycle and transit projects that could be implemented in the future. At this point, there are no guaranteed funding sources for any major projects that will materially affect traveler behaviors and traffic volumes on the City's street network in the future. As such, the No Build assumes that the existing street, pedestrian, bicycle and transit system is in-place in the year 2035.

TRAFFIC VOLUME DEVELOPMENT

Based on estimates of future job and household growth, LCOG[2] developed traffic volume forecasts for the City's collector and arterial street system, using an emme travel demand model. This model is calibrated to actual traffic volume counts recently measured on streets within the City. In addition to land use and street network inputs, the model also relies on information about existing traveler behavior and trip-making characteristics to understand how people might use the transportation system in the future.

[1] The household and employment growth used in the No Build was developed specifically for the update of the travel demand model and the Regional Transportation Plan efforts. The land use estimates shown in the table and used in the analysis are slightly different than the previous study conducted for the City by EcoNorthwest, given the most current information available from the state of Oregon and the regional coordinated forecasts.

[2] LCOG will provide a memorandum regarding key assumptions included in the LCOG Travel Demand Forecasting Model under separate cover.

Based on information obtained from LCOG, coupled with measured traffic counts at intersections and roadways within the City, Kittelson & Associates, Inc. (KAI) developed year 2035 intersection and roadway volumes using a procedure consistent with guidance from ODOT's Analysis and Procedures Manual (APM).

INTERSECTION ANALYSES

Key street intersections are often the first points in the transportation system to exhibit congestion. Review of the performance of these intersections can help inform the identification of localized improvement needs (such as additional turn lanes, new traffic signals, etc.), and can serve as indicators for more significant street network issues.

The No Build intersection analyses presented within this memorandum focuses on the peak fifteen minutes of the weekday evening commute conditions, when traffic volumes throughout the City as a whole are highest during the day. While this time period captures the majority of system issues, different patterns and needs may occur in the morning, mid-afternoon, or during weekends at specific locations based on adjacent land use characteristics (e.g., school hours, employment shift changes outside of the typical 8 am – 5 pm day, etc.). Transportation improvements needed to address conditions that occur outside of the evening commute period can be evaluated in future corridor, subarea, localized plans, and during project development efforts undertaken after the TSP is completed. These more detailed studies can be included in future TSP amendments and capital planning efforts, as appropriate.

The existing conditions memorandum prepared for the TSP included analyses of more than 40 intersections throughout the City. These locations were collaboratively identified with City, LCOG, and ODOT staff as critical arterial and collector intersections that are representative of the City-wide transportation infrastructure. The No Build analysis includes evaluation of these same intersections and compares the expected intersection performance to adopted City and state standards. KAI conducted this analysis in a manner consistent with the methodologies outlined in the Highway Capacity Manual and guidance provided in ODOT's APM. As part of future TSP efforts, the City may consider changes to the adopted performance standards; however, the No Build analysis assumes that the existing standards remain in-place.

The year 2035 No Build intersection operations are shown in Table A in the Appendix and illustrated in Figure 2 (the existing conditions are shown in Figure 1). Within the figures, those locations whose performance meets City and state standards are colored as green; locations where the City and state standards are not met are shown as red. Specific findings regarding the analysis are discussed below.

CORRIDOR ANALYSES

For the purposes of identifying future transportation system alternatives, it is helpful to look at a more holistic, corridor approach to the No Build deficiency review. This broader system approach can be

accomplished by comparing the anticipated demand on key corridors to planning-level estimates of street capacity. Review of the street segments can identify network connectivity, functional classification issues, potential corridor management strategies, and multimodal opportunities. This can ensure that the future transportation system looks, feels and operates in a manner consistent with the community's vision.

The comparison of the year 2035 traffic demand to capacity for individual arterial and collector streets within the City was classified within three categories:

- Streets that operate "well" – defined for the purposes of this memo as the No Build demand is less than 80 percent of the capacity. These streets are shown in green in the figures.
- Streets that are "nearing capacity" under the No Build – the demand is between 80 and 100 percent of the capacity. These streets are shown in yellow in the figures.
- Streets that are "over capacity" – the No Build demand exceeds the capacity, which is shown in red on the figures.

The results of the No Build analysis are shown in Figure 2. In reviewing the figures, it is helpful to note that the corridor analyses consider a full hour of traffic demand (based on direct model output) during the weekday commute period. In looking at a full hour of traffic demand, the corridor analyses may not reflect some of the queuing that occurs at intersections. Conversely, the intersection analyses are based on traffic volumes that have been further refined ("post processed" from the model outputs) and reflect conditions that occur during the peak 15 minute time period. Queuing on the roadway segments leading up to intersections would be expected at those locations where intersection operations are shown to exceed standards.

Together, with the intersection analyses results, the corridor analyses can be used to identify the No Build street system deficiencies throughout Springfield. These deficiencies are described in more detail below.

NO BUILD FINDINGS

Glenwood Area

The Glenwood Area is bounded by the Willamette River and by Interstate 5 (I-5) in the southwest part of the City. Numerous planning efforts have occurred over the past 15 - 20 years to guide redevelopment of this area into a vibrant, mixed use, high density neighborhood. The primary transportation facilities serving this neighborhood include:

- Franklin Boulevard, which connects Springfield to downtown Eugene and the University of Oregon;

- McVay Highway, which connects to Lane Community College and I-5;
- EmX, the region's bus rapid transit service; and,
- Glenwood Boulevard, which provides a connection between Franklin Boulevard and Interstate 5.

Today, these transportation facilities generally operate well relative to vehicular performance standards and safety history. However, the primary streets serving the neighborhood are not as conducive to cycling and walking today. Under the No Build conditions, the arterial streets and primary intersections serving this mixed use neighborhood are anticipated to experience congestion. Some of the key contributors to this congestion are outlined below.

- Access to the area is provided by only three streets: Franklin Boulevard, Glenwood Boulevard and the McVay Highway. In addition to serving the intensification of land uses within this neighborhood, each of these streets plays a key role in providing regional transportation access and mobility to the Eugene-Springfield area, the region and direct access to I-5 (i.e., at the Glenwood Boulevard and 30th Avenue interchanges).
- Franklin Boulevard is one of six corridors that connect Springfield and Eugene (including Game Farm Road/Gateway Street, Beltline Highway, Harlow Road/Hayden Bridge Road, Centennial Boulevard, Franklin Boulevard, and OR 126/I-105). Each of these City-to-city connections is projected to experience congestion under the No Build. In addition, all of the bridges crossing the Willamette River within the Eugene-Springfield urban growth boundaries are projected to experience significant congestion, including the Main Street/South A Street bridges serving the Glenwood neighborhood.
- The No Build analysis only accounts for the transit system that is in-place today. Although the Lane Transit District (LTD) is evaluating the potential for enhanced transit service along the McVay Highway as well as along Main Street to the east of downtown Springfield, no additional transit service has been accounted for in the No Build analyses.
- The I-5 ramp intersections with Glenwood Boulevard are projected to operate over capacity. These intersections are both stop controlled today and could be modified to include roundabouts or traffic signals in the future, resulting in acceptable operations in the future at these intersections.
- The No Build analysis does not account for the implementation of transportation demand management strategies (TDM) that may accompany the redevelopment of the neighborhood.

42nd Street Corridor

The 42nd Street corridor serves as an important north-south connection within the City and provides access between the freeway/highway system and several large employers and freight users within the City. At the north end, the corridor crosses both OR 126 and the railroad spur line that serves the

adjacent industrial lands; at the south end, the corridor crosses OR 126 Business (i.e., Main Street) providing access to neighborhoods, schools and parks. As such, this street plays a major role in connecting Marcola Road, OR 126, Main Street, and other regional and local destinations. In the future, this corridor will also provide access to Marcola Meadows, a mixed use neighborhood planned to the northwest of the 28th Street/Marcola Road intersection.

Today, the corridor and its associated intersections generally operate well relative to key performance standards. The primary exceptions to this are the intersections of 42nd Street with OR 126 westbound ramp and with Daisy Street. Both of these intersections are controlled by stop signs today and do not meet the existing performance standards.

Under the No Build, five of the seven study intersections along this corridor are anticipated to exceed performance standards. In addition, congestion is projected in the vicinity of OR 126 as well as Main Street. Some of the key observations regarding this corridor are summarized below.

- The 42nd Street corridor is one of five continuous north-south corridors in the City. In addition, this corridor is the only north-south corridor between OR 126 to the east and 28th Street to the west. The lack of continuous north-south arterial streets city-wide places additional pressures on the 42nd Street corridor to serve both local and regional trips for all modes of travel.
- 42nd Street provides critical capacity for freight movements within the city, providing access between OR 126, Main Street and the industrial employers in the east part of the City.
- Today, 42nd Street lacks continuous bicycle lanes and sidewalks near the north end of the corridor but there is an off-street multiuse path that parallels the east side of the roadway between International Paper and Marcola Road.

OR 126

ODOT and the City of Springfield have partnered on the OR 126 Expressway Management Plan (EMP) during the past several years. As noted within the EMP and the TSP's Existing Conditions and this No Build analysis, this corridor is anticipated to experience congestion throughout much of its length between I-5 and 58th Street. This corridor serves as a key east-west route for intracity, intercity, and statewide trips heading to Central Oregon. Additional findings are discussed below.

Pioneer Parkway/OR 126 Interchange Area

Pioneer Parkway provides a critical north-south connection for the west part of the City. This street connects the Gateway area, PeaceHealth's facilities, and the commercial and residential areas to the north of OR 126 to the downtown and the neighborhoods and schools to the south. In addition, EmX operates within the corridor.

Eastbound on and off movements from OR 126 are provided via an intersection with Pioneer Parkway to the south of the highway. In the westbound direction, the off-ramp connection is provided at an intersection with Q Street to the east of Pioneer Parkway; westbound access to OR 126 and I-5 is provided at a location on Q Street to the west of Laura Street. This unconventional interchange form in the heart of a commercial area leads to congestion and operational issues both today and in the future. Some of these issues include:

- The intersection of Laura Street with Q Street introduces local access issues right at the connection onto the highway. This intersection is shown to exceed performance standards both in the existing conditions as well as the No Build. In addition, there are safety and operational issues that occur at this location today.
- Q Street serves both shorter distance trips between the neighborhoods and retail areas near Pioneer Parkway as well as longer distance trips associated with OR 126 and destinations further to the east along the City's street system. The need to serve this dual role creates congestion under the No Build.

52nd Street/OR 126 Intersection Area

Today, 52nd Street intersects OR 126 at a signalized intersection. Long queues often form on the eastbound approach with several drivers desiring to turn left to access the Thurston area via Highbanks Road. From a safety perspective, the majority of recorded crashes at this location have been rear-end, non-injury crashes. Although the intersection meets ODOT mobility standards today, the No Build demand is forecast to exceed the capacity of the intersection under its current configuration.

OR 126/Main Street Intersection

The intersection of OR 126 and Main Street serves as a critical access to the Thurston area, several major commercial uses, and the Jasper-Natron area while at the same time providing statewide mobility needs. The EMP and the No Build indicates that this intersection and the 58th Street/Main Street intersection will fail to meet standards in the future. Key analysis findings are summarized below.

- A number of commercial uses are located adjacent to the corridor in the vicinity of the Main Street/OR 126 and 58th/Main Street intersections. The need to provide access to these retail uses combined with the need to serve longer distance trips contributes to congestion in the corridor.
- 58th Street is one of three primary north-south streets that connect the Thurston neighborhoods and Thurston High School to Main Street and the broader City street system. The lack of connectivity into the neighborhood puts additional pressures on the 58th Street corridor and contributes to congestion at its intersection with Main Street.

- Today and in the future, some travelers may use Highbanks Road to try to avoid congestion at the Main Street/OR 126 intersection. The use of this route could place additional demands on the 58th Street/Main Street intersection as well as other intersections along Main Street to the east.
- The absence of connectivity across OR 126 between 52nd and Main Street also creates congestion and increased demands at the Main Street/OR 126 intersection.

Main Street

Downtown

Within the downtown, Main Street and South A Street form a one-way couplet serving both local and regional needs for all modes of travel. Lane Transit District's Springfield Station is located in the heart of downtown, providing users with access to both EmX and bus service. In addition, the downtown streets serve a number of cyclists and pedestrians and provide access to schools, dining, cultural activities, and many civic uses, including the City's Library.

The City of Springfield's *Downtown District Urban Design Plan and Implementation Strategy* provides a vision and a list of priorities for community investment in the downtown. Fundamental to this plan is establishing downtown as a destination, rather than a "thoroughfare." The Downtown Plan identifies a number of transportation elements necessary to support this vision, including the conversion of Main Street and South A Street to two-way streets within the downtown. In the spring of 2012, the City Council determined that converting the streets to two-way will likely be beyond the fiscal resources of the City in the near-term. Over the long-term, the City may investigate the potential conversion further. In the near-term, a phased implementation plan may be pursued that includes efforts that are lower in cost, support both two-way and one-way streets, and show measurable progress toward achieving the vision for downtown.

Under existing conditions, the downtown streets operate well. Under the No Build, the demand is well within the capacity of the streets with the exception of the Willamette River bridges and the first major intersection on both ends of the bridge (i.e., the intersections South A Street with Pioneer Parkway East and West and the Franklin/McVay intersection). Improvements to the Pioneer Parkway intersections with South A Street will need to consider the weaving that occurs today, the EmX movement, regional and local traffic needs, and enhancing the environment for pedestrians and cyclists.

East of Downtown

To the east of the downtown, Main Street serves as one of two continuous east-west streets that traverses between the east and west City limits (the other being OR 126). In this capacity, Main Street provides multimodal access and mobility to the adjacent businesses, neighborhoods, regional

employment and industrial destinations within the City, and to destinations in Central Oregon. Today, Main Street is a wide street with five vehicular travel lanes. Although sidewalks and bicycle lanes are provided through much of its length, there are long distances between protected crossings and no medians to provide center refuge. There is also inconsistent street lighting along the corridor and a fairly high degree of transit use. There have been pedestrian fatalities in this corridor in the past five years.

The Main Street corridor to the east of downtown has recently been the subject of study by ODOT and the City to identify street improvements that can improve safety for all modes, especially pedestrians. The improvements identified in the study include crossing treatments, transit stop enhancements, and street lighting.

In the existing conditions analyses, all of the intersections along this corridor were noted to meet City and state standards. In the No Build, the projected demand at the intersections of 42nd Street, OR 126 and 58th Street are forecast to exceed the capacity.

Centennial Boulevard

Centennial Boulevard serves as a key multimodal route for access to Springfield High School, Hamlin Middle School and Sports Complex, Moffitt Elementary School, and the Willamalane Park Swim Center. To the east of Mohawk Boulevard, Centennial Boulevard serves a number of local and regional commercial uses. Given these important community destinations, Centennial Boulevard is an active pedestrian and cycling corridor.

Under the existing conditions, the study intersections operate within City standards. However, the corridor experiences higher than typical non-injury rear-end crashes, especially between Pioneer Parkway and Mohawk Boulevard. Part of this may be due to student drop off/pick up activities at the schools along the corridor.

Some peak hour congestion is shown in the No Build between Pioneer Parkway and Mohawk Boulevard although the study intersections are forecast to operate acceptably.

DEMAND MANAGEMENT AND SYSTEM MANGEMENT STRATEGIES

A combination of strategies that focus less on capital improvements and more on the efficient management of the existing infrastructure and vehicular demand could be an integral part of the future functioning of the City of Springfield's transportation system. There are a number of transportation system management and operations (TSMO) strategies that can be used in the future to make better use of the existing infrastructure. Examples of the types of strategies that could be used are discussed below. Further detail regarding these strategies and their application to specific areas within the City will be provided as part of future TSP memoranda.

- Roadway and intersection safety improvements should be coordinated via a "data driven evaluation system" that evaluates the effectiveness of improvements versus the crash history. This would allow the City to focus on specific improvements that benefit multimodal travel along corridors and at specific intersections.
- Intersection capacity needs can be met through the implementation of transit priority signal timing, freight signal priority, transportation system management applications, adaptive signal control, and roundabouts to enhance roadway character and improve access control.
- Continued expansion of the EmX system will help to provide travel options to all users and to reduce traffic demands over time.
- The City's roadway design standards and intersection level of service standards should be flexible to recognize the constrained urban and natural environment and allocate the available right-of-way to pedestrian, auto, bicycle, or transit mobility, or streetscape and parking needs, based on specific facility goals.
- A number of corridors (e.g., Main Street, Centennial Boulevard, etc.) could benefit from enhanced crossing treatments for pedestrians and cyclists. There are a number of key corridors with long distances between "protected" crossings today. There are a variety of tools and implementation techniques that can be used to improve crossings.
- As part of redevelopment efforts, the primary streets serving the Glenwood area (and other mixed use neighborhoods) should include the provision of multimodal facilities, which can provide significant improvements to the walking and cycling environment for both local neighborhood trips as well as longer distance trips between Eugene and Springfield. These improvements combined with a series of corridor, system and demand management strategies could help to address multimodal needs along the primary and local streets in a manner that promotes a vibrant economic environment and maintains a comfortable, convenient and efficient transportation system for all users within the Glenwood neighborhood.
- To the east of 28th Street, the City of Springfield has very limited continuous east-west and north-south routes for multimodal travel. Finding ways to eliminate gaps in the grid system and to prioritize pedestrian and bicycle treatments along non-arterial facilities can help to relieve congested corridors and provide safe and efficient travel for all modes.
- The 42nd Street corridor provides critical capacity for freight movements within Springfield. Corridor and intersection treatments that enhance freight mobility and access could help the city to support key aspects of maintaining a balanced economy both today and in the future.
- The OR 126 EMP will continue to evaluate interchange and intersection solutions at key locations throughout the corridor. The findings and recommendations of the EMP to address operational, safety and mobility issues for all modes of travel will be adopted as part of the Transportation System Plan, as appropriate.
- Continued coordination with the Willamalane's trail system and the on-street pedestrian and bicycle system will help to address some of the gaps in the existing City infrastructure.
- The City is currently participating in the Regional Transportation Options Project (RTOP). This project will provide the region with a series of strategies and programs that reduce the need for single occupancy vehicle travel in the future. Implementation of these programs will be an

integral part of ensuring that the City's transportation system continues to support economic growth in a manner consistent with the overall vision for the community.

NEXT STEPS

The review of system needs under the No Build scenario will be compared with the findings of other multimodal systems (transit, pedestrian/bicycle) to provide a holistic assessment of the City's needs and begin to identify improvement options and opportunities. The vehicular system needs summarized within this memorandum, along with the existing conditions operations and safety will help to inform and prioritize the development of alternatives within subsequent memoranda.

Appendix A
2035 No-Build Intersection Performance Summary

TABLE A

Year 2035 No-Build Intersection Performance Summary

Intersection	Performance Standard			Intersection Performance Metrics				Meets Standard?
	Intersection Control	Jurisdiction	Performance Standard	Critical Movement	LOS	Delay(s)	v/c	
1. Pioneer Parkway/Harlow Street	Roundabout	City	LOS D	Southbound	D	34.7	0.85	Yes
2. Laura Street/Q Street	Stop controlled	City of Springfield	LOS D	Southbound	F	>50	>1.0	**No**
3. Pioneer Parkway/Q Street	Signalized	ODOT	v/c of 0.90	Not applicable	D	36.6	0.92	**No**
4. OR 126 westbound off-ramp/Q Street	Signalized	ODOT	v/c of 0.85	Not applicable	C	27.9	0.67	Yes
5. Pioneer Parkway/OR 126 eastbound ramps	Signalized	ODOT	v/c of 0.85	Not applicable	C	38.1	0.94	**No**
6. Pioneer Parkway/Centennial Boulevard	Signalized	ODOT	v/c of 0.90	Not applicable	E	64.3	0.82	Yes
7. N 5th Street/Q Street	Signalized	City of Springfield	LOS D	Not applicable	F	>80	>1.0	**No**
8. 5th Street/Centennial Boulevard	Signalized	City of Springfield	LOS D	Not applicable	D	53.1	0.85	Yes
9. Mohawk Boulevard/Marcola Road	Signalized	City of Springfield	LOS D	Not applicable	D	49.4	0.88	Yes
10 .Mohawk Boulevard/OR 126 westbound ramps	Signalized	ODOT	v/c of 0.85	Not applicable	B	19.5	0.64	Yes
11. Mohawk Boulevard/OR 126 eastbound ramps	Signalized	ODOT	v/c of 0.85	Not applicable	C	33.3	0.78	Yes
12. Mohawk Boulevard/18th Street	Stop controlled	City of Springfield	LOS D	Westbound	B	14.7	0.56	Yes
13. Mohawk Boulevard/Olympic Street	Signalized	City of Springfield	LOS D	Not applicable	C	22.0	0.82	Yes
14. 18th Street/Olympic Street	Signalized	City of Springfield	LOS D	Not applicable	B	11.7	0.61	Yes
15. Mohawk Boulevard/Centennial Boulevard	Signalized	City of Springfield	LOS D	Not applicable	C	32.6	0.77	Yes
16. 28th Street/Marcola Road	Signalized	City of Springfield	LOS D	Not applicable	E	65.1	0.85	**No**
17. 28th Street/Olympic Street	Signalized	City of Springfield	LOS D	Not applicable	B	12.8	0.64	Yes
18. 28th Street/Centennial Boulevard	Stop Controlled	City of Springfield	LOS D	Eastbound	D	25.8	0.60	Yes
19. 42nd Street/Marcola Road	Stop controlled	City of Springfield	LOS D	Northbound	F	>50	>1.0	**No**
20. 42nd Street/OR 126 westbound ramps	Stop controlled	ODOT	v/c of 0.85	Eastbound	F	>50	>1.0	**No**
21. 42nd Street/OR 126 eastbound ramps	Signalized	ODOT	v/c of 0.85	Not applicable	C	21.8	0.74	Yes
22. 42nd Street/Commercial Avenue	Stop Controlled	City of Springfield	LOS D	Eastbound	F	>50	>1.0	**No**
23. S 42nd Street/Daisy Street	Stop Controlled	City of Springfield	LOS D	Eastbound	F	>50	0.68	**No**
24. S 42nd Street/Jasper Road	Roundabout	City of Springfield	LOS D	Eastbound	D	29.0	0.85	Yes
25. 58th Street/Thurston Road	Roundabout	City of Springfield	LOS D	Southbound	C	17.1	0.62	Yes
26. Bob Straub Pkwy/Mt. Vernon Road	Stop Controlled	City of Springfield	LOS D	Eastbound	F	>50	>1.0	**No**
27. Bob Straub Pkwy/Jasper Road	Stop controlled	City of Springfield	LOS D	Eastbound	C	20.4	0.25	Yes
28. Game Farm Road North/International Way	Signalized	ODOT	v/c of 0.80	Not applicable	C	26.3	0.80	Yes
29. Gateway Street/E Game Farm Road	Signalized	City of Springfield	LOS D	Not applicable	B	19.0	0.70	Yes
30. Gateway Street/Beltline Road[b]	Signalized	City of Springfield	LOS D	Not applicable	D	48.3	0.88	Yes
31. Glenwood Boulevard/Franklin Boulevard	Signalized	ODOT	v/c of 0.85	Not applicable	F	>80	>1.0	No
32. Glenwood Boulevard/E 22nd Avenue	Stop Controlled	City of Springfield	LOS D	Westbound	F	>50	>1.0	**No**
33. Glenwood Boulevard/I-5 NB Ramps	Stop Controlled	ODOT	v/c of 0.85	Westbound	F	>50	>1.0	**No**
34. I-5 SB Ramps/Glenwood Boulevard	Stop Controlled	ODOT	v/c of 0.85	Southbound	F	>50	>1.0	**No**
35. McVay Highway/Franklin Boulevard	Signalized	ODOT	v/c of 0.85	Not applicable	C	32.5	0.93	**No**
36. Main Street/21st Street	Signalized	ODOT	v/c of 0.85	Not applicable	A	8.9	0.73	Yes
37. Main Street/32nd Street	Signalized	ODOT	v/c of 0.85	Not applicable	C	24.6	0.80	Yes
38. Main Street/42nd Street	Signalized	ODOT	v/c of 0.85	Not applicable	E	66.2	0.96	**No**
39. Main Street/48th Street	Stop Controlled	ODOT	v/c of 0.90	Northbound	F	>50	0.46	Yes
40. Main Street/54th Street	Signalized	ODOT	v/c of 0.85	Not applicable	B	14.1	0.72	Yes
41. OR 126/52nd Street	Signalized	ODOT	v/c of 0.85	Not applicable	F	>80	>1.0	**No**

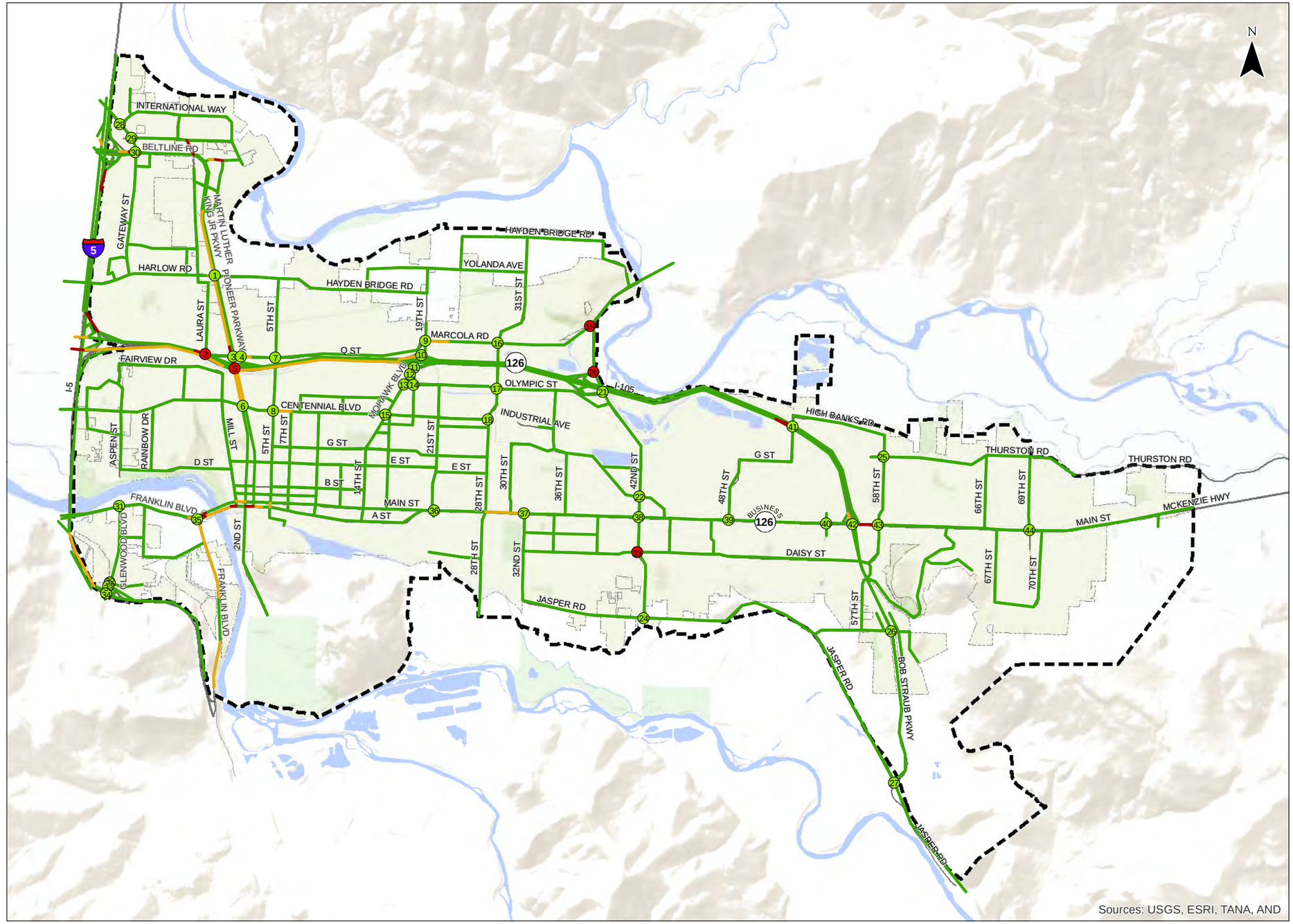
TABLE A

Year 2035 No-Build Intersection Performance Summary

Intersection	Performance Standard			Intersection Performance Metrics				Meets Standard?
	Intersection Control	Jurisdiction	Performance Standard	Critical Movement	LOS	Delay(s)	v/c	
42.Main Street/OR 126[a]	Signalized	ODOT	v/c of 0.80	Not applicable	F	>80	>1.0	**No**
43. Main Street/58th Street[c]	Signalized	ODOT	v/c of 0.85	Not applicable	F	>80	>1.0	**No**
44. Main Street/69th Street[c]	Signalized	ODOT	v/c of 0.85	Not applicable	A	9.0	0.55	Yes

The salmon color indicates those intersections that fail to meet standards under only the No Build. Black indicates those intersections that don't meet standards under either the existing or No Build conditions.

Intersection	Cross Streets
1	Pioneer Parkway/Hayden Bridge Road
2	Laura Street/Q Street
3	Pioneer Parkway/Q Street
4	OR 126 westbound off-ramp/Q Street
5	Pioneer Parkway/OR 126 eastbound ramps
6	Pioneer Parkway/Centennial Boulevard
7	5th Street/Q Street
8	5th Street/Centennial Boulevard
9	Mohawk Boulevard/Marcola Road
10	Mohawk Boulevard/OR 126 westbound ramps
11	Mohawk Boulevard/OR 126 eastbound ramps
12	Mohawk Boulevard/18th Street
13	Mohawk Boulevard/Olympic Street
14	18th Street/Olympic Street
15	Mohawk Boulevard/Centennial Boulevard
16	28th Street/Marcola Road
17	28th Street/Olympic Street
18	28th Street/Centennial Boulevard
19	42nd Street/Marcola Road
20	42nd Street/OR 126 westbound ramps
21	42nd Street/OR 126 eastbound ramps
22	42nd Street/Commercial Avenue
23	S 42nd Street/Daisy Street
24	S 42nd Street/Jasper Road
25	58th Street/Thurston Road
26	Bob Straub Pkwy/Mt. Vernon Road
27	Bob Straub Pkwy/Jasper Road
28	Game Farm Road North/International Way
29	Gateway Street/Game Farm Road East
30	Gateway Street/Beltline Road
31	Glenwood Boulevard/Franklin Boulevard
32	Glenwood Boulevard/E 22nd Avenue
33	Glenwood Boulevard/I-5 NB Ramps
34	I-5 SB Ramps/Glenwood Boulevard
35	McVay Highway/Franklin Boulevard
36	Main Street/21st Street
37	Main Street/32nd Street
38	Main Street/42nd Street
39	Main Street/48th Street
40	Main Street/54thStreet
41	52nd Street/OR 126
42	Main Street/OR 126
43	Main Street/58th Street
44	Main Street/69th Street



Intersection Meets Standards

- Yes
- No

Link Volume to Capacity Ratio

- < 0.8
- 0.8 - 1.0
- > 1.0
- Springfield City Limits
- UGB

0 1 2 Miles

Existing Traffic Conditions
Weekday PM Peak Hour

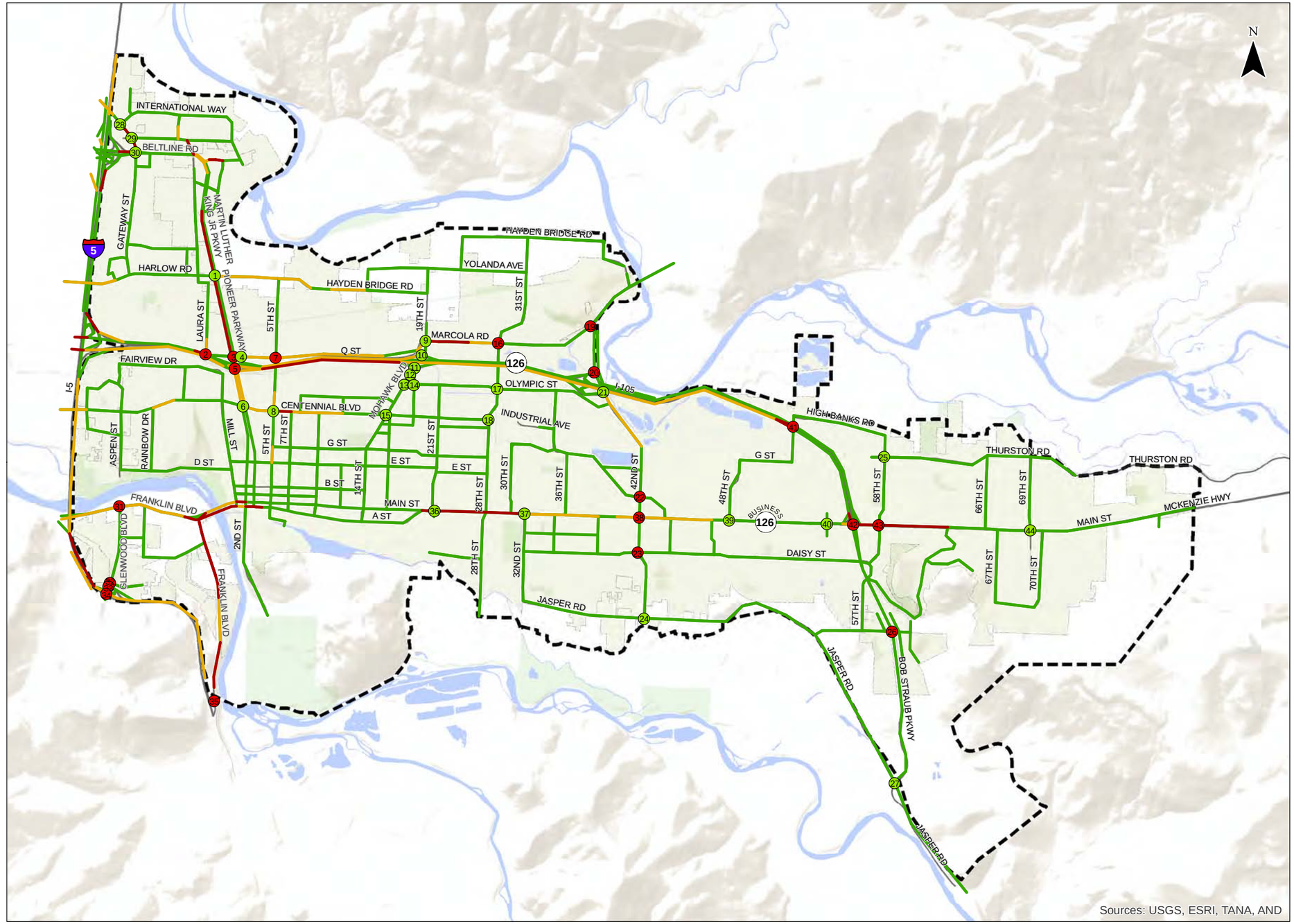
Figure
1

H:\profile\10295 - Springfield TSP\GIS\01_Existing Traffic Conditions Weekday PM Peak Hour.mxd - jsommerville - 8:34 AM 12/4/2012

Kittelson & Associates, Inc.
Transportation Engineering/Planning

Coordinate System: NAD 1983 HARN StatePlane Oregon South FIPS 3602 Feet Intl
Data Source: City of Springfield

Intersection	Cross Streets
1	Pioneer Parkway/Hayden Bridge Road
2	Laura Street/Q Street
3	Pioneer Parkway/Q Street
4	OR 126 westbound off-ramp/Q Street
5	Pioneer Parkway/OR 126 eastbound ramps
6	Pioneer Parkway/Centennial Boulevard
7	5th Street/Q Street
8	5th Street/Centennial Boulevard
9	Mohawk Boulevard/Marcola Road
10	Mohawk Boulevard/OR 126 westbound ramps
11	Mohawk Boulevard/OR 126 eastbound ramps
12	Mohawk Boulevard/18th Street
13	Mohawk Boulevard/Olympic Street
14	18th Street/Olympic Street
15	Mohawk Boulevard/Centennial Boulevard
16	28th Street/Marcola Road
17	28th Street/Olympic Street
18	28th Street/Centennial Boulevard
19	42nd Street/Marcola Road
20	42nd Street/OR 126 westbound ramps
21	42nd Street/OR 126 eastbound ramps
22	42nd Street/Commercial Avenue
23	S 42nd Street/Daisy Street
24	S 42nd Street/Jasper Road
25	58th Street/Thurston Road
26	Bob Straub Pkwy/Mt. Vernon Road
27	Bob Straub Pkwy/Jasper Road
28	Game Farm Road North/International Way
29	Gateway Street/Game Farm Road East
30	Gateway Street/Beltline Road
31	Glenwood Boulevard/Franklin Boulevard
32	Glenwood Boulevard/E 22nd Avenue
33	Glenwood Boulevard/I-5 NB Ramps
34	I-5 SB Ramps/Glenwood Boulevard
35	McVay Highway/Franklin Boulevard
36	Main Street/21st Street
37	Main Street/32nd Street
38	Main Street/42nd Street
39	Main Street/48th Street
40	Main Street/54thStreet
41	52nd Street/OR 126
42	Main Street/OR 126
43	Main Street/58th Street
44	Main Street/69th Street



Intersection Meets Standards

- Yes
- No

Link Volume to Capacity Ratio

- < 0.8
- 0.8 - 1.0
- > 1.0
- Springfield City Limits
- UGB

0 1 2 Miles

2035 Traffic Conditions Weekday PM Peak Hour

Figure **2**

H:\profile\10295 - Springfield TSP\GIS\02_2035 Traffic Conditions Weekday PM Peak Hour.mxd - jsommerville - 10:27 AM 10/1/2012

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 HARN StatePlane Oregon South FIPS 3602 Feet Intl
Data Source: City of Springfield