URBAN CROSSROADS

41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
www.urbanXroads.com

February 27, 2012

Ms. Yvonne Franco
CITY OF LA QUINTA
P.O. Box 1504
78-495 Calle Tampico
La Quinta, California 92253

Subject: Village Marketplace #912 Traffic Impact Analysis (ECN/CRN 10075 VUP 2010-044) Response to Comments

Dear Mr. Jonasson:

Urban Crossroads, Inc. has prepared responses to City of La Quinta Public Works Department comments on the Village Marketplace #912 Traffic Impact Analysis (dated November 10, 2010). The responses are reflective of revisions made to the current traffic impact analysis, pursuant to discussions with City staff. The most recent staff comments (dated November 10, 2010) and responses are denoted in green text. The City's comment letters, dated August 12, 2010, August 23, 2010 and November 10, 2010 are attached to this letter for your reference in Attachment "A".

PUBLIC WORKS DEPARTMENT

8/12/10 Comment #6

1.0 Executive Summary; Section B: Do not use project buildout year for the cumulative. The scenarios out lined in EB 06-13 should be followed.

10/4/10 Response #6

In conjunction with providing an analysis for project buildout year (2011) conditions, an additional analysis has also been conducted for the City's Horizon Year (2025) for without and with project conditions. It should be noted that the analysis of the City's Horizon Year (2025) has been conducted based on discussions with City staff on September 7, 2010 and is also consistent with EB 06-13. It should be noted that project fair share calculations and determination of significantly impacted locations were performed based on the Horizon Year (2025) analysis.

11/10/10 Comment #6

Please insert the date of the Engineering Bulletin 06-13 that is being referenced in the Executive Summary Section B.

2/23/12 Response #6

Date has been inserted on page 1 (line 2 of the 2nd paragraph) of the revised TIA for the Engineering Bulletin #06-13.

8/12/10 Comment #8

1.0 Executive Summary; Section C: Engineering Bulletin EB 06-13 calls for adding a growth rate. Please see attachment for further explanation.

10/4/10 Response #8

The text has been revised to clarify the methodology behind the development of the traffic volumes.

11/10/10 Comment #8

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

2/23/12 Response #8

Section C (previously titled "Study Area Analysis Scenarios") has been stricken from this revision in response to the City's previous comment related to shortening Section 1.0 *Executive Summary*.

8/12/10 Comment #9

1.0 Executive Summary; Section D: This section needs to be more project specific. Please see additional comments in the attachment.

10/4/10 Response #9

The text has been revised to be consistent with EB 06-13.

11/10/10 Comment #9

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

2/23/12 Response #9

Section D (previously titled "Criteria for Determining Significant Impacts") has been stricken from this revision in response to the City's previous comment related to shortening Section 1.0 *Executive Summary*.

8/12/10 Comment #10

1.0 Executive Summary; Section E: Please reword the first paragraph of section E, as shown in the attachment.

10/4/10 Response #10

The text has been revised.

11/10/10 Comment #10

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

2/23/12 Response #10

Section E previously, is not Section C. See lines 3 and 4 of the first full paragraph on page 4 of the revised TIA under Section C *Summary of Findings*.

8/12/10 Comment #12

1.0 Executive Summary; Section E.2: Needs to state that the impact of the additional trips from the project is less than the number of minutes of delay specific in EB 06-13 for the HCM LOS threshold of impacts criteria and therefore does not create a project specified impact.

10/4/10 Response #12

The text has been revised.

11/10/10 Comment #12

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

2/23/12 Response #12

See lines 3 through 8 of the first full paragraph on page 4 of the revised TIA under Section C.2. *Project Opening Year (2013) Conditions*.

8/12/10 Comment #13

1.0 Executive Summary; Section E: Please see the attachment. Is Exhibit C the site plan comments? If it is, Urban Crossroads should address the fact that the driveway onto Avenida Bermudas needs to be either one-way or widened to 35 feet. I am assuming that the attachment covers all of the other concerns expressed by David Sawyer.

10/4/10 Response #13

The exhibit and on-site circulation recommendations text has been revised to indicate that the driveway is recommended to be widened to 35-feet in order to meet full access criteria.

11/10/10 Comment #13

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report. Also, the Site Plan is still under view by the Planning Department because it does not meet the requirements of the City of La Quinta. The changes needed to the Site Plan will be addressed during the project review process.

2/23/12 Response #13

As shown on Exhibits 1-C (page 7) and 7-A (page 93), the revised site plan included as part of this TIA shows a 35-foot driveway on Avenida Bermudas and assumes full access.

8/12/10 Comment #14

For the cumulative analysis, the scenarios outlined in EB 06-13 should be followed and the growth rates for the cumulative analysis projects need to be consistent with EB 06-13.

10/4/10 Response #14

A cumulative analysis of 2025 has been included in the analysis. As noted in the report, the volumes have been derived by increasing the existing base volumes by a growth rate of 1% per year and include the addition of cumulative project traffic.

11/10/10 Comment #14

Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

2/23/12 Response #14

See Section 4.0 *Projected Traffic* B.3. *Ambient Growth Rate* on page 37 of the revised TIA.

8/12/10 Comment #15

The Eisenhower Drive and Washington Street LOS calculations should assume that there are three left-turn lanes on Eisenhower Drive.

10/4/10 Response #15

As shown on Page C-9 of Appendix “C”, the eastbound leg of Eisenhower Drive consists of two dedicated left turn lanes and a shared left-through-right turn lane. Based on discussions with City staff on September 7, 2010, the southbound direction on Washington Street has been revised to reflect the recently

programmed right-turn overlap phasing. Based on discussions with City staff, it is our understanding that the City is concerned with the LOS results for the intersection of Washington Street at Eisenhower Drive. The intersection currently operates at LOS "E" during the peak hours and is anticipated to continue to operate at LOS "E" under Horizon Year (2025) conditions. Further review suggests that the intersection is anticipated to operate at LOS "D" during both peak hours under existing and Horizon Year (2025) traffic conditions, without the seasonal adjustments to the existing volumes. The traffic impact analysis utilizes the existing count data with a seasonal factor applied, consistent with the requirements in EB 06-13. The HCM analysis worksheets which show the intersection operating at acceptable LOS "D" during both peak hours has been provided in Attachment "B" of this letter.

11/10/10 Comment #15

Revise the text to state "reflect the right-turn lane overlap phase recently programmed in the City's Capital Improvement Program."

2/23/12 Response #15

Text revisions are not necessary as the right-turn overlap is represented as part of the baseline (existing) traffic condition.

8/12/10 Comment #18

The traffic study needs to address the project's fair share cost. The intersection of Calle Sinaloa and Eisenhower Drive meets the warrants for a traffic signal. This project will impact this intersection. The study should identify its fair share cost for the improvements planned for this intersection and any other intersections impacted by the project on a project specific and cumulative basis.

10/4/10 Response #18

A project fair share analysis has been provided in the revised traffic impact analysis. However, the project fair share assessment has only been performed for study area intersections. The intersection of Eisenhower Drive at Calle Sinaloa was not identified as a study area intersection at the time of scoping with City staff.

11/10/10 Comment #18

Even though the intersection of Eisenhower Drive and Calle Sinaloa was not identified in the study area intersection at the time of scoping with City staff, the Traffic Impact Study must identify the level of impacts from the project on the Eisenhower Drive and Calle Sinaloa intersection or include a statement in the traffic study from the Traffic Engineer preparing the study that, based on her professional engineering judgment,

she does not believe that this project would cause a project specific potentially significant impact at this intersection.

2/23/12 Response #18

The intersection of Eisenhower Drive and Calle Sinaloa was included in the analysis as part of this revision to the TIA. As shown on Table 1-1 (page 5) the project is not anticipated to significantly impact this intersection.

11/10/10 New Comment

Provide D responses to the following comments that were in the Transmittal Memo from the Public Works Department to the Planning Department dated August 12, 2010 (These sections may no longer exist but the responses to the comments should have been included):

- Section D needs to be more project specific: See additional comments in the attachment.
- Please reword the first paragraph as Section E, as shown in the attachment.

2/23/12 Response

Both the items listed above were addressed in the response to comments letter from Urban Crossroads, Inc. (dated October 4, 2010). Specifically, responses #9 and #10 were provided in the October 4, 2010 response to comments letter. At the City's request, additional responses have been provided in this letter as well (see 2/23/12 Response #9 and 2/23/12 Response #10 above).

PLANNING DEPARTMENT

11/10/10 Comment #1

Page 3, Section 4, PARKING: Change the word "can" in the third sentence to "may".

2/23/12 Response #1

Correction made; see Section C.5. *Parking*, line 4 of page 6; and Section F. Parking, line 4 of page 96 of the revised TIA.

11/10/10 Comment #2

The site plan analysis is unacceptable as it still recommends a one-way access drive exiting the property by way of a two-way (ingress and egress driveway), as shown on page 6.

2/23/12 Response #2

As shown on Exhibits 1-C (page 7) and 7-A (page 93), the revised site plan included as part of this TIA shows a 35-foot driveway (the City's minimum driveway width required for full access) on Avenida Bermudas and assumes full access in the analysis.

If you have any questions or comments, please contact me directly at (949) 660-1994, ext. 204.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
Principal

Charlene S. Hwang, PE
Senior Transportation Engineer

AE:CH
JN: 07290-11 Letter

Attachments

ATTACHMENT "A"
CITY OF LA QUINTA COMMENT LETTER

CITY OF LA QUINTA COMMENT LETTER, DATED NOVEMBER 10, 2010

City of La Quinta

P.O. Box 1504
La Quinta, California 92247-1504
78-495 Calle Tampico
La Quinta, California 92253

(760) 777-7000
FAX (760) 777-7101

November 10, 2010

Ms. Charlene Hwang
Urban Crossroads
41 Corporate Park, Suite 300
Irvine, CA 92606

SUBJECT: VILLAGE USE PERMIT 2010-044 VILLAGE MARKET #912

Dear Ms. Hwang:

We have reviewed the ~~resubmitted Traffic Impact Analysis~~ for the subject project. The following comments are from the Public Works and Planning Department.

Public Works Department

- Response to Comment Number 6: Please insert the date of the Engineering Bulletin 06-13 that is being referenced in the Executive Summary Section B.

- Response to Comment Number 8: Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

- Response to Comment Number 9: Please identify the page numbers where the text revisions were made. City Traffic engineer could not find where this was completely addressed in the new version of the report.

- Response to Comment Number 10: Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

- Response to Comment Number 12: Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report.

- Response to Comment Number 13: Please identify the page numbers where the text revisions were made. City Traffic Engineer could not find where this was completely addressed in the new version of the report. Also, the Site Plan is still under review by the Planning Department because it does not meet the requirements of the City of La Quinta. The changes needed to the Site Plan will be addressed during the project review process.

- Response to Comment Number 14: Please identify the page numbers where the text

revisions were made. City Traffic Engineer could not find where this was addressed in the new version of the report.

- Response to Comment Number 15: Revise the text to state "reflect the right –turn lane and overlap phase recently programmed in the City's Capital Improvement Program."

- Response to Comment Number 18: Even though the intersection of Eisenhower Drive and Calle Sinaloa was not identified in the study area intersection at the time of scoping with City staff, the Traffic Impact Study must identify the level of impacts from the project on the Eisenhower Drive and Calle Sinaloa intersection or include a statement in the traffic study from the Traffic Engineer preparing the study that, based on her professional engineering judgment, she does not believe that this project would cause a project specific potentially significant impact at this intersection.

- Provide D responses to the following comments that were in the Transmittal Memo from the public Works Department to the Planning Department dated August 12, 2010 (These sections may no longer exist buy the responses to the comments should have been included):

    - Section D needs to be more project specific: See additional comments in the attachment.
    - Please reword the first paragraph of Section E, as shown in the attachment.

Planning Department

- Page 3, Section 4, PARKING: Change the word "can" in the third sentence to "may".

- The site plan analysis is unacceptable as it still recommends a one-way access drive exiting the property by way of a two-way (ingress and egress driveway), as shown on page 6.

We recommend that before submitting a revised Traffic Impact Analysis, you schedule a meeting with both the Planning and Public Works Departments to discuss the project as soon as possible. Should you have any questions please do not hesitate to contact me at (760) 777-7131.

Sincerely,

Yvonne Franco
Assistant Planner

Encl.

C: John Walling, Architect
Ed Wimmer, Public Works Department

URBAN CROSSROADS RESPONSE TO COMMENTS, DATED OCTOBER 4, 2010

&

CITY OF LA QUINTA (PLANNING DEPARTMENT) COMMENT LETTER, DATED AUGUST 23, 2010

41 Corporate Park, Suite 300 Irvine, CA 92606 949.660.1994 main 949.660.1911 fax www.urbanxroads.com

October 4, 2010

Ms. Yvonne Franco
CITY OF LA QUINTA
P.O. Box 1504
78-495 Calle Tampico
La Quinta, California 92253

Subject: Village Marketplace #912 Traffic Impact Analysis (ECN/CRN 10075 VUP 2010-044) Response to Comments

Dear Ms. Franco:

Urban Crossroads, Inc. has prepared responses to City of La Quinta Planning Department comments on the Village Marketplace #912 Traffic Impact Analysis (dated July 7, 2010). The responses are reflective of revisions to the traffic impact analysis. The City's comment letter has been attached to this letter for your reference.

Comment #1

Page 3, Section C: Why was the 30% seasonal variation used to factor used to apply traffic counts? Was the approved Traffic Bulletin followed?

Response #1

EB 06-13 was followed in regards to the application of a seasonal factor (see page 4 of EB 06-13). The season factor of 30% was selected at the direction of City staff during the scoping process due to the proximity of the count date to the month of June. Count data was collected on May 25, 2010.

Comment #2

Page 5, Section D: The second sentence in the first paragraph seems incomplete.

Response #2

The sentence has been revised.

Comment #3

Page 5, Section E: Is the referenced current peak season adjusted with or without the 30 percent? How does the 20% or 30% adjustment relate to that section?

Response #3

The text has been revised to reflect that the count data collected has been factored by 30 percent to represent a seasonal adjustment. In addition, the future cumulative volumes were derived by applying a 1% per year growth rate to the 30 percent adjusted existing volumes along with the traffic from cumulative projects.

Comment #4

Page 6, Table 1-1: Are all intersections included on table?

Response #4

No all intersections were not included on the table. However, Table 1-1 has been revised to include all off-site intersections that would be subject to fair share.

Comment #5

Page 7: The section "Project Buildout (2011) conditions", states that there will not be a result in direct project impacts to any of the study area intersections. This counters Table 1-1.

Response #5

Table 1-1 has been revised to reflect project and cumulative impacted locations.

Comment #6

Pages 8 & 9: The "Site Access and On-Site Circulation" section is inadequate and needs to be re-evaluated. For example, Driveway 3 is identified with ingress and egress access, while the drive aisle that leads to the Driveway 3 is limited to one way exit traffic only.

Response #6

The site access and on-site circulation has been re-evaluated and revised to reflect the correct on-site circulation recommendations.

Comment #7

Page 10: Please remove the parking requirement analysis, as the parking demand will be based on existing grandfathered uses and what is being proposed.

For the parking Analysis please include the following:

"Parking will be calculated based on the existing pumps and retail store area as an existing use with 11 existing parking spaces (including pump spaces). Therefore, expanded retail space must provide eight additional spaces per code for retail share footage (1/250) for a total of 19 spaces. Any shortage can be made up by the 'In Lieu Fee'."

Response #7

The text has been revised.

If you have any questions or comments, please contact me directly at (949) 660-1994, ext. 204.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
Principal

Charlene S. Hwang, PE
Senior Transportation Engineer

AE:CH
JN: 07290-06 Letter
Attachments

City of La Quinta

P.O. Box 1504
La Quinta, California 92247-1504
78-495 Calle Tampico
La Quinta, California 92253

(760) 777-7000
FAX (760) 777-7101

August 23, 2010

Ms. Ina Cover
Urban Crossroads
41 Corporate Park, Suite 300
Irvine, CA 92606

SUBJECT: VILLAGE USE PERMIT 2010-044 VILLAGE MARKET #912

Dear Ms. Cover:

We have reviewed the Traffic Impact Analysis for the subject project. Attached is a memo prepared by the Public Works Department on the Traffic Impact Analysis for Village Market #912. Along with the comments included in the Public Works memo, the Planning Department has the following comments.

PAGE 3

Section C
Why was the 30% seasonal variation used to factor used to apply traffic counts?
Was the approved Traffic Bulletin followed?

PAGE 5

Section D
The second sentence in the first paragraph seems incomplete.
Section E
Is the referenced current peak season adjusted with or without the 30 percent?
How does the 20% or 30% adjustment relate to that section?

PAGE 6

Table 1-1
Are all intersections included on table?

PAGE 7

The section "Project Buildout (2011) Conditions", states that there will not be a result in direct project impacts to any of the study area intersections. This

counters Table 1-1.

PAGE 8 & 9

The "Site Access and On-Site Circulation" section is inadequate and needs to be re-evaluated. For example, Driveway 3 is identified with ingress and egress access, while the drive aisle that leads to the Driveway 3 is limited to one way exit traffic only.

Page 10

Please remove the parking requirement analysis, as the parking demand will be based on existing grandfathered uses and what is being proposed.

For the Parking Analysis please include the following:

"Parking will be calculated based on the existing pumps and retail store area as an existing use with 11 existing parking spaces (including pump spaces). Therefore, expanded retail space must provide eight additional spaces per code for retail square footage (1/250) for a total of 19 spaces. Any shortage can be made up by the "In Lieu Fee".

We recommend that before submitting a revised Traffic Impact Analysis, you schedule a meeting with both the Planning and Public Works Departments to discuss the project as soon as possible. Should you have any questions please do not hesitate to contact me at (760) 777-7131.

Sincerely,

Yvonne Franco
Assistant Planner

Encl.

C: John Walling, Architect
Ed Wimmer, Public Works Department
File

URBAN CROSSROADS RESPONSE TO COMMENTS, DATED OCTOBER 4, 2010

&

CITY OF LA QUINTA (PUBLIC WORKS DEPARTMENT) COMMENT LETTER, DATED AUGUST 12, 2010

41 Corporate Park, Suite 300 Irvine, CA 92606 949.660.1994 main 949.660.1911 fax www.urbanxroads.com

October 4, 2010

Mr. Timothy Jonasson, P.E.
CITY OF LA QUINTA
P.O. Box 1504
78-495 Calle Tampico
La Quinta, California 92253

Subject: Village Marketplace #912 Traffic Impact Analysis (ECN/CRN 10075 VUP 2010-044) Response to Comments

Dear Mr. Jonasson:

Urban Crossroads, Inc. has prepared responses to City of La Quinta Public Works Department comments on the Village Marketplace #912 Traffic Impact Analysis (dated July 7, 2010). The responses are reflective of revisions to the traffic impact analysis, pursuant to discussions with City staff. The City's comment letter and redlines are attached to this letter for your reference in Attachment "A".

Comment #1

1.0 Executive Summary; Section A: Explain why the word "Project" is in parentheses.

Response #1

The word "Project" was provided in parentheses to indicate that the Village Marketplace would be referred to as "Project" throughout the remainder of the document. This has been clarified in the text.

Comment #2

1.0 Executive Summary; Section A: The Executive Summary is too lengthy. It should not be more than a couple of pages.

Response #2

The Executive Summary has been shorted to three pages and all tables and exhibits have been moved to the end of Chapter 1.0. Pursuant to discussions with City staff, the revised Executive Summary provides an overview of the analysis contained within the body of the report.

Comment #3

1.0 Executive Summary; Section A: The second paragraph of phase 1 needs to reflect that this is an Urban Crossroads assumption and not City of La Quinta staff's assumption.

Response #3

The text has been revised to reflect that the findings and recommendations contained within the report adhere to current acceptable engineering practices and reflect Urban Crossroads' professional judgment.

Comment #4

1.0 Executive Summary; Section B: Eliminate "to accommodate City of La Quinta input", and reword the sentence.

Response #4

The text has been stricken and the sentence has been revised.

Comment #5

1.0 Executive Summary; Section B: The analysis should be based on what the developer is proposing, which is 4,687 square feet, not 5,000 square feet.

Response #5

Based on a conference call with City staff on September 7, 2010, the sentence has been revised to indicate that change to the site plan reducing the square footage to 4,687 square feet occurred subsequent to the analysis. As such, the analysis has been based on the previous square footage of 5,000 square feet. It is important to note that the slightly higher square footage of 5,000 square feet has resulted in a more conservative analysis.

Comment #6

1.0 Executive Summary; Section B: Do not use project buildout year for the cumulative. The scenarios out lined in EB 06-13 should be followed.

Response #6

In conjunction with providing an analysis for project buildout year (2011) conditions, an addition analysis has also been conducted for the City's Horizon Year (2025) for without and with project conditions. It should be noted that the analysis of the City's Horizon Year (2025) has been conducted based on discussions with City staff on September 7, 2010 and is also consistent with EB 06-13. It should be noted

that project fair share calculations and determination of significantly impacted locations were performed based on the Horizon Year (2025) analysis.

Comment #7

1.0 Executive Summary; Section B: For the second paragraph of page 3, replace the word “vehicles” with “trips.”

Response #7

The text has been revised.

Comment #8

1.0 Executive Summary; Section C: Engineering Bulletin EB 06-13 calls for adding a growth rate. Please see attachment for further explanation.

Response #8

The text has been revised to clarify the methodology behind the development of the traffic volumes.

Comment #9

1.0 Executive Summary; Section D: This section needs to be more project specific. Please see additional comments in the attachment.

Response #9

The text has been revised to be consistent with EB 06-13.

Comment #10

1.0 Executive Summary; Section E: Please reword the first paragraph of section E, as shown in the attachment.

Response #10

The text has been revised.

Comment #11

1.0 Executive Summary; Section E: Table 1-1: Please identify the other seven intersections on the table. Only four were included.

Response #11

The other off-site intersections have also been included on Table 1-1. Project driveway locations have not been included as they are considered to be the responsibility of the project and would therefore not be eligible for fair share.

Comment #12

1.0 Executive Summary; Section E.2: Needs to state that the impact of the additional trips from the project is less than the number of minutes of delay specific in EB 06-13 for the HCM LOS threshold of impacts criteria and therefore does not create a project specified impact.

Response #12

The text has been revised.

Comment #13

1.0 Executive Summary; Section E: Please see the attachment. Is Exhibit C the site plan comments? If it is, Urban Crossroads should address the fact that the driveway onto Avenida Bermudas needs to be either one-way or widened to 35 feet. I am assuming that the attachment covers all of the other concerns expressed by David Sawyer.

Response #13

The exhibit and on-site circulation recommendations text has been revised to indicate that the driveway is recommended to be widened to 35-feet in order to meet full access criteria.

Comment #14

For the cumulative analysis, the scenarios outlined in EB 06-13 should be followed and the growth rates for the cumulative analysis projects need to be consistent with EB 06-13.

Response #14

A cumulative analysis of 2025 has been included in the analysis. As noted in the report, the volumes have been derived by increasing the existing base volumes by a growth rate of 1% per year and include the addition of cumulative project traffic.

Comment #15

The Eisenhower Drive and Washington Street LOS calculations should assume that there are three left-turn lanes on Eisenshower Drive.

Response #15

As shown on Page C-9 of Appendix "C", the eastbound leg of Eisenhower Drive consists of two dedicated left turn lanes and a shared left-through-right turn lane. Based on discussions with City staff on September 7, 2010, the southbound direction on Washington Street has been revised to reflect the recently programmed right-turn overlap phasing. Based on discussions with City staff, it is our understanding that the City is concerned with the LOS results for the intersection of Washington Street at Eisenhower Drive. The intersection currently operates at LOS "E" during the peak hours and is anticipated to continue to operate at LOS "E" under Horizon Year (2025) conditions. Further review suggests that the intersection is anticipated to operate at LOS "D" during both peak hours under existing and Horizon Year (2025) traffic conditions, without the seasonal adjustments to the existing volumes. The traffic impact analysis utilizes the existing count data with a seasonal factor applied, consistent with the requirements in EB 06-13. The HCM analysis worksheets which show the intersection operating at acceptable LOS "D" during both peak hours has been provided in Attachment "B" of this letter.

Comment #16

Urban Crossroads needs to show that the analysis is consistent with the Engineering Bulletin EB 06-13 (attached).

Response #16

The HCM assumptions as outlined in EB 06-13 have been followed and can be confirmed in the HCM analysis worksheets for each intersection and on the screenshot provided in Appendix "B" of the traffic impact analysis. If City staff requires the actual analysis software file for review, it can be sent over upon request.

Comment #17

The study needs to verify that all LOS HCM calculations were based on the input parameters identified in EB 06—13. Please print out the parameter summary sheet for the runs so staff can check that these input parameters are correct. No other study has reported LOS "E" or "F" at Washington and Avenue 52 as well as Avenue 52 and Avenida Bermudas.

Response #17

The HCM assumptions as outlined in EB 06-13 have been followed and can be confirmed in the HCM analysis worksheets for each intersection and on the screenshot provided in Appendix "B" of the traffic impact analysis. If City staff requires the actual analysis software file for review, it can be sent over upon request. Similar to the intersection of Washington Street at Eisenhower Drive, further review suggests that the intersections of Avenida Bermudas at Avenue 52 and Washington Street at Avenue 52 are anticipated to operate at acceptable levels of service during both peak hours under existing and Horizon Year (2025) traffic conditions, without the seasonal adjustments to the existing volumes. The only exception is the intersection of Avenue Bermudas at Avenue 52 which is anticipated to operate at LOS "E" during the AM peak hour under both existing and Horizon Year (2025) traffic conditions. The traffic impact analysis utilizes the existing count data with a seasonal factor applied, consistent with the requirements in EB 06-13. The HCM analysis worksheets which show the intersection peak hour operations without adjusted existing volumes have been provided in Attachment "B" of this letter.

Comment #18

The traffic study needs to address the project's fair share cost. The intersection of Calle Sinaloa and Eisenhower Drive meets the warrants for a traffic signal. This project will impact this intersection. The study should identify its fair share cost for the improvements planned for this intersection and any other intersections impacted by the project on a project specific and cumulative basis.

Response #18

A project fair share analysis has been provided in the revised traffic impact analysis. However, the project fair share assessment has only been performed for study area intersections. The intersection of Eisenhower Drive at Calle Sinaloa was not identified as a study area intersection at the time of scoping with City staff.

Comment #19

Urban Crossroads needs to coordinate with the Public Works Department and the Planning Department to address the parking analysis.

Response #19

The Planning Department's comments on the parking analysis has been reflected in the revised traffic impact analysis.

If you have any questions or comments, please contact me directly at (949) 660-1994, ext. 204.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
Principal

Charlene S. Hwang, PE
Senior Transportation Engineer

AE:CH
JN: 07290-06 Letter
Attachments

ATTACHMENT "A"
CITY OF LA QUINTA COMMENT LETTER

City of La Quinta

P.O. Box 1504
La Quinta, California 92247-1504
78-495 Calle Tampico
La Quinta, California 92253

Public Works Department
(760) 777-7075
FAX (760) 777-7155

TRANSMITTAL MEMO

TO: **Project Planner**

SUBJECT: ECN/CRN 10075 VUP 2010-044 - Tower Energy Group Village Market 912 (Corner of Montezuma & Navarro)-Prelim Hydro, Prelim WQMP, Prelim Precise Grading and Traffic Impact Study

DATE: **August 12, 2010**

INSTRUCTIONS TO APPLICANT:

1) Please provide a **written response** to each comment on the following pages or in **green line** on the redlined plans.
2) Please revise originals and reprint Plans and/or Calculations as necessary for corrections.
3) Please return all **red-marked Plans, Back-Up Documents, Specifications, Calculations or Reports** with the resubmittal.
4) Please assure that each sheet of the resubmitted **Plans** and the title, cover or signature sheet of the **Documents, Specifications, Calculations or Reports** include the preparer's name and telephone number and are **wet-signed and stamped** by the licensed preparer as prescribed by California Business and Professions Code Section 5536 (Architects) and Section 6735 (Civil Engineers). Resubmittals will not be accepted with signatures missing.
5) Please return this list, your written responses, and all documents listed above with your resubmittal.

REQUESTED CORRECTIONS

These comments represent a summary of the requested corrections. Please consult the red lines for additional clarity. Also, please return the red lines with the next submittal of this report.

For 1.0 Executive Summary

Section A.

- Explain why the word "Project" is in parentheses.
- The Executive Summary is too lengthy. It should not be more than a couple of pages.
- The second paragraph of page 1 needs to reflect that this is an Urban Crossroads assumption and not City of La Quinta staff's assumption.

Section B.

- Eliminate "to accommodate City of La Quinta input", and reword the sentence.
- The analysis should be based on what the developer is proposing, which is 4,687 square feet, not 5,000 square feet.
- Do not use project build out year for the cumulative. The scenarios outlined in EB 06-13 should be followed
- For the second paragraph of page 3, replace the work "vehicles" with "trips."

Section C.

- Engineering Bulletin EB 06-13 calls for adding a growth rate. Please see attachments for further explanation.

Section D.

- This section needs to be more project specific. Please see additional comments in the attachment.

Section E.

- Please reword first paragraph of Section E, as shown in the attachment.
- Table 1-1: please identify the other seven intersections on the table. Only four were included.
- Section E 2, needs to state that the impact of the additional trips from the project is less than the number of minutes of delay specified in EB 06-13 for the HCM LOS threshold of impacts criteria and therefore does not create a project specific potential impact.
- Exhibit 1-C; Please see attachment. Is Attachment C the site plan comments? If it is, Urban Crossroads should address the fact that the driveway onto Avenida Bermudas needs to be either one-way or widened to 35 feet. I am assuming that the attachment covers all of the other concerns expressed by David Sawyer.

In addition to the items mentioned above and the comments attached, the analysis needs to include the following:

- For the cumulative analysis, the scenarios outlined in EB 06-13 should be followed and the growth rates for the cumulative analysis projects need to be consistent with EB 06-13.
- The Eisenhower Drive and Washington Street LOS calculations should assume that there are three left-turn lanes on Eisenhower Drive.
- Urban Crossroads needs to show that the analysis is consistent with the Engineering Bulletin EB 06-13 (attached).
- The study needs to verify that all LOS HCM calculations were based on the input parameters identified in EB 06-13. Please print out the parameter summary sheet for the runs so staff can check that these input parameters are correct. No other study has reported LOS E or F at Washington and Avenue 52 as well as Avenue 52 and Avenida Bermudas.

- The traffic study needs to address the project's fair share cost. The intersection of Calle Sinaloa and Eisenhower Drive meets the warrants for a traffic signal. This project will impact this intersection. The study should identify its fair share cost for the improvements planned for this intersection and any other intersections impacted by the project on a project specific and cumulative basis.

- Urban Crossroads needs to coordinate with the Public Works Department and the Planning Department to address the parking analysis

Sincerely,

Timothy R. Jonasson, P.E.
Public Works Director/City Engineer

Ed

URBAN CROSSROADS

41 Corporate Park, Suite 300
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Prepared by:

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Where is project FAR SHORE for SIMMONS?

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VILLAGE MARKET #912
TRAFFIC IMPACT ANALYSIS
LA QUINTA, CALIFORNIA

July 7, 2010

JN:07290-03
AE:CH:IC:rd

TABLE OF CONTENTS

Section		Page
1.0	**EXECUTIVE SUMMARY**	1
	A. Introduction	
	B. Description of Proposed Project	
	C. Study Area and Analysis Scenarios	
	D. Criteria for Determining Significant Impacts	
	E. Summary of Findings	
	1. Existing Conditions	
	2. Project Buildout (2011) Conditions	
	3. Site Access and On-Site Circulation	
	4. Parking	
2.0	**PROPOSED DEVELOPMENT**	13
	A. Location	
	B. Land Use and Intensity	
	C. Site Plan and Project Access	
	D. Project Timing	
3.0	**AREA CONDITIONS**	15
	A. Study Area	
	1. Area of Significant Traffic Impact	
	B. Study Area Land Use	
	1. Existing Land Uses	
	2. Approved Future Development	
	C. Area Roadway System	
	D. Traffic Volumes and Conditions	
	E. Level of Service Definitions and Analysis Methodologies	
	F. City of La Quinta Required Intersection Level of Service	
	G. Existing Intersection Level of Service	
	H City of La Quinta Required Roadway Segment Level of Service	
	I. Existing Roadway Segment Level of Service	
	J. Transit Service	
4.0	**PROJECTED TRAFFIC**	33
	A. Site Traffic	
	1. Trip Generation	
	2. Trip Distribution	
	3. Modal Split	
	4. Trip Assignment	
	B. Cumulative Development Traffic	
	1. Method of Projection	
	2. Non-Site Traffic for Study Area	
	3. Ambient Growth Rate	
	C. Total Future Traffic	

5.0 TRAFFIC IMPACT ASSESSMENT METHODOLOGY 49
A. Scenarios
B. Potential Significant Impact Criteria
1. Potential Significant Impacts to Intersections (Near Term)

6.0 NEAR TERM CONDITIONS TRAFFIC ANALYSIS 53
A. Level of Service for Existing Plus Project (2011) Conditions
1. Intersection Analysis for Existing Plus Project (2011) Conditions
2. Road Segment Analysis for Existing Plus Project (2011) Conditions
B. Level of Service for Existing Plus Ambient Plus Cumulative (2011) Conditions
1. Intersection Analysis for Existing Plus Ambient Plus Cumulative (2011) Conditions
2. Road Segment Analysis for Existing Plus Ambient Plus Cumulative (2011) Conditions
C. Level of Service for Existing Plus Ambient Plus Cumulative Plus Project (2011)
1. Intersection Analysis for Existing Plus Ambient Plus Cumulative Plus Project (2011) Conditions
2. Road Segment Analysis for Existing Plus Ambient Plus Cumulative Plus Project (2011) Conditions
D. Statistical Standard Deviation Trip Generation Analysis

7.0 SUMMARY AND RECOMMENDATIONS 75
A. Project Access
B. Project Traffic
C. Potential Significant Impact Assessment Results
D. On-Site Circulation Recommendations
E. Parking

LIST OF APPENDICES

Appendix		Page
TRAFFIC COUNT WORKSHEETS	.....	A
ANALYSIS METHODOLOGIES	.....	B
CALCULATION OF INTERSECTION LEVEL OF SERVICE FOR EXISTING CONDITIONS	.....	C
CUMULATIVE PROJECT INFORMATION	.....	D
CALCULATION OF INTERSECTION LEVEL OF SERVICE FOR EXISTING PLUS PROJECT (2011) CONDITIONS	.....	E
CALCULATION OF INTERSECTION LEVEL OF SERVICE FOR EXISTING PLUS AMBIENT PLUS CUMULATIVE (2011) CONDITIONS	.....	F
CALCULATION OF INTERSECTION LEVEL OF SERVICE FOR EXISTING PLUS AMBIENT PLUS CUMULATIVE PLUS PROJECT (2011) CONDITIONS	.....	G
STATISTICAL STANDARD DEVIATION ANALYSIS	.....	H

LIST OF EXHIBITS

Exhibits		Page
1-A	LOCATION MAP	2
1-B	SITE PLAN	4
1-C	CIRCULATION RECOMMENDATIONS	9
3-A	EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS	17
3-B	CITY OF LA QUINTA GENERAL PLAN CIRCULATION ELEMENT	18
3-C	CITY OF LA QUINTA GENERAL PLAN ROADWAY CROSS-SECTIONS	19
3-D	EXISTING AVERAGE DAILY TRAFFIC (ADT)	23
3-E	EXISTING AM PEAK HOUR INTERSECTION VOLUMES (WITH SEASONAL ADJUSTMENT)	24
3-F	EXISTING PM PEAK HOUR INTERSECTION VOLUMES (WITH SEASONAL ADJUSTMENT)	25
4-A	PROJECT TRIP DISTRIBUTION	37
4-B	PROJECT AVERAGE DAILY TRAFFIC (ADT)	38
4-C	PROJECT AM PEAK HOUR INTERSECTION VOLUMES	39
4-D	PROJECT PM PEAK HOUR INTERSECTION VOLUMES	40
4-E	CUMULATIVE DEVELOPMENT AVERAGE DAILY TRAFFIC (ADT)	42
4-F	CUMULATIVE DEVELOPMENT AM PEAK HOUR INTERSECTION VOLUMES	43
4-G	CUMULATIVE DEVELOPMENT PM PEAK HOUR INTERSECTION VOLUMES	44
4-H	EXISTING PLUS PROJECT (2011) AVERAGE DAILY TRAFFIC (ADT)	46
4-I	EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2011) AVERAGE DAILY TRAFFIC (ADT)	47
4-J	EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE PLUS PROJECT (2011) AVERAGE DAILY TRAFFIC (ADT)	48

6-A EXISTING PLUS PROJECT (2011) AM PEAK HOUR INTERSECTION VOLUMES 55

6-B EXISTING PLUS PROJECT (2011) PM PEAK HOUR INTERSECTION VOLUMES 56

6-C EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2011) AM PEAK HOUR INTERSECTION VOLUMES 61

6-D EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2011) PM PEAK HOUR INTERSECTION VOLUMES 62

6-E EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE PLUS PROJECT (2011) AM PEAK HOUR INTERSECTION VOLUMES 67

6-F EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE PLUS PROJECT (2011) PM PEAK HOUR INTERSECTION VOLUMES 68

7-1 CIRCULATION RECOMMENDATIONS 78

LIST OF TABLES

Table		Page
1-1	SUMMARY OF POTENTIAL PROJECT SPECIFIC AND CUMULATIVE SIGNIFICANT IMPACT ASSESSMENT TO INTERSECTIONS FOR NEAR TERM TRAFFIC CONDITIONS	6
3-1	INTERSECTION ANALYSIS FOR EXISTING CONDITIONS	27
3-2	ROADWAY CAPACITY THRESHOLDS FOR THE CITY OF LA QUINTA	29
3-3	ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS FOR EXISTING TRAFFIC CONDITIONS	30
4-1	PROJECT TRIP GENERATION RATES	34
4-2	PROJECT TRIP GENERATION SUMMARY	35
5-1	IMPACT CRITERIA FOR EXISTING INTERSECTIONS ALREADY OPERATING AT LOS E OR LOS F	51
6-1	INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT (2011) CONDITIONS	54
6-2	ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS FOR EXISTING PLUS PROJECT (2011) TRAFFIC CONDITIONS	58
6-3	INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2011) CONDITIONS	60
6-4	ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE (2011) TRAFFIC CONDITIONS	64
6-5	INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE PLUS PROJECT (2011) CONDITIONS	66
6-6	ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS CUMULATIVE PLUS PROJECT (2011) CONDITIONS	70
6-7	TRIP GENERATION RATES FOR 1 STATISTICAL STANDARD DEVIATION (WORST CASE SENSITIVITY ANALYSIS)	72
6-8	TRIP GENERATION SUMMARY FOR 1 STATISTICAL STANDARD DEVIATION (WORST CASE SENSITIVITY ANALYSIS)	73

7-1 SUMMARY OF POTENTIAL PROJECT SPECIFIC AND CUMULATIVE SIGNIFICANT IMPACT ASSESSMENT TO INTERSECTIONS FOR NEAR TERM TRAFFIC CONDITIONS 77

7-2 REQUIRED PARKING SPACES PER JURISDICTION 80

VILLAGE MARKET #912
TRAFFIC IMPACT ANALYSIS
CITY OF LA QUINTA, CALIFORNIA

1.0 EXECUTIVE SUMMARY

A. Introduction

The purpose of this traffic impact analysis is to evaluate the potential traffic impacts from the proposed Village Market #912 ("Project"). The Project is generally located south of Avenida Montezuma and bounded by Avenida Navarro to the west and Avenida Bermudas to the east in the Old Town area of the City of La Quinta. Exhibit 1-A illustrates the location of the Project in relation to the intersections addressed in this study.

what are the ASSUMPTIONS?

Urban Crossroads, Inc. prepared this traffic analysis in accordance with the City of La Quinta's Engineering Bulletin #06-13. Through coordination with City of La Quinta staff, Urban Crossroads, Inc. has discussed key traffic impact study assumptions to ensure that City requirements are addressed in the report. The findings and the recommendations in this report adhere to current acceptable engineering practices and reflect professional engineering judgment.

URBAN CROSSROADS

B. Description of Proposed Project

The existing project site currently consists of a gas station (8 vehicle fueling positions) with a 2,000 square foot convenience market and a 1,000 square foot high-turnover sit-down restaurant. The proposed Project is to consist of a gas station with 8 vehicle fueling positions (consistent with the existing condition) and an expanded convenience market totaling approximately 5,000 square feet. The high-turnover sit-down restaurant will be removed in order to accommodate the expanded convenience market.

It should be noted that subsequent to the traffic study being scoped with the lead jurisdiction, changes to the site plan ~~to accommodate City of La Quinta input has~~ resulted in a slight reduction in proposed building square footage from 5,000 square feet to 4,687 square feet. The traffic analysis contained in this report should therefore be considered worst case as it would tend to overstate as opposed to understate potential project related impacts.

since the proposed project is

5% & less than the 5000 sq. ft project that was analyzed

Exhibit 1-B provides a site plan of the proposed Project. Year 2011 is the anticipated Project buildout year.

At buildout of the proposed Project (2011), the site is anticipated to generate an estimated 1,142 net additional trips per day with an additional 75 vehicles during the AM peak hour and an additional 73 vehicles during the PM peak hour.

C. Study Area and Analysis Scenarios

The study intersections and road segments evaluated were selected with City of La Quinta Staff based on professional engineering judgment regarding the most likely geographic area to be impacted by the additional traffic the project would generate and the configuration of the streets in the area. Eleven intersections on Avenida Montezuma, Avenida Bermudas and Washington Street were analyzed along with 33 roadway segments.

Since traffic volumes in the City of La Quinta correlate to seasonal fluctuations in population, appropriate factors should be applied to the traffic counts depending on when they were collected. This approach ensures that the peak traffic conditions are evaluated. For example, the City requires that traffic counts conducted during the peak seasonal period from January 2 to March 31 require no seasonal adjustments. In contrast, traffic counts conducted during the off season period from July to August should be increased by 40% from measured levels. The traffic counts conducted for this study were collected during the off-peak season in May 2010, which based on City traffic study guidelines requires that a 20% seasonal variation factor be applied to existing traffic counts. However, as the counts were taken towards the end of May 2010, a 30% seasonal variation factor has been applied to existing traffic counts to be conservative.

In addition to existing conditions, other scenarios that were studied include existing plus project traffic to determine direct project related impacts. In order to determine cumulative impacts, the addition of traffic from other related projects in the area and an annual growth rate in traffic volumes were evaluated.

D. Criteria for Determining Significant Impacts

The City of La Quinta criteria indicates that a project is considered to have a *potential project specific significant impact* if an intersection is operating at LOS "E" and the project causes an increase in delay of two seconds or more (note: this criteria is specific to analysis performed using the Highway Capacity Manual or HCM). The criteria further indicates that if the intersection is operating at LOS "F" and the project causes an increase in delay of one second or more (HCM) during the AM and PM Peak Hours at existing plus project or opening year conditions. A *potential cumulative significant impact* is identified if an intersection is operating at LOS "E" and the project causes an increase in delay of two seconds or more (HCM). Furthermore, a potential cumulative significant impact is defined if an intersection is operation at LOS "F" and the project causes an increase in delay of one second or more (HCM) during the AM and PM Peak Hours at existing plus ambient plus cumulative plus project conditions.

For road segments, a project is considered to have a *potential project specific significant impact* if the project would cause the existing LOS to fall below LOS "D", or if a road segment is operating at LOS "E" or LOS "F" and project traffic will increase the peak hour volume to capacity (v/c) ratio in the peak direction by 0.02 or more at existing plus project conditions. A *potential cumulative significant impact* on a road segment is identified if a roadway is operating worse than LOS "D" and project traffic will increase the peak hour v/c ratio in the peak direction by 0.02 or more at existing plus ambient plus cumulative plus project conditions.

E. Summary of Findings

The results of the potential project specific and cumulative significant impacts for the study area intersections for near term conditions are summarized in Table 1-1. As shown in Table 1-1, the proposed Project is not anticipated to contribute additional traffic resulting either a ~~direct~~ project ~~or cumulatively considerable traffic impact.~~

1. Existing Conditions

The intersection analysis for existing conditions represents current peak season intersection level of service operations. All study area intersections are currently operating at

acceptable levels of service, LOS "D" or better, with peak season traffic volumes and the existing roadway configurations, with the exception of the following intersections:

Avenida Bermudas (NS) at:

- ~~Calle Sinaloa/52nd~~ Avenue (EW)

Washington Street (NS) at:

- Eisenhower Drive (EW)
- 52nd Avenue (EW)

triple lefts not reflected in analysis

Roadway segments are analyzed by comparing the existing peak season daily traffic volumes to the capacity of the particular roadway. The analysis indicates that all studied roadway segments are currently operating at acceptable levels of service with existing configurations. All of the road segments are operating at LOS "A".

2. Project Buildout (2011) Conditions

With the addition of project traffic to existing traffic volumes, all of the intersections and road segments studied will operate at LOS "D" or better with the exception of three intersections identified under existing conditions. However, the difference in delay at those intersections does not meet the City of La Quinta's significant impact criteria. Therefore, the proposed Project does not result in direct project impacts to any of the study area intersections and road segments.

caused by the addition of the project trips

The analysis of potential cumulative significant impacts in 2011, which considers traffic from other related projects in the area and traffic from growth outside the study area as described above, indicates that the three intersections identified under existing conditions would continue to operate at a level of service worse than LOS "D". However, the difference in delay at those intersections ~~does not meet~~ is less than 5 seconds and the City of La Quinta's significant impact criteria. Therefore, the additional traffic resulting from the proposed Project is does not result in cumulatively considerable impacts at the study area intersections and roadway segments.

therefore does not trigger mitigation

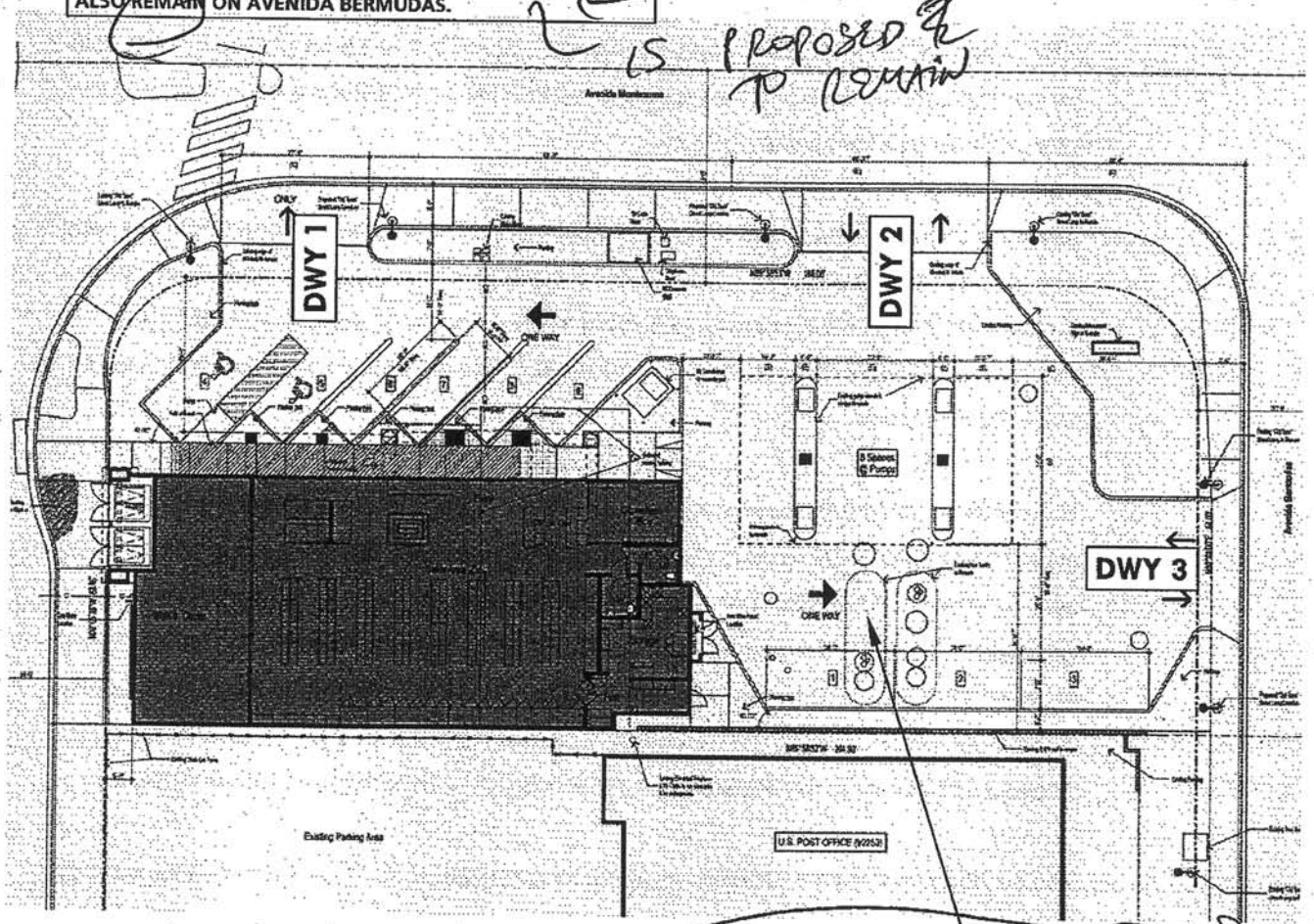
potentially

EXHIBIT 1-C

CIRCULATION RECOMMENDATIONS

DIRECT VEHICULAR ACCESS FROM AVENIDA NAVARRO WILL BE ELIMINATED AND THE ACCESS TO AVENIDA MONTEZUMA WILL BE REDUCED FROM 3 TO 2 DRIVEWAYS, WHICH BASED ON PARKING CONFIGURATION AND DRIVE AISLE WIDTH ADJACENT TO AVENIDA MONTEZUMA THE MOST WESTERLY DRIVEWAY SHOULD BE SIGNED FOR OUTBOUND TRIPS ONLY AND THE EASTERLY DRIVEWAY ON AVENIDA MONTEZUMA WILL REMAIN FULL ACCESS. A FULL ACCESS DRIVEWAY WILL ALSO REMAIN ON AVENIDA BERMUDAS.

AS THE SITE'S PHYSICAL ~~DIMENSIONS REQUIRE~~ THE USE OF ANGLED PARKING STALLS WITH ONE-WAY DRIVE AISLES, APPROPRIATE ONE-WAY SIGNAGE AND STRIPING INDICATING DESIGNATED VEHICLE PATHS SHOULD BE IMPLEMENTED IN CONJUNCTION WITH DETAILED CONSTRUCTION PLANS.



THE PLANNED ANGLED PARKING STALLS LOCATED ALONG THE CONVENIENCE STORE FRONTAGE APPEAR TO CORRECTLY ADHERE TO CITY CODE IN THAT THE HIGH-TURNOVER PARKING STALLS ARE SHOWN TO BE 9'0" WIDE AND 19'0" LONG. THE ONE-WAY DRIVE AISLE WIDTH OF 14'3" SATISFIES CITY CODE FOR ONE-WAY DRIVE AISLE WIDTHS ADJACENT TO ANGLED PARKING BETWEEN 0-44 DEGREES (CITY CODE IS 14'0"). THE ONE-WAY DRIVE AISLE SHOULD BE STRIPED AS SUCH.

THE PLANNED PARALLEL PARKING SPACES PROVIDED ADJACENT TO THE SITE BOUNDARY ALONG THE SOUTHEASTERN PORTION OF THE SITE APPEAR TO ADHERE TO CITY CODE IN THAT THEY ARE 9'0" WIDE AND 24'0" LONG. THE DRIVE AISLE WIDTH ADJACENT TO THE PARALLEL SPACES DOES NOT MEET CURRENT CITY CODE FOR TWO-WAY TRAVEL (i.e., 26 ft.), THEREFORE, THE DRIVE AISLE SHOULD BE STRIPED FOR ONE-WAY TRAVEL. AS A ONE-WAY DRIVE AISLE THERE WOULD APPEAR TO BE SUFFICIENT ROOM FOR VEHICLES TO SAFELY NAVIGATE THE PUMP ISLANDS.

N

each 250 sq. ft., the total number of required parking spaces would be reduced to 19. The City's in lieu parking fee program could be used to address the 2 spaces not provided by the Project.

It should also be noted that additional public parking is located on the north side of Avenida Montezuma, less than 100 feet from the convenience store. The public parking lot is intended to serve the Old Town La Quinta area, and could easily accommodate any overflow parking requirements that might occur during peak periods. Pedestrian access is already accommodated by existing crosswalks located at the site adjacent intersections of Avenida Navarro at Avenida Montezuma and Avenida Bermudas at Avenida Montezuma.

City of La Quinta

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ENGINEERING BULLETIN #06-13

TO: All Interested Parties

FROM: Timothy R. Jonasson, Public Works Director/City Engineer

REVISED EFFECTIVE DATE: April 7, 2010

ORIGINAL EFFECTIVE DATE: December 19, 2006

SUBJECT: Traffic Study Guidelines

This bulletin establishes traffic study specifications. All traffic studies submitted to the City of La Quinta shall be completed by a Traffic Engineer registered in the State of California and shall follow these guidelines unless otherwise directed by the City Engineer.

SCREENING CRITERIA

Traffic studies for the City of La Quinta shall be performed for projects that produce 50 or more peak hour trips as calculated by the screening criteria below.

The screening calculation of the peak hour trips shall utilize the Institute of Transportation Engineers (ITE) p.m. peak hour trip generation rates per the most recent Trip Generation Manual. Selected 8th Edition Trip Generation rates are provided below in **Table 1.0** for convenience and reference only. Additional land use categories and trip generation regression curves are available in the Trip Generation Manual and should be used as applicable.

TABLE 1.0 – Trip Generation Rates Excerpted from ITE Trip Generation 8th Edition

Land Use	Unit	Average Rate P.M. Weekday Peak Hour of the GeneratorTrips/ Unit	Threshold Development Intensity
Light Industry (Code110)	1,000 GFA	1.08	46,296 GFA
Industrial Park (Code 130)	1,000 GFA	0.86	58,140 GFA
Manufacturing (Code140)	1,000 GFA	0.75	66,667 GFA
Single Family Residential (Code 210)	D.U.	1.02	49 D.U.
Apartment (Code 220)	D.U.	0.67	75 D.U
High-rise Apartment (Code 222)	D.U.	0.40	125 D.U.
Residential Condominium (Code 230)	D.U.	0.52	96 D.U.
General Office (Code 710)	1,000 GFA	1.49	33,557 GFA
Corporate Headquarters (Code 714)	1,000 GFA	1.40	35,714 GFA
Office Park (Code 750)	1,000 GFA	1.48	33,333 GFA
Research & Development (Code 760)	1,000 GFA	1.07	46,296 GFA
Drive-In Bank (Code 912)	1,000 GFA	26.69	935 GFA
Gasoline Service w/ Market (Code 945)	Fuel Position	13.57	4 Pumps
Discount Superstore (Code 813)	1,000 GFA	4.68	12,407 GFA
Shopping Center (Saturday Peak Hour) (Code 820)	1,000 GLA	4.89	10,060 GLA
Quality Restaurant (Code 931)	1,000 GFA	9.02	5543 GFA
Fast Food w/ Drive-Thru (Code 934)	1,000 GFA	46.14	1071 GFA

FORMATTING CRITERIA

Traffic Study reports should provide a comprehensive review of any potentially significant project specific impact(s). Included in each report should be a project description, a project schedule and an explanation of the analysis methodology used. Existing, existing plus project, project opening phases and City build-out conditions should be evaluated based on collected and projected volumes. Each of these scenarios should have a Level of Services (LOS) analysis, verification of traffic counts utilized and a list of significant impacts along with recommended mitigation measures. Reports should include fully numbered pages with a table of contents and other standard report formatting measures including Executive Summary and Recommendation sections. Recommendations for mitigation of the potentially significant project specific impacts are required for all potentially

significant impacts for each scenario analyzed in the report. Traffic Study reports in letter format are acceptable with City approval when a limited scope analysis or update study is desired.

SCOPING FORM APPROVAL & DRAFT REPORT APPROVAL

Preparation of traffic studies for the City of La Quinta should begin with the submittal of a completed scoping form (see Attachment 4) by the traffic engineer preparing the study for City approval. Included with the submittal should be a figure graphically depicting the report's proposed study intersections and distribution assumptions. The scope should also identify what specific ITE land use codes, trip generation rates, pass-by reduction factors, time periods (e.g. a.m. peak, p.m. peak, weekend peak) and development scenarios (e.g. existing, existing plus project, project phase, project build-out, City build-out) are proposed to be studied. A draft cumulative projects list, if applicable, should also be included with the scoping submittal. This list of planned or entitled projects that could affect the development under review can be obtained from the Planning Department.

The traffic study should only be initiated after the scoping submittal is approved by the Public Works Department. A draft traffic study report is also requested for City review and approval prior to finalization of report conclusions.

The scope of the Traffic Impact Study shall address all applicable requirements of the California Environmental Quality Act (CEQA) and the Traffic Engineer performing the work should be familiar with these requirements. The scope may be expanded after the initial Scope of Work is approved by the City to address CEQA compliance issues. Questions with regard to CEQA compliance should be addressed to the Planning Department.

GENERAL SPECIFICATIONS

Traffic Studies for the City of La Quinta shall conform to the general specifications contained within the Riverside County Transportation Department guidelines (latest edition) unless otherwise authorized by the City Engineer. These guidelines are located at the following hyperlink:

http://www.rctlma.org/trans/gen_info_pamphlets.html

Specific exceptions to the Riverside County specification document for the City of La Quinta are as outlined in this bulletin.

MINIMUM STUDY RADIUS

At a minimum, the traffic report shall analyze roadways and intersections within the following study radius based on the Average Daily Traffic (ADT) the project is projected to generate:

TABLE 2.0 – Minimum Study Radius

ADT's between 0-100	0.25 mile from the adjacent perimeter of the project

ADT's between 101-5,000	0.50 mile from the adjacent perimeter of the project
ADT's between 5,001-10,000	1.0 mile from the adjacent perimeter of the project
ADT's between 10,001-15,000	1.5 miles from the adjacent perimeter of the project
ADT's over 15,000	Radius to be determined by the City.

If, in the judgment of the City or the Traffic Engineer, project trips may cause potentially significant project specific impacts to road segments or intersections beyond the study radius, those road segments or intersections are also required to be studied. The study scope should also identify intersections and streets from adjacent municipalities to be included in the traffic study, if appropriate.

No adjustments for diverted trips should be assumed when analyzing intersections or road segments along Highway 111, Washington or Jefferson Street. Pass by trips can be utilized, if justified.

LEVEL OF SERVICE

The City of La Quinta has established LOS 'D' as the minimum level of service for its intersections and street segments.

ROAD SEGMENTS

The maximum daily volume to capacity (V/C) ratio of 0.90 shall be used for all road segments being studied. The maximum daily capacity of a roadway shall be determined based on its functional classification as follows:

Classification	Lane Configuration	Capacity (ADT)
Local	2U	9,000
Collector	2U	14,000
Modified Secondary	2D	19,000
Secondary	4U	28,000
Primary	4D	38,000
Major	6D	57,000
Augmented Major	8D	76,000

SIGNALIZED INTERSECTIONS

Signalized intersections shall have an overall intersection delay that equates to a LOS 'D' or better based on the delay methodology in the latest version of the Highway Capacity Manual (HCM) or Intersection Capacity Utilization (ICU). Input parameters for the HCM analysis shall comply with Attachment 2 of this document. Alternatively, the Intersection Capacity Utilization Method (ICU) may be used to calculate LOS for signalized intersections.

UNSIGNALIZED INTERSECTIONS

Unsignalized intersections shall have a LOS 'D' or better for all critical movements at an all-way stop controlled intersection and a LOS 'E' for a side street on a two-way stop controlled intersection based on the latest HCM delay methodology.

TRAFFIC COUNTS

TIME OF DAY

Required traffic counts should measure morning peak volumes between the hours of 6:00 to 8:30 a.m. and afternoon peak volumes between the hours of 2:30 to 5:30 p.m. Time frames for Saturday counts, if required, should be agreed upon with the City prior to their collection. The City of La Quinta experiences peak traffic volumes at atypical times of day as a result of heavy construction and maintenance worker trip volumes with early start/end work schedules.

SEASONAL ADJUSTMENT

The City of La Quinta historically experiences significant variations in seasonal population. To compensate for these cyclical fluctuations, adjustments should be made to traffic counts based on the time of year they are taken. Counts taken from January 2 to March 31 require no seasonal adjustments. Use of traffic counts taken in the period between Thanksgiving and New Years Day will generally not be allowable given the wide variation in traffic volumes during this period. Counts taken in the months of April and November shall be increased by 10%. Those taken in May and October shall be increased by 20%. Those taken in June and September shall be increased by 30%, while those taken in July and August shall be increased by 40% over measured levels. With the City approval, historical traffic counts may be utilized for a period no greater than 1 year from the initial submittal of the full traffic study. A request to use historical traffic counts should be included as part of the scoping package submitted to the City.

FUTURE TRAFFIC VOLUMES

CUMULATIVE GROWTH VOLUMES

For estimating future traffic volume growth for time periods between existing and the City's horizon year, a combination of cumulative projects and a percentage growth factor shall be used. A cumulative projects list, compiled by the City's Planning Department, will be used for this purpose. As a minimum, future projects located within a radius that is twice that indicated in Table 2.0 should be included. Additional cumulative projects located outside that radius should be included if projected traffic from that project is anticipated to combine with other traffic to significantly impact a study intersection or road segment. If applicable, neighboring agencies will be contacted by City staff for additional cumulative projects located in their jurisdiction that may effect study locations.

In addition, a percentage growth rate for regional traffic shall be included in these future traffic volumes. This percentage will normally be 1% per year but may be adjusted by the City based on project location and historical data. The methodology described in NCHRP Report 255 may be used to estimate intersection turning movement counts.

TRAFFIC VOLUME BENCHMARKS

Traffic counts and studies should benchmark against current peak season traffic volume levels available from the Coachella Valley Association of Governments at:

http://www.cvag.org/Trans/pdffiles/2007TrafficMap.pdf

Studies should review current traffic census information to ensure that actual or theoretical counts are of the proper magnitude.

TRIP GENERATION RATES

ITE trip generation rates should utilize appropriate land use categories for peak hour assumptions as described in the "Screening Criteria" section of this Engineering Bulletin unless other rates are authorized by the City Engineer. If the ITE Trip Generation Report provides an equation for calculating trip generation that has a good regression curve fit to the data points ($R^2 > 0.7$), the equation should be used in place of the average rate. For high weekend use facilities such as shopping centers and restaurants, the traffic study should utilize the higher trip generation values assigned to these time periods as well as an analysis of weekday trip generation conditions. AM peak hour analysis is not generally applicable for commercial sites. The ITE rate of the peak hour of the generator NOT the peak hour of the adjacent street should generally be utilized.

Reduction factors may be applied to the traffic that is added to the streets adjacent to the project to account for non-diverted pass-by traffic. The reduction factors, outlined in the latest edition of the Institute of Transportation Engineers Trip Generation Informational Report Users Handbook, are to be approved by the City during the scoping process.

In addition to average peak hour rates, increases in average rates to incorporate one (1) statistical standard deviation (1 sigma) for commercial projects such as discount superstores, shopping centers, quality and fast-food restaurants, gasoline service stations and drive-in banks, should be reviewed for worst case sensitivity analysis. The analysis is requested to identify marginal traffic issues with potential additional traffic volumes.

The statistical standard deviation trip generation increase analysis should review all site access intersections and adjacent arterial intersections. While the details of this analysis can be located in the report appendix, a supplemental table and diagram should be provided within the traffic study to document standard deviation maximum trip distributions and the potential traffic impacts occurring at the margins of the trip generation estimates.

The standard deviation trip generation rates are not intended to define standard mitigation measures, but to provide a sensitivity review for possible traffic impacts adjacent to the development, given the inexact nature of traffic study assumptions and results.

TRIP DISTRIBUTION AND ASSIGNMENT

A typical trip distribution for a proposed project is illustrated in Attachment 3. This information should be attached to the proposed scope of work (see Attachment 4) for a traffic impact study, as well as in the final study report. The basis used to determine the percentage distribution should be identified in the scoping form and approved by the City. The percent of trips assigned to the road network can be based on the relative location of population, commercial, recreational and employment centers; existing peak hour link and turning movement volumes; ADT volumes; proximity to regional transportation corridors and/or knowledge of local and regional traffic circulation.

TRAFFIC SIGNAL GUIDANCE

A Traffic Signal Warrant Analysis should be performed at all unsignalized study intersections for each study scenario. Warrant analysis should utilize the most appropriate of eight warrants listed in section 4 of the latest edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD).

The need for traffic signals should also include an analysis for Warrant 6 (Coordinated Signal Systems). This warrant should be applied to locations where adjacent traffic signals do not provide the necessary degree of platooning and where the addition of a new traffic signal will assist in providing progressive signal operation. Normally, this should be considered only at locations which are between 1300 and 2600 feet from existing or future traffic signal installations. At locations which are less than 1300 feet from adjacent traffic signals, new traffic signals will not generally be permitted.

Where applicable, the need for traffic signals should also include an analysis for Warrant 8 (Roadway Network). The signal warrant may be met by an intersection which has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday or has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).

EXCLUSIVE LEFT & RIGHT TURN LANES

As part of the analysis of Study Intersections, available storage capacity of existing and proposed auxiliary lanes (i.e. left and right turn pockets) should be reviewed for capacity. At their 95th percentile traffic volume demand level, left-turn lanes should not exceed their storage capacity.

Traffic study recommendations for dual left turn lanes should be based on a threshold volume of 250 vehicles per peak hour. Traffic study recommendations for an exclusive right turn lane at an intersection should be based on a threshold volume of 200 vehicles per peak hour.

SITE ACCESS

Auxiliary lanes shall be installed on all primary arterial, secondary arterial and higher order street classifications according to the following criteria:

A left-turn deceleration lane with taper and storage length is required for any driveway with a projected peak hour left ingress turning volume estimated to be 25 vehicles per hour (vph) or greater. The taper length shall be included as part of the required deceleration lane length.

A right-turn deceleration lane is required for any driveway with a projected peak hour right ingress turning volume estimated to be 50 vph or greater. The taper length shall be included as part of the required deceleration lane length. Pocket storage length requirements shall be based on individual project characteristics.

A right-turn deceleration lane should be considered for lower turning volumes on high volume streets (e.g. Washington Avenue, Hwy. 111).

A left-turn deceleration lane should be considered for locations where left turning vehicles would be required to queue in a high speed ($\geq$ 40mph) through lane.

Installation recommendations for deceleration lanes and related intersection turning movement distributions shown in the final traffic study report will be subject to approval by the City Engineer.

Auxiliary lanes will also be required to meet the following criteria:

The minimum lane length shall be 100 feet plus taper length for deceleration lanes. The left-turn deceleration lane should include storage for the left turn pocket using the Nomograph provided (see attachment 1).

The design length for deceleration lanes should be determined based on the tables 3.0 and 3.1 (see below). Deceleration lengths are based on the assumption that motorists will decrease their travel speed by 10 mph prior to entering the transition taper and will decelerate at 6.5 ft/sec. The right-turn deceleration lengths also assume that the motorist's final speed will be 10 mph as they turn the corner.

TABLE 3.0 - Design Length for Left-Turn Deceleration Lanes

POSTED SPEED LIMIT	DECELERATION LENGTH	TRANSITION LENGTH	STORAGE LENGTH
40 mph	248 feet	120 feet	TO BE CALCULATED*
45 mph	319 feet	120 feet	TO BE CALCULATED*
50 mph	397 feet	150 feet	TO BE CALCULATED*
55 mph	484 feet	150 feet	TO BE CALCULATED*

*Please see minimum distances identified in Nomograph (Attachment #1)

TABLE 3.1 - Design Length for Right-Turn Deceleration Lanes

POSTED SPEED LIMIT	DECELERATION LENGTH	TRANSITION LENGTH	STORAGE LENGTH*
40 mph	132 feet	120 feet	0
45 mph	186 feet	120 feet	0
50 mph	248 feet	150 feet	0
55 mph	319 feet	150 feet	0

*Assumes free flow for right turn movement

TABLE 3.2 - Design Length for Widening to Dual Left-turn Lanes

POSTED SPEED LIMIT	APPROACH TAPER	BAY TAPER	STORAGE LENGTH*
40 mph	320 feet	200 feet	0
45 mph	540 feet	220 feet	0
50 mph	600 feet	240 feet	0
55 mph	660 feet	265 feet	0

*Please see minimum distances identified in Nomograph (Attachment #1)

1. In general, the right-of-way (with a bike lane) must be widened to 8 to 10 feet in order to accommodate the 12-foot wide auxiliary lane.
2. The bike lane width should be reduced to 4 feet when it is adjacent to a deceleration lane, per the California Manual of Uniform Traffic Control Devices (CA MUTCD),
3. No reductions in the width of the required landscape buffers will be permitted to construct the auxiliary lane.

Other access issues that should be reviewed, as applicable, in the Traffic Impact Study include intersection sight distance, driveway throat distances, gated access issues, corner clearance from adjacent intersections and distances between driveways.

ON SITE CIRCULATION

On site circulation shall be evaluated as part of the traffic impact study analysis. This shall include a review of the final site plan and specifically address the following:

1. Total parking spaces, shared parking and reciprocal parking agreements.
2. Parking space and circulation aisle dimensions.
3. Provision of accessible parking spaces.
4. Provision of compact parking space.
5. Delivery truck access and circulation.
6. Pedestrian and bicycle access, circulation and connection to offsite facilities.
7. Provision of access to adjacent transit facilities.
8. Drive thru facility design.
9. Stacking at the exits to the site
10. Access and circulation into and out of parking structures
11. Design of roads within the site
12. Sight distance at intersections etc.
13. Pedestrian and bicycle circulation and parking for bicycles
14. The configuration and efficiency of valet parking facilities
15. Shuttling of employees from remote facilities.

POTENTIALLY SIGNIFICANT TRAFFIC IMPACT CRITERIA

Potentially significant traffic impacts are divided into two divisions: 1) intersections and 2) road segments. Both divisions must be evaluated for existing plus project, opening year(s) and City General Plan build out (if the City General Plan Build-out scenario is required by the City Engineer).

Traffic volumes used for the opening year (or years if phased opening) shall use the method outlined under "Cumulative Growth Volumes" in the Future Traffic Volumes section of this document. Analysis for the City build-out scenario shall use volumes generated using the methodology found in the Analysis of General Plan Build-out Conditions section.

Subject to the City Council's final determination and findings, a potentially significant project specific traffic impact may become a traffic impact which requires mitigation.

INTERSECTIONS

Existing Plus Project Opening Year(s) – A potentially significant project specific traffic impact is defined to occur at any signalized intersection if the project trips will result in the LOS for that intersection exceeding the criteria established in Table 4.0. If HCM analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this document. Alternatively, the Intersection Capacity Utilization Method (ICU) may be used to calculate LOS for signalized intersections. For this analysis scenario, improvements fully funded by City's Capital Improvement Program (CIP) are assumed to be in place. If ICU analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this Bulletin.

TABLE 4.0: Impact Criteria for Existing Intersections Already Operating at LOS E or LOS F

SIGNIFICANT CHANGES IN LOS	
LOS E	Either an increase in delay of 2 seconds or more (HCM) or 30 peak hour trips or more (ICU) on critical movements per lane*
LOS F	Either an increase in delay of 1 second or more (HCM) or 15 peak hour trips or more (ICU) on critical movements per lane*

*Critical movements are the controlling movements when the sums of the maximum volumes per lane for conflicting movements on each roadway are compared. Typically there are two pairs of critical movements (one left with its opposing through movement) for a four legged intersection.

A potentially significant impact at an unsignalized study intersection is defined to occur when, with project traffic included, an intersection has a projected LOS 'F' on a side street for two-way stop control or LOS 'E' or worse for the intersection at an all-way stop controlled intersection **and** the addition of project traffic results in an addition of 3 seconds or more of delay for any movement. Delay shall be calculated for all unsignalized study intersections to demonstrate this condition.

Cumulative Impacts - A potentially significant project traffic impact is defined to occur at any signalized intersection if the project trips will result in the LOS for that intersection exceeding the criteria established in Table 4.0 for cumulative growth volumes which should be forecast using the methodology identified in the Future Traffic Volumes section of this Bulletin . If HCM analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this document. Alternatively, the Intersection Capacity Utilization Method (ICU) may be used to calculate LOS for signalized intersections. If ICU analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this Bulletin. For this analysis scenario, improvements fully funded by the City's Capital Improvement Program

(CIP), the Development Impact Fee Program (DIF) and the Transportation Uniform Mitigation Fee Program (TUMF) are assumed to be in place.

A potentially significant impact at an unsignalized study intersection is defined to occur when, with the addition of project traffic included, an intersection has a projected LOS 'F' on a side street for two-way stop control or LOS 'E' or worse for the intersection at an all-way stop control at City build-out and the addition of project traffic results in an addition of 3 seconds or more of delay for any movement. Delay shall be calculated for all unsignalized intersections in the study area to demonstrate this.

Additionally, the Traffic Engineer shall report any intersections that change from one LOS to another LOS. This information will be used to ensure that the City's CIP is responsive to the needs of the motoring public.

ROAD SEGMENTS

Existing plus Project/Project Opening Year(s) - A potentially significant project traffic impact is defined to occur on any road segment if the segment is projected to be operating at LOS E or LOS F with project traffic included and the peak hour V/C in the peak direction is increased by 0.02 or more by addition of project traffic at existing plus project or at project opening year(s). The V/C ratio shall be calculated for all studied road segments to demonstrate this. For this analysis scenario, improvements fully funded by the City's Capital Improvement Program (CIP) are assumed to be in place. Additionally, the Traffic Engineer shall report any road segments that change from one LOS to another LOS. This information will be used to ensure that the City's CIP is responsive to the needs of the motoring public.

Cumulative Impacts - A potentially significant project specific traffic impact is defined to occur on any studied road segment if the project would cause the existing LOS to fall to worse than LOS D for cumulative growth volumes which should be forecast using the methodology identified in the Future Traffic Volumes section of this Bulletin. A potentially significant project specific traffic impact is also defined to occur on any studied road segment that is already operating at LOS E or LOS F, if the project traffic will increase the peak hour V/C in the peak direction by more than 0.02 with cumulative traffic volumes. The V/C ratio shall be calculated for all studied road segments to demonstrate this. For this analysis scenario, improvements fully funded by the City's Capital Improvement Program, the DIF and the TUMF are assumed to be in place.

Additionally, the Traffic Engineer shall report any road segments that change from one LOS to another LOS. This information will be used to ensure that the City's CIP Program is responsive to the needs of the motoring public.

ANALYSIS OF GENERAL PLAN BUILDOUT CONDITIONS

A general plan build out analysis may be required if deemed necessary by the City Engineer.

INTERSECTIONS

If a general plan build out analysis is required, a potentially significant project traffic impact is defined to occur at any signalized intersection if the project trips will result in the LOS for that intersection exceeding the criteria established in Table 4.0 by the addition of project traffic to the General Plan build out traffic. The time horizon for General Plan build out conditions will be indentified in the scope of work approved by the City Engineer.

If HCM analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this document. Alternatively, the Intersection Capacity Utilization Method (ICU) may be used to calculate LOS for signalized intersections. If ICU analysis is used, the input parameters for the analysis shall comply with Attachment 2 of this Bulletin. or more by the addition of project traffic to the General Plan build out traffic. The time horizon for General Plan build out conditions will be indentified in the scope of work approved by the City Engineer.

ROAD SEGMENTS

If a general plan build out analysis is required, a potentially significant project specific traffic impact is also determined to occur on any studied road segment that is already operating at LOS E or LOS F, if the project traffic will increase the peak hour V/C in the peak direction by more than 0.02 with cumulative traffic volumes. The V/C ratio shall be calculated for all studied road segments to demonstrate this. For this analysis scenario, improvements identified in the Circulation Element of the General Plan are assumed to be in place.

Projected build-out volumes for City of La Quinta roadway segments should be obtained from the City's approved General Plan Circulation Element. To calculate projected turning movement counts for City build-out, the existing turning movement counts should be multiplied by the ratio of General Plan build-out Average Daily Traffic (ADT) divided by the existing ADT on the intersection legs associated with that turning movement. For this analysis, the methodology in the Future Traffic Volumes section of this Bulletin is not to be used. The time horizon for General Plan build out conditions will be indentified in the scope of work approved by the City Engineer. For this analysis scenario, improvements identified in the Circulation Element of the General Plan are assumed to be in place.

MITIGATION MEASURES

The Traffic Impact Study shall recommend measures to mitigate potentially significant traffic impacts caused by the project individually or cumulatively, under each scenario, to the levels found prior to the addition of project traffic under that scenario. These measures could include, but are not limited to, the addition of lanes, increasing the length of turn pockets, intersection signalization or by changing the project description to reduce project impacts.

For proposed improvements to intersections or road segments located outside the City of La Quinta, if an agency such as another City or the County of Riverside has adopted a program to mitigate impacts from future development that commits that

agency to construct the improvement projects included in the program or to obtain the balance of the funding needed to construct the improvements through some other means, the applicant or financial sponsor for the development in the City of La Quinta shall be required to pay its fair share into the program of that agency.

For non-residential developments, mitigation measures should consider Transportation Demand Management Strategies which are designed to reduce the overall trip generation for the project and the need for road related improvements. Such strategies may include the following:

- Establishing preferential parking for carpool or vanpool vehicles.
- Providing bus pass or Vanpool subsidies.
- Establishing a coordinated program for a Guaranteed Ride Home in cases of emergencies, or in case of unanticipated work time extensions.
- Allowing employees that arrive to work by alternative modes some level of leeway on their arrival times due to the unforeseen transit delays.
- Implement alternate work schedules to reduce employee trips during peak hours.
- Provide shower facilities and lockers for employees that arrive to work by walking, bicycling, or other alternative modes.
- Providing bicycle parking where bicycles can be locked to an appropriate device or lockable bicycle lockers.

PROJECT FAIR SHARE

For projects that create significant impacts to City facilities, a percentage of fair share shall be determined for each location impacted. Fair share for intersections shall be calculated as the ratio of the increase in peak hour turning movement volumes from the project divided by the sum of the existing peak hour turning movements plus peak hour turning movement volumes generated by the cumulative development projects

Fair share for street segments shall be calculated as the ratio of the increase in average daily trips from the project divided by the sum of the existing average daily trips plus average daily trips generated by the cumulative development projects.

Fair share cost of mitigation shall be calculated using the Project Fair Share percentage (P) multiplied by the total cost of mitigation.

ATTACHMENT 1

Nomographs – Left turn storage at signalized and non-signalized intersections

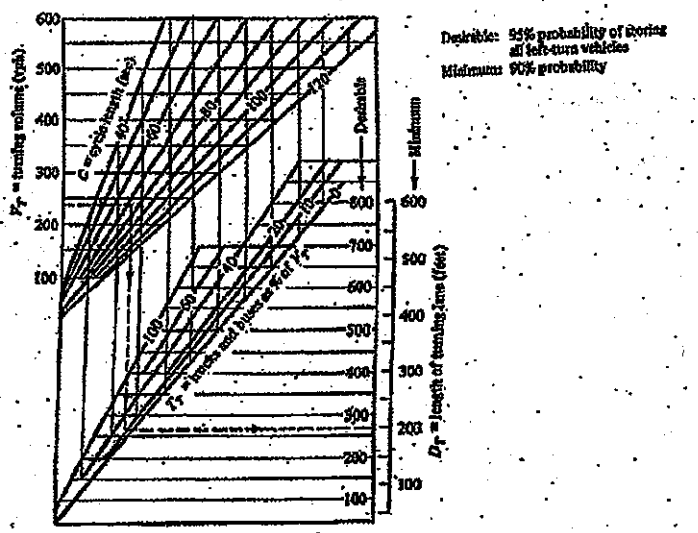


Figure 9-13. Single-lane left-turn storage at signalized intersections. (Source: Northwestern University Traffic Institute)

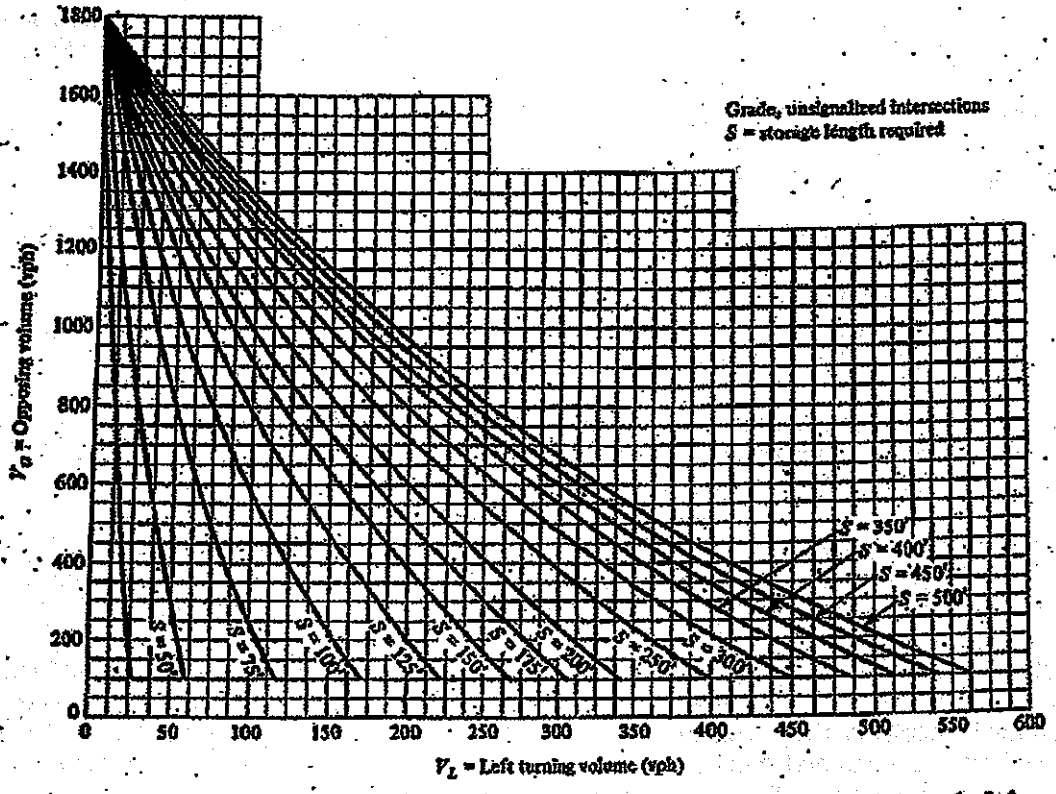


Figure 9-14. Left-turn storage at nonsignalized intersections. (Source: M.D. Harmelink, "Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersection," Highway Research Record 211, 1967)

ATTACHMENT 2
HCM METHOLODGY

SIGNALIZED INTERSECTION ANALYSIS INPUT PARAMETERS

PARAMETER	VALUE
Base Saturation Flow Rate	1850 pc/hr/ln
Heavy Vehicle factor	Determine % heavy vehicle in existing traffic stream based on count data or consultation with County Transportation Dept. Projects with truck intensive uses must convert project trips to passenger car equivalents (PCE=3). Truck intensive uses include heavy industrial, warehousing or as determined by the Transportation Department.
Grade	Include as appropriate
Exclusive left turn lane	Peak hour volume >100
Dual left turn lanes	Peak hour volume > 300
Protected Left Turn Phasing	Left turn volume > 240 vph
Minimum green time	7 seconds each movement in areas of light pedestrian activity. In areas of heavy pedestrian activity, the minimum green shall be calculated based on the methodology in the HCM.
Cycle length	60 sec to 120 sec
Lost time	Per HCM Exhibit 10-17 (below)

Major street	Minor Street	Number of Phases	L(s)
Protected	Protected	4	16
Protected	Permitted	3	12
Permitted	Protected	3	12
Permitted	Permitted	2	8

- All above values are from HCM2000 Chapters 10 and 16. Any deviation from these parameters requires prior approval from La Quinta Public Works Department. Refer to HCM2000 for any default values not specifically identified here.

Intersection analyses should be conducted utilizing acceptable software based on HCM methodology. Closely spaced intersections are to be analyzed using analysis tools capable of accounting for turn lane storage, queue length, blockage, etc. such as Synchro.

Actual signal timing and peak hour factors should be collected in the field and utilized in the existing and near-term analyses. In cases where traffic is added from a significant number of cumulative projects, the consultant shall use their engineering judgment in the application of peak hour factors to maintain consistency with the existing conditions analyses. A peak hour factor of 1.0 shall be applied to build out traffic conditions.

ICU METHOLODGY

Level of Service (LOS) for signalized intersections on the CMP network shall be calculated using the Intersection Capacity Utilization (ICU) method. LOS on freeway and select road segments will be measured using methods described in the Highway Capacity Manual.

The ICU method includes a number of variables which, depending on the value assigned to each, can have a dramatic effect on LOS. For CMP monitoring purposes, the following guidelines are to be used to calculate LOS using the ICU method:

Phasing/split phasing: Shared left/through lanes will be treated as split phased.

Right-turn overlap: The overlapping left-turn volume will be subtracted from the right-turn volume and then compared to the opposing through volume to determine the critical move.

Right-turn on Red: An average of 40% right-turns on red should be used for LOS calculations. If a separate right-turn lane is provided, the through lane should be used as the critical movement even if the right-turn volume is higher. Where a right-turn overlap phase is provided, the overlapping left-turn volume should be subtracted from the right-turn volume and then the remaining right-turn volume would be compared to the through volume per lane to determine the critical movement.

Lane Distribution: It should be assumed that traffic is evenly distributed among all the lanes.

Split Phasing: When an intersection approach has a shared left/through lane, it should be treated as having split phasing for the purpose of calculating LOS.

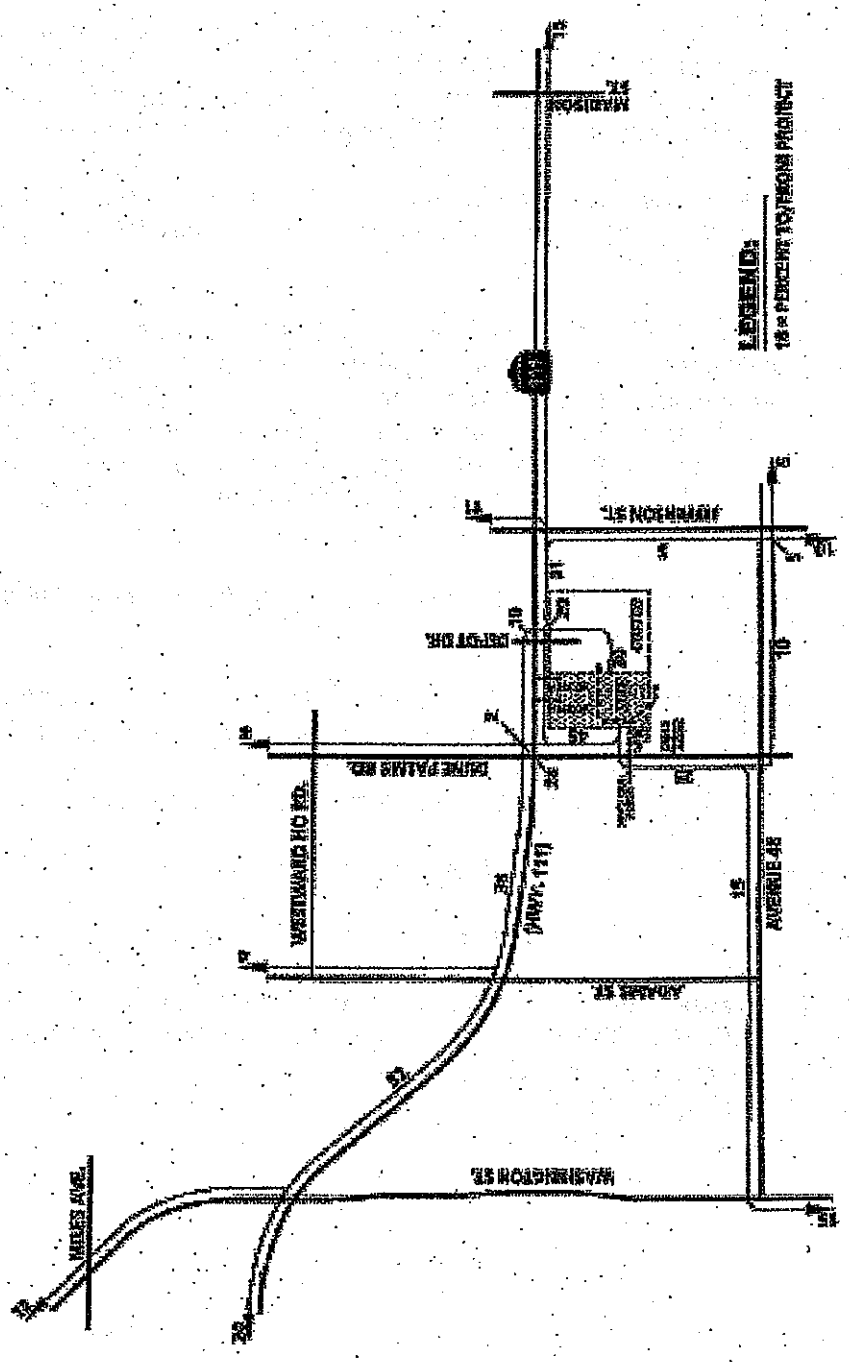
LOS threshold: LOS will be calculated to 2 decimal points.

Intersection proximity: Each intersection will be analyzed separately.

Multiple left-turn lanes: Assume uniform lane distribution.

Base Saturation flow rate: 1,850 vehicles per lane per hour with an adjustment factor of 14%-15% (the adjustment factor represents a combination of start-up delay, unequal lane distribution, and lost time during clearance. Application of this factor effectively reduces the saturation flow rate to approximately 1,600 vehicles per lane per hour).

ATTACHMENT 3



ATTACHMENT 4

CITY OF LA QUINTA DATE _____

TRAFFIC IMPACTS ANALYSIS SCOPE
Work to be done per Engineering Bulletin 06-13

Project Name: _____
Project Location: _____
Project Description: _____

_____

	Developer	Traffic Engineer
Name		
Address		
Contact		
Phone		
Email		

Study Intersection	Study Segments

ITE Land Use Code	ITE Trip Gen. Rate	Unit of Measure	Daily Trips	Pass by %

Time periods to be analyzed:	Year(s) to be analyzed:
☐ AM ☐ PM ☐ Sat ☐ Other _____	_____

Special issues to be addressed:

Attachments:
- ☐ Site Plan
- ☐ Study Intersections/Segments Map
- ☐ Distribution Assumption Map
- ☐ Cumulative Impacts

City Approval _____ Date _____

ATTACHMENT "B"
HCM CALCULATION WORKSHEETS

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Avenida Bermudas / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 16 Average Delay (sec/veh): 41.2
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Avenida Bermudas						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	24	24	24	24	24	24	10	20	20	10	20	20
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0 1	1 0	2	0 1	1 0
Volume Module:												
Base Vol:	4	66	790	29	27	12	17	317	3	146	150	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	66	790	29	27	12	17	317	3	146	150	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	4	69	824	30	28	13	18	331	3	152	156	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	69	824	30	28	13	18	331	3	152	156	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	69	824	30	28	13	18	331	3	152	156	21
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.94	1.00	1.00	1.00	1.00	1.00	1.98	0.02	2.00	1.76	0.24
Final Sat.:	106	1744	1850	1850	1850	1850	1850	3665	35	3700	3265	435
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.45	0.02	0.02	0.01	0.01	0.09	0.09	0.04	0.05	0.05
Crit Moves:			****	****				****		****		
Green/Cycle:	0.42	0.42	0.50	0.20	0.20	0.20	0.08	0.17	0.17	0.08	0.17	0.17
Volume/Cap:	0.09	0.09	0.89	0.08	0.08	0.03	0.11	0.54	0.54	0.49	0.29	0.29
Delay/Veh:	21.3	21.3	37.8	39.1	39.1	38.7	51.2	46.8	46.8	53.8	44.0	44.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.3	21.3	37.8	39.1	39.1	38.7	51.2	46.8	46.8	53.8	44.0	44.0
LOS by Move:	C	C	D	D	D	D	D	D	D	D	D	D
HCM2kAvgQ:	2	2	30	1	1	0	1	6	6	3	3	3

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Washington Street / Eisenhower Drive

Cycle (sec): 115 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 16 Average Delay (sec/veh): 43.6
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Washington Street						Eisenhower Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	10	23	23	10	23	23	32	32	32	32	32	32
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	3 0	1	2 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	110	839	59	53	833	46	152	123	184	166	123	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	110	839	59	53	833	46	152	123	184	166	123	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	121	922	65	58	915	51	167	135	202	182	135	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	922	65	58	915	51	167	135	202	182	135	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	121	922	65	58	915	51	167	135	202	182	135	164
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.15	0.34	0.51	0.57	0.43	1.00
Final Sat.:	1850	5550	1850	1850	5550	1850	3962	636	952	1063	787	1850
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.04	0.03	0.16	0.03	0.04	0.21	0.21	0.17	0.17	0.09
Crit Moves:	****				****			****			****	
Green/Cycle:	0.09	0.21	0.21	0.09	0.22	0.50	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.75	0.79	0.17	0.34	0.76	0.06	0.15	0.76	0.76	0.62	0.62	0.32
Delay/Veh:	69.1	46.4	37.2	50.2	45.2	15.1	31.2	43.1	43.1	38.4	38.4	33.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	46.4	37.2	50.2	45.2	15.1	31.2	43.1	43.1	38.4	38.4	33.2
LOS by Move:	E	D	D	D	D	B	C	D	D	D	D	C
HCM2kAvgQ:	6	12	2	2	12	1	2	14	14	10	10	5

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Washington Street / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.433
Loss Time (sec): 16 Average Delay (sec/veh): 55.9
Optimal Cycle: OPTIMIZED Level Of Service: E

Street Name:	Washington Street						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	26	26	26	26	26	26	10	28	28	10	28	28
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	2 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	2	10	4	170	8	169	729	344	0	22	154	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	10	4	170	8	169	729	344	0	22	154	196
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	2	10	4	177	8	176	761	359	0	23	161	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	10	4	177	8	176	761	359	0	23	161	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	10	4	177	8	176	761	359	0	23	161	205
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.63	0.25	1.91	0.09	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	231	1156	463	3534	166	3700	3700	3700	1850	1850	3700	1850
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.05	0.05	0.05	0.21	0.10	0.00	0.01	0.04	0.11
Crit Moves:	****			****			****					****
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.42	0.20	0.32	0.00	0.11	0.23	0.23
Volume/Cap:	0.04	0.04	0.04	0.23	0.23	0.11	1.03	0.30	0.00	0.11	0.19	0.47
Delay/Veh:	37.2	37.2	37.2	38.9	38.9	21.5	88.5	30.9	0.0	47.9	37.0	40.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.2	37.2	37.2	38.9	38.9	21.5	88.5	30.9	0.0	47.9	37.0	40.5
LOS by Move:	D	D	D	D	D	C	F	C	A	D	D	D
HCM2kAvgQ:	0	0	0	3	3	2	20	5	0	1	2	7

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Avenida Bermudas / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.297
Loss Time (sec): 16 Average Delay (sec/veh): 32.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Avenida Bermudas						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	24	24	24	24	24	24	10	20	20	10	20	20
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0 1	1 0	2	0 1	1 0
Volume Module:												
Base Vol:	0	42	316	21	86	40	19	170	5	465	355	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	42	316	21	86	40	19	170	5	465	355	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	45	336	22	91	43	20	181	5	495	378	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	45	336	22	91	43	20	181	5	495	378	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	45	336	22	91	43	20	181	5	495	378	23
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.94	0.06	2.00	1.88	0.12
Final Sat.:	0	1850	1850	1850	1850	1850	1850	3594	106	3700	3484	216
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.18	0.01	0.05	0.02	0.01	0.05	0.05	0.13	0.11	0.11
Crit Moves:		****			****			****		****		
Green/Cycle:	0.00	0.20	0.50	0.20	0.20	0.20	0.16	0.17	0.17	0.30	0.31	0.31
Volume/Cap:	0.00	0.12	0.36	0.06	0.25	0.12	0.07	0.30	0.30	0.45	0.35	0.35
Delay/Veh:	0.0	39.5	18.6	38.9	40.7	39.4	43.4	44.2	44.2	34.2	32.1	32.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	39.5	18.6	38.9	40.7	39.4	43.4	44.2	44.2	34.2	32.1	32.1
LOS by Move:	A	D	B	D	D	D	D	D	D	C	C	C
HCM2kAvgQ:	0	1	7	1	3	1	1	3	3	7	6	6

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Washington Street / Eisenhower Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.567
Loss Time (sec): 16 Average Delay (sec/veh): 45.5
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Washington Street						Eisenhower Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	10	23	23	10	23	23	32	32	32	32	32	32
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	3 0	1	2 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	202	978	95	19	622	62	98	67	194	85	68	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	202	978	95	19	622	62	98	67	194	85	68	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	214	1038	101	20	660	66	104	71	206	90	72	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	214	1038	101	20	660	66	104	71	206	90	72	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	214	1038	101	20	660	66	104	71	206	90	72	17
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.11	0.23	0.66	0.56	0.44	1.00
Final Sat.:	1850	5550	1850	1850	5550	1850	3906	422	1222	1028	822	1850
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.05	0.01	0.12	0.04	0.03	0.17	0.17	0.09	0.09	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.14	0.23	0.23	0.10	0.19	0.46	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.82	0.81	0.23	0.11	0.62	0.08	0.10	0.63	0.63	0.33	0.33	0.03
Delay/Veh:	68.0	47.3	37.7	49.3	45.6	18.3	33.2	41.0	41.0	35.8	35.8	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.0	47.3	37.7	49.3	45.6	18.3	33.2	41.0	41.0	35.8	35.8	32.6
LOS by Move:	E	D	D	D	D	B	C	D	D	D	D	C
HCM2kAvgQ:	10	14	3	1	8	1	1	11	11	5	5	0

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Existing 2010 Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Washington Street / Avenue 52

Cycle (sec): 110 Critical Vol./Cap.(X): 0.282
Loss Time (sec): 16 Average Delay (sec/veh): 33.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Washington Street						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	26	26	26	26	26	26	10	28	28	10	28	28
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	1 1	0 0	2	2 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	0	13	9	186	15	431	252	221	4	4	299	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	13	9	186	15	431	252	221	4	4	299	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	15	10	208	17	482	282	247	4	4	334	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	15	10	208	17	482	282	247	4	4	334	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	15	10	208	17	482	282	247	4	4	334	151
Saturation Flow Module:												
Sat/Lane:	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.59	0.41	1.85	0.15	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	0	1093	757	3424	276	3700	3700	3700	1850	1850	3700	1850
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.06	0.06	0.13	0.08	0.07	0.00	0.00	0.09	0.08
Crit Moves:		****			****		****				****	
Green/Cycle:	0.00	0.24	0.24	0.24	0.24	0.36	0.13	0.28	0.28	0.10	0.25	0.25
Volume/Cap:	0.00	0.06	0.06	0.26	0.26	0.36	0.60	0.24	0.01	0.02	0.36	0.32
Delay/Veh:	0.0	32.6	32.6	34.3	34.3	25.8	47.5	30.6	28.5	44.7	33.8	33.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	32.6	32.6	34.3	34.3	25.8	47.5	30.6	28.5	44.7	33.8	33.7
LOS by Move:	A	C	C	C	C	C	D	C	C	D	C	C
HCM2kAvgQ:	0	1	1	3	3	6	5	3	0	0	5	4

Note: Queue reported is the number of cars per lane.

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Avenida Bermudas / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.724
Loss Time (sec): 16 Average Delay (sec/veh): 51.8
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Avenida Bermudas						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	24	24	24	24	24	24	10	20	20	10	20	20
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0 1	1 0	2	0 1	1 0
Volume Module:												
Base Vol:	4	66	790	29	27	12	17	317	3	146	150	20
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	5	76	908	33	31	14	20	365	3	168	173	23
Added Vol:	0	17	0	6	10	1	2	0	0	0	1	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	93	908	39	41	15	22	365	3	168	174	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	5	97	947	41	43	15	22	380	4	175	181	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	97	947	41	43	15	22	380	4	175	181	34
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	5	97	947	41	43	15	22	380	4	175	181	34
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	0.95
Lanes:	0.05	0.95	1.00	1.00	1.00	1.00	1.00	1.98	0.02	2.00	1.68	0.32
Final Sat.:	90	1810	1900	1900	1900	1900	1900	3576	34	3686	3033	577
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.50	0.02	0.02	0.01	0.01	0.11	0.11	0.05	0.06	0.06
Crit Moves:			****		****			****		****		
Green/Cycle:	0.42	0.42	0.50	0.20	0.20	0.20	0.08	0.17	0.17	0.08	0.17	0.17
Volume/Cap:	0.13	0.13	1.00	0.11	0.11	0.04	0.14	0.64	0.64	0.57	0.36	0.36
Delay/Veh:	21.6	21.6	58.4	39.4	39.4	38.8	51.4	48.9	48.9	55.5	44.7	44.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	21.6	58.4	39.4	39.4	38.8	51.4	48.9	48.9	55.5	44.7	44.7
LOS by Move:	C	C	E	D	D	D	D	D	D	E	D	D
HCM2kAvgQ:	2	2	42	1	1	0	1	8	8	4	4	4

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Washington Street / Eisenhower Drive

Cycle (sec):	120	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	16	Average Delay (sec/veh):	49.3
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Street Name:	Washington Street						Eisenhower Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	10	23	23	10	23	23	32	32	32	32	32	32
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	3 0	1	2 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	110	839	59	53	833	46	152	123	184	166	123	149
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	126	965	68	61	958	53	175	141	212	191	141	171
Added Vol:	0	11	1	0	8	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	976	69	61	966	53	175	141	212	193	141	171
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	139	1072	76	67	1061	58	192	155	233	212	155	188
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	1072	76	67	1061	58	192	155	233	212	155	188
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	1072	76	67	1061	58	192	155	233	212	155	188
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.15	0.34	0.51	0.58	0.42	1.00
Final Sat.:	1900	5187	1900	1900	5187	1900	3954	651	973	1096	804	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.21	0.04	0.04	0.20	0.03	0.05	0.24	0.24	0.19	0.19	0.10
Crit Moves:		****		****				****			****	
Green/Cycle:	0.09	0.24	0.24	0.08	0.23	0.51	0.28	0.28	0.28	0.27	0.27	0.27
Volume/Cap:	0.78	0.86	0.17	0.42	0.89	0.06	0.18	0.86	0.86	0.73	0.73	0.37
Delay/Veh:	73.1	50.1	36.3	54.1	53.5	15.1	33.0	52.3	52.3	45.2	45.2	36.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.1	50.1	36.3	54.1	53.5	15.1	33.0	52.3	52.3	45.2	45.2	36.3
LOS by Move:	E	D	D	D	D	B	C	D	D	D	D	D
HCM2kAvgQ:	7	17	2	3	17	1	3	19	19	13	13	6

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
AM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Washington Street / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.501
Loss Time (sec): 16 Average Delay (sec/veh): 78.6
Optimal Cycle: OPTIMIZED Level Of Service: E

Street Name:	Washington Street						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	26	26	26	26	26	26	10	28	28	10	28	28
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 1	0 0	2	2 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	2	10	4	170	8	169	729	344	0	22	154	196
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	2	12	5	195	9	194	838	396	0	25	177	225
Added Vol:	1	8	2	0	3	0	0	6	0	1	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	20	7	195	12	194	838	402	0	26	187	225
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	3	20	7	204	13	203	875	419	0	27	195	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	20	7	204	13	203	875	419	0	27	195	235
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	20	7	204	13	203	875	419	0	27	195	235
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	0.88	0.97	0.95	1.00	1.00	0.95	1.00
Lanes:	0.11	0.67	0.22	1.88	0.12	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	213	1260	427	3577	223	3344	3686	3610	1900	1900	3610	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.06	0.24	0.12	0.00	0.01	0.05	0.12
Crit Moves:		****		****			****					****
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.42	0.20	0.32	0.00	0.11	0.23	0.23
Volume/Cap:	0.07	0.07	0.07	0.26	0.26	0.15	1.19	0.36	0.00	0.13	0.23	0.53
Delay/Veh:	37.5	37.5	37.5	39.2	39.2	21.8	145.5	31.7	0.0	48.1	37.4	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.5	37.5	37.5	39.2	39.2	21.8	145.5	31.7	0.0	48.1	37.4	41.5
LOS by Move:	D	D	D	D	D	C	F	C	A	D	D	D
HCM2kAvgQ:	1	1	1	3	3	3	28	6	0	1	3	8

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Avenida Bermudas / Avenue 52

Cycle (sec): 120 Critical Vol./Cap.(X): 0.367
Loss Time (sec): 16 Average Delay (sec/veh): 33.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Avenida Bermudas						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	24	24	24	24	24	24	10	20	20	10	20	20
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1	0 1	0 1	1	0 1	1 0	2	0 1	1 0
Volume Module:												
Base Vol:	0	42	316	21	86	40	19	170	5	485	355	22
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	0	48	363	24	99	46	22	195	6	558	408	25
Added Vol:	0	13	0	16	14	5	5	0	0	0	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	61	363	40	113	51	27	195	6	558	408	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	65	387	43	120	54	29	208	6	593	434	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	65	387	43	120	54	29	208	6	593	434	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	65	387	43	120	54	29	208	6	593	434	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	0.95
Lanes:	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.94	0.06	2.00	1.82	0.18
Final Sat.:	0	1900	1900	1900	1900	1900	1900	3507	103	3686	3286	324
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.20	0.02	0.06	0.03	0.02	0.06	0.06	0.16	0.13	0.13
Crit Moves:		****			****			****		****		
Green/Cycle:	0.00	0.20	0.50	0.20	0.20	0.20	0.16	0.17	0.17	0.30	0.31	0.31
Volume/Cap:	0.00	0.17	0.41	0.11	0.32	0.14	0.10	0.36	0.36	0.54	0.42	0.42
Delay/Veh:	0.0	40.0	19.1	39.4	41.5	39.7	43.6	44.7	44.7	35.6	33.1	33.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	40.0	19.1	39.4	41.5	39.7	43.6	44.7	44.7	35.6	33.1	33.1
LOS by Move:	A	D	B	D	D	D	D	D	D	D	C	C
HCM2kAvgQ:	0	2	9	1	4	2	1	4	4	10	7	7

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Washington Street / Eisenhower Drive

Cycle (sec): 120 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 16 Average Delay (sec/veh): 52.4
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Washington Street						Eisenhower Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Include			Include		
Min. Green:	10	23	23	10	23	23	32	32	32	32	32	32
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	3 0	1	2 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	202	978	95	19	622	62	98	67	194	85	68	16
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	232	1125	109	22	715	71	113	77	223	98	78	18
Added Vol:	0	5	5	0	7	0	0	0	0	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	232	1130	114	22	722	71	113	77	223	103	78	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	247	1199	121	23	767	76	120	82	237	109	83	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	1199	121	23	767	76	120	82	237	109	83	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	247	1199	121	23	767	76	120	82	237	109	83	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.11	0.23	0.66	0.57	0.43	1.00
Final Sat.:	1900	5187	1900	1900	5187	1900	3897	432	1251	1079	821	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.23	0.06	0.01	0.15	0.04	0.03	0.19	0.19	0.10	0.10	0.01
Crit Moves:	****				****			****			****	
Green/Cycle:	0.14	0.25	0.25	0.09	0.19	0.46	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.92	0.94	0.26	0.14	0.77	0.09	0.12	0.71	0.71	0.38	0.38	0.04
Delay/Veh:	84.3	58.4	36.8	50.9	49.8	18.4	33.3	43.6	43.6	36.4	36.4	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.3	58.4	36.8	50.9	49.8	18.4	33.3	43.6	43.6	36.4	36.4	32.6
LOS by Move:	F	E	D	D	D	B	C	D	D	D	D	C
HCM2kAvgQ:	12	20	4	1	12	2	2	13	13	6	6	1

VILLAGE MARKET #912 TRAFFIC IMPACT ANALYSIS (JN 07290)
Horizon Year 2025 With Project Conditions
PM PEAK HOUR

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Washington Street / Avenue 52

Cycle (sec): 110 Critical Vol./Cap.(X): 0.332
Loss Time (sec): 16 Average Delay (sec/veh): 34.5
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Washington Street						Avenue 52					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	26	26	26	26	26	26	10	28	28	10	28	28
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0 1	0	1 1	0 0	2	2 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	0	13	9	186	15	431	252	221	4	4	299	135
Growth Adj:	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Initial Bse:	0	15	10	214	17	496	290	254	5	5	344	155
Added Vol:	0	2	0	0	3	0	0	16	0	1	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	17	10	214	20	496	290	270	5	6	359	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	19	12	239	23	554	324	302	5	6	401	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	19	12	239	23	554	324	302	5	6	401	174
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	19	12	239	23	554	324	302	5	6	401	174
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	0.88	0.97	0.95	1.00	1.00	0.95	1.00
Lanes:	0.00	0.62	0.38	1.83	0.17	2.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	0	1180	720	3471	329	3344	3686	3610	1900	1900	3610	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.02	0.07	0.07	0.17	0.09	0.08	0.00	0.00	0.11	0.09
Crit Moves:		****		****			****				****	
Green/Cycle:	0.00	0.24	0.24	0.24	0.24	0.36	0.13	0.28	0.28	0.10	0.25	0.25
Volume/Cap:	0.00	0.07	0.07	0.29	0.29	0.46	0.69	0.30	0.01	0.03	0.44	0.36
Delay/Veh:	0.0	32.7	32.7	34.6	34.6	27.0	50.3	31.2	28.5	44.7	34.7	34.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	32.7	32.7	34.6	34.6	27.0	50.3	31.2	28.5	44.7	34.7	34.1
LOS by Move:	A	C	C	C	C	C	D	C	C	D	C	C
HCM2kAvgQ:	0	1	1	4	4	8	7	4	0	0	6	5