

Rodeo Property Traffic Impact Analysis

June 12, 2019

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1 Report Summary

The project is a General Plan amendment and Rezone change that would allow development of industrial and commercial uses on a 6.8-acre site located on Sun Street adjacent to US 101. The proposed land use designation would allow site to be developed at a floor area ratio 0.4, which would allow for up to 118,600 square feet of industrial floor space. For purposes of this traffic study, 4 percent of the floor space (4,700 square feet) was assumed to be occupied by support office space and this space was modeled as general office space. The remaining floor area (113,900 square feet) was modeled as light industrial space.

The site is designated in the General Plan as Open Space. Access to the site is provided via Sun Street and its connection to Calle Cebu and E. Market Street.

This report summarizes the potential traffic circulation impacts associated with the proposed Rodeo Property General Plan Amendment (GPA) and Rezoning in Salinas, California. Vehicular, pedestrian and bicycle circulation issues were evaluated at the project site and the surrounding street network in Salinas. The project site is located on Sun Street between US 101 and East Market Street. Access to the site is provided via Sun Street and its connection to Calle Cebu and E. Market Street.

This report concludes that the identified traffic impacts can be mitigated and that there are no significant and unavoidable traffic impacts with the Implementation of the proposed mitigation measures. The Applicants payment of TFO fees or the funding of required mitigation measures as described in this report shall occur after the Applicants future submittal of a project specific plan and the City Staff evaluation of the actual impacts. This report utilized the maximum allowable FAR of .40 as consistent with the proposed zoning and general plan changes, it is anticipated that the future project specific application may include a lower FAR.

Study Network

The AM and PM peak periods were analyzed at the following intersections:

1. Natividad Road / East Laurel Drive;
2. Sherwood Drive - Natividad Road / East Bernal Drive – La Posada Way;
3. North Main Street / Bernal Drive;
4. Sherwood Drive / Sherwood Place;
5. North Main Street (State Route 183) / Rossi Street;
6. Sherwood Drive / East Rossi Street – Calle Cebu;
7. Kern Street / US 101 Northbound Ramps – Mobray Way;
8. East Market Street – Front Street / East Market Street;
9. East Market Street – Sherwood Drive / Market Place – East Market Street;
10. Sun Street / East Market Street;
11. Griffin Street – Simas Street / East Market Street;
12. US 101 Southbound Offramp – Merced Street / East Market Street;
13. US 101 Southbound Onramp / East Market Street;
14. Kern Street / East Market Street;
15. Front Street / East Alisal Street; and

Traffic operations for the Existing, Existing Plus Project, Background, Background Plus Project, Cumulative (General Plan Buildout) Without Project and Cumulative (General Plan Buildout) Plus Project development scenarios were analyzed.

1.1 Existing Conditions

The intersection turning movement counts were collected during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00) peak hours on Friday, June 2 and Monday, June 5, 2017. As the intersection traffic volumes were collected on atypical days of the week and when Salinas area schools were not in session, the collected intersection traffic volumes were adjusted to be consistent with available historical volumes when schools were in session.

Although most of the study intersections currently operate at or better than their respective level of service standards under Existing conditions, the following five intersections currently operate below their standards:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

A review of the traffic counts found that there is a low to moderate level of pedestrian activity near the project site. Pedestrian activity is highest near the residential and commercial areas on Sherwood Drive and E Market Street, especially during the PM peak hour (compared to the AM peak hour).

A review of the traffic counts found that there is relatively little bicycle activity in the study network, including near the project site.

1.2 Existing Plus Project Conditions

The project is a General Plan amendment and Rezone change that would allow development of industrial and commercial uses on a 6.8-acre site located on Sun Street adjacent to US 101. The proposed land use designation would allow site to be developed at a floor area ratio 0.4, which would allow for up to 118,600 square feet of industrial floor space. For purposes of this traffic study, 4 percent of the floor space (4,700 square feet) was assumed to be occupied by support office space and this space was modeled as general office space. The remaining floor area (113,900 square feet) was modeled as light industrial space. A specific development project is not proposed for the site at this time.

The site is designated in the General Plan as Open Space. Access to the site is provided via Sun Street and its connection to Calle Cebu and E. Market Street.

Project Trip Generation

The estimate was derived using trip rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual*, 10th Edition, 2017. Note that trip generation estimates for the industrial and office components of the project have been separately calculated.

In total, the project is estimated to generate 611 daily trips, with 85 trips (74 in, 11 out) during the AM peak hour and 77 trips (10 in, 67 out) during the PM peak hour.

Vehicle Circulation

Although most of the study intersections would continue operate at or better than their respective level of service (LOS) standards, the following five intersections that currently operate below acceptable LOS would be significantly impacted by the proposed project based upon the significance criteria utilized for this study:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM).

Figure ES-1 shows the levels of service with and without the project at each of the significantly impacted intersections for the Existing Plus Project Condition. **Figure ES-1** also shows the contribution of the project to the intersection deficiency and project's percentage of total overall intersection delay.

See **Figure ES-4** for the recommended improvements at these intersections for the Existing Condition. Implementation of these improvements would reduce the project's impact contribution at these intersections to less-than-significant. The impact and the recommended mitigation measure at each intersection is described below.

- **Intersection #1 – Natividad Road / E Laurel Drive:**

This intersection would operate at a deficient LOS E during the AM and PM peak hours, unchanged from Existing Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Add a third northbound and third southbound lane to Natividad Road through this intersection. Intersection operations would improve during the AM and PM peak hour to LOS D.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 61).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #2 – Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way:**

This intersection would operate at a deficient LOS E (AM) and F (PM), unchanged from Existing Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Convert the signal phasing on the east and west intersection approaches from concurrent phasing to split phasing. Intersection operations would improve during the AM and PM peak hour to LOS D.

Project Responsibility: To ensure that the intersection of Sherwood Drive – Natividad Road / E. Bernal Drive-La Posada Way will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include the signal modifications at this intersection as one of the improvements that is funded by the TFO, or (2) if the signal modifications at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for modifying the signal phasing and ensure that the signal modification is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and modify the signal phasing ensuring that the signal modification is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at a deficient LOS D during the PM peak hour, unchanged from Existing Conditions. The project would add 6 trips to this intersection during the PM peak hour and increase the PM peak hour delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds.

Mitigation: Add a third northbound and third southbound lane on N. Main Street through this intersection. Intersection operations would improve during the PM peak hour to LOS C.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 31).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Existing Conditions. The project would add 31 trips to this approach during the PM peak hour.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for,

and installation of, a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Offramp – Merced Street / E Market Street:**

This intersection would operate at a deficient LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Offramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Existing Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of U.S. 101 Southbound Offramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

Pedestrian Circulation

Pedestrian traffic that is generated by development of the project site would likely be traveling from areas easily reached on foot from the project site, such as adjacent neighborhoods and bus stops. It is anticipated that the complete sidewalk and crosswalk network in the greater study area would facilitate pedestrian access from these areas. However, potential pedestrian impacts should be assessed at the time the project site is proposed to be developed by a specific project.

Bicycle Circulation

Development on the project site is anticipated to generate little bicycle traffic. As with the pedestrian traffic, the bicycle traffic that would be generated by the project would be traveling to areas easily reached on bike from the project site, such as residential areas that are more than a 10-minute bike ride from the project site. Although there are few bike facilities in the study area nearest the project site, the small level of bicycle traffic will be low enough to minimize any effects on existing vehicle traffic. Potential bicycle traffic impacts should be assessed at the time the project site is proposed to be developed by a specific project.

Transit Circulation

Development on the project site is anticipated to generate little transit usage. The transit usage that would be generated by the project would likely be walking to and from the bus stops within a 10-minute walk from the project site (as enumerated in Section 2.4). The small level of transit usage generated by the project would be low enough to minimize any effects on existing transit demand for bus routes in the area. Potential transit traffic impacts should be assessed at the time the project site is proposed to be developed by a specific project.

Impact Fees

The future development project constructed on the project site would be responsible for payment of the City of Salinas TFO and the Transportation Agency for Monterey County (TAMC) Regional Development Impact fees.

1.3 Background Conditions

Traffic volumes under Background conditions were derived by applying growth factors to the existing volumes on the study corridors in this analysis. More specifically, the corridors and their associated growth factors are the following:

1. E Laurel Drive – 2% (AM), 3% (PM)
2. Natividad Road – 2% (AM), 3% (PM)
3. Sherwood Drive – 2% (AM), 3% (PM)
4. E Rossi Street and W Rossi Street – 2% (AM), 3% (PM)
5. N Main Street:
 - a. North of US 101 – 2% (AM), 3% (PM)
 - b. South of US 101 – 10% (AM), 15% (PM)
6. E Market Street – 2% (AM), 3% (PM)
7. Front Street – 2% (AM), 3% (PM)
8. E Alisal Street – 2% (AM), 3% (PM)
9. Kern Street – 2% (AM), 3% (PM)
10. US 101 Onramps and Offramps – 2% (AM), 3% (PM)

The growth factors were primarily applied to the mainline traffic on each corridor. The lower of the two growth factors on intersecting streets was applied to the turning movements between those streets. The growth factors used are consistent with the net increase in traffic on these corridors attributable to approved projects in past traffic analyses in the study area.

Vehicle Circulation

Although most of the study intersections would continue to operate at or better than their respective level of service standards under Background conditions, the following six intersections would operate below their standards:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N. Main Street (SR 183) / Rossi Street: LOS D (AM and PM)
7. Kern Street / US 101 Northbound Ramps – Mobray Way: Side Street approach LOS F (PM)

10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

1.4 Background Plus Project Conditions

Vehicle Circulation

The same five intersections significantly impacted under Existing Conditions would be significantly impacted by the project under Background Conditions:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N. Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM).

Figure ES-2 shows the levels of service with and without the project at each of the significantly impacted intersections for the Background Plus Project Condition. **Figure ES-2** also shows the contribution of the project to the intersection deficiency and project's percentage of total overall intersection delay.

See **Figure ES-4** for the recommended improvements at these intersections under Background Conditions. Implementation of these improvements would reduce the project's impact at these intersections to less-than-significant. The impact and the recommended mitigation measure at each intersection is described below.

- **Intersection #1 – Natividad Road / E Laurel Drive:**

This intersection would operate at a deficient LOS E during the AM and PM peak hours, unchanged from Background Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Add a third northbound and third southbound lane to Natividad Road through this intersection. Intersection operations would improve during the AM and PM peak hour to LOS D.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 61).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #2 – Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way:**

This intersection would operate at a deficient LOS E (AM) and F (PM), unchanged from Background Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Convert the signal phasing on the east and west intersection approaches from concurrent phasing to split phasing. Intersection operations would improve during the AM and PM peak hour to LOS D.

Project Responsibility: To ensure that the intersection of Sherwood Drive – Natividad Road / E. Bernal Drive-La Posada Way will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include the signal modifications at this intersection as one of the improvements that is funded by the TFO, or (2) if the signal modifications at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for modifying the signal phasing and ensure that the signal modification is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and modify the signal phasing ensuring that the signal modification is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at a deficient LOS D during the AM and PM peak hours, unchanged from Background Conditions. The project would add 17 trips to this intersection during the AM peak hour and 15 trips to this intersection during the PM peak hour. The trips added by the Project would not increase the average vehicle delay during the AM peak hour, but would increase the PM peak hour vehicle delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds.

Mitigation: Add a third northbound and third southbound lane on N. Main Street through this intersection. Intersection operations would improve during the PM peak hour to LOS C.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 31).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Background Conditions. The project would add 31 trips to this approach during the PM peak hour.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for and installation of a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Offramp – Merced Street / E Market Street:**

This intersection would operate at a deficient LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Offramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Background Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the southbound off-ramp approach during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of U.S. 101 Southbound Offramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

1.5 Cumulative Without Project Conditions

The Cumulative Without Project condition traffic volumes are primarily on traffic forecasts documented in the City of Salinas General Plan Circulation Study prepared by Higgins Associates in 2002. Traffic forecasts documented in the following reports were also referenced:

1. Monterey County Jail Housing Addition Traffic Impact Analysis, Hatch Mott MacDonald, April 29, 2014.
2. Haciendas Phase III/IV Traffic Impact Analysis, Hatch Mott MacDonald, April 8, 2014.

3. Sun Street Solid Waste Transfer Station Access Plan Traffic Impact Analysis, Higgins Associates, August 27, 2007.
4. Tynan Village Mixed Use Development Traffic Impact Study Report, Higgins Associates, November 22, 2004.
5. Salinas Sphere of Influence Amendment and Annexation Supplemental TIA, Fehr & Peers, November 14, 2007.

The Cumulative Condition traffic volume forecasts reflect new road links and the level of service calculations for the Cumulative Condition include intersection improvements that are included in the City of Salinas Traffic Fee Ordinance and are planned for implementation in conjunction with buildout of the city's General Plan. These improvements include the following:

1. TFO Project No. 30: Rossi Street Widening – widen to four lanes between Main Street and Sherwood Drive.
2. TFO Project No. 31: Main Street Widening – widen from a four to six-lane arterial between Casentini Street and Market Street.
3. TFO Project No. 33A: Bernal Drive Extension – extend as a four-lane arterial from Sherwood Drive/Natividad Road intersection to Kern Street.
4. TFO Project No. 33B: Bernal Drive Widening – widen, construct sidewalk and retaining wall on north side between Main Street and Rosarita Drive.
5. TFO Project No. 34: Constitution Boulevard Extension – extend from Laurel Drive to Bernal Drive Extension.
6. TFO Project No. 45: Laurel Drive Widening – widen to six lanes between Natividad and Constitution. Add left turn channelization east of Constitution.
7. TFO Project No. 46: Main Street Widening – widen to six lanes between Market Street and Bernal by eliminating on-street parking and widening UP Structure north of Market Street.
8. TFO Project No. 61: Natividad Road/Laurel Drive Intersection – widen the Natividad Road north and south intersection legs to provide the following lane configuration on the intersection approaches:
 - a. Northbound approach – 1 left turn lane, 3 through lanes, 1 right turn lane
 - b. Southbound approach – 2 left turn lanes, 2 through lanes, 1 through/right turn lane.
 - c. Eastbound approach – 1 left turn lane, 2 through lanes, 1 right turn lane.
 - d. Westbound approach – 2 left turn lanes, 2 through lanes, 1 right turn lane.

Vehicle Circulation

Although some of the study intersections would operate at or better than their respective level of service standards under Cumulative Without Project conditions, the following intersections would operate below their standards:

#5: N Main Street (SR 183) / Rossi Street: LOS D (PM)

#7: Kern Street / US 101 Northbound Ramps – Mobray Way: Overall LOS F, Side Street approach LOS F (PM)

#10: Sun Street / E Market Street: Side-street approach LOS F (PM)

#12: US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS E (AM) and LOS F (PM), Side-street approach LOS F (AM and PM)

#14: Kern Street / E Market Street: LOS F (PM)

1.6 Cumulative Plus Project Conditions

Vehicle Circulation

Although some of the study intersections would operate at or better than their respective level of service standards under Cumulative Plus Project conditions, the following intersections would operate below their standards and the project would contribute to the cumulative impact:

#5: N Main Street (SR 183) / Rossi Street: LOS D (PM)

#7: Kern Street / US 101 Northbound Ramps – Mobray Way: Overall LOS F, Side Street approach LOS F (PM)

#10: Sun Street / E Market Street: Side-street approach LOS F (PM)

#12: US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS E (AM) and LOS F (PM), Side-street approach LOS F (AM and PM)

#14: Kern Street / E Market Street: LOS F (PM)

Figure ES-3 shows the levels of service with and without the project at each of the significantly impacted intersections for the Cumulative Plus Project Condition. **Figure ES-3** also shows the contribution of the project to the intersection deficiency and project's percentage of total overall intersection delay.

See **Figure ES-4** for the recommended improvements at these intersections under Cumulative Conditions. Implementation of these improvements would reduce the project's impact at these intersections to less-than-significant. The impact and the recommended mitigation measure at each intersection is described below.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at LOS C during the AM peak hour and a deficient LOS D during the PM peak hour unchanged from Cumulative Conditions. The project would add 17 trips to this intersection during the AM peak hour and 15 trips to this intersection during the PM peak hour. The trips added by the Project would not increase the average vehicle delay during the PM peak hour vehicle delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds. The Project's impact to this intersection is significant under Existing and Background Conditions.

Mitigation:

- 1) Add a third northbound through lane and third southbound through lane to N. Main Street at this intersection. The improvement would be achieved by converting the existing right turn lanes on northbound and southbound N. Main Street to through/right turn lanes.
- 2) Add a second left turn lane on the westbound Rossi Street approach. TFO Project 30 would widen Rossi Street to a four-lane divided arterial within a right of way of 106 feet.

With the second left turn lane included in the mitigation, the PM peak hour delay would be 41.8 seconds, which would be lower than the Cumulative Condition without project PM peak hour delay of 42.5 seconds. Therefore, the Project's cumulative impact would be mitigated.

Salinas TFO Project: Projects 30 and 31. The City would need to modify Project 30 to include the second left turn lane on the westbound Rossi Street approach to N. Main Street.

Salinas TFO Project: Salinas TFO Project 30 and Project 31.

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #7 – Kern Street / US 101 Northbound Ramps – Mobray Way:**

This intersection would operate at an overall LOS F with side-street operations (the eastbound US 101 Northbound Ramps approach) of LOS F during the PM peak hour, unchanged from Cumulative Without Project Conditions. The project would add 2 trips to the eastbound off-ramp approach during the PM peak hour. The project by itself would not significantly impact the intersection, but the project would contribute to the cumulative operating deficiency at the intersection. Traffic diversions associated with the Bernal Avenue Extension and the Constitution Boulevard Extension will contribute to the deficient operations at this intersection under Cumulative Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the eastbound off-ramp approach during the PM peak hour by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM peak hour to LOS B and to LOS C during the PM peak hour.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO. It is recommended that this improvement be added to Salinas TFO Project 33A (Bernal Avenue Extension) and 34 (Constitution Boulevard Extension). Traffic diversions associated with the extensions of Bernal Avenue and Constitution Boulevard will create new turning movement patterns at the Kern Avenue/Northbound US 101 ramps intersection and these new turning patterns will necessitate modification of the existing intersection traffic control. For this reason, the costs for the new intersection traffic control should be included in the TFO.

Project Responsibility: This improvement is not currently included in the City's Capital Improvement Program nor the TFO. To mitigate the Project's cumulative impact, a mechanism would need to be in place that ensures the ultimate full funding and completion of the improvement. This could be accomplished by adding the improvement to the City TFO or Capital Improvement Program. The Project's cumulative impact would be mitigated by the following:

Alternative 1: Add the improvement to the TFO and pay the TFO fee.

Alternative 2: Include the improvement in the Capital Improvement Program and pay a pro-rata contribution toward implementation of the project that would be combined with future development impact fees to fully fund implementation of the improvement. The pro-rata contribution would be based upon the project's share of cumulative traffic growth, where cumulative traffic growth equals Cumulative With Project volumes minus Existing volumes. The equitable share contribution calculation is based on the average of AM and PM peak hour volumes. The project's equitable share of cumulative traffic growth is 1 percent (1%).

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Cumulative Conditions. The project would add 31 trips to this approach during the PM peak hour. The Project's impact to this intersection is significant under Existing and Background Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: The Project's impact to this intersection was identified as significant under Existing and Background Conditions. The mitigation required for Cumulative Conditions (signalization) is the same as the mitigation recommended for Existing and Background Conditions. Therefore, the Project's responsibility to mitigate cumulative impacts is the same as the responsibility identified for the Existing and Background Conditions, which is as follows: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for installation of a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Off-ramp – Merced Street / E Market Street:**

This intersection would operate at a deficient LOS E during the AM peak hour and LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Off-ramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Cumulative Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection. The Project's impact to this intersection is significant under Existing and Background Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the southbound off-ramp approach during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: The Project's impact to this intersection was identified as significant under Existing and Background Conditions. The mitigation required for Cumulative Conditions (signalization) is the same as the mitigation recommended for Existing and Background Conditions. Therefore, the Project's responsibility to mitigate cumulative impacts is the same as the responsibility identified for the Existing and Background Conditions, which is as follows: To ensure that the intersection of U.S. 101 Southbound Off-ramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits

and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #14 – Kern Street / E Market Street:**

This intersection would operate at a deficient LOS F during the PM peak hour, unchanged from Cumulative without Project Conditions. The project would add 17 PM peak hour trips to this intersection. The project by itself would not significantly impact the intersection, but the project would contribute to the cumulative operating deficiency at the intersection. Traffic diversions associated with the Bernal Avenue Extension and the Constitution Boulevard Extension will contribute to the deficient operations at this intersection under Cumulative Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will add trips to the intersection that operates at a deficient level without the project.

Mitigation: Restripe the westbound E. Market Street approach as one exclusive left turn lane, one through lane and one exclusive right turn lane. With this improvement, the intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO. It is recommended that this improvement be added to Salinas TFO Project 33A (Bernal Avenue Extension) and 34 (Constitution Boulevard Extension). Traffic diversions associated with the extensions of Bernal Avenue and Constitution Boulevard will create new turning movement patterns at the Kern Avenue/E. Market Street intersection and these new turning patterns, including an increase in the volume of traffic turning right from westbound E. Market Street to northbound Kern Avenue, will necessitate modification of the existing intersection lane configuration. For this reason, the costs for the new intersection configuration should be included in the TFO.

Project Responsibility: This improvement is not currently included in the City's Capital Improvement Program nor the TFO. To mitigate the Project's cumulative impact, a mechanism would need to be in place that ensures the ultimate full funding and completion of the improvement. This could be accomplished by adding the improvement to the City TFO or Capital Improvement Program. The Project's cumulative impact would be mitigated by the following:

Alternative 1: If the improvement is added to the TFO, pay the TFO fee.

Alternative 2: Include the improvement in the Capital Improvement Program and pay a pro-rata contribution toward implementation of the project that would be combined with future development impact fees to fully fund implementation of the improvement. The pro-rata contribution would be based upon the project's share of cumulative traffic growth, where cumulative traffic growth equals Cumulative With Project volumes minus Existing volumes. The equitable share contribution calculation is based on the average of the AM and PM peak hour volumes. The project's share of cumulative traffic growth is three percent (3%).

Table ES-1: Existing Plus Project Condition Intersection Levels of Service With Project's Percentage Share of Deficiency at Significantly Impacted Intersections

N-S Street	E-W Street	Existing Intersection Control	LOS Std.	Peak Hour	Existing Conditions		Existing Plus Project Conditions		Intersection - Average of All Movements					Unsignalized Intersection Side Street Approach					Project Contribution to Total Intersection Volume	
					Delay (sec)	LOS	Delay (sec)	LOS	Maximum Satisfactory Delay (sec)	Amount of Ex + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Maximum Satisfactory Delay (sec)	Amount of Ex + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Total Existing Plus Project Intersection Volume	Project Vehicle Trips Added to Intersection
1	Natividad Road	Signal	D	AM	61.1	E	62.1	E	55.0	7.1	1.0	14.08%	1.61%	-	-	-	-	-	4,008	17
				PM	62.5	E	62.7	E	55.0	7.7	0.2	2.60%	0.32%	-	-	-	-	-	5,273	16
				AM			48.2	D												
				PM			52.9	D												
2	Sherwood Drive - Natividad Road	Signal	D	AM	57.8	E	58.7	E	55.0	3.7	0.9	24.32%	1.53%	-	-	-	-	-	2,961	17
				PM	92.1	F	93.2	F	55.0	38.2	1.1	2.88%	1.18%	-	-	-	-	-	3,262	16
				AM			34.2	C												
				PM			44.0	D												
5	North Main Street (SR 183)	Signal	C/D (Caltrans)	AM	30.5	C	30.5	C	-	-	-	-	-	-	-	-	-	-	-	-
				PM	39.9	D	40.0	D	35.0	5.0	0.1	2.00%	0.25%	-	-	-	-	-	3,876	15
				AM			26.5	C												
				PM			32.7	C												
10	Sun Street	Two-Way Stop	D (E/E)	AM	1.7 (24.7/32.2)	A (C/D)	1.9 (25.8/34.7)	A (D/D)	-	-	-	-	-	-	-	-	-	-	-	-
				PM	3.9 (33.0/79.8)	A (D/F)	8.4 (33.4/142.2)	A (D/F)	-	-	-	-	-	50.0	92.2	62.4	0.68	0.44	1,866	36
				AM			7.0	A												
				PM			7.0	A												
12	US 101 Southbound Offramp - Merced Street	Two-Way Stop	C/D (E/E) (Caltrans)	AM	19.5 (18.4/78.9)	C (C/F)	21.9 (19.2/90.8)	C (C/F)	-	-	-	-	-	50.0	40.8	11.9	0.29	0.13	1,447	30
				PM	69.3 (20.9/ *)	F (C/F)	72.5 (22.2/ *)	F (C/F)	25.0	47.5	3.2	6.70%	4.41%	50.0	-	-	-	-	2,109	27
				AM			10.3	B												
				PM			12.8	B												

Notes:

- LOS Std. = Level of Service Standard.
- XX (YY) = Overall (Side Street).
- Analysis performed using 2010 Highway Capacity Manual methodologies.
- Overall level of service standard for the City of Salinas is LOS D.
Maximum delay for LOS D at a signalized intersection = 55.0 sec per vehicle
Maximum delay for LOS D at an unsignalized intersection = 35.0 sec per vehicle
- Overall level of service standard for the Caltrans is the transition between LOS C and LOS D (LOS C/D).
Maximum delay for LOS C at a signalized intersection = 35.0 sec per vehicle
Maximum delay for LOS C at an unsignalized intersection = 25.0 sec per vehicle
- Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
Maximum delay for LOS E at an unsignalized intersection approach = 50.0 sec per vehicle
- *: Delay exceeds 300 seconds per vehicle. Percentage of delay deficiency calculation not shown for conditions when the delay is greater than 300 seconds per vehicle due to the problematic nature of the delay calculation at high levels of saturation.

Table ES-2: Background Plus Project Condition Intersection Levels of Service With Project's Percentage Share of Deficiency at Significantly Impacted Intersections

	N-S Street	E-W Street	Existing Intersection Control	LOS Std.	Peak Hour	Background Conditions		Background Plus Project Conditions		Intersection - Average of All Movements					Unsignalized Intersection Side Street Approach					Project Contribution to Total Intersection Volume	
						Delay (sec)	LOS	Delay (sec)	LOS	Maximum Satisfactory Delay (sec)	Amount of Back + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Maximum Satisfactory Delay (sec)	Amount of Back + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Total Background Plus Project Intersection Volume	Project Vehicle Trips Added to Intersection
1	Natividad Road	East Laurel Drive	Signal	D	AM	63.9	E	65.1	E	55.0	10.1	1.2	11.88%	1.84%	-	-	-	-	-	4,087	17
					PM	66.7	E	66.9	E	55.0	11.9	0.2	1.68%	0.30%	-	-	-	-	-	5,429	16
					With Improvement	AM		50.0	D												
					PM			54.5	D												
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	D	AM	61.3	E	62.5	E	55.0	7.5	1.2	16.00%	1.92%	-	-	-	-	-	3,019	17
					PM	98.5	F	99.8	F	55.0	44.8	1.3	2.90%	1.30%	-	-	-	-	-	3,358	16
					With Improvement	AM		36.4	D												
					PM			54.5	D												
5	North Main Street (SR 183)	Rossi Street	Signal	C/D (Caltrans)	AM	35.8	D	35.8	D	-	-	-	-	-	-	-	-	-	-	-	-
					PM	47.1	D	47.3	D	35.0	12.3	0.2	1.63%	0.42%	-	-	-	-	-	4,239	15
					With Improvement	AM		29.1	C												
					PM			34.8	C												
10	Sun Street	East Market Street	Two-Way Stop	D (E/E)	AM	1.7 (25.2/33.5)	A (D/D)	2.1 (26.8/39.0)	A (D/E)	-	-	-	-	-	-	-	-	-	-	-	-
					PM	4.4 (35.0/92.0)	A (E/F)	9.5 (36.1/166.0)	A (E/F)	-	-	-	-	-	50.0	116.0	74.0	63.80%	44.58%	1,915	36
					With Improvement	AM		4.9	A												
					PM			6.2	A												
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	C/D (E/E) (Caltrans)	AM	22.1 (19.1/89.8)	C (C/F)	24.6 (19.9/102.2)	C (C/F)	-	-	-	-	-	50.0	52.2	12.4	23.80%	12.13%	1,473	30
					PM	81.8 (23.0/ *)	F (C/F)	84.7 (24.4/ *)	F (C/F)	25.0	59.7	2.9	4.90%	3.42%	50.0	-	-	-	-	2,166	27
					With Improvement	AM		10.4	B												
					PM			13.2	B												

Notes:

- LOS Std. = Level of Service Standard.
- XX (YY) = Overall (Side Street).
- Analysis performed using 2010 Highway Capacity Manual methodologies.
- Overall level of service standard for the City of Salinas is LOS D.
Maximum delay for LOS D at a signalized intersection = 55.0 sec per vehicle
Maximum delay for LOS D at an unsignalized intersection = 35.0 sec per vehicle
- Overall level of service standard for the Caltrans is the transition between LOS C and LOS D (LOS C/D).
Maximum delay for LOS C at a signalized intersection = 35.0 sec per vehicle
Maximum delay for LOS C at an unsignalized intersection = 25.0 sec per vehicle
- Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
Maximum delay for LOS E at an unsignalized intersection approach = 50.0 sec per vehicle
- *: Delay exceeds 300 seconds per vehicle. Percentage of delay deficiency calculation not shown for conditions when the delay is greater than 300 seconds per vehicle due to the problematic nature of the delay calculation at high levels of saturation.

Table ES-3: Cumulative Plus Project Condition Intersection Levels of Service With Project's Percentage Share of Deficiency at Significantly Impacted Intersections

N-S Street	E-W Street	Existing Intersection Control	LOS Stnd.	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions		Intersection - Average of All Movements					Unsignalized Intersection Side Street Approach					Project Contribution to Total Intersection Volume	
					Delay (sec)	LOS	Delay (sec)	LOS	Maximum Satisfactory Delay (sec)	Amount of C + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Maximum Satisfactory Delay (sec)	Amount of C + Proj Delay Over Maximum Limit (sec)	Increment Attributable to Project (sec)	Percentage of Deficiency Attributable to Project	Project Percentage of Total Delay	Total Cumulative Plus Project Intersection Volume	Project Vehicle Trips Added to Intersection
5	North Main Street (SR 183)	Rossi Street	Signal	C/D (Caltrans)	AM	34.6	C	34.8	C	-	-	-	-	-	-	-	-	-	-	-
					PM	42.5	D	42.6	D	35.0	7.6	0.1	1.32%	0.23%	-	-	-	-	-	-
					AM			34.7	C											
					PM			41.8	D											
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	C/D (E) (Caltrans)	AM	8.1 (21.3)	A (C)	8.2 (21.3)	A (C)	-	-	-	-	-	-	-	-	-	-	-
					PM	* (*)	F (F)	* (*)	F (F)	-	-	-	-	-	-	-	-	-	-	-
					AM			12.3	B											
					PM			26.4	C											
10	Sun Street	East Market Street	Two-Way Stop	D (E/E)	AM	1.7 (27.9/35.5)	A (D/E)	2.1 (29.3/41.8)	A (D/E)	-	-	-	-	-	-	-	-	-	-	-
					PM	8.4 (48.8/180.2)	A (E/F)	18.2 (49.8/ *)	C (E/F)	-	-	-	-	50.0	-	-	-	-	-	-
					AM			3.8	A											
					PM			4.9	A											
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	C/D (E/E)	AM	44.1 (23.2/164.0)	E (C/F)	48.7 (24.2/184.3)	E (C/F)	25.0	23.7	4.6	19.40%	9.45%	50.0	134.3	20.3	15.10%	11.01%	1,761
					PM	228.0 (-/ *)	F (F/F)	236.6 (-/ *)	F (F/F)	25.0	211.6	8.6	4.10%	3.63%	50.0	-	-	-	-	2,530
					AM			10.1	B											
					PM			14.9	B											
14	Kern Street	East Market Street	Signal	D	AM	25.2	C	25.8	C	-	-	-	-	-	-	-	-	-	-	2,116
					PM	82.0	F	81.9	F				0.00%	0.00%	-	-	-	-	-	3,478
					AM			23.3	C											
					PM			48.1	D											

Notes:

- LOS Stnd. = Level of Service Standard.
- XX (YY) = Overall (Side Street).
- Analysis performed using 2010 Highway Capacity Manual methodologies.
- Overall level of service standard for the City of Salinas is LOS D.
Maximum delay for LOS D at a signalized intersection = 55.0 sec per vehicle
Maximum delay for LOS D at an unsignalized intersection = 35.0 sec per vehicle
- Overall level of service standard for the Caltrans is the transition between LOS C and LOS D (LOS C/D).
Maximum delay for LOS C at a signalized intersection = 35.0 sec per vehicle
Maximum delay for LOS C at an unsignalized intersection = 25.0 sec per vehicle
- Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
Maximum delay for LOS E at an unsignalized intersection approach = 50.0 sec per vehicle
- * : Delay exceeds 300 seconds per vehicle. Percentage of delay deficiency calculation not shown for conditions when the delay is greater than 300 seconds per vehicle due to the problematic nature of the delay calculation at high levels of saturation.

Figure ES-4: Recommended Intersection Improvements

	N-S Street	E-W Street	Existing Intersection Control	Existing Plus Project Mitigation	Background Plus Project Mitigation	Cumulative Plus Project Mitigation
1	Natividad Road	East Laurel Drive	Signal	Add 3rd NB T, 3rd SB T (TFO Project No. 61)	Same as Existing Plus Project.	-
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	Change E Bernal - La Posada Signal Phasing to Split Phasing. (Not currently included in the Salinas TFO.)	Same as Existing Plus Project.	-
5	North Main Street (SR 183)	Rossi Street	Signal	Add 3rd NB T, 3rd SB T. (TFO Project 31)	Same as Existing Plus Project.	1. Add 3rd NB T & 3rd SB T: TFO Project 31 2. Provide a second left turn lane on the westbound Rossi Street approach to N. Main. (TFO Project 30, modified by the City to include a second westbound left turn lane on Rossi within the 106 foot right of way planned by TFO Project 30.)
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	-	-	Signalize intersection.
10	Sun Street	East Market Street	Two-Way Stop	Signalize intersection.	Same as Existing Plus Project.	Same as Existing Plus Project.
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	Signalize Intersection	Same as Existing Plus Project.	Same as Existing Plus Project.
14	Kern Street	East Market Street	Signal	-	-	Restripe westbound E. Market approach to provide left turn lane, 1 through lane and 1 right turn lane.

Notes:

1. LOS Stnd. = Level of Service Standard
2. L, T, R, EB, WB, NB, SB, RTO = Left, Through, Right, Eastbound, Westbound, Southbound, Northbound, Right Turn Overlap signal phase.

Source: Mott MacDonald.

2 Introduction

This report summarizes the potential traffic circulation issues associated with the proposed Rodeo Property General Plan Amendment (GPA) and Rezoning in Salinas, California. Vehicular, pedestrian and bicycle circulation issues were evaluated at the project site and the surrounding street network in Salinas, along with site access and internal circulation. The project site is located on Sun Street between US 101 and East Market Street. The location of the project site with respect to the area road network is indicated on **Figure 1**. **Figure 2** shows the project parcel. Access to the site is provided via Sun Street and its connection to Calle Cebu and E. Market Street.

2.1 Scope of Work

A specific development to be constructed on the project is not proposed at this time. Developed at a 0.4 Floor Area Ratio, the GPA Amendment and Rezoning would allow for the development of up to 118,600 square feet of floor space on the project site. For this study, the transportation impacts associated with the development of 118,600 square feet of floor space were analyzed. For purposes of this traffic study, 4 percent of the floor space (4,700 square feet) was assumed to be occupied by support office space and this space was modeled as general office space. The remaining floor area (113,900 square feet) was modeled as light industrial space.

This report addresses the following:

- Existing vehicular, pedestrian, bicycle and transit circulation at the project site and the surrounding street network.
- Assessment of potential direct impacts to vehicular, pedestrian, bicycle and transit circulation due to the GPA, and recommendations to minimize or alleviate those impacts.
- Assessment of potential cumulative traffic impacts.
- Potential site access issues.

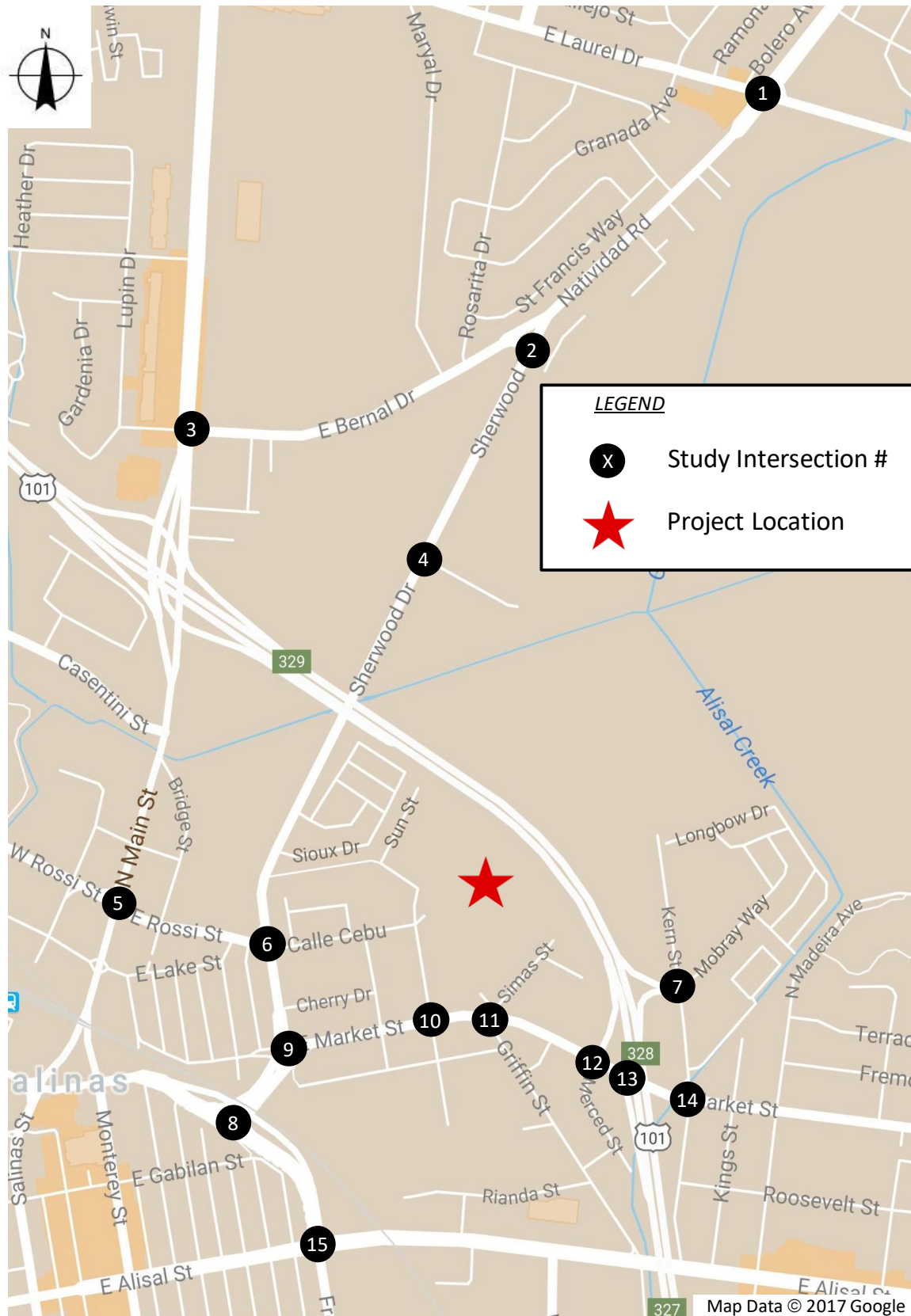
2.2 Study Network

The AM and PM peak periods were analyzed at the following intersections:

1. Natividad Road / East Laurel Drive;
2. Sherwood Drive - Natividad Road / East Bernal Drive – La Posada Way;
3. North Main Street / Bernal Drive;
4. Sherwood Drive / Sherwood Place;
5. North Main Street (State Route 183) / Rossi Street;
6. Sherwood Drive / East Rossi Street – Calle Cebu;
7. Kern Street / US 101 Northbound Ramps – Mobray Way;
8. East Market Street – Front Street / East Market Street;
9. East Market Street – Sherwood Drive / Market Place – East Market Street;
10. Sun Street / East Market Street;
11. Griffin Street – Simas Street / East Market Street;
12. US 101 Southbound Offramp – Merced Street / East Market Street;
13. US 101 Southbound Onramp / East Market Street;
14. Kern Street / East Market Street; and
15. Front Street / East Alisal Street.

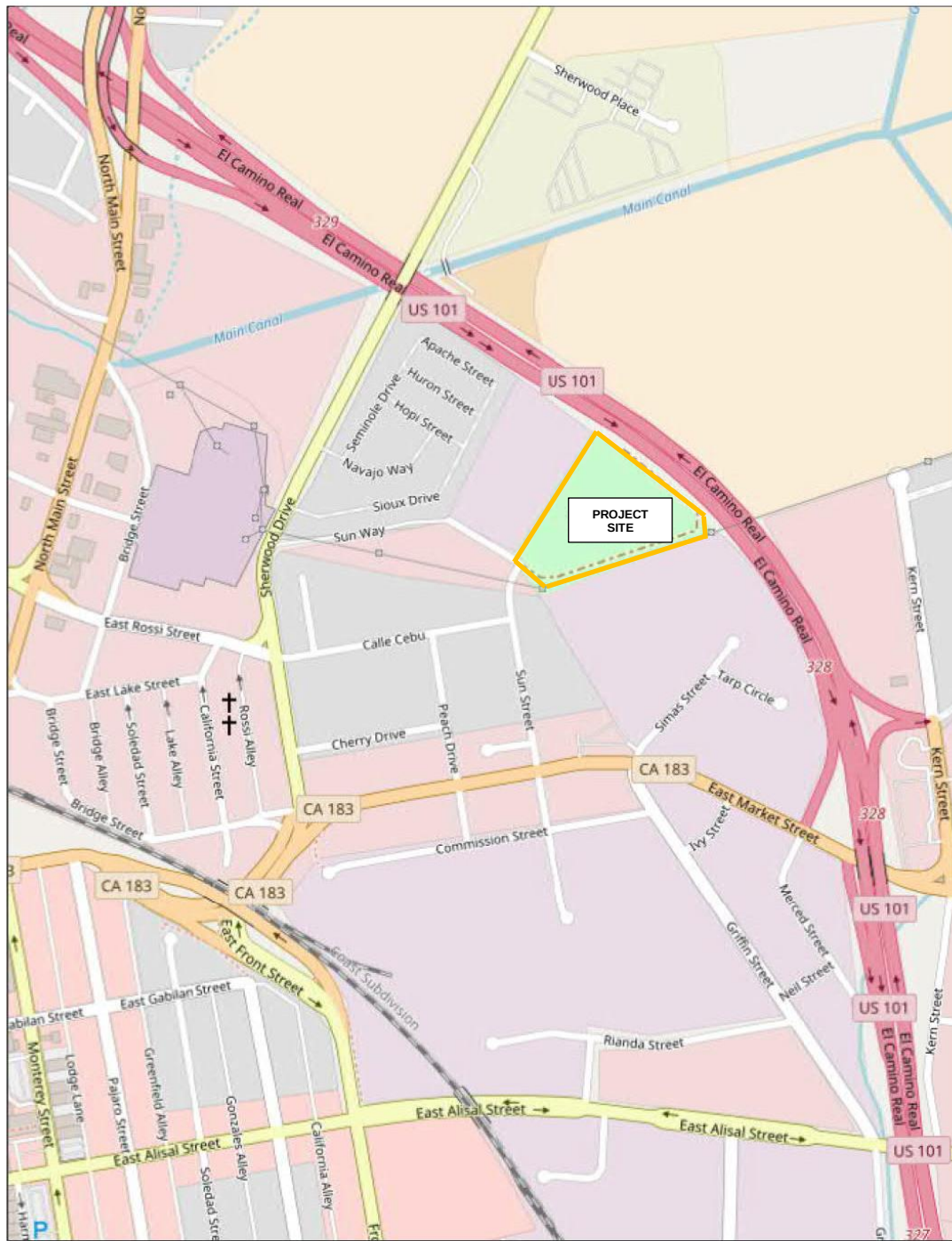
Figure 3 shows the existing traffic controls and lane configurations at the study intersections. Traffic operations for the Existing, Existing Plus Project, Background, Background Plus Project, Cumulative Without Project and Cumulative Plus Project development scenarios were analyzed. Improvements recommended to address project and cumulative impacts are recommended where warranted.

Figure 1: Project Location Map



Base map Source: Google Maps, 2017.

Figure 2: Project Parcel



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Figure 3: Study Intersection Traffic Controls and Lane Configurations

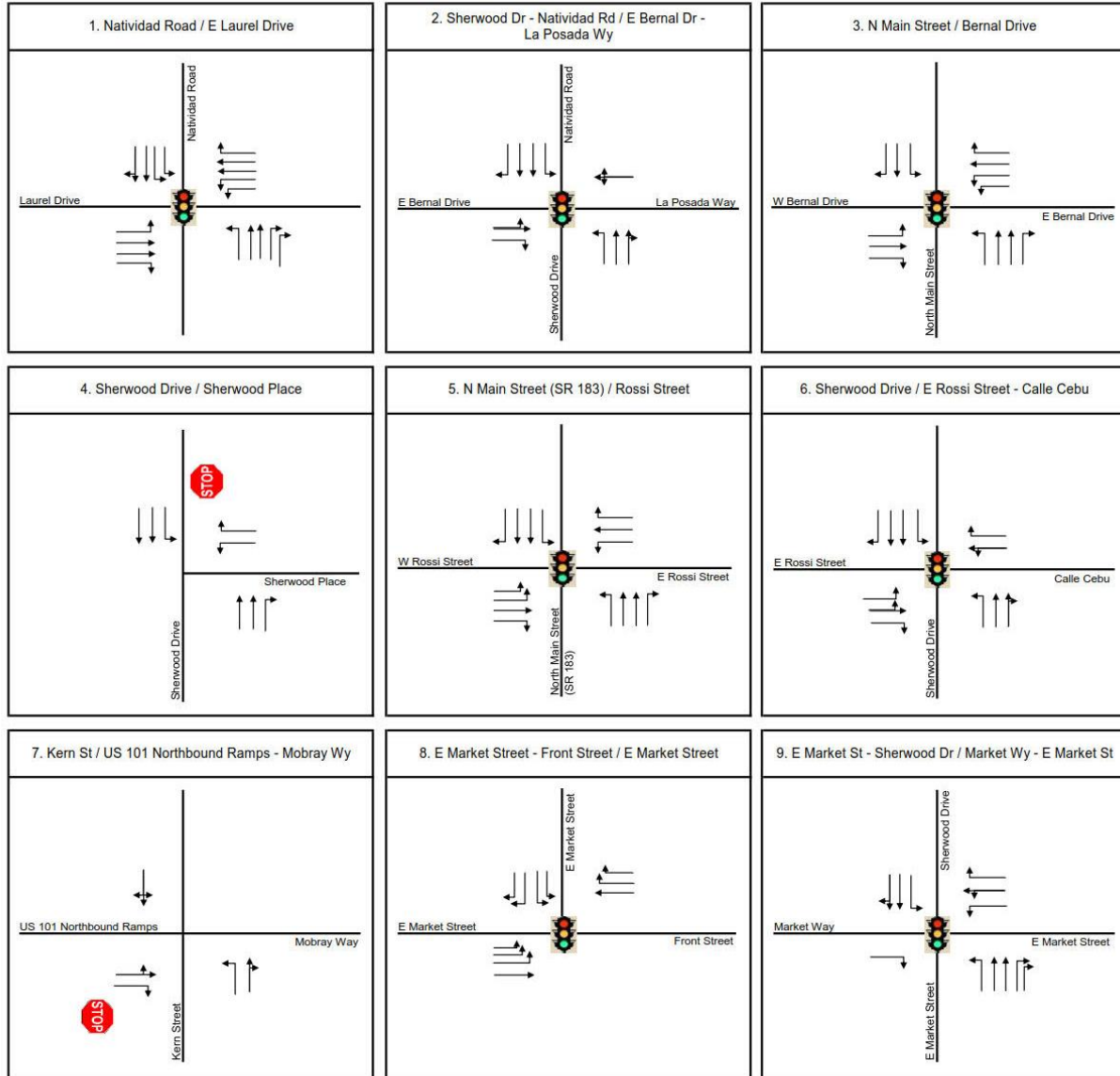
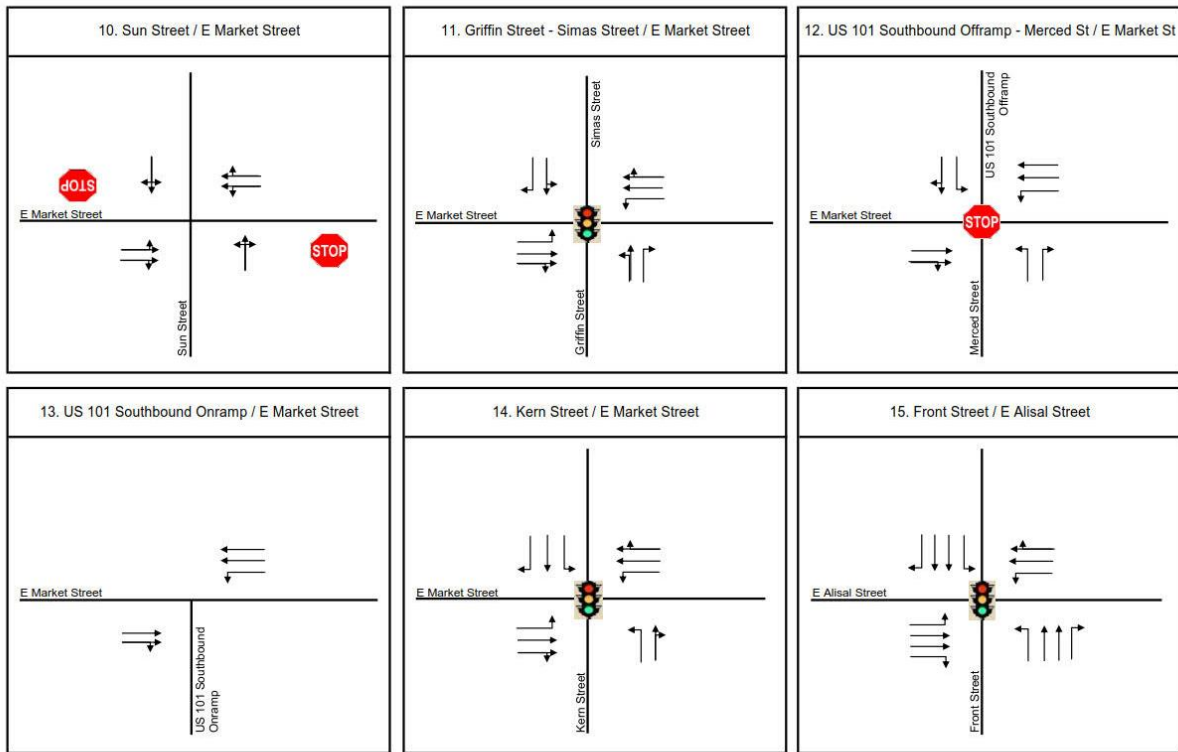
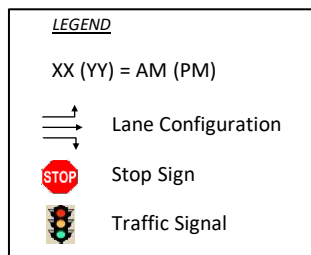


Figure 3: Study Intersection Traffic Controls and Lane Configurations (Continued)



Source: Mott MacDonald



2.3 Level of Service Standard

Intersection traffic operations were evaluated based upon the level of service (LOS) concept. LOS is a qualitative description of an intersection's operations, ranging from LOS A to LOS F. Level of Service "A" represents free flow uncongested traffic conditions. Level of Service "F" represents highly congested traffic conditions with unacceptable delay to vehicles at intersections. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes. The analysis was performed using both the 2000 and 2010 *Highway Capacity Manual* methodologies. A LOS description is included as **Appendix A**.

The study area includes intersections under the jurisdictions of the City of Salinas and Caltrans. The City of Salinas has an overall level of service (LOS) standard of LOS D, which applies to Intersections #1-4, 6, 8-11, and 14-15. The Caltrans' overall level of service standard is generally the transition from LOS C to LOS D (abbreviated as LOS C/D in this document), which applies to Intersections #5, 7, 12 and 13. According to the *Caltrans Guide for the Preparation of Traffic Impact Studies*, the existing measure of effectiveness should be maintained when an existing State highway facility is operating at less than the appropriate target level of service.

2.4 Analysis Methodology

The Synchro 9 software was used for analysis of intersection delays and associated levels of service.

Note: The traffic signal at Intersection #3 – N Main Street / Bernal Drive – is controlled by the InSync adaptive traffic control system, which optimizes traffic throughput through this intersection and to other corridor intersections to the north N Main Street. There is currently no analysis methodology that fully models the exact operations of an InSync system. For that reason, the analysis results for this intersection should be considered conservative.

2.5 Significance Criteria

According to the California Environmental Quality Act (CEQA) guidelines, a project may have a significant effect on the environment if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. The following significance criteria has been used within this study, based upon the jurisdiction of each study intersection:

2.5.1 City of Salinas

The City of Salinas impact criteria for transportation-related impacts is used in this study. It is as follows:

Signalized Intersection (Intersections #1-3, 6, 8-9, 11, and 14-15)

A significant impact at a **signalized study intersection** is defined to occur under either of the following two conditions:

- The addition of project traffic causes operations to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or LOS F); or
- The addition of project traffic adds one vehicle trip to intersections already operating at LOS E or LOS F.

One- or Two-Way Stop-Controlled Intersection (Intersections #4 and 10)

A significant impact at a **one- or two-way stop-controlled study intersection** is defined to occur under either of the following two conditions:

- The addition of project traffic causes overall operations to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or LOS F); or

- The addition of project traffic adds one vehicle trip to intersections whose side-street operations are already operating at LOS F.

2.5.2 Caltrans

The following significance criteria have been used within this study at intersections under the jurisdiction of Caltrans:

Signalized Intersection (LOS C/D Standard) (Intersection #5)

A significant impact at a **signalized study intersection** is defined to occur under either of the following two conditions:

- A significant impact would occur if an intersection operating at LOS A, B or C degrades to D, E or F; or
- For intersections already operating at unacceptable levels D, E or F, a significant impact would occur if the project would cause overall delay to increase by at least 0.1 seconds.

A significant impact is satisfactorily mitigated when mitigation measures are implemented that would restore the intersection level of service to the pre-project condition or better.

One- or Two-Way Stop-Controlled Intersection (Intersections #7, 12, 13)

A significant impact at a **one- or two-way stop-controlled study intersection** is defined to occur under either of the following two conditions:

- A significant impact would occur if any traffic movement operating at LOS A, B, C, D or E degrades to F; or
- For traffic movements already operating at unacceptable level F, a significant impact would occur if the project would cause delay for the movement operating at LOS F to increase by at least 0.1 seconds.

A significant impact is satisfactorily mitigated when mitigation measures are implemented that would restore the intersection level of service to the pre-project condition or better.

2.6 Funding for Transportation Improvements

2.6.1 City of Salinas Traffic Impact Fee

The City of Salinas adopted the first Salinas Traffic Fee Ordinance (TFO) program in August 1987. The fee program links increases in traffic generated by new development to the cost of transportation improvements that would be required to mitigate the traffic impacts caused by the new development. Projects such as schools are exempt from payment of this fee.

The City of Salinas Traffic Improvement Program, Wood Rodgers, March 2010, identifies the roadway improvements currently funded by the TFO. These improvements are cited as potential improvement methods to offset project and cumulative impacts. New development constructed on the project site would be subject to payment of traffic impact fees according to the requirements of the TFO.

2.6.2 TAMC Regional Development Impact Fee

The Transportation Agency for Monterey County (TAMC) and its member jurisdictions have adopted a county-wide, regional development impact fee to cover the costs for studies and construction of many improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to all new development within Monterey County. As with the Salinas TFO, projects such as schools are exempt from payment of the TAMC fee.

The governing document for the fee is the *Regional Impact Fee Nexus Study Update* (March 26, 2008) prepared by Kimley-Horn Associates, Inc. *The Regional Impact Fee Nexus Study Update* was updated again in June 2013 by Wood Rodgers. New development constructed on the project site would be subject to payment of the TAMC fee.

3 Existing Conditions

This chapter of the report evaluates Existing traffic conditions and includes a description of the project setting.

3.1 Existing Road Network

The project site is located off Sun Street in the central portion of Salinas, northeast of the downtown central business district (i.e., Downtown). The site is surrounded by US 101 to the north and industrial and commercial uses to the east, south and west.

The site would be directly accessible via Sun Street and indirectly accessible from Calle Cebu (via Sun Street); see Chapter 3, Existing Plus Project Conditions, for more information about the project access points. Sun Street connects to East Market Street, while Calle Cebu connects to Sherwood Drive. Regional access to the project site is provided by US 101, East Market Street, Sherwood Drive, Natividad Road, North Main Street and Front Street. Other streets in the area include East Laurel Drive, Bernal Drive, La Posada Way, Sherwood Place, Rossi Street, Kern Street, Mobray Way, Market Way, Griffin Street, Merced Street and East Alisal Street. Each street is discussed below, in alphabetical order.

East Alisal Street is a four-lane major arterial running in an east-west direction through central Salinas. The speed limit on Alisal Street is 35 miles per hour (mph) east of Front Street and 25 mph west of Front Street.

East Bernal Drive is a three-lane (one lane eastbound and two lanes westbound) major arterial that runs between North Main Street and Sherwood Drive. The roadway continues as a two-lane roadway (West Bernal Drive) west of North Main Street. The speed limit on East Bernal Drive is 35 mph, while the speed limit on West Bernal Drive is 25 mph.

Calle Cebu is a two-lane east-west local street that runs between Sherwood Drive and Sun Street, east of Sherwood Drive. On-street parking is allowed on both sides of the street. Calle Cebu becomes Rossi Street west of Sherwood Drive. The speed limit on Calle Cebu is 25 mph.

Front Street is a four-lane north-south major arterial that runs between East Market Street and John Street. It provides access to commercial and residential land uses. Front Street has a posted speed limit of 25 mph north of East Alisal Street and 35 mph south of East Alisal Street.

Griffin Street is a minor arterial in central Salinas providing access to the commercial and industrial areas between Downtown and US 101. The speed limit on Griffin Street is 25 mph.

Kern Street is a minor arterial in eastern Salinas that connects the northbound US 101 ramps to E. Market Street. It provides access to commercial and residential uses directly east of US 101. There are no speed limit signs on Kern Street; thus, the speed limit is presumed to be 30 mph.

La Posada Way is a local street in northern Salinas that provides access to a residential neighborhood. The speed limit on La Posada Way is 25 mph.

East Laurel Drive is an east-west four-lane major arterial that extends between North Davis Road on the west and Williams Road on east, where it terminates. East Laurel Drive has a posted speed limit of 35 mph west of Natividad Road and 45 mph east of Natividad Road.

North Main Street is a four- to six-lane north-south major arterial in central and northern Salinas. It provides primary access to the Downtown from the north, as well as to northbound and southbound US 101 approximately one-half mile north of Rossi Street. Commercial and

residential land uses line North Main Street. South of US 101, North Main Street is also State Route 183, which continues south then west towards Castroville. The speed limit on North Main Street is 40 miles per hour in the vicinity of the project site.

East Market Street is a four-lane east-west major arterial in the vicinity of the project site, connecting the Downtown with eastern Salinas. It provides access primarily to commercial land uses along its frontage. It also provides direct access to and from southbound US 101 and access to and from northbound US 101 via Kern Street. The speed limit on East Market Street is 25 mph west of Sherwood Drive and 35 mph east of Sherwood Drive.

Market Way is two-lane collector street providing access to the Chinatown neighborhood north of Downtown. The speed limit on Market Way is 25 mph.

Merced Street is a two-lane local street just west of US 101, providing access to commercial and residential land uses south of East Market Street. The speed limit on Merced Street is 25 mph.

Mobray Way is a private road that provides access to the Sherwood Lake Mobile Home Park.

Natividad Road begins as a continuation of Sherwood Drive. Between East Bernal Drive and East Laurel Drive, Natividad Road is a four-lane major arterial. Natividad Road is a six-lane divided major arterial between East Laurel Drive and Boronda Road. Natividad Road is a two-lane rural roadway north of Boronda Road to Old Stage Road. Natividad Road has a posted speed limit of 45 mph.

Rossi Street is a two-lane east-west minor arterial west of Sherwood Drive. It provides access to residential and commercial land uses. The posted speed limit on Rossi Street is 40 mph west of North Main Street and 25 mph east of North Main Street.

Sherwood Drive is a four-lane north-south major arterial that runs from East Market Street to East Bernal Drive, where its name changes to Natividad Road. It provides access to commercial and residential land uses. The posted speed limit on Sherwood Drive is 45 mph between East Bernal Drive and Sherwood Place and 35 mph between Sherwood Place and East Market Street.

Sherwood Place is a two-lane local street off of Sherwood Drive, providing access to the Salinas Education Center, a collection of schools and offices operate by the Salinas Unified High School District (SUHSD). The speed limit on Sherwood Place is 25 mph.

Simas Street is a two-lane local street north of East Market Street. It provides access to both commercial and industrial land uses. The speed limit on Simas Street is 25 mph.

Sun Street is a two-lane local street in central Salinas, east of Downtown. It provides access to commercial, industrial, and residential areas. The speed limit on Sun Street is 25 mph.

US 101 is a four-lane freeway in Salinas, extending south to San Luis Obispo and Los Angeles and north to San Jose and San Francisco. The speed limit on US 101 is 65 mph.

3.2 Existing Pedestrian Network

Sidewalks are present along both sides of Sun Street and Calle Cebu, extending to the study project site at the north end of Sun Street. These sidewalks are continuous onto intersecting streets, such as East Market Street, Sherwood Drive, North Market Street and Front Street. Although the sidewalks also continue onto Natividad Road, there is a gap in the sidewalk network along southbound Natividad Road between Sorrentini Drive and East Bernal Drive.

3.3 Existing Bicycle Network

The City of Salinas has adopted a Master Bikeway Plan that designates routes along roadways that can be used by bicycling commuters and recreational riders for safe access to major employers, shopping centers and schools. Consistent with State and Federal designations, there are three basic types of bicycle facilities in Salinas. Each bike facility type is described below:

- Bike path (Class I) - A separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.
- Bike lane (Class II) - A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi-exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited, but crossing by pedestrians and motorists is permitted.
- Bike route (Class III) - Provides shared use of the roadway with motorists, designated by signs or permanent markings.

There are no dedicated bicycle facilities (Class I bicycle paths) near the project site.

Class II bike lanes are currently provided on Rossi Street and Sherwood Drive near the project site.

There are no designated bike routes (Class III) in the project vicinity.

Appendix B illustrates the City of Salinas bicycle facilities.

3.4 Existing Transit Network

Public transit service in the County of Monterey and City of Salinas is provided by Monterey-Salinas Transit (MST). MST focuses on improving operational conditions through established bus routes and schedules that efficiently meet travel demands, reduce travel times, improve service reliability, and encourage bike-and-ride initiatives. All MST buses are wheelchair accessible and equipped with bike racks. The following MST routes serve the immediate project area:

- Route 45 – Northridge – Salinas
- Route 46 – Salinas - Natividad

Appendix C illustrates the existing transit routes in the vicinity of the project site.

The nearest bus stops to the project site are located at the following locations:

- Eastbound East Market Street, east of Peach Street (Line 45);
- Eastbound East Market Street, east of Griffin Street (Line 45);
- Westbound East Market Street, west of Simas Street (Line 45);
- Northbound Sherwood Drive, north of Calle Cebu (Line 46);
- Westbound East Rossi Street, west of Sherwood Drive (Line 46).

These bus stops are located within a 10-minute walk from the project site.

Note: Although Lines 82 and 86 also travel along East Market Street, neither line stops at any of the bus stops on East Market Street near the project site.

3.5 Existing Condition Traffic Circulation

3.5.1 Vehicle Circulation

The intersection turning movement counts were collected during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00) peak hours on Friday, June 2 and Monday, June 5, 2017. Traffic data was collected for cars, trucks, buses, bicyclists, and pedestrians. From these counts, the AM and PM peak hour volumes were derived. The intersection traffic volumes were collected on atypical days of the week and when Salinas area schools were not in session. Therefore, the collected intersection traffic volumes were adjusted to be consistent with available historical volumes when schools were in session.

Appendix D contains the traffic count data at the study intersections, including a table summarizing when each intersection volume was collected. **Appendix L** provides a comparison of the traffic volumes utilized for this study and traffic counts collected for previous traffic studies and traffic counts collected by the City at selected intersections. The tables contained in Appendix L show the adjustments that were made for each study intersection. The tables in Appendix L also include existing AM and PM peak hour traffic volumes that were utilized in previously prepared traffic studies. These studies are as follows:

1. Haciendas Phase III/IV Traffic Impact Analysis, Hatch Mott MacDonald, April 8, 2014.
2. Sun Street Solid Waste Transfer Station, Hatch Mott MacDonald memorandum to Jose Gamboa, August 17, 2011.
3. Proposed New City of Salinas Police Station Traffic Impact Report, Crane Associates, September 6, 2017. Traffic counts collected July 2017.

Traffic counts collected by the City of Salinas within the last two-year period that are available on the city's website are also included in the tables for comparison.

Because Sherwood Place provides access to a school, peak hour turning movement volumes from the Haciendas Phase III/IV traffic impact study at the Sherwood Drive/Sherwood Place intersection were used for this study. The Haciendas Phase III/IV traffic volumes were collected when Salinas schools were in session.

Figure 4 depicts the peak turning movement volumes for the study intersections under Existing Conditions.

The intersection levels of service for the Existing Condition are summarized in **Table 2**. Although most of the study intersections currently operate at or better than their respective level of service standards under Existing conditions, the following five intersections currently operate below their standards:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

See **Appendix E** for the level of service calculations under Existing Conditions.

Figure 4: Existing Conditions – AM and PM Peak Hour Volumes

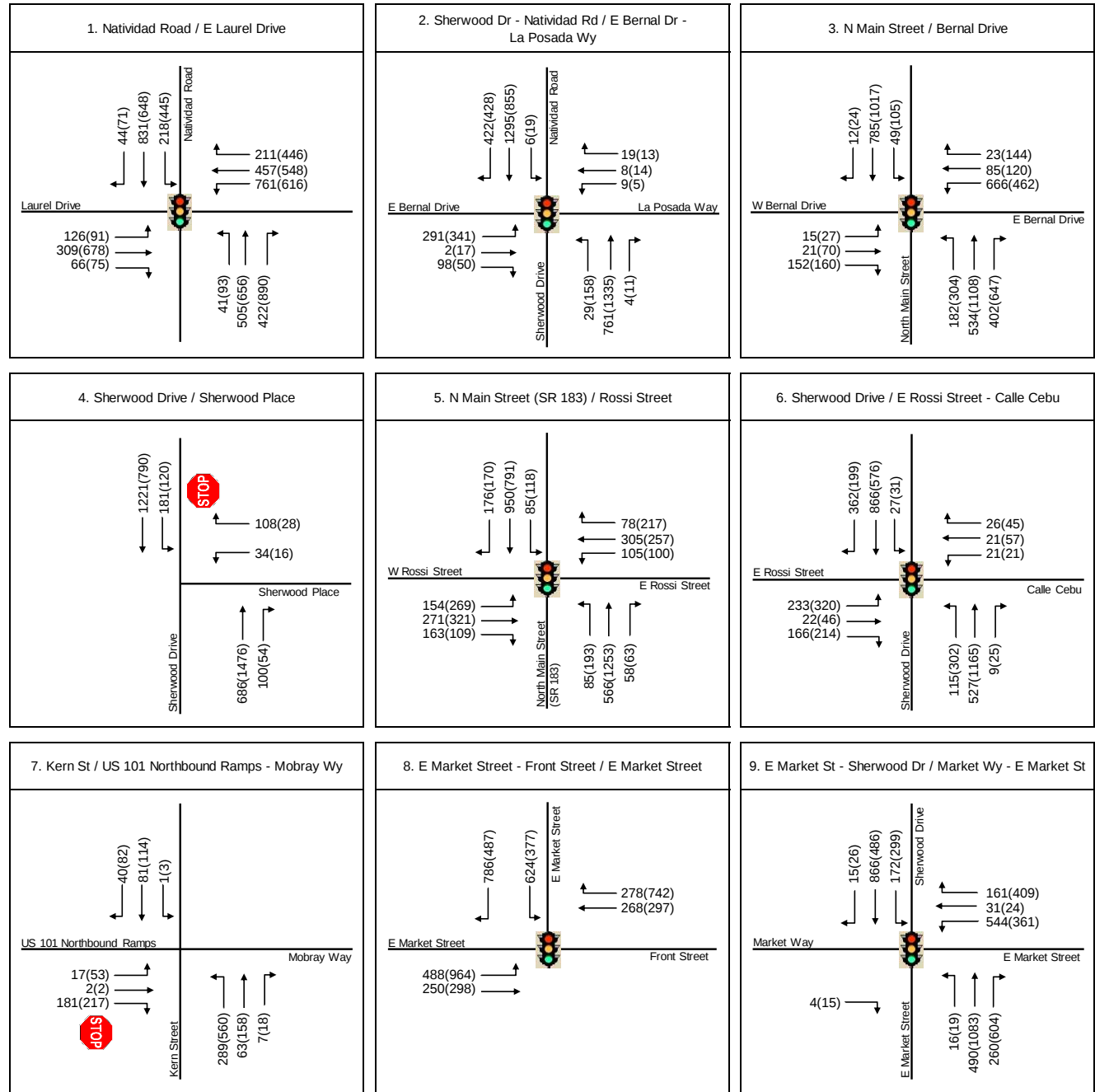
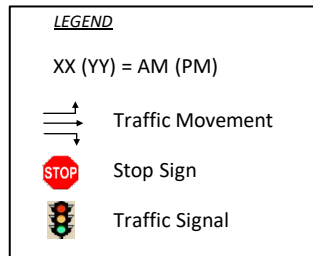
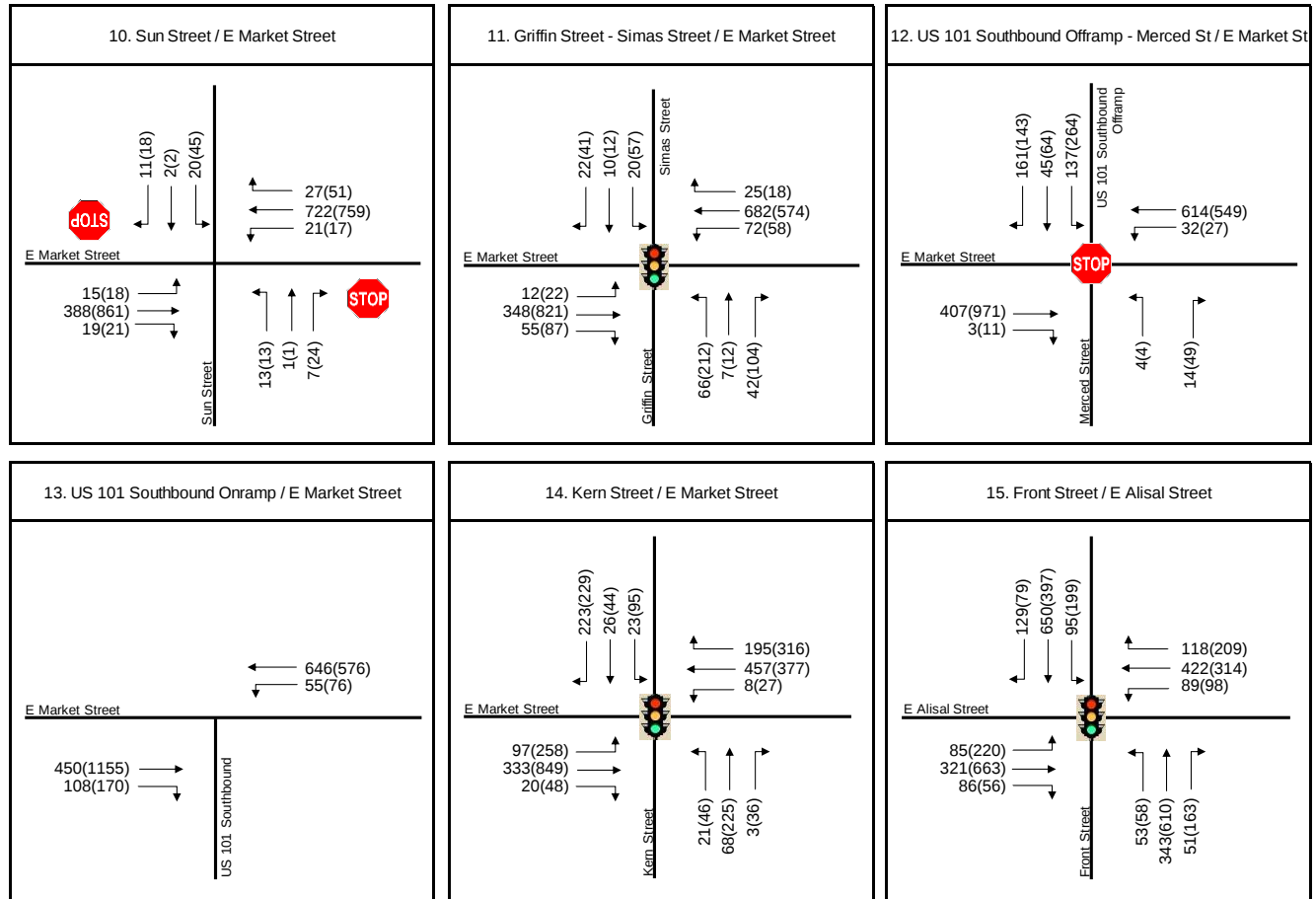


Figure 4: Existing Conditions – AM and PM Peak Hour Volumes (Continued)



Source: Mott MacDonald

3.5.2 Pedestrian Circulation

A review of the traffic counts found that there is a low to moderate level of pedestrian activity near the project site. Pedestrian activity is highest near the residential and commercial areas on Sherwood Drive and E Market Street, especially during the PM peak hour (compared to the AM peak hour).

3.5.3 Bicycle Circulation

A review of the traffic counts found that there is relatively little bicycle activity in the study network, including near the project site.

4 Existing Plus Project Conditions

This chapter describes the analysis of the transportation impacts under Existing Plus Project traffic conditions.

4.1 Project Description

The project is a General Plan amendment and Rezone change that would allow development of industrial and commercial uses on a 6.8-acre site located on Sun Street adjacent to US 101. The proposed land use designation would allow site to be developed at a floor area ratio 0.4, which would allow for up to 118,600 square feet of industrial floor space. For purposes of this traffic study, 4 percent of the floor space (4,700 square feet) was assumed to be occupied by support office space and this space was modeled as general office space. The remaining floor area (113,900 square feet) was modeled as light industrial space.

The site is designated in the General Plan as Open Space. Access to the site is provided via Sun Street and its connection to Calle Cebu and E. Market Street.

4.2 Project Trip Generation

Table 1 contains the trip generation estimate for the project. The estimate was derived using trip rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual*, 10th Edition, 2017. Note that trip generation estimates for the industrial and office components of the project have been separately calculated.

In total, the project is estimated to generate 611 daily trips, with 85 trips (74 in, 11 out) during the AM peak hour and 77 trips (10 in, 67 out) during the PM peak hour.

Table 1: Project Trip Generation

	ITE LAND USE CODE	DAILY TRIP RATE	AM PEAK HOUR				PM PEAK HOUR			
			PEAK HOUR RATE	% OF ADT	% IN	% OUT	PEAK HOUR RATE	% OF ADT	% IN	% OUT
			TRIP GENERATION RATES							
General Light Industrial (per 1,000 sq. ft.)	110	4.96	0.70	14%	88%	12%	0.63	13%	13%	87%
General Office	710	9.74	1.16	12%	86%	14%	1.15	12%	16%	84%
	PROJECT SITE	DAILY TRIPS	AM PEAK HOUR				AM PEAK HOUR			
			PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT	PEAK HOUR TRIPS	% OF ADT	TRIPS IN	TRIPS OUT
			GENERATED TRIPS							
Industrial	113,900 sq. ft.	565	80	14%	70	10	72	13%	9	63
Office	4,700 sq. ft.	46	5	11%	4	1	5	11%	1	4
Total:	118,600 sq. ft.	611	85		74	11	77		10	67

Notes:

1. Trip generation rates from Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, 2017, unless otherwise noted.
2. "sq. ft." = square feet.

Source: Mott MacDonald

4.3 Project Trip Distribution and Assignment

Figure 5 depicts the trip distribution for the project. This distribution was derived based upon adjacent complementary uses in the greater Salinas area. Note that this distribution was previously included in *Rodeo Property Preliminary Traffic Assessment, Salinas California*, Mott MacDonald, December 15, 2016. The trip distribution was combined with the trip generation to derive the project trip assignment depicted on **Figure 6**. The trip assignment was added to the existing traffic volumes to create the Existing Plus Project volumes depicted in **Figure 7**.

4.4 Existing Plus Project Condition Traffic Circulation

4.4.1 Vehicle Circulation

Table 2 summarizes the levels of service at the study intersections under Existing and Existing Plus Project conditions. Although most of the study intersections would operate at or better than their respective level of service standards, the following five intersections that currently operate below acceptable LOS would be significantly impacted by the project based upon the significance criteria utilized for this study:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

See **Appendix F** for the level of service calculations under Existing Plus Project Conditions.

Below is a discussion of deficient operations and recommended improvements at the study intersections under Existing Plus Project conditions. Recommended improvements are summarized in **Table 3**.

- **Intersection #1 – Natividad Road / E Laurel Drive:**

This intersection would operate at a deficient LOS E during the AM and PM peak hours, unchanged from Existing Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Add a third northbound and third southbound lane to Natividad Road through this intersection. Intersection operations would improve during the AM and PM peak hour to LOS D.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 61).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #2 – Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way:**

This intersection would operate at a deficient LOS E (AM) and F (PM), unchanged from Existing Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Convert the signal phasing on the east and west intersection approaches from concurrent phasing to split phasing. Intersection operations would improve during the AM and PM peak hour to LOS D.

Project Responsibility: To ensure that the intersection of Sherwood Drive – Natividad Road / E. Bernal Drive-La Posada Way will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include the signal modifications at this intersection as one of the improvements that is funded by the TFO, or (2) if the signal modifications at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for modifying the signal phasing and ensure that the signal modification is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and modify the signal phasing ensuring that the signal modification is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at a deficient LOS D during the PM peak hour, unchanged from Existing Conditions. The project would add 6 trips to this intersection during the PM peak hour and increase the PM peak hour delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds.

Mitigation: Add a third northbound and third southbound lane on N. Main Street through this intersection. Intersection operations would improve during the PM peak hour to LOS C.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 31).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Existing Conditions. The project would add 31 trips to this approach during the PM peak hour.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for installation of a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Offramp – Merced Street / E Market Street:**

This intersection would operate at a deficient LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Offramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Existing Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of U.S. 101 Southbound Offramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

4.4.2 Pedestrian Circulation

Pedestrian traffic that is generated by development of the project site would likely be traveling from areas easily reached on foot from the project site, such as adjacent neighborhoods and bus stops. It is anticipated that the complete sidewalk and crosswalk network in the greater study area would facilitate pedestrian access from these areas. However, potential pedestrian impacts should be assessed at the time the project site is proposed to be developed by a specific project.

4.4.3 Bicycle Circulation

Development on the project site is anticipated to generate little bicycle traffic. As with the pedestrian traffic, the bicycle traffic that would be generated by the project would be traveling to areas easily reached on bike from the project site, such as residential areas that are more than a 10-minute bike ride from the project site. Although there are few bike facilities in the study area nearest the project site, the small level of bicycle traffic will be low enough to minimize any effects on existing vehicle traffic. Potential bicycle traffic impacts should be assessed at the time the project site is proposed to be developed by a specific project.

4.4.4 Transit Circulation

Development on the project site is anticipated to generate little transit usage. The transit usage that would be generated by the project would likely be walking to and from the bust stops within a 10-minute walk from the project site (as enumerated in Section 2.4). The small level of transit usage generated by the project would be low enough to minimize any effects on existing transit demand for bus routes in the area. Potential transit traffic impacts should be assessed at the time the project site is proposed to be developed by a specific project.

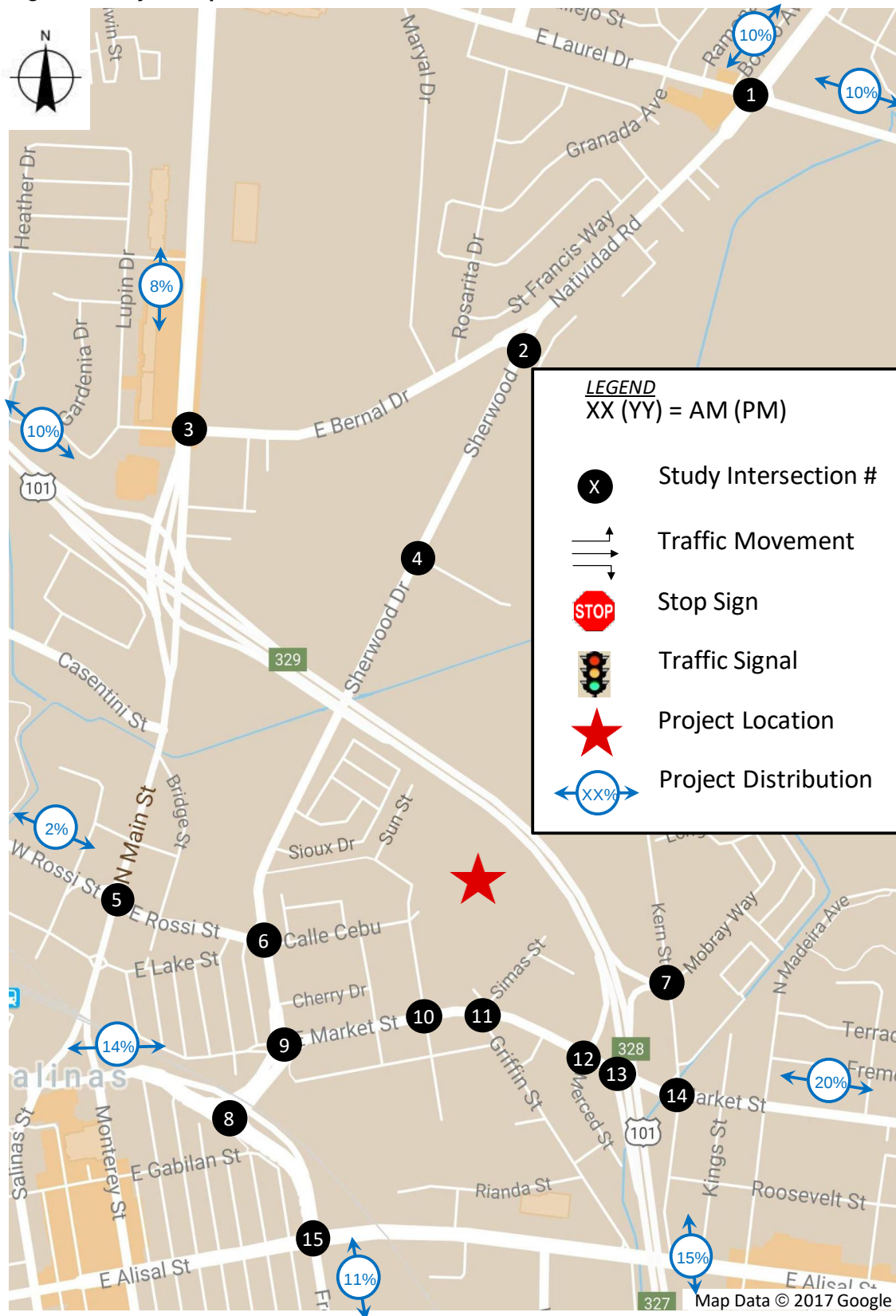
4.5 City of Salinas Traffic Fee Ordinance

A development project constructed on the project site would be responsible for payment of the City of Salinas Traffic Fee Ordinance (TFO) traffic impact fee, which would represent the development's contribution towards citywide roadway improvements funded by the fee program.

4.6 TAMC Regional Development Impact Fee

A development project constructed on the project site would be responsible for payment of the TAMC Regional Development Impact Fee, which would represent the project's contribution towards countywide roadway improvements funded by the fee program.

Figure 5: Project Trip Distribution



Base map Source: Google Maps, 2017.

Figure 6: Project Trip Assignment – AM and PM Peak Hour Volumes

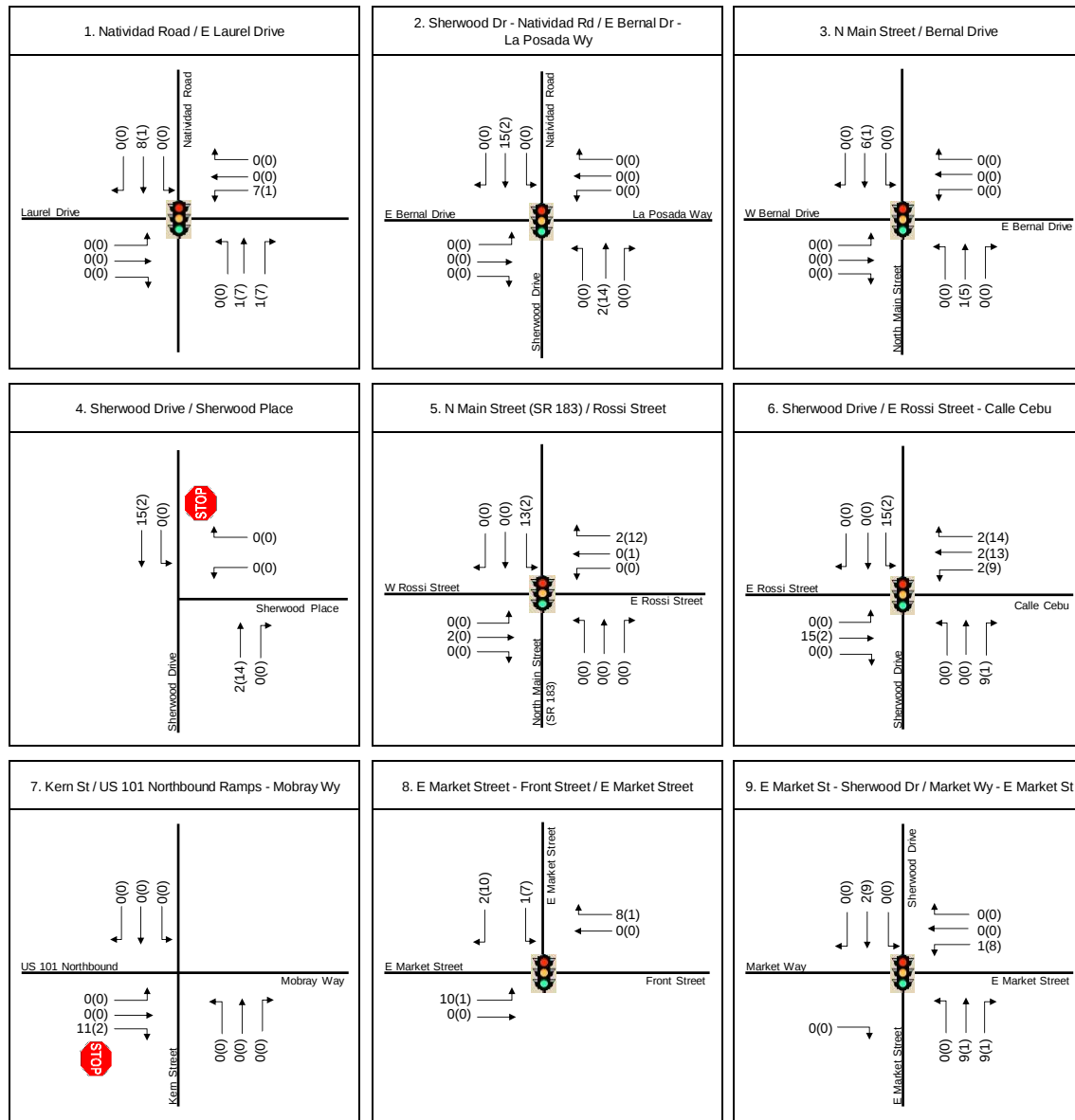
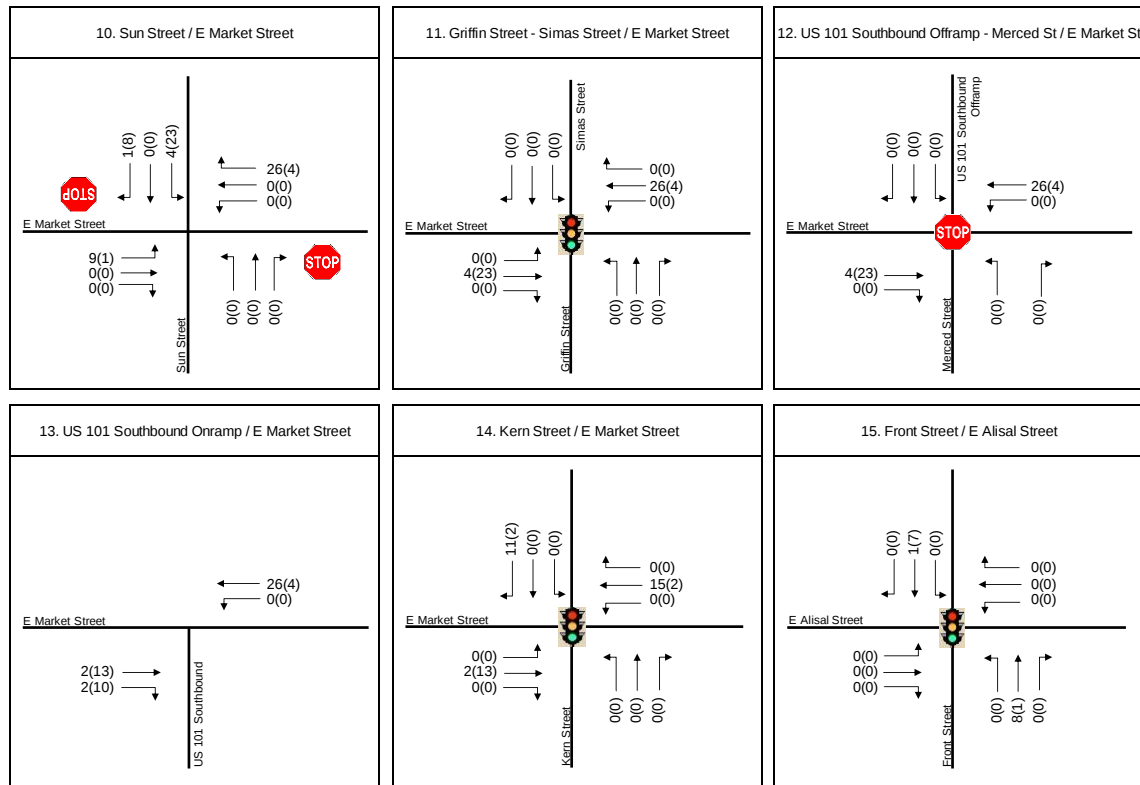


Figure 6: Project Trip Assignment – AM and PM Peak Hour Volumes (Continued)



Source: Mott MacDonald

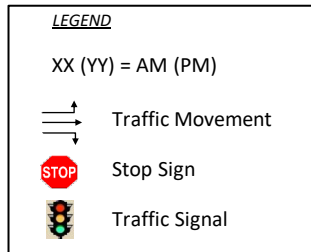


Figure 7: Existing Plus Project Conditions – AM and PM Peak Hour Volumes

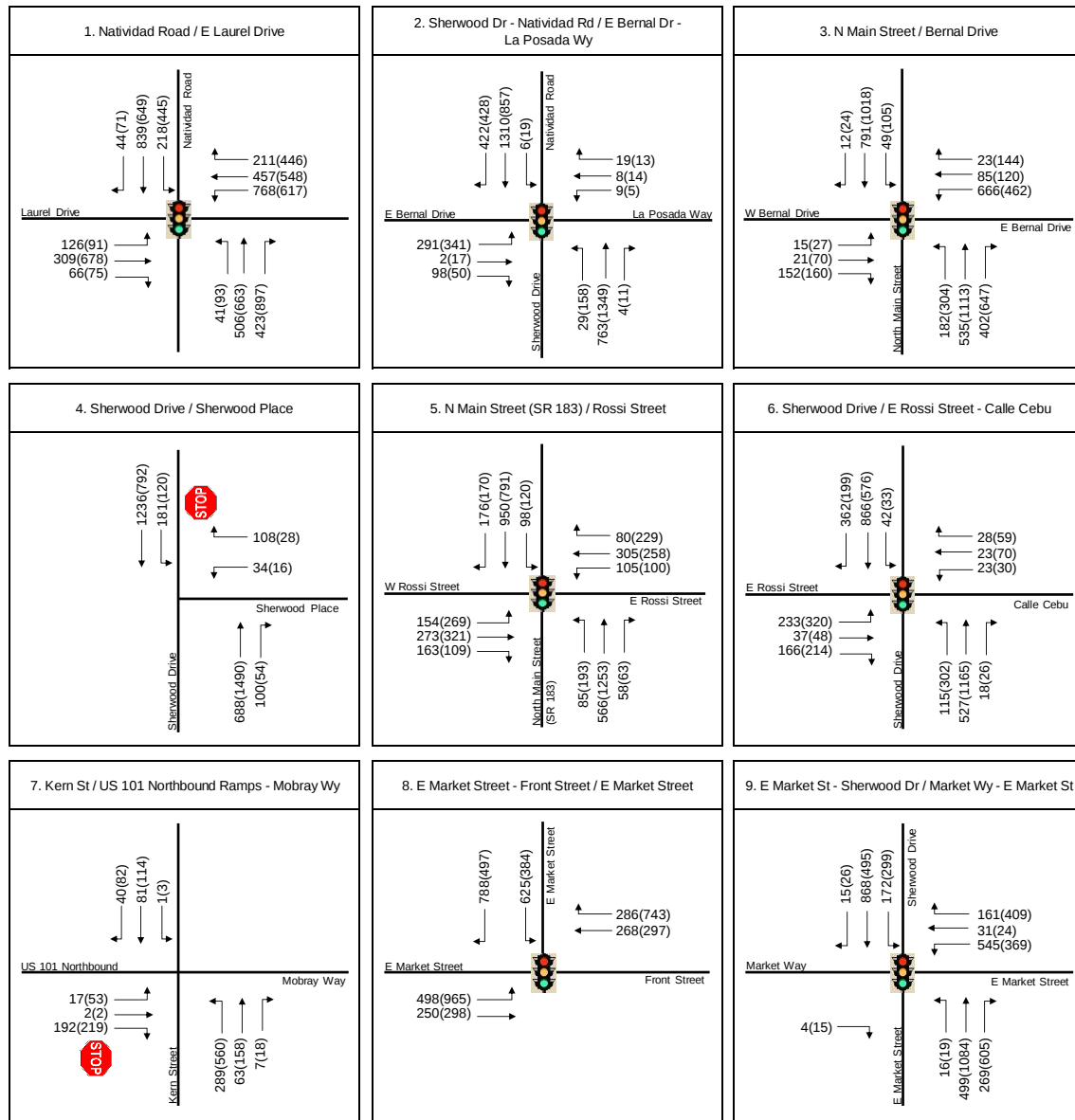
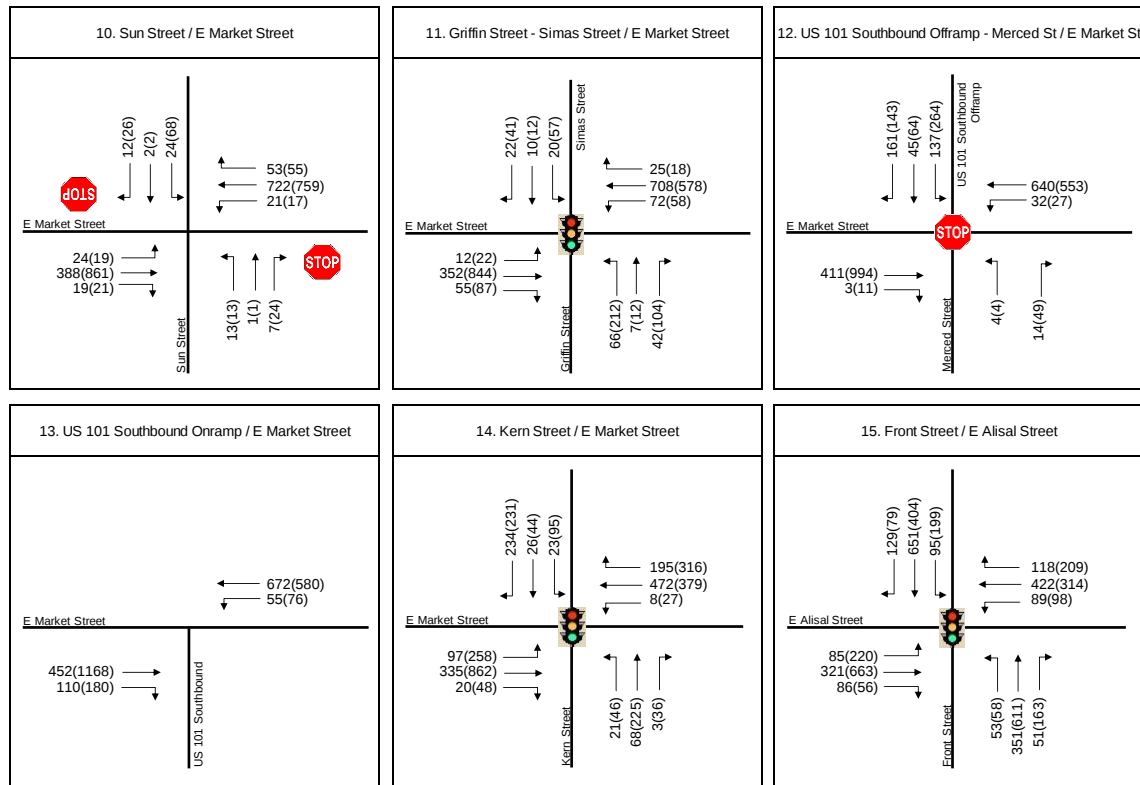


Figure 7: Existing Plus Project Conditions – AM and PM Peak Hour Volumes (Continued)



Source: Mott MacDonald

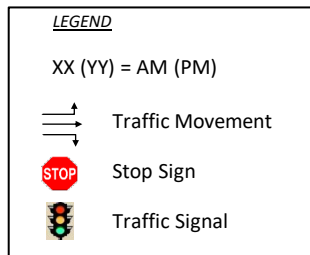


Table 2: Intersection Levels of Service – Existing and Existing Plus Project Conditions

	N-S Street	E-W Street	Existing Intersection Control	LOS Std.	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
						Delay (sec)	LOS	Delay (sec)	LOS
1	Natividad Road	East Laurel Drive	Signal	D	AM	61.1	E	62.1	E
					PM	62.5	E	62.7	E
			With Improvement		AM			48.2	D
					PM			52.9	D
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	D	AM	57.8	E	58.7	E
					PM	92.1	F	93.2	F
			With Improvement		AM			34.2	C
					PM			44.0	D
3	North Main Street	Bernal Drive	Signal	D	AM	41.6	D	41.6	D
					PM	52.5	D	52.5	D
4	Sherwood Drive	Sherwood Place	One-Way Stop	D (E)	AM	2.0 (19.5)	A (C)	2.0 (19.6)	A (C)
					PM	1.3 (25.4)	A (D)	1.3 (25.8)	A (D)
5	North Main Street (SR 183)	Rossi Street	Signal	C/D (Caltrans)	AM	30.5	C	30.5	C
					PM	39.9	D	40.0	D
			With Improvement		AM			26.5	C
					PM			32.7	C
6	Sherwood Drive	East Rossi Street - Calle Cebu	Signal	D	AM	23.1	C	24.3	C
					PM	32.5	C	34.2	C
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	C/D (E)	AM	6.7 (10.8)	B (B)	6.7 (10.8)	B (B)
					PM	15.0 (46.3)	B (E)	14.9 (46.0)	B (E)
8	East Market Street - Front Street	East Market Street	Signal	D	AM	5.5	A	5.6	A
					PM	8.8	A	8.8	A
9	East Market Street - Sherwood Drive	Market Way - East Market Street	Signal	D	AM	18.7	B	18.8	B
					PM	23.6	C	23.6	C

**Table 2: Intersection Levels of Service – Existing and Existing Plus Project Conditions
(Continued)**

		N-S Street	E-W Street	Existing Intersection Control	LOS Std.	Peak Hour	Existing Conditions		Existing Plus Project Conditions	
							Delay (sec)	LOS	Delay (sec)	LOS
10	Sun Street	East Market Street	Two-Way Stop	D (E/E)	AM	1.7 (24.7/32.2)	A (C/D)	1.9 (25.8/34.7)	A (D/D)	
					PM	3.9 (33.0/79.8)	A (D/F)	8.4 (33.4/142.2)	B (D/F)	
			With Improvement		AM			7.0	A	
					PM			7.0	A	
11	Griffin Street - Simas Street	East Market Street	Signal	D	AM	6.7	A	6.7	A	
					PM	10.9	A	11.1	B	
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	C/D (E/E) (Caltrans)	AM	19.5 (18.4/78.9)	C (C/F)	21.9 (19.2/90.8)	C (C/F)	
					PM	69.3 (20.9/*)	F (C/F)	72.5 (22.2*)	F (C/F)	
			With Improvement		AM			10.3	B	
					PM			12.8	B	
13	US 101 Southbound Onramp	East Market Street	Uncontrolled	D (E)	AM	0.4 (0.0)	A (A)	0.4 (0.0)	A (A)	
					PM	0.5 (0.0)	A (A)	0.5 (0.0)	A (A)	
14	Kern Street	East Market Street	Signal	D	AM	11.8	B	11.9	B	
					PM	22.8	C	22.9	C	
15	Front Street	East Alisal Street	Signal	D	AM	31.3	C	31.3	C	
					PM	47.4	D	47.4	D	

Notes:

1. LOS Std. = Level of Service Standard
2. XX (YY) = Overall (Side Street).
3. Analysis performed using 2000 and 2010 Highway Capacity Manual methodologies.
4. Overall level of service standard for the City of Salinas is LOS D. Overall level of service standard for Caltrans is the transition between LOS C and LOS D (LOS C/D).
5. Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
6. Above delays and levels of service are summarized from calculations in **Appendices E through J**.
7. Items in **bold** represent significant impacts.
8. *: Delay is greater than 300 seconds per vehicle.

Source: Mott MacDonald

Table 3: Recommended Intersection Improvements

	N-S Street	E-W Street	Existing Intersection Control	Existing Plus Project Mitigation	Background Plus Project Mitigation	Cumulative Plus Project Mitigation
1	Natividad Road	East Laurel Drive	Signal	Add 3rd NB T, 3rd SB T (TFO Project No. 61)	Same as Existing Plus Project.	-
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	Change E Bernal - La Posada Signal Phasing to Split Phasing. (Not currently included in the Salinas TFO.)	Same as Existing Plus Project.	-
5	North Main Street (SR 183)	Rossi Street	Signal	Add 3rd NB T, 3rd SB T. (TFO Project 31)	Same as Existing Plus Project.	1. Add 3rd NB T & 3rd SB T: TFO Project 31 2. Provide a second left turn lane on the westbound Rossi Street approach to N. Main. (TFO Project 30, modified by the City to include a second westbound left turn lane on Rossi within the 106 foot right of way planned by TFO Project 30.)
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	-	-	Signalize intersection.
10	Sun Street	East Market Street	Two-Way Stop	Signalize intersection.	Same as Existing Plus Project.	Same as Existing Plus Project.
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	Signalize Intersection	Same as Existing Plus Project.	Same as Existing Plus Project.
14	Kern Street	East Market Street	Signal	-	-	Restripe westbound E. Market approach to provide left turn lane, 1 through lane and 1 right turn lane.

Notes:

1. LOS Stnd. = Level of Service Standard
2. L, T, R, EB, WB, NB, SB, RTO = Left, Through, Right, Eastbound, Westbound, Southbound, Northbound, Right Turn Overlap signal phase.

Source: Mott MacDonald

5 Background Conditions

This chapter describes Background Conditions, which represents traffic operations approximately five years into the future (i.e., the Year 2022). Note that this scenario does not include trips from the study project.

5.1 Background Traffic Volumes

Traffic volumes under Background conditions were derived by applying growth factors to the existing volumes on the study corridors in this analysis. More specifically, the corridors and their associated growth factors are the following:

1. E Laurel Drive – 2% (AM), 3% (PM)
2. Natividad Road – 2% (AM), 3% (PM)
3. Sherwood Drive – 2% (AM), 3% (PM)
4. E Rossi Street and W Rossi Street – 2% (AM), 3% (PM)
5. N Main Street:
 - a. North of US 101 – 2% (AM), 3% (PM)
 - b. South of US 101 – 10% (AM), 15% (PM)
6. E Market Street – 2% (AM), 3% (PM)
7. Front Street – 2% (AM), 3% (PM)
8. E Alisal Street – 2% (AM), 3% (PM)
9. Kern Street – 2% (AM), 3% (PM)
10. US 101 Onramps and Offramps – 2% (AM), 3% (PM)

The growth factors were primarily applied to the mainline traffic on each corridor. The lower of the two growth factors on intersecting streets was applied to the turning movements between those streets. The growth factors used are consistent with the net increase in traffic on these corridors attributable to approved projects in past traffic analyses in the study area.

The resulting traffic growth attributable to approved projects includes trips generated by the approved Police Station and the Salinas Ag Industrial Center, with the one exception the assignment of approved trips at the Front Street / Alisal Street intersection. The traffic assignment for the police station that is documented in the Police Station TIA was included in the Background Condition volumes because of the magnitude of trips that the Police Station is forecast to add at this intersection.

The Background Condition traffic volumes are depicted in **Figure 8**.

5.2 Background Condition Traffic Circulation

The intersection levels of service for the Background Condition are summarized in **Table 4**. The analysis of Background Conditions includes one modification to the road network. The westbound

Although most of the study intersections would operate at or better than their respective level of service standards under Background conditions, the following six intersections would operate below their standards:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N. Main Street (SR 183) / Rossi Street: LOS D (AM and PM)
7. Kern Street / US 101 Northbound Ramps – Mobray Way: Side Street approach LOS F (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

See **Appendix G** for the level of service calculations under Background Conditions.

Figure 8: Background Conditions – AM and PM Peak Hour Volumes

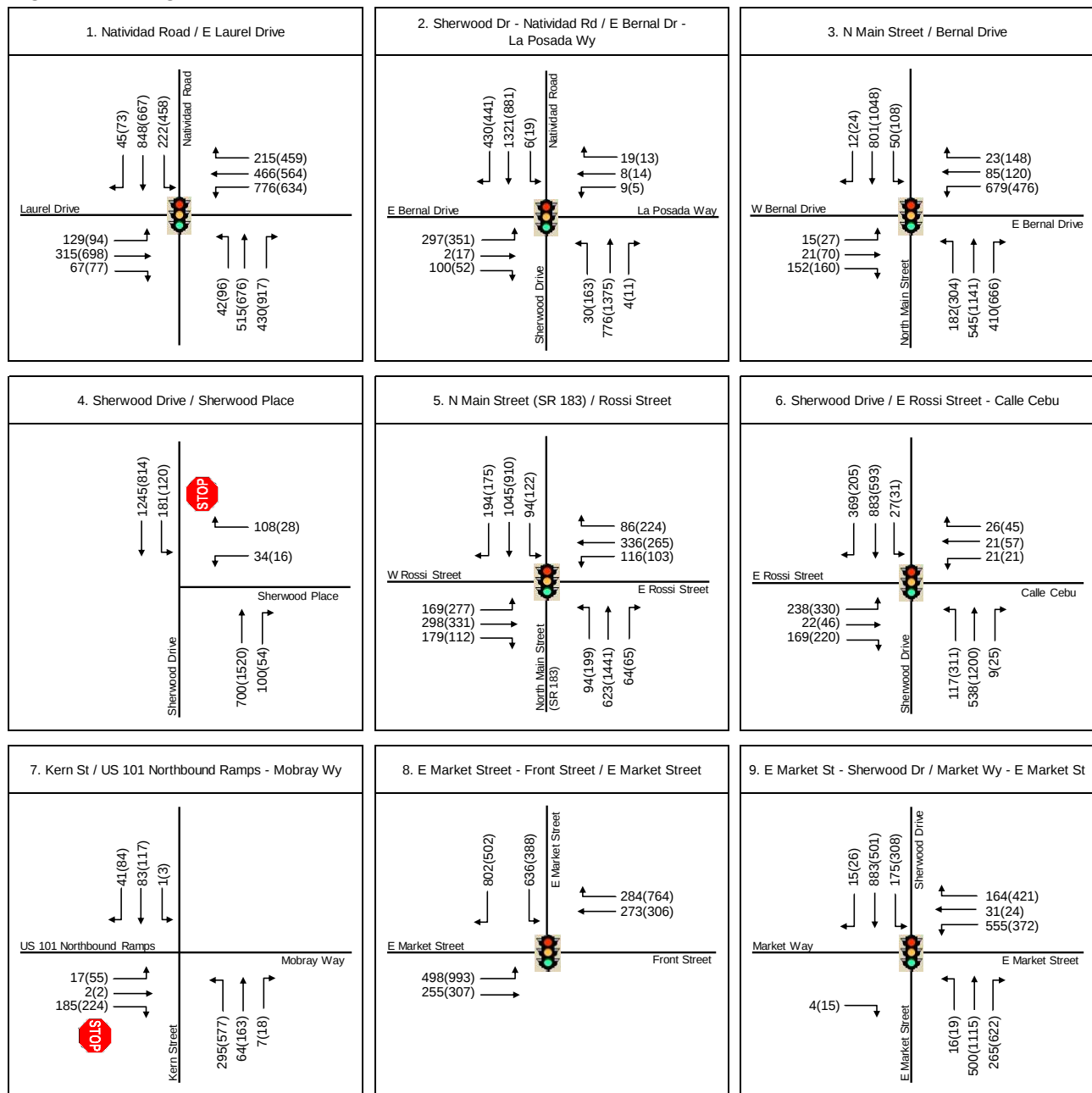
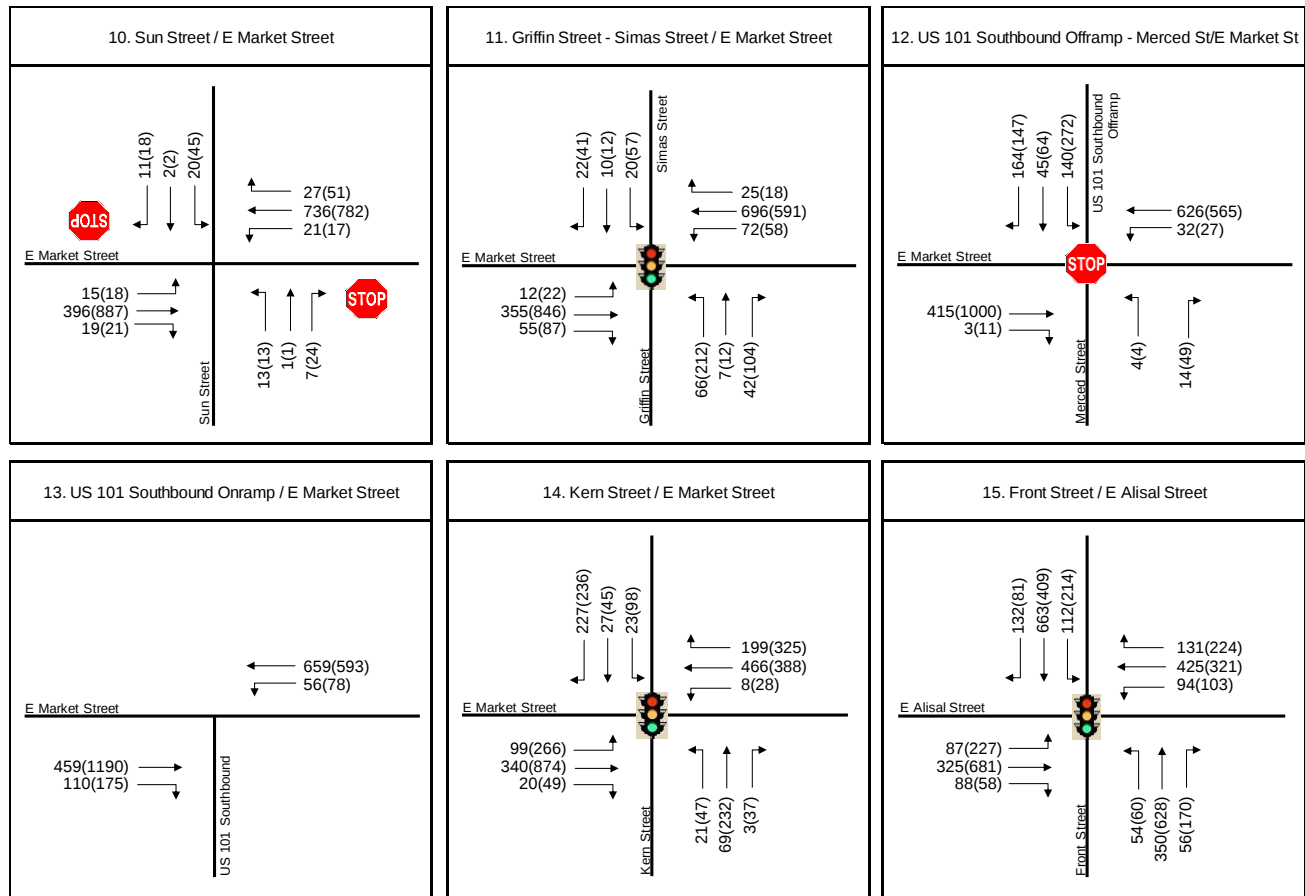


Figure 8: Background Conditions – AM and PM Peak Hour Volumes (Continued)



Source: Mott MacDonald

6 Background Plus Project Conditions

This chapter provides a description of the analysis under Background Plus Project traffic conditions, which analyzes Background Conditions plus anticipated traffic from the proposed project.

6.1 Background Plus Project Traffic Volumes

The project trip assignment (**Figure 6**) was added to the Background Condition volumes (**Figure 8**) to create the Background Plus Project Condition volumes shown in **Figure 9**.

6.2 Background Plus Project Conditions Traffic Circulation

6.2.1 Vehicle Circulation

Table 4 summarizes the levels of service at the study intersections under Background and Background Plus Project conditions. The following intersections would operate below their level of service standards and would be significantly impacted by the project based upon the significance criteria utilized for this study:

1. Natividad Road / E Laurel Drive: LOS E (AM and PM)
2. Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way: LOS E (AM), LOS F (PM)
5. N Main Street (SR 183) / Rossi Street: LOS D (PM)
10. Sun Street / E Market Street: Side-street approach LOS F (PM)
12. US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS F (PM), Side-street approach LOS F (AM and PM)

See **Appendix H** for the level of service calculations under Background Plus Project Conditions.

Below is a discussion of deficient operations and recommended improvements at the study intersections under Background Plus Project conditions. Recommended improvements are summarized in **Table 3**. The same intersections that are significantly impacted by the Project under Existing Conditions are significantly impacted under Background Conditions. No additional intersections are significantly impacted by the Project under Background Conditions and the mitigation measures recommended for Existing Conditions remain unchanged for Background Conditions.

- **Intersection #1 – Natividad Road / E Laurel Drive:**

This intersection would operate at a deficient LOS E during the AM and PM peak hours, unchanged from Background Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Add a third northbound and third southbound lane to Natividad Road through this intersection. Intersection operations would improve during the AM and PM peak hour to LOS D.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 61).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #2 – Sherwood Drive – Natividad Road / E Bernal Drive – La Posada Way:**

This intersection would operate at a deficient LOS E (AM) and F (PM), unchanged from Background Conditions. The project would add 16 AM peak hour and 17 PM peak hour trips to this intersection.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection that operates at a deficient level without the project.

Mitigation: Convert the signal phasing on the east and west intersection approaches from concurrent phasing to split phasing. Intersection operations would improve during the AM and PM peak hour to LOS D.

Project Responsibility: To ensure that the intersection of Sherwood Drive – Natividad Road / E. Bernal Drive-La Posada Way will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include the signal modifications at this intersection as one of the improvements that is funded by the TFO, or (2) if the signal modifications at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for modifying the signal phasing and ensure that the signal modification is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and modify the signal phasing ensuring that the signal modification is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at a deficient LOS D during the AM and PM peak hours, unchanged from Background Conditions. The project would add 17 trips to this intersection during the AM peak hour and 15 trips to this intersection during the PM peak hour. The trips added by the Project would not increase the average vehicle delay during the AM peak hour, but would increase the PM peak hour vehicle delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds.

Mitigation: Add a third northbound and third southbound lane on N. Main Street through this intersection. Intersection operations would improve during the PM peak hour to LOS C.

Salinas TFO Project: This improvement is included in the City of Salinas TFO (Project 31).

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Background Conditions. The project would add 31 trips to this approach during the PM peak hour.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for installation of a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Offramp – Merced Street / E Market Street:**
This intersection would operate at a deficient LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Offramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Background Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection.

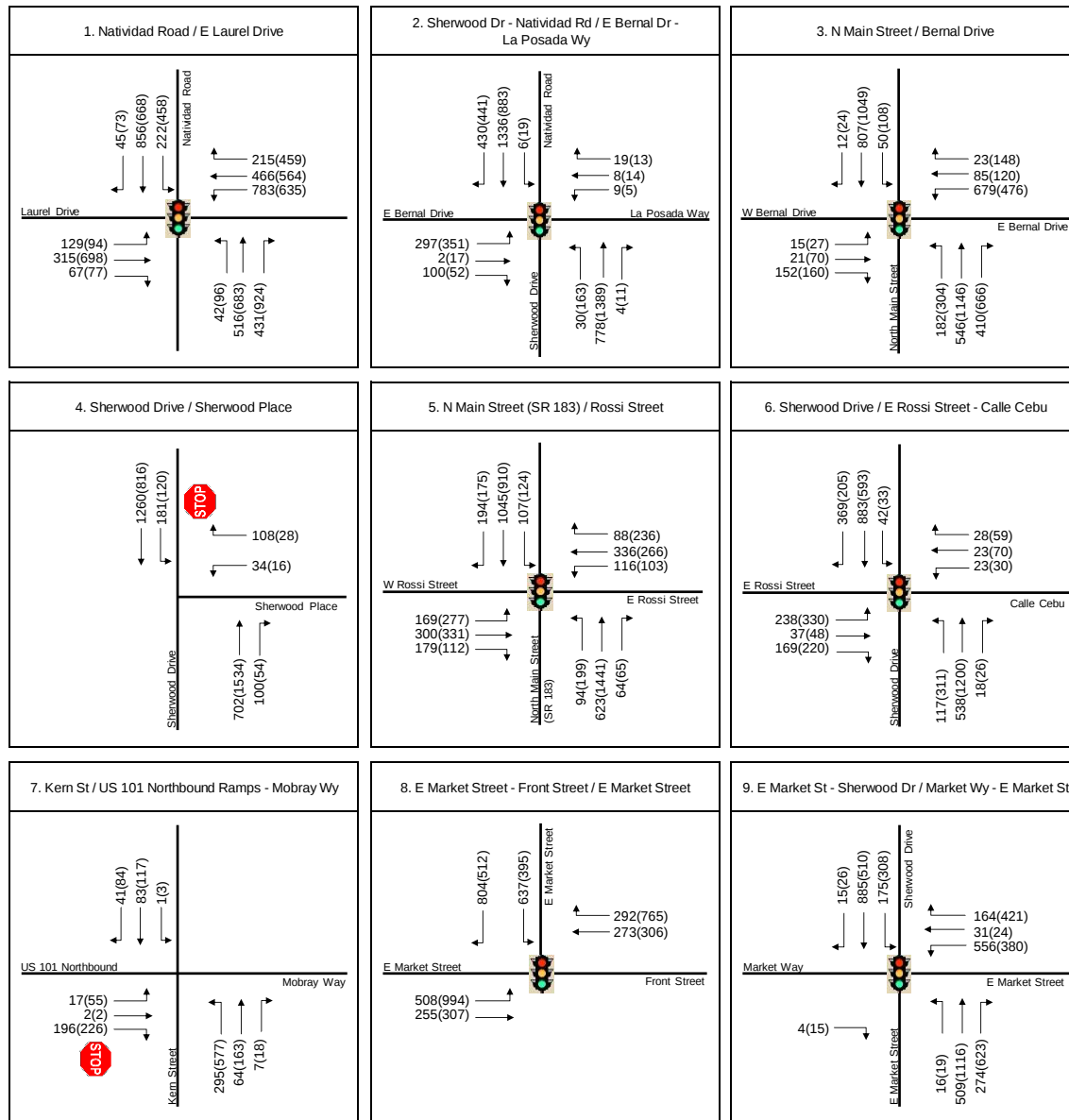
Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the southbound off-ramp approach during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

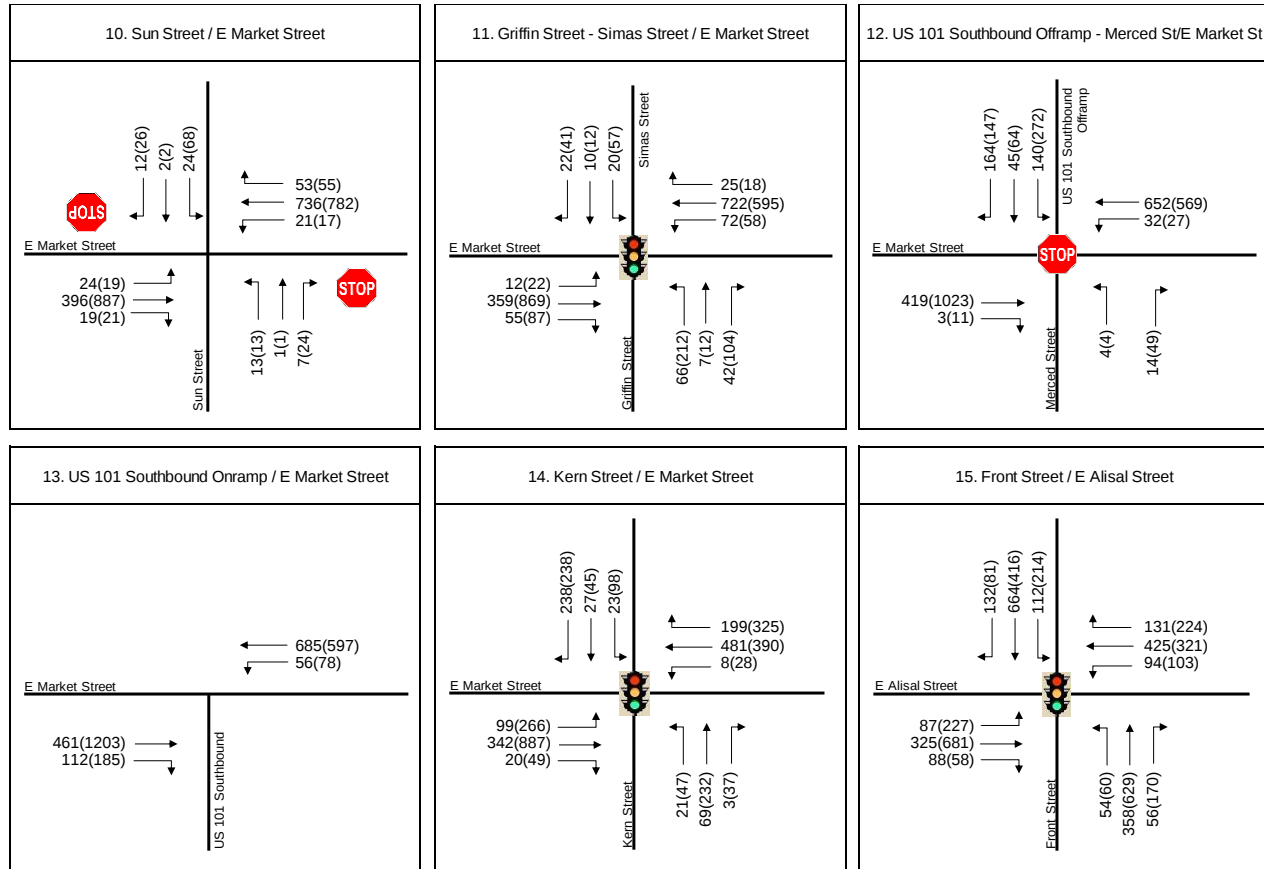
Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: To ensure that the intersection of U.S. 101 Southbound Offramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

Figure 9: Background Plus Project Conditions – AM and PM Peak Hour Volumes



**Figure 9: Background Plus Project Conditions – AM and PM Peak Hour Volumes
(Continued)**



Source: Mott MacDonald

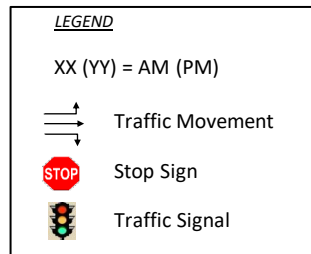


Table 4: Intersection Levels of Service – Background and Background Plus Project Conditions

	N-S Street	E-W Street	Existing Intersection Control	LOS Std.	Peak Hour	Background Conditions		Background Plus Project Conditions	
						Delay (sec)	LOS	Delay (sec)	LOS
1	Natividad Road	East Laurel Drive	Signal	D	AM	63.9	E	65.1	E
					PM	66.7	E	66.9	E
			With Improvement		AM			50.0	D
					PM			54.5	D
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	D	AM	61.3	E	62.5	E
					PM	98.5	F	99.8	F
			With Improvement		AM			36.4	D
					PM			54.5	D
3	North Main Street	Bernal Drive	Signal	D	AM	47.4	D	47.6	D
					PM	42.3	D	42.3	D
4	Sherwood Drive	Sherwood Place	One-Way Stop	D (E)	AM	2.0 (19.9)	A (C)	2.0 (20.0)	A (C)
					PM	1.3 (26.7)	A (D)	1.3 (27.0)	A (D)
5	North Main Street (SR 183)	Rossi Street	Signal	C/D (Caltrans)	AM	35.8	D	35.8	D
					PM	47.1	D	47.3	D
			With Improvement		AM			29.1	C
					PM			34.8	C
6	Sherwood Drive	East Rossi Street - Calle Cebu	Signal	D	AM	23.5	C	24.6	C
					PM	32.6	C	33.6	C
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	C/D (E) (Caltrans)	AM	6.7 (10.9)	A (B)	6.8 (11.0)	A (B)
					PM	17.4 (56.6)	C (F)	17.4 (56.2)	C (F)
8	East Market Street - Front Street	East Market Street	Signal	D	AM	5.9	A	5.7	A
					PM	9.0	A	9.0	A
9	East Market Street - Sherwood Drive	Market Way - East Market Street	Signal	D	AM	19.2	B	19.2	B
					PM	23.3	C	23.4	C

Table 4: Intersection Levels of Service – Background and Background Plus Project Conditions (Continued)

N-S Street E-W Street		Existing Intersection Control	LOS Std.	Peak Hour	Background Conditions		Background Plus Project Conditions	
					Delay (sec)	LOS	Delay (sec)	LOS
10	Sun Street	Two-Way Stop	D (E/E)	AM	1.7 (25.2/33.5) 4.4 (35.0/92.0)	A (D/D) A (E/F)	2.1 (26.8/39.0) 9.5 (36.1/166.0)	A (D/E) A (E/F)
				PM				
		With Improvement		AM			4.9 6.2	A A
11	Griffin Street - Simas Street	Signal	D	AM	6.7	A	5.5	A
				PM	11.1	B	11.2	B
12	US 101 Southbound Offramp - Merced Street	Two-Way Stop	C/D (E/E) (Caltrans)	AM	22.1 (19.1/89.8)	C (C/F) F (C/F)	24.6 (19.9/102.2) 84.7 (24.4*)	C (C/F) F (C/F)
				PM	81.8 (23.0/*)			
		With Improvement		AM			10.4 13.2	B B
13	US 101 Southbound Onramp	Uncontrolled	D (E)	AM	0.4 (0.0)	A (A)	0.4 (0.0)	A (A)
				PM	0.6 (0.0)	A (A)	0.6 (0.0)	A (A)
14	Kern Street	Signal	D	AM	17.9	B	18.2	B
				PM	22.8	C	22.8	C
15	Front Street	Signal	D (E)	AM	39.4	D	39.4	D
				PM	51.2	D	51.2	D

Notes:

1. LOS Std. = Level of Service Standard
2. XX (YY) = Overall (Side Street).
3. Analysis performed using 2000 and 2010 Highway Capacity Manual methodologies.
4. Overall level of service standard for the City of Salinas is LOS D. Overall level of service standard for Caltrans is the transition between LOS C and LOS D (LOS C/D).
5. Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
6. Above delays and levels of service are summarized from calculations in **Appendices E through J**.
7. Items in **bold** represent significant impacts.

Source: Mott MacDonald

7 Cumulative Without Project Conditions

This chapter describes the analysis results under Cumulative conditions without the study project developed. The Cumulative Without Project traffic condition is defined as buildout of the current City of Salinas General Plan. Note that this analysis scenario does not include traffic from the study project.

7.1 Derivation of Cumulative Without Project Condition Volumes

The Cumulative Without Project condition volumes in **Figure 10** are primarily on traffic forecasts documented in the City of Salinas General Plan Circulation Study prepared by Higgins Associates in 2002. Traffic forecasts documented in the following reports were also referenced:

1. Monterey County Jail Housing Addition Traffic Impact Analysis, Hatch Mott MacDonald, April 29, 2014.
2. Haciendas Phase III/IV Traffic Impact Analysis, Hatch Mott MacDonald, April 8, 2014.
3. Sun Street Solid Waste Transfer Station Access Plan Traffic Impact Analysis, Higgins Associates, August 27, 2007.
4. Tynan Village Mixed Use Development Traffic Impact Study Report, Higgins Associates, November 22, 2004.
5. Salinas Sphere of Influence Amendment and Annexation Supplemental TIA, Fehr & Peers, November 14, 2007.

The traffic volume forecasts shown on **Figure 10** reflect new road links and the level of service calculations include intersection improvements that are included in the City of Salinas Traffic Fee Ordinance and are planned for implementation in conjunction with buildout of the city's General Plan. These improvements include the following:

1. TFO Project No. 30: Rossi Street Widening – widen to four lanes between Main Street and Sherwood Drive.
2. TFO Project No. 31: Main Street Widening – widen from a four to six-lane arterial between Casentini Street and Market Street.
3. TFO Project No. 33A: Bernal Drive Extension – extend as a four-lane arterial from Sherwood Drive/Natividad Road intersection to Kern Street.
4. TFO Project No. 33B: Bernal Drive Widening – widen, construct sidewalk and retaining wall on north side between Main Street and Rosarita Drive.
5. TFO Project No. 34: Constitution Boulevard Extension – extend from Laurel Drive to Bernal Drive Extension.
6. TFO Project No. 45: Laurel Drive Widening – widen to six lanes between Natividad and Constitution. Add left turn channelization east of Constitution.
7. TFO Project No. 46: Main Street Widening – widen to six lanes between Market Street and Bernal by eliminating on-street parking and widening UP Structure north of Market Street.

8. TFO Project No. 61: Natividad Road/Laurel Drive Intersection – widen the Natividad Road north and south intersection legs to provide the following lane configuration on the intersection approaches:
 - a. Northbound approach – 1 left turn lane, 3 through lanes, 1 right turn lane
 - b. Southbound approach – 2 left turn lanes, 2 through lanes, 1 through/right turn lane.
 - c. Eastbound approach – 1 left turn lane, 2 through lanes, 1 right turn lane.
 - d. Westbound approach – 2 left turn lanes, 2 through lanes, 1 right turn lane.

7.2 Cumulative Without Project Condition Traffic Circulation

7.2.1 Vehicle Circulation

The intersection levels of service for the Cumulative Condition are summarized in **Table 5**. The following intersections would operate below their level of service standards:

#5: N Main Street (SR 183) / Rossi Street: LOS D (PM)

#7: Kern Street / US 101 Northbound Ramps – Mobray Way: Overall LOS F, Side Street approach LOS F (PM)

#10: Sun Street / E Market Street: Side-street approach LOS F (PM)

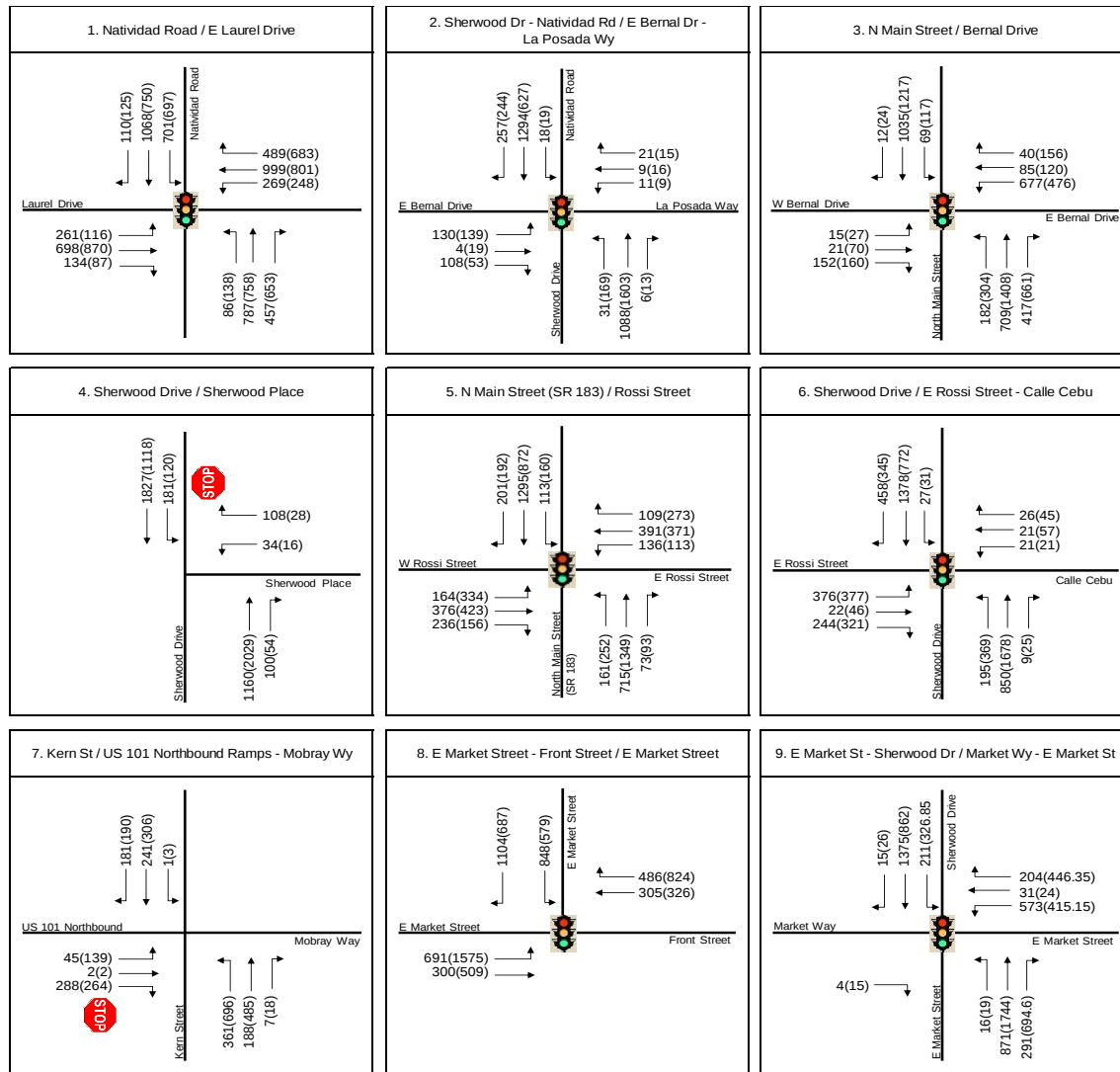
#12: US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS E (AM) and LOS F (PM), Side-street approach LOS F (AM and PM)

#14: Kern Street / E Market Street: LOS F (PM)

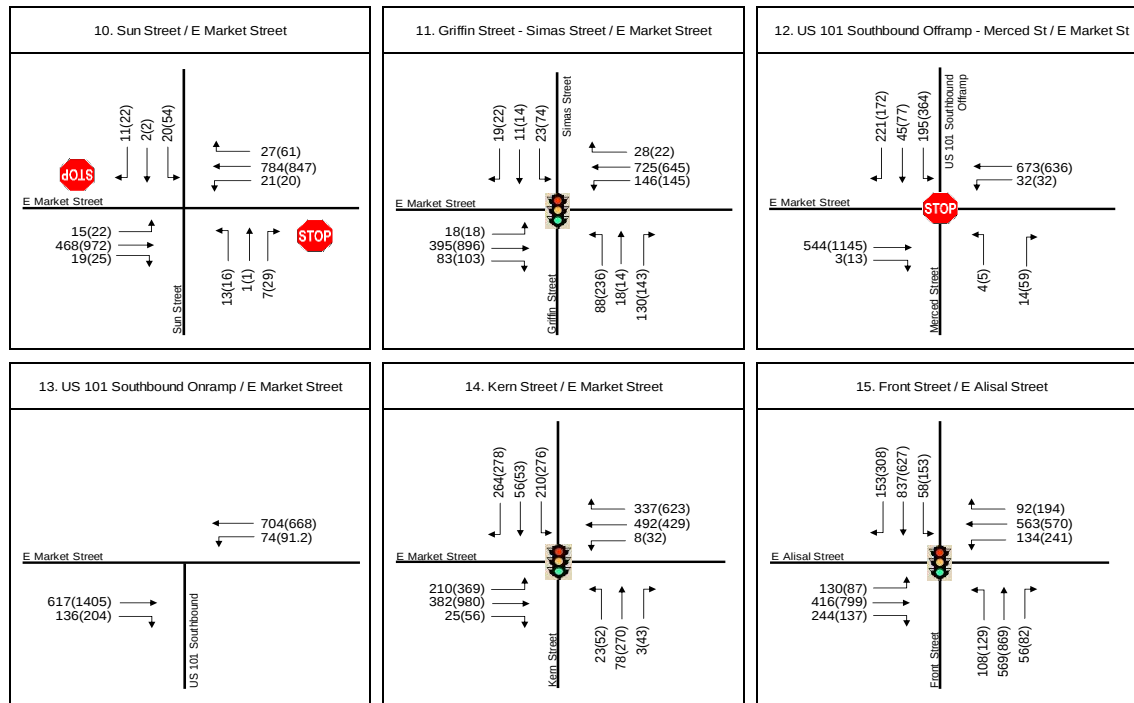
#15: Front Street / Alisal Street: LOS E (AM and PM)

See **Appendix I** for the level of service calculations under Cumulative Without Project Conditions.

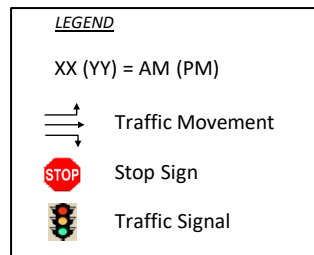
Figure 10: Cumulative Without Project Conditions – AM and PM Peak Hour Volumes



**Figure 10: Cumulative Without Project Conditions – AM and PM Peak Hour Volumes
(Continued)**



Source: Mott MacDonald



8 Cumulative Plus Project Conditions

This chapter describes Cumulative Plus Project conditions, which represent traffic conditions with General Plan Buildout including the proposed GPA and Rezoning.

8.1 Derivation of Cumulative Plus Project Condition Volumes

The project trip assignment volumes Cumulative (**Figure 6**) were added to the Cumulative Without Project Condition volumes (**Figure 10**) to create the Cumulative Plus Project Condition volumes depicted in **Figure 11**.

8.2 Cumulative Plus Project Condition Traffic Circulation

8.2.1 Vehicle Circulation

Table 5 summarizes the levels of service at the study intersections under Cumulative Plus Project conditions. Although some of the study intersections would operate at or better than their respective level of service standards under Cumulative Plus Project conditions, the following intersections would continue to operate below their standard and the project would contribute to the cumulative impact:

- #5: N Main Street (SR 183) / Rossi Street: LOS D (PM)
- #7: Kern Street / US 101 Northbound Ramps – Mobray Way: Overall LOS F, Side Street approach LOS F (PM)
- #10: Sun Street / E Market Street: Side-street approach LOS F (PM)
- #12: US 101 Southbound Offramp – Merced Street / E Market Street: Overall LOS E (AM) and LOS F (PM), Side-street approach LOS F (AM and PM)
- #14: Kern Street / E Market Street: LOS F (PM)
- #15: Front Street / Alisal Street: LOS E (AM and PM)

See **Appendix J** for the level of service calculations under Cumulative Plus Project Conditions.

Below is a discussion of the deficient operations and recommended improvements at the study intersections under Cumulative Plus Project conditions. Recommended improvements are summarized in **Table 3**.

- **Intersection #5 – N Main Street (SR 183) / Rossi Street:**

This intersection, which is under Caltrans jurisdiction, would operate at LOS C during the AM peak hour and a deficient LOS D during the PM peak hour unchanged from Cumulative Conditions. The project would add 17 trips to this intersection during the AM peak hour and 15 trips to this intersection during the PM peak hour. The trips added by the Project would not increase the average vehicle delay during the PM peak hour vehicle delay by 0.1 seconds.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay during the PM peak hour by at least 0.1 seconds. The Project's impact to this intersection is significant under Existing and Background Conditions.

Mitigation:

- 1) Add a third northbound through lane and third southbound through lane to N. Main Street at this intersection. The improvement would be achieved by converting the existing right turn lanes on northbound and southbound N. Main Street to through/right turn lanes.

- 2) Add a second left turn lane on the westbound Rossi Street approach. TFO Project 30 would widen Rossi Street to a four-lane divided arterial within a right of way of 106 feet.

With the second left turn lane included in the mitigation, the PM peak hour delay would be 41.8 seconds, which would be lower than the Cumulative Condition without project PM peak hour delay of 42.5 seconds. Therefore, the Project's cumulative impact would be mitigated.

Salinas TFO Project: Projects 30 and 31. The City would need to modify Project 30 to include the second left turn lane on the westbound Rossi Street approach to N. Main Street.

Salinas TFO Project: Salinas TFO Project 30 and Project 31.

Project Responsibility: Pay the Salinas traffic impact fees, which would represent the project's fair-share contribution of this improvement.

- **Intersection #7 – Kern Street / US 101 Northbound Ramps – Mobray Way:**

This intersection would operate at an overall LOS F with side-street operations (the eastbound US 101 Northbound Ramps approach) of LOS F during the PM peak hour, unchanged from Cumulative Without Project Conditions. The project would add 2 trips to the eastbound off-ramp approach during the PM peak hour. The project by itself would not significantly impact the intersection, but the project would contribute to the cumulative operating deficiency at the intersection. Traffic diversions associated with the Bernal Avenue Extension and the Constitution Boulevard Extension will contribute to the deficient operations at this intersection under Cumulative Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the eastbound off-ramp approach during the PM peak hour by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM peak hour to LOS B and to LOS C during the PM peak hour.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO. It is recommended that this improvement be added to Salinas TFO Project 33A (Bernal Avenue Extension) and 34 (Constitution Boulevard Extension). Traffic diversions associated with the extensions of Bernal Avenue and Constitution Boulevard will create new turning movement patterns at the Kern Avenue/Northbound US 101 ramps intersection and these new turning patterns will necessitate modification of the existing intersection traffic control. For this reason, the costs for the new intersection traffic control should be included in the TFO.

Project Responsibility: This improvement is not currently included in the City's Capital Improvement Program nor the TFO. To mitigate the Project's cumulative impact, a mechanism would need to be in place that ensures the ultimate full funding and completion of the improvement. This could be accomplished by adding the improvement to the City TFO or Capital Improvement Program. The Project's cumulative impact would be mitigated by the following:

Alternative 1: Add the improvement to the TFO and pay the TFO fee.

Alternative 2: Include the improvement in the Capital Improvement Program and pay a pro-rata contribution toward implementation of the project that would be combined with future development impact fees to fully fund implementation of the improvement. The pro-rata contribution would be based upon the project's share of cumulative traffic growth, where cumulative traffic growth equals Cumulative With Project volumes minus Existing volumes. The equitable share contribution calculation is based on the average of AM and PM peak hour volumes. The project's equitable share of cumulative traffic growth is 1 percent (1%).

- **Intersection #10 – Sun Street / E Market Street:**

Side-street operations at this intersection (the southbound Sun Street approach) would operate at a deficient LOS F during the PM peak hour, unchanged from Cumulative Conditions. The project would add 31 trips to this approach during the PM peak hour. The Project's impact to this intersection is significant under Existing and Background Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will add peak hour trips to the intersection whose southbound approach operates at LOS F without the Project.

Mitigation: Signalize the intersection. The intersection would operate at LOS A during the AM and PM peak hours with signalization.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: The Project's impact to this intersection was identified as significant under Existing and Background Conditions. The mitigation required for Cumulative Conditions (signalization) is the same as the mitigation recommended for Existing and Background Conditions. Therefore, the Project's responsibility to mitigate cumulative impacts is the same as the responsibility identified for the Existing and Background Conditions, which is as follows: To ensure that the intersection of Sun Street and East Market Street will operate at acceptable levels of service, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits for installation of a traffic signal that will be operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #12 – US 101 Southbound Offramp – Merced Street / E Market Street:**

This intersection would operate at a deficient LOS E during the AM peak hour and LOS F during the PM peak hour, while side-street operations (the southbound US 101 Southbound Offramp approach) would operate at a deficient LOS F during the AM and PM peak hours, unchanged from Cumulative Conditions. The project would add 30 AM peak hour and 27 PM peak hour trips to this intersection. The Project's impact to this intersection is significant under Existing and Background Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will increase the average vehicle delay on the southbound off-ramp approach during the AM and PM peak hours by at least 0.1 seconds.

Mitigation: Signalize the intersection. Intersection operations would improve during the AM and PM peak hours to LOS B.

Salinas TFO Project: This improvement is not included in the City of Salinas TFO.

Project Responsibility: The Project's impact to this intersection was identified as significant under Existing and Background Conditions. The mitigation required for Cumulative Conditions (signalization) is the same as the mitigation recommended for Existing and Background Conditions. Therefore, the Project's responsibility to mitigate cumulative impacts is the same as the responsibility identified for the Existing and Background Conditions, which is as follows: To ensure that the intersection of U.S. 101 Southbound Offramp – Merced Street/East Market Street will operate at acceptable levels of service, the applicant shall either: (1) Prior to the City's issuance of the first grading permit for a specific development project at project site, pay a traffic impact fee provided the City has updated its

Traffic Fee Ordinance to include a traffic signal at this intersection as one of the improvements that is funded by the TFO, or (2) if the traffic signal at this intersection has not been included in the TFO, the applicant shall be responsible for either: (a) Fund the improvements and obtain the requisite encroachment or other permits for installation of a traffic signal and ensure that the signal is in operation prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site, or (b) Concurrent with the issuance of the first grading permit for a specific development project at project site, deposit funds with the City in order for the City to obtain the requisite permits and install the traffic signal ensuring that the signal is operational prior to the issuance of the first Certificate of Occupancy for a specific development project at the project site.

- **Intersection #14 – Kern Street / E Market Street:**

This intersection would operate at a deficient LOS F during the PM peak hour, unchanged from Cumulative without Project Conditions. The project would add 17 PM peak hour trips to this intersection. The project by itself would not significantly impact the intersection, but the project would contribute to the cumulative operating deficiency at the intersection. Traffic diversions associated with the Bernal Avenue Extension and the Constitution Boulevard Extension will contribute to the deficient operations at this intersection under Cumulative Conditions.

Impact: The impact of the Project to the intersection is significant because the Project will add trips to the intersection that operates at a deficient level without the project.

Mitigation: Restripe the westbound E. Market Street approach as one exclusive left turn lane, one through lane and one exclusive right turn lane. With this improvement, the intersection would operate at LOS C during the AM peak hour and LOS D during the PM peak hour.

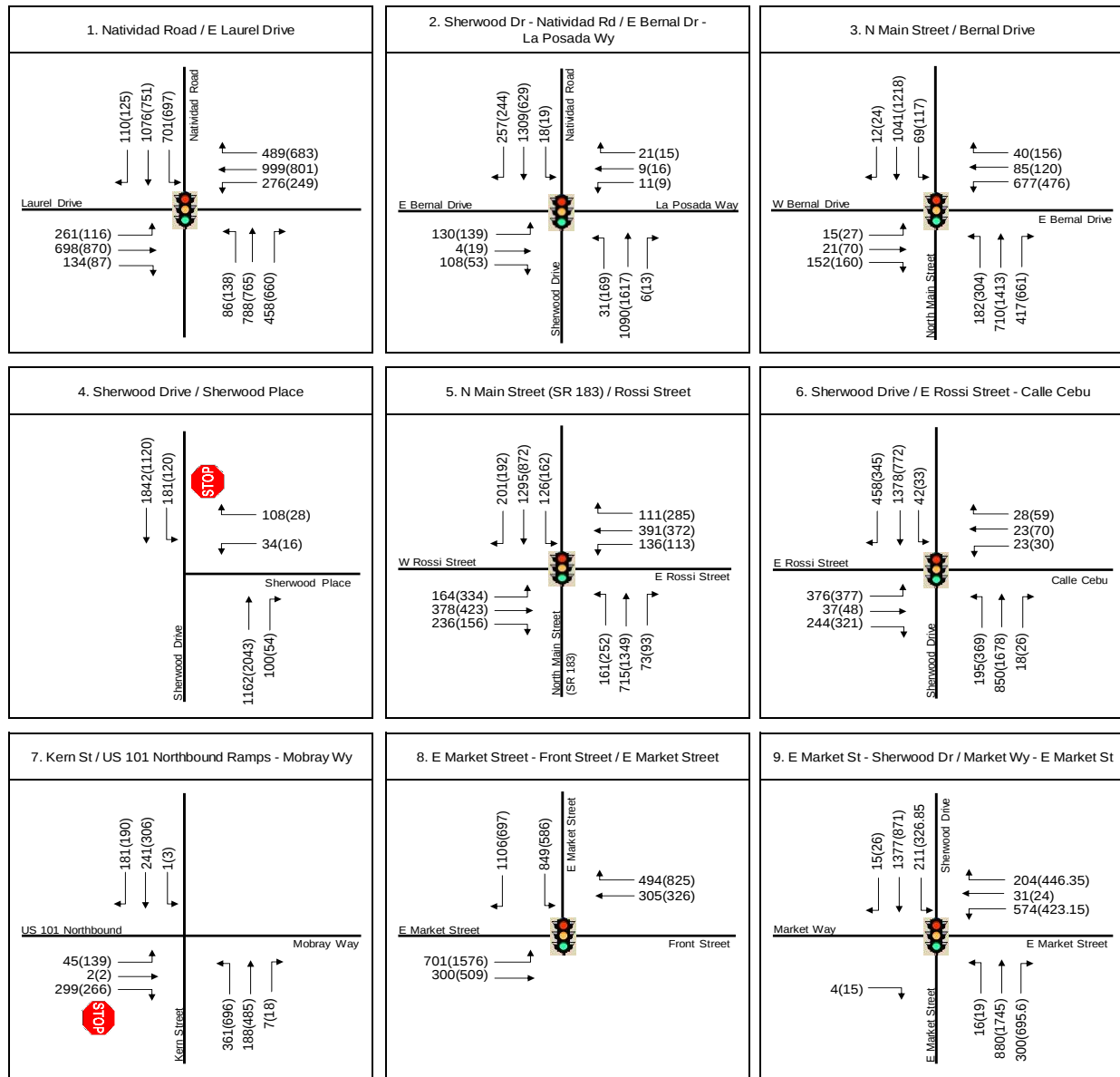
Salinas TFO Project: This improvement is not included in the City of Salinas TFO. It is recommended that this improvement be added to Salinas TFO Project 33A (Bernal Avenue Extension) and 34 (Constitution Boulevard Extension). Traffic diversions associated with the extensions of Bernal Avenue and Constitution Boulevard will create new turning movement patterns at the Kern Avenue/E. Market Street intersection and these new turning patterns, including an increase in the volume of traffic turning right from westbound E. Market Street to northbound Kern Avenue, will necessitate modification of the existing intersection lane configuration. For this reason, the costs for the new intersection configuration should be included in the TFO.

Project Responsibility: This improvement is not currently included in the City's Capital Improvement Program nor the TFO. To mitigate the Project's cumulative impact, a mechanism would need to be in place that ensures the ultimate full funding and completion of the improvement. This could be accomplished by adding the improvement to the City TFO or Capital Improvement Program. The Project's cumulative impact would be mitigated by the following:

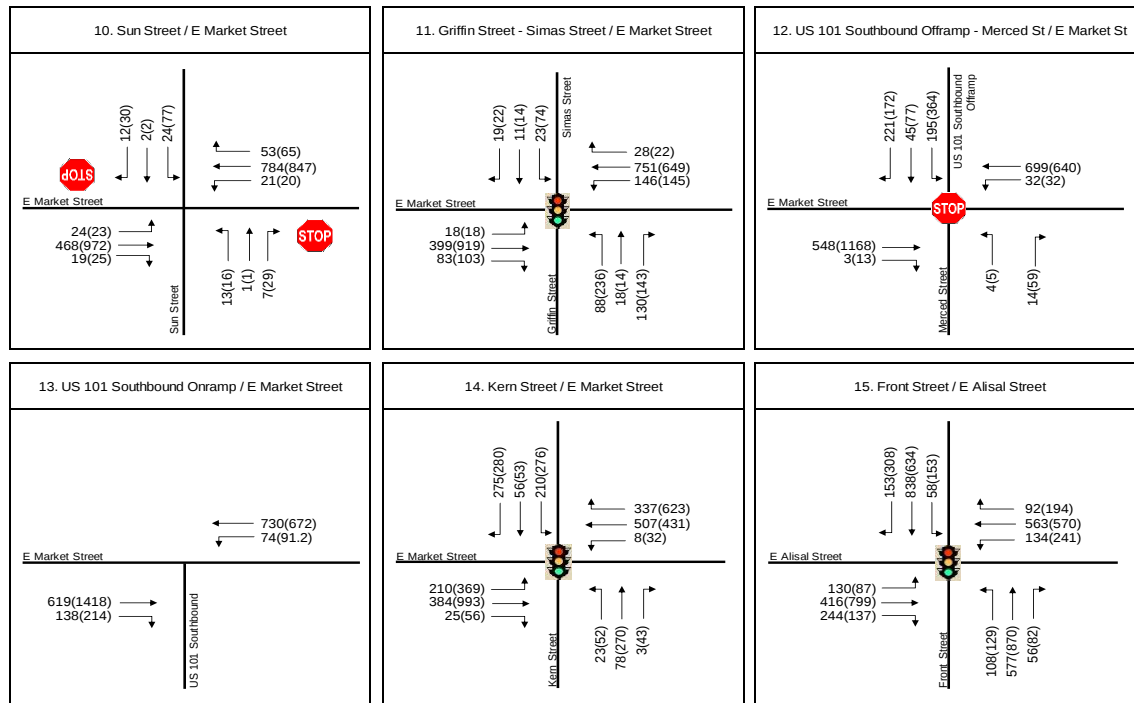
Alternative 1: If the improvement is added to the TFO, pay the TFO fee.

Alternative 2: Include the improvement in the Capital Improvement Program and pay a pro-rata contribution toward implementation of the project that would be combined with future development impact fees to fully fund implementation of the improvement. The pro-rata contribution would be based upon the project's share of cumulative traffic growth, where cumulative traffic growth equals Cumulative With Project volumes minus Existing volumes. The equitable share contribution calculation is based on the average of the AM and PM peak hour volumes. The project's share of cumulative traffic growth is three percent (3%).

Figure 11: Cumulative Plus Project Conditions – AM and PM Peak Hour Volumes



**Figure 11: Cumulative Plus Project Conditions – AM and PM Peak Hour Volumes
(Continued)**



Source: Mott MacDonald

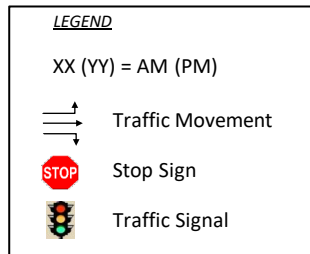


Table 5: Intersection Levels of Service – Cumulative Without Project and Cumulative Plus Project Conditions

			Existing Intersection Control	LOS Stnd.	Peak Hour	Cumulative Without Project Conditions		Cumulative Plus Project Conditions		
						Delay (sec)	LOS	Delay (sec)	LOS	
1	Natividad Road	East Laurel Drive	Signal	D	AM	53.7	D	53.8	D	
					PM	52	D	52.1	D	
2	Sherwood Drive - Natividad Road	East Bernal Drive - La Posada Way	Signal	D	AM	24.7	C	25.2	C	
					PM	42.7	D	44.3	D	
3	North Main Street	Bernal Drive	Signal	D	AM	44.2	D	44.2	D	
					PM	44.8	D	44.8	D	
4	Sherwood Drive	Sherwood Place	One-Way Stop	D (E)	AM	2.4 (37.6)	A (E)	2.4 (37.6)	A (E)	
					PM	1.7 (48.1)	A (E)	1.7 (49.1)	A (E)	
5	North Main Street (SR 183)	Rossi Street	Signal	C/D (Caltrans)	AM	34.6	C	34.8	C	
					PM	42.5	D	42.6	D	
			With Improvement		AM			34.7	C	
					PM			41.8	D	
6	Sherwood Drive	East Rossi Street - Calle Cebu	Signal	D	AM	44.2	D	46.0	D	
					PM	45.7	D	48.3	D	
7	Kern Street	US 101 Northbound Ramps - Mobray Way	One-Way Stop	C/D (E) (Caltrans)	AM	8.1 (21.3)	A (C)	8.2 (21.3)	A (C)	
					PM	* (*)	F (F)	* (*)	F (F)	
			With Improvement		AM			12.3	B	
					PM			26.4	C	
8	East Market Street - Front Street	East Market Street	Signal	D	AM	7.0	A	7.1	A	
					PM	11.9	B	11.9	B	
9	East Market Street - Sherwood Drive	Market Way - East Market Street	Signal	D	AM	24.6	C	24.7	C	
					PM	45.0	D	43.5	D	

Table 5: Intersection Levels of Service – Cumulative Without Project and Cumulative Plus Project Conditions (Continued)

		Existing Intersection Control	LOS Std.	Peak Hour	Cumulative Without Project Conditions		Cumulative Plus Project Conditions		
					Delay (sec)	LOS	Delay (sec)	LOS	
10	Sun Street	East Market Street	Two-Way Stop	D (E/E)	AM PM	1.7 (27.9/35.5) 8.4 (48.8/180.2)	A (D/E) A (E/F)	2.1 (29.3/41.8) 18.2 (49.8*)	A (D/E) C (E/F)
		With Improvement		AM PM			3.8 4.9	A A	
11	Griffin Street - Simas Street	East Market Street	Signal	D	AM PM	7.0 13.1	A B	7.0 13.2	A B
12	US 101 Southbound Offramp - Merced Street	East Market Street	Two-Way Stop	C/D (E/E)	AM PM	44.1 (23.2/164.0) 228.0 (*/*)	E (C/F) F (F/F)	48.7 (24.2/184.3) 236.6 (*/*)	E (C/F) F (F/F)
		With Improvement		AM PM			10.1 14.9	B B	
13	US 101 Southbound Onramp	East Market Street	Uncontrolled	D (E)	AM PM	0.5 (0.0) 0.7 (0.0)	A (A) A (A)	0.5 (0.0) 0.7 (0.0)	A (A) A (A)
14	Kern Street	East Market Street	Signal	D	AM PM	25.2 82.0	C F	25.8 81.9	C F
		With Improvement		AM PM			23.3 48.1	C D	
15	Front Street	East Alisal Street	Signal	D	AM PM	52.6 54.9	D D	52.5 54.9	D D

Notes:

1. LOS Std. = Level of Service Standard
2. XX (YY) = Overall (Side Street).
3. Analysis performed using 2000 and 2010 Highway Capacity Manual methodologies.
4. Overall level of service standard for the City of Salinas is LOS D. Overall level of service standard for Caltrans is the transition between LOS C and LOS D (LOS C/D).
5. Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would normally be required.
6. Above delays and levels of service are summarized from calculations in **Appendices E through J**.
7. * = Delay exceeds ability for 2000/2010 HCM to quantify.
8. Items in **bold** represent significant impacts.

Source: Mott MacDonald

9 References

9.1 List of References

1. *2000 Highway Capacity Manual*, Transportation Research Board, 2000.
2. *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
3. *City of Salinas General Plan*, Cotton/Bridges/Associates, September 2002.
4. Transportation Agency for Monterey County Bicycle and Pedestrian Master Plan, Alta Planning + Design, December 2011.
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9. *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers, 2012.
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12. California Manual on Uniform Traffic Control Devices, California Department of Transportation (Caltrans), April 7, 2017.

9.2 List of Contacts

1. Robert Atkinson, SyWest Development, San Rafael, California.
2. Tracy LaTray, SyWest Development, San Rafael, California.
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