The Transportation Chapter

Sarasota City Plan

and

Support Document

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The Transportation Plan

INTENT AND PURPOSE

The purpose of the Transportation Chapter is to provide direction for the City's transportation system in a way that sustains the City's natural, aesthetic, social and economic resources. The foundations for this Chapter are **Sarasota's Strategic Plan** and Florida Statutory requirements.

Sarasota's Strategic Goals

In 2004, the City Commission adopted "Sarasota's Approach to Strategic Planning," which provides the foundation for the Strategic Plan and six Strategic Goals that play a role in creating the Transportation Plan. A description of the Plan's general relationship to these strategic goals follows:

"A responsible and accessible government
that has sound financial and administrative practices."

Changes in the availability of transportation funding for capital improvements means that the City must consider new funding mechanisms - including grants and proportionate fair share participation by development. The intent of the Transportation Plan is to provide the optimum transportation infrastructure (as measured by **Sarasota's Strategic Goals**) within a financially feasible framework. The availability of resources may cause more of the City's resources to be directed toward modes of transportation other than the automobile since transit, pedestrian and bicycle improvements are often more financially feasible than automobile capacity improvements.

"Viable, safe and diverse neighborhoods and businesses
that work together."

Protecting neighborhoods is a major objective of the Transportation Plan. Several action strategies, which deal with traffic calming and neighborhood involvement in transportation projects, are directed toward this end. Keeping through traffic out of neighborhoods, however, can result in increased congestion (i.e. lower levels-of-service) on thoroughfares. In the future, the City will strive to create "complete" or "liveable" streets that are carefully designed to serve the diverse needs of pedestrians, cyclists and automobiles.

"An economically sustainable community."

Providing the infrastructure for efficient movement of people and materials is crucial to the economic sustainability of the City. In the future, businesses that locate in the City will benefit if their employees can utilize public transit to get to work. Businesses may be asked to contribute to the City's intermodal transportation system to operate successfully in the City.

"A workplace that attracts and retains an outstanding workforce."

The City of Sarasota, as an employer, seeks to become an example of forward-thinking commuter alternatives for its employees. The City will continue to investigate multimodal options for City employee transportation and parking as well as other benefits related to multimodal transportation use by City staff.

"An attractive, environmentally-friendly community that is safe and livable and provides an array of cultural and aesthetic enjoyments."

The Transportation Plan recognizes that expediting traffic flow must occur within the context of sustaining the City's natural and aesthetic resources. Creative transportation management systems and design techniques are pursued rather than traditional street widenings. The efficient movement of people and goods must be balanced against environmental quality, neighborhood preservation, architectural and pedestrian scale, and fiscal constraints. Without these checks and balances, much of the City of Sarasota would be paved over with asphalt and there would be no sense of place and the unique charm of Sarasota would be lost. While the City of Sarasota is not yet impacted by air pollution and global warming, its policy must recognize these issues on the horizon.

"Well-maintained and future-oriented infrastructure."

Objective 2 of the Transportation Chapter, "Roadway Design and Construction for Safe, Convenient and Efficient Multimodal Transportation System" requires that all transportation infrastructure constructed by public and private entities in the City is appropriately designed to serve all modes of transportation (pedestrian, bicycle, transit and automobile) both now and in the future.

Florida Statutory Requirements

The State of Florida continues to plan for multimodal systems in order to address increasing issues with transportation and growth. Therefore, this Transportation Plan envisions multimodal transportation districts (MMTDs) and systems for the City of Sarasota, especially for the downtown area, that emphasize the importance of public transportation, pedestrian connectivity, bicycle routes and other alternatives to the private automobile. The focus of this Plan is on moving people, not just moving vehicles. The Plan provides specific tools to promote and encourage multiple modes of transit. These include conventional mass transit, "intelligent" (high-technology) transportation systems, transportation demand management plans employer-sponsored vanpools, and other innovative techniques. The Plan also envisions creation of a proportionate fair-share mitigation methodology that would allow developers to achieve concurrency by funding transportation improvements identified in the Capital Improvements Plan.

The *Sarasota City Plan* and Support Document are intended to meet the requirements of Chapter 163, Florida Statutes.

Organization of the Transportation Plan

The Transportation Plan consists of a goal followed by objectives and action strategies pursuant to the goal.

The Transportation Plan is organized around objectives addressing the following topics:

Objective 1	Levels-of-Service for a Safe, Convenient and Efficient Multimodal-Transportation System;
Objective 2	Roadway Design and Construction for Safe, Convenient and Efficient Multimodal Transportation System;
Objective 3	Multimodal Transportation;
Objective 4	A Transportation System Coordinated with Land Use;
Objective 5	Transportation Plans Coordinated with other Jurisdictions;
Objective 6	A Transportation System to Enhance and Preserve City Neighborhoods;
Objective 7	Increased Use, Safety and Convenience of Pedestrian and Bicycle; Networks;
Objective 8	Parking Master Plan;
Objective 9	Transportation Concurrency Exception Area (TCEA);
Objective 10	Downtown Master Plan Study Area;
Objective 11	Newtown Transportation Concurrency Management Area (TCMA); and
Objective 12	Downtown Mobility Study Area.

The Transportation Plan is one of the eleven plans which collectively represent the *Sarasota City Plan*. This Plan can neither stand alone nor be interpreted independent of the others.

Implementation of the *Sarasota City Plan*

Implementation of the *Sarasota City Plan* will require actions by both the public and private sectors. In this regard many of the plan components speak to "the City" pursuing certain actions to:

> promote, provide, consider, identify, enhance, create, maintain, conserve, support, reduce discourage, coordinate, and employ.

While these actions may be initiated by City government itself, City government will also be expecting applicants seeking development approvals to pursue these same types of actions as part of their applications.

GOAL, OBJECTIVES AND ACTION STRATEGIES

Goal

It shall be the goal of the City of Sarasota to develop and maintain a safe, convenient, balanced and efficient multimodal transportation system which:

- Recognizes and promotes alternative transportation modes,
- is coordinated with future land use plans of the City and adjacent jurisdictions,
- promotes mobility of people, not vehicles,
- maintains the economic viability of the City's businesses, and,
- enhances the quality of life for the City's neighborhoods.

Objective 1 - Level-of-Service for a Safe, Convenient and Efficient Multimodal Transportation System

(See also Objective 2)

To continue to provide a safe, convenient, balanced and efficient multimodal transportation system with an acceptable Level of Service (LOS) for all transportation modes that sustains the City's natural, aesthetic, social and economic resources.

Action Strategies

1.1 **Level-of-Service (LOS) Standards (roads):** The level-of-service standards for roads shall be as follows:

LOS D - on all roadways outside of the TCEA where the AADT (annual average daily traffic) of the roadway plus the number of projected trips from vested, previously approved development, plus three (3) years of

background traffic growth, is less than or equal to the LOS D service capacity of the roadway inclusive of any capacity projects fully funded within the adopted 5-year CIP.

LOS E - on all roadways within the TCEA where the AADT of the roadway plus the number of projected trips from vested, previously approved development, plus three (3) years of background traffic growth, is less than or equal to the LOS E service capacity of the roadway inclusive of any capacity projects fully funded within the adopted 5-year CIP.

Alternative LOS - For roadways where existing traffic volumes plus the number of projected trips from vested, previously approved development, plus three (3) years of background traffic growth, exceed the nominal Level of Service standards identified above inclusive of any capacity projects fully funded within the adopted 5-year CIP, then the Level of Service standard for those roadways shall be the volume to capacity ratio of the roadway where:

- Traffic volume is equal to the existing volume plus vested trips from previously approved development plus three (3) years of background traffic growth and;

- Roadway capacity is the existing capacity plus the capacity of projects fully funded within the adopted 5-year CIP.

The term "previously approved development" as used in this Action Strategy shall mean any development that has a valid, unexpired site plan or building permit approval, but which has not been issued a certificate of occupancy.

The term “background traffic growth” as used in this Action Strategy will be calculated using a regression analysis of historical AADT counts for the subject roadway. If an accurate growth rate cannot be established for the subject roadway segment(s) due to lack of or erratic historical count data, then the overall citywide traffic growth rate shall be applied. In the event that the growth rate is less than zero (0), the applied growth rate shall be zero (0).

1.2 **Concurrency on Roads Meeting Adopted LOS Standard:** The City shall ensure that no development approvals are issued that would degrade the level-of-service conditions on roads within a transportation concurrency study area for a proposed development below adopted standards. In the event that a development proposal would reduce the LOS below the adopted LOS standard, then the following shall be required:

- either a contribution to conventional mitigation measures, including a proportionate fair share or proportionate share contribution;

- a Transportation Demand Management (TDM) Plan or Transportation Systems Management (TSM) plan for approval by the City Engineer; or

- a contribution to the City's identified non-automobile improvement projects that would significantly mitigate automobile trips to and from the proposed project.

1.3 **Concurrency on Deficient Roads:** The City shall ensure that roads within a transportation concurrency study area for a proposed development that are currently operating below the adopted LOS standards, as identified in Illustration T-12, shall be maintained at or above the current level-of-service condition at the time of development review except in areas designated as a Transportation Concurrency Management Area (TCMA), Transportation Concurrency Exception Area (TCEA) or a Multi-Modal Transportation District (MMTD).

1.4 **Multimodal Transportation System Impacts and Mitigation for Projects with Significant Adverse Impacts to Adopted LOS Standards:** Development projects that exceed the applicable traffic impact study threshold and degrade the LOS on roadways that they significantly impact shall mitigate their impacts either through:

- construction of an improvement(s) that restores the adopted LOS on those roadways made deficient by the development; or

- construction of an improvement(s) that offsets the development's impact to roadways made deficient by the development (i.e. equal mitigation); or

- financial contribution proportionate to the developer's impacts to one or more projects which in the opinion of the City Engineer substantially benefits the impact transportation network.

1.5 **Maintenance of Transportation System Standards:**
For developments that exceed the applicable trip generation threshold, the City shall require a traffic impact study to be performed. The traffic study shall identify roadway segments that are significantly impacted by the new development and when the traffic generated by the new development will cause one or more significantly impacted segments to fall below the applicable level of service standards as specified in Action Strategy 1.1, then the traffic impact study shall identify and prioritize those improvements necessary to maintain the adopted level of service for those roadway segments.

- The LOS standard for roadway facilities is established in Action Strategy 1.1. For roadways where the AADT of the roadway plus the number of vested trips from previously approved development is less than the LOS standard (inclusive of any capacity projects fully funded within the adopted 5-year CIE), the number of trips projected to be added to the AADT on the road(s) by the proposed development shall not degrade the LOS below the standard.

- The City shall establish procedures specifying the format and general methodology and parameters of Traffic Impact Studies.

- A *Non-de minimis* development where the estimated peak hour trips exceed the applicable threshold is required to perform a traffic impact study to evaluate their compliance with the LOS standards set forth above. If the study indicates that the traffic impacts of the development breach the applicable LOS standards, the City shall require enforceable development agreements which commit the developer to make or contribute financially toward certain improvements to the multimodal transportation system to meet those standards or otherwise address the mobility demands created by the development.

Developments which cannot meet the above standards shall not be approved.

1.6 **LOS Study for Below Standard Thoroughfares:** The City, in cooperation with the Metropolitan Planning Organization's Technical Advisory Committee (TAC), will study and recommend specific roadway improvements, TSM and TDM measures, to alleviate congestion on thoroughfares whose LOS is, or is projected to be, below adopted standard.

1.7 **Use of Transportation Systems Management (TSM) and Transportation Demand Management (TDM) to Remedy LOS Deficiencies:** The City will pursue TSM and TDM measures, as appropriate, to remedy existing and projected Level-of-Service (LOS) deficiencies.

1.8 **Capital Improvements Plan (CIP):** The projects identified in Illustration CI-7 of the Capital Improvements Plan will be implemented to achieve and maintain the adopted levels-of-service standards.

1.9 **Seasonal Demand:** In order to more accurately measure level-of-service deficiencies, the City, utilize FDOT and Sarasota County peak seasonal demand which is developed based on seasonal variations in traffic volumes, transit ridership, and bicycle usage.

1.10 **Intelligent Transportation:** The City shall coordinate its pursuit of "Intelligent Transportation Systems" with the Sarasota-Manatee Metropolitan Planning Organization and Sarasota and Manatee Counties to help manage congestion, including real-time on-line information on congested facilities, incident management, and temporary lane reversals. The City shall support the MPO Regional Advanced Traffic Management Center.

1.11 **Extent of Developer's Obligation to Mitigate Development Traffic Impacts:** If, as a condition of permit approval, a development is required to mitigate multimodal transportation system impacts pursuant to Action Strategy 1.5 and the Traffic Impact Study Requirements provided within the City's Zoning Code, the obligation of the developer, expressed in terms of the combined value of private funds, contributions of land, and construction and contribution of facilities shall be limited as follows:

- Building Permits, Site Plan Approvals, and Subdivision Plats: In the event that a developer seeking a Building Permit, Site Plan Approval, or Subdivision Plat and must make improvements to the multimodal transportation system in order to maintain the adopted LOS standards established under Action Strategy 1.1; the developer shall not be obligated to make improvements or contribute funds, land, or other considerations separately or collectively beyond what is necessary to offset the incremental impact of the traffic generated by the subject development provided that:

  a) such contribution is applied toward a multimodal transportation system improvement that is reasonably related to the mobility demands created by the development and is fully funded within the adopted 5-year CIP or

  b) such contribution is sufficient to fully fund a multimodal transportation system improvement that, in the opinion of the City Engineer, is reasonably related to and significantly addresses the mobility demands created by the development and these are added to the CIP at the next regularly scheduled update.

  c) In the event of condition a), then the developer's contribution shall offset the developer's multi modal transportation impact fee obligation. In the event of condition b), the developer's contribution shall only offset the developer's multi modal transportation impact fee obligation to the extent that the City Commission elects to update the CIP to shift the developer's impact fee obligation from established CIP priorities to the project that is being added.

- Rezonings and Future Land Use Map Amendments: In the event that a developer seeking a Rezoning or Future Land Use Map amendment must make improvements to the multimodal transportation system in order to maintain the adopted LOS standards established under Action Strategy 1.1; the developer shall not be obligated to make improvements or contribute funds, land, or other considerations separately or collectively beyond what is necessary to offset the incremental impact of the traffic generated by the subject development provided that:

  a) such contribution is applied toward one or more multimodal transportation system improvements that offset the development's traffic impacts on the specific roadway segments that are made deficient by the development's traffic and are fully funded within the adopted 5-year CIP or

  b) such contribution is sufficient to fully fund one or more multimodal transportation system improvements that offset the development's traffic impacts on the specific roadway segments that are made deficient by the development's traffic and these are added to the CIP at the next regularly scheduled update or

  c) such contribution is sufficient to fully fund one or more multimodal transportation system improvements that in the opinion of the City Commission are reasonably related to and significantly address the mobility demands created by the development and these are added to the CIP at the next regularly scheduled update.

  d) Because the specific impacts of a development may not be known at the point of a Rezoning or Future Land Use Map amendment, a developer may elect to update their traffic impact study as part of a subsequent development order application; however, the traffic study thresholds and terms governing the extent of the developer's mitigation obligations for Rezoning and Future Land Use Map amendments shall remain intact.

  e) In the event of condition a), then the developer's contribution shall offset the developer's multimodal impact fee obligations as may be assessed pursuant to approval of subsequent development orders. In the event of condition b) or c), the developer's contribution shall only offset the developer's multimodal impact fee obligation to the extent that the City Commission elects to update the CIP to shift the developer's impact fee obligation from established CIP priorities to the project that is being added.

- Mitigation for development impacts to facilities on the Strategic Intermodal System and to State Facilities made pursuant to this subsection require the concurrence of the Florida Department of Transportation.

- The provisions of this subsection do not apply to a development of regional impact satisfying the requirements of Section 163.3180, Florida Statutes.

Objective 2 - Roadway Design and Construction for Safe, Convenient and Efficient Multimodal Transportation System

Action Strategies

2.1 **Design:** The design and construction of all roads shall be consistent with the provisions of the City's Engineering Design Criteria Manual (EDCM).

2.2 **Access**: All development shall comply with the provisions of the Engineering Design Criteria Manual (EDCM) pertaining to intersections and driveways, specifically with regard to road access points and FDOT and Sarasota County access management requirements. On-site traffic flow and parking shall be addressed in the City's Zoning Code.

2.3 **Access to City and County Streets:** The City shall control vehicular access onto City and County streets through the Zoning Code, Engineering Design Criteria Manual, FDOT and Sarasota County access management requirements and the review of site plans in order to reduce existing or potential congestion and safety problems. Access to State highways is controlled by FDOT.

2.4 **Shared Access:** The City shall encourage all new non-residential development to provide shared access, joint access, and cross access between parcels through the site plan review process to encourage access management techniques and help reduce curb cuts on thoroughfare roads.

2.5 **Intersection Standards:** The City will continue to apply the Engineering Design Criteria Manual (EDCM) standards for intersection angles, offsets, visibility, grades, corner radii, intersection right-of-way, and cross-gutter for roadway designs and site plan review.

2.6 **Driveway Standard:** The Engineering Design Criteria Manual (EDCM) standards pertaining to driveways will be used to determine appropriate driveway distances from railroad tracks.

2.7 **Emergency Vehicles:** Emergency vehicle access shall be considered during any modification of the transportation system, including access to parcels and the design and construction of roads and traffic mitigation devices.

2.8 **Protection of Existing Rights-of-Way or Easements:** The City shall not vacate any public rights-of-way or easements unless they are not in use, provide no public benefit, or are not in the best interest of the City to retain for future use.

2.9 **Encroachments in the Public Rights-of-Way:** The City will continue to regulate encroachments in the public rights-of-way. No encroachment shall be allowed unless it is designated as acceptable by the Florida Building Code, as amended, or permitted by a written agreement between the City and the owner of the encroachment. The agreement will identify terms and conditions upon which the encroachment is allowed within the public rights-of-way. City rights-of-way shall be protected from building or encroachments of any kind without proper legal authorization.

2.10 **Setbacks from Future Rights-of-Way:** The City shall encourage the protection of future ROW and setbacks from building encroachment, and foster access management policies which recognize future ROW lines to promote an orderly transition to the Thoroughfare Plan designation and desired rights-of-way (ROW).

2.11 **Rights-of-Way Dedication:** Requests for development approval[1] shall be required to dedicate rights-of-way (ROW) when there is a change in land use and a proposed street cross section illustrating the need for the additional ROW.

2.12 **Rights-of-Way Advance Acquisition:** The City shall develop and adopt an advance rights-of-way acquisition program as reflected in the Capital Improvements Program. The City should explore a land (right-of-way) acquisition department.

2.13 **Project Priorities:** In prioritizing CIP projects, the City shall consider existing level-of-service, environmental and neighborhood impact, congestion management, emergency evacuation, traffic collision data, highway geometry, public safety and other factors.

2.14 **One-way Streets:** The City shall discourage one-way streets, unless determined by the City Engineer to be desirable, as they tend to:

- increase speeds and volumes;
- isolate neighborhoods; and,
- discourage pedestrian and bicycle travel.

[1] Development approval as defined in the City's Zoning Code.

2.15 **Construction Staging:** The City shall carefully monitor the impact of new development or redevelopment upon transportation mobility and coordinate with developers to minimize impacts to automobile, pedestrian, bicycle and transit facilities. When appropriate, the City shall require a construction staging plan to address these impacts.

2.16 **Complete Streets:** All City road improvement projects shall work to create "complete streets." Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities can safely move along and across a complete street.

2.17 **Streetscaping:** City road improvement project shall include streetscaping plans that can add to the City's urban tree canopy.

Objective 3 - Multimodal Transportation

The City shall continue to support and promote multiple modes of transportation, in coordination with other units of local government and the private sector, including handicapped-accessible mass transit, bicycle lanes, and pedestrian pathways to all existing and proposed major trip generators.

Action Strategies

3.1 **Transportation Systems Management:** The City shall use appropriate Transportation Systems Management (TSM) strategies to improve system efficiency and enhance safety. These include, but are not limited to:

- access management;
- congestion management;
- parking policies which discourage driving alone;
- site development;
- designs which foster transit usage and pedestrian accessibility;
- employer-sponsored programs to encourage carpooling, vanpooling, bicycling and transit usage;
- installation of on-road bicycle lanes and bicycle parking and storage facilities;

- intersection re-designs;
- signal inter-connects;
- bicycle lanes and/or wide curb lanes;
- bus pull-in/pull-out areas, where deemed safe and necessary to retain highway level-of-service; and
- pedestrian countdown signals.

3.2 **Transportation Demand Management Mitigation (TDM) Credits:** The City will consider developing, in the City's Zoning Code, a mitigation bonus schedule for transit-oriented development, mixed use development, home-occupation-related development, and other commitments included in requests for development that reduce single-occupant motor vehicle trips.

3.3 **Sarasota County Area Transit:** The City shall, in conjunction with Sarasota County, support Sarasota County Area Transit in continuing to provide bus service at a level that meets Sarasota County's adopted level of service.

3.4 **Sarasota County Area Transit Future Planning:** The City shall work with and support Sarasota County Area Transit in its efforts to seek federal "Small Starts" funding for transit as well as in other future planning and improvements.

3.5 **LOS Standards for Transit:** The level-of-service standard for transit shall be consistent with Sarasota County's adopted level of service for Sarasota County Area Transit system (SCAT) which is to improve transit service, as measured by vehicle revenue hours, from levels in effect in January 2005.

3.6 **Easement Dedication on Transit Corridors:** Requests for development approval on sites located adjacent to streets that are designated "Transit Corridors," identified in Illustration T-16, shall be required, at minimum, to construct a concrete pad and dedicate an easement to Sarasota County Area Transit (SCAT) (or its successor agency) for public transit use. The dedicated easement area shall be of sufficient size to allow for ADA access to transit and for future shelter placement. Developments on sites less than ½ acre in size may request exemption from this policy. In addition, when an existing bus shelter or pad is located within ¼ mile (on the same side of the arterial roadway), the development may also request exemption from the easement dedication requirement.

3.7 **Transit Performance Standards**: The City shall assist the Metropolitan Planning Organization's Public Transportation Task Force and the Technical Advisory Committee in determining transit performance

standards and implementing the Public Transportation System Analysis (PTSA) recommendations.

3.8 **Alternatives to Fixed-Route Services**: The City, in conjunction with the Metropolitan Planning Organization and Sarasota County Area Transit, will examine Transportation Demand Management alternatives to supplement or complement certain Sarasota County Area Transit services. These include vanpooling for long-distance commuters, demand-responsive para-transit services to bus route outer termini, station cars, and privatization of services.

3.9 **Ports:** Port services shall continue to be provided by existing regional ports, including Port Manatee and the Port of Tampa.

3.10 **Aviation:** Aviation facilities and services shall continue to be provided by the Sarasota-Manatee Airport Authority.

3.11 **High Speed Rail:** If a high speed rail system is funded and constructed by the State, the City encourages the development of a high speed rail train station serving Sarasota County. Commuter rail service, to tie in with adjacent Counties regional rail system, shall be encouraged as an alternative means of transporting passengers and freight.

3.12 **Water Taxi System:** The City will continue its efforts to obtain funding for the water taxi that was the subject of an MPO feasibility study in 2005. The water taxi system will connect the downtown area to the barrier islands and other high traffic generators on Sarasota Bay.

Objective 4 - A Transportation System Coordinated with Land Use

The City shall continue to evaluate its transportation infrastructure and its relationship to land use and policies, including the Future Land Use Map, and encourage multimodal developments, in order to maintain and improve transportation mobility.

Action Strategies

4.1 **Traffic Analysis Program:** The City shall continue to maintain a comprehensive Traffic Analysis Program to monitor and analyze traffic and road conditions. The program will continuously assess the need for revisions to the Thoroughfare Plan and Capital Improvements Program and their impact upon land use. The Traffic Analysis Program will include an ongoing

inventory of the status of roads, in coordination with State and County transportation agencies.

4.2 **Effects of Future Land Use Changes on Level-of-Service:** The City shall assess the impacts of land use changes on road, bicycle, pedestrian and transit levels-of-service.

4.3 **Effects of Functional Classification on Future Land Use:** The City shall consider the Thoroughfare Plan in evaluating future land use decisions.

4.4 **Hurricane Evacuation:** The City shall ensure that future development within the Coastal High Hazard Area does not occur in amounts, types, or locations that would cause total evacuation times to exceed those established by the City's "Peacetime Emergency Plan."

4.5 **Concurrency Based on Parallel Facilities:** The City shall adopt an area-wide multimodal concurrency management monitoring system to replace the existing road-based system.

4.6 **Standards Related to Residential Land Use:** The City shall consider adopting revised level-of-service standards to better protect neighborhoods and business interests.

4.7 **Transit Oriented Development (TOD) Overlay District:** The City shall study the possibility of creating a transit-oriented development overlay district in order to create incentives and design guidelines for development of TOD's within the City.

4.8 **Multimodal Transportation Districts (MMTD):** The City shall explore the creation of MMTD's for the purpose of promoting walking, cycling and transit use and reducing dependence on the automobile.

4.9 **Pedestrian / Bicycle Level of Service:** In coordination with MMTD's, the City shall develop quality/level of service standards for bicycle and pedestrian facilities.

Objective 5 - Coordination of Transportation Plans with Other Jurisdictions

The City shall continue to coordinate transportation plans and programs with the plans and programs of state, regional, and local jurisdictions.

Action Strategies

5.1 **Joint Planning and Coordination:** The City shall develop the Thoroughfare Plan and the Capital Improvement Program in coordination with the plans of the Florida Department of Transportation, the Sarasota-Manatee Metropolitan Planning Organization (MPO), Sarasota County Area Transit, Sarasota and Manatee Counties, and the Town of Longboat Key.

5.2 **Simultaneous Construction Delays:** The City will provide adequate detours to ensure traffic flow in order to avoid simultaneous construction delays on parallel facilities in conjunction with the Metropolitan Planning Organization (MPO), the Florida Department of Transportation (FDOT) and Sarasota County.

5.3 **Metropolitan Planning Organization (MPO):** The City Commission will appoint representatives to serve on the MPO Board. In addition, City staff representatives will serve on the MPO Technical Advisory Committee. Those members will participate on appropriate sub-committees needed to implement the City's Transportation Plan as well as to ensure coordination with the County and surrounding jurisdictions.

5.4 **Transportation Coordination:** City staff will meet with the Sarasota County Transportation Department staff as needed to discuss common issues, including the status of projects in both jurisdictions' Capital Improvements Programs.

5.5 **TDM Strategies for Large Employers:** The City, in cooperation with Sarasota County and the Florida Department of Transportation, District 1, will require businesses that generate more than 50 employee trips in the pm peak hour to implement TDM strategies in order to maintain adopted LOS on adjacent roadways.

5.6 **Project Programming:** The City, through participation in the Metropolitan Planning Organization (MPO), will continuously coordinate transportation improvements, including those in its Capital Improvements Program, with MPO's short-term Transportation Improvement Program and Long Range Transportation Plan (LRTP).

5.7 **Tamiami Trail Scenic Highway:** The City shall maintain its membership in the Corridor Management Entity of the Tamiami Trail Scenic Highway to promote, protect, and improve the intrinsic resources of the Tamiami Trail Scenic Highway in accordance with the adopted Corridor Management Plan. The City shall maintain its Corridor Management Entity Sub-committee that identifies needs of the corridor, proposes funding sources and improvements to the corridor, reviews proposed development projects for consistency with the Corridor Management Plan, and educates the public about the Scenic Highway program.

5.8 **Scenic Highway Grants:** The City shall encourage, support, and sponsor grant applications associated with the Florida Scenic Highway Designation of Tamiami Trail.

5.9 **Coordinated System of Concurrency Management**: The City will continue to work with adjacent jurisdictions to develop procedures to assess and mitigate transportation-related development impacts across jurisdictional boundaries.

5.10 **Multimodal Coordination:** The City shall work with adjacent jurisdictions to coordinate regional interconnection of bicycle, transit and pedestrian facilities.

Objective 6 - A Transportation System to Enhance and Preserve City Neighborhoods

The City will continue to develop a system of "complete streets" in order to preserve and enhance the City's neighborhoods.

Action Strategies

6.1 **Standards for Neighborhood Protection:** The City will continue to improve its standards for protecting neighborhoods to minimize impacts from traffic intrusion.

6.2 **Interlocal Agreement for Transportation on Barrier Islands:** The City is encouraged to pursue an interlocal agreement with the Town of Longboat Key to activate an inter-jurisdictional concurrency process for all development (except *de minimis*) on Longboat Key.

6.3 **Transportation Demand Management Bonuses:** The City should consider reducing parking requirements in the Zoning Code for development that:

1. fall within a Transit Overlay District or Multimodal Transportation District;

2. implements the Downtown Parking Study adopted recommendations;

3. commits to a trip reduction program through a Transportation Demand Management program approved by the City; and/or

4. demonstrates that time-shared parking with other nearby land uses reduces the number of spaces required at any one time.

6.4 **Access Management and Residential Side Streets:** The City shall recommend, through the site development approval process, access management techniques to discourage neighborhood cut-through traffic. These techniques will allow limited access for neighborhood residents but discourage outflow business traffic from entering neighborhoods. These may include but shall not be limited to:

- Local street access on streets where cut-through traffic is impossible;

- Access on the highest-classified street where EDCM or FDOT standards can be met;

- Joint access, cross access, and shared access;

- Raised median diverters;

- Angled entrances and exits and other driveway configurations which channel traffic away from the neighborhood;

- Enforceable signs ("do not enter", "no thru traffic," etc.);

- Building orientation away from the neighborhood, including drive-through windows;

- Internal traffic circulation to discourage use of side streets;

- Pedestrian access to encourage walking rather than driving short distances;

- Transit orientation, including safe and convenient pedestrian routes to the nearest bus stop;

- Encouragement of FDOT to change an arterial's access classification to allow less stringent driveway spacing requirements; and

- Reduction of posted speed limit to allow less stringent driveway spacing requirements.

6.5 **Traffic Calming:** The City will continue to maintain a traffic calming program to maintain safe and viable neighborhoods and discourage speeding through City neighborhood streets.

6.6 **Integrity of the Grid Pattern:** The City will maintain and improve the integrity of the street grid pattern by encouraging traffic calming techniques to reduce volume and/or speed to protect neighborhoods from the impacts of through traffic. Closing of local streets shall only be pursued if traffic calming or alternative methods are not appropriate or effective.

6.7 **Aesthetics and Landscaped Medians:** The City will provide for the aesthetic treatment of road corridors during the design process. Where adequate right-of-way exists or can be acquired, landscaped medians shall be the preferred center component of road cross-sections. When major new public facilities are planned, their design shall be aesthetically compatible with the surrounding area, whenever practical.

6.8 **Additional Access Serving Longboat Key:** The City will support planning for an additional bridge to connect Longboat Key to the mainland in order to relieve traffic congestion on the John Ringling Causeway Bridge.

6.9 **Acquisition on One Side Only:** To avoid intrusion into neighborhoods, when a road is to be widened and property acquisition is required, the centerline should be shifted with the intent of acquiring residential lots on one side only, where feasible, and the creation of buffers to protect the adjacent residential neighborhood on the side which is encouraged, where feasible.

6.10 **Public Involvement:** Public involvement shall be ensured by staff presentations to neighborhood associations and/or groups during the preliminary design stage for road projects involving changes in the road configuration, including alignment, number of lanes, and calming devices.

6.11 **Construction Staging Plans:** Through the permitting process, the City will require developers whose projects impede the flow of through traffic for a significant period of time to provide a specific plan for mitigating the congestion caused during the construction period. Multiple projects should be staged so as not to cause simultaneous delays.

6.12 **Private Streets:** The City shall promote local street connectivity by discouraging private and gated streets.

6.13 **Neighborhood Speed Program:** The City shall develop a program to educate residents about the importance of abiding by the 25 mile per hour speed limit in residential neighborhoods.

6.14 **Pedestrian Connectivity:** The City will consider pedestrian needs when designing road corridors and intersections, particularly pedestrian facilities that connect neighborhoods to shopping, schools, parks, and transit facilities.

Objective 7 - Increased Use, Safety and Convenience of Pedestrian and Bicycle Networks

The City will increase the use, safety and convenience of its pedestrian and bicycle networks including links to schools, recreational facilities, bus stops, and major trip generators.

Action Strategies

7.1 **Sidewalk:** The City shall continue to seek supplemental funding for its local sidewalk construction program to identify sidewalk needs:

- on existing roadways;
- on hazardous routes;
- on designated school walking routes;
- to connect with existing sidewalks to reach schools, parks, recreational facilities, and new developments;
- to repair and replace existing deteriorated sidewalks in connection with new road construction;
- near major trip attractors;
- to provide access to SCAT bus stops; and
- to pursue wider sidewalks within the Downtown Environs Area (DEA), designated in the Engineering and Design Criteria Manual.

7.2 **Encouragement of Bicycle Use:** The City will seek designation as a "Bicycle Friendly Community" by the League of American Bicyclists. The following actions may be taken by the City in order to achieve this goal:

- Improving data collection in order to determine the current level of bicycle use (e.g. percent of trips) in the City.

- Involving the local cycling community in identifying maintenance needs and ongoing improvements.

- Establishing information programs to promote bicycling for all purposes, and to communicate the many benefits of bicycling to residents and businesses (e.g. with bicycle maps, public relations campaigns, neighborhood rides, a ride with the Mayor, etc.).

- Encouraging bicycle use among City employees (e.g. by providing parking, showers and lockers, and establishing a city bicycle fleet).

- Ensuring all city policies, plans, codes, and programs are updated and implemented to take advantage of every opportunity to create a more bicycle-friendly community.

- Developing special programs to encourage bicycle use in areas of the City where significant segments of the population do not drive (e.g. through Safe Routes to Schools programs) and where short trips are most common.

7.3 **Pedestrian Intersections:** Connections between residential and non-residential land uses will be improved through the creation of pedestrian intersections. Among the design features for such pedestrian intersections are: clearly stripe cross-walks and use different paving materials, and reduce the distance between curb corners to reduce pedestrian crossing distance. Such pedestrian intersections are now considered appropriate in all areas of the City.

7.4 **Pedestrian Safety:** The City shall continue to identify and install pedestrian safety improvements in conformance with the Pedestrian Master Plan adopted by the City Commission in 2001 and the Manual of Uniform Traffic Control Devices. Streets through residential neighborhoods should be maintained and identified in a manner, which promotes and protects the residential environment and enhances pedestrian safety.

7.5 **Sidewalks to Bus Stops and Bus Shelters:** The City shall continue to coordinate with Sarasota County Area Transit for improved pedestrian access to bus stops and bus shelters. The City shall require all developments through the development review process to construct bus shelters where there is an existing Sarasota County Area Transit (SCAT) bus stop abutting the project or if there is a bus stop within five hundred feet (500 ft.) from the project or a proposed future bus stop by SCAT. Existing bus shelters shall be restored if compromised by adjacent construction or redevelopment activity.

7.6 **Off-Road Paths and Bridges:** The City will continue to identify opportunities for hiking and recreational walking via off-road pathways and pedestrian bridges.

7.7 **Greenways and Trails:** The City shall coordinate with local civic groups, continue to identify ideal right-of-ways for greenways and trails within the City. The City shall coordinate with surrounding jurisdictions to identify opportunities to connect to established greenways and trails at the City limits.

7.8 **Enhancements:** The City shall identify and prioritize bicycle and pedestrian projects pursuant to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

7.9 **Crosswalks:** The City shall continue to complete the gaps in crosswalks running perpendicular to major thoroughfare network.

7.10 **Contributions to the Multimodal Network:** Appropriate improvements or enhancements to the City's multimodal network may be required as a condition of development approval, particularly in identified Multimodal Transportation Districts (MMTD). These improvements may include, but are not limited to:

- Full accommodations for pedestrian access and movement, including shaded sidewalks, benches and enhanced crossings;
- Full accommodations for bicycle commuters, including lockers, showers, and racks.
- Secure, visible bicycle parking areas including bicycle lockers, locked rooms, or chain link enclosures, which are easily accessible and conspicuously posted.
- Direct connections between the development and any regional bicycle, pedestrian and trail facilities.
- Installation of shared use paths.

- Well designed accommodations for transfer of passengers at designated transit facilities.

- Preferential parking for rideshare participants.

- Well designed access for motor vehicle passenger drop offs and pick-ups at designed transit facilities and at commercial and office development sites.

- Weather protection at transit stops.

7.11 **Pedestrian Continuity:** The City shall limit the number and width of curb cuts and vehicular crossings over sidewalks to maximize the continuity of pedestrian movement.

7.12 **Bicycle Plan:** The City will encourage the use of bicycle transportation consistent with the City of Sarasota Bicycle Plan (2001) (as amended.)

7.13 **Bicycle Lanes:** The design and construction of thoroughfare roads shall provide for safe on-road bicycle lanes with a minimum width of 4 feet, where feasible. Provision of bicycle lanes shall be a design priority for all thoroughfare roads in the City in keeping with its policy of constructing "complete streets."

7.14 **Pedestrian/Bicycle Access:** All requests for development shall provide for safe and convenient pedestrian and bicycle access particularly between residential development and adjacent or nearby schools, neighborhood centers, transit stops, parks, bike pathways, and commercial and office development.

7.15 **Bicycle Facility Connectivity:** The City shall continue to seek opportunities to complete connections between existing bicycle facilities in all future transportation improvements and plans.

7.16 **Commuter Services:** The City shall promote the creation and use of employer-based commuting programs which offer incentives to employees who choose to travel to work by some other means other than a single occupant vehicle. Commuter services programs shall be mandatory for businesses that generate more than 50 employee trips in the pm peak hour. These programs can include strategies such as carpooling, van pooling, offering transit passes to employees, special parking places for bicycles and high occupancy vehicles and many others. New computerized monitoring systems could be a way to monitor participation in commuter services program.

Objective 8 - Parking Master Plan

The City shall develop and manage parking facilities in accordance with the Downtown Parking Master Plan and continue to explore and implement creative methods to prevent parking shortages consistent with the Downtown Parking Master Plan recommendations.

Action Strategies

8.1 **Parking:** The City will develop a public/private partnership charged with identifying sites that are suitable for the construction of parking lots/garages and will identify techniques to fund and develop same.

8.2 **Downtown Proper:** The City will establish mechanisms, including regulatory, that retain/encourage easy access to parking, transit stops and shopping for pedestrians within the Downtown Proper consistent with the Downtown Parking Master Plan recommendations.

8.3 **Parking Area Location & Design:** Off street parking areas shall be located and designed in a manner that supports and does not conflict with pedestrian activity, such as to the side or rear of buildings.

8.4 **Parking in Multi-Modal Transportation Districts:** Parking in MMTD's shall be limited in order to discourage single-occupant vehicle commuting and reinforce non-auto modes, but not so limited as to adversely impact the viability of the MMTD. Emphasis shall be on short-term parking strategies over long term parking in commercial areas.

8.5 **Park and Ride Lots:** The City shall support the creation of Park and Ride lots outside the City at locations identified by the MPO.

8.6 **Bicycle Parking:** The City shall continue to require all new development to provide secure long term bicycle parking in the form of bicycle lockers, locked rooms or chain link enclosures as a way of reducing the demand for automobile parking.

8.7 **Motorcycle Parking:** The City shall continue to create specially marked "Motorcycle Parking Areas" throughout the City in order to free up standard parking spaces for automobiles.

Objective 9 - Transportation Concurrency Exception Area (TCEA)

The City will continue to use and manage transportation concurrency within the City's Downtown Community Redevelopment Area (CRA) through the use of a Transportation Concurrency Exception Area (TCEA) as defined in Illustration T-1 until the City develops an area-wide concurrency management system or designates the downtown area as a Multimodal Transportation District (MMTD) pursuant to *Florida Statues* § 163.3180 (15). The purpose of the TCEA is to encourage the development of compact, dense and mixed uses in the Downtown CRA by replacing standard concurrency requirements with TCEA regulations.

The transportation and mobility needs within the TCEA shall be met through the following Action Strategies as an alternative to the statutory concurrency requirements.

Action Strategies

9.1 **Standards:** The City will apply the following standards to development within the TCEA until the *Sarasota City Plan* is amended to provide a multimodal concurrency management system such as a Multimodal Transportation District (MMTD), or a Transportation Concurrency Management Area (TCMA) within the Downtown CRA.

- For roads within a transportation concurrency study area for a proposed development which are operating at LOS "E" or "F", the number of trips projected to be added to the Annual Average Daily Traffic (AADT) on the road(s) by the proposed development, plus the number of vested trips from previously approved development, when added to the AADT on the roadway at the time of development review, shall not exceed one-hundred fifteen percent (115%) of the AADT in February 1999, the effective date of the 1998 *Sarasota City Plan*.

- For roads within a transportation concurrency study area for a proposed development which are operating at LOS "D", the number of trips projected to be added to the AADT on the road(s) by the proposed development, plus the number of vested trips from previously approved development, when added to the AADT on the roadway at the time of development review, shall not degrade the LOS below "E."

- For roads within a transportation concurrency study area for a proposed development which are operating at LOS "A, B or C", the number of trips projected to be added to the AADT on the road(s) by the proposed development, plus the number of vested trips from previously approved development, when added to the AADT on the roadway at the time of development review shall not degrade the LOS below "D."

- The term "previously approved development" as used in this Action Strategy shall mean any development, whether or not inside the TCEA, which has a valid unexpired site plan or building permit approval, but which has not been issued a certificate of occupancy.

- Level of Service (LOS) shall be calculated for the directional peak hour volume on any roadway and for any intersection within the transportation concurrency study area for the project under review.

- Except as otherwise provided within Objective 9, transportation facilities needed to serve new development shall be provided in accordance with the adopted Concurrency Management System (see Attachment 5 in the Future Land Use Chapter).

- In lieu of traditional mitigation, (i.e. roadway improvements), developers may be allowed to mitigate up to 30% of new trips by using proven Transportation Demand Management (TDM) and Intelligent Transportation System (ITS) programs with verifiable results. "Verifiable results" shall mean that it is possible to quantify the number of new trips which are eliminated by the use of TDM and ITS measures. The City shall have the discretion to determine the appropriate percentage of new trips to be mitigated in this manner up to the 30% maximum.

- Development projects generating fifty (50) net new (gross proposed less gross vested) peak trips or more shall be required to provide a Transportation Demand Management (TDM) Plan as a condition precedent to the issuance of their Certificate of Occupancy.

- Developers shall prepare and submit traffic circulation plans including ingress and egress from and to adjacent roadways for automobiles, trucks and delivery vehicles, pedestrian, mass transit, and bicycles. Traffic circulation plans shall be reviewed and approved by the City Engineer.

- Development agreements which commit the developer to make specified transportation improvements may be required as a condition precedent to the issuance of a development approval. Development

agreements may also require the developer to participate in TSM, ITS and TDM programs.

- Traditional mitigation through roadway improvements shall explicitly include multimodal improvements which may include but are not limited to: secure bicycle parking facilities, bicycle locker facilities, pedestrian scale lighting, transit shelters, stops and stations, sidewalk connections, sidewalk widening, and provision of easements for multi-use recreational trails.

Developments which cannot meet the above standards shall not be approved.

9.2 **Amendment of the *Sarasota City Plan*:** The Neighborhood and Development Services Department, two years after the adoption of this *Sarasota City Plan*, will provide City Commission with a request for adoption of an area-based Multimodal Transportation District (MMTD) or other program approved by the Department of Community Affairs (DCA). The request shall include evaluation of the effectiveness of the proposed program.

9.3 **Land Use Mix Consistent with the Downtown Master Plan:** The City shall annually monitor development in the TCEA to assess the land use mix and ensure that it is consistent with the goals of the Downtown Master Plan. Should the rate of development or land use mix vary significantly from the projections used in establishing the TCEA, the City shall re-analyze the traffic impacts of the TCEA on all thoroughfares within the TCEA plus all principal arterials within two miles of the TCEA, including Beneva Road. The monitoring effort shall also include a review of the implementation strategies of the TCEA, and adjustments needed to them based on the rate and type of development. The City shall reevaluate the land use mix should the TCEA area boundary change.

9.4 **Developments of Regional Impact:** Developments of Regional Impact, even if located wholly within the TCEA, shall remain subject to the applicable requirements of Chapter 380, F.S.

9.5 **Major Roadway Improvements:** The City shall encourage the MPO, and earmark developer contributions as appropriate, to retain as a high priority the improvement of 12th Street from Tuttle Avenue to Beneva Road, Lockwood Ridge Road between Fruitville Road and 17th Street, US-41 from 6th Street to Gulfstream Avenue and Orange Avenue between 10th Street and 17th Street. The City shall coordinate with the MPO and FDOT to discuss advancing construction of the final phase of the widening of U.S. 301 from south of University Parkway to 12th Street prior to year 2010 to

conform with the phased traffic modeling for the MPO's 2030 Long-Range Transportation Plan.

9.6 **Transportation Demand Management (TDM) Developer Requirements:** The City shall require any development locating within the TCEA to implement and maintain a trip reduction program and/or to pay into a TDM trust fund if the impact of such development on any segment of roadway within the TCEA would exceed 1 % of that roadway's two-way service volume at LOS "D".

9.7 **Mass Transit:** The City shall consult with SCAT to assure conformity of the TDM program with the SCAT Transit Development Program concerning any improved headways, schedule modifications, or route changes which are recommended as a result of Action Strategies 5.3 through 5.5. These recommendations shall include an enhanced downtown circulator.

9.8 **Sidewalks:** Any missing links in the sidewalk system shall be constructed.

9.9 **Pedestrian Overpasses:** The erection of pedestrian overpasses or other devices to protect pedestrians from vehicular traffic shall be considered across N. Tamiami Trail, Fruitville Road, and N. Washington Boulevard, if feasible.

9.10 **Other Pedestrian Facilities:** Retrofitted or reconstructed streets shall include amenities such as shade trees and benches, wherever practical, and pedestrian safe designs, such as refuge medians where crossing distances exceed 60 feet, raised pavements to alert motorists to pedestrian crossings, and sidewalk bulbouts where there is on-street parking.

9.11 **Access Management and Circulation:** The City will continue to review requests for development approval for transportation circulation, including, but not necessarily limited to, ingress and egress to and from adjacent roadways for automobiles, trucks and delivery vehicles, pedestrians, mass transit, and bicycles.

Objective 10 - Downtown Master Plan Study Area

The City will undertake transportation related activities as established in the adopted Downtown Master Plan 2020. The City will improve mobility and streetscapes in order to create a more walkable environment in the downtown core. Pedestrian corridors shall link the Downtown Proper with its surrounding "walk-to-town" neighborhoods so that a pleasant walking environment is achieved. Streetscapes within commercial areas shall be designed and developed to enhance pedestrian activity.

Action Strategies

10.1 **Improve Walkability of Streets:** The City shall improve its streets in order to encourage pedestrian activity. Where pedestrian activity would be encouraged without significant adverse effect on public safety, such improvements may include, but would not necessarily be limited to, development of "sleeves", straightening of medians, realignment of streets, realignment of street curbs at intersections, establishing parallel or angled parking, extending sidewalks to accommodate trees or tree planters, improving crosswalks, reducing the number or width of automobile travel lanes, or improving pedestrian ramps.

10.2 **"Downtown and Environs - A" Streets:** The Engineering Design Criteria Manual identifies certain streets within the downtown area as "Downtown and Environs-A" or "DEA-A" streets. "DEA-A" streets are intended to be more pedestrian-oriented than other streets and are designed to enhance the pedestrian experience consistent with Engineering Design Criteria Manual (EDCM) recommendations. Development along "DEA-A" streets and development at the intersections of "DEA-A" streets with other streets shall be required to construct more appropriate pedestrian facilities for the public in order to provide a higher level of pedestrian appeal than development on other streets. Primary vehicular access is discouraged along "DEA-A" streets. However, when no other access is available, direct vehicular access to properties located on "DEA-A" streets shall not be prohibited. The City may join the efforts of private development to improve the "walkability" of "DEA-A" streets. Efforts to improve the "walkability" of these streets may include, but shall not necessarily be limited to, redesign, installation of streetscape improvements, and revisions to land development regulations intended to promote the pedestrian experience. (See Illustration T-18)

10.3 **Pedestrian Intersections:** The City will implement a comprehensive design strategy for making high-volume roadways safer for pedestrians to cross. These intersections may employ clearly striped crosswalks, use of

different paving materials, and reduced distance between curb corners to reduce pedestrian crossing distance. (See Illustration T-19 for locations.)

10.4 **Downtown Parking Garages:** The City will initiate the development of parking garages within Downtown Proper through implementation of the Downtown Parking Master Plan. Spaces in the parking garages will be made available to individuals, companies, or others upon terms determined by the City Commission as an incentive to achieve the themes of "New Urbanism" reflected by the Downtown Master Plan 2020.

10.5 **Downtown Bus Routes:** The City will coordinate with Sarasota County Area Transit to maintain existing bus routes and plan future routes that continue to serve downtown businesses and residential neighborhoods.

10.6 **Downtown Public Transit Circulator:** The City will coordinate with Sarasota County to create a public transit system or a trolley with appropriate headways serving the downtown. Alternatively, the City may create a City-managed transit system to maximize the number of people using this service.

10.7 **Bicycle Trails:** The City will continue to develop a system of trails that are dedicated for bicycles, yet separated from automobiles. Bicycle trails shall ultimately be located, in part, along the entire Sarasota Bay waterfront and within Payne Park.

10.8 **Bicycle Lanes:** The City will continue to develop a system of bicycle lanes that are located within the right-of-way, adjacent to automobile lanes, and striped and signed. These lanes may be marked bicycle lanes or wide curb lanes.

10.9 **Bicycle Routes:** The City will continue to develop a system of bicycle routes that share the pavement with automobiles in locations where vehicles are constrained to move slowly enough to ensure the safety of bicyclists.

10.10 **On-Site Parking:** The City will encourage new development or redevelopment to provide on-site surface or garage parking that is consistent with the Downtown Parking Master Plan, the Engineering Design Criteria Manual and the *Sarasota City Plan* and its implementing Zoning Code.

10.11 **Relationships Between Plans:** In instances of inconsistencies between the Downtown Master Plan 2020 and the *Sarasota City Plan*, the *Sarasota City Plan*, will prevail. Anything to the contrary not withstanding, the *Sarasota City Plan* does not incorporate the Downtown Master Plan 2020 into the adopted comprehensive plan.

Objective 11 - Newtown Transportation Concurrency Management Area (TCMA)

The City adopts a Transportation Concurrency Management Area (TCMA) for the Newtown Community Redevelopment Area. (See Illustration T-11) This area will promote infill development and redevelopment through the planning and implementation of efficient transportation systems, and coordinate land use and transportation on an areawide basis using multimodal opportunities where appropriate.

Action Strategies

11.1 **Infill and Redevelopment:** Within the TCMA, the City will encourage infill and redevelopment which are supportive of mobility alternatives including walking, bicycling, transit and demand management strategies.

11.2 **Level of Service:** The City shall maintain an area-wide level of service D within the Newtown TCMA. The maximum area wide service volume at LOS D is 19,326 vehicles per hour.

11.3 **Development Orders:** The City shall require that the TCMA maintain an area-wide Level of Service. Maintenance of this area-wide LOS shall be a basis for the issuance of development approvals and permits within the TCMA.

11.4 **Transit-Oriented Land Uses:** The City will develop transit-oriented land uses and higher density residential areas along major corridors served by transit lines. The City will consider creation of a Transit Oriented Development Overlay District to encourage such development within the TCMA.

11.5 **Annual Traffic Counts:** The TCMA capacities shall be checked and updated based on annual traffic counts on all applicable links as well as level of service and capacity analysis. This analysis will be utilized in developing comprehensive multimodal projects and transportation demand management strategies to address mobility in Newtown as well as the Capital Improvement Plan.

11.6 **Capital Improvements Program:** Every year the City shall establish and update a Capital Improvements Program (CIP) for the TCMA which identifies needed improvements within the TCMA.

11.7 **Parking:** The City shall examine parking in order to determine the following:

1. The necessity for park and ride locations or development in coordination with transit.

2. Future on-site parking requirements.

3. The need for the enhancement of on-street or off-street parking facilities.

4. Employer-sponsored transportation demand management programs.

11.8 **Monitoring:** The City shall, within twelve months of TCMA adoption, utilize concurrency management system software to monitor the roadway capacities and level of service within the TCMA.

11.9 **Increase Density and Mixed-use:** Prior to December 31, 2012, the City shall examine the possibility of increasing the density of residential development in the Newtown Community Redevelopment Area. In addition, examination of other higher density and mixed-use residential areas will be undertaken in an effort to consider densities that meet thresholds for higher levels of transit service.

11.10 **SCAT Coordination:** The City shall continue to coordinate with Sarasota County Area Transit to ensure that transit service within the TCMA maximizes mobility and reflects routes which serve to facilitate movement through as well as within the Newtown Community Redevelopment Area with a particular emphasis on routes that service the area as a destination.

11.11 **Maintenance of Transportation Concurrency**: The City Neighborhood and Development Services Department will maintain and track transportation concurrency within the established TCMA.

11.12 **Impact Fees:** Prior to January 1, 2012, the City shall examine the creation of development impact fees for developments that propose to utilize more

than the remaining capacity on both the traffic analysis zones (TAZ) and TCMA levels. Such fees will be used to support the planning, design and construction of multimodal opportunities and will be closely tied to the state Proportionate Fair Share Ordinance.

11.13 **Transit Level of Service:** Within the TCMA, the City shall encourage Sarasota County Area Transit to operate all routes within the TCMA at 30-minute headways or better by December 31, 2012. SCAT will also be requested to continue the evening and Sunday services now offered within the TCMA boundaries.

11.14 **Multimodal Connectivity:** The City shall examine the connection of major traffic generators, transit stops and areas of density with an interconnected system of sidewalks, bicycle paths routes, lanes and multi-use trails and shall make improvements, where feasible, that support viable, multiple alternative travel paths or modes.

11.15 **Neighborhood Protection:** The City shall resist further fragmentation of the Newtown neighborhood by preserving the street network except in cases where there is proof of conclusive local and regional need.

11.16 **Historic Preservation:** The City shall strive to preserve the historic character and qualities of the Newtown Area.

Objective 12 - Downtown Mobility Study Area

The City shall encourage the implementation of the Downtown Mobility Study recommendations, where feasible, and continue to explore and implement creative multimodal methods to prevent congestion consistent with the Downtown Mobility Study recommendations. See Illustration T-20.

TRANSPORTATION MAP SERIES

The following Transportation Illustrations may be consolidated or reformatted by resolution of the City Commission.

T-1 Thoroughfare Plan

T-2 Thoroughfare Plan Designations (table)

T-3 2020 Proposed Number of Lanes on Thoroughfares

T-4 Jurisdictional Responsibilities for Thoroughfares and Railroad Lines

T-5 2006 Public Parking Facilities with 100 or More Spaces

T-6 Hurricane Evacuation Zones

T-6.a Hurricane Evacuation Routes and Shelters

T-7 Bicycle/Recreational Routes

T-8 2006 Aviation Facilities

T-9 2011 Proposed SCAT Bus Routes

T-10 Transportation Concurrency Exception Area / Multi-Modal Area

T-11 Newtown Transportation Concurrency Management Area

T-12 2015 Operating Level-of-Service for Thoroughfares

T-13 Adopted Level-of-Service Standards for Thoroughfares

T-14 2020 Forecast Operating Level-of-Service for Thoroughfares

T-15 Transit Corridors

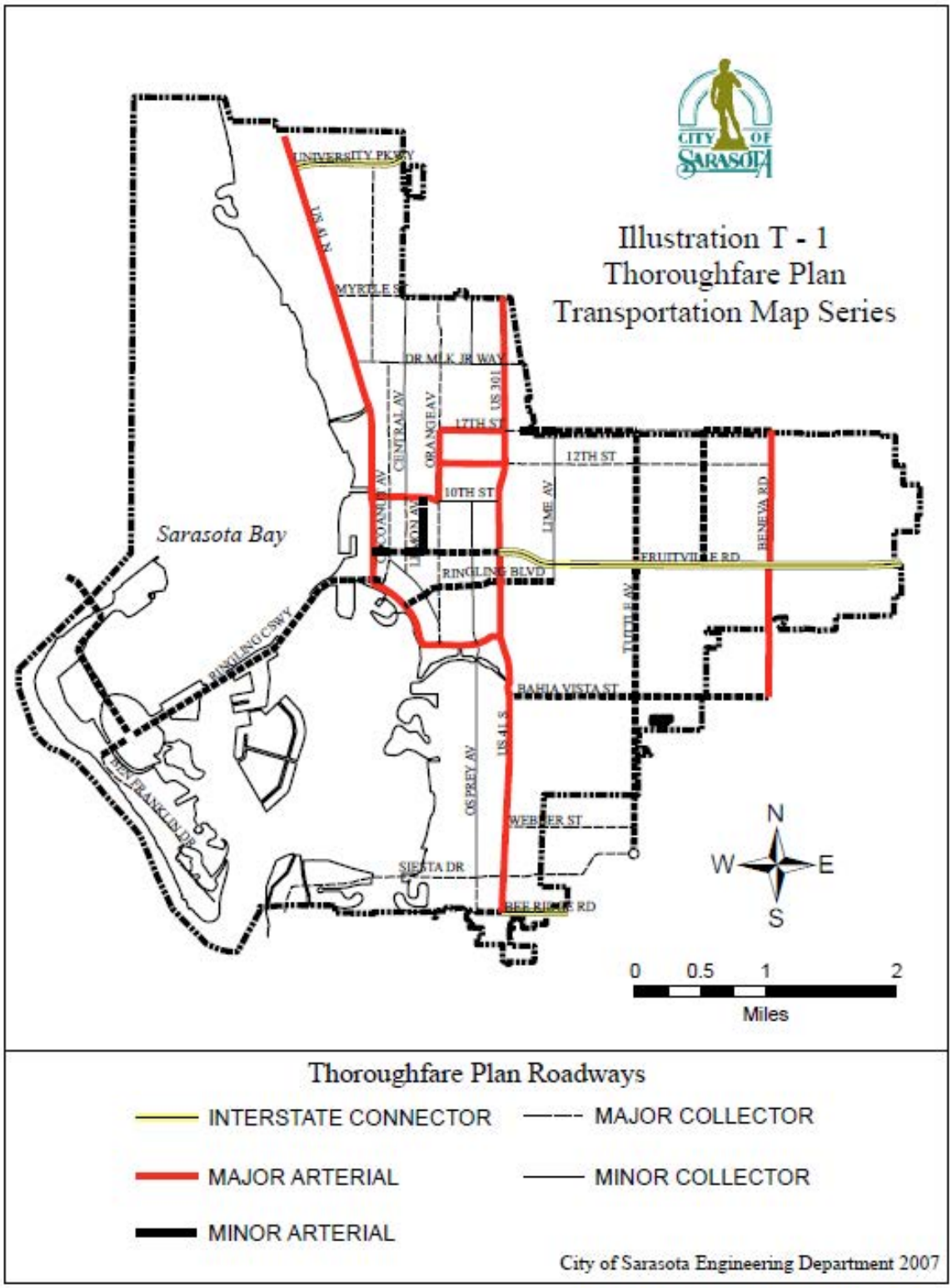


Illustration T - 1
Thoroughfare Plan
Transportation Map Series
Sarasota Bay
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR MLK JR WAY
US 301
17TH ST
12TH ST
10TH ST
ORANGE AV
CENTRAL AV
COOLIDGE AV
LIME AV
BENEVA RD
FRUITVILLE RD
RINGLING BLVD
RINGLING CSWY
TUTTLE AV
BAHIA VISTA ST
US 41 S
OSPREY AV
WEBBER ST
SIESTA DR
BEE RIDGE RD
BEN FRANKLIN DR
N
W
E
S
0
0.5
1
2
Miles
Thoroughfare Plan Roadways
INTERSTATE CONNECTOR
MAJOR COLLECTOR
MAJOR ARTERIAL
MINOR COLLECTOR
MINOR ARTERIAL
City of Sarasota Engineering Department 2007

Illustration T-2 Thoroughfare Plan Designations

ROAD	FROM	TO
Interstate connectors		
University Parkway	US 41	East City Limit
Fruitville Road (S.R. 789)	US 301	East City Limit
Bee Ridge Road (S.R. 758)	US 41	East City Limit
Major arterials		
De Soto Road	University Parkway	East City Limit
12th Street	Orange Avenue	US 301
10th Street	US 41	Orange Avenue
US 41	North City Limit	South City Limit
Orange Avenue	17th Street	10th Street
US 301	North City Limit	US 41
Beneva Road	North City Limit	South City Limit
Minor arterials		
17th Street	Orange Avenue	East City Limit
Fruitville Road	US 41	US 301
John Ringling Parkway	North City Limit (New Pass)	St. Armands Circle
Ringling Boulevard	US 41	Lime Avenue
Bay Road	Osprey Avenue	US 41
Bahia Vista Street	US 41	East City Limit
John Ringling Blvd/Causeway	Ben Franklin Drive	Golden Gate Pt. Drive
Gulf Stream Avenue	Golden Gate Pt. Drive	Cocoanut Avenue
Lemon Avenue	10th Street	Fruitville Road
Osprey Avenue	Siesta Drive	Bay Road
Tuttle Avenue	North City Limit	South City Limit
Lockwood Ridge Road	North City Limit	Fruitville Road

Illustration T-2 Thoroughfare Plan Designations - Continued

ROAD	FROM	TO
Major collectors		
Myrtle Street	US 41	East City Limit
Dr. MLK Jr. Way	Bradenton Road	Cocoanut Avenue
Dr. MLK Jr. Way	US 301	East City Limit
12th Street	US 301	Beneva Road
Webber Street	US 41	East City Limit
Siesta Drive	South City Limit	East City Limit
Higel Avenue	Siesta Drive	South City Limit
Ben Franklin Drive	John Ringling Blvd.	South Lido Park
Bradenton Road	De Soto Road	Dr. ML King Jr. Way
Cocoanut Avenue	Dr. MLK Jr. Way	Gulfstream Avenue
Central Avenue	10th Street	Pineapple Avenue
Orange Avenue	North City Limit	12th Street
Orange Avenue	10th Street	US 41
Minor collectors		
Dr. MLK Jr. Way	US 41	Bradenton Road
Dr. MLK Jr. Way	Cocoanut Avenue	US 301
10th Street	Orange Avenue	US 301
Central/Lemon/Central	Myrtle Street	10th Street
Pineapple Avenue	Cocoanut Avenue	Orange Avenue
Osprey Avenue	North City Limit	Dr. MLK Jr. Way
Osprey Avenue	10th Street	Siesta Drive
Lime Avenue	North City Limit	Ringling Blvd.

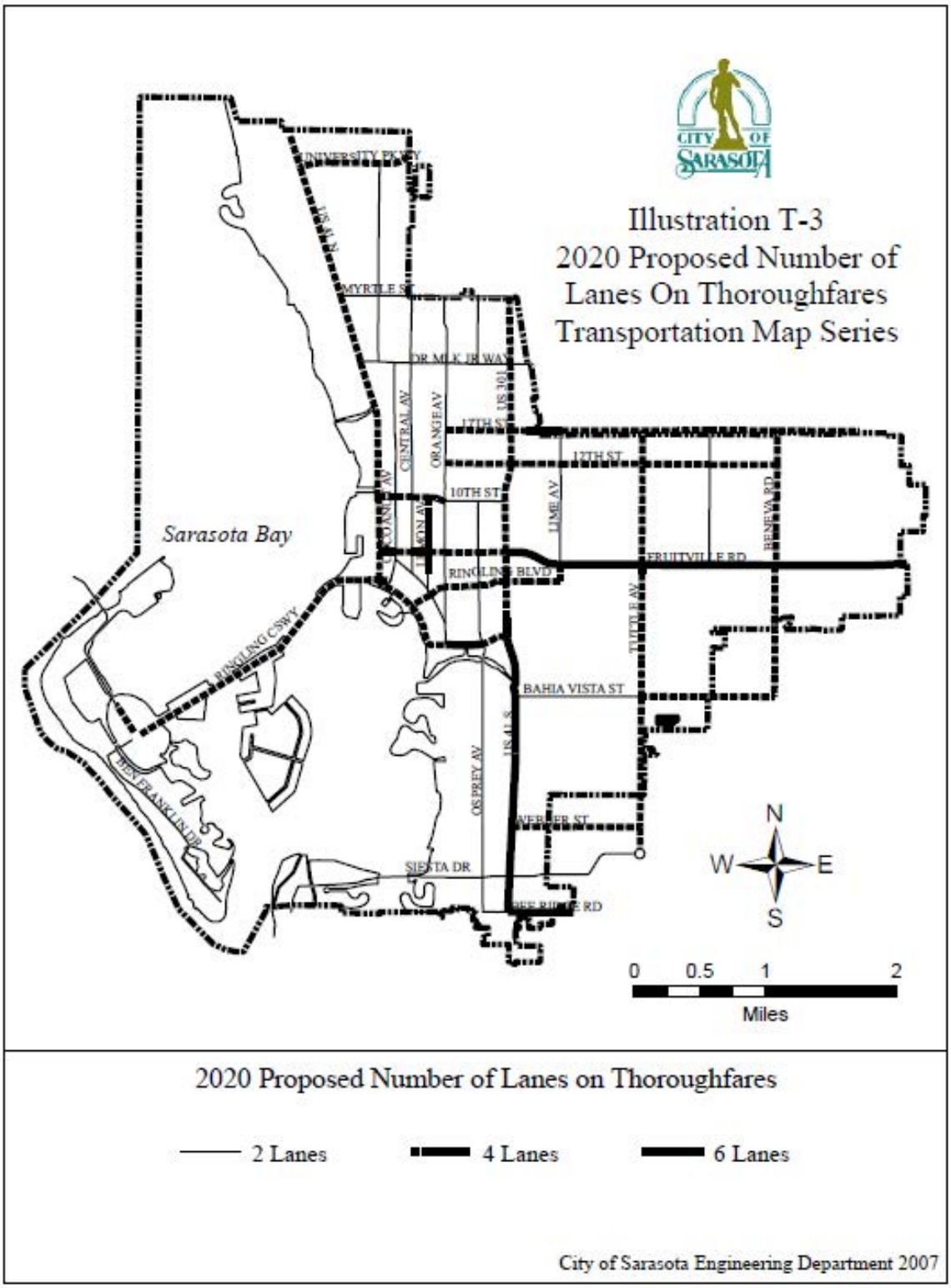


Illustration T-3
2020 Proposed Number of Lanes On Thoroughfares
Transportation Map Series
Sarasota Bay
UNIVERSITY PKWY
MYRTLE ST
DR MLK JR WAY
US 41
US 301
CENTRAL AV
ORANGE AV
17TH ST
12TH ST
10TH ST
LIME AV
FRUITVILLE RD
BENEVA RD
RINGLING BLVD
RINGLING CSWY
TUTTLE AV
BAHIA VISTA ST
OSPREY AV
BEN FRANKLIN DR
SIESTA DR
N
W
E
S
0
0.5
1
2
Miles
2020 Proposed Number of Lanes on Thoroughfares
2 Lanes
4 Lanes
6 Lanes
City of Sarasota Engineering Department 2007

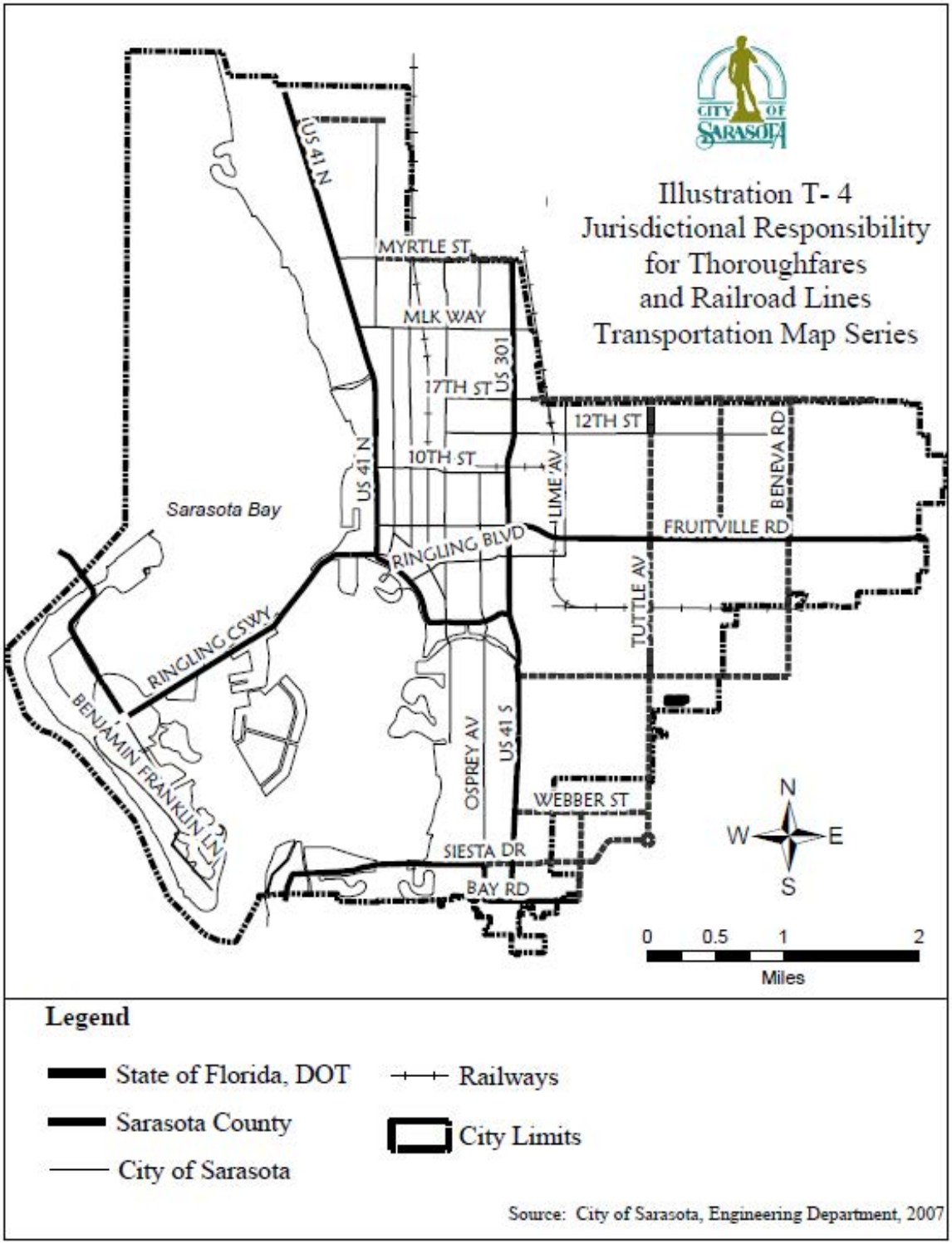


Illustration T- 4
Jurisdictional Responsibility
for Thoroughfares
and Railroad Lines
Transportation Map Series
US 41 N
MYRTLE ST
MLK WAY
17TH ST
US 301
12TH ST
10TH ST
US 41 N
LIME AV
BENEVA RD
Sarasota Bay
FRUITVILLE RD
RINGLING BLVD
TUTTLE AV
RINGLING CSWY
BENJAMIN FRANKLIN LN
OSPREY AV
US 41 S
WEBBER ST
SIESTA DR
BAY RD
N
W
E
S
0
0.5
1
2
Miles
Legend
State of Florida, DOT
Railways
Sarasota County
City Limits
City of Sarasota
Source: City of Sarasota, Engineering Department, 2007

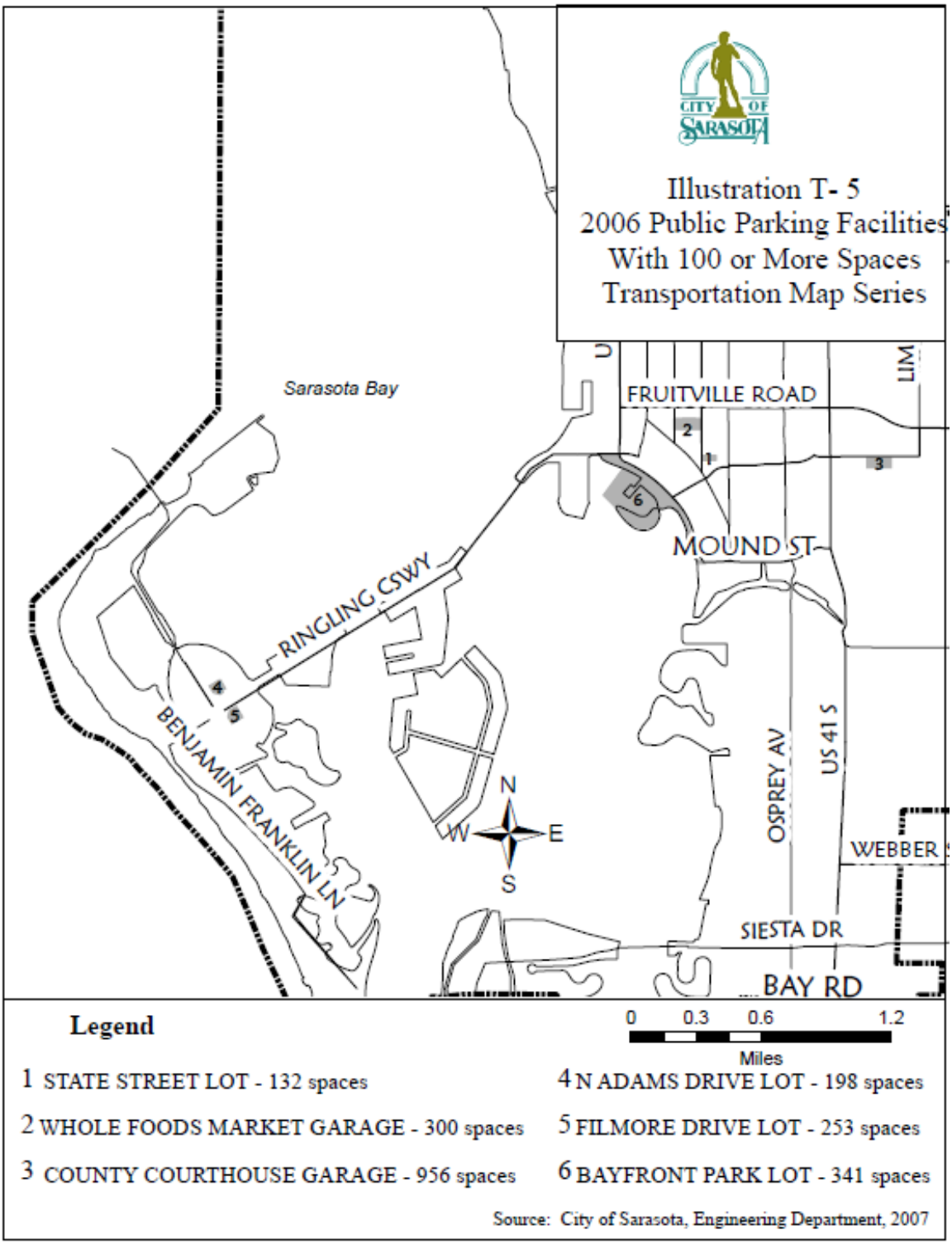


Illustration T- 5
2006 Public Parking Facilities
With 100 or More Spaces
Transportation Map Series
Sarasota Bay
FRUITVILLE ROAD
MOUND ST
RINGLING CSWY
BENJAMIN FRANKLIN LN
OSPREY AV
US 41 S
WEBBER
SIESTA DR
BAY RD
N
W
E
S
0 0.3 0.6 1.2
Miles
Legend
1 STATE STREET LOT - 132 spaces
2 WHOLE FOODS MARKET GARAGE - 300 spaces
3 COUNTY COURTHOUSE GARAGE - 956 spaces
4 N ADAMS DRIVE LOT - 198 spaces
5 FILMORE DRIVE LOT - 253 spaces
6 BAYFRONT PARK LOT - 341 spaces
Source: City of Sarasota, Engineering Department, 2007

Illustration T-6

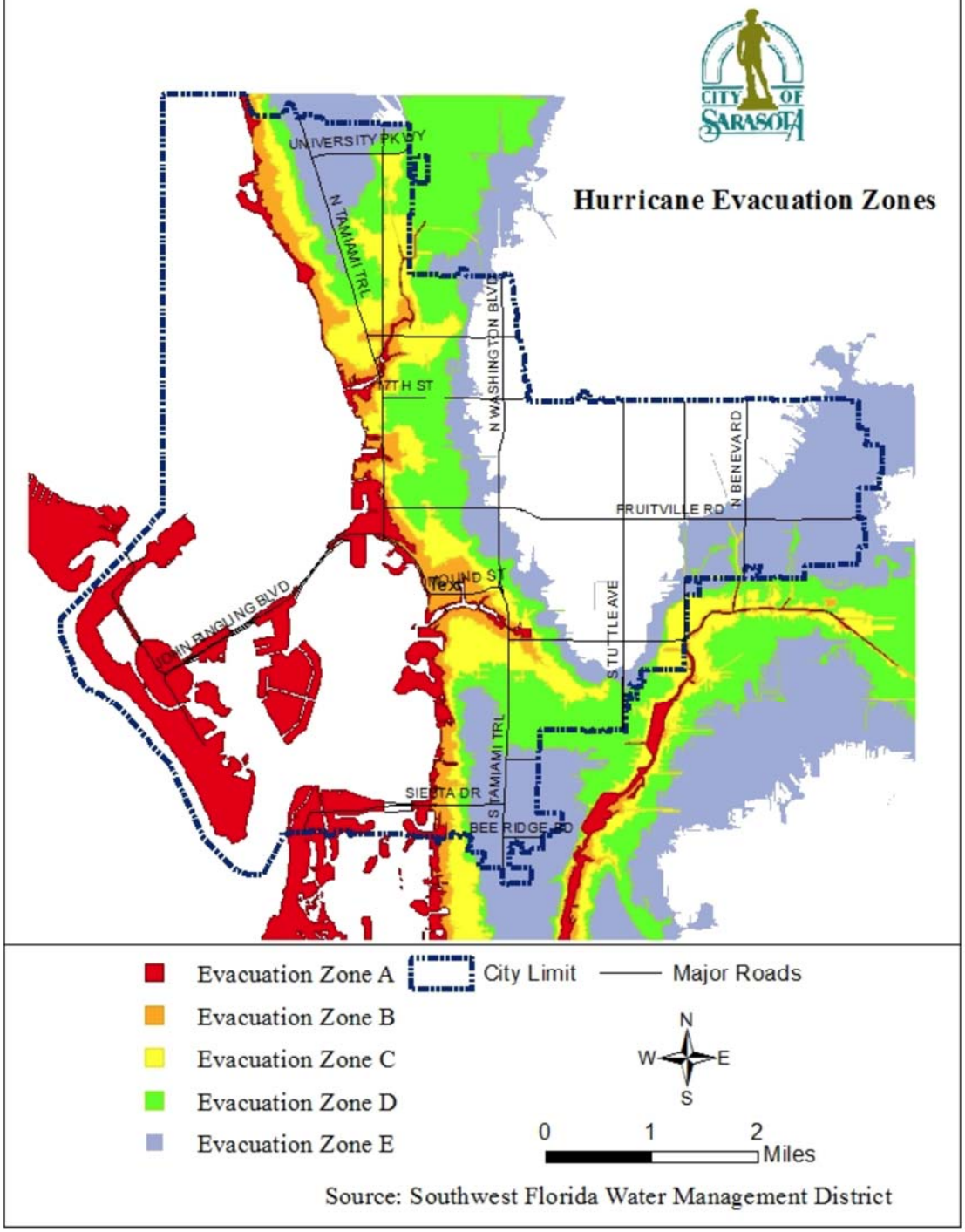
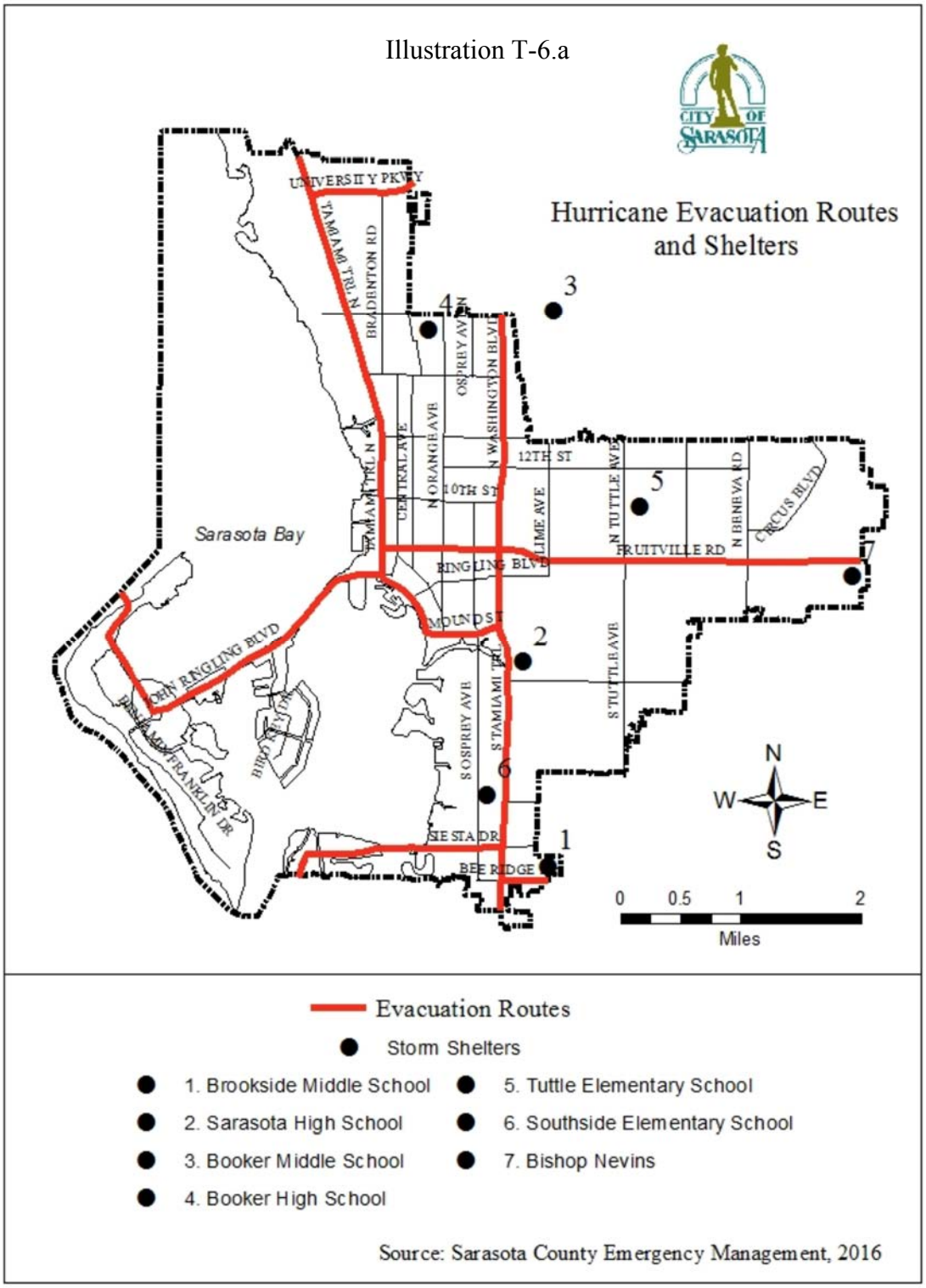


Illustration T-6.a



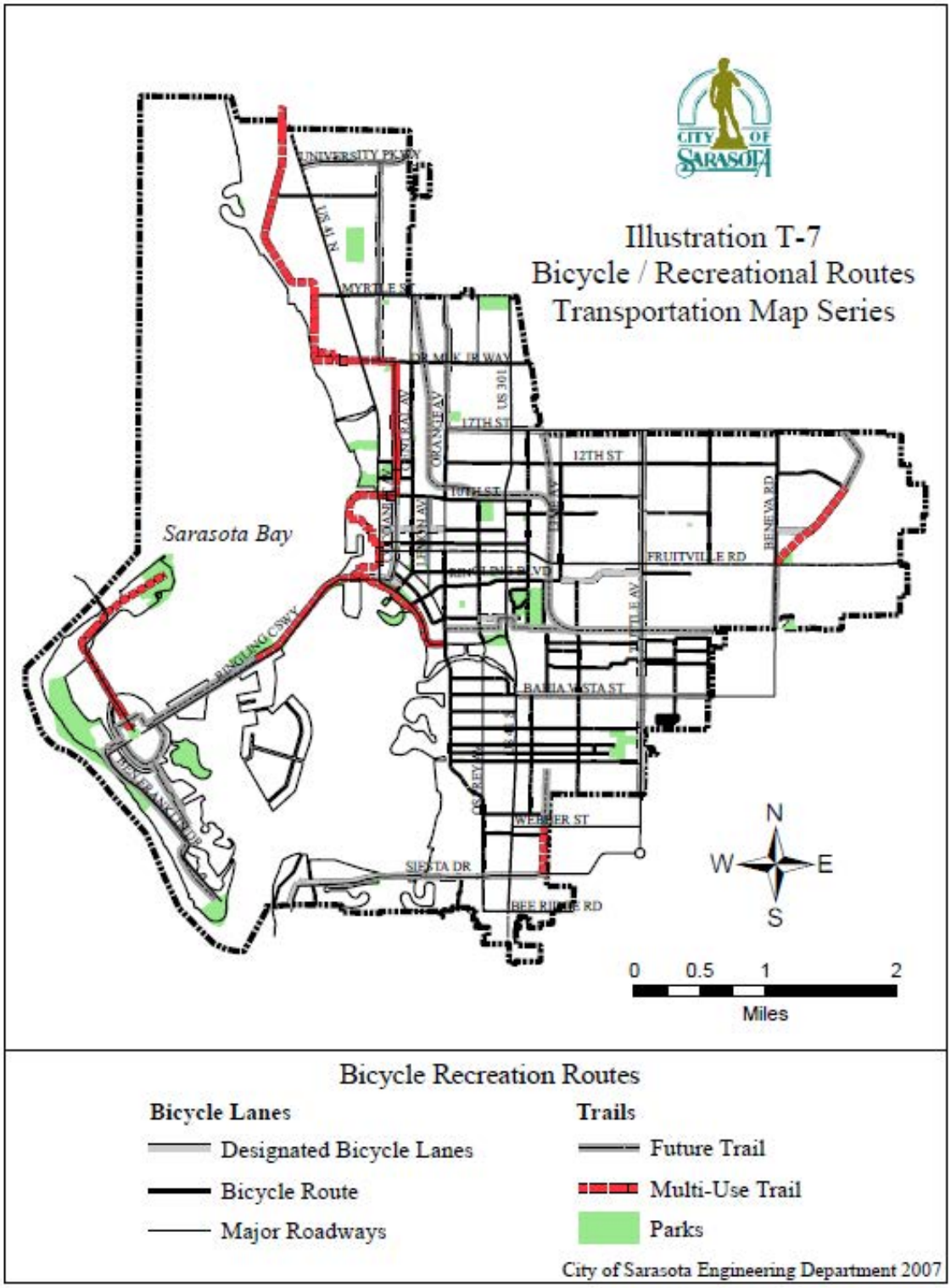


Illustration T-7
Bicycle / Recreational Routes
Transportation Map Series
CITY OF SARASOTA
Sarasota Bay
UNIVERSITY PKWY
US 41 N
MYRTLE ST
US 301
17TH ST
12TH ST
10TH ST
FRUITVILLE RD
BENEVA RD
BAHIA VISTA ST
WEBBER ST
SIESTA DR
BEE RIDGE RD
RINGLING CSWY
JOHN RINGLING BLVD
N
W
E
S
0
0.5
1
2
Miles
Bicycle Recreation Routes
Bicycle Lanes
Designated Bicycle Lanes
Bicycle Route
Major Roadways
Trails
Future Trail
Multi-Use Trail
Parks
City of Sarasota Engineering Department 2007

Illustration T- 8

2006 Aviation Facilities

No Scale

Source: Sarasota Bradenton Airport Authority

Legend

City Limits

Airport Property Limits

CSX Railroad

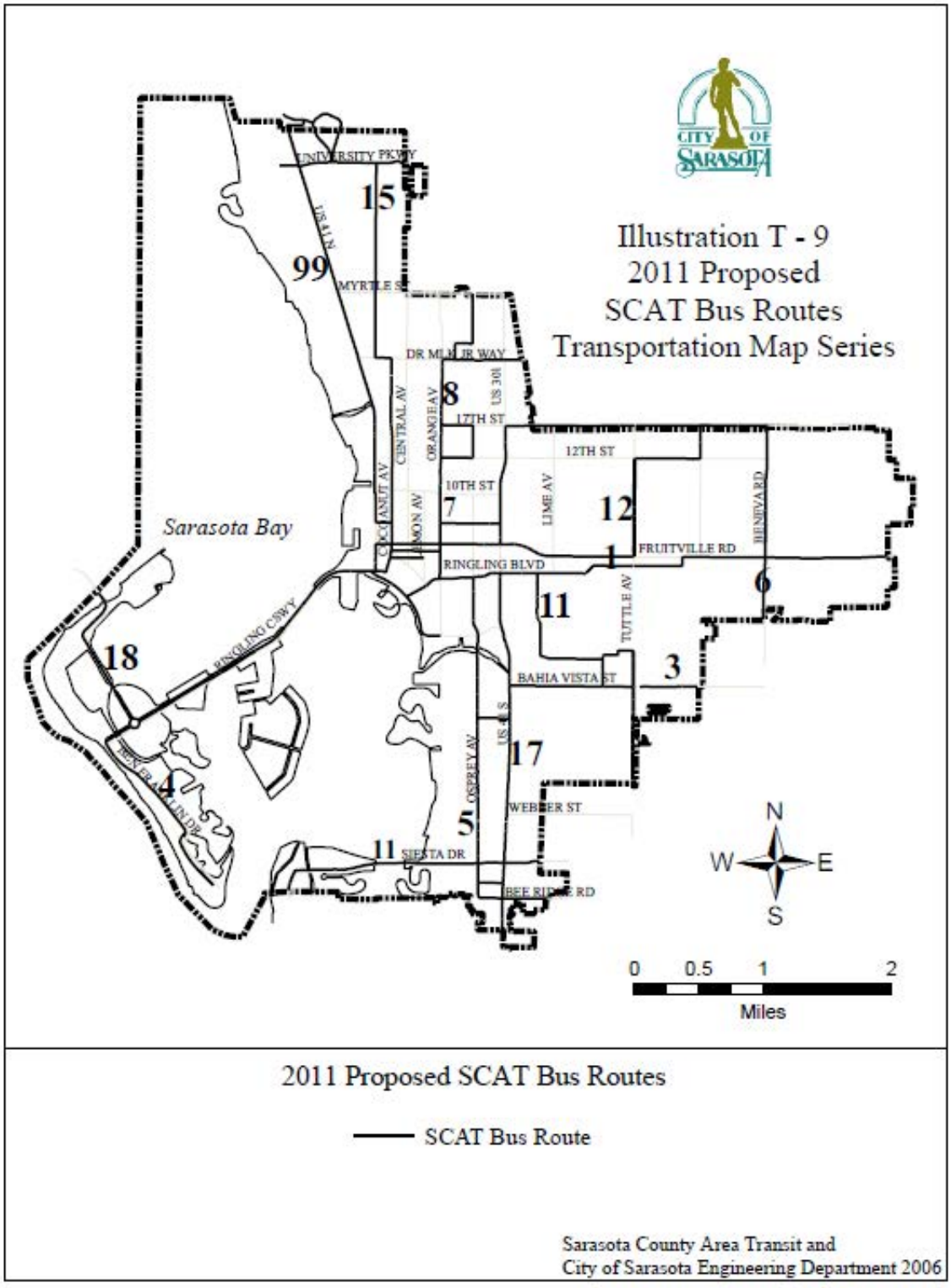


Illustration T - 9
2011 Proposed
SCAT Bus Routes
Transportation Map Series
UNIVERSITY PKWY
15
99
MYRTLE ST
DR MLK JR WAY
8
US 301
17TH ST
12TH ST
10TH ST
7
12
1
FRUITVILLE RD
RINGLING BLVD
11
6
3
BAHIA VISTA ST
17
WEBBER ST
5
11
SIESTA DR
4
18
Sarasota Bay
CENTRAL AV
ORANGE AV
OSPREY AV
TUTTLE AV
LIME AV
HENEVA RD
N
W
E
S
0
0.5
1
2
Miles
2011 Proposed SCAT Bus Routes
SCAT Bus Route
Sarasota County Area Transit and
City of Sarasota Engineering Department 2006

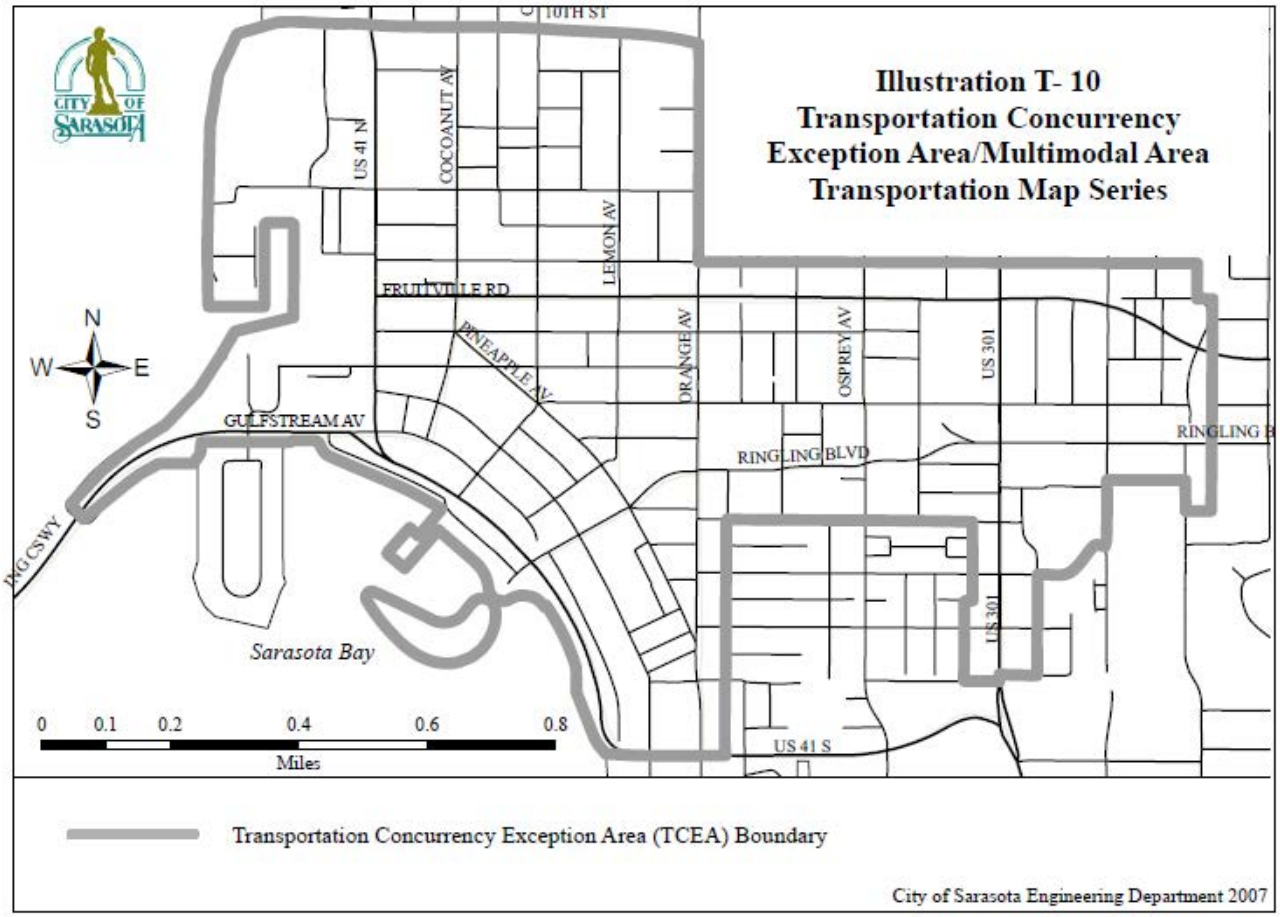


Illustration T- 10
Transportation Concurrency
Exception Area/Multimodal Area
Transportation Map Series
CITY OF SARASOTA
N
W
E
S
10TH ST
US 41 N
COCOANUT AV
LEMON AV
FRUITVILLE RD
PINEAPPLE AV
ORANGE AV
OSPREY AV
US 301
GULFSTREAM AV
RINGLING BLVD
RINGLING B
TAMIAMI TRL
Sarasota Bay
US 41 S
0 0.1 0.2 0.4 0.6 0.8
Miles
Transportation Concurrency Exception Area (TCEA) Boundary
City of Sarasota Engineering Department 2007

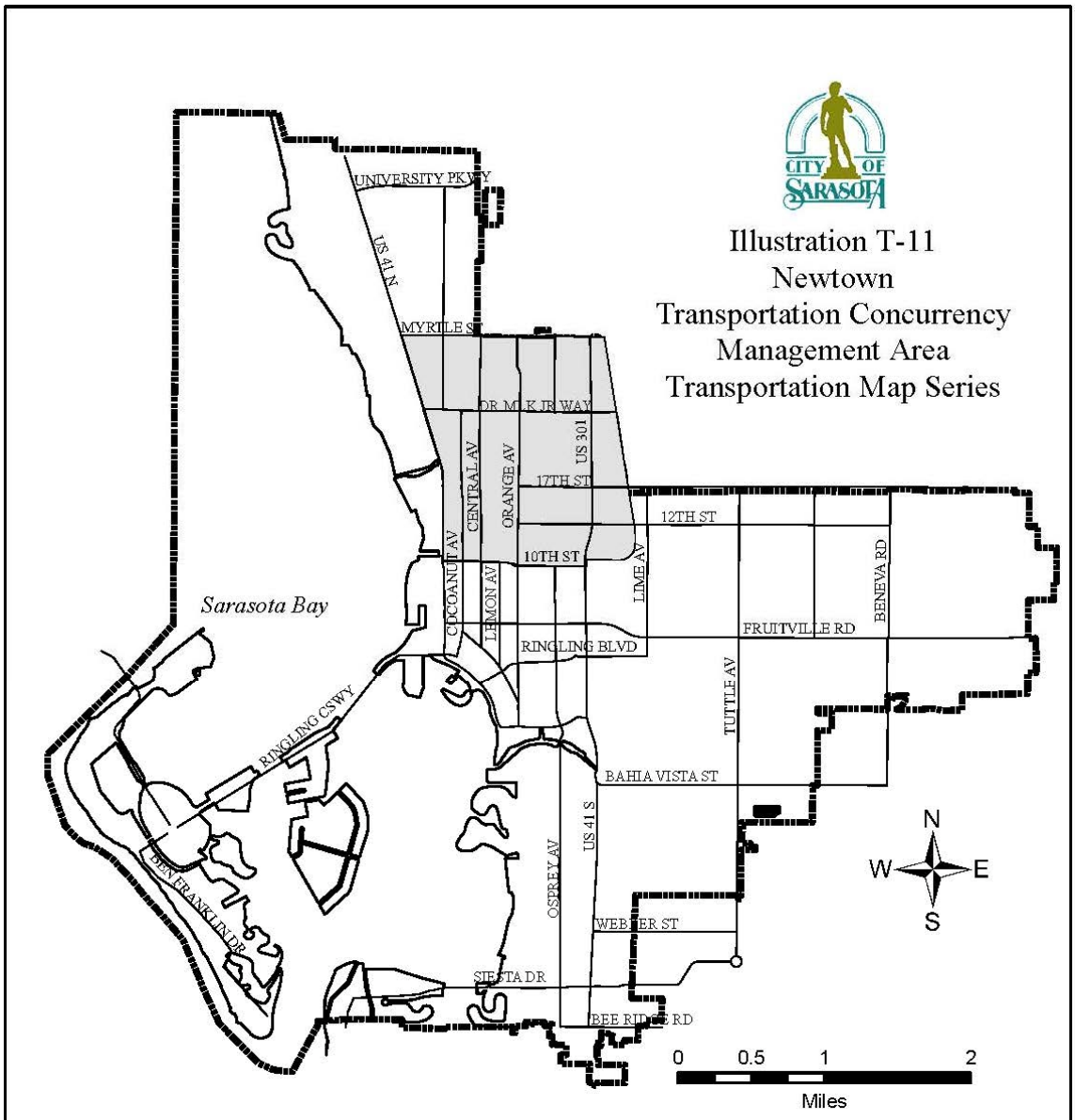
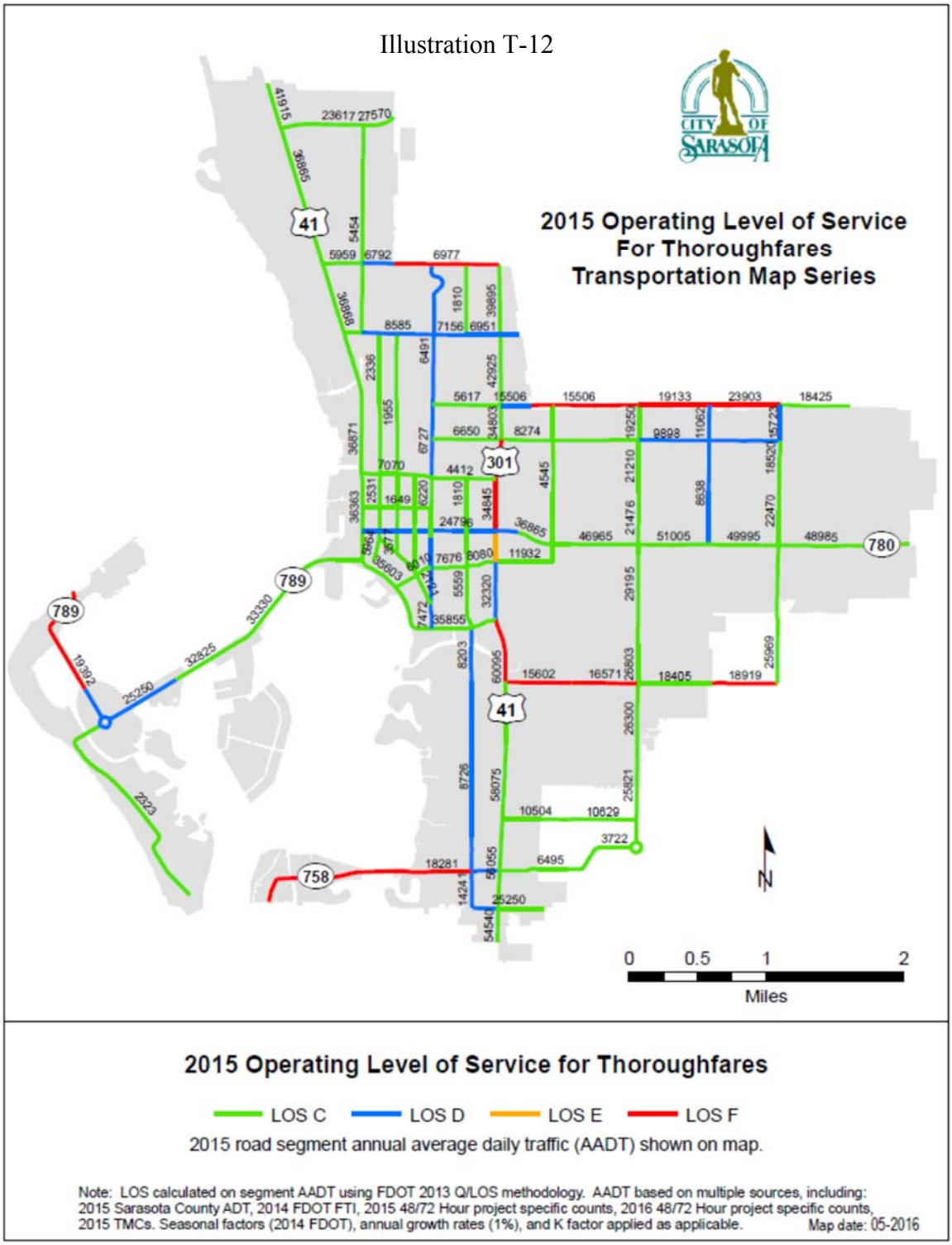


Illustration T-11
Newtown
Transportation Concurrency
Management Area
Transportation Map Series
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR M.L.K. JR WAY
US 301
CENTRAL AV
ORANGE AV
17TH ST
12TH ST
10TH ST
COCOANUT AV
LEMON AV
LIME AV
BENEVA RD
Sarasota Bay
FRUITVILLE RD
RINGLING BLVD
TUTTLE AV
RINGLING CSWY
BAHIA VISTA ST
US 41 S
OSPREY AV
BEN FRANKLIN DR
WEBSTER ST
SIESTA DR
BEE RIDGE RD
N
W
E
S
0
0.5
1
2
Miles
Newtown
Transportation Concurrency Management Area (TCMA)
Transportation Concurrency
Management Area
City of Sarasota Engineering Department 2007

Illustration T-12



2015 Operating Level of Service for Thoroughfares

LOS C — LOS D — LOS E — LOS F

2015 road segment annual average daily traffic (AADT) shown on map.

Note: LOS calculated on segment AADT using FDOT 2013 Q/LOS methodology. AADT based on multiple sources, including: 2015 Sarasota County ADT, 2014 FDOT FTI, 2015 48/72 Hour project specific counts, 2016 48/72 Hour project specific counts, 2015 TMCs. Seasonal factors (2014 FDOT), annual growth rates (1%), and K factor applied as applicable. Map date: 05-2016

Illustration T-13

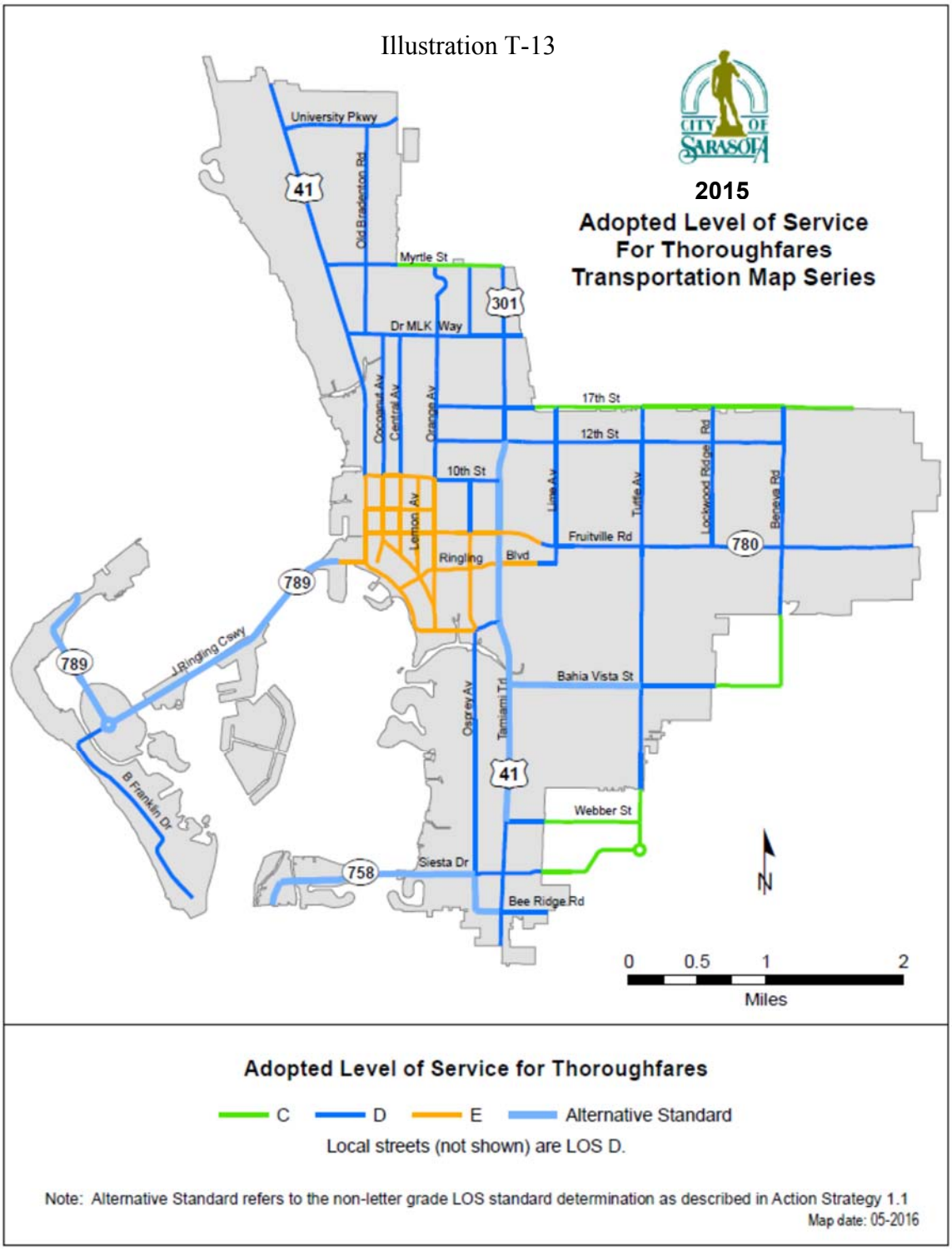


Illustration T-14

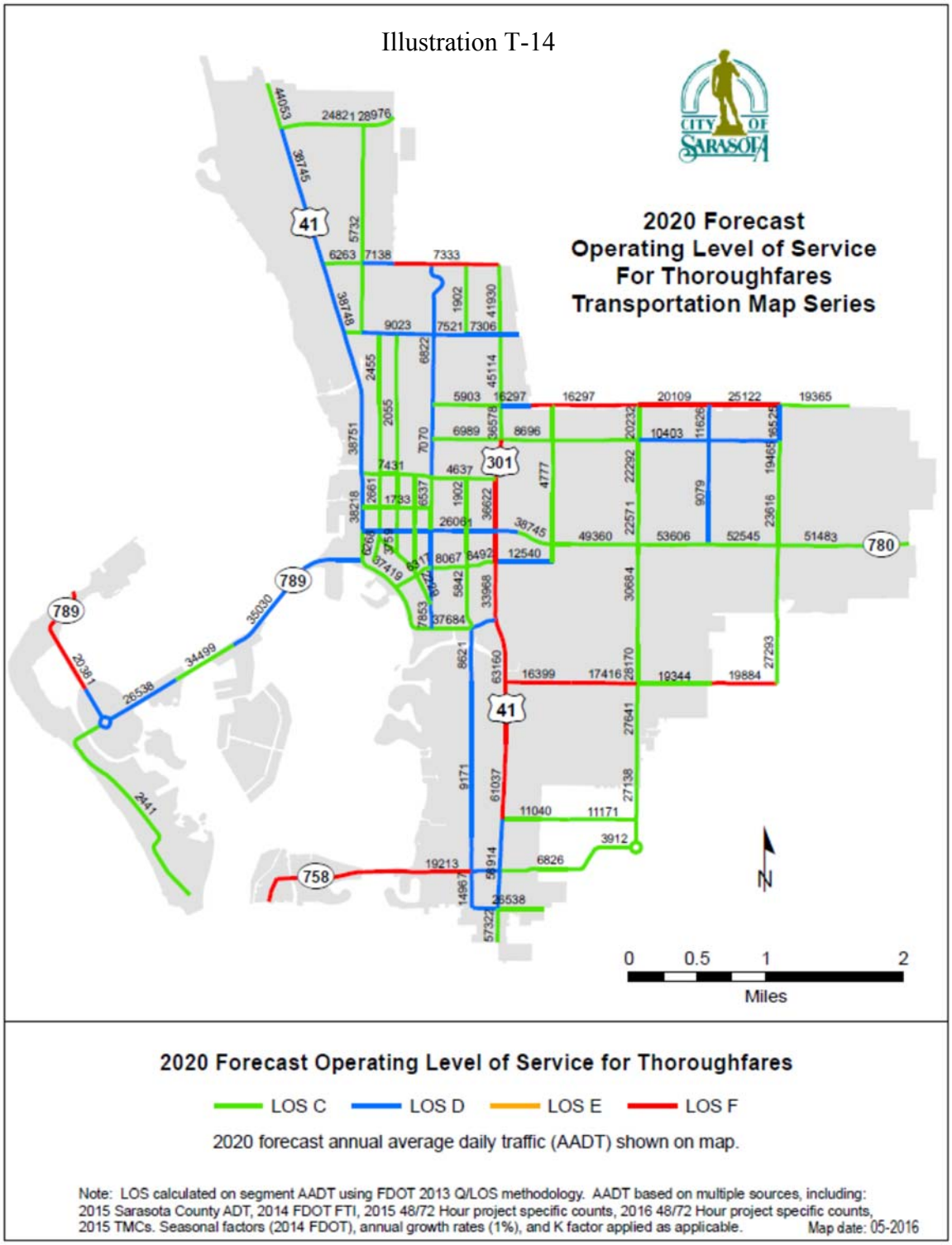
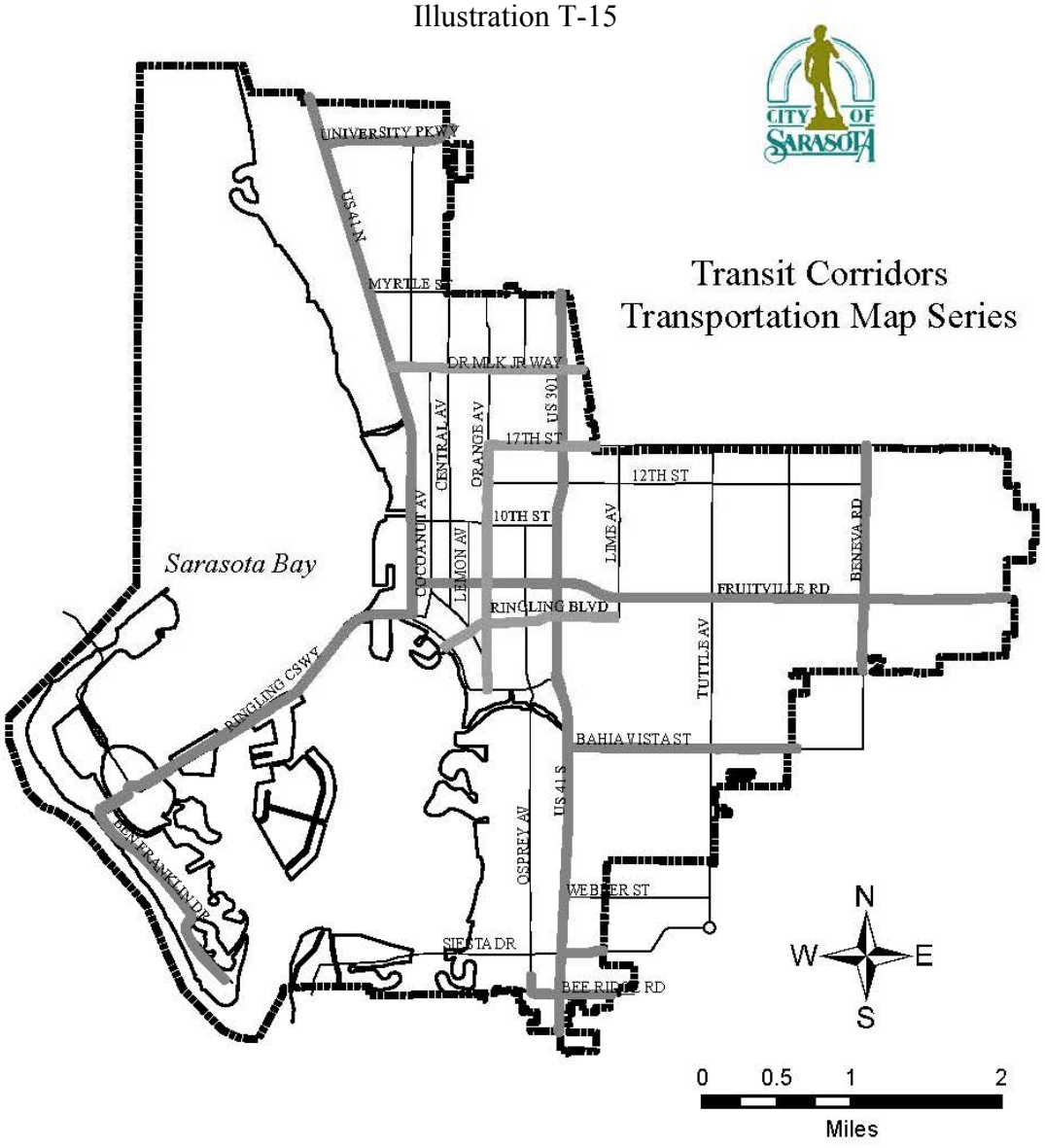


Illustration T-15



Transit Corridors

17thStreet	Siesta Dr	Beneva Road
Ringling Blvd / Cswy	Dr. MLK Jr. Way	Fruitville Road
Ben Franklin Drive	Orange Ave	Bahia Vista St
US 41 (North and South)	University Pkwy	

City of Sarasota Engineering Department 2007

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The Transportation Support Document

The inventory and analysis in the Support Document provides the foundation for the Plan portion of this Chapter.

The Support Document is not adopted.

INVENTORY AND ANALYSIS

Overview

This Transportation Chapter considers the physical and spatial needs of a City that is over 100 years of age and which is the home of approximately 54,639 year-round inhabitants. The City contains over 500 miles of roadway under the jurisdiction of the Florida Department of Transportation, Sarasota County and local City streets. The City participates in the Metropolitan Planning Organization (MPO) with other municipalities in Sarasota and Manatee counties. Fourteen bus routes, operated and managed by Sarasota County Area Transit (SCAT), operate within the City of Sarasota. The City includes 83.65 miles of designated bike lanes/routes and almost 16 miles of trails.

The Inventory and Analysis of the Transportation Chapter is the data and information that underlies the City's policies for maintaining and improving the City's transportation infrastructure. A major issue, as identified by the Evaluation and Appraisal Report, is Transportation Mobility in the Downtown Environment. The City of Sarasota must make a policy decision regarding the Transportation Concurrency Exception Area and implementation of the Downtown Sarasota Mobility Study and Downtown Parking Master Plan.

The Inventory and Analysis section is organized as follows:

Roadway Functional Classification
Thoroughfare Plan
Concurrency
Transportation Systems Management (TSM)
Neighborhood Protection
Vehicle Parking
Other Automobile Issues
Tamiami Trail Scenic Highway
Multimodal Transportation
Mass Transit
Aviation
Rail
Bicycle Networks
Pedestrian Facilities
Water Taxi
Downtown Master Plan Study Area
TCEA
Downtown Mobility Study
Newtown TCMA

Appendices to this Support Document are:

Appendix 1: Comprehensive Plan Update Study, 2016;
Appendix 2: EAR Requirements Index;
Appendix 3: Strategic Goals Index;
Appendix 4: TCEA Update Study, 2004;
Appendix 5: Newtown Transportation Concurrency Exception Area Study, 2006;
Appendix 6: Glossary;
Appendix 7: Bibliography.

ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

Streets have two basic functions: moving traffic efficiently and providing access to private properties. The level of importance of these two opposing objectives depends on the street's functional classification. Interstate 75 is at one end of the scale where approximately 99% of its purpose is moving traffic and providing access is about 1%. At the other extreme, a local residential street like Loma Linda Street west of Osprey Avenue, only 1% of its purpose is moving traffic and providing access is approximately 99%.

Higher functional classification implies:

- stricter access management requirements for developed properties, and
- wider rights-of-way and cross-sections;
- more lanes; and
- streetscape appropriate to heavier traffic.

As a result, functional classification has neighborhood implications. Strict access management can mean more driveways on neighborhood side streets. Widening streets can impact front yard setbacks. More intense land uses can impair neighborhood compatibility. These issues are discussed at greater length under "Neighborhood Protection."

Illustration T-3 shows the proposed future number of lanes as recommended in the 2005 Evaluation and Appraisal Report (EAR). The EAR was developed based on the City's *Capital Improvements Program*, the MPO's Transportation Improvement Program (TIP) and 2030 Long Range Transportation Plan, FDOT's Adopted Work Program, and citizen input during the EAR workshops.

The major arterials and all interstate connectors in the City are under State or County jurisdiction. This means that the Florida Department of Transportation (FDOT) and Sarasota County design criteria supersede the City's Engineering Design Criteria Manual in controlling the location and design of access onto these streets, from both abutting properties and intersecting City streets. The FDOT and County design standards are meant to provide adequate sight-distance and to minimize traffic conflict points. They do not reduce neighborhood intrusion. Illustration T-4 indicates the jurisdictional responsibility for each thoroughfare in the City of Sarasota.

Existing and Future Functional Classification

Illustration T-4 shows how the City's streets are classified at the present time using FDOT criteria. The FDOT nomenclature differs somewhat from the classifications shown on the City's Thoroughfare Plan. The City's "Interstate Connectors" and "Major Arterials" are called "Principal Arterials" by FDOT. The City's "Major Collectors" and "Minor Collectors" are called "Urban Collectors" by FDOT. Because the City's classifications are more precise than FDOT's, all future references to functional classification in this Chapter (excluding Illustration T-4) will use the City's nomenclature.

Interstate connectors are the first functional class. They connect the City directly to an I-75 interchange. The City has three interstate connectors: University Parkway, Fruitville Road and Bee Ridge Road. *Major arterials* are designed to move inter-city and intra-city traffic, while minor arterials are for intra-city movements and separate neighborhoods. US-41 and US-301 are major arterials in the City of Sarasota. *Major collectors* link and connect neighborhoods. Major collectors in the City include Siesta Drive and Myrtle Street (east of US-41). *Minor collectors* act as funnels from local neighborhood streets. In the City, minor collectors include Lime Avenue (north of Ringling Boulevard) and Osprey Avenue (south of 10th Street.) Finally, local residential streets provide individual parcel access and are not shown on the Thoroughfare Plan. These Thoroughfare Plan designations are mapped in Illustration T-1 and listed by name in the table in Illustration T-2. These maps represent the recommended future functional classifications for the City of Sarasota's thoroughfares.

The desired typical cross-sections for future thoroughfares are listed below. During roadway design, the number of lanes and median widths are set on a case-by-case basis with a preliminary engineering study. In the case of major arterials, some right-of-way widths are specified as 90-feet and others as 100 feet wide.

Interstate Connector	6 lanes with	14-foot median	118-ft. ROW
Major Arterial	4 lanes with	22-foot median	90-100-ft. ROW
Minor Arterial	4 lanes with	15.5-foot median	90-foot ROW
Major Collector	4 lanes with	No median	75-ft. ROW
Minor Collector	2 lanes with	10-foot median	60-ft. ROW
Local Residential Street	2 lanes with	No median	50-ft. ROW
Alleys	2 10-ft lanes with	No median	20-ft ROW

THE CITY'S THOROUGHFARE PLAN

The City of Sarasota Thoroughfare Plan has been amended many times since its original adoption in 1972. The original system was based largely on proportional spacing, with major arterials spaced farthest apart and minor collectors spaced more closely.

The concept of proportional spacing of arterials, collectors, and local streets at specified distances is an appropriate traffic engineering practice. However, it does not account for other goals such as streetscape, access management, pedestrian/bicycle-related improvements and transit considerations. Moreover, changes in traffic volume and circulation patterns required an update to confirm whether the roads are actually functioning as the Thoroughfare Plan intended.

The City of Sarasota's 2006 Thoroughfare Plan is found in Illustration T-1. Illustration T-2 is the Thoroughfare Table with the names and functional classifications of City roadways. At the direction of policymakers, City staff have removed a number of streets from the Thoroughfare Plan. South School Avenue, South Shade Avenue, South Orange Avenue, and Circus Boulevard were all considered minor collector roadways. To accomplish the goal of protecting neighborhoods, those streets were removed from the Thoroughfare Plan. This has the effect of making the City's grid network of streets, particularly in south Sarasota, less efficient. It also has implications for concurrency analysis. With fewer road segments to assign trips to, the concurrency model creates even higher volumes on major roadways like South Tamiami Trail, Tuttle Avenue, and Bahia Vista Street. Those higher volumes make it more likely that proposed development and redevelopment will "break the bank" for level of service and will not be able to proceed.

It can be confusing to understand how the number of lanes relates to functional classification. As noted above, the higher the classification, the wider the right-of-way must be. However, the cross-sections suggested in the Engineering Design Criteria Manual are not mandatory. It is possible to recommend, as in the case of Myrtle Street, a two-lane street on a 75-foot right-of-way which could accommodate four lanes. The LOS on Myrtle Street is expected to remain adequate, thus the widening to 4 lanes is not needed.

The City of Sarasota has greatly increased its development over the years including a bustling New Urbanist downtown center. In many cases, development has occurred such that right-of-way for future street widening is not available. One of the major issues for this Transportation Chapter is to evaluate other transportation concurrency management techniques to guide the City's development patterns in the future.

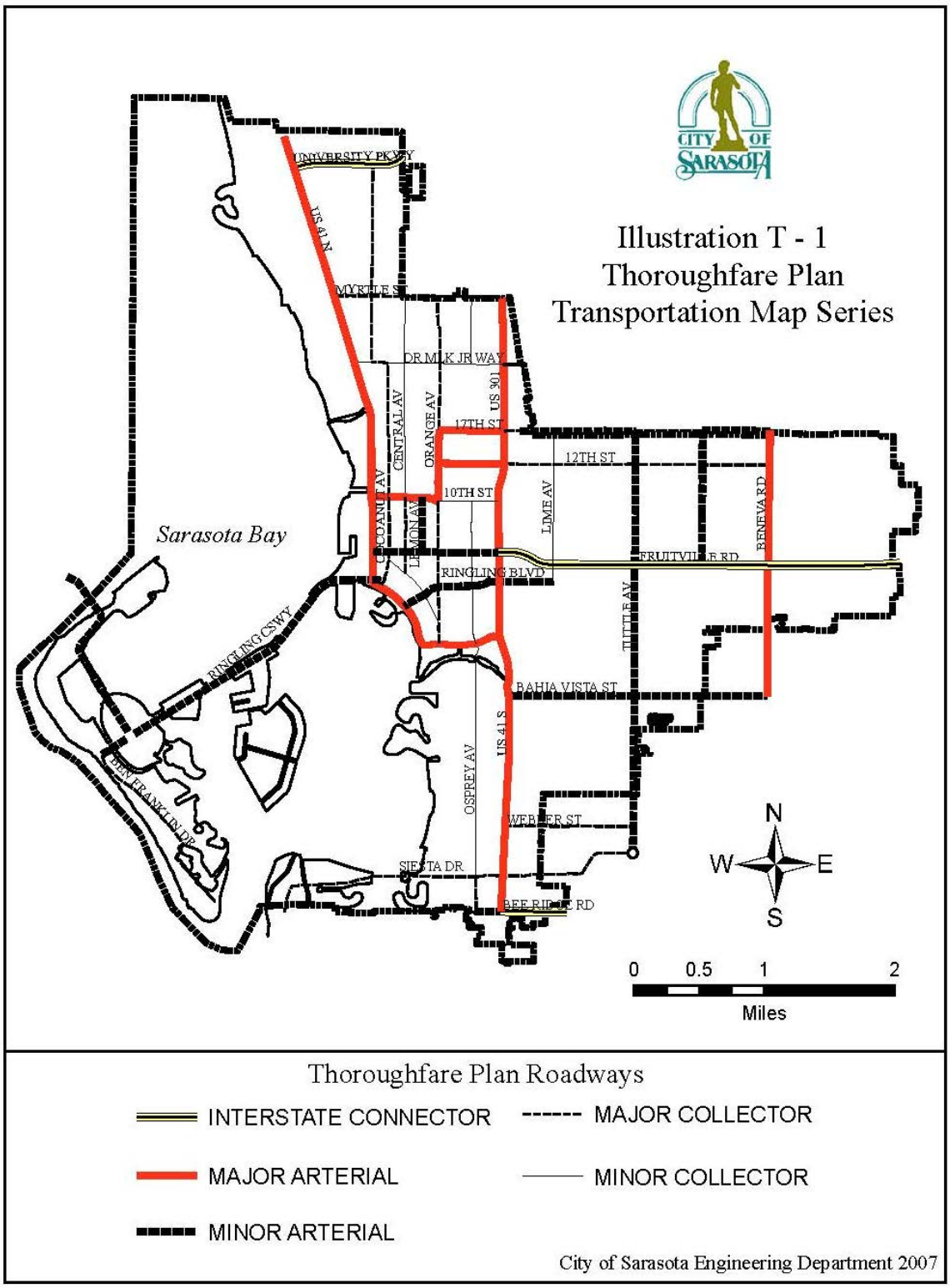


Illustration T - 1
Thoroughfare Plan
Transportation Map Series
CITY OF SARASOTA
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR M L K JR WAY
US 301
ORANGE AV
CENTRAL AV
17TH ST
12TH ST
10TH ST
COCONUT AV
LEMON AV
LIME AV
BENEVA RD
FRUITVILLE RD
Sarasota Bay
RINGLING BLVD
RINGLING CSWY
TUTTLE AV
BAHIA VISTA ST
US 41 S
OSPREY AV
BEN FRANKLIN DR
WEBBER ST
SIESTA DR
BEE RIDGE RD
N
W
E
S
0
0.5
1
2
Miles
Thoroughfare Plan Roadways
INTERSTATE CONNECTOR
MAJOR COLLECTOR
MAJOR ARTERIAL
MINOR COLLECTOR
MINOR ARTERIAL
City of Sarasota Engineering Department 2007

CONCURRENCY

Transportation concurrency is a critical part of the Florida Growth Management Act. It requires that transportation facilities (and other public infrastructure) be available concurrent with the impacts of development. For fast-growing Florida, concurrency represented a "pay as you grow" plan for the state's future development.

The Concept of Level-of-Service (LOS)

For transportation, the concept of level-of-service (LOS) is used to assess the adequacy of transportation facilities. Level of Service has been used in the United States for decades to assess a motorist's perception of traffic flow, ranging from "A," representing free flow, to "F," representing jammed conditions. The current edition of the Highway Capacity Manual (HCM) 2003, published by the Transportation Research Board, describes the traditional qualitative definitions. It is important to remember that this level of service standard is based solely on the adequacy of automobile facilities. The following represents a brief summary:

LOS "A"	Free flow at posted speed, light traffic, easy to change lanes;
LOS "B"	Free flow, some difficulty to change lanes due to traffic;
LOS "C"	Mostly free flow, but traffic is heavy and lane changes are difficult;
LOS "D"	Reduced speed, some slowing and stopping delays;
LOS "E"	Greatly reduced speed, numerous slowing and stopping delays; and
LOS "F"	Forced flow, long unpredictable stopped delays.

Choosing a LOS standard is not a science, but rather a delicate balancing of the needs of commerce and residents. Raising the LOS standard would require developers to mitigate their traffic impacts (see "Concurrency" below), but that increased cost could discourage desirable development. Adopting a higher LOS standard also means that City-funded or developer-funded street widenings would be needed to increase automobile capacity. The acquisition of right of way for those widenings can infringe on neighborhoods and private property rights. On the other hand, lowering, or loosening, the LOS standard may allow, even encourage, redevelopment, but the increased congestion may increase the cost of doing business and impair the ability of residents to travel freely. Increased traffic congestion may also increase traffic intrusion into neighborhoods.

If a street running through an established residential neighborhood is on the Thoroughfare Plan and is operating at a deficient LOS, consideration should be given to:

- removing it from the Thoroughfare Plan;
- lowering the LOS standard for that street;
- declaring it a "constrained facility;" or

- implementing system-wide alternative transportation strategies designed to reduce the automobile trips on the street.

In the first instance, removing a road from the Thoroughfare plan allows traffic calming measures to be implemented. However, maintenance responsibility shifts to the City and the road will no longer be eligible for Federal and State funding. In the second, congestion is permitted to increase with capacity improvements to thoroughfare roads sought when possible. If the roadway is declared constrained, new development must be limited. These three strategies will all discourage traffic from using the street and will require the City to focus on improving other streets which do not affect neighborhoods.

The 1998 Transportation Plan suggested a fourth strategy - "implementation of some of the Goals and Objectives in Pedestrian and Bicycle Networks section of the Transportation Chapter." That recommendation echoes current planning and research trends concerning multimodal transportation networks. In 1999, the Florida legislature amended the Growth Management Act to allow creation of multimodal transportation districts (MMTDs). (Florida Statutes, Chapter 163.3180). MMTDs allow transportation concurrency to be advanced through the development of a high quality multimodal environment, rather than the typical approach involving road widening for automobile capacity.

As mentioned above, in order to protect established residential neighborhoods, it may be desirable to do more than merely declare a deficient segment as "constrained." In some cases they should be removed from the Thoroughfare Plan so that improvements can be made to make the street more "liveable." These include medians, street trees, and construction of bike lanes, traffic calming tables, on-street parking, and other measures.

Pursuant to Florida Statutes 163.3180 (10), the City of Sarasota is permitted to set level of service standards for State-maintained roadways which are not on the Florida Interstate Highway System or the Strategic Intermodal System. In Action Strategy, 1.1, the City adopts a Level of Service "D" for all state maintained roads within the City which are classified as major arterials or interstate connectors; the City adopts Level of Service "E" for all other state maintained roadways within the City Limits. County-maintained roads use the County's standard of "C." Roadway jurisdictional responsibility can be found on Illustration T- 4. There is one County-maintained local street not shown on Illustration T-1: Bay Road from Osprey Avenue to Tangier Terrace. Its LOS standard is "C". All other local streets not shown on Illustration T- 1 have an adopted LOS standard of "D".

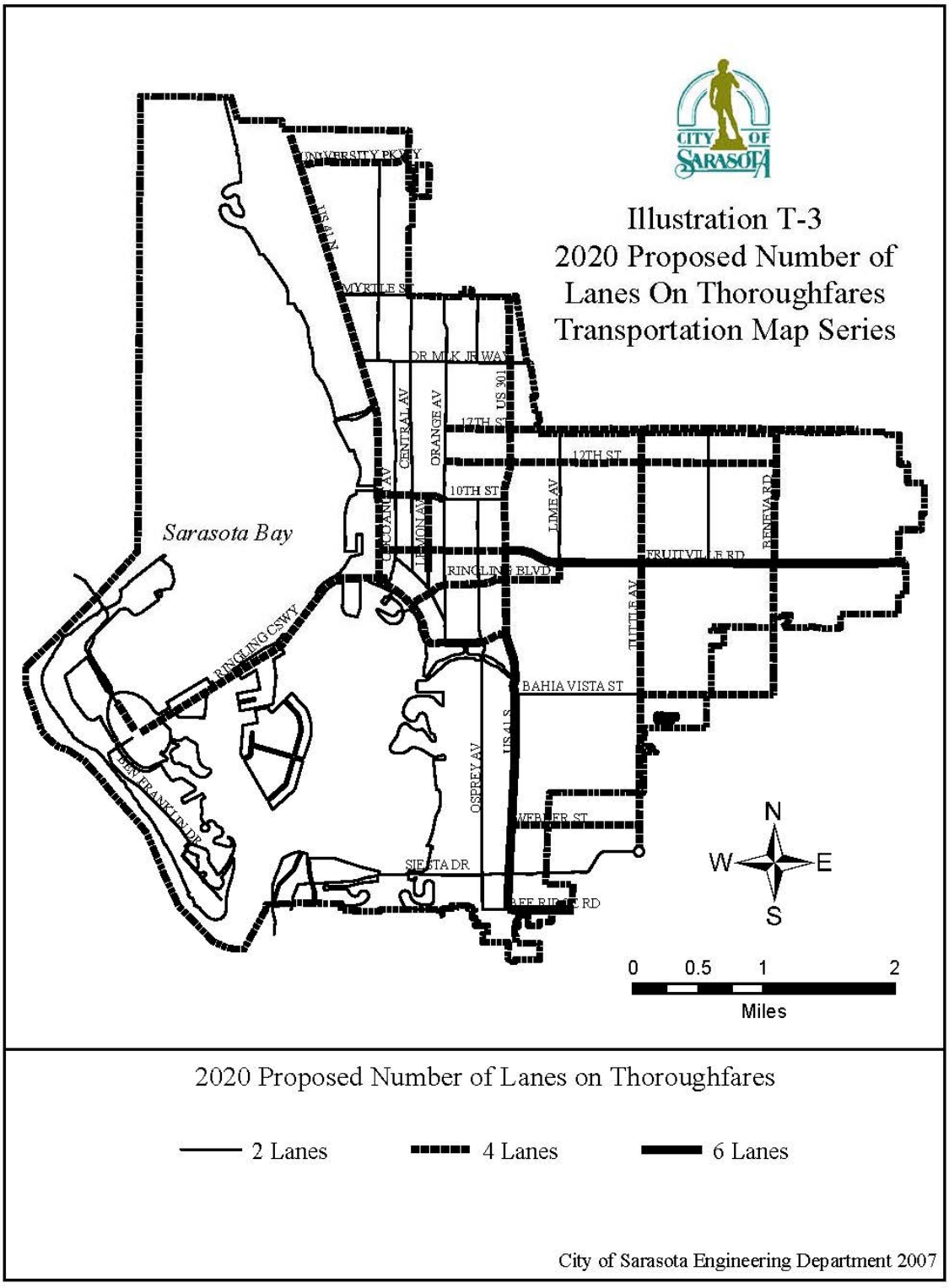


Illustration T-3
2020 Proposed Number of Lanes On Thoroughfares
Transportation Map Series
CITY OF SARASOTA
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR M.L.K. JR WAY
US 301
CENTRAL AV
ORANGE AV
17TH ST
12TH ST
10TH ST
OCCIDENTAL AV
LEMON AV
LIME AV
BENEVA RD
Sarasota Bay
FRUITVILLE RD
RINGLING BLVD
TUTTLE AV
RINGLING CSWY
BAHIA VISTA ST
US 41 S
OSPREY AV
BEN FRANKLIN DR
WEBBER ST
SIESTA DR
REE RIDGE RD
N
W
E
S
0 0.5 1 2
Miles
2020 Proposed Number of Lanes on Thoroughfares
2 Lanes
4 Lanes
6 Lanes
City of Sarasota Engineering Department 2007

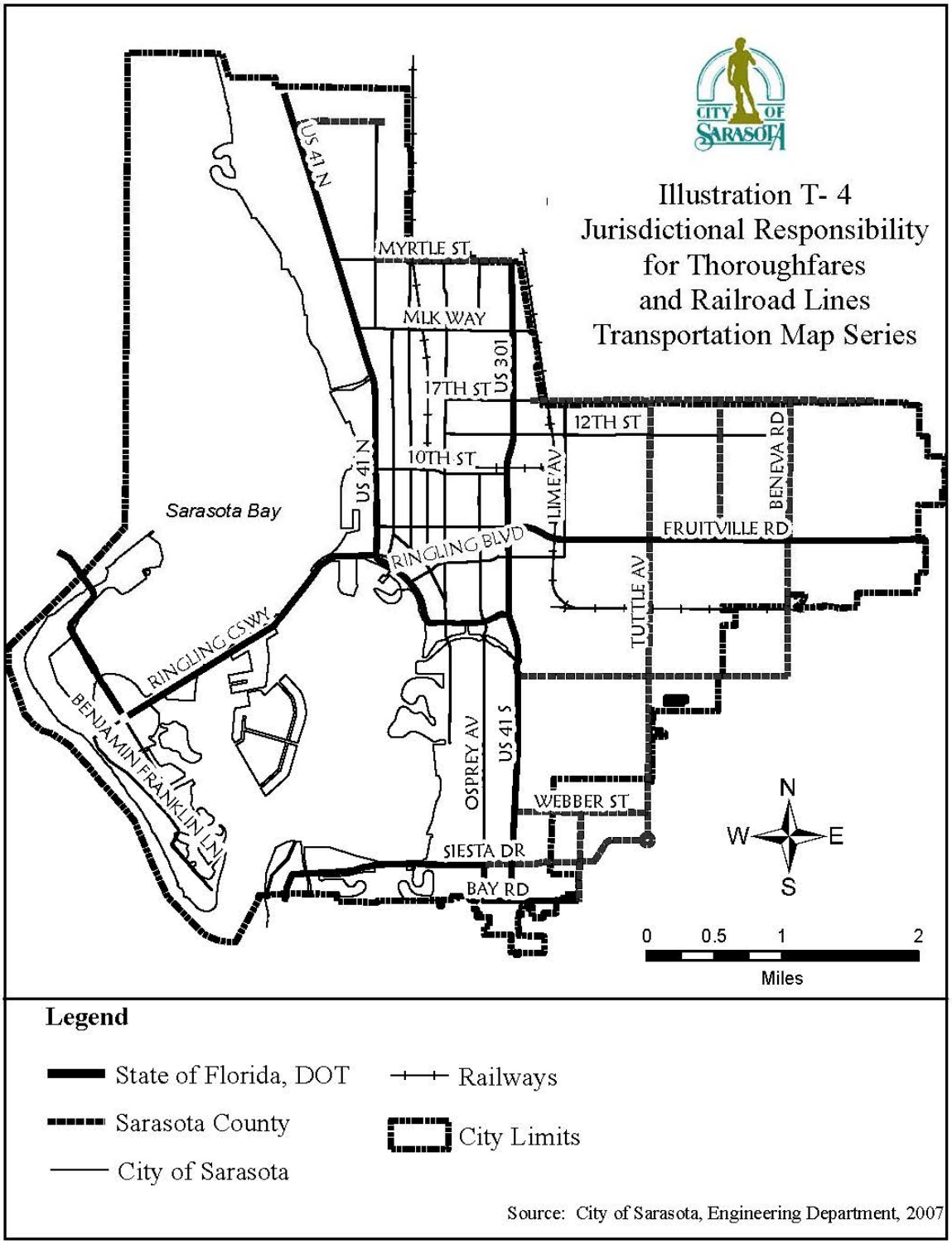
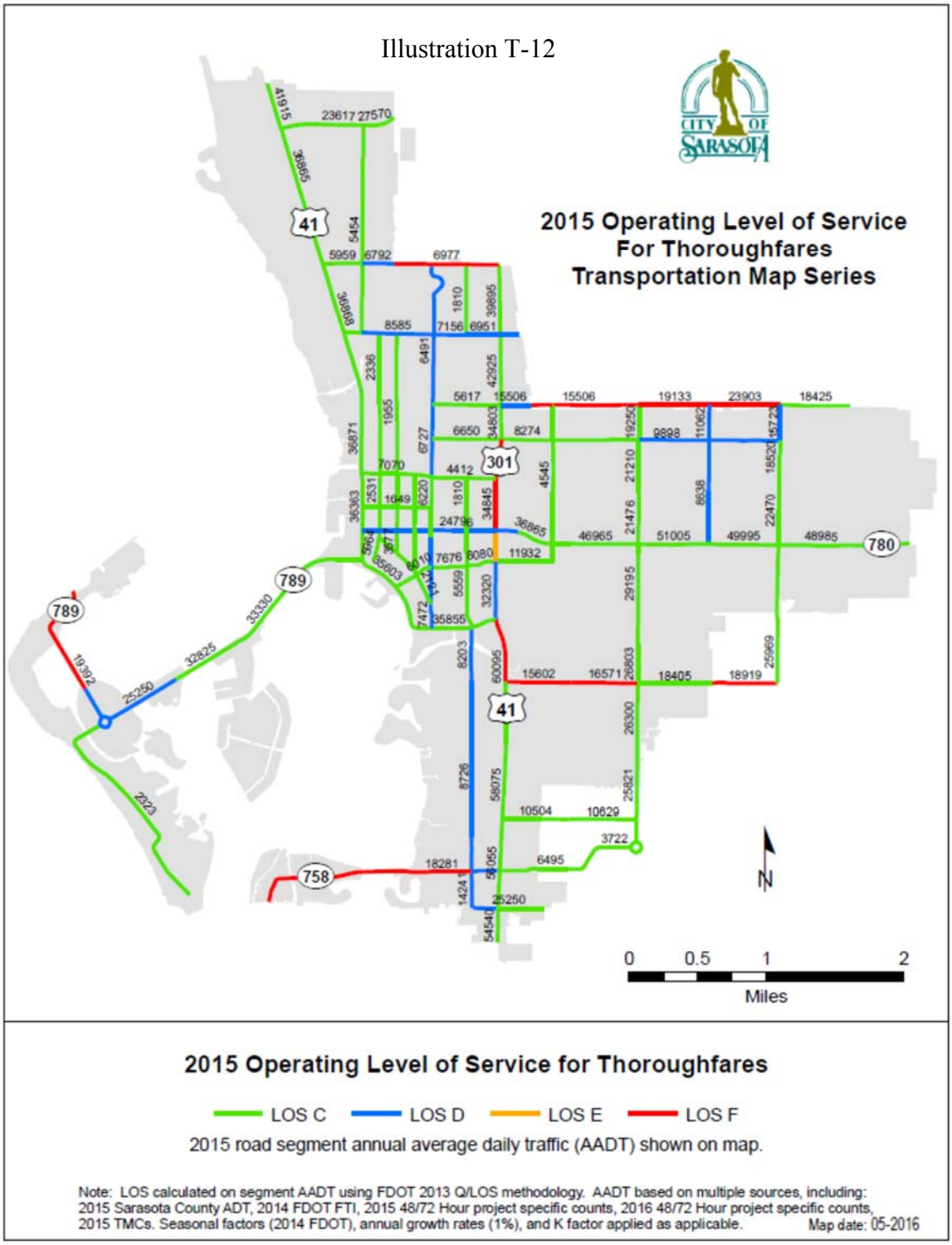


Illustration T- 4
Jurisdictional Responsibility
for Thoroughfares
and Railroad Lines
Transportation Map Series
US 41 N
MYRTLE ST
MLK WAY
US 301
17TH ST
12TH ST
10TH ST
US 41 N
LIME AV
BENEVA RD
Sarasota Bay
FRUITVILLE RD
RINGLING BLVD
TUTTLE AV
RINGLING CSWY
BENJAMIN FRANKLIN LN
OSPREY AV
US 41 S
WEBBER ST
SIESTA DR
BAY RD
N
W
E
S
0
0.5
1
2
Miles
Legend
State of Florida, DOT
Railways
Sarasota County
City Limits
City of Sarasota
Source: City of Sarasota, Engineering Department, 2007

Illustration T-12



Existing and Projected Roadway Level of Service

In 2006, the City Engineering Department hired Tindale Oliver and Associates, Inc. to analyze existing and future traffic conditions in the City in preparation for this update of the Sarasota City Plan. The study was completed on August 3, 2006 and updated on May 6, 2016. The full study is included as Appendix 1. The following table, from the 2006b study by Tindale Oliver and Associates, Inc, illustrates the adopted level of service of City roadways, including some roads that are not currently listed on the City's thoroughfare plan in Illustrations T-1 and T-2. The adopted level of service is compared with existing 2006 trips, projected trips in 2010 and projected trips in 2020. The shaded cells indicate roadways that are not meeting their adopted level-of-service.

Illustration T-20

2006 - 2020 Roadway Levels of Service Compared to Standards

On Street	From	To	City LOS Standard	Roadway Level of Service 2006	2010	2015	2020
10TH ST	US 41	COCOANUT AV	D	E	E	E	E
10TH ST	LIME AV	TUTTLE AV	D	A	A	A	A
10TH ST	COCOANUT AV	CENTRAL AV	D	E	E	E	E
10TH ST	CENTRAL AV	LEMON AV	D	E	E	E	E
10TH ST	LEMON AV	ORANGE AV	D	E	E	E	E
10TH ST	ORANGE AV	US 301	D	C	C	C	C
12TH ST	ORANGE AV	WASHINGTON BLVD	D	B	B	B	B
12TH ST	WASHINGTON BLVD	EAST AV	D	C	C	C	C
12TH ST	EAST AV	LIME AV	D	C	C	C	C
12TH ST	LIME AV	TUTTLE AV	D	C	C	C	C
12TH ST	TUTTLE AV	LOCKWOOD RIDGE RD	D	C	C	C	C
12TH ST	LOCKWOOD RIDGE RD	BENEVA RD	D	C	C	C	C
17TH ST	LIME AV	TUTTLE AV	C	D	D	F	F
17TH ST	TUTTLE AV	LOCKWOOD RIDGE RD	C	D	D	D	F
17TH ST	LOCKWOOD RIDGE RD	BENEVA RD	C	D	D	D	F
17TH ST	BENEVA RD	CIRCUS	C	B	B	B	B
17TH ST	US 41	COCOANUT AV	D	A	A	A	A
17TH ST	COCOANUT AV	CENTRAL AV	D	A	A	A	A
17TH ST	ORANGE AV	US 301	D	D	D	D	D
17TH ST	US 301	EAST AV	C	D	D	F	F
17TH ST	EAST AV	LIME AV	C	D	D	F	F
8TH ST	US 301	LIME AV	D	C	C	C	C
8TH ST	TUTTLE AV	LOCKWOOD RIDGE RD	D	C	C	C	C
BAHIA VISTA ST	US 41	SHADE AV	C	F	F	F	F
BAHIA VISTA ST	SHADE AV	EUCLID AV	C	F	F	F	F
BAHIA VISTA ST	EUCLID AV	TUTTLE AV	C	F	F	F	F
BAHIA VISTA ST	TUTTLE AV	LOCKWOOD RIDGE RD	C	D	D	E	E
BAHIA VISTA ST	LOCKWOOD RIDGE RD	BENEVA RD	C	D	D	E	E
BAY RD	OSPREY AV	US 41	E	F	F	F	F
BEE RIDGE RD	US 41	SCHOOL AV	D	D	D	D	D
BEE RIDGE RD	SCHOOL AV	SHADE AV	D	D	D	D	D
BENEVA RD	BAHIA VISTA ST	CITY LIMITS	C	C	C	C	C
BENEVA RD	12TH ST	17TH ST	C	D	D	D	E
BENEVA RD	SHOPPING CNTR	12TH ST	C	D	D	D	E
BENEVA RD	CIRCUS BLVD	SHOPPING CNTR	C	D	D	D	E
BENEVA RD	FRUITVILLE RD	CIRCUS BLVD	C	D	D	D	E
BENEVA RD	CITY LIMITS	FRUITVILLE RD	C	C	C	C	C
BENJAMIN FRANKLIN LN	GARFIELD DR	RINGLING PKWY	D	B	B	B	B
BLVD OF THE PRESIDENT	ST ARMANDS	ROOSEVELT DR	D	B	B	B	B
CENTRAL AV	10TH ST	17TH ST	D	B	B	B	B
CENTRAL AV	6TH ST	10TH ST	D	D	D	D	D
CENTRAL AV	FRUITVILLE RD	6TH ST	D	D	D	D	D
CENTRAL AV	PINEAPPLE AV	FRUITVILLE RD	D	E	E	F	F
CIRCUS BLVD	BENEVA RD	17TH ST	D	C	C	C	D
COCOANUT AV	10TH ST	17TH ST	D	C	C	C	C
COCOANUT AV	17TH ST	MLK WAY	D	C	C	C	C
COCOANUT AV	6TH ST	10TH ST	D	D	D	D	D
COCOANUT AV	FRUITVILLE RD	6TH ST	D	D	D	D	D
COCOANUT AV	2ND ST	FRUITVILLE RD	D	E	E	E	F
COCOANUT AV	GULF STREAM AV	2ND ST	D	E	E	E	F
FRUITVILLE RD	US 41	COCOANUT AV	D	E	E	E	E
FRUITVILLE RD	COCOANUT AV	CENTRAL AV	D	E	E	E	E
FRUITVILLE RD	CENTRAL AV	LEMON AV	D	E	E	E	E
FRUITVILLE RD	LEMON AV	ORANGE AV	D	E	E	E	E
FRUITVILLE RD	ORANGE AV	GOODRICH AV	D	E	E	E	E
FRUITVILLE RD	GOODRICH AV	OSPREY AV	D	E	E	E	E
FRUITVILLE RD	OSPREY AV	LINKS AV	D	E	E	E	E
FRUITVILLE RD	LINKS AV	US 301	D	E	E	E	E
FRUITVILLE RD	US 301	EAST AV	D	D	F	F	F
FRUITVILLE RD	EAST AV	SCHOOL AV	D	D	F	F	F
FRUITVILLE RD	SCHOOL AV	LIME AV	D	D	F	F	F
FRUITVILLE RD	LIME AV	SHADE AV	D	D	F	F	F
FRUITVILLE RD	SHADE AV	TUTTLE AV	D	D	F	F	F
FRUITVILLE RD	TUTTLE AV	LOCKWOOD RIDGE RD	D	F	F	F	F
FRUITVILLE RD	LOCKWOOD RIDGE RD	BENEVA RD	D	F	F	F	F

Illustration T-20

2006 - 2020 Roadway Levels of Service Compared to Standards (continued)

On Street	From	To	City LOS Standard	Roadway Level of Service 2006	2010	2015	2020
FRUITVILLE RD	BENEVA RD	MIMOSA CIR	D	C	C	C	C
FRUITVILLE RD	MIMOSA CIR	MCINTOSH	D	C	C	C	C
GULFSTREAM AV	US 41	COCOANUT AV	D	F	F	F	F
LEMON AV	6TH ST	10TH ST	D	D	D	D	D
LEMON AV	4TH ST	6TH ST	D	D	D	D	D
LEMON AV	FRUITVILLE RD	4TH ST	D	D	D	D	D
LEMON AV	2ND ST	FRUITVILLE RD	D	E	E	E	E
LEMON AV	1ST ST	2ND ST	D	E	E	E	E
LEMON AV	MAIN ST	1ST ST	D	E	E	E	E
LEMON AV	PINEAPPLE AV	MAIN ST	D	E	E	E	E
LIME AV	12TH ST	17TH ST	D	C	C	C	C
LIME AV	8TH ST	12TH ST	D	D	D	D	D
LIME AV	FRUITVILLE RD	8TH ST	D	D	D	D	D
LIME AV	RINGLING BLVD	FRUITVILLE RD	D	D	D	D	D
LOCKWOOD RIDGE RD	12TH ST	17TH ST	C	D	E	F	F
LOCKWOOD RIDGE RD	8TH ST	12TH ST	C	D	E	F	F
LOCKWOOD RIDGE RD	FRUITVILLE RD	8TH ST	C	D	E	F	F
MCCLELLAN PKWY	OSPREY AV	HYDE PARK ST	D	C	C	C	C
MECCA DR	US 41	OLD BRADENTON RD	D	C	C	C	C
MLK WAY	US 41	OLD BRADENTON RD	D	D	D	D	D
MLK WAY	OLD BRADENTON RD	COCOANUT AV	D	C	C	C	C
MLK WAY	COCOANUT AV	CENTRAL AV	D	C	C	C	C
MLK WAY	CENTRAL AV	ORANGE AV	D	C	C	C	C
MLK WAY	ORANGE AV	OSPREY AV	D	C	C	C	C
MLK WAY	OSPREY AV	WASHINGTON BLVD	D	D	D	E	E
MLK WAY	WASHINGTON BLVD	CITY LIMIT	C	D	D	D	D
MYRTLE ST	US 41	OLD BRADENTON RD	D	C	C	C	C
MYRTLE ST	OLD BRADENTON RD	WASHINGTON BLVD	C	C	C	C	C
OLD BRADENTON RD	MLK WAY	MYRTLE ST	D	C	C	C	C
OLD BRADENTON RD	MYRTLE ST	UNIVERSITY PKWY	D	D	D	D	D
ORANGE AV	10TH ST	12TH ST	D	C	C	C	D
ORANGE AV	12TH ST	17TH ST	D	C	C	C	D
ORANGE AV	17TH ST	21ST ST	D	D	D	D	D
ORANGE AV	21ST ST	MLK WAY	D	D	D	D	D
ORANGE AV	MLK WAY	MYRTLE ST	D	B	B	B	B
ORANGE AV	BAHIA VISTA ST	US 41	D	C	C	C	C
ORANGE AV	W. HYDE PARK ST	BAHIA VISTA ST	D	C	C	C	C
ORANGE AV	6TH ST	10TH ST	D	C	D	D	D
ORANGE AV	FRUITVILLE RD	6TH ST	D	C	D	D	D
ORANGE AV	2ND ST	FRUITVILLE RD	D	E	F	F	F
ORANGE AV	MAIN ST	2ND ST	D	E	F	F	F
ORANGE AV	RINGLING BLVD	MAIN ST	D	E	F	F	F
ORANGE AV	US 41	RINGLING BLVD	D	F	F	F	F
OSPREY AV	S. CITY LIMIT	SIESTA DR	E	C	D	D	D
OSPREY AV	SIESTA DR	SOUTH DR	D	F	F	F	F
OSPREY AV	SOUTH DR	WEBBER ST	D	D	E	E	E
OSPREY AV	WEBBER ST	HILLVIEW ST	D	C	C	C	C
OSPREY AV	HILLVIEW ST	WALDEMERE ST	D	C	C	C	C
OSPREY AV	WALDEMERE ST	BAHIA VISTA ST	D	C	C	C	C
OSPREY AV	BAHIA VISTA ST	US 41	D	C	C	C	C
OSPREY AV	6TH ST	10TH ST	D	C	C	C	C
OSPREY AV	FRUITVILLE RD	6TH ST	D	D	D	D	D
OSPREY AV	MAIN ST	FRUITVILLE RD	D	E	E	E	E
OSPREY AV	RINGLING BLVD	MAIN ST	D	E	E	E	E
OSPREY AV	US 41	RINGLING BLVD	D	E	E	E	E
PINEAPPLE AV	COCOANUT AV	1ST ST	D	C	C	C	C
PINEAPPLE AV	1ST ST	MAIN ST	D	C	C	C	C
PINEAPPLE AV	MAIN ST	RINGLING BLVD	D	C	C	C	C
PINEAPPLE AV	RINGLING BLVD	OAK ST	D	C	C	C	C
RINGLING BLVD	ORANGE AV	OSPREY AV	D	D	D	D	D
RINGLING BLVD	OSPREY AV	US 301	D	D	D	D	D
RINGLING BLVD	US 301	EAST AV	D	C	C	C	C
RINGLING BLVD	EAST AV	SCHOOL AV	D	C	C	C	C
RINGLING BLVD	SCHOOL AV	LIME AV	D	C	C	C	C
RINGLING BLVD	LIME AV	SHADE AV	D	C	C	C	C

Illustration T-20

2006 - 2020 Roadway Levels of Service Compared to Standards (continued)

On Street	From	To	City LOS Standard	Roadway Level of Service 2006	2010	2015	2020
TUTTLE AV	12TH ST	17TH ST	C	D	D	D	D
TUTTLE AV	8TH ST	12TH ST	C	D	D	D	D
TUTTLE AV	FRUITVILLE RD	8TH ST	C	D	D	D	D
TUTTLE AV	RINGLING BLVD	FRUITVILLE RD	C	D	D	D	D
TUTTLE AV	BROWNING ST	RINGLING BLVD	C	D	D	D	D
TUTTLE AV	BAHIA VISTA ST	BROWNING ST	C	D	D	D	D
TUTTLE AV	HYDE PARK ST	BAHIA VISTA ST	C	C	C	C	D
TUTTLE AV	WEBBER ST	HYDE PARK ST	C	C	C	C	D
TUTTLE AV	SIESTA ST	WEBBER ST	C	C	C	C	C
UNIVERSITY PKWY	US 41	AIRPORT CIRCLE	C	D	F	F	F
UNIVERSITY PKWY	AIRPORT CIRCLE	OLD BRADENTON RD	C	D	F	F	F
UNIVERSITY PKWY	OLD BRADENTON RD	DESOTO ROAD	C	D	F	F	F
US 301	MLK WAY	MYRTLE ST	D	C	B	B	B
US 301	17TH ST	MLK WAY	D	C	B	B	B
US 301	12TH ST	17TH ST	D	E	E	F	F
US 301	10TH ST	12TH ST	D	E	E	F	F
US 301	FRUITVILLE RD	10TH ST	D	E	E	F	F
US 301	MAIN ST	FRUITVILLE RD	D	F	F	F	F
US 301	RINGLING BLVD	MAIN ST	D	F	F	F	F
US 301	OAK ST	RINGLING BLVD	D	F	F	F	F
US 301	US 41	OAK ST	D	F	F	F	F
US 41 N	UNIVERSITY PKWY	NORTH CITY LIMIT	D	C	C	C	C
US 41 N	MYRTLE ST	UNIVERSITY PKWY	D	F	F	F	F
US 41 N	MLK WAY	MYRTLE ST	D	C	C	C	F
US 41 N	17TH ST	MLK WAY	D	C	C	C	F
US 41 N	10TH ST	17TH ST	D	B	B	B	B
US 41 N	6TH ST	10TH ST	D	F	F	F	F
US 41 N	FRUITVILLE RD	6TH ST	D	F	F	F	F
US 41 N	GULF STREAM AV	FRUITVILLE RD	D	F	F	F	F
US 41 S	MAIN ST	GULF STREAM AV	D	F	D	F	F
US 41 S	RINGLING BLVD	MAIN ST	D	F	D	F	F
US 41 S	ORANGE AV	RINGLING BLVD	D	F	D	F	F
US 41 S	OSPREY AV	ORANGE AV	D	F	D	F	F
US 41 S	US 301	OSPREY AV	D	F	D	F	F
US 41 S	BAY ST	US 301	D	F	F	F	F
US 41 S	BAHIA VISTA ST	BAY ST	D	F	F	F	F
US 41 S	WALDEMERE ST	BAHIA VISTA ST	D	F	F	F	F
US 41 S	HILLVIEW ST	WALDEMERE ST	D	F	F	F	F
US 41 S	WEBBER ST	HILLVIEW ST	D	F	F	F	F
US 41 S	SIESTA DR	WEBBER ST	D	F	F	F	F
US 41 S	BAY RD (BEE RIDGE)	SIESTA DR	D	F	F	F	F
WALDEMERE ST	ORANGE AV	OSPREY AV	D	C	C	C	C
WALDEMERE ST	OSPREY AV	US 41	D	F	F	F	F
WALDEMERE ST	US 41	SHADE AV	D	C	C	C	C
WALDEMERE ST	SHADE AV	TUTTLE RD	D	C	C	C	C
WEBBER ST	US 41	SHADE AV	C	B	B	B	B
WEBBER ST	SHADE AV	TUTTLE RD	C	B	B	B	B
RINGLING BLVD	SHADE AV	TUTTLE AV	D	D	D	D	E
RINGLING BLVD	BENJAMIN FRANKLIN	ST ARMANDS	D	B	B	B	B
RINGLING BLVD	US 41	PINEAPPLE AV	D	D	D	D	D
RINGLING BLVD	PINEAPPLE AV	ORANGE AV	D	D	D	D	D
RINGLING CSWY	SUNSET/GOLDEN GATE PT	US 41	E	D	D	E	F
RINGLING CSWY	BIRD KEY DR	SUNSET/GOLDEN GATE PT	E	D	D	E	F
RINGLING CSWY	BLVD. OF PRESIDENT	BIRD KEY DR	E	C	C	C	D
RINGLING CSWY	N. ST. ARMANDS CIRCLE	BLVD. OF PRESIDENT	E	B	B	B	B
RINGLING CSWY	CITY LIMIT	N. ST. ARMANDS CIRCLE	E	E	E	E	E
SCHOOL AV	BAHIA VISTA ST	RINGLING BLVD	D	D	D	E	E
SHADE AV	BAHIA VISTA ST	RINGLING BLVD	D	C	C	C	C
SHADE AV	WALDEMERE ST	BAHIA VISTA ST	D	D	D	D	D
SHADE AV	WEBBER ST	WALDEMERE ST	D	B	B	B	B
SHADE AV	SIESTA DR	WEBBER ST	D	B	B	B	B
SHADE AV	BEE RIDGE RD	SIESTA DR	D	E	E	E	E
SHADE AV	RINGLING BLVD	MAIN ST	D	E	E	E	E
SIESTA DR	CITY LIMIT	OSPREY AV	E	D	F	F	F
SIESTA DR	OSPREY AV	US 41	D	D	E	E	F
SIESTA DR	US 41	SHADE AV	C	C	C	C	C
SIESTA DR	SHADE AV	TUTTLE RD	C	B	B	B	B

Even the most cursory review of this table reveals that many roadways in the City of Sarasota are currently failing to meet their adopted level of service. A total of 195 roadway segments in the City were analyzed by the consultant. 83 of those segments were not meeting their adopted level of service standard in 2006. In fact, 28 roadway segments are now operating at Level of Service "F" which means forced flow, and long, unpredictable stopped delays. A complex analysis has illustrated what most residents already know—that sometimes, in about half of the places, traffic can be really bad in Sarasota. The question for the City's long range plan is: What can the City of Sarasota do about it?

The first option is from the study by Tindale Oliver and Associates, Inc. That analysis included what it called "committed improvements" that will help the transportation situation to improve in some areas between 2006-2010. For instance, the improved conditions (from LOS "F" to LOS "D") on US-41 from Gulfstream Avenue to US-301 from 2006 to 2010 are due to the intersection improvement of adding a third eastbound-to-southbound right-turn lane at the US-41/US-301 intersection; but this improvement is not sufficient to accommodate 2015 and 2020 projected traffic volumes, hence, more improvements are needed for this roadway section in 2015 and 2020. In addition to the committed improvements, more roadway improvements are recommended and summarized in the table below for all analysis scenarios.

Illustration T-21
2006 - 2020 Recommended Roadway Improvements

On	From	To	Recommended Improvements			
			2006	2010	2015	2020
University Parkway	US-41	Old Bradenton Road	-	4-6 lanes	4-6 lanes	4-6 lanes
US-41	University Parkway	Myrtle Street	4-6 lanes	4-6 lanes	4-6 lanes	4-8 lanes
US-41	10th Street	Gulfstream Avenue	4-6 lanes	4-6 lanes	4-6 lanes	4-6 lanes
US-41	Gulfstream Avenue	Ringling Boulevard	-	-	4-6 lanes	4-6 lanes
US-41	Ringling Boulevard	Orange Avenue	-	-	4-6 lanes	4-6 lanes
US-41	US-301	Bee Ridge Road	6-8 lanes	6-8 lanes	6-8 lanes	6-8 lanes
US-301	17th Street	US-41	4-6 lanes	4-6 lanes	4-6 lanes	4-6 lanes
17th Street	Tuttle Avenue	Beneva Road	-	-	-	4-6 lanes
Fruitville Road	Shade Avenue	Tuttle Avenue	-	6-8 lanes	6-8 lanes	6-8 lanes
Fruitville Road	Tuttle Avenue	Lockwood Ridge Road	-	-	-	6-8 lanes
Fruitville Road	Lockwood Ridge Road	Beneva Road	6-8 lanes	6-8 lanes	6-8 lanes	6-8 lanes
Bahia Vista Street	US-41	Shade Avenue	-	-	-	2-4 lanes
Bahia Vista Street	Shade Avenue	Tuttle Avenue	2-4 lanes	2-4 lanes	2-4 lanes	2-4 lanes
Lockwood Ridge Road	17th Street	12th Street	-	2-4 lanes	2-4 lanes	2-4 lanes
Orange Avenue	Fruitville Road	US-41	2-4 lanes	2-4 lanes	2-4 lanes	2-4 lanes
Ringling Causeway	Sunset Drive	US-41	-	-	-	4-6 lanes
Siesta Drive	Osprey Avenue	US-41		2-4 lanes	2-4 lanes	2-4 lanes

Note: m-n lanes : Roadway widening from m lanes to n lanes

Moreover, in light of bottleneck effects, the consultant recommended additional improvements be considered at the following critical intersections in conjunction with the recommended roadway improvements.

US-41/University Parkway	US-301/Bahia Vista Street
US-301/Fruitville Road	US-301/Bee Ridge Road
Orange Avenue/US-41	Osprey Avenue/Fruitville Road
Orange Avenue/Fruitville Road	Osprey Avenue/Siesta Drive

These recommended roadway and intersection improvements are an effort to resolve the City's perceived transportation problem by managing and improving capacity whenever possible. The benefits of this approach to the problem are increased automobile capacity, faster traveling times, easier access by the traveling public and a concrete list of improvements to be implemented via the City's Capital Improvements Chapter. Another benefit is the Proportionate Fair Share program created in 2006 by Senate Bill 360 which allows new development to contribute monetarily to portions of the improvements from which they stand to benefit.

As noted in the Summary of the Comprehensive Plan Update Study, "The committed improvements will result in better operating conditions on the roadway sections affected, but will not correct all identified deficiencies. As forecast in this update analysis, without additional improvements more roadway sections can be expected to become deficient as future analysis horizon expands. Thus, to better accommodate the existing and future traffic demands, more improvements would be needed beyond those committed. However, more transportation system supply does not necessarily mean better transportation service depending on whether or not the improvements are appropriately planned and implemented."

The first recommendation in the summary section of the Comprehensive Plan Update Study, 2006 identifies an alternative to traditional concurrency analysis for the City.

- Limit exists for continuously expanding City's roadway infrastructure to meet increasing future travel demand. The City should clearly define its mobility goals in different areas of the City and adopt and finance this vision as a part of a future Citywide mobility study. The vision should address auto, truck, public transportation, bicycle, and walkway mobility; and the interfaces between those modes, particularly in the more congested downtown area.

Illustration T-13

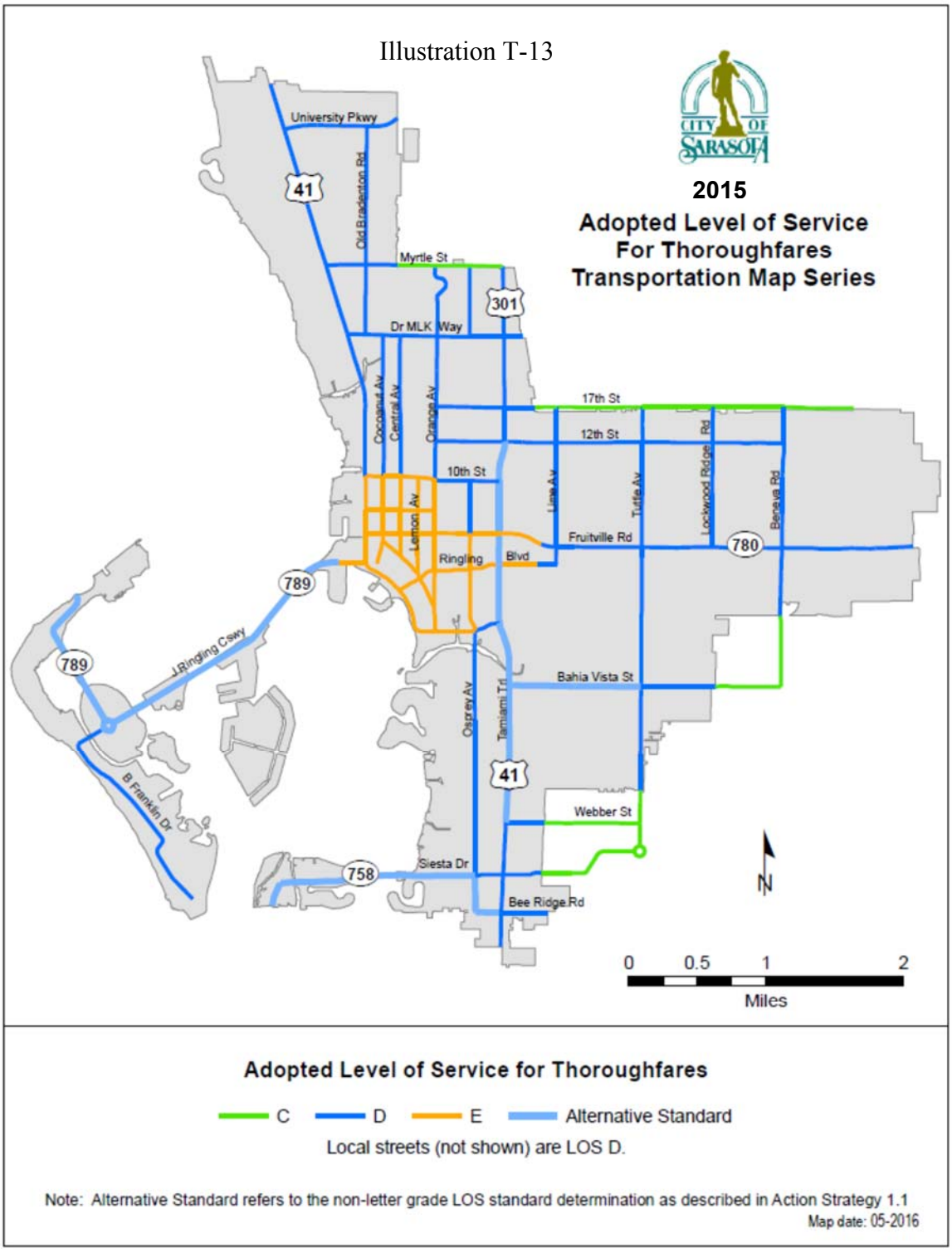
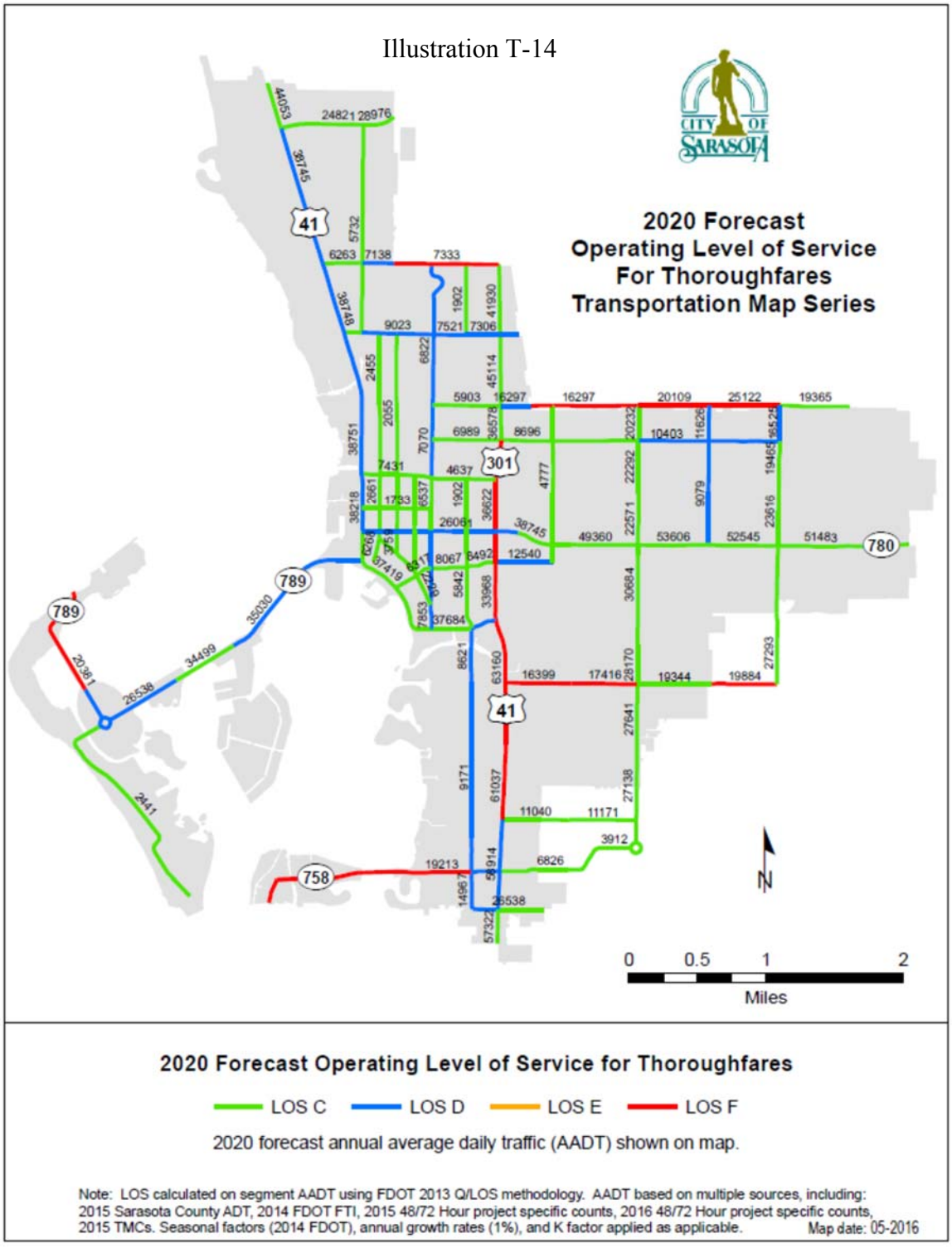


Illustration T-14



TRANSPORTATION SYSTEMS MANAGEMENT (TSM)

In the Summary of the Comprehensive Plan Update Study, Tindale-Oliver and Associates recommended:

"In addition to the conventional TSM measures, complementary soft measures, such as TDM (Transportation Demand Management), corridor signal retiming, and ITS (Intelligent Transportation Systems), might be considered to increase the efficiency of the way traffic uses the transportation system and should be coordinated with land use patterns. These soft measures could be incorporated and implemented together with the TSM measures in the City's future roadway improvement plan."

Transportation Systems Management (TSM) is the effort to increase the safety and efficiency of the City's transportation infrastructure - without widening streets - through innovative technologies and better prioritization of resource use. This section briefly describes the goals and the strategies commonly used in TSM. Maximizing the efficiency of the existing transportation system is a leading priority for communities across the nation as the cost of building new roads skyrockets. Urban communities, in particular, find it undesirable to acquire land and remove land uses to widen streets, and citizens often oppose major street widening because it impacts other modes of travel and encourages more driving and higher speeds. TSM provides tools or methods to find optimum strategies to relieve, lessen or control congestion with minimal roadway widening. These strategies can reduce vehicle travel time and enhance system accessibility with little impact on other modes of transportation.

TSM includes conventional, low-cost traffic engineering improvements, such as reconfiguration of turn bays and improved signal timing. TSM also includes strategies like Incident Management which is used when extended and/or complete closure of roadways is necessary, written detour plans are prepared with arrangements to provide traffic control devices. The City Engineering Department staff now includes a Downtown Coordinator to facilitate public communications about detours and road closures associated with the extensive construction in the City's downtown. Other "conventional" TSM measures include: creation of reversible lanes in and out of downtown, turn lane extensions, access control measures. Other TSM measures may include various corridor and intersection changes (approach widening, channelization, addition of turn lanes, and parking removals), re-striping travel lanes, one-way couplets, installing pavement markers, and relocating transit stops. All of these improvements are designed to allow existing roadways to carry congested traffic more efficiently.

Another innovative intersection solution is the modern roundabout. It does require, in some case, the acquisition of right-of-way at intersections. A roundabout allows traffic to flow through a circle without the need for traffic signals. Signalized intersections that are converted to roundabouts have far fewer "conflict points" for automobile traffic. Roundabouts create a slower speed, while improving flow because there is less need for traffic to stop. Up to certain traffic volumes, roundabouts have equal or greater vehicle capacity than standard signalized and unsignalized intersections. They are designed to

accommodate bicycles and large vehicles, and pedestrians are channeled to narrower crossing locations where conflicts are minimized. The Downtown Master Plan 2020 recommended the installation of a number of roundabouts within the downtown area. The four intersections recommended were: US-41 and Gulfstream Avenue, US-41 and Fruitville Road, Fruitville Road and US 301 and Pineapple Avenue and Ringling Boulevard. As directed by the City Commission, staff initiated discussion of possible roundabouts with the Florida Department of Transportation, District 1 which has jurisdictional authority over US-41 and Gulfstream Avenue. The City has purchased property at the intersection of Fruitville Road and US-41 in preparation for a possible roundabout in that location. However, continued coordination and review with the Florida Department of Transportation will be necessary prior to any final determination about these roundabouts.

Transportation Systems Management also includes a group of measures known as Transportation Demand Management (TDM). These measures attempt to reduce the number of automobiles on the road through various interventions with drivers and employers. Examples of TDM include: telecommuting; vanpooling; flexible scheduling, shared-ride taxicabs connecting to bus routes; four-day work weeks; and other strategies under consideration by the MPO.

In 1996, the Sarasota/Manatee Metropolitan Planning Organization began operating a state-funded commuter assistance program for the two-county region. Its mission was to reduce traffic congestion by promoting alternatives to single-occupancy vehicle travel. The program was only minimally effective and in 2001, it was transferred to the two county transit agencies to become part of a more comprehensive approach to the problem of single-occupant vehicles. Bi-county coordination was considered critical to the program's success and continued progress. In 2003, Sarasota/Manatee Commuter Services established its first County-employee commuter van. In 2005, the City Commission directed staff to investigate the possibility of a similar program for City employees. A review of employee residences was completed. A survey of City employees conducted in 2005 revealed very low interest in the program. Sarasota Memorial Hospital was also looking to improve carpool and vanpool use among its employees. The Florida Department of Transportation funding was cut in 2005. The Sarasota County Commission briefly funded the program but ultimately voted to cease funding the Commuter Services position in 2006. A renewed financial commitment to commuter alternatives must be made by the City of Sarasota and supported by Sarasota County in order to reduce traffic on congested roadways

The Federal "Commuter Choice" program provides a tax benefit to employers and their employees who use vanpools or public transit to travel to work. The benefit was established in 1998 by the Transportation Equity Act for the 21st Century (TEA-21). Costs that can be applied to this benefit include passes for transit systems, vanpooling expenses, or use or rental of qualifying commuter transit vehicle.

During the update of the Transportation Chapter in 1997, tourist-oriented TDM strategies were being examined to relieve seasonal congestion, especially on the barrier islands. The

first such major project in the City was to be a real-time traffic monitoring system to alert tourists and residents to congested bridges; lane reversals on bridges; the provision of bicycles and SCAT bus passes by resorts; and arranging for pick-up of tourists at airports, bus stations, and Amtrak as an alternative to renting a car. In evaluating the effectiveness of tourist-oriented TDM, it is recommended that LOS be examined for the 30th highest design hour rather than the 100th highest design hour. The 30th highest design hour of the year represents a typical peak hour at peak season. Currently, the Ritz-Carlton Hotel operates a shuttle system to move guests between its downtown Sarasota Hotel, the Members Beach Club on Lido Beach and the Ritz Carlton Members Golf Club in southern Manatee County.

Another way to improve the efficiency and capacity of roads without widening is known as Intelligent Transportation Systems or ITS. ITS strategies which apply wireless and other telecommunication infrastructure to manage traffic signals, accidents, mass transit, and public information.

NEIGHBORHOOD PROTECTION

Protecting Neighborhoods from Traffic Intrusion

To help preserve the City's small-town feeling, neighborhoods should be protected from speeding traffic and heavy volumes of cut through traffic. The City's neighborhood leaders are active participants in City government. (See the Neighborhood Plan.) However, from a transportation perspective, minimizing the mobility of traffic through neighborhoods has an impact upon the already City's congested thoroughfares. The City's grid network itself is its greatest asset in preserving the City's "small-town" feeling. Multiple routes, including even those through City neighborhoods, spread out the volume of traffic allowing the main arterials to flow more efficiently. As noted above, removing streets from the Thoroughfare Plan has the effect of reducing these alternate routes and increasing traffic on arterials.

Traffic Calming

As part of the effort to protect its neighborhoods from traffic, intrusion, the City of Sarasota was one of the first in the county to establish a "Traffic Abatement" program. The current Edition of the City of Sarasota Traffic Calming Manual was adopted in 2003. The program utilizes devices such as speed tables, medians, raised crosswalks, and neck-outs to help to "calm" traffic on residential streets. This means either reducing speeds, reducing traffic volumes, or both. Local residential streets which motorists use as an alternate to designated thoroughfares, or as a "cut through" between thoroughfares, are eligible for the City's traffic calming program based on the following criteria:

- High daily or peak hour vehicle volume;
- At the 85th percentile, traffic exceeds the speed limit;
- Number of pedestrians crossing per hour;
- Accidents per year per road segment, and
- Proximity to a school or park.

The City's traffic calming program also allows for calming of collector streets, but the eligibility criteria are much more stringent. Traffic Calming is now a part of the City's annual budget, with funding included in the Capital Improvement Plan.

Traffic calming can have additional benefits for pedestrians and bicyclists in neighborhoods. The reduced vehicle speeds associated with such traffic calming can reduce both the severity and incidence of motor vehicle/ bicycle crashes and can make bicyclists feel more comfortable in traffic. In certain situations, traffic calming techniques may be used to reduce the number of motor vehicles traveling along particular streets, and can increase the number of bicyclists. Traffic calming techniques can be used to provide better roadway conditions for bicyclists by better defining the space available to each mode, by improving intersection design for nonmotorized users and by giving greater priority to their movement. *(Summary: Traffic Calming, Auto Restricted Zones and Other Traffic Management Techniques.* Case Study #19, National Bicycling and Walking Study.)

Complete Streets

The Complete Streets movement began in the late 1990's as citizens and transportation professionals realized that streets were being designed primarily for automobile traffic. Complete streets refer to the idea that roadways also need t o serve pedestrians and cyclists, especially within neighborhoods. Complete streets provide choices to the people who live, work and travel on them. Pedestrians and bicyclists are comfortable using complete streets. A network of complete streets improves the safety, convenience, efficiency and accessibility of the transportation system for all users.

Completing the streets means routinely accommodating travel by all modes. Future road construction or reconstruction in the City of Sarasota will include facilities for bicycles, transit and pedestrians. Those multimodal facilities will take priority in project design.

This will expand the capacity to serve everyone who travels, be it by motor vehicle, foot, bicycle, or other means. A complete street in a rural area may look quite different from a complete street in a highly urban area. But both are designed to balance safety and convenience for everyone using the road. The Sarasota City Commission has also embraced this idea, noting that the City must focus on moving people, not just moving vehicles. Complete streets philosophy works in concert with the City's traffic calming

effort. Complete streets are friendlier to bicyclists and pedestrians and tend to slow the speed of automobile traffic.

Complete streets policies direct transportation planners and engineers design with all users in mind. Adopting complete streets policies ensures that the City's streets and roads work for drivers, transit riders, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities. Complete Streets improve motorist attitude and behavior toward other street users.

There is no precise prescription for a complete street, but the following features may be present:

- Sidewalks
- Bike lanes
- Wide shoulders
- Plenty of well designed and well placed crosswalks
- Crossing islands in appropriate midblock locations when block lengths are long
- Medians
- Bus pullouts or special bus lanes
- Raised crosswalks
- Audible pedestrian signals
- Sidewalk bulb-outs
- Street trees, planter strips and ground cover, which tend to lower speeds and define an edge to travel ways
- Center medians with trees and ground cover
- Reduction in numbers of driveways
- On street parking and other visual speed reduction methods, when properly designed to accommodate bicycles

Complete streets improve safety. A Federal Highway Administration safety review found that designing the street with pedestrians in mind - sidewalks, raised medians, turning access controls, better bus stop placement, better lighting, traffic calming measures, and treatments for disabled travelers - all improve pedestrian, bicyclist and motorist safety. (1)

One study found that installing these features reduced pedestrian risk by 28%. (2) Other experiences show reduced crashes of 50-76%, especially when medians, proper turn radii, and access controls are added.

Complete streets encourage walking and bicycling for health. The Institute of Medicine recommends fighting childhood obesity by changing ordinances to encourage construction of sidewalks, bikeways, and other places for exercise. A report of the National Conference of State Legislators found that the most effective policy avenue for encouraging bicycling and walking is complete streets. One study found that 43% of people with safe places to walk within 10 minutes of home met recommended activity levels, while just 27% of those without safe places to walk were active enough.

Complete streets help ease transportation woes. About one-third of Americans do not drive. Complete streets help provide safe access for people who use wheelchairs, have vision impairments, and for older people and children.

Complete streets help reduce crime and increase social interaction and placemaking. As streets become more complete, green and attractive, human behavior improves. Drivers tend to be more courteous and vigilant on streets that provide a unique character or personality, are sensitive to their neighborhood or main street environments and are green or well landscaped. Complete Street features, such as ground cover and trees help define the edges of the street and are a vital ingredient to placemaking. As people find streets more pleasing to travel or walk along they tend to come to these streets for greater social interaction. More people walking and driving through a place create more surveillance, and hence dampen the potential for crime. As areas become more attractive and balanced land values increase. Some Complete Street projects have increased adjacent land values 30-100%. For instance, a road diet on South Olive Avenue (Complete Street and Road Diet) in West Palm Beach, Florida resulted in an increase in adjacent home values of $115,000 in just one year. (7)

More than one quarter of all trips are one mile or less – and almost half are less than five miles. Most of those trips are now made by car. Streets that provide travel choices give people the option to avoid traffic jams and increase the overall capacity of the transportation network.

Complete streets make fiscal sense. Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later.

Road Widenings

When thoroughfares are widened through residential neighborhoods to relieve congestion, in some cases front yards are curtailed, setbacks are greatly reduced, and residential property values and quality of life are diminished. Alternatives to widening were discussed earlier under "functional classification." Where widening must occur, the center-line of the street should be moved, wherever practical, so that an entire lot is acquired on one side rather than pieces of lots on both sides. (Action Strategy 5.9) In that manner, one side can

be left intact, while the other can be transformed into a landscaped buffer to protect the neighborhood behind it.

Protection Strategies for New Development and Redevelopment

Requests for development approvals should give consideration to the following:

- If a local street is a dead-end or provides the sole access into a subdivision, then the site plan for parcels with arterial frontage may provide access on the side street since there is no way for motorists to cut through the neighborhood.

- If the local street could be used for cut-through traffic, access to it should be avoided if possible. The site plan should place driveways on the highest classification street available where EDCM standards for driveway spacing can be met. Even if this means that the parcel will have access in only one direction of traffic, the developer is not entitled to local street access.

- By changing the access to abutting lots and providing vehicular access between them, it may be possible to meet design standards without intruding into side streets. Joint access also encourages patrons to walk between nearby land uses rather than drive separately to each, thus reducing potential vehicular conflicts and vehicle trips. This strategy may be especially useful where adjoining parcels have different peak hours, e.g. a church which meets Wednesday nights and Sundays and a post office which is closed evenings and Sundays. (Note: "Joint access" refers to a re-positioning of access points to serve multiple parcels. "Shared access" refers to one common ingress and egress point for multiple parcels. "Cross access" refers to continuous access apart from the public street network to access a neighbor's ingress and egress.)

- Where EDCM standards for access onto arterials cannot be met, forcing construction of ingress or egress points onto residential streets, the following measures should be considered to discourage traffic from entering the residential neighborhood:

    - Raised median diverters;

    - Single-direction points of ingress and egress, and other driveway configurations which channel traffic away from the neighborhood;

    - Enforceable signage ("Do Not Enter", "No Thru Traffic," etc.);

    - Buildings oriented away from the neighborhood, including drive-through windows;

    - Internal traffic circulation designed to discourage use of the side street.

- A pedestrian access system which encourages walking rather than driving short distances; and

- Transit orientation, including safe and convenient pedestrian routes to the nearest bus stop.

There are numerous situations on major arterials where none of the strategies listed above is practical to implement. For example, a very narrow deep lot with frontage on U.S 41 may have to provide all its access via the side street, and the strategies listed above may not be adequate to keep intrusive traffic below 500 vehicles per day. In such an instance, a more severe mitigation strategy may be needed.

The following two strategies are listed for consideration for these more difficult cases. They should be required only where the "normal" EDCM strategies, described above, are impractical or ineffective.

- **Change the Arterial's Access Classification**: FDOT classifies arterials into seven (7) access classes based on traffic volume and speed. This should not be confused with functional classification. Some of these access classifications may be incorrect and outdated. By downgrading an arterial to a lower class, the standards would become more lenient for driveway spacing, allowing more driveways.

- **Reduce the Posted Speed Limit on the Arterial**: if warranted based on accident rates, 85th percentile speed studies, etc., a lower posted speed would result in more lenient standards for driveway spacing. In essence, this would trade-off the operating efficiency and LOS of the arterial in order to protect the neighborhood.

VEHICLE PARKING

Illustration T-5 indicates significant parking facilities, which, for the purposes of this document, are defined as publicly owned parking lots with over 100 spaces which are intended for general purpose use. All of these lots are available for all-day parking. Parking lots and parking decks which are intended for a specific building or complex are not included because they are part of that facility's required parking, even if they are not located on the same parcel.

In April of 2005, the City received the results of The City of Sarasota Downtown Parking Master Plan. The purpose of the study was to create a downtown parking plan that was be consistent with the principals of the Downtown Master Plan 2020. The study recommended increasing the cost of current parking violations, implementing a parking meter program downtown and creating a separate Parking Department at City Hall. The study also recommended that future parking garages include liner buildings to maintain a pedestrian friendly street frontage on streets identified in the Downtown Master Plan. The City has created the new position of Parking Manager to supervise construction, maintenance and enforcement for parking, particularly in the downtown. In order to facilitate the desired pedestrian activity downtown, parking areas shall be located and designed in a manner to support and not conflict with pedestrian activity, such as to the side or rear of buildings.

The Downtown Parking Study identified no acute parking shortages. However, the public often perceives a parking "problem" when they cannot find a space within a few feet of their destination. Parking shortages at St. Armand's Circle were relieved in 1995 when the 253-space Fillmore Avenue facility was constructed. The City will lose a portion of the spaces in the State Street lot when the approved "Pineapple Square" project begins construction. However, upon completion, the developer will supply the City with additional public parking spaces within the garage. The City continues its efforts to partner with a private developer for construction of a parking garage on City-owned property on North Palm Avenue.

The City has also recognized that some of the parking demand in the downtown area comes from motorcycles, scooters or other two-wheeled vehicles. As a result, in late 2007, special parking areas were identified for two-wheeled vehicles. It is hoped that these spaces will free up more of the high-demand spaces downtown. Similarly, provision of safe, secure bicycle parking areas can encourage use of bicycles rather than single occupant automobiles thereby freeing up parking.

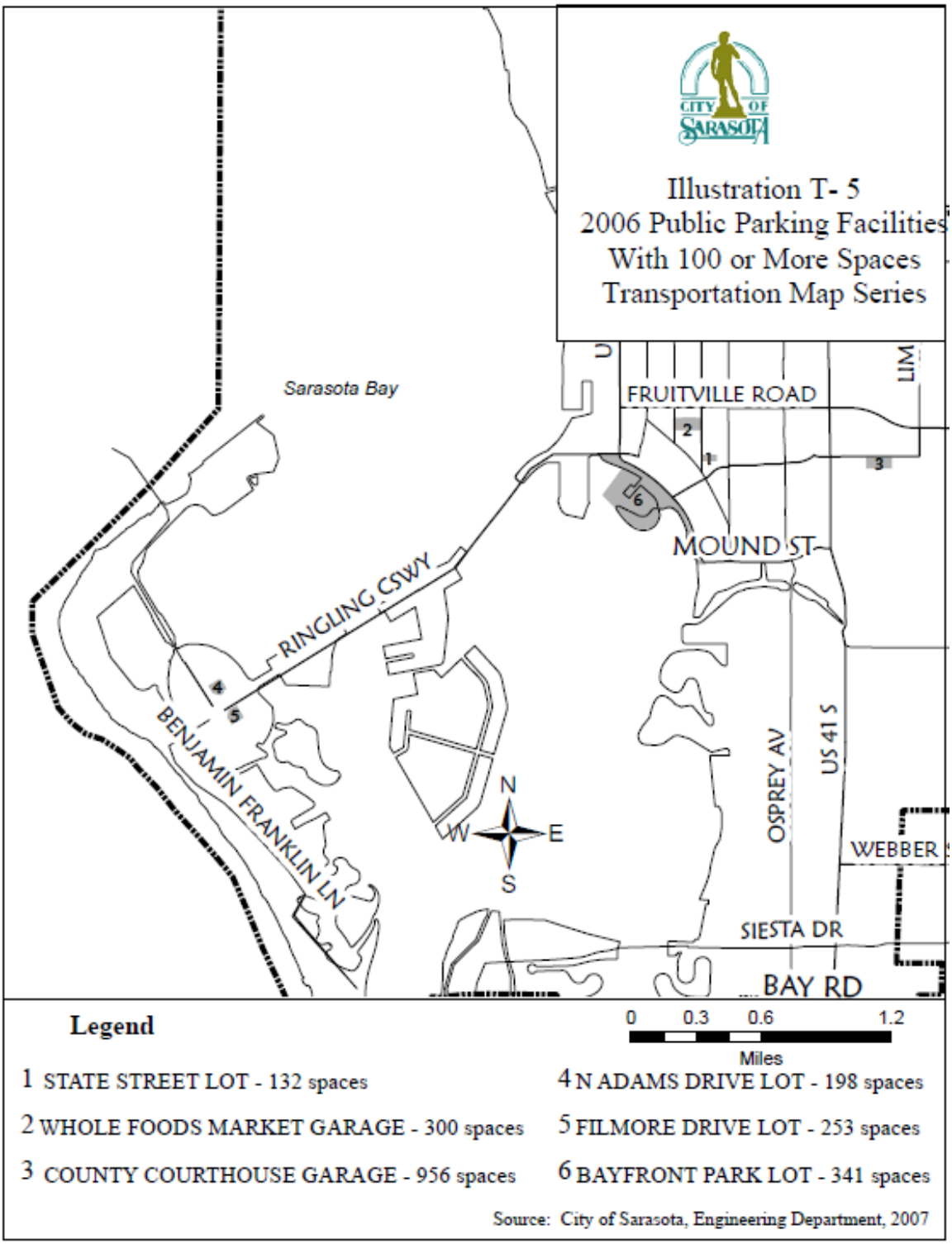


Illustration T- 5
2006 Public Parking Facilities
With 100 or More Spaces
Transportation Map Series
Sarasota Bay
FRUITVILLE ROAD
MOUND ST
RINGLING CSWY
BENJAMIN FRANKLIN LN
OSPREY AV
US 41 S
WEBBER
SIESTA DR
BAY RD
N
W
E
S
0 0.3 0.6 1.2
Miles
Legend
1 STATE STREET LOT - 132 spaces
2 WHOLE FOODS MARKET GARAGE - 300 spaces
3 COUNTY COURTHOUSE GARAGE - 956 spaces
4 N ADAMS DRIVE LOT - 198 spaces
5 FILMORE DRIVE LOT - 253 spaces
6 BAYFRONT PARK LOT - 341 spaces
Source: City of Sarasota, Engineering Department, 2007

OTHER AUTO ISSUES

Highway Safety

In its project prioritization criteria, the MPO includes accident frequency as a criterion. The City of Sarasota Police Department uses database software to maintain and log traffic accidents and other crime incidents. That data is maintained in a relational geodatabase and can be searched and displayed using Geographic Information Systems software. The data is updated by the Police Department through the Information Services Department on a weekly basis. The City Engineering Department is provided complete data which can then be used as a tool to prioritize projects for the MPO region and for the City's Capital Improvements Program. The City also uses this crash data as one component of eligibility for its traffic calming on local residential streets.

Traffic Accidents Reported by Sarasota Police Department 2004-2006

	2004	2005	2006
Total Number of Accidents	3,719	1,889	3,482
Fatalities	8	3	3
Accidents Involving Injury	556	285	402

Construction Delays

A common complaint at the EAR public workshops was that construction projects occur simultaneously on parallel roads, causing undue congestion corridor-wide.

The Transportation Plan calls for an exploration through the MPO, with both FDOT and the Sarasota County Transportation Department, of the use of a critical path method to stage highway improvements so that parallel streets are not simultaneously under construction. In addition, major detours should be discouraged during peak tourist season when traffic is heaviest. Recent developments have made construction materials scarce and costly and that has impacted the ability to stage projects. Work tends to be done when the workers and the materials are available.

Hurricane Evacuation Times

Florida Statues, Chapter 9J-5 requires an analysis of the adequacy of the existing and future transportation system to evacuate the coastal population prior to an impending natural disaster.

In 2001, the Southwest Florida Regional Planning Council (SWFRPC) adopted its latest Hurricane Evacuation Study for Southwest Florida, which included Sarasota County. The study refines and improves upon previous studies performed in 1982, 1984, 1987 and 1995.

The National Hurricane Center revised the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model in 1990 which resulted in major changes to evacuation methodology. One significant change was to include a strong tropical storm scenario, a different category one storm parameter, and factors for determining how additional structures, such as I-75, affect the extent of inland flood levels. These changes, and others, required that previously drawn storm surge lines be completely redrawn for all hurricane categories and determining their impact on all evacuation zones. The major change incorporated into the 1995 update is a reevaluation of the nature of the threat due to the SLOSH update. Additionally, inland counties are provided an assessment of through traffic flow from evacuating coastal counties. New features added to the 2001 Hurricane Evacuation Study for Southwest Florida included updated maps using graphic information system (GIS) programs, an analysis of the different types of storms and their impact on population and vehicle data, and the incorporation of the U.S. Army Corps of Engineers' Emergency Action Database for Lake Okeechobee.

As part of its study, the SWFRPC evaluated transportation facilities. It is important to note that the impact upon transportation facilities is directly related to those using the facilities during an emergency, and the report estimates that 24 percent of the County's population will evacuate to public shelters within the County, 13 percent will visit friends or relatives within the County, 4 percent will go to a hotel or motel, 13 percent will visit friends or relatives within the County, 4 percent will go to a hotel or motel, 2 percent will stay home, 2 percent other, 34 percent will leave the County, and 21 percent don't know. The study estimates that the vast majority of evacuating persons will travel by private automobile, and that approximately 75 percent of the County-based vehicles would be used in an evacuation. This means that arterial roadways will form the backbone of a natural disaster evacuation effort. Critical to the assessment of traffic facilities during a natural disaster is the estimation of the number of vehicles leaving an evacuation zone, the identification of routes, the assessment of roadway capacities (service volumes), and the assessment of roadway conditions during a disaster. These are some of the factors which influence evacuation zone clearance times.

One critical component in determining clearance time is the public's response to the evacuation order. The 1982 Regional Hurricane Evacuation Plan concluded that seven hours would be the minimum time needed to clear a zone, because some evacuees would wait longer than others. More recent history has indicated that sudden or dramatic changes in hurricane intensity or projected path can heighten evacuee's response to an evacuation order, restricted mainly by road capacity. Using this seven-hour response time, only evacuations from Longboat Key and Lido Key, and category 4/5 storms will have clearance times greater than seven hours for in-County routes, and for out-of-County routes, the seven-hour timeframe is exceeded only if evacuation is restricted to I-75. If more routes are provided, the evacuation time may lessen. The 2001 hurricane study concluded that during July, two roadways in the City could have clearance times exceeding seven hours. These areas have been identified in the following chart:

Storm Category	Time Hours	Evacuation Zone	Point of Restriction
1	7.6	Longboat Key	SR789/New Pass Bridge to St. Armands Circle
1	7.6	Lido Key	SR789/New Pass Bridge to St. Armands Circle

Illustration T-6 shows the sub-areas requiring evacuation depending on the intensity of the storm, ranging from category 1 (mild) to category 5 (severe). The Tables above estimates the time to clear from the City's impacted areas depending on the category of storm. "Time to clear" refers only to the running time from one's home address to a zone of safety. It does not include the time for everyone to respond and prepare for an evacuation order. The report went on to state that the greatest route restrictions in the County are on exit routes from the barrier islands to the mainland.

Evacuation Plan

All of the filled-in zones on Illustration T-6 are vulnerable to storm surge. Storm surge is salt water flooding which rushes over coastal areas – near where the eye of the hurricane strikes – destroying homes and businesses in its path. Nine out of ten hurricane-related deaths are caused by storm surge and inland flooding.

Hurricanes are categorized on a scale of one to five depending on the strength of the winds. Storm surge can reach 5-6 feet above sea level in a Category 1 hurricane to more than 19 feet above sea level in a Category 5 hurricane. Depending on the track and strength of a threatening hurricane, local officials may order evacuation of up to four evacuation zones. Persons living in mobile homes or recreational vehicles must evacuate no matter which zone they are located in. These structures are extremely vulnerable to hurricane winds. (See Illustration T-6.)

Evacuation Zones in the City of Sarasota

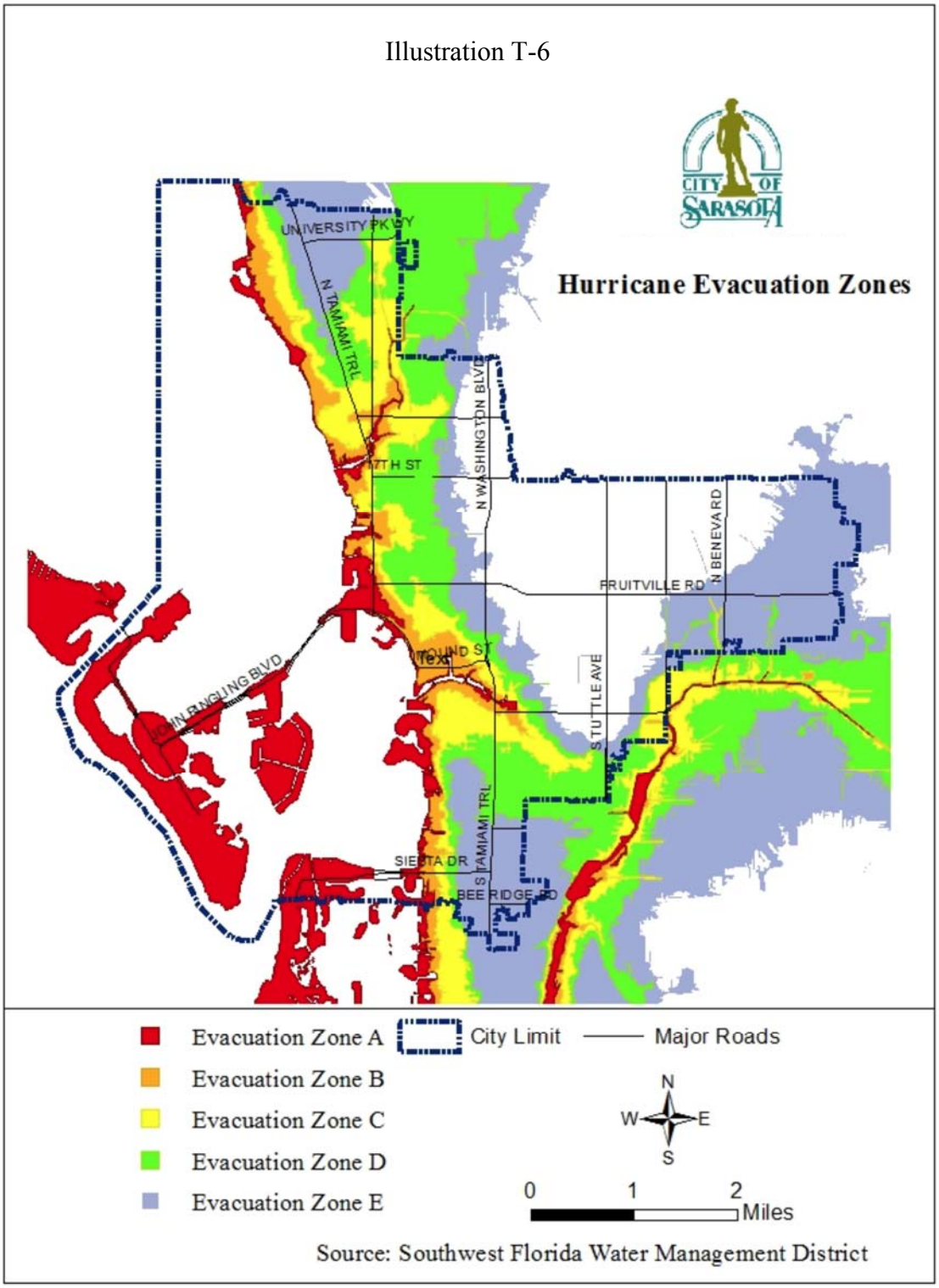
Evacuation Zone	**Storm Category**	**Description**	**Wind Velocity**	**Storm Surge Expected**
A	1	Evacuate Zone A and all manufactured home residents	74 to 95 mph.	Up To 6 ft.
B	2	Evacuate Zone A and B and all manufactured home residents home residents	96 to 110 mph.	Up to 10 ft.
C	3	Evacuate Zone A, B and C and all manufactured home residents manufactured home residents	111 to 130 mph.	Up to 13 ft.
D	4-5	Evacuate Zone A, B, C and D and all manufactured home residents	131+ mph.	13+

Shelter Information

The following table lists identified emergency evaluation shelters located within the Sarasota City limits.

Shelter#	Pets	Name	Address	Zip Code
3	No	Bishop Nevins Academy	4380 Fruitville Road	34232
5	Yes	Brookside Middle School	3636 S Shade Ave	34239
4	No	Sarasota High School	1000 S School Ave	34237
2	No	Tuttle Elementary School	2863 8th Street	34237

Illustration T-6



Estuarine Pollution from Roadway Runoff

New or expanded highways are one of many factors that potentially threaten the quality of estuaries and ground water due to increased runoff and the pollutants it carries. As growth and development increase, roadway drainage systems are often overwhelmed with the increased flows. These increased flows can result in erosion and sedimentation of exposed soils to the detriment of the City's coastal waters. High concentrations sediments have been implicated as a possible cause of algal blooms, such as red tide.

The City's Engineering Design Criteria Manual specifies the methods and degree of attenuation to ensure that the runoff is not increased. However, the EDCM should reference the SWFWMD prescribed treatment of stormwater runoff per state and federal requirements.

Where natural filtration systems are not practical, the EDCM could recognize the various methods of on-line treatment (i.e., chemical, biological, or mechanical treatment after the water enters the drainage utility as required by state and federal agencies.

For further discussion of drainage, please refer to the Utilities and Environmental Protection and Coastal Islands Chapters.

Windows to the Gulf - Tamiami Trail Scenic Highway

The Florida Scenic Highways program is a Florida Department of Transportation created by Florida Statutes § 335.093 that designates roadways which represent and promote the state's unique history and exceptional resources. The Tamiami Trail Scenic Highway, Windows to Gulf Coast Waters, extends 69.7 miles from the Sarasota/Charlotte County Line to the Manatee/ Hillsborough County line. The Corridor Management Plan was completed in 2003 and the Corridor Management Entity (CME) established in 2004.

The City of Sarasota is an enthusiastic supporter of the Scenic Highway Designation and continues to regularly participate in the Corridor Management Entity (CME), now facilitated by the Sarasota/Manatee Metropolitan Planning Organization. A City of Sarasota subcommittee meets monthly to discuss on-going goals and projects for the section of the Tamiami Trail Scenic Highway that runs through the City limits, with a particular focus on improvements for bicycle and pedestrian users of the Tamiami Trail.

The City has successfully leveraged support for Scenic Highway projects from the private sector as well as from local non-profits. A Florida Department of Transportation Beautification Grant was obtained to improve pedestrian crossings on the North Tamiami Trail at 10th Street and Dr. Martin Luther King Jr. Way. Future grant opportunities are expected through the federal Scenic Byways program as well as other state funding sources. The City of Sarasota intends to continue its efforts through the Scenic Highway program to improve safety, aesthetics, access and overall functioning of US-41 through the City of Sarasota. The location of the Tamiami Trail Scenic Highway is shown on Illustration T-17, "Tamiami Trail Scenic Highway."

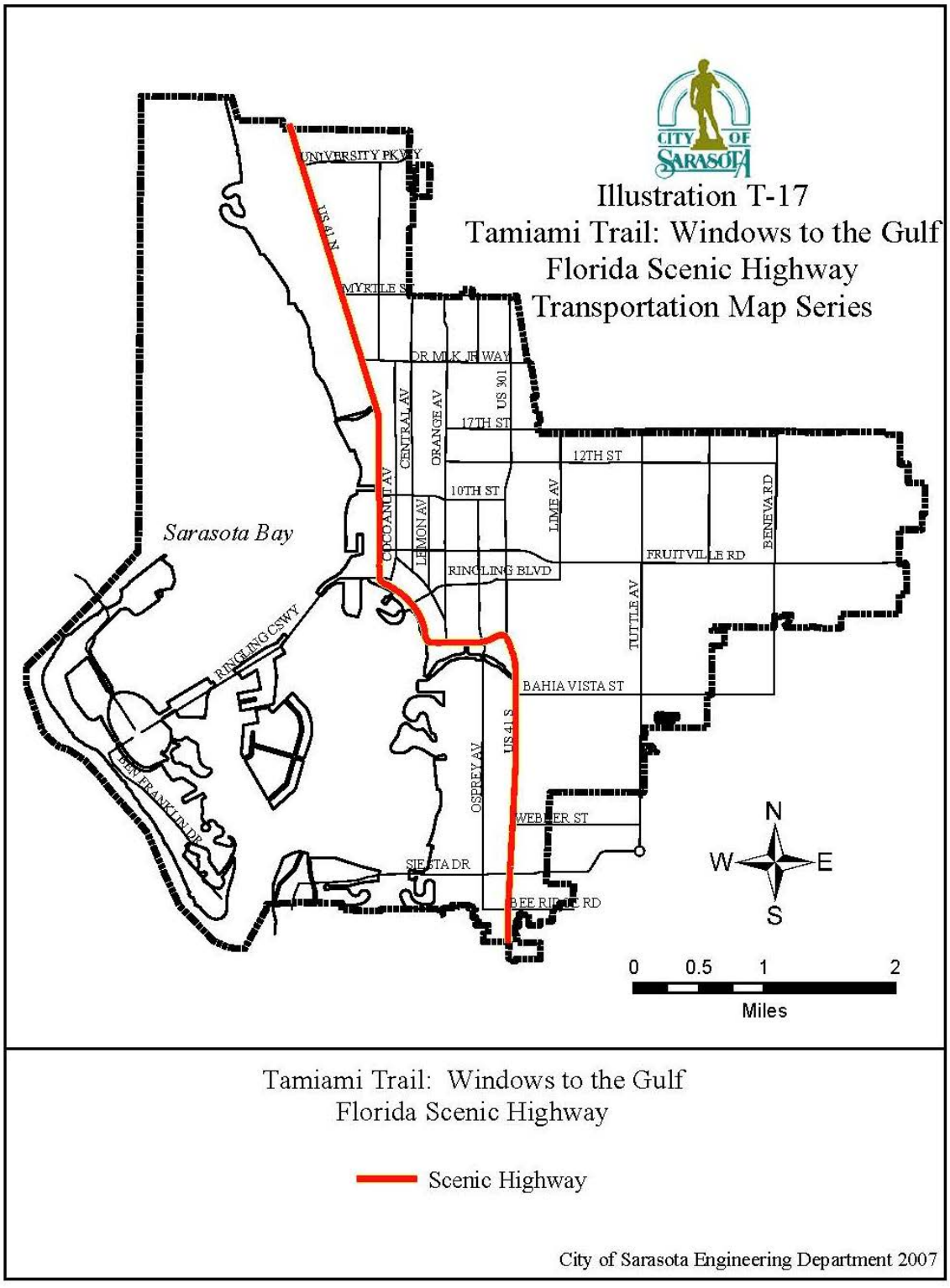


Illustration T-17
Tamiami Trail: Windows to the Gulf
Florida Scenic Highway
Transportation Map Series
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR MLK JR WAY
US 301
CENTRAL AV
ORANGE AV
17TH ST
12TH ST
10TH ST
COCOANUT AV
LEMON AV
LIME AV
BENEVA RD
FRUITVILLE RD
RINGLING BLVD
Sarasota Bay
RINGLING CSWY
TUTTLE AV
BAHIA VISTA ST
US 41 S
OSPREY AV
BEN FRANKLIN DR
WEBBER ST
SIESTA DR
BEE RIDGE RD
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1
2
Miles
Tamiami Trail: Windows to the Gulf
Florida Scenic Highway
Scenic Highway
City of Sarasota Engineering Department 2007

MULTI-MODAL TRANSPORTATION

The first, and most important, recommendation that came out of the Sarasota City Plan Update Study 2006 was the following:

- The City should clearly define its mobility goals in different areas of the City and adopt and finance this vision as a part of its upcoming Comprehensive Plan update. The vision should address auto, truck, public transportation, bicycle, and walkway mobility; and the interfaces between those modes, particularly in the more congested downtown area.

Automobile mobility has been thoroughly discussed under Level of Service and Concurrency System. In fact, the City's concurrency management system and Traffic Analysis Program were created to deal *only* with automobile mobility and traffic congestion. The City's vision in the 1998 Plan only dealt with the automobile mode of transportation. Consideration of Transit, Bicycle and Pedestrian travel, was limited.

The emphasis on automobile mobility has created a situation where City residents have come to expect only minimal delays due traffic congestion. That expectation and the City's ability to meet it may be nearing an end. Increasing development, lack of available urban land to build more roadways, global warming, and an increased desire for "sustainable" development, have caused cities all over the world to take a closer look at their transportation systems. Urban areas, like the City of Sarasota, are ideal places to start implementing multi-modal transportation planning. Level of service does not apply only to automobiles but bicycles, pedestrians, scooters and transit. Development impact will not be analyzed by number of automobile trips generated and attracted but by proximity to transit stops, bicycle trails and schools.

The City of Sarasota continues to cope with issues such as pollution, congestion, traffic safety, accessibility, and economic growth. Increasing population is generating extra demand for quality public spaces and recreation opportunities. A renewed emphasis on security and the costs of dealing with the emerging epidemics of obesity and physical inactivity are stretching limited resources even further. Solutions to these challenges are equally diverse and complex. A well-developed multimodal transportation system addresses these challenges and contributes to many of the solutions necessary to improve the quality of life the City.

"Modal split" is the division of travel into the various transportation modes. Transportation modes include walking, bicycling, transit, vanpool and single-occupant vehicle. For the City of Sarasota to become a multimodal community more information about the current modal split in the community will need to be gathered. The Bureau of Transportation Statistics (BTS) monthly *Omnibus Household Survey* found in 2001-2002 that nearly two million adult US residents bicycle to work or as part of their job and more than ten million walk to work or as part of their job. These data indicate that nearly 12 million adults, or approximately nine percent of all adult workers, regularly bicycle or walk related to their work. Although the federal government's goal of doubling the percentage of trips by

bicycling and walking, as called for by the *National Bike/Walk Survey*, has not been met, there are other indicators that walking and bicycling remain important modes of transportation or recreation in the U.S. For example, the City of Boulder Colorado's transportation master plan contains with modal split targets of 15% of trips by bike and 24% by foot by 2020. In Sarasota County, the percent of residents who use SCAT for commuting varies greatly, from 0% to 17%. Data is not available on the number of residents who commute by bicycle or by walking in the City of Sarasota.

Transit Oriented Development (TOD)

Transit Oriented Development (TOD) is a particular category of New Urbanism and Smart Growth. The City of Sarasota embraced the concepts of New Urbanism when it adopted the Downtown Master Plan in 2001. TOD supports and is supported by most of the previously discussed TDM strategies, such as Commuter Trip Reduction, Public Transit Improvements, Nonmotorized Transportation, Traffic Calming, Vanpooling, and Carsharing.

Transit Oriented Development refers to the creation of mixed use centers designed to maximize access by transit and alternative transportation, and with other features to encourage transit ridership. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development, with progressively lower-density spreading outwards. For example, the neighborhood center may have a transit station and a few multi-story commercial and residential buildings surrounded by several blocks of townhouses and small-lot single-family residential, and larger-lot single-family housing farther away. TOD neighborhoods typically have a diameter of one-quarter to one-half mile (stations spaced half to 1 mile apart), which represents pedestrian scale distances. It includes these design features (Morris, 1996):

- The neighborhood is designed for bicycling and walking, with adequate facilities and attractive street conditions.
- Streets have good connectivity and traffic calming features to control vehicle traffic speeds.
- Mixed-use development includes shops, schools and other public services, and a variety of housing types and prices, within each neighborhood.
- Parking Management to reduce the amount of land devoted to parking compared with conventional development, and to take advantage of the parking cost savings associated with reduced automobile use.

The City of Sarasota is working to create TOD's (Action Strategy XX). Sarasota County Area Transit is seeking federal "Small Starts" transit funding from the Federal Government in order to create a Bus Rapid Transit system that may include a fixed guideway system. The Small Starts program requires identification and creation of "supportive land uses"

similar to the TOD's described above around the proposed location of proposed transit improvements.

Multimodal Transportation Districts

Another development, especially here in Florida, is the Multimodal Transportation District or MMTD. In 1999, the Florida legislature amended the Growth Management Act to allow creation of multimodal transportation districts (MMTDs). (Florida Statutes, Chapter 163.3180). MMTDs allow transportation concurrency to be advanced through the development of a high quality multimodal environment, rather than the typical approach involving road widening for automobile capacity.

Pedestrian Safety

Many pedestrian crashes are the result of unsafe motor vehicle driver and pedestrian behaviors. Certain roadway designs features can contribute to unsafe behaviors by pedestrians and motorists. For example, excessively-wide streets encourage higher motorist speeds. High-volume multilane roads with a lack of safe crossings at regular intervals can contribute to pedestrians crossing streets at unsafe locations, particularly those who cannot or will not walk great distances to signalized locations. Land use decisions can also result in areas that are unsafe for pedestrians. For example, separating residential areas from shopping areas with high-volume multilane roads forces some pedestrians to cross streets in places that may not be safe. These types of issues must also be addressed in long-term solutions for pedestrian safety.

Reducing the number of travel lanes a pedestrian has to cross can be beneficial to all users. A well-documented technique takes a four-lane undivided street (two lanes in each direction) and reconfigures it to two travel lanes, a center-turn lane, and two bike lanes (without changing the curb lines). The benefits for pedestrians include fewer lanes to cross and slower traffic speeds. The center-turn lane also creates space for pedestrian crossing islands. The bike lanes add a buffer for pedestrians as well as a place for bicyclists to ride. Variations include reducing a multilane one-way street by one lane; narrowing the travel lanes to slow traffic and create space for bike lanes; or moving curb in to narrow the roadway.

Water Taxi Program

In 2005, the Sarasota-Manatee Metropolitan Planning Organization funded a study concerning the feasibility of a water taxi system moving people from the mainland to various tourist destinations and attractions on the Bayfront and barrier islands. Partial funding was appropriated through Congressional earmark in 2006. Additional funding will be needed to construct two ADA accessible landing sites proposed for Bayfront Park (near Marina Jack) and Bird Key Park. Other stops proposed for the demonstration project are the Ken Thompson Park Boat Ramp on City Island, the Centennial Park Boat Ramp at 10th Street and the Sarasota Quay Basin. The feasibility study recommended starting with these initial stops and expanding service to the northern Bayfront and Longboat Key only if the service can be shown to be viable. A water taxi program has the potential to remove automobile traffic on the John Ringling Causeway as well as provide an enjoyable amenity for tourists.

MASS TRANSIT

Existing Service

All regular local transit service in the City of Sarasota is provided by SCAT, the Sarasota County Area Transit, which is operated by Sarasota County Government. Sarasota County inaugurated SCAT on April 9, 1979, having acquired the Cities Transit system, a private bus system, which had experienced a decline in the quality of service and loss of patronage due to economic problems. Since its initiation in 1979, the SCAT bus system has been guided by a series of 5 five - year transit development programs contained in the annually updated Sarasota County Transit Development Plan. Most routes originate in downtown Sarasota at the main transfer point at 1st Street and Lemon Avenue, and terminate outside the City limits. All routes operate six days a week from approximately 6 a.m. to 7 p.m. Twenty-five (25) buses are utilized daily, with 15 spares available. The buses range in size from a 22-passenger Champion mini-bus to a 45-passenger GMC TDH coach. Operations supervisors assign buses to routes according to peak hour demand. At this time, all SCAT buses meet the accessibility requirements of the Americans with Disabilities Act (ADA).

After nearly 10 years of planning and preparation, in March 2005, SCAT opened the Sarasota Downtown Intermodal Transfer Station. In 1995, SCAT was notified that it would receive $1.35 million in Florida Intermodal Development Program funds for design and land acquisition of an intermodal terminal to be located near SCAT's existing Downtown Sarasota transfer terminal. The grant was later increased to include an additional $1.5 million for the construction of a new terminal.

SCAT annually reports ridership data to the federal National Transit Data. SCAT buses providing the daily fixed route service are wheelchair lift equipped. Boardings on buses using these lifts have risen steadily since the lifts were first placed in service in 1991.

Intermodal connections

In addition to its fixed-route bus service, SCAT also provides direct connections to many other transportation modes within Sarasota County. The SCAT bus meets the Manatee County Area Transit (MCAT) bus at the Sarasota-Bradenton International Airport on an hourly basis to provide an intercommunity transfer option, thus expanding the travel potential of passengers on both transit systems. SCAT passengers can also transfer to the MCAT bus at the Goodwill on 301 Boulevard north of Tallevast Road. In 2005, SCAT and MCAT initiated coordinated service along U.S. 41 between the City of Sarasota downtown transfer station and Palmetto in Manatee County.

The SCAT bus system currently provides direct service to the Sarasota-Bradenton International Airport, and to the Greyhound bus terminals in the City. It is a one block walk from a SCAT routes to the AMTRAK bus providing a direct connection to the AMTRAK train station in Tampa via the AMTRAK bus from the SCAT main transfer point at First Street & Lemon Avenue.

Existing Modal Split and Vehicle Occupancy Rates

Despite the increase in public transportation ridership from the mid-1980's, data as recent as the 2000 Census confirm that the principal mode of transportation within Sarasota County is the private automobile. Of the 132,765 workers in Sarasota County in 2000, 4.7 percent worked at home and did not need transportation to work; 11.8 percent carpooled, 80.8 percent drove alone to work, and only 0.8 percent used public transit. and 0.8 percent found other means to get to work. With an average travel time of 21.8 minutes for Sarasota County, there does not appear to be a significant advantage for the single-occupant motorist to voluntarily switch to transit. However, this single-occupant automobile scenario shifts in time, with conditions in 2020-2025 sufficient to warrant a greater share of total transportation needs moving to public bus transit. This is confirmed by the Sarasota/Manatee MPO data regarding multi-modal alternatives to the private automobile.

The popularity of the private automobile as the primary transportation mode in Sarasota County is maintained by several factors including: low density residential development; an affluent population; a large white-collar work force; and, the dispersion of trip attractors and generators throughout the urbanized portion of the County and outside the area served by public transit. These factors, combined with the fairly low number of "transit dependent" riders (those who do not have access to an automobile) compared to "choice" riders (who have access to an automobile), have resulted in fairly modest public transit participation.

Service Development Factors

Development of an efficient and effective public transit system requires the coordination of route design and service levels with the demographic, geographic, and economic characteristics of a particular area. Two major gaps exist in SCAT service span. There is no public transit service provided after 6:30 PM and there is no Sunday transit service. The two rider groups divide on their preferences, with the transit dependent group favoring Sunday service. The important motivation for this preference is feeling "shut in" on Sunday. Choice riders, to a greater extent, want evening service. Many work or would like to work during these hours and cannot use the transit service for those trips.

The Sarasota County Transit Development Plan (TDP) identifies service improvements that increase the frequency of bus service, improve shuttle service, modify fixed route service for paratransit service, and add new service coverage to some of the newly developed areas of urban concentration are considered with the annual updates of the TDP. With this proposed service expansion, SCAT will require expansion of the existing fleet to an active fleet size of more than 50 buses. This assumes that the shuttle and paratransit projects that involve other agencies or other jurisdictions are implemented. All 1970's era buses have been replaced, although some of the 1991 series Orion buses will need to be replaced by the end of the planning period. To keep its fleet up to date SCAT has acquired many new buses. The County has now committed to purchasing diesel hybrid buses only as part of its “green” commitment. The bus purchases are anticipated to be funded primarily with Federal Section 9 capital funds, with a possibility that some of the shuttle

buses could be purchased with flexible funds from the federal highway program. SCAT will continue to place shelters, benches and signs to support its transit service. In addition, SCAT plans to place bicycle racks on all fixed route buses

SCAT also contracts with Senior Friendship Centers (SFC) to provide demand-responsive trips to the handicapped elderly who are unable to use conventional mass transit. SFC runs door-to-door, rather than on a fixed route, in compliance with ADA regulations. SFC is responsible for all "transportation disadvantaged" trips. Besides the SCAT-sponsored trips, SFC transports the clients of numerous social service agencies under separate contracts.

The Sarasota County comprehensive plan states that SCAT will maintain its current level of services, as measured by vehicle revenue hours, at 1995 levels.

In 2007, ridership on three key Sarasota County Area Transit (SCAT) bus routes has increased significantly – from 21 to 68 percent – with the implementation of service enhancements in recent months.

Meanwhile, overall SCAT ridership rose to 1.9 million passengers in fiscal year 2006, a 3.8 percent increase over the previous year. It was the highest recorded annual ridership since 1999 when the number of passengers fell dramatically after SCAT increased the fare from 25 cents to 50 cents.

Route 18 (Longboat Key) Route 99 (Palmetto/Sarasota) and Route 17 (Tamiami Trail) have undergone major frequency or route changes in recent months as part of the larger SCAT push to improve service and convenience throughout the bus system and attract more riders.

Two of the route enhancements have a direct connection with transit partner Manatee County Area Transit (MCAT) and were implemented Dec. 11, 2006, as part of the county's continuing effort to provide efficient bus service to the region.

Route 18 changes resulted in a 68 percent increase in average daily riders from the first full week in January 2007 to the same period the year before, from 205 to 344 daily passengers. The route was extended to Coquina Beach in Manatee County to close the gap and connect with MCAT.

Comparing figures for the same period in January, Route 99 had a 21 percent increase in average daily riders, from 1,309 to 1,602. The frequency of SCAT service on the route was changed from 60 minutes to 30 minutes, the same frequency as MCAT service on that route.

Route 17 recorded a 31 percent increase in average daily riders, from 809 to 1,062 passengers, during October-December 2006 compared to the same period the year before. The route was altered and the frequency of the bus service, from 60 to 30 minutes, was improved Sept. 30, 2006.

A series of upgrades and enhancements to Sarasota County Area Transit services began in July 2006 and will continue through 2007. The Sarasota County Commission approved $5 million for the enhancements, including the hiring of additional bus operators and support personnel.

The seasonal variation in riders varies by 15% to 18% from the strongest month, March, to the weakest, August and September.

Future System Needs

Sarasota County Area Transit (SCAT) submitted application to the Federal. Transit Administration (FTA) for funding a federal Small Starts program Bus Rapid Transit (BRT) project. SCAT submitted the project with the aim of fulfilling a broad range of adopted policies and goals of SCAT, Sarasota County, the City of Sarasota, and the Sarasota-Manatee Metropolitan Planning Organization (MPO).

The SCAT North-South Bus Rapid Transit Corridor project would improve the functioning of transit services in the core areas of Sarasota County through the development of exclusive guideways and a reworking of services to create a more effective, focused, and efficient transit system capable of playing an increased role in the Sarasota region. The corridor identified for the Small Starts Project is, in broad terms, the US-41 (Tamiami Trail) corridor, from the Manatee County border in the north, south to Bee Ridge Road. This corridor passes through, or by, most of the densest land uses in the region, as well as some of the most congested road conditions in the County/ the City.

System Consolidation

The first phase of SCAT's strategy calls for improvements in transit service design and the investment in upgrading routes in key corridors. SCAT is now well into this phase, having restructured routes and added service to key routes. In March 2007, SCAT was nearing 75% completion of the planned route expansions. SCAT is currently planning additional phases of the effort, including improvements in service span for key routes to better match employment shifts and the introduction of Sunday services. SCAT will implement the service hour expansions, including peak hour services, new Sunday and evening service, beginning in 2008. Initial data suggests that the route enhancements and expansions have resulted in a significant increase in ridership.

Transit Corridors

As part of the route enhancements, the City of Sarasota will support provision of transit infrastructure by requiring new development in identified "transit corridors" to provide pads and shelter easements for transit passengers. These identified corridors represent the major north-south, east-west routes through the City. They are also aligned with increased residential density and commercial development that could generate future transit trips. A complete list and map of transit corridors is provided in Illustration T-15.

The City recognizes that there may be situations in which it is not possible for a development along a transit corridor to meet these requirements. The policy provides exemptions for small developments (less than ½ acre in size) and for developments that can show they are within 250 feet of an existing bus shelter on the same side of the street. Additional language concerning transit corridor requirements will be created in the zoning code and in the new code sections related to Transit Oriented Development.

Efficiency Investments

The second phase of SCAT's strategy calls for capital investment in guideways and transit priority techniques including the implementation of a bus rapid transit system (BRT) in order to create a sustainable competitive advantage for transit services, better target the core of the region, with its transit-friendly land uses, and significantly improve the operating characteristics of the system through increased reliability and decreased trip times. The Small Starts Project is a major element of this phase.

System Expansion

The third phase of SCAT's strategy follows the development of an efficient core, by systematically looking at tying more distant locations into the core to create an effective and efficient regional transit system. This phase is also designed to support the County's adopted 2050 land use strategy, which seeks to develop transit-friendly "villages" and "village centers" in locations throughout the County.

Corridor Boundaries

The boundaries of the US-41 Corridor have been defined as follows. At the north end, the Corridor begins at the Sarasota/Manatee County Line, taking in the passenger facilities of Sarasota/Bradenton International Airport (SRQ). The Westernmost boundary of the Corridor is the Gulf of Mexico/Sarasota Bay. The easternmost boundary in the northern portion of the Corridor is set at the mainline railroad tracks just to the east of US 301 (North Washington Boulevard); at Ringling Boulevard the boundary shifts slightly westward to South School Avenue or the alignment implied by South School Avenue for those blocks where the road does not exist. The southernmost boundary is Glengary Street, just to the south of Bee Ridge Road. All but a small portion of the northern section of the Corridor is within the limits of the City of Sarasota.

The Corridor was the subject of a long-range transit plan commissioned by the Sarasota-Manatee Metropolitan Planning Organization (MPO), which adopted a plan based on the creation of BRT services on dedicated travel lanes along the US-41 highway. The SCAT Small Starts Project is a refinement of this vision, and as such is looking at alternative alignments and infrastructure in order to support an efficient and effective raid transit service for the Sarasota region.

Land Use and Transportation Concurrency

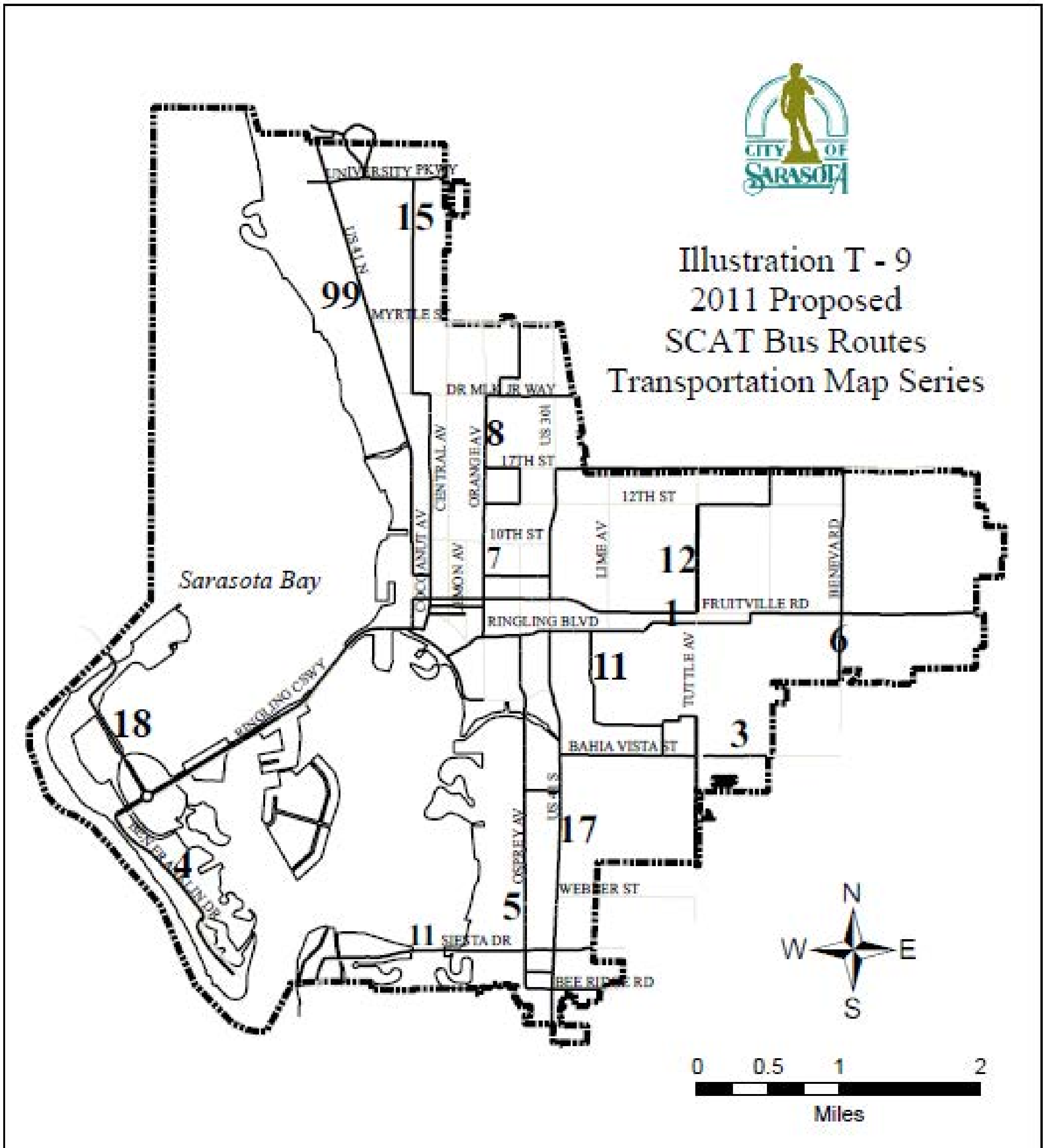
The City of Sarasota tends to suffer from some traffic congestion in the downtown area and is seeking mobility strategies supporting redevelopment plans and downtown improvements, such as the proposed Rosemary district land use amendment. In response, the City is initiating an urban mobility study examining a Multi-Modal district to replace the City's existing Transportation Concurrency Exception Area (TCEA) to support changes in land uses. The Multi-Modal district study is anticipated to start at the end of this year for the area primarily within the City's Downtown Community Redevelopment Area from approximately 10th Street on the north; Mound Street (US-41) on the south; Bayfront Drive (US-41) on the west; and School Avenue on the east. The study will focus on access to and travel within the downtown area, carefully considering the larger regional context concerning principal arterial roads and bridges serving the City. SCAT is requesting that the City readjust the study area limits extending south of downtown Sarasota to the Sarasota Memorial Hospital and north of 10th Street to 17th Street. Extending the study area will allow for evaluation of land use changes such as higher density residential and mixed-use development adjacent to the BRT corridor. SCAT is seeking land use changes for the BRT, consistent with the City's proposed comprehensive plan action strategy supporting Transit Oriented Development (TOD's) and exploring a Transit Overlay District in the Downtown area. For example, TOD overlay districts in adjacent to the BRT corridor north of 10th Street to 17th Street and south of Mound Street, in areas such as the Mid-Town shopping center at US-41 and Bahia Vista. The City of Sarasota has made a commitment to exploring these possible TOD's in conjunction its multimodal study and the Small Starts application.

Other Capital Improvements

All of SCAT's capital improvements provide either direct or indirect benefits to the City. The following improvements will be made within the City of Sarasota:

- Improved Information System,
- Bus Stop Signs, Benches and Shelters,
- Decorative Bus Benches,
- Bicycle lockers at the Downtown Transfer Station, and
- Improved Radios, Fareboxes, and Automated Passes.

SCAT has also implemented the purchase of diesel-electric hybrid buses to its fleet. Three hybrid buses are in service at this time. Seven more hybrid buses will join the fleet in 2007.

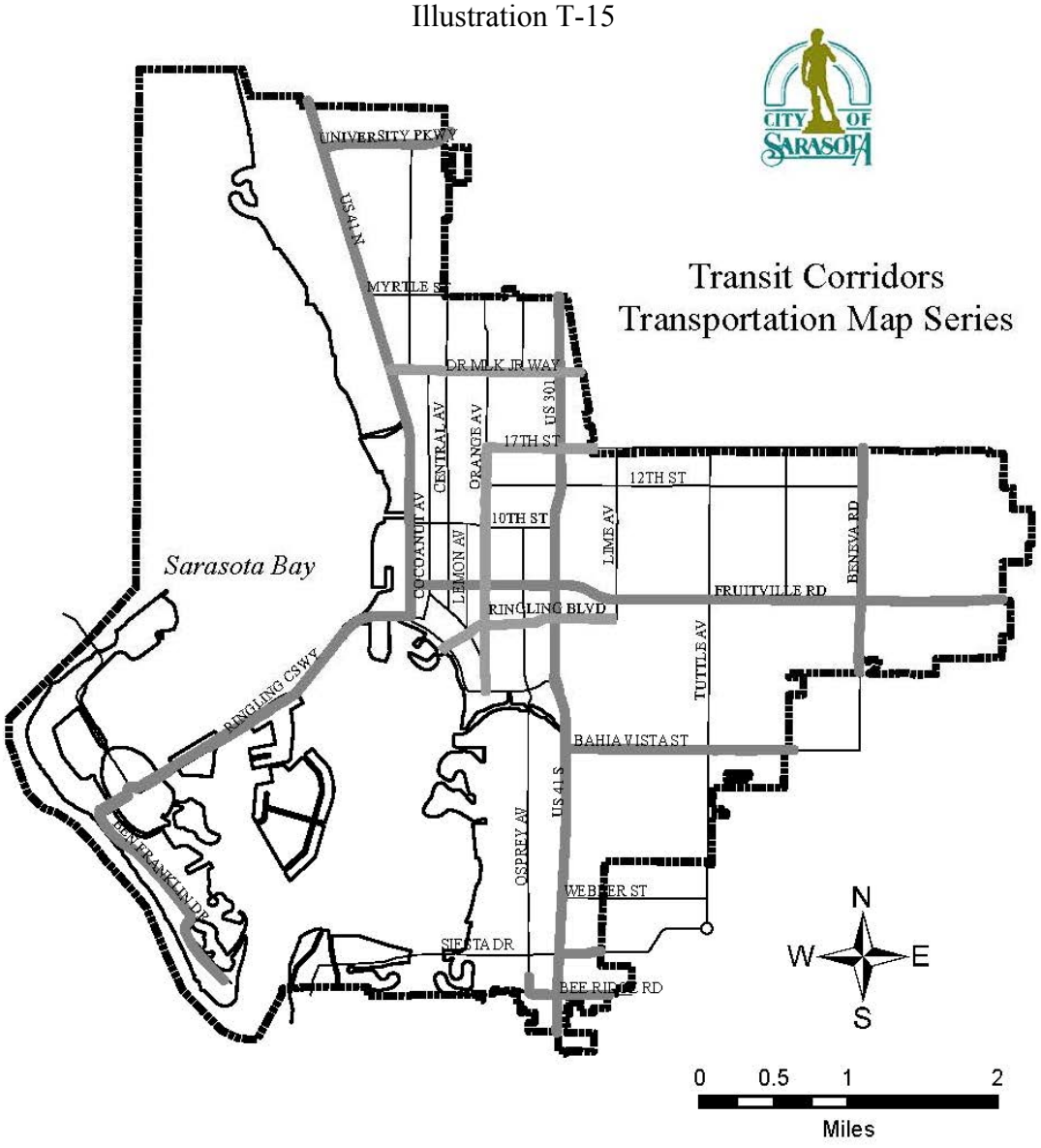


2011 Proposed SCAT Bus Routes

—— SCAT Bus Route

Sarasota County Area Transit and
City of Sarasota Engineering Department 2006

Illustration T-15



Transit Corridors

17thStreet	Siesta Dr	Beneva Road
Ringling Blvd / Cswy	Dr. MLK Jr. Way	Fruitville Road
Ben Franklin Drive	Orange Ave	Bahia Vista St
US 41 (North and South)	University Pkwy	

City of Sarasota Engineering Department 2007

BICYCLE FACILITIES

For its multimodal system to operate effectively, the City of Sarasota must become a more bicycle-friendly community. Communities that are bicycle friendly are seen as places with a high quality of life. This often translates into increased property values, business growth and increased tourism. Bicycle-friendly communities are places where people feel safe and comfortable riding their bikes for fun, fitness, and transportation. More bicycling results in reduced traffic demand, better air quality, and improved public health.

A Bicycle Friendly Community encourages its residents to bicycle for fun, fitness, and transportation. Well-engineered bicycle facilities, bicycle safety education, bicycle-friendly policies, and active promotion of bicycling are all signs of a community that is bicycle-friendly.
(Action Plan for Bicycle Friendly Communities, League of American Bicyclists, 2007.)

One first step to becoming a more bicycle friendly community is for the City to make a policy statement that bicycling and walking facilities will be incorporated into all public projects unless exceptional circumstances exist (see Action Strategy 2.16). The League of American Bicyclists suggests the following 10 actions that a city can take to become more bicycle friendly:

1. Adopt a target level of bicycle use (e.g. percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.

2. Provide safe and convenient bicycle access to all parts of the community through a signed network of on- and off-street facilities, low-speed streets, and secure parking. Local cyclists should be involved in identifying maintenance needs and ongoing improvements.

3. Establish information programs to promote bicycling for all purposes, and to communicate the many benefits of bicycling to residents and businesses (e.g. with bicycle maps, public relations campaigns, neighborhood rides, a ride with the Mayor.)

4. Make the City a model employer by encouraging bicycle use among its employees (e.g. by providing parking, showers and lockers, and establishing a city bicycle fleet).

5. Ensure all city policies, plans, codes, and programs are updated and implemented to take advantage of every opportunity to create a more bicycle-friendly community. Staff in all departments should be offered training to better enable them to complete this task.

6. Educate all road users to share the road and interact safely. Road design and education programs should combine to increase the confidence of bicyclists.

7. Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes.

8. Develop special programs to encourage bicycle use in communities where significant segments of the population do not drive (e.g. through Safe Routes to Schools programs) and where short trips are most common.

9. Promote intermodal travel between public transport and bicycles, e.g. by putting bike racks on buses, improving parking at transit, and improving access to rail and public transport vehicles.

10. Establish a citywide, multi-disciplinary committee for non-motorized mobility.

Types of Facilities

For many years transportation engineering trends focused on designing for four wheels instead of two. But how are motorists truly expected to share the road unless engineers provide bicycle-friendly and multi-mode facilities to encourage them to do so?

Bicycle routes in the City of Sarasota can be divided into four basic types:

- Bike lanes, which are on-road facilities usually four (4) feet in width;
- Wide curb lanes, which are outside lanes of 14 feet or more in width;
- Bike paths, which are totally separate from the road; and
- Multi-use recreational trails (MURT), usually ten (10) feet in width, which normally provides access to schools and parks for other pedestrian uses.

Professional engineering studies have determined that paths adjacent to roadways are much less safe than on-road bicycle lanes. Bike paths are fine within enclosed land areas, but where street crossings are involved, motorists tend to be careless in looking out for cross-traffic. On the other hand, short-distance recreational bicyclists often feel more comfortable off the road. Multi-use paths tend to be uncomfortable for pedestrians unless they are clearly marked and patrolled regularly.

There are many ways to restripe existing roadways to accommodate bicycles. Locally, it has been suggested that some 4-lane arterials be restriped with the "10-10-4" plan. That is two ten-foot wide lanes and a 4-foot-wide bike lane. That is a bicycle-friendly action that is relatively low cost but would have great positive impact for cyclists. The specific design strategies to do this involve a redesign of the highway cross-section in terms of space allocation for specific user groups. The City of Chicago, among others, is successfully striping 44 ft roadways with two seven-foot parking lanes, two five-foot bike lanes and two ten-foot travel lanes.

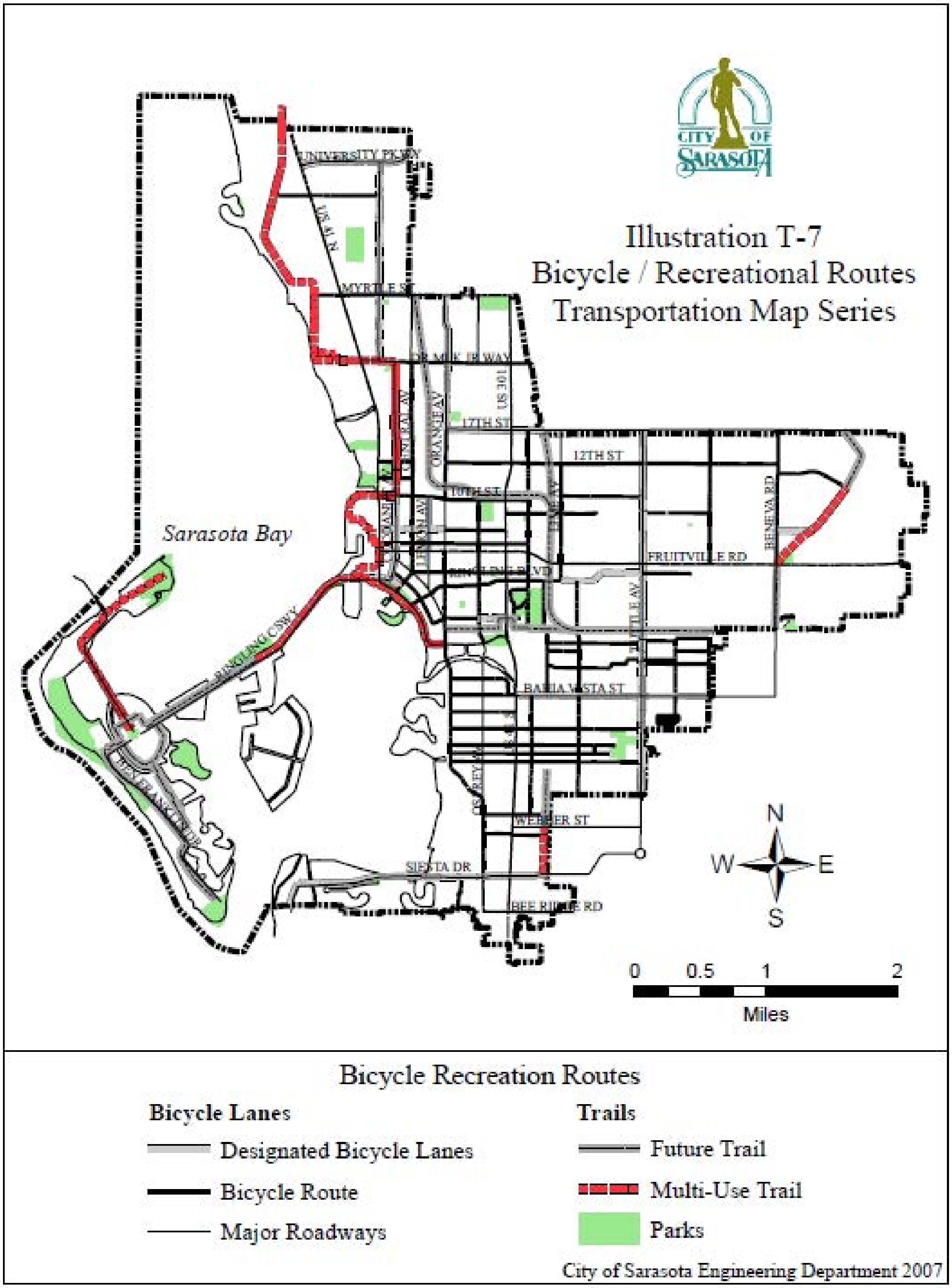
Bicycles also can be used for short trips to a bus stop, where the bus provides the "line-haul" portion of the trip. Bicycle lockers at bus stops encourage this practice. All of the buses in the Sarasota County Area Transit System are now able to carry bicycles on racks mounted on the front of the bus. The "Pedal and Ride" program has been a resounding success. The main transfer station constructed in downtown Sarasota includes two bicycle storage racks.

For those desiring to bicycle commute the entire length of the trip from home to work, the City has encouraged new development to include secure, visible bicycle storage facilities, showers, and changing facilities. The City has adopted a standard for bicycle parking in its Land Development Regulations. Additional regulations covering installation and design of required bicycle racks can be found in the EDCM.

The City of Sarasota includes bicycle improvements in its Capital Improvement Program (Capital Improvement Element.) The Element identifies Gas Tax and Penny Sales Tax as the funding source.

City of Sarasota, Parks + Connectivity Master Plan, EDAW, Adopted September 3. 2002 recommended the creation of a network of parkways to connect the City's parks, schools and attractions. These pathways would allow residents and visitors alike to enjoy the parks, beaches and urban amenities of the City without getting in their cars and adding to the congestion. These parkways must be designed to provide the most direct, continuous route, have cross-traffic stop, divert vehicular traffic away, include some traffic calming measures, have ample signage and protect the cyclists at intersections.

Another important feature of a bicycle-friendly City is the encouragement of bicycling as a mode of transportation. Communities can emphasize and feature bicycling in a number of ways. Some communities publish a bicycle route map of the City. Others promote bicycling through events such as "Bike to Work Day," "Ride with the Mayor" and many others. Some communities partner with the public schools to teach bicycle safety in schools, provide safety equipment and encourage walking to school. The City will also need to make a concerted effort to aggressively enforce traffic laws that affect bicyclist safety. Law enforcement can make a tremendous difference for a bicycle friendly City. The City could also implement non-motorized patrols in some City neighborhoods or downtown.


CITY OF SARASOTA
Illustration T-7
Bicycle / Recreational Routes
Transportation Map Series
Sarasota Bay
MYRTLE ST
US 301
17TH ST
12TH ST
10TH ST
ORANGE AV
FRUITVILLE RD
BENEVA RD
BAHIA VISTA ST
SIESTA DR
N
W
E
S
0
0.5
1
2
Miles
Bicycle Recreation Routes
Bicycle Lanes
Designated Bicycle Lanes
Bicycle Route
Major Roadways
Trails
Future Trail
Multi-Use Trail
Parks
City of Sarasota Engineering Department 2007

Improving Bicycle Facilities

Becoming a bicycle friendly city means improving the facilities available to cyclists in Sarasota. Throughout the United States, many cities have tested innovative bike lane designs. These innovative bike lane designs have been tried and tested to overcome particular barriers to bicycling, or to solve a problem in a particular location. Counter-flow bike lanes, colored bike lanes, shared bike and bus lanes and bike lanes on the left side of one-way streets. Other engineering and design actions that will improve the City's bicycle facilities include:

- Continue to survey all roadways within the City to determine the existence of parallel drainage grates and other safety hazards to cyclists and institute a program to correct, guard against, or warn cyclists of identified problems.

- Utilize wide curb lanes, paved shoulders, and silent (undesignated) bike lanes to improve roadways consistent with the Bicycle Facilities Planning and Design Manual.

- Work to improve road conditions for cyclists and other road users by including candidate improvement projects in the FDOT Five Year Work Program, the MPO's TIP, and the City's Capital Improvements Program.

- Assist SCAT with bicycle parking facilities at bus stops, and consider a partnership with Sarasota County to establish bicycle parking at stops within the City if grants or federal funding cannot be found by SCAT for such a purpose.

- Ensure that traffic signals in the City are bicycle-friendly by adjusting signal timing and using loop-detectors that register bicyclists or push button activated signals for cyclists as well as pedestrians.

- Provide secure bicycle parking at all City parks and municipal facilities.

- Consider the feasibility of using streets and rights-of-way for bicycle/pedestrian facilities prior to abandonment or vacation.

- Maintaining pedestrian and bicycle access through areas, if street closures occur.

- Provide parking bonus incentives to developers, employers, and businesses who erect secure bicycle parking and lockers.

- Evaluate the streets and bicycle facilities serving each of the school areas in the City to assure the availability of safe routes to schools within a two-mile travel distance.

- Seek federal "Safe Routes to School" Program funding for school area improvements.

- Review plats, site and development plans, and capital improvement projects for bicycle parking and access.

- Consider adoption of an ordinance requiring developers to provide bicycle access and parking or fees in lieu of traditional mitigation measures.

PEDESTRIAN FACILITIES

During the Evaluation and Appraisal Report (EAR) neighborhood workshops, several comments were made concerning pedestrian safety and the need for more continuity of sidewalks and pedestrian paths to minimize conflict points with vehicular traffic.

In 2002, the City Commission adopted the Parks & Connectivity Master Plan. The goal of the plan was to help the City develop and maintain a connected system of parks and open space. The plan recommended the creation of pedestrian "sleeves." It surveyed the availability of sidewalks to all of the parks located within the City.

The City's Sidewalk Program

For many of us, walking is a part of our everyday activities. It is one of the healthiest ways for adult and children to keep in shape. Young and old, it is a frequent and popular way of getting around. Yet pedestrians must cope with vehicular traffic. Even good drivers will not always be looking out for pedestrians. Sidewalks can help by offering residents a safe and attractive route to travel.

The City's sidewalk program is available upon citizen request. It considers not just spot-specific sidewalk requests but also sidewalk availability throughout the areas. That allows design of a more cohesive sidewalk plan for the area. The City Engineering Department strives to build sidewalks that maximize effectiveness and optimize safety while minimizing any adverse impact on adjacent properties. City sidewalks are a least five feet in width and can travel the length of the street. The City constructs strong concrete sidewalks that should last for many years. Depending on property owner input, and the survey, including the location of trees, drainage, fire hydrants, and other road conditions, City Engineers determine which side of the street would better accommodate a sidewalk. While it takes several months for the sidewalk to go through the design phase and the required public bidding process, it usually take just two weeks to install a residential street sidewalk. All sidewalks always include handicap ramps at intersections.

The City's adopted sidewalk program includes project selection criteria. A point rating system classifies both existing and proposed sidewalks as mandatory, needed, or not needed. Criteria include:

- proximity to schools, trails, shopping and parks;

- pedestrian volume;
- distance;
- roadway functional classification;
- traffic volume;
- posted speed;
- pedestrian accident experience;
- number of school bus stops;
- number of pupils using school bus stops;
- SCAT bus stops; and
- Special area status: Downtown and Environs, Enterprise Zone, Neighborhood Action Strategy Area.

Funding sources include:

- Infrastructure Sales Tax;
- Federal Community Development Block Grants;
- Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU); and
- Local Option Gasoline Tax (6 cents allocation from Sarasota County plus 1 cent by referendum).

According to the 1997 Sarasota County Comprehensive Bicycle and Pedestrian Plan, the City has approximately 37 miles of sidewalks along arterial and collector roadways.

The City's currently adopted Capital Improvements Program and Infrastructure Sales Tax program provide funding for design, construction, or reconstruction of new sidewalks. These do not include the new sidewalks which will be part of new roadway projects.

A number of pedestrian pathways and bridges currently exist which provide safe pedestrian access in neighborhoods where sidewalks are not available along parallel streets. They include:

- along the Shade Avenue right-of-way in the vicinity of 8th Street;
- from Hyde Park Street to Arlington Park across a drainage canal;
- from Waldemere to Temple Street across another drainage canal;
- from Rilma Avenue to North Water Tower Park;
- from Shade Avenue across Canal #4-51; and
- from GWIZ to Van Wezel Performing Arts Center.

A pedestrian bridge over U.S. 41 in the downtown Bayfront area has been suggested although this was not recommended in the Downtown Master Plan 2020. The Downtown Master Plan recommends the creation of sleeves, see below, to slow traffic at conflict points with pedestrians.

The City's Bayfront Multi-Use Recreational Trail or (MURT) has been completed from Orange Avenue along the Bayfront north to Centennial Park. The MURT is a ten-foot wide paved sidewalk designed for use by cyclists, pedestrians, and rollerbladers. The western segment of the City's MURT, from Bird Key to St. Armands Circle has been designed and is pending funding for construction. North of Centennial Park the MURT is planned to continue through an FPL-owned parcel and connect to Whitaker Gateway Park via a bridge separating the trail from the Bays Bluff condominium. Additional right of way will be needed to widen the existing 4-foot-wide pedestrian area of the bridge over Whitaker Bayou along the North Tamiami Trail.

Another Multi-Use Recreational Trail, called the School Avenue MURT, is scheduled to begin construction in 2007. The trail will run north from Siesta Drive along the unimproved South School Avenue right-of-way to Webber Street. A second segment of the School Avenue MURT is planned for the right-of-way north of Webber Street to Hyde Park Street. That section will require additional funding because the existing open stormwater ditch will need to be piped before the trail can be constructed. Both MURT's are shown on Illustration T-7, "Bicycle/Recreational Routes."

The City's Traffic Calming Program includes raised pedestrian crosswalks in its toolkit of traffic calming devices. Several neighborhoods in the City have installed thermoplastic decorative sidewalks in order to improve the visibility of pedestrians.

Pedestrian Design Guidelines

Objective 7 of the Transportation Plan addresses creating safe and convenient pedestrian and bicycle networks as well as encouraging the use of those networks. This Objective is consistent with the ongoing efforts of the Sarasota County Transportation Department, the School Board of Sarasota County, and the Sarasota Manatee Metropolitan Planning Organization as well as local bicycle and pedestrian advocacy organizations.

Following are specific design recommendations:

- Dropped (ramped) ADA-approved curbs should be provided at each crosswalk within a street intersection at such time as sidewalk or road improvements are made.

- Crosswalks that are part of a pedestrian sleeve should be clearly identified, using appropriate signs, signals, striping, pavers and/or textured pavement.

- "Sleeves" will be located at the major crossing points in the downtown area, and near schools, parks, shopping centers, hospitals, medical clinics, and major employment centers throughout the City.

- Priorities for curb cuts should be established based on ADA handicapped requirements.

- The design and construction of roads should provide for safe pedestrian and bicycle access.

- Raised textured road surfaces should be considered at pedestrian crossings to caution motorists.

- Exclusive pedestrian signal phases and temporary street closings should be considered in order to create a safe, pedestrian-friendly environment.

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AVIATION

Sarasota Bradenton International Airport

A publicly owned air carrier facility, the Airport is situated on 1,102 acres. It is located, on the Sarasota-Manatee County line less than one-half mile from the Gulf of Mexico. Please see Illustration T-10, 2006 Aviation Facilities. It is administered by the Sarasota-Manatee Airport Authority which is composed of four elected officials (two from each County). The Authority's powers were established in 1955 by Chapter 77-651, Florida Statutes. Most of the Airport Authority property is located in Manatee County. However, several outparcels on the southern side of the property are within the City of Sarasota City Limits and property on the eastern side of the property is located within unincorporated Sarasota County. As a result, amendment to the Airport's Development of Regional Impact (DRI) approval requires approval from all three jurisdictions.

In 1999, Manatee County adopted Resolution No. 99-50 as a Substantial Deviation Development Order (DRI #230). The Resolution authorized a 2,500 linear foot expansion of Runway #14-32, additional aircraft hangars and additional commercial and office entitlements in Phase I with a buildout date of December 31, 2005. Phases 2 and 3 have conceptual approval to include additional commercial, office, industrial and hotel development, a 175,000 sq. ft. terminal expansion and an 800-space parking garage. Specific Phase 2 and 3 approval is contingent upon further Chapter 380.06, F.S. transportation analysis and verification of acceptable Noise Abatement measures and performance standards. The Development Order expires on December 31, 2015.

Terminal Facilities

Since the 1998 *Sarasota City Plan*, major changes have been made to the airport terminal and related facilities. While still located in the south-central side of the Airport, the terminal has been expanded to three levels. The east end of the lower level contains a departure lobby which houses the airline ticket counters, airline offices, and baggage make-up functions. The west end of the lower level is the arrival lobby which houses the baggage pickup area, airline baggage claim services, and rental car offices. Both the departure and arrival lobbies are one-story structures and are connected by a three level main lobby structure. At ground level, the lobby contains a U.S. Post Office, airport police offices, public restrooms, elevators, escalator, and stairs. Also included on the east end of the lower level is a ground level gate area to accommodate commuter airline operations. The second level of the main lobby contains a restaurant and cocktail lounge, retail shops, airline security check-in, security offices, and public restrooms. Passengers must circulate through the main lobby of this level to gain access to the 13 airline gates located in Airside B, which is located directly north of the security check-in and provides passenger departure lounges, supporting concessions, and public restrooms. The ground level of Airside B is used for ramp operations by each of the airlines.

The third level of the main lobby houses the airport administration offices and meeting rooms with an open air atrium spatially connecting the three levels. The passenger terminal

building has 322,473 square feet, and is distributed as follows: ticket wing - 69,972 square feet; baggage wing 2 - 41,416 square feet; main terminal - 85,904 square feet; concourse - 121,47 square feet; and, other - 3,710 square feet.

Accessibility and Parking

The airport's entrance from University Parkway consists of two lanes in each direction, divided by a landscaped median; it expands to six lanes in front of the Terminal Building. University Parkway is four lane Interstate Connector roadway which runs east from U.S. 41, crosses U.S. 301 and terminates at I-75 as Interstate Exit No. 40. A secondary roadway network services the rental car facilities. A service road provides access to the aircraft parking apron area and the service dock of the Terminal Building. Additionally, a north-bound exit road was constructed to provide a continuous flow of traffic in a northerly direction along U.S. 41. The public parking area consists of 833 long-term and 598 short-term parking spaces. Additionally, there are 259 spaces for the rental car lots. The employee parking lot accommodates 446 vehicles.

Airport Master Plan

The Sarasota-Bradenton International Airport Master Plan was adopted in December, 1992, and was approved by the Federal Aviation Administration in September, 1994. The existing land uses adjacent to the Airport include residential, commercial, industrial, institutional, and open space, as indicated on the City's Future Land Use Map. The Master Plan sets forth the types of development needed to meet the short and long-term air transportation needs of the Air Service Area (which includes Sarasota County, Manatee County, Hardee County, and DeSoto County) and to ensure the compatibility of the airport with its surrounding land uses. The Master Plan contemplates construction of several new capital projects, including, but not limited to, runway extensions, airfield drainage improvements, an additional runway for general aviation purposes, and certain taxiway improvements. In addition, the Airport Authority also plans to undertake certain smaller capital projects and equipment purchases. Finally, the Airport Authority intends to complete its ongoing Noise Compatibility Program, which involves the acquisition of noise impacted properties and noise easements. Funding for these projects is intended to come from Authority surplus revenues, moneys to become available in the Improvements Account, Passenger Facility Charges, and future federal and state grants-in-aid. Although the City of Sarasota does not have a direct role in decisions relating to the Airport, the plans of the Sarasota-Manatee Airport Authority are governed by the Florida Statutes and require local jurisdiction approval which includes the City of Sarasota. The City's future land use and intermodal transportation systems are greatly affected by future airport plans.

Land Use Compatibility

Due to the noise produced by jet-powered aircraft, certain land uses are better-suited than others for properties adjacent to airports. Airport requirements for airspace free of tall structures, the absence of activities which might interfere with aircraft communication equipment, and similar considerations limit even more, the number of suitable uses. It is essential, therefore, that land use and aviation planning be coordinated. Most of the land surrounding the Airport lies within the City of Sarasota or Manatee County. Some of the existing land uses are in conflict with the operation of the Airport. For example, residential areas to the southeast experience levels of aircraft noise from 65 Ldn to nearly 75 Ldn (Day Night Average Sound Levels.)

Three proposed airport expansion projects could have an impact on the airport environs. These expansion projects include: 1) a 1,150 foot extension on the south end of runway 14/32; 2) a 1,350 extension on the north end of runway 14/32; and 3) a 5,000 foot parallel runway 14L-32R

This noise reduction with the proposed expansions is due, in part, to the requirements of the Airport's Development of Regional Impact (DRI) as well as community input regarding airport noise levels. The DRI requirements and public concerns resulted in the airport's Noise Compatibility Program (NCP) which was approved by the FAA in March, 1990. This program includes a short-term noise compatibility program which provides for noise abatement turns, limitations to the aircraft operation hours, and also encompasses a Noise Abatement Advisory Committee, Noise Abatement Officer, noise monitoring, noise complaint response, plan review and evaluation, and the dissemination of information to the public. Further, the NCP specifies measures proposed or taken by the airport to reduce existing incompatible land uses and to prevent the introduction of new incompatible land uses around the airport within certain areas on FAA-approved Noise Exposure Maps (NEM). These measures include, in part, the acquisition of residences, acquisition of aviation easements, and sound insulation of residences within specified noise contours. In 1995, the Authority submitted an updated NEM and will submit an updated NCP to the FAA in 1996 for review and approval. The updated NEM and NCP will redefine the noise contours in which homes will be eligible for future acquisition or other programs.

Illustration T- 8

2006 Aviation Facilities

No Scale

Source: Sarasota Bradenton Airport Authority

Legend

City Limits

Airport Property Limits

CSX Railroad

RAIL SERVICE

Rail Passenger Service

Hillsborough County is presently designing a regional rail commuter service to relieve acute highway congestion in the Tampa Bay area. Trains would serve all major trip generators, including the Tampa International Airport, several colleges, shopping malls, stadiums, the Amtrak station, and the proposed Florida high-speed rail service.

Hillsborough County has reserved rights-of-way to tie into existing CSX trackage south of the Alafia River to the Brandon Mall and the rest of the system. This route could easily be extended using existing railroad tracks to Bradenton, Sarasota, and Venice.

The City should support this connection and explore appropriate sites for a rail station-stop in or near downtown. There are several reasons for doing so. First, a railroad station will stimulate economic growth and increase property values wherever it is located. Second, railroads are immune to the highway congestion and heavy rains which are prevalent in the area. Third, the ability to reach the Tampa Bay area quickly and comfortably without driving will enhance the desirability to live in the City. Rail freight service not only is important to attracting industry to the area; it also reduces the wear-and-tear, noise, and vibration of trucks on streets and neighborhoods from existing shippers and receivers. The Downtown Master Plan 2020 acknowledges the need for rail service by identifying two future rail stations within the study area boundary.

DOWNTOWN MASTER PLAN STUDY AREA

As an urban area, the City of Sarasota recognizes that the downtown area has unique transportation issues. Since 1999, many large residential projects have opened in the City's downtown greatly changes the road system dynamics in the area. The Ritz-Carlton hotel, on the Bayfront near the intersection of US-41 and John Ringling Causeway, has had a tremendous traffic impact on those arterial roadways.

In 2001, the City of Sarasota adopted the Downtown Master Plan. The plan represented a New Urbanist approach to transportation and land use in the City's center. The Downtown Master Plan made many recommendations for the City's transportation system. Some of these recommendations have now been adopted into the Land Development Regulations and the Engineering Design Criteria Manual. Other recommendations will take continued effort by City officials if they are to be implemented.

The following transportation projects are described in the Downtown Master Plan or result from those listed projects. Further study is necessary prior to implementation in order to determine impacts resulting from the proposed projects. These projects are:

1. Thoroughfare Designations,
2. Roundabouts,
3. Maintaining Adopted Levels-of-Service,
4. Traffic Signalization,
5. Rerouting US-41,
6. Hurricane Evacuation Resulting from these Projects,
7. Bicycle Network,
8. Trolley System,
9. Pedestrian Intersections,
10. Additional Bridge Serving the Barrier Islands,
11. Commuter Rail Stations, and
13. Parking.

1. Thoroughfare Designations

The Thoroughfare Designations in the Downtown Master Plan have been incorporated into the City's Engineering Design Criteria Manual in Part 5 "Street Design in the Downtown and Environs Area." Street types include lane, alley, residential street, commercial street, commercial avenue, and commercial boulevard.

2. Roundabouts (Project T2, see page VI-1.5, City of Sarasota Downtown Master Plan)
Roundabouts are circular intersections providing for continuous movement of vehicles at low speeds. Roundabouts are generally circular in shape with a raised center island, triangular islands at each entry point designed to slow approaching vehicles, and appropriate geometric curvature to ensure that travel speeds on the circulatory roadway are typically less than 30 miles per hour. Roundabouts may be single- or multi-lane. Vehicles approaching roundabouts yield to the circulating traffic before entering. According to a

Federal Highway Administration publication, *Roundabouts: an Informational Guide*, roundabouts may improve the safety of intersections by eliminating or altering conflict types, reducing speed differentials at intersections, and by forcing drivers to decrease speeds as they proceed into and through the intersection. The geometry of roundabouts eliminates many of the angles and traffic flows that lead to many automobile accidents, particularly right-angle and left turn head on collisions. The low vehicle speeds associated with roundabouts allow drivers more time to react to potential conflicts, thereby helping to improve safety. The relatively lower speeds reduce the crash severity when compared to some traditionally controlled intersections. The Downtown Master Plan recommends the development of four roundabouts at the following intersections: (1) US-41 and Gulfstream Avenue, (2) US-41 and Fruitville Road, (3) US 301 and Fruitville Road, and (4) Ringling Boulevard and Pineapple Avenue. The Plan further states that as an alternative, or addition, a roundabout at the intersection of Ringling Boulevard and Palm Avenue should also be explored. The City will study roundabouts at these locations and coordinate with other local, regional, and state agencies regarding their possible development. The City will be working to procure adequate right-of-way to create some of these roundabouts. In many cases, partial funding will come through developer-contributions. Because US-41, US 301 and Fruitville Road are FDOT right of ways, a create deal of coordination will be required to make such large-scale improvements.

4. Traffic Signalization

Implementation of these transportation initiatives may increase automobile traffic on certain roads while decreasing it on others. In order to maintain the adopted roadway levels of service, the City may need to make adjustments to its traffic signalization. The study of traffic signalization will need to be completed in conjunction with the other studies identified in this section. In 2007, a major study of signal-timing City-wide is underway.

5. Rerouting US-41 (Project T1, see pages VI-1.2 through VI-1.4, City of Sarasota Downtown Master Plan)

The Downtown Master Plan seeks to improve the "walkability" of the downtown area by making it more pedestrian friendly. If traffic on Bayfront Drive were rerouted from US-41 traffic to US 301 or another route, it would decrease the volume of traffic along the Bayfront. A reduction in traffic would allow the City to reconfigure the roadway, Bayfront Drive, into a three-lane road consisting of one travel lane in each direction separated by a center turn lane. Parallel parking would be allowed on both sides of the road to "calm" traffic. By reducing traffic and reconfiguring the roadway, walking access to the Bayfront should be improved resulting in greater pedestrian use. Drivers that use the current US-41, along the Bayfront, would be expected to utilize other thoroughfare routes, such as Fruitville Road, rather than residential streets to connect to the new US-41/US 301 route. The City Commission directed staff not to pursue this goal in 2005. In 2007, the City prepared to conduct an ambitious public process to determine what, if any, changes should be made to the US 41 right-of-way in order to better connect the downtown to the Bayfront Park area.

6. Hurricane Evacuation Resulting from these Projects
The City has adopted Action Strategies within the Environmental Protection and Transportation Plans stating, in general, that the City will maintain or improve its hurricane evacuation routes. As part of the studies identified above, the City will need to study the effect of these projects on hurricane evacuation prior to making a decision regarding implementation.

7. Bicycle Network (Project T4, see page VI-1.16, City of Sarasota Downtown Master Plan)
The Downtown Master Plan includes a proposal for a revised bicycle network within the study area. It recommends bicycle routes, bicycle trails and bicycle lanes as depicted on Illustration T-7, Bicycle and Recreational Routes. The City's Engineering Design Criteria Manual includes specific requirements for the provision of bicycle lanes, bicycle routes and bicycle parking for developments in the Downtown and Environs Area.

The hallmark of the Downtown Master Plan is the effort to create a system of walkable streets – so pedestrians can enjoy the City's retail core. The Downtown Master Plan identified some streets as needing pedestrian emphasis while other streets could retain their automobile-oriented design. A similar concept was applied to street design in the City's EDCM and is included as Illustration T-18 in the Transportation Support Document.

8. Trolley System (Project T8, see page VI-1.20, City of Sarasota Downtown Master Plan)
Sarasota County Area Transit began operating a trolley serving the downtown area in the spring of 2000. Trolley service was discontinued in 2003 due to low ridership. It is recommended that in the future the routes should be modified and headways should be reduced in an effort to increase ridership. It is further recommended that other vehicles and methods to circulate pedestrians in the Downtown Area be thoroughly investigated.

9. Pedestrian Intersections
Another recommendation of the Downtown Master Plan was the creation of pedestrian intersections. A pedestrian intersection sleeve is a pedestrian crossing that is clearly marked and delineated. It is not merely a crosswalk and a traffic signal. In the downtown, pedestrian sleeves are of particular importance because they connect the City's "Walk to Town Neighborhoods" to the downtown core and to the City's Bayfront. A map of the proposed pedestrian intersection locations is found in Illustration T-17.

10. Additional Bridge Serving the Barrier Islands (Project T1, see pages VI-1.2 through VI-1.4, City of Sarasota Downtown Master Plan)
The Downtown Master Plan also recognizes the traffic impacts that have been created by development on the barrier islands by indicating that the City should explore the possibility of the Florida Department of Transportation constructing an additional bridge to Longboat Key. In addition to FDOT, the City will need to coordinate this effort with the Sarasota-Manatee Metropolitan Planning Organization, Town of Longboat Key, Sarasota County, and Manatee County. (Action Strategy 6.8)

11. Commuter Rail Stations (see maps on pages II-1.11 and VI-1.17, City of Sarasota Downtown Master Plan)
The Downtown Master Plan identifies two future commuter rail stations, but excludes other details. The use of these sites as commuter rail stations should be evaluated in conjunction with the other transportation studies identified in this section due to the interrelationship of the various transportation modes serving the downtown area.

13. Parking (Project T6, see page VI-1.18, City of Sarasota Downtown Master Plan)
The Downtown Master Plan recommends that numerous parking facilities be constructed within the greater downtown area and that the City continue to develop and provide for on-street parking. The development of parking structures should coincide with revisions to the zoning code that will allow for off-site parking as new parking facilities are built. It is envisioned that pedestrian activity will increase as workers and residents walk from parking garages to their places of work or residence. The Downtown Master Plan also recommends the development of additional on-street parking within the Downtown Proper and the residential neighborhoods of Rosemary, Gillespie Park, and Park East which are within the study area. The City will utilize a public/private partnership to further evaluate the location, funding, and development of parking facilities.

TRANSPORTATION CONCURRENCY EXCEPTION AREA/MULTIMODAL AREA

A spur to the increased development in the City's downtown, was the creation of a Transportation Concurrency Exception Area (TCEA) in 1998. In general terms, the TCEA allows the cumulative traffic volumes (regional or local) to exceed the February 1999 Annual Average Daily Traffic (AADT) volume by up to 15 % for road operating at Level of Service E or F in February 1999. The map of the TCEA is found in illustration T-10. The TCEA provided downtown developers some flexibility with respect to concurrency. Technical data relative to the TCEA is contained in the TCEA update study. (Appendix 4)

The existing TCEA (Objective 9 and its associated Action Strategies) is expected to undergo major revisions or replacement. The City does not plan to follow traditional methods for addressing concurrency, which in most cases involve the widening of roads by constructing costly additional traffic lanes. For example, in Manatee County, the widening of US-41 and SR 70 cost approximately $17 million per mile. Even if funds were available, the limited or non-existent setbacks which are common in Sarasota's redevelopment area would require razing buildings, thus destroying the pedestrian-scale ambiance and charm which attracts people to downtown Sarasota. In the few specific locations where widening could be accomplished in a neighborhood-friendly manner, the time to program, design, and acquire right-of-way for a project normally takes ten years and hence is nearly impossible to achieve in the three-year window mandated by the state. The City is trying to create a more pedestrian oriented environment in the downtown and additional traffic lanes would detract from walkability. Some development projects are beginning to be scaled down in order to meet transportation concurrency. Redevelopment in the downtown area will, to a large extent, be dictated by transportation concurrency. Unless the downtown concurrency policy is changed, the City and developers will be forced to plan development projects based upon the remaining capacity of the roadway network. If this occurs, road improvements may occur in a random, uncoordinated manner, rather than following a systematically, fiscally responsible plan, in order to meet transportation concurrency for development projects. Further, the development envisioned by the Downtown Master Plan 2020 could be thwarted without a change in this policy.

The adopted Evaluation and Appraisal Report identified transportation mobility in the downtown as a major issue for the City. The EAR recommended a decision be made regarding the Transportation Concurrency Exception Area and implementation of the Downtown Sarasota Mobility Study and Downtown Parking Master Plan.

As a follow up to the transportation recommendations in the Downtown Master Plan (DMP), the Downtown Sarasota Mobility Study was completed in December 2003. Its purpose was to examine the transportation recommendations of the Downtown Master Plan.

The Downtown Mobility Study recommended the following changes in the City's transportation policy. Maintain the existing Transportation Concurrency Exception Area (TCEA) boundary. Upon successful relocation of the US-41 highway designation away

from Tamiami Trail south of 17th Street, change the governing policies to allow all proposed development regardless of concurrency impact. Use development impact fees paid on a multi-mode basis toward pedestrian, bicycle, transit, and vehicle infrastructure improvements. These are the same policy options available to the City in 2007. Other recommendations from the Downtown Mobility Study include constructing roundabouts at certain intersections, making improvements to the Fruitville Road/US 301 intersection, developing pedestrian sleeves, and creating dedicated bus lane and queue jump lane improvements.

The City is now developing the scope of services for a detailed analysis regarding downtown traffic concurrency management to determine what a revised downtown transportation concurrency policy should entail. The City Commission directed staff during the adoption of the Downtown Mobility Study recommendations to pursue a detailed feasibility study to develop the best program for the city's downtown transportation needs. Whatever the policy change, any program must include a Comprehensive Downtown Mobility Initiative consisting of Transportation System Management (TSM) and Transportation Demand Management (TDM) and not signal "free for all" for development. The results of this analysis will be incorporated into Transportation Chapter as future plan amendments.

The City has not yet decided whether to revise or replace the TCEA with another area-wide concurrency management policy. A detailed feasibility study should be pursued to determine the program that best fits the City's needs and it should consist of a comprehensive downtown mobility infrastructure initiative. If the City maintains a TCEA but changes the program policies, there could be a number of alternatives in which downtown transportation could be managed including the potential for lowering the adopted level-of-service standards in the designated area; developing alternative transportation programs such as Transportation System Management (TSM) and Transportation Demand Management (TDM) programs; adopting a fully exempt TCEA; increasing the reduction level from its current 15% to a greater amount; or a combination of any of these. As an alternative to a TCEA, the City could evaluate and possibly adopt a Transportation Concurrency Management Area (TCMA) or a Multi-Modal Transportation District (MMTD). It is important to note that, no matter what program is adopted for the downtown, the City will require that developers contribute to making transportation improvements that are needed as a result of development.

The TCEA and Residential Development Downtown

The adoption of the Downtown Master Plan 2020 (DMP) in 2001 was a major unanticipated change related to downtown development and transportation concurrency. The DMP changed the City's expectations in regard to development by encouraging more mixed-use development and greater numbers of housing units in the downtown, and it also recommended the creation of primary grid streets that are pedestrian oriented and walkable. The Downtown Master Plan would, at least theoretically, reduce traffic in the downtown at its maximum buildout compared to the Future Land Use Map that was adopted in 1998. The implementation of the Downtown Master Plan has helped to encourage new development downtown, and some of those new developments have experienced transportation concurrency issues.

Another unanticipated opportunity provided by re-evaluation of the TCEA policies is the City's desire to create attainable housing for the workforce in the downtown. The majority of the residential units that have recently been constructed in the downtown have prices that are higher than middle-income families and individuals can afford. The development of attainable housing would help to create a vibrant mixed-use and mixed-income downtown. Higher priced dwelling units could possibly add more automobile trips to the downtown. Conversely, the development of additional attainable downtown housing could reduce traffic generation because those residents are more likely to walk or use mass transit rather than drive to destinations in the downtown vicinity. The most recent review of the City's TCEA policies occurred in 2004. That technical analysis is included in Appendix 4.

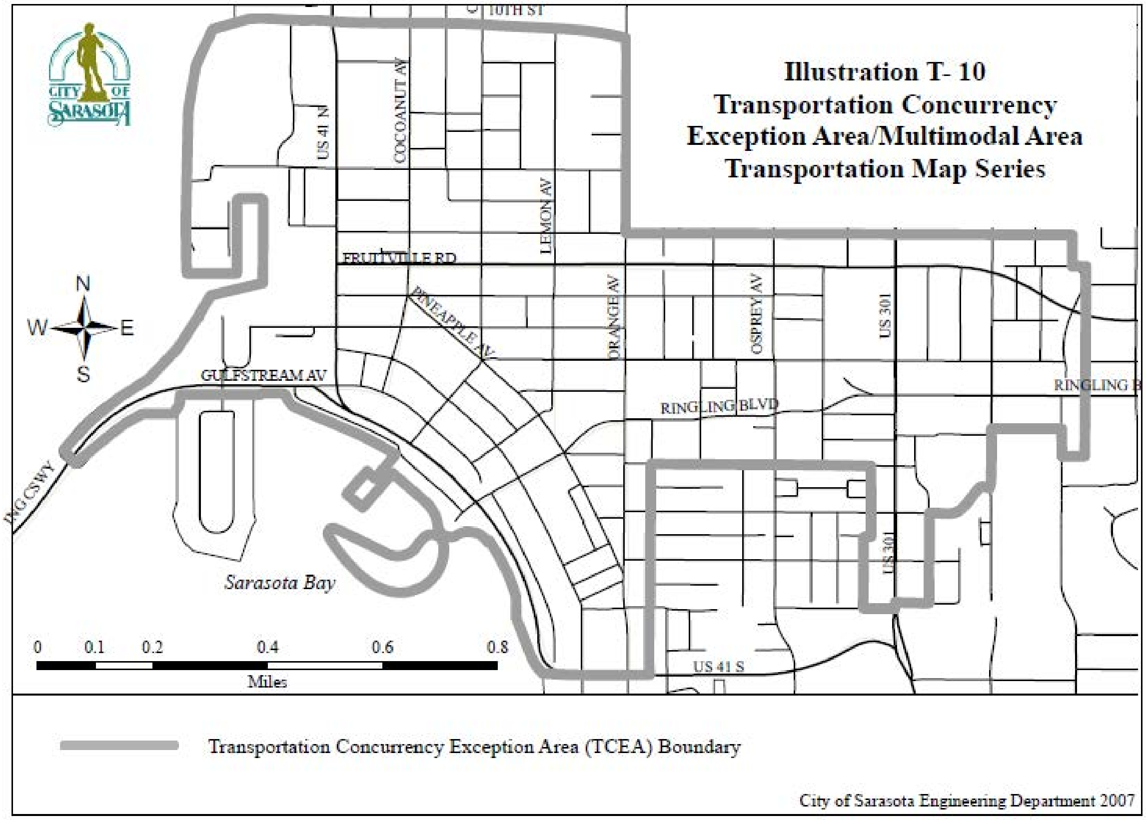
Illustration T- 10
Transportation Concurrency
Exception Area/Multimodal Area
Transportation Map Series
10TH ST
US 41 N
COCOANUT AV
LEMON AV
FRUITVILLE RD
PINEAPPLE AV
ORANGE AV
OSPREY AV
US 301
GULFSTREAM AV
RINGLING BLVD
Sarasota Bay
US 41 S
0 0.1 0.2 0.4 0.6 0.8
Miles
Transportation Concurrency Exception Area (TCEA) Boundary
City of Sarasota Engineering Department 2007

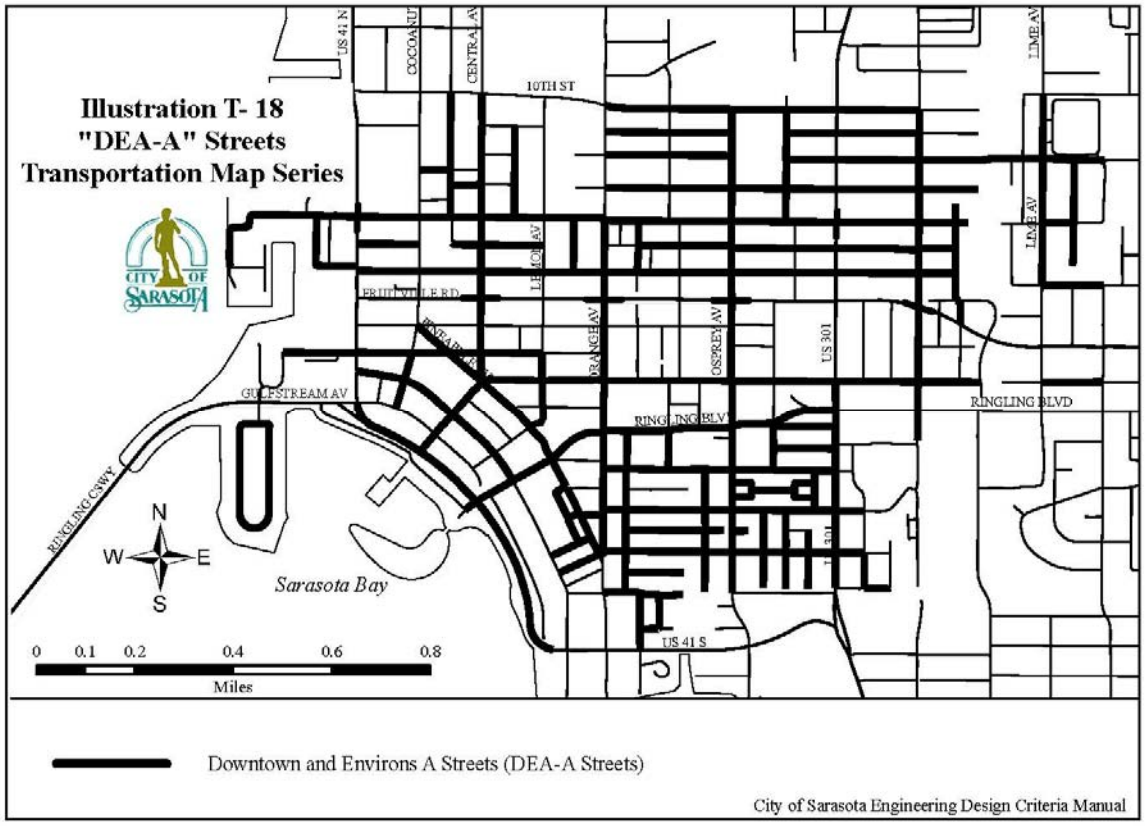
Illustration T- 18
"DEA-A" Streets
Transportation Map Series
CITY OF SARASOTA
US 41 N
COCOANUT
CENTRAL AV
10TH ST
LIME AV
LEMON AV
FRUITVILLE RD
ORANGE AV
OSPREY AV
US 301
GULFSTREAM AV
RINGLING BLVD
RINGLING CSWY
N
W
E
S
Sarasota Bay
US 41 S
0 0.1 0.2 0.4 0.6 0.8
Miles
Downtown and Environs A Streets (DEA-A Streets)
City of Sarasota Engineering Design Criteria Manual

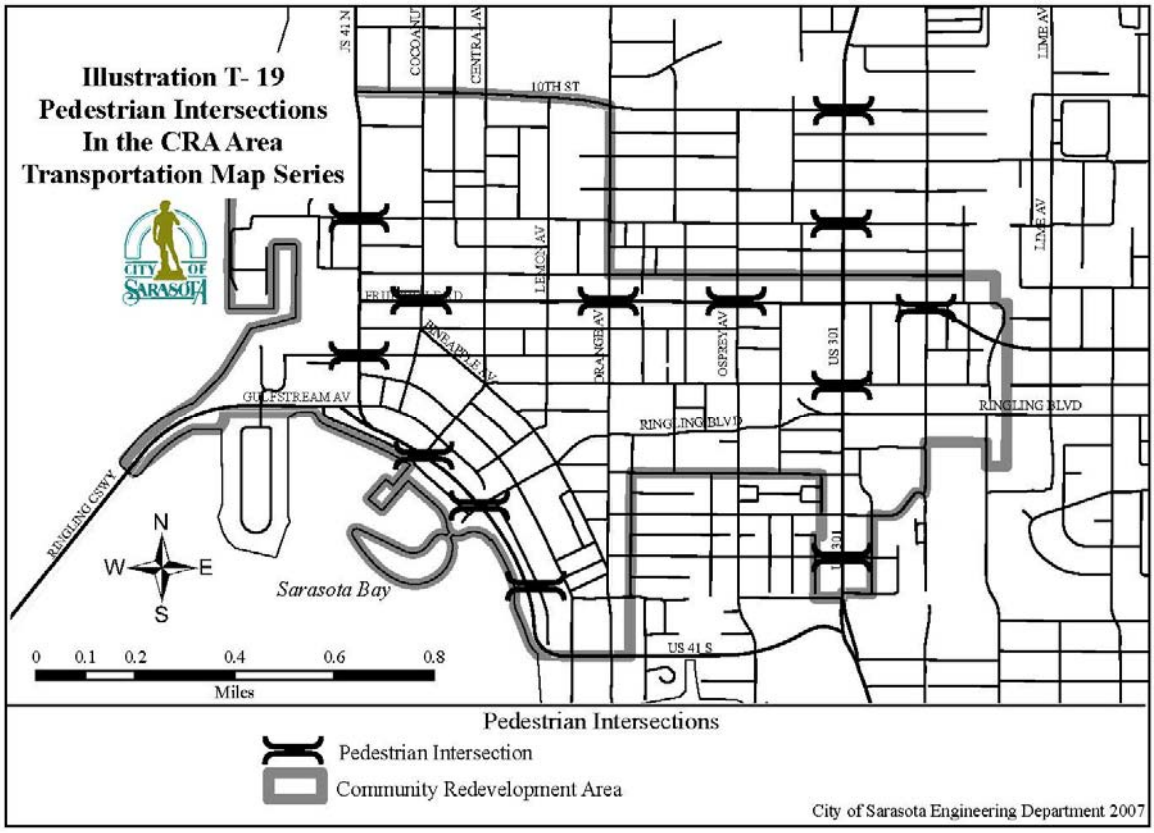
Illustration T- 19
Pedestrian Intersections
In the CRA Area
Transportation Map Series
CITY OF SARASOTA
US 41 N
COCOANUT
CENTRAL AV
10TH ST
LIME AV
LEMON AV
ORANGE AV
OSPREY AV
US 301
GULFSTREAM AV
RINGLING BLVD
RINGLING CSWY
N
W
E
S
Sarasota Bay
US 41 S
0 0.1 0.2 0.4 0.6 0.8
Miles
Pedestrian Intersections
Pedestrian Intersection
Community Redevelopment Area
City of Sarasota Engineering Department 2007

Downtown Sarasota Mobility Study

The Downtown Sarasota Mobility Study serves as a complement to the recently adopted City of Sarasota Downtown Master Plan 2020 (Downtown Master Plan). The Study was sponsored by both the Florida Department of Transportation (FDOT) and the City of Sarasota. The effort included other involved agencies and parties to help identify measures to modify, alter, and enhance the area's transportation network and its governing policies, as needed to support implementation of the adopted Downtown Master Plan. The Downtown Sarasota Mobility Study was adopted by the City Commission on March 30, 2004. Two of the recommendations were not adopted: (1) the two laning of Bayfront Drive and (2) the redesignation of US-41 (Bayfront Drive)

The Study was conducted by Kimley-Horn & Associates due to their experience in designing pedestrian scale urban transportation projects and systems (also known as TND or New Urbanism transportation elements) to assure an adequate understanding of the Downtown Master Plan.

The primary study area was the limits of the City's Downtown Community Redevelopment Area (CRA). The secondary study area was expanded by the Consultant, to be sufficient in size and to adequately address study objectives, including such issues as; (a) rerouting of US-41 away from the downtown Bayfront area, (b) diversion of through traffic to other roadways and modes as a result of implementing Downtown Master Plan recommendations, and (c) assessing the impact of the Downtown Master Plan on the barrier islands,

FDOT and the City have the transportation planning goal of balancing the usability of all transportation modes for its citizens and visitors. The Downtown Master Plan made several specific transportation system improvement recommendations. The impacts of these recommendations need to be analyzed. The primary purpose of the *Downtown Sarasota Mobility Study* was to identify courses of action and strategies that can be implemented to increase mobility within the downtown area, support implementation of the adopted Downtown Master Plan, and increase the attractiveness of multimodal travel choices for area citizens and visitors. The focus of the Study was on the mobility of persons and goods rather than the mobility of vehicles.

The recommendations of the Downtown Mobility Study are included in the table in Illustration T-16. Many have been accomplished already and others have been initiated. A number of the recommendations were for specifically identified roadway improvements. Those improvements are also listed in the table.

Illustration T-16
Downtown Sarasota Mobility Study Action Matrix

Project Name	Description	Commission Action	Action to be taken by City Staff	Modifications/ Comments	Status
Narrow Bayfront Drive (Two Lane Roadway)		Denied 3/15/2004	Delete from the implementation Handbook.	The City Commission did not endorse this project at their March 15, 2004 meeting.	To be deleted from the implementation Handbook.
US 41 (Bayfront Drive) & Gulfstream Avenue (Three leg, Multi-lane Roundabout)	Design and construct a three leg, multi-lane roundabout at the Bayfront Drive and Gulfstream Avenue intersection.	Approved 4/15/2004	Negotiate with SLAB, LLC to utilize their funding obligations along with any potential funding from FDOT to go into the design phase and to construct the roundabout. These phases are consistent with the Mobility Now proposed projects.	**Phase 1** – (2004) Close or partially close the eastern leg of Gulfstream Avenue/US-41 intersection and re-time the signal to improve the intersection level of service. (LOS)	Completed in January 2005.
				Phase 2 – (2006) Construct left-turn lanes from US-41 onto Main Street and Marina Plaza (southbound to eastbound & northbound to westbound.)	Construction will start by November 2007. A field survey has been initiated for this area.
				Phase 3 – (2007) Create a continuous west-bound lane on Gulfstream Avenue from US-41 to Sunset Drive, improve right-turn and install an "On-call" pedestrian button.	A field survey and preliminary design for the roundabout has been initiated.
				Phase 4 – (2010) Construct the roundabout at the intersection after the design if approved by the City of Sarasota Commission and FDOT.	A field survey and preliminary design for the roundabout has been initiated.
US 41 & Fruitville Road (Four leg, Multi-lane Roundabout)	Design and construct a three leg, multi-lane roundabout at the intersection of US 41 and Fruitville Road.	Approved 4/15/2004	Negotiate with SLAB, LLC to utilize their funding obligations and the Quay developer if they come forward, to provide right of way as needed for the roundabout along with any potential funding from FDOT to go into the design phase and to construct the roundabout.	A potential three-leg roundabout should be looked at. Investigate a roundabout design at US 41 and 10th Street intersection during the design phase of the US 41 & Fruitville Road roundabout.	Design study and a preliminary design for the roundabout has been initiated.
US 301 & Fruitville Road Intersection	Maintain signalized intersection along with eleven (11) specifically identified projects.	Approved 4/15/2004	Investigate sources for funding within the next 18 months.	Actual construction can occur after securing funding and based on the rate of development in the area.	Funding is pursued through the MPO.
Ringling Boulevard (Single-lane Roundabout)	Design and construct 2 single lane roundabouts at the intersections of Ringling boulevard & Palm Avenue and Ringling Boulevard and Pineapple Avenue.	Approved 4/15/2004	Investigate sources for funding within the next 18 months.	Actual construction can occur after securing funding and based on the rate of development in the area. To be constructed before a multi-lane roundabout as a trial for Sarasota's drivers to test drivers ability of handling roundabouts.	Funding is pursued through the MPO Congestion Management System (CMS) program.

Illustration T-16
Downtown Sarasota Mobility Study Action Matrix

Project Name	Description	Commission Action	Action to be taken by City Staff	Modifications/ Comments	Status
Bicycle Network	Improve specifically identified segments of downtown area bicycle Lanes	Approved 4/15/2004	Develop projects to improve the LOS for the deficient segments. 1st construction improvement to be completed within 12 months.	Funding is available in the City's Capital Improvement Plan (CIP).	The Bayfront Multi-Use Recreation Trail design has been completed. The West Bayfront MURT is in the preliminary planning stage.
Pedestrian Network	Improve specifically identified segments of downtown area pedestrian network.	Approved 4/15/2004	Develop projects to improve the LOS for the deficient segments.	Very few "new" sidewalks will be required to be constructed. The MURT is in the final design stage and will be under construction this calendar year, 2004.	A preliminary design has been initiated by Public Works Department for "sleeves" on Fruitville Road.
Pedestrian Sleeves	Add pedestrian amenities to unsignalized and signalized intersections (US 41 & 1st Street)	Approved 4/15/2004	Work with FDOT to gain approval for pedestrian sleeves on State roadways. First one to be constructed within 12 months.	This is a take-off on the staff initiated "Pedestrian Intersections" that was presented to and approved by the City Commission in April 1999. Staff should consider pedestrian overpasses within the US41 and 1st Street unsignalized intersection.	Discussion with FDOT is an on-going part of the roundabout design study.
Dedicated Bus Lanes (from Fruitville Road to Dr Martin Luther King Jr Way)	Create a designated bus lane on Cocoanut Avenue from Dr. Martin Luther Kind Jr. Way to Fruitville Road.	Approved 4/15/2004		Actual construction can occur after securing funding and based on the rate of development in the area. City Commission approved this recommendation in a 3 to 2 vote. Staff should continue looking at the CSX rail line as an alternative	On-going
Bus Queue Jump Lanes	Convert turn lanes at Fruitville Road and conver northbound and southbound two-way turn lane on US-301.	Approved 4/15/2004		Actual construction can occur after securing funding and based on the rate of development in the area. City Commission approved this recommendation in a 4 to 1 vote.	On-going.
Redesignate US 41 & SR 789	Redesignate and adopt a redevelopment strategy.	Denied 3/15/2004	Delete from the implementation Handbook.	The City Commission did not endorse this project at their March 15, 2004 meeting.	To be deleted from the implementation Handbook.
TCEA Policy	Continue a TCEA-type policy and develop a multi-modal fee structure for use to implement the Comprehensive Downtown Mobility Initiative.	Approved 4/15/2004	Pursue a detailed feasibility study to determine the best program that will fit the city's needs. It could be a comprehensive Downtown Mobility initiative consisting of Transportation System Management (TSM) and Transportation Demand Management (TDM)	Staff will continue to use the existing TCEA standards until a detailed program is developed and approved for the downtown area. The program's intent will be to relieve some of the rigid standards of concurrency and substitute it with a concurrency standard that will be developed specifically to fit the future need of the Downtown Area. The City will revise the existing TCEA standards into cost effective multi-modal standards that will help the City implement the Downtown Master Plan goals and objectives.	The TCEA Status Report was presented to the City Commission in June 2006.

NEWTOWN TRANSPORTATION CONCURRENCY MANAGEMENT AREA

Upon further examination of the relationship between transportation and the land uses proposed by the 2002 Newtown Redevelopment Plan, the City of Sarasota chose to create a Transportation Concurrency Management Area (TCMA) in keeping with the requirements of Section 163.3180(7) Florida Statues. The administrative requirements established in Section 9J-5.0055(5), Florida Administrative Code, require data and analysis of the interconnected network of roads in the TCMA, in order to create the basis for establishing an area wide LOS. The Florida Administrative Code also requires demonstration that planned roadway improvements and alternative transportation efforts that will accomplish mobility within the TCMA.

The City contracted with The Corradino Group to complete the necessary study to justify the creation of a TCMA in the Newtown area. The study would also recommend amendments to the *Sarasota City Plan* to establish the TCMA. The results of that study indicated that creation of a TCMA was consistent with the adopted *Sarasota City Plan*. A TCMA would echo the emphasis that the Transportation Plan now places on multimodal transportation systems and protection of the neighborhood street grid.

The boundaries of the Newtown TCMA were chosen by a steering committee including the City Engineering Department and the City Planning Department. The study area boundary consists of the areas 100 feet to the north of Myrtle Street, the City limits on the East, 100 feet to the south of 10th Street, and 100 feet to the west of US41. These boundaries are mapped on Illustration T-11, "Newtown Transportation Concurrency Management Area." The study would also make recommendations for the on-going monitoring of concurrency within the adopted TCMA.

Based on the land use plan of the Newtown Comprehensive Redevelopment Area Plan, recently collected and historic traffic count data, and the approved Sarasota/Manatee Metropolitan Planning Organization's 2030 Long Range Model, (SMATS) the consultant was able to determine the future traffic demands on the roadway network in the study area as a result of the implementation of the Newtown Redevelopment Area Plan. The area-wide level of concurrency proposed for the Newtown TCMA is LOS "D." As a result a determination was made whether area wide capacity will exist in the network in 2015 and 2030 with the project. Area wide capacity at the appropriate level of service is the essence of the TCMA concept. The TCMA Study is included in Appendix 4.

In summary, it was found that area wide Level of Service is maintained in 2015 and in 2030. Of the ten (10) intersections analyzed, six (6) are not meeting acceptable Level of Service standards. Mitigation was recommended for these intersections which will assist in attaining the required capacity. Implementation of these plans will satisfy the TCMA requirements and allow redevelopment in the Newtown Area to proceed.

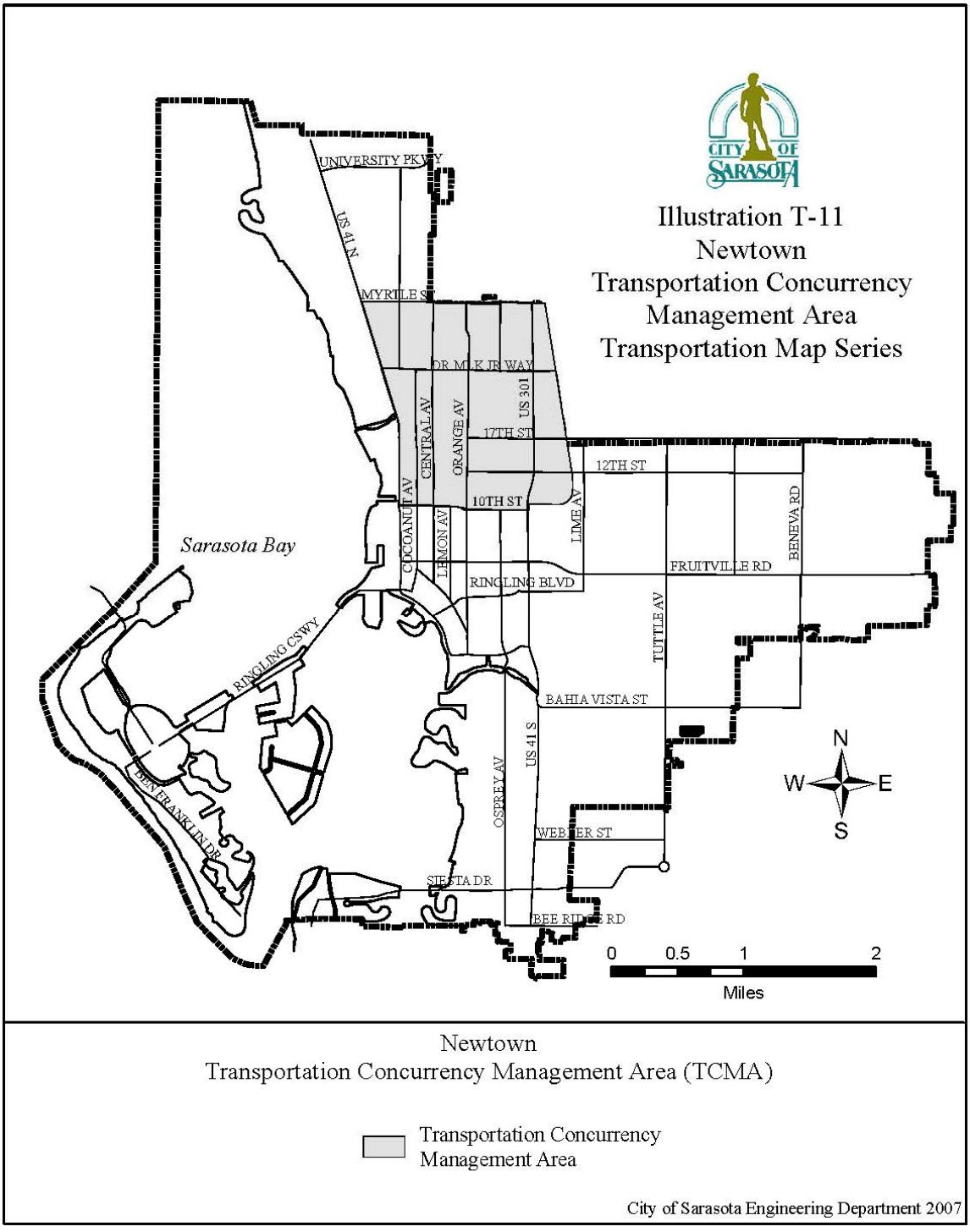
Illustration T-11
Newtown
Transportation Concurrency
Management Area
Transportation Map Series
UNIVERSITY PKWY
US 41 N
MYRTLE ST
DR M L K JR WAY
US 301
CENTRAL AV
ORANGE AV
17TH ST
12TH ST
10TH ST
COCOANUT AV
LEMON AV
LIME AV
BENEVA RD
FRUITVILLE RD
RINGLING BLVD
TUTTLE AV
Sarasota Bay
RINGLING CSWY
BAHIA VISTA ST
US 41 S
OSPREY AV
BEN FRANKLIN DR
WEBBER ST
SIESTA DR
BEE RIDGE RD
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0.5
1
2
Miles
Newtown
Transportation Concurrency Management Area (TCMA)
Transportation Concurrency
Management Area
City of Sarasota Engineering Department 2007

APPENDIX 1

Technical Memorandum

CITY OF SARASOTA
COMPREHENSIVE PLAN UPDATE
TRANSPORTATION ELEMENT

Prepared for:

CITY OF SARASOTA

Prepared by:

TINDALE-OLIVER AND ASSOCIATES, INC.

May 6, 2016

City of Sarasota
Comprehensive Plan Update
Transportation Element

Introduction

The City of Sarasota adopted its first comprehensive plan in 1925. Since then, the comprehensive plan had been continuously updated in 1960, 1972, 1979, 1986, 1989, 1998 and 2008. Starting in 1979, the plans were prepared under the guidelines of the State's Local government Comprehensive Planning and Land Development Regulation Act of 1975 which was amended in 1985, 2005, and 2011. The Act recognizes that planning is a continuous and ongoing process and local governments need to periodically assess the appropriateness of their comprehensive plans.

Transportation is one of the eleven Comprehensive Plan elements addressed in the *Sarasota City Plan*. It provides directions in systematically preserving and expanding the City's transportation system to meet City's increasing transportation needs within the context of sustaining the City's natural, aesthetic, social and economic resources. As part of the periodic effort in assessing its comprehensive plan, the continued update of the Transportation Plan allows the City to monitor the performance trend of its transportation network, evaluate the impacts of and consider changes to its past and current transportation policies and programs.

This technical memorandum summarizes an updated analysis of current and estimated future conditions of major roads within the City and serves as a portion of the technical support documentation to the City's Comprehensive Plan - Transportation Element. In this effort, an analysis of the levels of service provided by City's major roads was performed for existing conditions (2015) and a short-term future forecast (2020). Longer-term 2040 conditions are discussed in the Sarasota-Manatee Metropolitan Planning Organization's Long Range Transportation Plan.

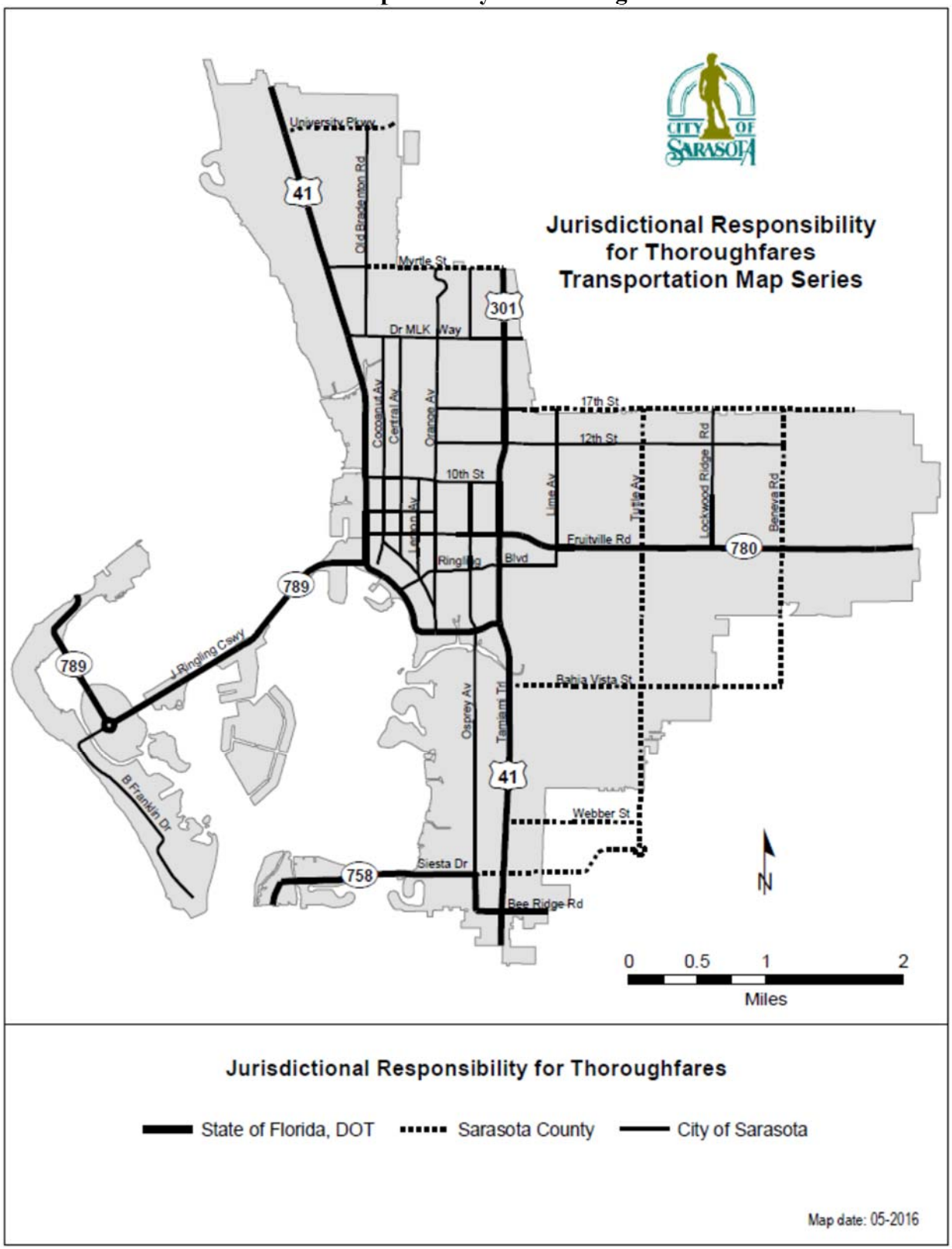
Existing Conditions

Traffic volumes used for the existing condition analysis are based on the latest available AADT data from 2014, 2015, and 2016 (where necessary to fill in missing counts) was collected by City of Sarasota, Sarasota County, and the Florida Department of Transportation (FDOT). In this analysis, 2014 AADTs were factored up by a growth rate of 1.0 percent per year to estimate 2015 AADTs. The AADTs where then compared to the roadways generalized service capacity using FDOT's 2012 Level of Service Tables. Because these LOS tables use posted speed, rather than signal density to differentiate between high-capacity Class I arterials and lower capacity Class II arterials, there are some significant differences in service capacity between this iteration of the Comprehensive Plan and the prior iteration.

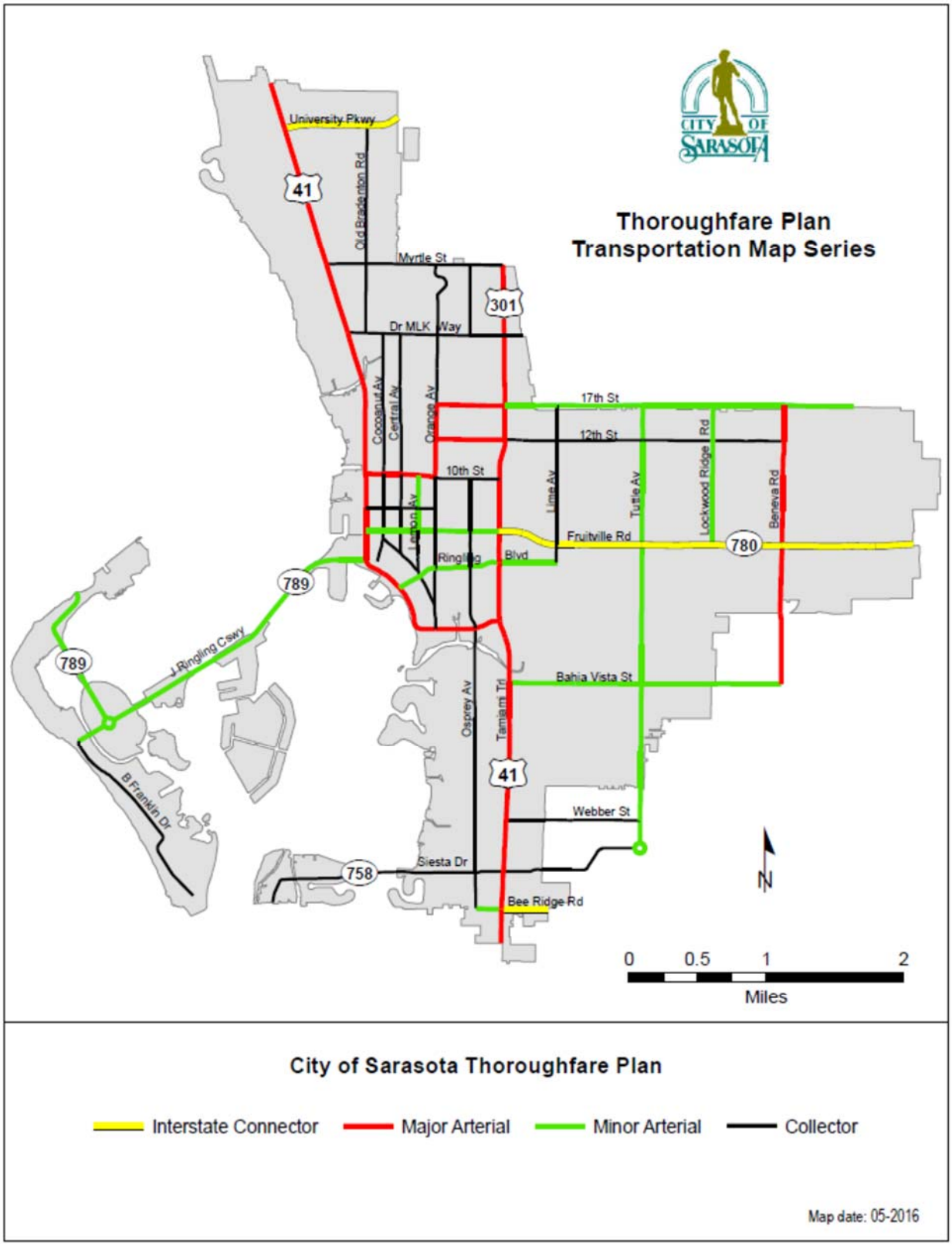
Future Conditions

2020 forecast traffic volumes were estimated by applying a one percent per year growth rate to the 2015 AADTs. When compared to actual historic traffic trends, the one percent growth rate, used by Sarasota County to estimate background traffic, is higher than actual historic traffic count histories within the City. As such this represents a conservative (worse) estimate of future conditions

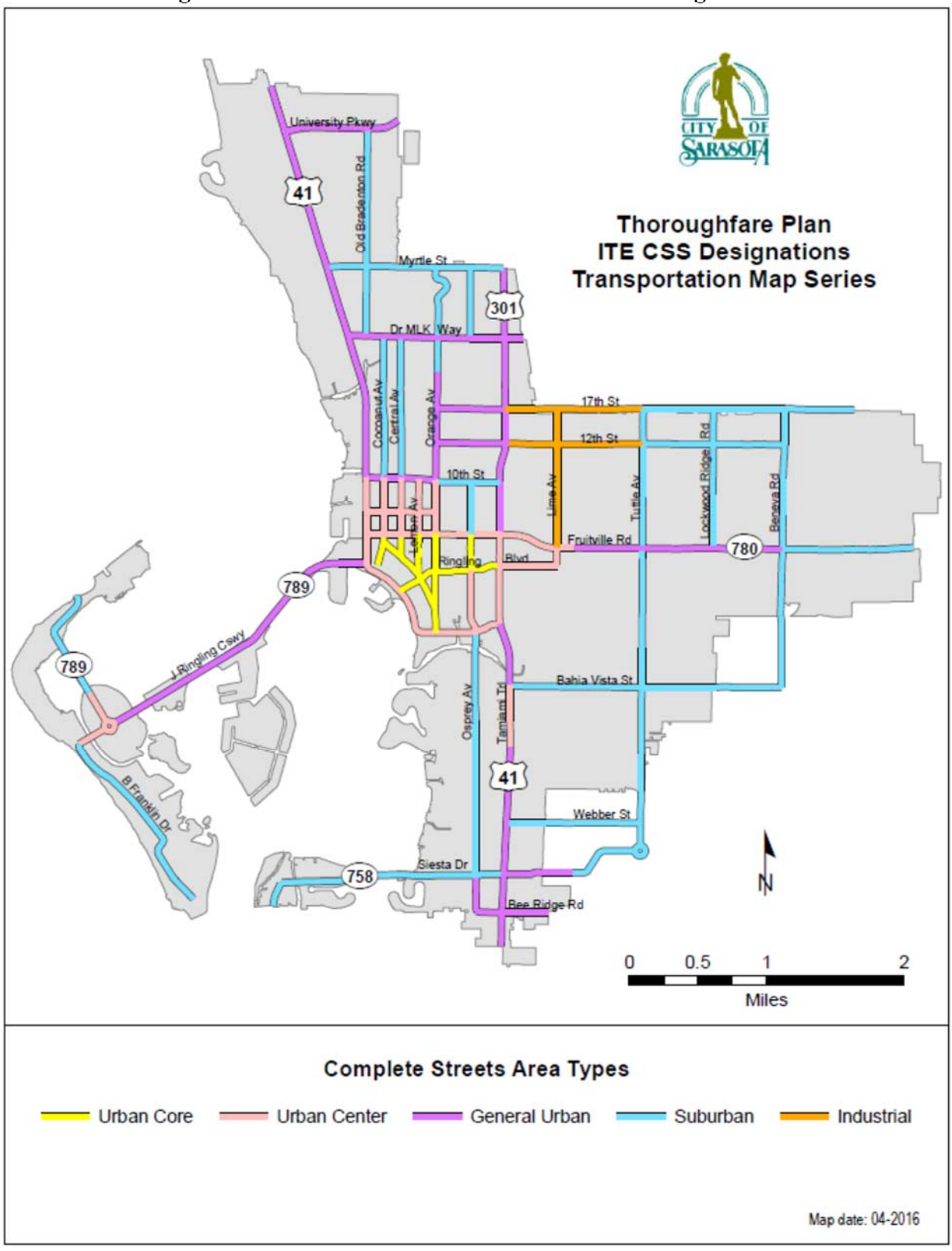
Jurisdictional Responsibility for Thoroughfares



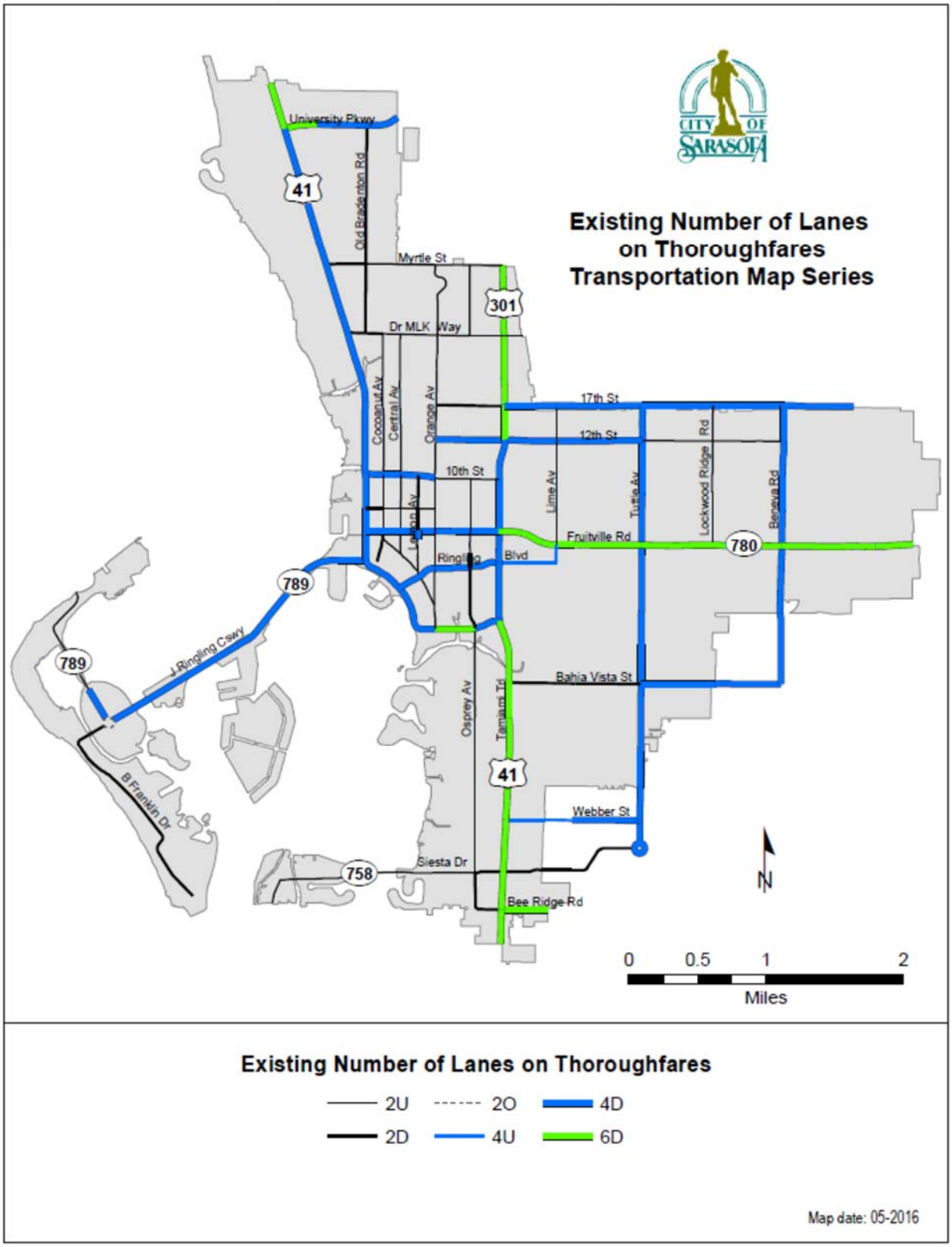
Thoroughfare Plan



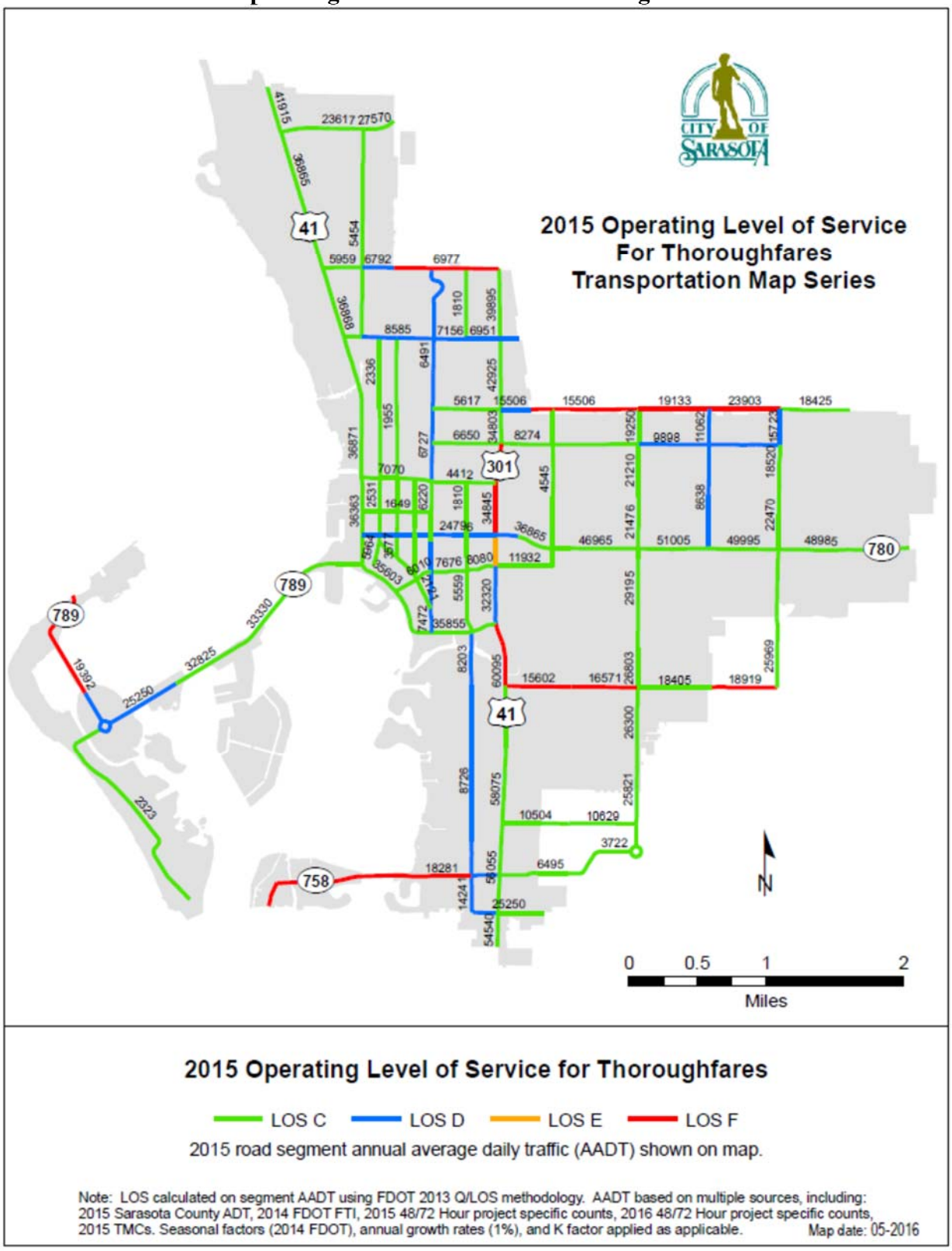
Thoroughfare Plan ITE Context Sensitive Solutions Designations



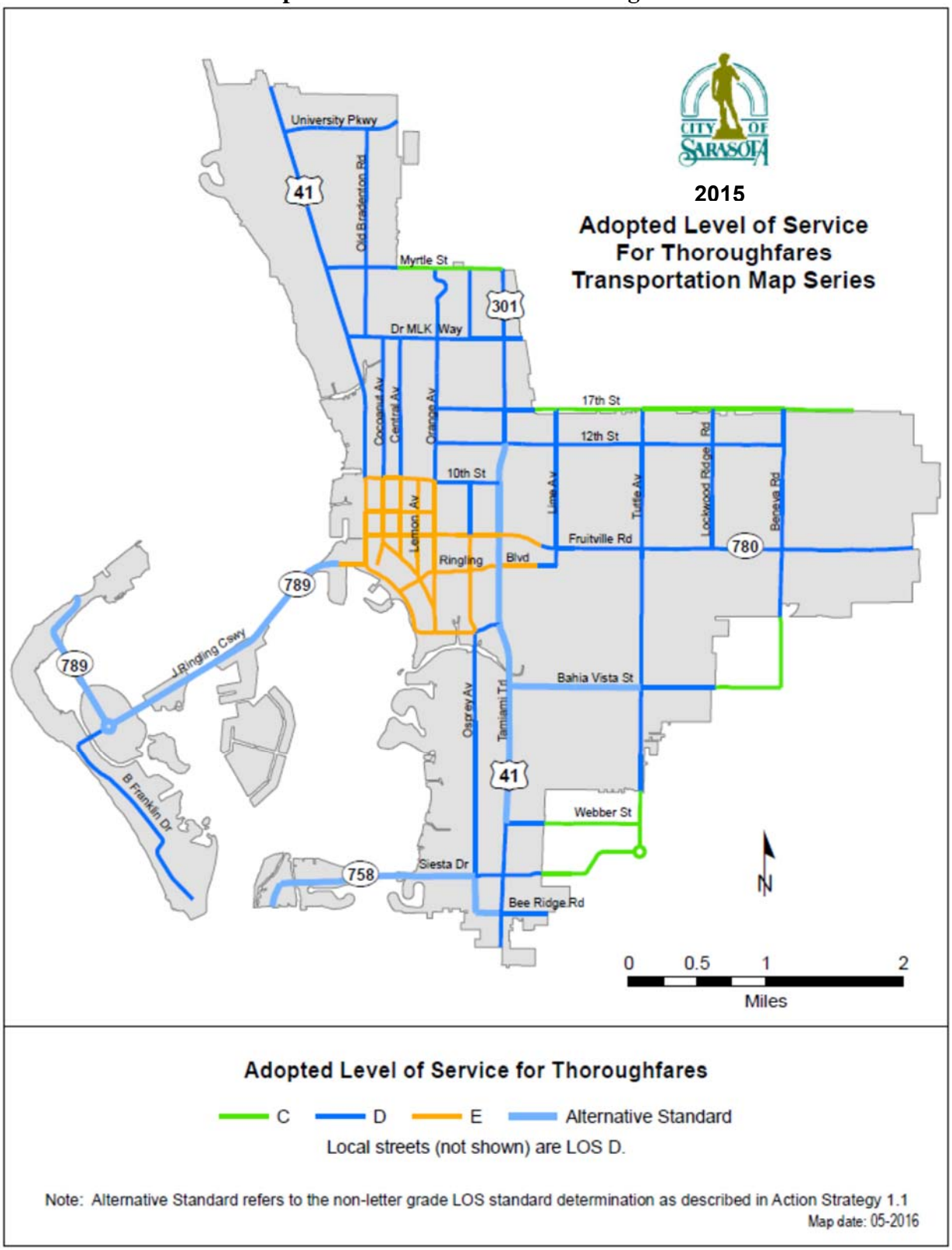
Existing Number of Lanes for Thoroughfares



2015 Operating Level of Service for Thoroughfares



2015 Adopted Level of Service for Thoroughfares



2020 Forecast Operating Level of Service for Thoroughfares

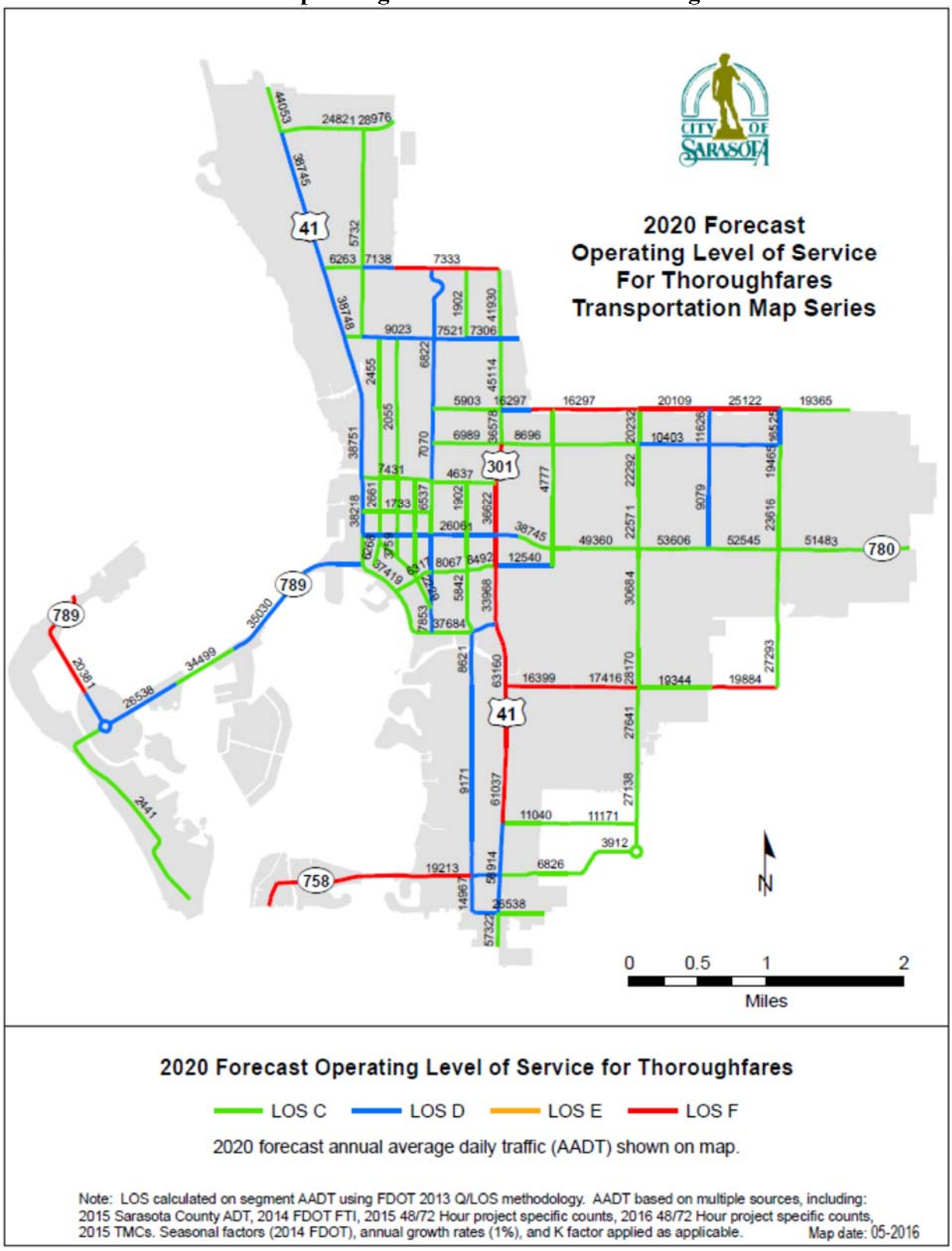


Table 2. –2015 and 2020 Roadway Levels of Service Compared to Standards

ONSTREET	FRSTREET	TOSTREET	JURIS	POSTSPEED	SEG_RT	AADT2015	AADT2020	LOS_STD	LOS2015	FLOS2020
10TH ST	US 41	COCOANUT AV	City	35	4D	7,070	7,431	E	C	C
10TH ST	COCOANUT AV	CENTRAL AV	City	35	4D	7,070	7,431	E	C	C
10TH ST	CENTRAL AV	LEMON AV	City	35	4D	7,070	7,431	E	C	C
10TH ST	LEMON AV	ORANGE AV	City	35	4D	7,070	7,431	E	C	C
10TH ST	ORANGE AV	US 301	City	30	2U	4,412	4,637	D	C	C
12TH ST	ORANGE AV	US 301	City	35	4D	6,650	6,989	D	C	C
12TH ST	US 301	EAST AV	City	35	4D	8,274	8,696	D	C	C
12TH ST	EAST AV	LIME AV	City	35	4D	8,274	8,696	D	C	C
12TH ST	LIME AV	TUTTLE AV	City	35	4D	9,898	10,403	D	C	C
12TH ST	TUTTLE AV	LOCKWOOD RIDGE RD	City	35	2U	9,898	10,403	D	D	D
12TH ST	LOCKWOOD RIDGE RD	BENEVA RD	City	35	2U	9,898	10,403	D	D	D
17TH ST	ORANGE AV	US 301	City	35	2D	5,617	5,903	D	C	C
17TH ST	US 301	EAST AV	City	35	4D	15,506	16,297	D	D	D
17TH ST	EAST AV	CITY LIMIT	County	35	4D	15,506	16,297	D	D	D
17TH ST	CITY LIMIT	LIME AV	County	35	4D	15,506	16,297	C	F	F
17TH ST	LIME AV	TUTTLE AV	County	35	4D	15,506	16,297	C	F	F
17TH ST	TUTTLE AV	LOCKWOOD RIDGE RD	County	35	4D	19,133	20,109	C	F	F
17TH ST	LOCKWOOD RIDGE RD	BENEVA RD	County	35	4D	23,903	25,122	C	F	F
17TH ST	BENEVA RD	CIRCUS	County	45	4D	18,425	19,365	C	C	C
BAHIA VISTA ST	US 41	SHADE AV	County	35	2D	15,602	16,399	X	F	F
BAHIA VISTA ST	SHADE AV	EUCLID AV	County	35	2D	16,571	17,416	X	F	F
BAHIA VISTA ST	EUCLID AV	TUTTLE AV	County	35	2D	17,068	17,938	X	F	F
BAHIA VISTA ST	TUTTLE AV	CITY LIMITS	County	40	4D	18,405	19,344	D	C	C
BAHIA VISTA ST	CITY LIMITS	BENEVA RD	County	30	4D	18,919	19,884	C	F	F
BAY RD	OSPREY AV	US 41	State	30	2D	14,241	14,967	X	D	D
BEE RIDGE RD	US 41	SCHOOL AV	State	45	6D	25,250	26,538	D	C	C
BEE RIDGE RD	SCHOOL AV	CITY LIMITS	State	45	6D	25,250	26,538	D	C	C
BENEVA RD	BAHIA VISTA ST	CITY LIMITS	County	45	4D	25,969	27,293	C	C	C
BENEVA RD	CITY LIMITS	FRUITVILLE RD	County	45	4D	25,969	27,293	D	C	C
BENEVA RD	FRUITVILLE RD	CIRCUS BLVD	County	40	4D	22,470	23,616	D	C	C
BENEVA RD	CIRCUS BLVD	SHOPPING CNTR	County	40	4D	22,470	23,616	D	C	C
BENEVA RD	SHOPPING CNTR	12TH ST	County	40	4D	18,520	19,465	D	C	C
BENEVA RD	12TH ST	17TH ST	County	35	4D	15,723	16,525	D	D	D
BLVD OF THE ARTS	US 41	COCOANUT AV	City	35	2D	1,649	1733	E	C	C
BLVD OF THE ARTS	COCOANUT AV	CENTRAL AV	City	30	2U	1,649	1733	E	C	C
BLVD OF THE ARTS	CENTRAL AV	LEMON AV	City	30	2U	1,649	1733	E	C	C
BLVD OF THE ARTS	LEMON AV	ORANGE AV	City	30	2U	1,649	1733	E	C	C
CENTRAL AV	PINEAPPLE AV	FRUITVILLE RD	City	30	2U	3,577	3,759	E	C	C
CENTRAL AV	FRUITVILLE RD	BLVD OF THE ARTS	City	30	2U	2,121	2,229	E	C	C
CENTRAL AV	BLVD OF THE ARTS	10TH ST	City	30	2U	2,038	2,142	E	C	C
CENTRAL AV	10TH ST	17TH ST	City	30	2U	1,955	2,055	D	C	C
CENTRAL AV	17TH ST	MLK WAY	City	30	2U	1,955	2,055	D	C	C
COCOANUT AV	GULF STREAM AV	2ND ST	City	25	2D	5,964	6,268	E	C	C
COCOANUT AV	2ND ST	FRUITVILLE RD	City	30	2D	5,964	6,268	E	C	C
COCOANUT AV	FRUITVILLE RD	BLVD OF THE ARTS	City	30	2U	2,727	2,866	E	C	C
COCOANUT AV	BLVD OF THE ARTS	10TH ST	City	30	2U	2,531	2,661	E	C	C
COCOANUT AV	10TH ST	17TH ST	City	30	2U	2,336	2,455	D	C	C
COCOANUT AV	17TH ST	MLK WAY	City	30	2U	2,336	2,455	D	C	C
FRUITVILLE RD	US 41	COCOANUT AV	City	35	4D	19,392	20,381	E	D	D
FRUITVILLE RD	COCOANUT AV	CENTRAL AV	City	35	4D	18,054	18,976	E	D	D
FRUITVILLE RD	CENTRAL AV	LEMON AV	City	35	4D	21,425	22,519	E	D	D
FRUITVILLE RD	LEMON AV	ORANGE AV	City	35	4D	21,425	22,519	E	D	D
FRUITVILLE RD	ORANGE AV	GOODRICH AV	City	35	4D	24,796	26,061	E	D	D
FRUITVILLE RD	GOODRICH AV	OSPREY AV	City	35	4D	24,796	26,061	E	D	D
FRUITVILLE RD	OSPREY AV	LINKS AV	City	35	4D	24,796	26,061	E	D	D
FRUITVILLE RD	LINKS AV	US 301	City	35	4D	24,796	26,061	E	D	D
FRUITVILLE RD	US 301	EAST AV	State	35	6D	36,865	38,745	E	D	D
FRUITVILLE RD	EAST AV	SCHOOL AV	State	40	6D	36,865	38,745	E	C	C
FRUITVILLE RD	SCHOOL AV	LIME AV	State	40	6D	41,915	44,053	D	C	C
FRUITVILLE RD	LIME AV	SHADE AV	State	40	6D	46,965	49,360	D	C	C
FRUITVILLE RD	SHADE AV	TUTTLE AV	State	40	6D	46,965	49,360	D	C	C
FRUITVILLE RD	TUTTLE AV	LOCKWOOD RIDGE RD	State	45	6D	51,005	53,606	D	C	C
FRUITVILLE RD	LOCKWOOD RIDGE RD	BENEVA RD	State	45	6D	49,995	52,545	D	C	C
FRUITVILLE RD	BENEVA RD	MIMOSA CIR	State	45	6D	48,985	51,483	D	C	C
FRUITVILLE RD	MIMOSA CIR	CITY LIMITS	State	45	6D	48,985	51,483	D	C	C

Table 2. –2015 and 2020 Roadway Levels of Service Compared to Standards (Continued)

ONSTREET	FRSTREET	TOSTREET	JURIS	POSTSPEED	SEG_RT	AADT2015	AADT2020	LOS_STD	LOS2015	FLOS2020
JOHN RINGLING PKWY	CITY LIMIT	BLVD OF THE PRESIDENT	State	35	2U	19,392	20,381	X	F	F
BLVD OF THE PRESIDENT	JOHN RINGLING PKWY	ST. ARMANDS CIRCLE	State	25	4D	19,392	20,381	X	D	D
BENJAMIN FRANKLIN LN	S LIDO PARK	JOHN RINGLING BLVD	City	25	2D	2,323	2,441	D	C	C
JOHN RINGLING BLVD	BENJAMIN FRANKLIN	ST ARMANDS	City	25	2D	2,323	2,441	D	C	C
ST. ARMANDS CIRCLE	BLVD OF THE PRESIDENT	JOHN RINGLING BLVD	State	25	2O	13,130	13,800	X	D	D
JOHN RINGLING BLVD	N. ST. ARMANDS CIRCLE	COON KEY	State	35	4D	25,250	26,538	X	D	D
JOHN RINGLING BLVD	COON KEY	BIRD KEY DR	State	40	4D	32,825	34,499	X	C	C
JOHN RINGLING CSWY	BIRD KEY DR	SUNSET/GOLDEN GATE PT	State	40	4D	33,330	35,030	X	C	D
GULF STREAM AVE	SUNSET/GOLDEN GATE PT	US 41	State	40	4D	36,360	38,214	E	C	D
LEMON AV	PINEAPPLE AV	MAIN ST	City	15	2U	2,054	2,159	E	C	C
LEMON AV	MAIN ST	1ST ST	City	15	2U	2,828	2,972	E	C	C
LEMON AV	1ST ST	2ND ST	City	15	2U	3,502	3,681	E	C	C
LEMON AV	2ND ST	FRUITVILLE RD	City	15	4D	4,176	4,389	E	C	C
LEMON AV	FRUITVILLE RD	4TH ST	City	30	2D	2,987	3,139	E	C	C
LEMON AV	4TH ST	BLVD OF THE ARTS	City	30	2D	2,987	3,139	E	C	C
LEMON AV	BLVD OF THE ARTS	10TH ST	City	35	2D	2,987	3,139	E	C	C
LIME AV	RINGLING BLVD	FRUITVILLE RD	City	30	4U	6,868	7,218	D	C	C
LIME AV	FRUITVILLE RD	8TH ST	City	30	2U	4,545	4,777	D	C	C
LIME AV	8TH ST	12TH ST	City	30	2U	4,545	4,777	D	C	C
LIME AV	12TH ST	17TH ST	City	30	2U	4,545	4,777	D	C	C
LOCKWOOD RIDGE RD	FRUITVILLE RD	8TH ST	City	35	2U	8,638	9,079	D	D	D
LOCKWOOD RIDGE RD	8TH ST	12TH ST	City	35	2U	8,638	9,079	D	D	D
LOCKWOOD RIDGE RD	12TH ST	17TH ST	City	35	2U	11,062	11,626	D	D	D
MLK WAY	US 41	OLD BRADENTON RD	City	25	2D	4,325	4,546	D	C	C
MLK WAY	OLD BRADENTON RD	COCOANUT AV	City	25	2D	8,585	9,023	D	D	D
MLK WAY	COCOANUT AV	CENTRAL AV	City	25	2U	8,585	9,023	D	D	D
MLK WAY	CENTRAL AV	ORANGE AV	City	25	2U	8,585	9,023	D	D	D
MLK WAY	ORANGE AV	OSPREY AV	City	25	2U	7,156	7,521	D	D	D
MLK WAY	OSPREY AV	US 301	City	25	2U	6,951	7,306	D	D	D
MLK WAY	US 301	CITY LIMITS	City	35	2U	6,746	7,090	D	D	D
MYRTLE ST	US 41	OLD BRADENTON RD	City	30	2D	5,959	6,263	D	C	C
MYRTLE ST	OLD BRADENTON RD	CITY LIMITS	County	35	2U	6,792	7,138	D	D	D
MYRTLE ST	CITY LIMITS	US 301	County	35	2U	6,977	7,333	X	F	F
OLD BRADENTON RD	MLK WAY	MYRTLE ST	City	30	2D	5,454	5,732	D	C	C
OLD BRADENTON RD	MYRTLE ST	UNIVERSITY PKWY	City	30	2D	5,454	5,732	D	C	C
ORANGE AV	US 41	RINGLING BLVD	City	30	2U	7,472	7,853	E	D	D
ORANGE AV	RINGLING BLVD	MAIN ST	City	30	2U	7,472	7,853	E	D	D
ORANGE AV	MAIN ST	2ND ST	City	30	2U	7,759	8,155	E	D	D
ORANGE AV	2ND ST	FRUITVILLE RD	City	30	2U	6,380	6,705	E	C	D
ORANGE AV	FRUITVILLE RD	6TH ST	City	30	2U	5,713	6,004	E	C	C
ORANGE AV	6TH ST	10TH ST	City	30	2U	6,220	6,537	E	C	C
ORANGE AV	10TH ST	12TH ST	City	30	2U	6,727	7,070	D	D	D
ORANGE AV	12TH ST	17TH ST	City	30	2U	6,727	7,070	D	D	D
ORANGE AV	17TH ST	21ST ST	City	30	2U	6,491	6,822	D	D	D
ORANGE AV	21ST ST	MLK WAY	City	30	2U	6,491	6,822	D	D	D
ORANGE AV	MLK WAY	MYRTLE ST	City	30	2U	6,491	6,822	D	D	D
OSPREY AV	BAY RD	SIESTA DR	State	30	2D	14,241	14,967	X	D	D
OSPREY AV	SIESTA DR	SOUTH DR	City	30	2U	8,726	9,171	D	D	D
OSPREY AV	SOUTH DR	WEBBER ST	City	30	2U	8,726	9,171	D	D	D
OSPREY AV	WEBBER ST	HILLVIEW ST	City	30	2U	8,726	9,171	D	D	D
OSPREY AV	HILLVIEW ST	WALDEMERE ST	City	30	2U	8,726	9,171	D	D	D
OSPREY AV	WALDEMERE ST	BAHIA VISTA ST	City	30	2U	8,726	9,171	D	D	D
OSPREY AV	BAHIA VISTA ST	US 41	City	30	2U	8,203	8,621	D	D	D
OSPREY AV	US 41	RINGLING BLVD	City	30	2D	5,559	5,842	E	C	C
OSPREY AV	RINGLING BLVD	MAIN ST	City	30	2D	5,559	5,842	E	C	C
OSPREY AV	MAIN ST	FRUITVILLE RD	City	30	2U	3,838	4,034	E	C	C
OSPREY AV	FRUITVILLE RD	6TH ST	City	30	2U	1,933	2,032	D	C	C
OSPREY AV	6TH ST	10TH ST	City	30	2U	1,810	1,902	D	C	C
OSPREY AV	MLK WAY	N. CITY LIMIT	City	30	2U	1,810	1,902	D	C	C
PINEAPPLE AV	COCOANUT AV	1ST ST	City	25	2U	2,121	2,229	E	C	C
PINEAPPLE AV	1ST ST	MAIN ST	City	25	2U	2,121	2,229	E	C	C
PINEAPPLE AV	MAIN ST	RINGLING BLVD	City	25	2U	2,121	2,229	E	C	C
PINEAPPLE AV	RINGLING BLVD	OAK ST	City	25	2U	2,121	2,229	E	C	C

Table 2. –2015 and 2020 Roadway Levels of Service Compared to Standards (Continued)

ONSTREET	FRSTREET	TOSTREET	JURIS	POSTSPEED	SEG_RT	AADT2015	AADT2020	LOS_STD	LOS2015	FLOS2020
RINGLING BLVD	US 41	PINEAPPLE AV	City	25	4D	4,343	4,564	E	C	C
RINGLING BLVD	PINEAPPLE AV	ORANGE AV	City	25	4D	6,010	6,317	E	C	C
RINGLING BLVD	ORANGE AV	OSPREY AV	City	25	4D	7,676	8,067	E	C	C
RINGLING BLVD	OSPREY AV	US 301	City	25	4D	8,080	8,492	E	C	C
RINGLING BLVD	US 301	EAST AV	City	25	4U	11,932	12,540	E	C	D
RINGLING BLVD	EAST AV	SCHOOL AV	City	25	4U	11,932	12,540	E	C	D
RINGLING BLVD	SCHOOL AV	LIME AV	City	25	4U	11,932	12,540	D	C	D
HIGEL AVE	CITY LIMITS	SIESTA DR	State	40	2U	18,281	19,213	X	F	F
SIESTA DR	HIGEL AVE	OSPREY AV	State	40	2U	18,281	19,213	X	F	F
SIESTA DR	OSPREY AV	US 41	County	30	2D	8,383	8,811	D	D	D
SIESTA DR	US 41	CITY LIMITS	County	35	2D	6,495	6,826	D	C	C
SIESTA DR	CITY LIMITS	SHADE AV	County	35	2D	6,495	6,826	C	C	C
SIESTA DR	SHADE AV	TUTTLE RD	County	35	2D	3,722	3,912	C	C	C
TUTTLE AV	SIESTA ST	WEBBER ST	County	40	4D	22,537	23,686	C	C	C
TUTTLE AV	WEBBER ST	CITY LIMITS	County	40	4D	25,821	27,138	C	C	C
TUTTLE AV	CITY LIMITS	HYDE PARK ST	County	40	4D	25,821	27,138	D	C	C
TUTTLE AV	HYDE PARK ST	BAHIA VISTA ST	County	40	4D	26,300	27,641	D	C	C
TUTTLE AV	BAHIA VISTA ST	BROWNING ST	County	40	4D	26,803	28,170	D	C	C
TUTTLE AV	BROWNING ST	RINGLING BLVD	County	40	4D	29,195	30,684	D	C	C
TUTTLE AV	RINGLING BLVD	FRUITVILLE RD	County	40	4D	24,504	25,754	D	C	C
TUTTLE AV	FRUITVILLE RD	8TH ST	County	40	4D	21,476	22,571	D	C	C
TUTTLE AV	8TH ST	12TH ST	County	40	4D	21,210	22,292	D	C	C
TUTTLE AV	12TH ST	17TH ST	County	40	4D	19,250	20,232	D	C	C
UNIVERSITY PKWY	US 41	AIRPORT CIRCLE	County	45	6D	21,731	22,839	D	C	C
UNIVERSITY PKWY	AIRPORT CIRCLE	OLD BRADENTON RD	County	45	4D	23,617	24,821	D	C	C
UNIVERSITY PKWY	OLD BRADENTON RD	DESOTO ROAD	County	45	4D	27,570	28,976	D	C	C
UNIVERSITY PKWY	DESOTO ROAD	CITY LIMITS	County	45	4D	22,483	23,630	D	C	C
US 301	US 41	OAK ST	State	35	4D	32,320	33,968	X	D	F
US 301	OAK ST	RINGLING BLVD	State	35	4D	32,320	33,968	X	D	F
US 301	RINGLING BLVD	MAIN ST	State	35	4D	33,583	35,296	X	E	F
US 301	MAIN ST	FRUITVILLE RD	State	35	4D	33,583	35,296	X	E	F
US 301	FRUITVILLE RD	10TH ST	State	35	4D	34,845	36,622	X	F	F
US 301	10TH ST	12TH ST	State	35	4D	34,845	36,622	X	F	F
US 301	12TH ST	17TH ST	State	45	6D	34,803	36,578	D	C	C
US 301	17TH ST	MLK WAY	State	45	6D	42,925	45,114	D	C	C
US 301	MLK WAY	MYRTLE ST	State	45	6D	39,895	41930	D	C	C
US 41 S	CITY LIMITS	BAY RD (BEE RIDGE)	State	45	6D	54,540	57,322	D	C	C
US 41 S	BAY RD (BEE RIDGE)	SIESTA DR	State	45	6D	56,055	58,914	D	C	D
US 41 S	SIESTA DR	WEBBER ST	State	45	6D	56,055	58,914	D	C	D
US 41 S	WEBBER ST	HILLVIEW ST	State	45	6D	58,075	61,037	X	C	F
US 41 S	HILLVIEW ST	WALDEMERE ST	State	40	6D	58,075	61,037	X	C	F
US 41 S	WALDEMERE ST	BAHIA VISTA ST	State	40	6D	58,075	61,037	X	C	F
US 41 S	BAHIA VISTA ST	BAY ST	State	35	6D	60,095	63,160	X	F	F
US 41 S	BAY ST	US 301	State	35	6D	60,095	63,160	X	F	F
US 41 S	US 301	OSPREY AV	State	40	4D	36,360	38,214	D	C	D
US 41 S	OSPREY AV	ORANGE AV	State	40	6D	35,855	37,684	E	C	C
US 41 S	ORANGE AV	RINGLING BLVD	State	40	4D	35,350	37,153	E	C	C
US 41 S	RINGLING BLVD	MAIN ST	State	40	4D	35,603	37,419	E	C	C
US 41 S	MAIN ST	GULF STREAM AV	State	40	4D	35,603	37,419	E	C	C
US 41 N	GULF STREAM AV	FRUITVILLE RD	State	40	4D	35,855	37,684	E	C	C
US 41 N	FRUITVILLE RD	BLVD OF THE ARTS	State	40	4D	36,363	38,218	E	C	D
US 41 N	BLVD OF THE ARTS	10TH ST	State	40	4D	36,363	38,218	E	C	D
US 41 N	10TH ST	17TH ST	State	40	4D	36,871	38,751	D	C	D
US 41 N	17TH ST	MLK WAY	State	40	4D	36,868	38,748	D	C	D
US 41 N	MLK WAY	MYRTLE ST	State	45	4D	36,868	38,748	D	C	D
US 41 N	MYRTLE ST	UNIVERSITY PKWY	State	45	4D	36,865	38,745	D	C	D
US 41 N	UNIVERSITY PKWY	NORTH CITY LIMIT	State	45	6D	41,915	44,053	D	C	C
WEBBER ST	US 41	CITY LIMITS	County	35	4U	10,504	11,040	D	C	C
WEBBER ST	CITY LIMITS	SHADE AV	County	35	4U	10,504	11,040	C	C	C
WEBBER ST	SHADE AV	TUTTLE RD	County	35	4D	10,629	11,171	C	C	C

Network Level Analysis

To picture the City's overall road network levels of service, network vehicle miles of travel were calculated and are summarized by level of service in Figure 1 and volume to service capacity ration in Figure 2.

Figure 1. Summary of Network Vehicle Miles of Travel by Levels of Service.

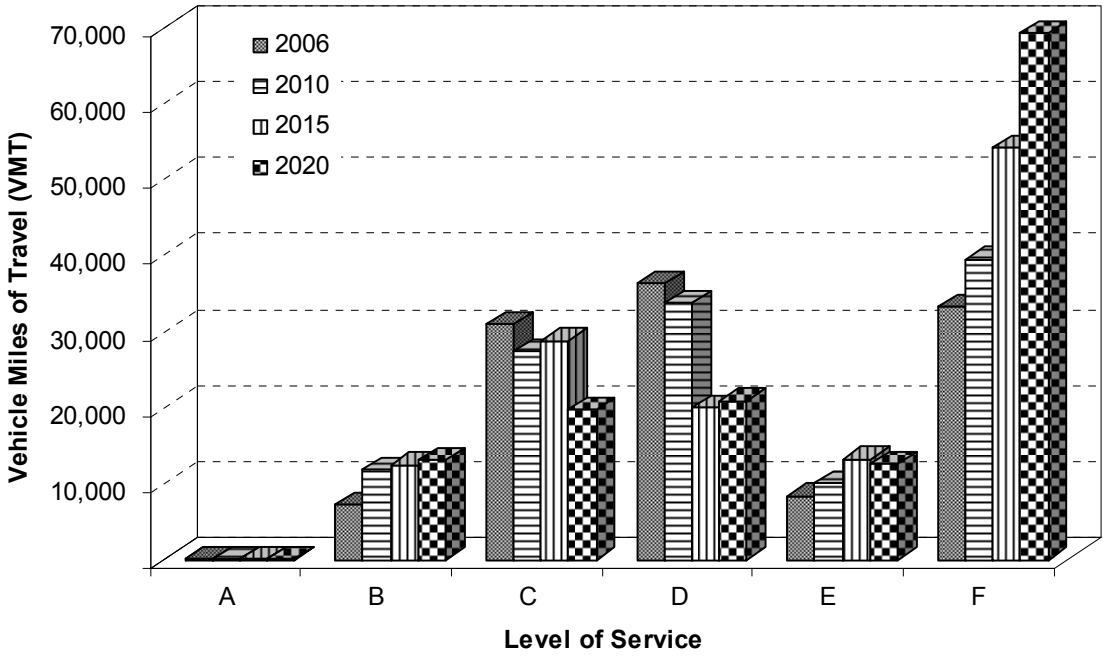


Figure 2. Summary of Network Vehicle Miles of Travel to Volume to Service Capacity Ratio

Indicators of Network Performance	2006	2010	2015	2020
Vehicle Miles of Travel (VMT)	116,047	122,505	128,750	135,329
Vehicle Miles of Maximum Service Capacity (VMMSC)	138,715	141,317	141,317	141,317
Weighted V:C	0.974	1.017	1.067	1.122
% VMT below Standard	50.30%	52.04%	57.16%	65.89%

APPENDIX 2

Evaluation and Appraisal Report Recommendations Index

Pursuant to requirements in the Florida Administrative Code, the City prepared an Evaluation and Appraisal Report (EAR) to determine its progress in implementing the 1998 comprehensive plan, known as the *Sarasota City Plan*. The EAR was adopted on October 11, 2006 and its recommendations have been incorporated into this 2007 *Sarasota City Plan*. This appendix references the EAR-proposed amendments to objectives and action strategies in the previous 1998 edition of the *Sarasota City Plan.*

Transportation Chapter

EAR REQUIREMENT		LOCATION IN REVISED TRANSPORTATION ELEMENT
The adopted recommendations from the Mobility Study and subsequent analyses will need to be included in the revised Transportation Chapter.		City wide Mobility Study still pending Action Strategy 1.6.
Staff is proposing to revise this timeframe through 2030 in order to be consistent with the MPO's next Long-Range Transportation Plan that will be developed while the City works on its EAR and EAR-based amendment.		Support Document, Comprehensive Plan Update Study, February 2006.
The Downtown Sarasota Mobility Study and a follow-up downtown concurrency study are major programs that are to be incorporated into a revised Transportation Chapter during the EAR process.		Illustration T-16, Objective 11.
The existing TCEA (Objective 8 and its associated Action Strategies) will require major revisions.		Objective 8, Illustration T-15, 2004 Transportation Concurrency Exception Area Report located in the Support Document
As a result, road improvements will occur, if they occur, in a random, uncoordinated manner, rather than systematically following a fiscally responsible plan. Also, expanded mass transit and other TDM measures to support a pedestrian-scale urban environment will be unlikely because a single developer is unlikely to meet traditional transportation concurrency requirements by using these alternative modes		
The results of the Parking Master Plan should be incorporated into the revised chapter.		Objective 7, "Vehicle Parking" in the Support Document.
In cooperation with Sarasota County Area Transit (SCAT), the City should evaluate the major transit routes to determine if sufficient density exists on the Future Land Use Map to encourage increased usage of the transit system		
In addition, the City of Sarasota, with assistance from SCAT, should evaluate the transit concurrency standards in the transportation chapter under Objective 2, Action Strategy 2.4.		The Sarasota County adopted transit level of service has been added to Objective 2, Action Strategy 2.6.
Once the decision is made, Illustration 18, Thoroughfare Map and Illustration T-15, 2010 Proposed Number of Lanes on Thoroughfares will need to be updated.		Illustration T-1 and Illustration T-2.
The revised comprehensive plan will include this TCMA in conjunction with the Future Land Use Map revisions associated with the NRP.		Objective 10, Newtown Transportation Concurrency Management Area Study in the Support Document.

EAR REQUIREMENT		LOCATION IN REVISED TRANSPORTATION ELEMENT
Add a new action strategy regarding a citywide mobility study. Citywide Mobility Study: The City shall conduct a citywide mobility study to identify measures to modify, alter, and enhance the area's transportation network and its governing policies.		City wide Mobility Study still pending Action Strategy 1.6.
1.7. Revise by deleting the 1989 date since the EDCM is updated periodically.		Now Action Strategy 1.8.
1.8. in the EDCM rather than the Land Development Regulations.		Now Action Strategy 1.9.
1.9. Revise this action strategy to indicate that share access, joint access and cross access shall be required.		Now Action Strategy 1.10.
1.10. Revise to indicate that the City will continue to use of these standards.		Now Action Strategy 1.11.
1.11. Driveway Standard Delete. The action strategy is no longer necessary since the standards have been implemented.		Reworded and now Action Strategy 1.12.
1.13. Protection of Right of Way: Revise to also include easements.		Easements added and now Action Strategy 1.14.
1.14. Encroachments in the Right of way Revise to refer to the International Building Code rather than Standard Building Code.		Reference to Florida Building Code now in Action Strategy 1.15
1.16. Reevaluate. Look into adopting a legal mechanism for having right-of-way dedicated throughout the City during Development Approval (rezoning, conditional uses, site plans, and subdivision plats) without "rational nexus" as there is a specific street cross section that is adopted in the EDCM that might require the additional ROW.		ROW dedication will be required in conjunction with a "proposed plan" now in Action Strategy 1.17.
1.17. Continue. The City should explore a land (ROW) acquisition department.		Continued now Action Strategy 1.18.
1.21 Revise to indicate coordination of ITS with the MPO.		Reference to MPO added, now Action Strategy 1.22.
2.4 Continue. Reevaluate the level of service standard.		The Sarasota County adopted transit level of service has been added to Objective 2, Action Strategy 2.6.
2.5 Transit Performance Standards Revise. Indicators should be the Public Transportation System Analysis recommendations that were adopted by the MPO on April 2002		The Sarasota County adopted transit level of service has been added to Objective 2, Action Strategy 2.6.
2.6 Revise to indicate that the City will work with the County in addition to the MPO regarding alternative		Now Action Strategy 2.7.
2.9 Rail. Revise to encourage high speed rail service to Sarasota County in the future.		Now Action Strategy 2.11
Objective 3 Revise to clarify what is better meant by this objective. The City will assess the FLUM and how it is coordinated with the roadway system in the proposed Citywide study.		
Continue. The Thoroughfare Plan will be evaluated during the EAR and EAR-based amendment process		Illustration T-1 and Illustration T-2 and Support Document section "The Thoroughfare Plan."
4.2. Revise to indicate that the City will avoid simultaneous construction delays rather than just explore it.		This is more difficult than it sounds.
4.6. Revise to indicate that Sarasota County operates the Commuter Assistance Program.		Now Action Strategy 2.5.
5.1. Delete. This action strategy is vague and its emphasis is covered better by other action strategies.		Deleted.
5.3. Revise by also emphasizing implementation of the Downtown Parking Master Plan Recommendations		Revised, Action Strategy 5.3.
5.4. Continue. This should be included in the EDCM.		Continued.
5.6. Revise. This action strategy should also indicate that the City will improve the street grid pattern.		Revised, Action Strategy 5.6
5.7 Revise to indicate that the City will "provide" for aesthetics rather than "consider."		Revised, Action Strategy 5.7
5.8 Revise by deleting the first sentence and changing "a new" to "an additional".		Revised, Action Strategy 5.8
6.4 Ped Safety Revise to indicate continuing implementation of the pedestrian master plan.		Reference to 2001 Pedestrian Master Plan, Action Strategy

EAR REQUIREMENT		LOCATION IN REVISED TRANSPORTATION ELEMENT
6.8 Enhancements. Revise to identify the subsequent authorization.		Updated to reflect SAFETEA-LU federal funding, Action Strategy 6.8.
6.10 Bicycle Plan. Revise by referring to the City's bicycle plan.		Refers to 2006 City of Sarasota Bicycle Plan, Action Strategy 6.10
Objective 7 Parking. Revise to reflect the Parking Master Plan. Action Strategies will need to be developed for implementation of the Parking Master Plan.		Revised to refer to Downtown Parking Master Plan.
Objective 8 TCEA. This objective will need to be revised based upon results of the Downtown Mobility Study and further study of the TCEA.		2004 Transportation Concurrency Exception Area Report located in the Support Document
8.1 Revise to reflect the results of the Downtown Mobility Study and Downtown Concurrency Management study.		Interim Standards now pending Downtown Concurrency Management Study, Action Strategy 8.1.
8.2 Delete		Not deleted, pending report to City Commission re: multimodal area.
8.3. Delete. The downtown concurrency study will likely provide new policy direction.		Not changed pending Downtown Concurrency Management Study.
8.5. Revise by eliminating the Fruitville Road extension and renaming the reference to the Long Range Transportation Plan.		Revised, Action Strategy 8.5.
8.6. Revise depending upon results of the downtown concurrency study.		Not changed pending Downtown Concurrency Management Study.
8.7. TMO Revise. The action strategy should encourage participation in the county Commuter Assistance Program.		Revised re: Sarasota County Commuter Assistance Program.
8.8 Delete		Deleted.
Objective 9 - TCEA Coordinated with Redevelopment in General. Move to Future Land Use Chapter		Deleted.
10.2. Ped Corridors Change names from "Primary Grid" to Primary "A" streets. "Secondary Grid" streets would be renamed as Secondary "B" streets.		Revised, Action Strategy 9.2.
10.4 Revise to indicate that the US301/6th Street sleeve should be located at the intersection of US 301/10th Street.		Revised, Action Strategy 9.3.
10.4Revise to indicate implementation of the Downtown Parking Master Plan.		Revised, Action Strategy 9.4.
10.5. Revise by deleting those that have been completed.		Deleted.
10.6. Revise by deleting that portion dealing with location of the transfer station.		Revised now refers to downtown bus routes only, Action Strategy 9.5.
Illustration T-15, 2010 Proposed Number of Lanes on Thoroughfares and Illustration T-18, Thoroughfare Plan There are a number of inconsistencies that need to be corrected during the EAR-based amendment. These include: • Delete the proposed Fruitville Road extension from the Thoroughfare Plan – the Ritz-Carlton was built in this location after the 'Comprehensive Plan was adopted. • 10th Street between Orange Avenue and US 301 – Illustration T-18 states this road segment is a minor arterial (i.e., four lanes) while Illustration T-15 indicates this segment will be two-lanes. • Bird Key Drive functions as a local street rather than a minor collector as identified on the Thoroughfare Plan. • Cocoanut Avenue, Bradenton Road, Orange Avenue, Myrtle Street, Bahia Vista Street, Benjamin Franklin Drive and segments of Dr. Martin Luther King, Jr. Way and Central Avenue are two-lane roads which function as minor collectors, but are identified as major collectors, which require four vehicle lanes. The four-laning of these roads is inconsistent with Illustration T-15 which identifies them as having two-lanes in 2010.		All of these changes are included on Illustration T-1 and T-2.
Illustration T-12A, Transportation Concurrency Exception Area This map displays the Vision Plan Study Area		Vision Plan Study Area boundary removed, now Illustration T-12.
Illustration T-31, Primary "A" and Secondary "B" Streets Reflects EDCM terms		Revised, Illustration T-13
Illustration T-32, Locations of Proposed Sleeves. Add a sleeve at 10th Street and US301.		Revised, Illustration T-14

APPENDIX 3

Sarasota's Strategic Goals

In 2004 the City Commission adopted "Sarasota's Approach to Strategic Planning," which provides the foundation for the Strategic Plan and six Strategic Goals that are the foundation upon which the *Sarasota City Plan* is based. This appendix references Objectives and Action Strategies in the *Sarasota City Plan* that implement these Strategic Goals.

Our Vision

A City where urban amenities meet small town living.

The Strategic Goals of the City of Sarasota

1. **A responsible and accessible government that has sound financial and administrative practices.**

   Applicable Action Strategies: 1.4, 1.5, 1.9, 1.11, 2.13, 2.12, 5.1, 5.2, 5.3, 5.4, 5.6, 6.10, 6.11, 7.1, 7.2, and 7.10.

2. **Viable, safe and diverse neighborhoods and businesses that work together.**

   Applicable Action Strategies: 6.1 through 6.14, 7.1, 7.2, 7.3, 7.4, 7.5, 7.10, 7.14, and 7.16.

3. **An economically sustainable community.**

   Applicable Action Strategies: 1.1 through 1.11, 8.1, 8.2, 8.3, 8.4, 8.5, 9.1, 9.2, 9.3, 9.4, 9.5, and 9.6

4. **A workplace that attracts and retains an outstanding workforce.**

   Applicable Action Strategies: None.

5. **An attractive, environmentally-friendly community that is safe and livable and provides an array of cultural and aesthetic enjoyments.**

   Applicable Action Strategies: 3.1 through 3.12, 6.1 through 6.14, and 7.1 through 7.16.

6. **Well maintained and future-oriented infrastructure.**

   Applicable Action Strategies: 2.1 through 2.17.

APPENDIX 4

CITY OF SARASOTA
TRANSPORTATION CONCURRENCY
EXCEPTION AREA
STATUS REPORT

Prepared for:

CITY OF SARASOTA

Prepared by:

TINDALE-OLIVER AND ASSOCIATES, INC.

June 22, 2005

2004 TRANSPORTATION CONCURRENCY EXCEPTION AREA STATUS REPORT

EXECUTIVE SUMMARY

The Sarasota City Plan adopted by the City of Sarasota Commission on November 10, 1998 included provisions for a Transportation Concurrency Exception Area (TCEA) for the downtown Community Redevelopment Area (CRA) to facilitate rejuvenation of the City's downtown core. Pursuant to the Plan, the City Engineering Department was required to report annually to the City Commission regarding the effectiveness of the interim standards identified for the TCEA and if the City should retain, modify, or eliminate the TCEA interim standards. This report is the third such status report. The first report was submitted on January 5, 2000, and the second report was submitted on June 11, 2001.

In this report, the year 2003 volumes and the status of the interim level of service standards are reviewed, taking into consideration approved, but not-yet-built developments within the TCEA and revised level of service analysis procedures defined by the Florida Department of Transportation (Florida DOT) in their 2002 Quality/Level of Service Handbook. The TCEA regulations limit development only if its net generated traffic exceeds 4.5 percent of level of service D service volume. The analysis indicates that congestion levels from existing traffic plus traffic from approved, but not-yet-built developments exceed the level of service standards adopted for the TCEA on several roadways. These deficiencies are likely to only affect larger developments in the TCEA area, and have led to situations where developers limit the size of their developments to avoid having significant impacts. This effect seems contrary to an environment that would encourage desirable downtown development.

Growth in traffic on the regional road network providing access to the downtown area has been faster than expected – 3.5 percent per year since 1997 instead of 0.4 percent per year as forecasted by the then-current transportation planning models. Most of this growth occurred on the regional roads (State Highways) providing access to the downtown area, rather than on City streets within the downtown area where growth rates were much lower. These findings suggest that resolving regional traffic issues is important to providing good access to the downtown area.

The faster-than-expected traffic growth rate should also invoke a greater sense of urgency to dealing with downtown access congestion issues.

A recommendation is made in this report to the City to re-visit its objectives for the TCEA and to advance its strategies for addressing short- and long-term downtown area access provisions. These deliberations should consider:

- Levels of temporarily allowable congestion,
- Whether or not the rate of TCEA or regional growth should be limited,
- Whether the City desires to continue a development approval process in which large-scale development is discouraged because of short-term congestion,
- Establishing a comprehensive program to fund needed facilities that all downtown developers would participate in equitably, and
- The rate of revenues that can be brought to implement the Downtown Mobility Initiative and the Downtown Mobility Study recommendations

City of Sarasota
2004 Transportation Concurrency Exception Area (TCEA) Report

Introduction

The Sarasota City Plan was adopted by the City of Sarasota Commission on November 10, 1998 and became effective on January 21, 1999. This plan included provisions for a Transportation Concurrency Exception Area (TCEA) for the downtown Community Redevelopment Area (CRA) to facilitate rejuvenation and encourage the compact, dense, mixed land uses in the City downtown core. The documentation supporting the TCEA included a technical report, Transportation Concurrency Exception Area (July, 1998), and a "Transportation Concurrency Exception Area Plan of Action" report (June 1, 1999). Pursuant to the Sarasota City Plan, the City Engineering Department was required to report annually to the City Commission regarding the effectiveness of the interim standards, action items identified for the TCEA, and if the City should retain, modify or eliminate the TCEA interim standards. The first report was submitted on January 5, 2000, and the second on June 11, 2001. This report is the third status report.

In this report, the year 2003 (most complete and current) volumes and status of the interim level of service standards are reviewed, taking into consideration approved, but not yet built developments within the TCEA. This analysis makes use of the traffic planning model from the Sarasota Manatee Metropolitan Planning Organization (MPO) validated to 1995 conditions, in support of the 2025 Long Range Transportation Plan (LRTP) adopted February 26, 2001. Further refinements to this model (Sarasota Manatee Area Traffic Study (SMATS)) were made in the City's 17th Street Improvement study (17th Street Design Traffic Study – Transportation Systems Planning Model Validation Review, Tindale-Oliver & Associates, Inc., November, 2002), and this study incorporated those refinements. The refinements are described in Appendix A of this report. As a result, the assignment of traffic from individual developments using this "refined SMATS model" may vary from the assignment of prior TCEA status reports and the individual development concurrency review studies. These aspects are discussed in the following sections.

TCEA Level of Service Standards

The TCEA established a set of alternative roadway level of service standards, applicable to roads impacted by development within the TCEA. The adopted Level of Service (LOS) standards applicable to roads impacted by development within the City but *outside* the TCEA are:

- LOS D – on all State maintained roads within the City that are classified as major arterials or interstate connectors;
- LOS E – on all State maintained roads within the City that are not classified as major arterials or interstate connectors;
- LOS C – on all County maintained roads within the City, and
- LOS D – on all City maintained roads.

However, for developments located *within* the TCEA, the interim level of service standards are based on the levels of service in February, 1999, as follows:

- LOS D was established as the minimum standard for roads operating at LOS A, B, or C in February, 1999,
- LOS E was established as the minimum standard for roads operating at LOS D in February, 1999, and
- The cumulative traffic volumes (regional or local) are allowed to exceed the February, 1999 Annual Average Daily Traffic (AADT) volume by up to 15% for roads operating at LOS E or F in February, 1999.

Roads impacted by development in the TCEA area are illustrated in Figure 1. The January 5, 2000 TCEA Status Report documented the February, 1999, level of service conditions and maximum service volume estimates, thus developing the benchmark against which the interim TCEA level of service requirement is to be measured.

Roadway service volume estimates made use of location-specific traffic control data, such as signal cycle lengths, estimated percent green, and the proportion of vehicles turning from auxiliary lanes, at many locations from a similar analysis of level of service conducted in 1997. These values were used to improve the accuracy of results. Values of other parameters, such as saturation flow rates and AADT to 100th highest hour volume ratios were based on Florida Department of Transportation (Florida DOT) statewide recommended values. Level of service computational procedures have been altered slightly over the past several years, these procedural changes have resulted in fairly small service capacity changes (e.g. by only two to three percent), thus slight changes to roadway maximum service volumes reported in previous editions of the TCEA Status Reports have been made in this report to reflect the newer computational procedures.

In this TCEA Status Report, as in the January, 2000 TCEA Status Report, some shortcomings of the available traffic count data on which this report was based were noted. It is normal to encounter situations where traffic count data varies from day to day and year to year, lower in some years and higher in others. This variability is due to typical variance in day-to-day traffic, differences in counter equipment, or differences in placement of counter equipment. However, where traffic volumes are near the level of service threshold, this natural variance may result in an indication that the level of service standard is exceeded in one year but is not in the following year, which is a confusing situation. In this analysis, at locations where estimated traffic volumes were near the level of service threshold, regression analysis[1] was applied to provide a better estimate of volumes and reduce the effects of this normal variance. The regression analysis used in this report is consistent with the 2001 TCEA Status report recommendation that was adopted by the City Commission.

Note: 1. Regression analysis examines the past five years of recorded traffic counts and mathematically establishes a straight line that best fits the growth trend indicated by the counts.

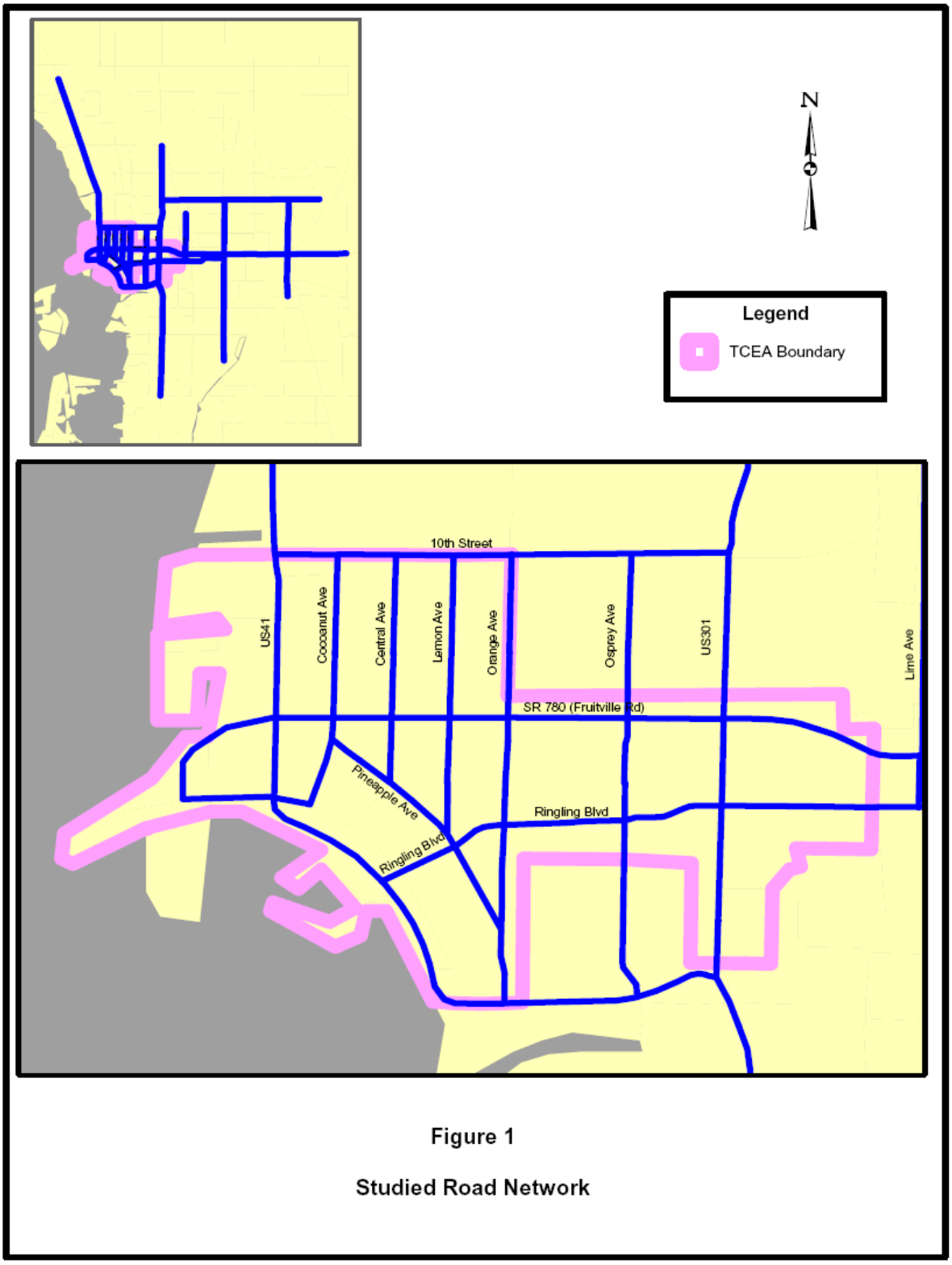


Figure 1

Studied Road Network

Status of Interim Level of Service Standards

The initial level of service analysis for this report was based on traffic count data collected by the Florida DOT, Sarasota County, and the City of Sarasota in 2003. In addition to the 2003 AADT data, future traffic from developments approved for construction in the downtown area but which have not yet been built and or are built but are not yet fully occupied was also considered. A listing of these developments is provided in Table 1. To model the traffic generated by these developments, a "selected zone" assignment was performed using the refined SMATS model.

Table 1

Approved/Pending Development Projects in the TCEA

Traffic Analysis Zone	Project Name	P.M. Peak Hour Traffic		
		Previous	Proposed Gross	Proposed Net
970	Waterworks Development	2	30	28
970	Pines of Sarasota	106	183	77
971	Wholesale Home Center	3	13	10
972	Churchill's Rezone	9	353	344
972	Rosemary Court	16	21	5
973	Air Rights Condominium	0	42	42
973	Hyatt Boat Basin	0	32	32
974	Five Points Mixed Use	146	207	61
974	SCAT Transfer Station	0	15	15
974	Whole Foods Center	530	446	-84
975	Sarasota Herald Tribune Headquarters	197	105	-92
976	Southby Office Rezone	0	130	130
977	The Metropolitan	130	86	-44
978	Plaza Verdi	54	436	382
979	1750 Center	29	169	140
980	Sarasota Main Street Apartments	0	68	68
981	HIPP Industries	1	4	3
981	Portofino Place	19	217	198
981	Portofino Waterside Shops	0	151	151
981	Townhouse Mews	3	12	9
981	Unicare Office Building	31	78	47
982	Grosvenor Park	3	10	7
982	Ringling Square	95	252	157
982	The Laurel	4	9	5
983	Courthouse Centre	0	159	159
983	Rivo at Ringling	0	176	176
983	Ringling Bank & Office	127	172	45
984	Ringling Court	34	40	6
984	South Palm Avenue Condominium (aka Savoy)	13	14	1
985	First Presbyterian Child Care	101	141	40
986	Fruitville Cocoanut Residential	5	16	11
986	Fruitville Professional Villas	9	30	21
987	RMC Mixed Use Grocery	218	607	389

All the approved, but not yet built TCEA developments were included in 18 traffic analysis zones (TAZs) based upon their geographic locations. The net new trips generated by these developments (deducting trips from demolished developments at the sites) were then traced on roads throughout the TCEA network, and added to the 2003 AADT estimates to compare against the TCEA level of service standards. Volumes associated with the approved, but not-yet-built developments and the total volumes are reported in Table 2. Total P.M. peak hour vehicle-miles of travel (vmt) on the TCEA network in 2003 is estimated at 79,807, compared to 73,817 for 2000, 74,944 for 1999, and 64,946 for 1997. Thus, the overall growth in travel on the TCEA road network showed a 23 percent increase from 1997 to 2003, an average annual traffic growth rate of 3.5 percent per year. (Note that the vmt values for prior years reported here differ from our previous reports. Comparison of the older count data with more recently compiled historical data yielded adjustments). Approved, but not-yet-built developments are estimated to add another six percent of vmt to the road network over the upcoming years. The actual rate of traffic growth is higher than was forecast in 1997, when the initial TCEA-supporting reports projected increases in vmt to 63,896 by 2005. While the economic development that fuels the travel growth is desirable, the faster-than-expected growth may signal a more urgent need to implement a plan to preserve or improve downtown access.

The greatest rates of growth are seen on State Roads (e.g. US-41, Fruitville Road, US-301), where the growth rate was 3.3 percent per year, and the lowest was on City streets – which are most of the streets in the downtown area – which exhibited a growth rate of 0.2 percent per year. This would suggest that most of the traffic growth in the road network that might affect TCEA development is regional, rather than TCEA-related. The City needs to be aware that regionally-generated travel is a significant issue that must be addressed when seeking to provide downtown access.

Table 2

Adopted TCEA Level of Service Standards and Traffic Volumes

On Street	From	To	LOS Standard (1)	TCEA Maximum Allowable Volume	2003 Count Volume	Approved Unoccupied Development	Total 2003 + Development Volume	Reserve Service Volume
10th St	US 41	Cocoanut Av	E	30,727	7,866	2,126	9,992	20,735
10th St	Cocoanut Av	Central Av	E	30,727	7,866	3,128	10,994	19,733
10th St	Central Av	Lemon Av	E	30,727	7,866	3,910	11,776	18,951
10th St	Lemon Av	Orange Av	E	30,727	7,866	4,189	12,055	18,672
10th St	Orange Av	301 US	D	11,464	3,956	802	4,758	6,706
17th St	301 US	East Av	D	27,788	20,440	1,222	21,662	6,126
17th St	East Av	Lime Av	D	27,788	20,440	1,216	21,656	6,132
17th St	Lime Av	Tuttle Av	D	27,788	21,766	1,265	23,031	4,757
17th St	Tuttle Av	Lockwood Ridge	D	31,731	23,091	878	23,969	7,762
17th St	Lockwood Ridge	Beneva Rd	D	31,731	28,453	373	28,826	2,905
17th St	Beneva Rd	Circus	D	33,365	19,632	440	20,072	13,293
301 US	Myrtle	MLK Way	D	59,792	37,000	2,079	39,079	20,713
301 US	MLK Way	17th St	D	59,175	44,500	2,033	46,533	12,642
301 US	17th St	12th St	D	49,792	41,750	2,380	44,130	5,662
301 US	12th St	10th St	D	49,792	39,000	1,905	40,905	8,887
301 US	10th St	Fruitville Rd	D	48,776	39,000	1,909	40,909	7,867
301 US	Fruitville Rd	Main St	1.15	44,828	35,500	1,505	37,005	7,823
301 US	Main St	Ringling Bv	1.15	42,537	35,500	1,908	37,408	5,129
301 US	Ringling Bv	Oak St	1.15	40,736	39,250	1,575	40,825	-89
301 US	Oak St	41 US	1.15	40,720	43,000	1,559	44,559	-3,839
41 US N	North City Limi	University Pkwy	1.15	45,218	40,000	2,114	42,114	3,104
41 US N	University Pkwy	Myrtle	1.15	42,441	40,000	2,387	42,387	54
41 US N	Myrtle	MLK Way	1.15	43,759	41,500	2,758	44,258	-499
41 US N	MLK Way	17th St	1.15	43,141	30,345	3,344	33,689	9,452
41 US N	17th St	10th St	1.15	43,523	31,583	3,180	34,763	8,760
41 US N	10th St	6th St	1.15	44,740	32,580	1,641	34,221	10,519
41 US N	6th St	Fruitville Rd	1.15	47,180	29,991	1,739	31,730	15,450
41 US N	Fruitville Rd	Gulf Stream Av	1.15	43,196	39,000	1,512	40,512	2,684
41 US S	Gulf Stream Av	Main St	1.15	42,926	40,000	992	40,992	1,934
41 US S	Main St	Ringling Blvd	1.15	44,959	40,000	1,339	41,339	3,620
41 US S	Ringling Blvd	Orange Av	1.15	46,991	40,000	1,586	41,586	5,405
41 US S	Orange Av	Osprey Av	1.15	41,822	40,000	1,868	41,868	-46
41 US S	Osprey Av	301 US	1.15	37,102	37,000	1,812	38,812	-1,710
41 US S	301 US	Bay St	D	63,409	63,500	3,073	66,573	-3,164
41 US S	Bay St	Bahia Vista St	D	63,409	63,500	2,959	66,459	-3,050
41 US S	Bahia Vista St	Waldemere St	D	64,886	60,250	2,905	63,155	1,731
41 US S	Waldemere St	Hillview St	D	64,886	60,250	2,411	62,661	2,225
41 US S	Hillview St	Weber St	D	64,886	60,250	2,504	62,754	2,132
41 US S	Weber St	Siesta Dr	D	64,886	57,000	2,611	59,611	5,275
41 US S	Siesta Dr	Bay Rd(Bee Ridge)	D	64,886	57,000	2,063	59,063	5,823
Beneva Rd	17th St	12th St	E	46,337	22,058	257	22,315	24,022
Beneva Rd	12th St	Shopping Cntr	E	46,337	26,746	101	26,847	19,490
Beneva Rd	Shopping Cntr	Circus Blvd	E	46,337	24,958	101	25,059	21,278
Beneva Rd	Circus Blvd	Fruitville Rd	E	46,337	28,522	125	28,647	17,690
Beneva Rd	Fruitville Rd	City Limits	1.15	33,976	30,700	1,028	31,728	2,248
Central Av	10th St	6th St	E	14,054	2,243	1,226	3,469	10,585
Central Av	6th St	Fruitville Rd	E	14,054	2,942	2,105	5,047	9,007
Central Av	Fruitville Rd	Main St	E	12,523	1,890	1,304	3,194	9,329
Cocoanut Av	10th St	6th St	D	10,450	2,464	1,087	3,551	6,899
Cocoanut Av	6th St	Fruitville Rd	D	10,450	2,464	1,124	3,588	6,862
Cocoanut Av	Fruitville Rd	2nd St	D	9,633	6,500	1,091	7,591	2,042
Cocoanut Av	2nd St	Gulf Stream Av	D	9,633	813	627	1,440	8,193
Fruitville Rd	41 US	Cocoanut Av	1.15	25,069	15,429	1,096	16,525	8,544
Fruitville Rd	Cocoanut Av	Central Av	1.15	24,264	15,429	706	16,135	8,129
Fruitville Rd	Central Av	Lemon Av	1.15	23,240	15,429	1,914	17,343	5,897
Fruitville Rd	Lemon Av	Orange Av	1.15	22,404	16,857	3,553	20,410	1,994
Fruitville Rd	Orange Av	Goodrich Av	1.15	22,088	16,857	3,105	19,962	2,126
Fruitville Rd	Goodrich Av	Osprey Av	1.15	21,997	16,857	3,059	19,916	2,081

Table 2 (Continued)

Adopted TCEA Level of Service Standards and Traffic Volumes

On Street	From	To	LOS Standard (1)	TCEA Maximum Allowable Volume	2003 Count Volume	Approved Unoccupied Development	Total 2003 + Development Volume	Reserve Service Volume
Fruitville Rd	Osprey Av	Links Av	1.15	28,476	16,857	3,091	19,948	8,528
Fruitville Rd	Links Av	301 US	1.15	28,466	16,857	3,091	19,948	8,518
Fruitville Rd	301 US	East Av	1.15	34,164	35,000	3,402	38,402	-4,238
Fruitville Rd	East Av	School Av	1.15	34,131	35,000	3,301	38,301	-4,170
Fruitville Rd	School Av	Lime Av	1.15	34,019	35,000	4,448	39,448	-5,429
Fruitville Rd	Lime Av	Shade Av	1.15	38,783	35,000	4,845	39,845	-1,062
Fruitville Rd	Shade Av	Tuttle Av	1.15	43,648	44,500	4,799	49,299	-5,651
Fruitville Rd	Tuttle Av	Lockwood Ridge	1.15	54,369	56,000	3,932	59,932	-5,563
Fruitville Rd	Lockwood Ridge	Beneva Rd	1.15	49,767	56,000	3,688	59,688	-9,921
Fruitville Rd	Beneva Rd	Mimosa Cir	1.15	45,085	50,000	2,560	52,560	-7,475
Fruitville Rd	Mimosa Cir	McIntosh	1.15	45,049	50,000	2,468	52,468	-7,419
Gulfstream Av	Sunset Dr	US 41	D	31,429	31,500	1,757	33,257	-1,828
Lemon Av	10th St	6th St	D	21,712	2,942	1,892	4,834	16,878
Lemon Av	6th St	4th St	D	21,712	2,942	2,112	5,054	16,658
Lemon Av	4th St	Fruitville Rd	D	21,712	2,942	2,112	5,054	16,658
Lime Av	12th St	8th St	E	11,330	5,839	181	6,020	5,310
Lime Av	8th St	Fruitville Rd	E	11,330	6,503	197	6,700	4,630
Lime Av	Fruitville Rd	Ringling Bv	E	11,330	7,718	822	8,540	2,790
Orange Av	10th St	6th St	1.15	10,218	9,460	1,748	11,208	-990
Orange Av	6th St	Fruitville Rd	1.15	10,255	9,460	1,771	11,231	-976
Orange Av	Fruitville Rd	2nd St	1.15	9,452	7,647	1,660	9,307	145
Orange Av	2nd St	Main St	1.15	9,455	7,078	1,660	8,738	717
Orange Av	Main St	Ringling Bv	1.15	9,236	6,508	1,566	8,074	1,162
Orange Av	Ringling Bv	41US	1.15	10,590	7,693	1,342	9,035	1,555
Osprey Av	10th St	6th St	E	8,135	1,755	465	2,220	5,915
Osprey Av	6th St	Fruitville Rd	E	8,045	2,927	485	3,412	4,633
Osprey Av	Fruitville Rd	Main St	1.15	7,444	1,886	396	2,282	5,162
Osprey Av	Main St	Ringling Bv	1.15	7,444	6,223	291	6,514	930
Osprey Av	Ringling Bv	41 US	1.15	9,841	7,149	577	7,726	2,115
Pineapple Av	Cocoanut Av	1st St	D	11,153	2,073	466	2,539	8,614
Pineapple Av	1st St	Main St	D	11,153	2,073	613	2,686	8,467
Pineapple Av	Main St	Ringling Bv	D	16,649	2,073	1,195	3,268	13,381
Pineapple Av	Ringling Bv	Oak St	D	12,564	2,073	674	2,747	9,817
Ringling Bv	41 US	Pineapple Av	D	25,091	6,539	624	7,163	17,928
Ringling Bv	Pineapple Av	Orange Av	D	25,091	8,298	1,271	9,569	15,522
Ringling Bv	Orange Av	Osprey Av	D	25,321	10,056	2,366	12,422	12,899
Ringling Bv	Osprey Av	301 US	D	25,321	10,056	3,535	13,591	11,730
Ringling Bv	301 US	East Av	D	22,596	10,448	1,844	12,292	10,304
Ringling Bv	East Av	School Av	D	22,596	10,448	1,859	12,307	10,289
Ringling Bv	School Av	Lime Av	D	22,596	9,542	1,859	11,401	11,195
Ringling Bv	Lime Av	Shade Av	D	21,560	8,636	1,140	9,776	11,784
Ringling Bv	Shade Av	Tuttle Av	E	16,147	9,384	680	10,064	6,083
Tuttle Av	17th St	12th St	D	44,766	21,605	242	21,847	22,919
Tuttle Av	12th St	8th St	D	44,766	24,620	420	25,040	19,726
Tuttle Av	8th St	Fruitville Rd	D	44,766	26,092	457	26,549	18,217
Tuttle Av	Fruitville Rd	Ringling Bv	D	59,184	30,838	589	31,427	27,757
Tuttle Av	Ringling Bv	Browning St	D	59,184	32,344	1,074	33,418	25,766
Tuttle Av	Browning St	Bahia Vista St	D	59,184	19,840	1,028	20,868	38,316
Tuttle Av	Bahia Vista St	Hyde Park St	D	58,878	30,768	604	31,372	27,506
Tuttle Av	Hyde Park St	City Limits	D	58,878	30,157	575	30,732	28,146

Note: (1) LOS "D" for roads at LOS A, B, or C in 1999, LOS "E" for roads at LOS "D" in 1999, or estimated 1999 AADT* 1.15 for roads at LOS "E" or "F" in 1999.

Table 2 summarizes the initial review of the status of the interim TCEA level of service standards. This evaluation compares the 2003 AADT's and the "2003 AADT plus yet-to-be-built development" traffic volumes to the maximum allowable volumes on the TCEA study road network, and makes use of the updated roadway maximum service volumes. Documentation of the updated maximum service volumes can be found in Appendix B. The results indicated that the 2003 AADT traffic volumes alone exceed the adopted volume limits on:

- US-301 from Oak Street to US-41,
- US-41 from US-301 to Bahia Vista Street,
- Fruitville Road from US-301 to Lime Avenue,
- Fruitville Road from Shade Avenue to McIntosh Road, and
- Gulfstream Avenue from Sunset Drive to Cocoanut Avenue.

With the addition of traffic generated from the approved, but not yet built developments, traffic volumes exceed the adopted volume limits in the TCEA on the following additional road segments:

- US-301 from Ringling Boulevard to Oak Street,
- US-41 from Myrtle Street to Dr. Martin Luther King, Jr. Way,
- US-41 from Orange Avenue to US-301,
- Fruitville Road from Lime Avenue to Shade Avenue, and
- Orange Avenue from 10th Street to Fruitville Road.

In addition to the above identified critical segments, traffic volumes are approaching the maximum service volumes on:

- US-41 from University Parkway to Myrtle Street,
- Orange Avenue from Fruitville Road to Main Street,
- Osprey Avenue from Main Street to Ringling Boulevard,

Table 3

TCEA Deficient Roadway Segments

On Street	From	To	LOS Standard (1)	TCEA Maximum Allowable Volume	2003 Count Volume	Approved Unoccupied Developments	Total 2003 + Development Volume	Reserve Service Volume
301 US	Ringling Bv	Oak St	1.15	40,736	39,250	1,575	40,825	-89
301 US	Oak St	41 US	1.15	40,720	43,000	1,559	44,559	-3,839
41 US N	University Pkwy	Myrtle	1.15	42,441	40,000	2,387	42,387	54
41 US N	Myrtle	MLK Way	1.15	43,759	41,500	2,758	44,258	-499
41 US S	Orange Av	Osprey Av	1.15	41,822	40,000	1,868	41,868	-46
41 US S	Osprey Av	301 US	1.15	37,102	37,000	1,812	38,812	-1,710
41 US S	301 US	Bay St	D	63,409	63,500	3,073	66,573	-3,164
41 US S	Bay St	Bahia Vista St	D	63,409	63,500	2,959	66,459	-3,050
Fruitville Rd	301 US	East Av	1.15	34,164	35,000	3,402	38,402	-4,238
Fruitville Rd	East Av	School Av	1.15	34,131	35,000	3,301	38,301	-4,170
Fruitville Rd	School Av	Lime Av	1.15	34,019	35,000	4,448	39,448	-5,429
Fruitville Rd	Lime Av	Shade Av	1.15	38,783	35,000	4,845	39,845	-1,062
Fruitville Rd	Shade Av	Tuttle Av	1.15	43,648	44,500	4,799	49,299	-5,651
Fruitville Rd	Tuttle Av	Lockwood Ridge	1.15	54,369	56,000	3,932	59,932	-5,563
Fruitville Rd	Lockwood Ridge	Beneva Rd	1.15	49,767	56,000	3,688	59,688	-9,921
Fruitville Rd	Beneva Rd	Mimosa Cir	1.15	45,085	50,000	2,560	52,560	-7,475
Fruitville Rd	Mimosa Cir	McIntosh	1.15	45,049	50,000	2,468	52,468	-7,419
Gulfstream Av	Sunset Dr	US 41	D	31,429	31,500	1,757	33,257	-1,828
Orange Av	10th St	6th St	1.15	10,218	9,460	1,748	11,208	-990
Orange Av	6th St	Fruitville Rd	1.15	10,255	9,460	1,771	11,231	-976
Orange Av	Fruitville Rd	2nd St	1.15	9,452	7,647	1,660	9,307	145
Orange Av	2nd St	Main St	1.15	9,455	7,078	1,660	8,738	717
Osprey Av	Main St	Ringling Bv	1.15	7,444	6,223	291	6,514	930

Note: (1) LOS "D" for roads at LOS A, B, or C in 1999, LOS "E" for roads at LOS "D" in 1999, or estimated 1999 AADT* 1.15 for roads at LOS "E" or "F" in 1999.

The pertinent traffic data from these deficient and near-deficient segments have been excerpted from Table 2 and are summarized in Table 3.

Knowing that traffic counts can vary from year to year and day to day, the above identification of deficiencies was considered preliminary and the traffic volumes were reviewed further using the regression procedures (adopted recommendation by the City Commission from the 2001 Status report). The results of the regression-based AADT estimates for the deficient road segments are summarized in Table 4, and the regression analysis worksheets are provided in Appendix C.

Table 4

Regression-Based Re-Evaluation of Deficient Roadway Segments

On Street	From	To	LOS Standard (1)	TCEA Maximum Allowable Volume	Regression Based 2003 Volume	Approved Unoccupied Developments	Total 2003 + Development Volume	Reserve Service Volume
301 US	Ringling Bv	Oak St	1.15	40,736	39,250	1,575	40,825	-89
301 US	Oak St	41 US	1.15	40,720	45,500	1,559	47,059	-6,339
41 US N	University Pkwy	Myrtle	1.15	42,441	40,700	2,387	43,087	-646
41 US N	Myrtle	MLK Way	1.15	43,759	40,300	2,758	43,058	701
41 US S	Orange Av	Osprey Av	1.15	41,822	38,500	1,868	40,368	1,454
41 US S	Osprey Av	301 US	1.15	37,102	34,600	1,812	36,412	690
41 US S	301 US	Bay St	D	63,409	58,900	3,073	61,973	1,436
41 US S	Bay St	Bahia Vista St	D	63,409	58,900	2,959	61,859	1,550
Fruitville Rd	301 US	East Av	1.15	34,164	32,900	3,402	36,302	-2,138
Fruitville Rd	East Av	School Av	1.15	34,131	32,900	3,301	36,201	-2,070
Fruitville Rd	School Av	Lime Av	1.15	34,019	32,900	4,448	37,348	-3,329
Fruitville Rd	Lime Av	Shade Av	1.15	38,783	32,900	4,845	37,745	1,038
Fruitville Rd	Shade Av	Tuttle Av	1.15	43,648	43,900	4,799	48,699	-5,051
Fruitville Rd	Tuttle Av	Lockwood Ridge	1.15	54,369	53,500	3,932	57,432	-3,063
Fruitville Rd	Lockwood Ridge	Beneva Rd	1.15	49,767	53,500	3,688	57,188	-7,421
Fruitville Rd	Beneva Rd	Mimosa Cir	1.15	45,085	51,800	2,560	54,360	-9,275
Fruitville Rd	Mimosa Cir	McIntosh	1.15	45,049	51,800	2,468	54,268	-9,219
Gulfstream Av	Sunset Dr	US 41	D	31,429	34,900	1,757	36,657	-5,228
Orange Av	10th St	6th St	1.15	10,218	9,713	1,748	11,461	-1,243
Orange Av	6th St	Fruitville Rd	1.15	10,255	9,713	1,771	11,484	-1,229
Orange Av	Fruitville Rd	2nd St	1.15	9,452	7,647	1,660	9,307	145
Orange Av	2nd St	Main St	1.15	9,455	7,078	1,660	8,738	717
Osprey Av	Main St	Ringling Bv	1.15	7,444	7,185	291	7,476	-32

Note: (1) LOS "D" for roads at LOS A, B, or C in 1999, LOS "E" for roads at LOS "D" in 1999, or estimated 1999 AADT* 1.15 for roads at LOS "E" or "F" in 1999.

In Table 4, the 2003 AADT for the deficient roadway segments has been adjusted to reflect the regression-based 2003 AADT estimate. In all but 8 cases, the 2003 regression-based AADT estimates were lower than the individual 2003 count data indicated. As a result, several road segments are no longer considered deficient under both current traffic volumes and with addition of the approved development traffic volumes, but are anticipated to be deficient in the near future as a result of regional traffic growth, so the results of the regression analysis do not change the findings to a great extent. The general conclusion that can be drawn is that the set of road segments identified above, whether the actual count is applied or the regression-based volume is applied, are either deficient today, or will soon be deficient when the approved developments are built or regional traffic growth continues for a year or two.

The City should continue to support the use of the regression-based volume estimates for undertaking concurrency reviews because they are effective in stabilizing the identification and determination of deficiencies. An individual developer will feel mistreated if they are denied in one year and find if they had applied a year later, when a lower count had been recorded, they

might have been approved. However, analysts evaluating development proposals and future TCEA conditions should be aware of network or other changes that may stimulate legitimate changes in travel patterns because there is a risk in that the effects of bona-fide changes in travel patterns may be masked by the regression approach.

It also should be pointed out that just because specific segments of roads have been identified as failing does not mean that development within the TCEA will cease. These roads will limit development only if the net traffic from a proposed development amounts to over 4.5 percent of the road's maximum service volume. Thus, by establishing the threshold of 4.5 percent of the road's maximum service volume to identify significant impacts, the current TCEA standards impose limitations only on development proposals significantly large in traffic generation to consume 4.5 percent or more of a deficient road's maximum service volume. Most developments reviewed by City staff in recent years were small enough to not meet that threshold of impact.

Current TCEA/concurrency rules do not limit the severity of congestion allowed on downtown area roads. Only if a development is large enough to consume at least 4.5 percent of the service volume of a road that is deficient must that development deal with the congestion/concurrency issue. But, many "sub-4.5 percent" developments can still be approved which will increase volumes and congestion beyond the level of service standard. Thus, only the larger developments are likely to encounter restrictions due to traffic congestion/concurrency issues. Further, "regional" development will continue to add traffic to roads adjacent to the downtown area, increasing congestion.

The desire for continued economic development downtown and for congestion on the roads that lead into downtown conflict with each other. If moderate congestion is acceptable, and for growth in the Downtown area to continue, the City should continue to pursue strategies such as a comprehensive Transportation Demand Management (TDM) and Transportation System Management (TSM) programs to alleviate severe congestion on these roads and consider alternative level of service criteria that will provide the mobility and allowance for growth that is acceptable to the community.

Solutions to reduce congestion at specific locations (e.g. US-301 at Fruitville Road, US-41 from US-301 southward, and US-41 at Fruitville Road) are probably beyond the means of most individual developers to address. Plans to improve some of these "gateways" to downtown are being pursued through various means, and the status of these initiatives are summarized in the following section.

Status of Planned Transportation Improvements

With the adoption of the TCEA, a series of programs and improvement initiatives were identified for implementation to preserve multi-modal mobility for the downtown area. The programs included a variety of measures, which are summarized in Table 5. The status of these initiatives is also summarized in the table. Many of the initiatives have been implemented, while some are still in the design or planning stage. Some of the implemented initiatives have proven to be untenable, replaced by other improvements, or have been discontinued. One of the initiatives, a study of mobility in the downtown area (Downtown Sarasota Mobility Study), has been completed and has given rise to additional initiatives which the City is pursuing. These additional initiatives, and their status, are summarized in Table 6.

In the City's recently completed Downtown Sarasota Mobility Study, a recommendation to reduce US-41 (Bayfront Drive) from four lanes to two travel lanes was not endorsed by the City Commission. The implementation of traffic roundabouts at several key intersections, such as US-41/Gulfstream Avenue, US-41/Fruitville Road, Ringling Boulevard/Palm Avenue, and Ringling Boulevard/Pineapple Avenue, has been endorsed by the City Commission, and design studies for US-41/Frutiville Road and US-41/Gulfstream Avenue have been initiated as of December, 2004.

Table 5

Status of TCEA Transportation Improvements and Studies

Project Name	Description	Year Due	Facility Juris.	Implem. Agency	Agency Contact	Status as of 12/31/2004
U.S. 41 - 6th Street to 10th Street	Remove all median cuts and resurfacing Gulfstream Avenue to 10th Street.	99 - 00	FDOT	FDOT	Bob Wade, Florida DOT	Completed 2001
U.S. 41 at 6th Street	Intersection improvements including pedestrian crosswalks, decorative paving, lighting and safety lighting.	99 - 00	FDOT	City (PW)	Duane Mountain, City of Sarasota	Done
U.S. 41 at 6th Street	Install signage to encourage eastbound traffic to use 6th Street; no protected southbound to eastbound left-turn during PM peak; lengthen southbound to eastbound turn bay.	99 - 00	FDOT	FDOT	Bob Wade, City of Sarasota	Done except for signage
Downtown Circulator	SCAT has purchased 4 trolley-look buses for use in the CRA. Designation of final routes and allocation of operating funds is to be determined.	99 - 00	SCAT	SCAT	Phil Lieberman, SCAT	Implemented, not cost effective, discontinued
Fruitville Road at Lemon Avenue	Intersection improvements including pedestrian crosswalks, decorative paving, lighting and safety lighting.	99 - 00	FDOT	City / County	Dennis Daughters, P.E., City of Sarasota	Not Done
U.S. 41 at 10th Street	Install additional southbound to eastbound left-turn lane.	00 - 01	FDOT	City	Dennis Daughters, P.E., City of Sarasota	Construction scheduled in 2005/2006
U.S. 41 at Fruitville Road	Extend inside westbound to southbound left-turn lane, install additional (2nd) southbound to eastbound left-turn lane.	01 - 02	FDOT	City	Dennis Daughters, P.E., City of Sarasota	Replaced with round-about, per Downtown Master/Mobility Plan
Osprey Avenue at U.S. 41	Addition of a second southbound to eastbound left-turn lane.	01 - 02	FDOT	City	Dennis Daughters, P.E., City of Sarasota	Construction scheduled for May, 2005
U.S. 41 - Gulfstream Avenue to Fruitville Road	Extend inside southbound to westbound right-turn lane.	02 -03	FDOT	Core Development	Kevin Daves, Core Development	Done Partially (Extended to the North Boundary of the Ritz-Carlton)
U.S. 41 at Gulfstream Avenue	Addition of a third northbound lane to westbound left-turn lane.	03 - 04	FDOT	FDOT	Dennis Daughters, P.E., City of Sarasota	Replaced with round-about, per Downtown Master/Mobility Plan
Gulfstream Avenue - U.S. 41 to Sunset Drive	Addition of a third westbound lane.	03 - 04	FDOT	Core Development	Kevin Daves, Core Development	Implemented with Ritz-Carlton Development in 2005
U.S. 41 - Osprey Avenue to U.S. 301	Addition of a third southbound lane through Luke Wood Park creating a continuation of 3 lanes from Palm Avenue to U.S. 41.	03 - 04	FDOT	City	Dennis Daughters, P.E., City of Sarasota	Part of FDOT US 301 improvment project scheduled in FY 2007/2008
Traffic Signal Upgrade by FDOT and City	Replace outdated computer equipment and change communication lines from copper to fiber optics.	99 - 00 & 03 - 04	FDOT / City	FDOT/City	Chuck Lovell, Florida DOT / Dennis Daughters, P.E., City of Sarasota	Computers and training done, but no schedule for fiber-optics.
U.S. 301 Corridor Study by FDOT	Widen to 6 lanes from 12th Street to University Parkway and implement Transportation Demand Management (TDM) from U.S. 41 to 12th Street.	99 - 00 & 05 - 06	FDOT	FDOT	PBS&J Dianne Quigley ((813) 877-7275)	Study completed, design in progress, construction scheduled for FY 2007/2008.
Transportation Management Organization (TMO)	Establish a TMO to facilitate TDM and advise the City on matters relating to developer certification, assessments and compliance with TCEA mandates.	99 - 00	City	City	Dennis Daughters, P.E., City of Sarasota	TMO was established, but judged ineffective. Terminated in 2004.
Downtown Master Plan	Analyze transportation capacity issues, parking facilities, pedestrian and bicycle circulation, mass transit and way-finding signage within the CRA.	00 - 01 to ?	City	City	John Burg, City of Sarasota	Study completed in April, 2004. Additional improvments recommended. The way-finding study is not completed and scheduled for 2005
Pedestrianized Intersection Master Plan	Improvement of intersections and mid-block pedestrian crossings throughout the City to enhance pedestrian safety and aesthetics.	01 - 02	City	City	Dennis Daughters, P.E., City of Sarasota	Program to improve 5-6 locations per year funded through tax increment financing. First six along Fruitville Rd in design.

Table 6

Downtown Sarasota Mobility Study Action Matrix

Project Number	Project Name	Description	Commission Action	Action to be taken by City Staff	Modifications/Comments	Status
1	Narrow Bayfront Drive *(Two Lane Roadway)*	Narrow the existing four-lane divided roadway to two travel lanes.	Denied 3/15/2004	Delete from the Implementation Handbook.	City Commission determined not to pursue this project at their March 15, 2004 meeting.	To delete from the Implementation Handbook.
2	US 41 (Bayfront Drive) & Gulfstream Avenue *(Three-leg Multi-lane Roundabout)*	Design and construct a three-leg multi-lane roundabout at the intersection of Bayfront Drive and Gulfstream Avenue.	Approved 4/15/2004	Negotiate with SLAB, LLC to utilize their funding obligations along with any potential funding from FDOT to go into the design phase and to construct the roundabout. This project will be constructed in phases. These phases are consistent with the Mobility Now proposed projects.	Phase 1 - (2004) Close or partially close the eastern leg of Gulfstream Avenue/US-41 intersection and re-time the signal to improve the intersection level of service (LOS).	Completed in January 2005.
					Phase 2 - (2006) Construct left-turn lanes from US-41 onto Main Street and Marina Plaza (southbound to eastbound & northbound to westbound).	Construction will start by November 2006. A field survey has been initiated for the area.
					Phase 3 - (2007) Create a continuous west-bound lane on Gulfstream Avenue from US-41 to Sunset Drive, improve right-turn and install an 'On-Calf' pedestrian button.	A field survey and a preliminary design for the roundabout has been initiated.
					Phase 4 - (2010) Construct the roundabout at the intersection after the design is approved by the City of Sarasota Commission and FDOT.	A field survey and a preliminary design for the roundabout has been initiated.
3	US 41 & Fruitville Road *(Four-leg Multi-lane Roundabout)*	Design and construct a four-leg, multi-lane roundabout at the intersection of US 41and Fruitville Road.	Approved 4/15/2004	Negotiate with SLAB, LLC to utilize their funding obligations, and the Quay developer if they come forward, to provide right-of-way as needed for the roundabout, along with any potential funding from FDOT to go into the design phase and to construct the roundabout.	A potential three-leg roundabout should be looked at. Investigate a roundabout design at US 41 & 10th Street intersection during the design phase of the US 41 & Fruitville Road roundabout.	Design study and a preliminary design for the roundabout has been initiated.
4	US-301 & Fruitville Road Intersection	Maintain signalized intersection along with eleven (11) specifically identified projects.	Approved 4/15/2004	Investigate sources for funding within the next 18-months.	Actual construction can occur after securing funding and based on the rate of development in the area.	Funding is pursued through the MPO.
5	Ringling Boulevard *(Single Lane Roundabouts)*	Design and construct 2 single lane roundabouts at the intersections of Ringling Boulevard & Palm Avenue and of Ringling Boulevard & Pineapple Avenue.	Approved 4/15/2004	Investigate sources for funding within the next 18-months.	Actual construction can occur after securing funding and based on the rate of development in the area. To be constructed before a multi-lane roundabout as a trial for Sarasota drivers to test driver's ability of handling roundabouts.	Funding is pursued through the MPO Congestion Management System (CMS) funds.
6	Bicycle Network	Improve specifically identified segments of downtown area bicycle lanes.	Approved 4/15/2004	Develop projects to improve the LOS for the deficient segments. 1st construction improvement to be completed within 12 months.	Funding is available in the City's Capital Improvement Program (CIP).	The Bayfront Multi-Use Recreational Trail design has been completed, construction is anticipated to start on fall of 2005. The West Bayfront MURT is in the preliminary planning stage.
7	Pedestrian Network	Improve specifically identified segments of downtown area pedestrian network.	Approved 4/15/2004	Develop projects to improve the LOS for the deficient segments.	Very few "new" sidewalks will be required to be constructed. The MURT is in the final design stage and will be under construction this calendar year 2004.	A preliminary design has been initiated by Public Works Department for pedestrian "Sleeves" on Fruitville Road .
8	Pedestrian Sleeves	Add pedestrian amenities to un-signalized and signalized intersections. (US 41 & 1st Street un-signalized).	Approved 4/15/2004	Work with FDOT to gain approval for pedestrian sleeves on State roadways. First one to be constructed within 12 months.	This is a takeoff on the staff-initiated "Pedestrianized Intersections" that was presented to and approved by the City Commission in April 1999. Staff should consider pedestrian over-passes within the US 41 & 1st Street un-signalized intersection.	Discussion with FDOT is on going as part of the roundabout design study.
9	Dedicated Bus Lane *(from Fruitville Road to Dr. Martin Luther Jr. Way)*	Create a designated bus lane on Cocoanut Avenue from Dr. Martin Luther King Jr. Way to Fruitville Road.	Approved 4/15/2004	Work with SCAT and MPO staff to investigate sources for funding within the next 18-months.	Actual construction can occur after securing funding and based on the rate of development in the area. City Commission approved this recommendation in a 3 to 2 vote. Staff should continue looking at the CSX rail line as an alternative.	On-going.
10	Bus Queue Jump Lanes	Convert turn lanes at Fruitville Road and convert northbound and southbound two-way turn lane on US-301.	Approved 4/15/2004	Work with SCAT and MPO staff to investigate sources for funding within the next 18-months.	Actual construction can occur after securing funding and based on the rate of development in the area. City Commission approved this recommendation in a 4 to 1 vote.	On-going.
11	Redesignate US 41 & SR 789	Redesignate and adopt redevelopment strategy	Denied 3/15/2004	To delete from the Implementation Handbook.	City Commission determined not to pursue this project at their March 15, 2004 meeting.	To delete from the Implementation Handbook.
12	TCEA Policy	Continue a TCEA type policy and develop a multi-modal fee structure for use to implement the Comprehensive Downtown Mobility Initiative.	Approved 4/15/2004	Pursue a detailed feasibility study to determine the best program that will fit the city's needs. It could be a Comprehensive Downtown Mobility Initiative consisting of Transportation System Management (TSM) and Transportation Demand Management (TDM).	Staff will continue to use the existing TCEA standards until we develop and approve a detailed program for the downtown area. The program's intent will be to relieve some of the rigid standards of concurrency and substitute it with a concurrency standards that will be developed specifically to fit the future need of the Downtown area. The City will revise the existing TCEA standards into cost effective multi-modal standards that will help the City implement the Downtown Master Plan goals and objectives.	Will present the TCEA Status Report to the City Commission in July 2005.

Summary and Recommendations

The interim roadway level of service standards applicable to the TCEA have allowed the City to continue to approve qualifying developments while other measures to provide adequate mobility are developed and considered. However, limitations of these interim standards will be encountered only by developments large enough to have "significant" impacts on certain roads. While some capacity for additional growth has been provided by the interim level of service standards, this "capacity" is only "on paper." It allows for further growth within the TCEA, but the actual roadway capacity remains unchanged, except where improvements have been implemented. Further, some developers modify or limit development plans to avoid significant impacts to deficient roadway sections, a practice which may not be consistent with the City's objectives for TCEA development. As a result, in exchange for additional developments (regional and local), the City is accepting increased delay and congestion near and within the TCEA.

Traffic on roads within and providing access to the downtown area has grown faster than was expected, resulting in higher than expected levels of congestion. In light of the more rapid traffic growth, the City should review and reconfirm or adjust its strategies for providing access to the downtown area.

In consideration of the City's on-going program to further define and update its TCEA, the following recommendations are made. These recommendations should be addressed through the on-going operations of the City's Engineering Department, or through amendments to the City's Comprehensive Plan:

- Discuss the acceptability of current and future levels of congestion and develop level of service criteria and development regulations that are responsive to and consistent with the goals of the TCEA,
- Identify funds for and implement the improvements identified in the TCEA technical support documents and Downtown Sarasota Mobility study,

- Evaluate the adequacy of the currently identified downtown access strategies relative to long-term growth, and the roles of existing and new developments, the State, County, and City in funding the needed improvements and programs,
- Adopt level of service measurements and standards for all modes of transportation, including pedestrians, bicycles, and public transportation,
- Use the regression-based traffic volumes as a basis for estimating AADT data for purposes of TCEA concurrency reviews.

APPENDIX 5

NEWTOWN
TRANSPORTATION CONCURRENCY
MANAGEMENT AREA

Submitted By: THE CORRADINO GROUP

JUNE 2006

EXECUTIVE SUMMARY

Section 1 TCMA Justification

The Newtown Comprehensive Redevelopment Plan adopted by the City Commission on October 2002 seeks to revitalize a well-defined urban area illustrated in Figure 1 through focused regulatory and policy strategies that promote economic redevelopment. These regulations and policies could address services such as:

- Administration
- Economic Development
- Housing
- Land Use
- Transportation Modes
- Community Health, Safety, and Welfare
- Infrastructure
- Urban Design

Economic redevelopment of the Newtown area is consistent with the overall goals of the City of Sarasota. The transportation strategy that the City of Sarasota desires to promote this redevelopment is the designation of the area as a Transportation Concurrency Management Area (TCMA). The regulatory methods and strategies to create a TCMA must be clearly set forth in policy statements in the City of Sarasota Comprehensive Plan.

The State of Florida has stated the intent of a TCMA in Section 163.3180(7), Florida Statutes, which states:

> *In order to promote infill development and redevelopment, one or more transportation concurrency management areas may be designated in a local government comprehensive plan. A transportation concurrency management area must be a compact geographic area with an existing network of roads where multiple, viable alternative travel paths or modes are available for common trips. A local government may establish an areawide level-of-service standard for such a transportation concurrency management area based upon an analysis that provides for a justification for the areawide level of service, how urban infill development or redevelopment will be promoted, and how mobility will be accomplished within the transportation concurrency management area. The state*

> *land-planning agency shall amend chapter 9J-5, Florida Administrative Code, to be consistent with this subsection.*

The administrative requirements to establish a TCMA are established in section 9J-5.0055(5), Florida Administrative Code, Concurrency Management System (5) Transportation Concurrency Management Areas, which focuses on the development of an areawide level of service that is supported by data and analysis in the Sarasota Comprehensive Plan, which will:

- Demonstrate that the TCMA is compatible with the other elements of the Comprehensive Plan.
- Justify size and boundaries of TCMA.
- Demonstrate the TCMA contains integrated and connected network of roads.
- Demonstrate basis for establishing area wide LOS.
- Demonstrate the basis for the establishment of the Area wide LOS standards and determine the existing and projected transportation service and facility requirements to maintain the LOS.
- Demonstrate such programs will support infill development.
- Demonstrate planned roadway improvements and alternative transportation efforts that will accomplish mobility within the TCMA.

The following summarizes the data and analysis as it demonstrates compatibility with, and fulfillment of the prescribed criteria.

1.1 Demonstrate Compatibility with the Comprehensive Plan

"The establishment of a TCMA in the Newtown Redevelopment Area is not in conflict with any goals or objectives in the City Plan."

The goal of this criterion is to ensure that the areawide level of service standards are established as policies in Sarasota's Comprehensive Plan, and the concept is supported by the existing goals, objectives and policies. Reviews of the entire Sarasota Comprehensive Plan and Newtown Redevelopment Area Plan have been undertaken. This can be reviewed in greater detail in Section 3.3 of this report.

Section Two of this document includes the Amendment to the Comprehensive Plan Transportation Section. Action Strategies and objectives have been prepared for inclusion. These are in conformance with the requirements of F.S. 163.3180(7), FAC Section 9J-5.0055 (5) and all other relevant state mandates. These action strategies and objectives reflect a proposed strategy to provide the transportation facilities and services necessary to meet the transportation needs of the TCMA development as established by the City. Herein are reviews of the general compatibility

with the Comprehensive Plan, and more specific review of the Newtown Redevelopment Plan and the Sarasota City plan focused on their most relevant elements of land use and transportation.

- By the utilization of an areawide level of service, multimodal capacity will be provided to the Newtown Redevelopment Area. This will allow, and incentivize redevelopment that will enable a safe, attractive and functional neighborhood to grow. It is a possibility, that without a TCMA, redevelopment may be hampered due to the eventual lack of transportation concurrency. This directly coordinates with the Neighborhood Plan, the Transportation Plan and the Future Land Use Plan.

- A vital neighborhood, with a mix of commercial, education and residential activities will lead to a safe and aesthetically pleasing neighborhood which will encourage compatible land uses, and be an asset to the City and region as a whole. Redevelopment of Newtown will protect and enhance its historic identity, while striving to provide opportunities for affordable housing. This coordinates with the Future Land Use Plan and the Historic Preservation Plan.

- The multimodal nature of the future transportation system as it affects Newtown will serve to maintain the already high quality of the recreation and open spaces within the neighborhood through increased pedestrian and bicycle activity, gain through the development of higher density and concentrated mixed uses in the area. This coordinates with the Transportation Plan and the Recreation and Open Space Plan.

- Vitality in the Newtown area is encouraged by the provision of transportation capacity that will have an impact in meeting the social and economic needs of the city. This is accomplished through the mix of uses and enhancements as a destination. IN today's Florida, the cost of urban sprawl is diminishing the quality of life at an ever increasing pace. Redevelopment of neighborhoods in close proximity to urban centers will have several benefits. Among them is the ability to maintain development deep inside an urban service area. This TCMA is in coordination with the City's Future Land Use Plan and serves to enhance and encourage its realization.

- The TCMA is being coordinated between the Planning Department and the Engineering Department of the City of Sarasota. It has been developed with an extensive public involvement process. In addition, it is being coordinated with the Florida Department of community Affairs, the Florida Department of Transportation, District 1, Sarasota County Departments and the Sarasota/Manatee Metropolitan Planning Organization.

- Each of these groups has been involved in the planning and development of the project. This coordinates with the Governmental Coordination Plan and the Neighborhood Plan.

- As a result of the TCMA, an Automated Concurrency Management System will be developed that will assist in tracking remaining capacities. Tracking the capacities and monitoring the TCMA annual capital improvements will be needed for development within the area. This coordinates with the Capital Improvements Plan.

The basic tenet of a Transportation Concurrency Management Area is to support infill and redevelopment within well defined areas through the utilization of an integrated and connected network of roads. This process will promote an areawide level of service and increase uses of multimodal efforts to accomplish mobility within the area. This overall TCMA goal is not in conflict with any goal or objective in either plan. Furthermore, the proposed TCMA is supportive of both the Sarasota City Plan and Newtown Comprehensive Redevelopment Plan. This TCMA assists in accomplishing the goals and objectives of both plans. The amendment to the City of Sarasota comprehensive plan's Transportation Chapter contains TCMA Objectives and Action Strategies, which are supportive of these plans and are enumerated herein.

1.2 Justification of Boundaries

Detailed accounting of this can be referenced in the Data and Analysis Section, Chapter 1. As the purpose of a Transportation Concurrency Management Area is to promote infill development and redevelopment, it must be a compact geographic area with an existing network of roads where multiple, viable alternative travel paths or modes are available for common trips.

The project team, acting as the Steering Committee, and consisting of the staff from the Newtown Redevelopment Department, the City Engineering Department, the City Planning Department and The Corradino Group have developed a boundary for the TCMA areas. This boundary consists of the area bound by the areas 100 feet to the north of Myrtle Street, the City Boundary to the east, 100 feet to the South of 10th Street, and 100 feet to the west of U.S. 41.

These boundaries have been chosen because they completely encapsulate the Newtown Redevelopment Area. The boundary was established along 10th Street to the south, because, when paired with 12th Street, it is a major east/west corridor. 10th Street facilities east/west traffic flow between U.S. 41 and Orange Avenue while 12th Street facilities east/west traffic flow between U.S. 301 and Orange Avenue.

1.3 Basis for Establishment of Areawide Level of Service / Integrated and Connected Roadway Network

In section 3.2 of this report: Integrated and Connected Network of Roads, an inventory of the TCMA roadway network including quality/level of service variables and bicycle and pedestrian facilities for the major road network was undertaken. A focus was to assemble available information and traffic count data from the City of Sarasota, Sarasota County, and FDOT to document existing transportation conditions in the TCMA study area. The bicycle and pedestrian facilities on the major roadway network were inventoried. An evaluation of existing and future transit service was undertaken, and potential revenue streams for transportation planning funding were examined.

Level of Service

The basis for the establishment of an Areawide level of service stems from the fact that today and in the future, several individual links in the study area, particularly along Dr. Martin Luther King Jr. Way (MLK) U.S. 41 and U.S. 301 exceed level of service standards, and as such, may preclude further redevelopment or infill development in the area. The State provides that when this condition occurs a Transportation Concurrency Management Area may be applied for.

The areas surrounding the TCMA display varying traffic conditions. One half-mile south of the TCMA is downtown Sarasota. Just north of the area is the Airport. Major residential center lie on the outskirts and utilize the regional roads to move through the TCMA to their destinations. Because of the density of the grid network, most of the north-south streets operate within acceptable levels. Only U.S. 301 and U.S. 41 operate at congested levels. As the street network moves through the TCMA the grid density decrease with fewer north-south streets. Observation of the level of service map indicates a high level of driver knowledge of the street layout as traffic moves through the area. Through the TCMA, congested and significantly congested segments reflect drivers moving randomly through the grid. MLK Way seems to be strongly impacted by drivers having to move through the grid to continue their northbound route. North of MLK the grid is dramatically reduced. North of Myrtle, the north-south network is reduced to only three streets: U.S. 441, Old Bradenton Road and U.S. 301. At this point all through arterials exhibit congested or significantly congested conditions.

It is apparent from recent City counts that the majority of the facilities within the TCMA are currently operating below their capacity. Only a short segment of Martin Luther King Jr. Way is operating near capacity and a segment of U.S. 41 is over capacity during the peak period.

2004 BASE YEAR										
Street	**Segment**	**AADT**	**Peak Volume**	**k**	**Peak Capacity LOS E**	**Two-Way Lanes**	**Peak Capacity per Lane**	**Peak Capacity LOS D**	**Remaining Peak Capacity @LOS D**	**Peak V/C Ration @ LOS D**
10th Street	US 41 to Orange	6,525	718	0.11	3,120	4	780	2,808	+2,090	0.26
10th Street	Orange to US 301	3,956	435	0.11	1,184	2	592	1,066	+631	0.41
12th Street	Orange to US 301	7,187	654	0.09	3,120	4	780	2,808	+2,154	0.23
17th Street	US 41 to Central	1,960	204	0.10	2,250	4	563	2,027	+1,823	0.10
17th Street	Orange to US 301	1,960	204	0.10	3,120	4	780	2,808	+2,604	0.07
Central Ave.	10th to 17th	2,930	325	0.11	1,184	2	592	1,066	+741	0.30
Central Ave.	17th to MLK	4,068	452	0.11	1,184	2	592	1,066	+614	0.42
Central Ave.	MLK to Myrtle	4,068	452	0.11	1,184	2	592	1,066	+614	0.42
Cocoanut Ave.	10th to 17th	2,508	278	0.11	1,800	2	840	1,512	+1,234	0.18
Cocoanut Ave.	17th to MLK	2,456	273	0.11	1,184	2	592	1,066	+793	0.26
MLK Way	US 41 to Bradenton	4,508	410	0.09	1,184	2	592	1,066	+656	0.38
MLK Way	Bradenton to Cocoanut	10,108	920	0.09	1,480	2	740	1,132	+412	0.69
MLK Way	Cocoanut to Central	2,508	278	0.11	1,184	2	592	1,066	+788	0.26
MLK Way	Central to Orange	2,456	223	0.09	1,184	2	592	1,066	+843	0.21
MLK Way	Orange to Osprey	11,652	1,060	0.09	1,184	2	592	1,066	+6	0.99
MLK Way	Osprey to US 301	8,598	782	0.09	1,184	2	592	1,066	+284	0.73

2004 BASE YEAR										
Street	**Segment**	**AADT**	**Peak Volume**	**k**	**Peak Capacity LOS E**	**Two-Way Lanes**	**Peak Capacity per Lane**	**Peak Capacity LOS D**	**Remaining Peak Capacity @LOS D**	**Peak V/C Ration @ LOS D**
MLK Way	Us 301 East	8,598	782	0.09	1,184	2	592	1,066	+284	0.73
Myrtle	US 41 to Bradenton	5,469	498	0.09	1,554	2	777	1,399	+901	0.36
Myrtle	Bradenton to 301	8,776	799	0.09	1,480	2	740	1,332	+533	0.60
Bradenton Rd.	MLK to Myrtle	5,154	560	0.11	1,480	2	740	1,332	+772	0.42
Orange Ave.	10^{th} to 17^{th}	9,375	1,022	0.11	1,480	2	740	1,332	+310	0.77
Orange Ave.	17^{th} to MLK	6,492	708	0.11	1,480	2	740	1,332	+624	0.53
Orange Ave.	MLK to Myrtle	2,176	237	0.11	2,250	2	880	1,584	+1,347	0.15
Osprey Ave.	MLK North	2,739	304	0.11	1,480	2	740	1,332	+1,028	0.23
US 301	17^{th} to Myrtle	41,437	4,680	0.11	5,060	4	880	3,168	-(1,512)	1.48
US 301	17^{th} South	39,000	3,822	0.10	4,920	4	880	3,168	-(654)	1.21
US 41	10^{th} to 17^{th}	32,215	3,157	0.10	6,670	4	880	3,168	+11	1.00
US 41	17^{th} to Myrtle	36,379	3,415	0.09	3,390	4	848	3,053	-(362)	1.12

1.4 Integrated and Connected Network of Roads

The facilities within the area operate most logically in conjunction with one another and effectively service similar origins and destinations. Myrtle Street acts as the redevelopment area boundary as well as a natural boundary with limited through access to the north. Both U.S. 41 and U.S. 301 are regional facilities that carry significant through traffic past the area, and act as logical boundaries. The interior of the neighborhood provides an interconnected network of roads that facilitate traffic flow both to the interior destinations of the area, as well as through the neighborhood, providing mobility alternatives and connecting Downtown Sarasota with points north and east. The TCMA is not adjacent to any Strategic Intermodal System (SIS) facility.

A regional grid system serving the north portion of the City of Sarasota crosses the TCMA. The larger grid pattern consists of three north-south facilities - US-41, US-301, and Orange Avenue and three east-west facilities - Myrtle Street, Dr. Martin Luther King Jr. Way, and 10th Street. The local grid system is split by the Seaboard Coast Line (CSX) tracks that lie in a north-south direction between Central Avenue and Orange Avenue. Four east-west streets cross the CSX tracks - 10th Street, 19th Street, Dr. Martin Luther King Jr. Way and Myrtle Street. All of the other east-west streets lying to the east of the CSX tracks terminate at Orange Avenue. The east-west streets on the west side of the CSX tracks terminate at Central Avenue. 12th Street and 17th Street are the major facilities on the east side of the CSX tracks.

The north-south streets display connectivity and continuity in a similar manner. US 41, Cocoanut Avenue, Central Avenue, and Orange Avenue connect the TCMA area to downtown Sarasota. US 301 skirts the eastern edge of the TCMA and ties into US 41 east of downtown Sarasota. US 41, Old Bradenton Road, and US301 all extend north of the TCMA into Manatee County. Old Bradenton Road branches off of US 41 just to the south of Dr. Martin Luther King Jr. Way. The other major north-south street in the study area is Osprey Avenue.

1.5 Determine Existing and Projected Transportation Service and Facility Requirements to Maintain the LOS

Areawide Level of Service is maintained through currently planned efforts in all planning horizons. It is known that currently individual links surpass level of service standards in the TCMA. Under the TCMA philosophy, this is accepted, hence the provision of an areawide level of service to incentivize infill and redevelopment. In the Data and Analysis section of this report, Chapter 3: Assessment of Existing and Projected Needs, a detailed examination of these issues is undertaken. A methodology for how projections and model runs were made has been presented, a screenline analysis to attain the remaining areawide capacity at the appropriate level of Service (LOS D) has been performed, and an examination of facility needs to maintain areawide level of service has been completed. This was based on utilization of the build out scenarios of the land use plan, and the projection of traffic count data to 2015 and 2030 in coordination with the MPO LRTP Model. A determination is made as to, if an areawide capacity will exist in the network today, in 2015 and 2030 with the implementation of the redevelopment plan. For this project, an examination of traffic was conducted on project area links for the existing condition, 2015 and 2030, with and without the project. The impact of the project was determined. Extraordinarily

impacted roadways were identified. Areas of heightened demand and bottlenecks were identified. Micro simulation of various intersections was performed and mitigation measures were detailed. (See: Section 3, Chapter 3)

Existing Condition

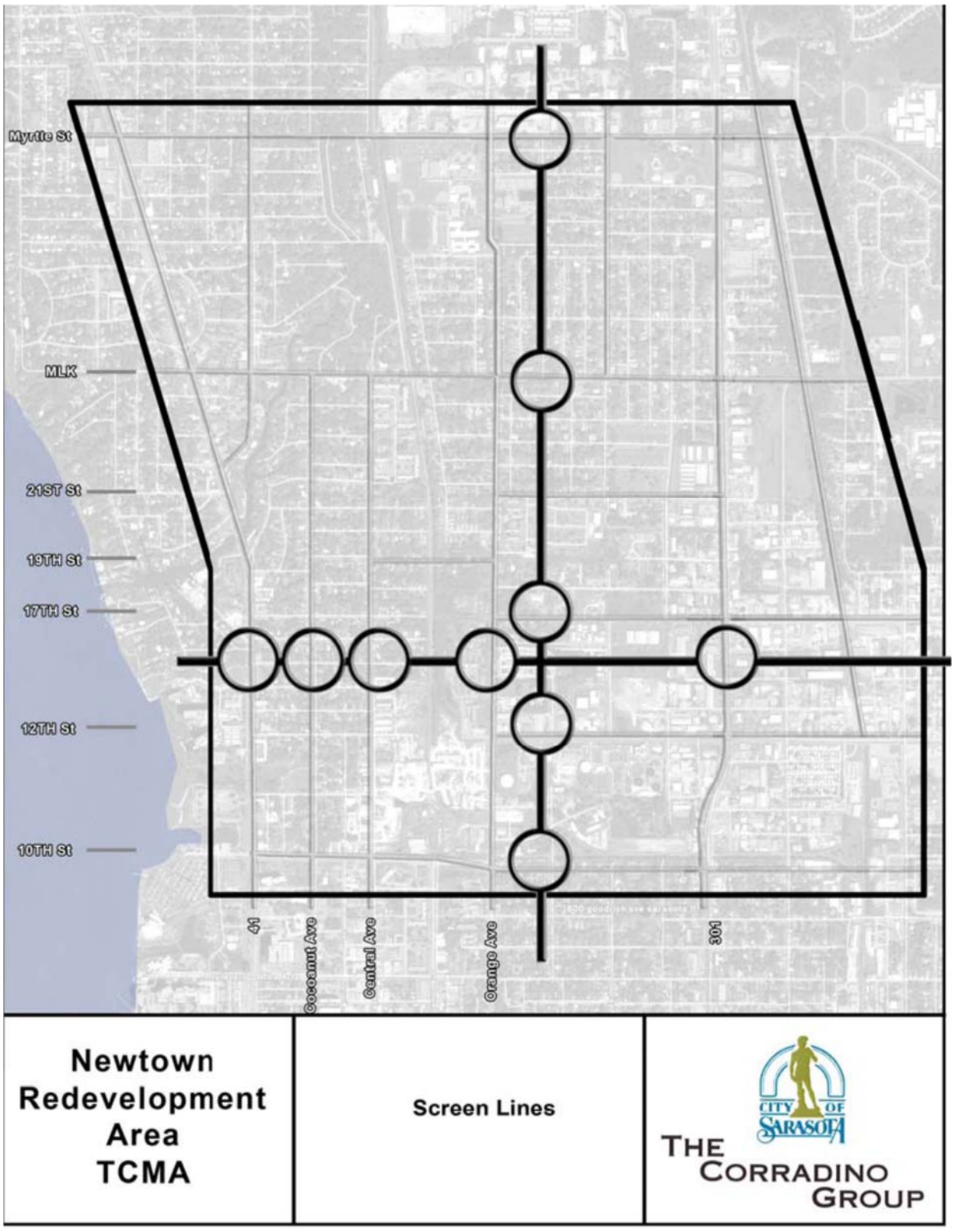
In the existing condition five links exceed LOS D. These are Dr. Martin Luther King Jr. Way (MLK) between Orange and Osprey, and each link on US-41 and US-301. All other links in the study area function better than the acceptable level of service. This points to the need for the areawide level of service.

Areawide Level of Service

Areawide level of service is the essence of a Transportation Concurrency Management Areas. The concept is that, in order to provide an incentive for infill development or redevelopment in particular areas, that certain links may not be able to meet level of service standards. The acknowledgement of these links is made and accepted. The thought that travel patterns through an area will use various paths to common origins and destinations dictates that as long as capacity is maintained in the area, efficient use of the system can be made. As roadway capacities are built out, transit can be incentivized and enhanced.

Screen Lines

To arrive at an areawide level of service screen lines have been used to measure capacity at certain points in the network. For east / west capacity a line was drawn across those facilities just east of Orange Avenue. For north / south capacity a line was drawn across those facilities between 12th Street and 17th Street. Remaining capacities were summed at the points where the roadways were intersected by the screen lines.

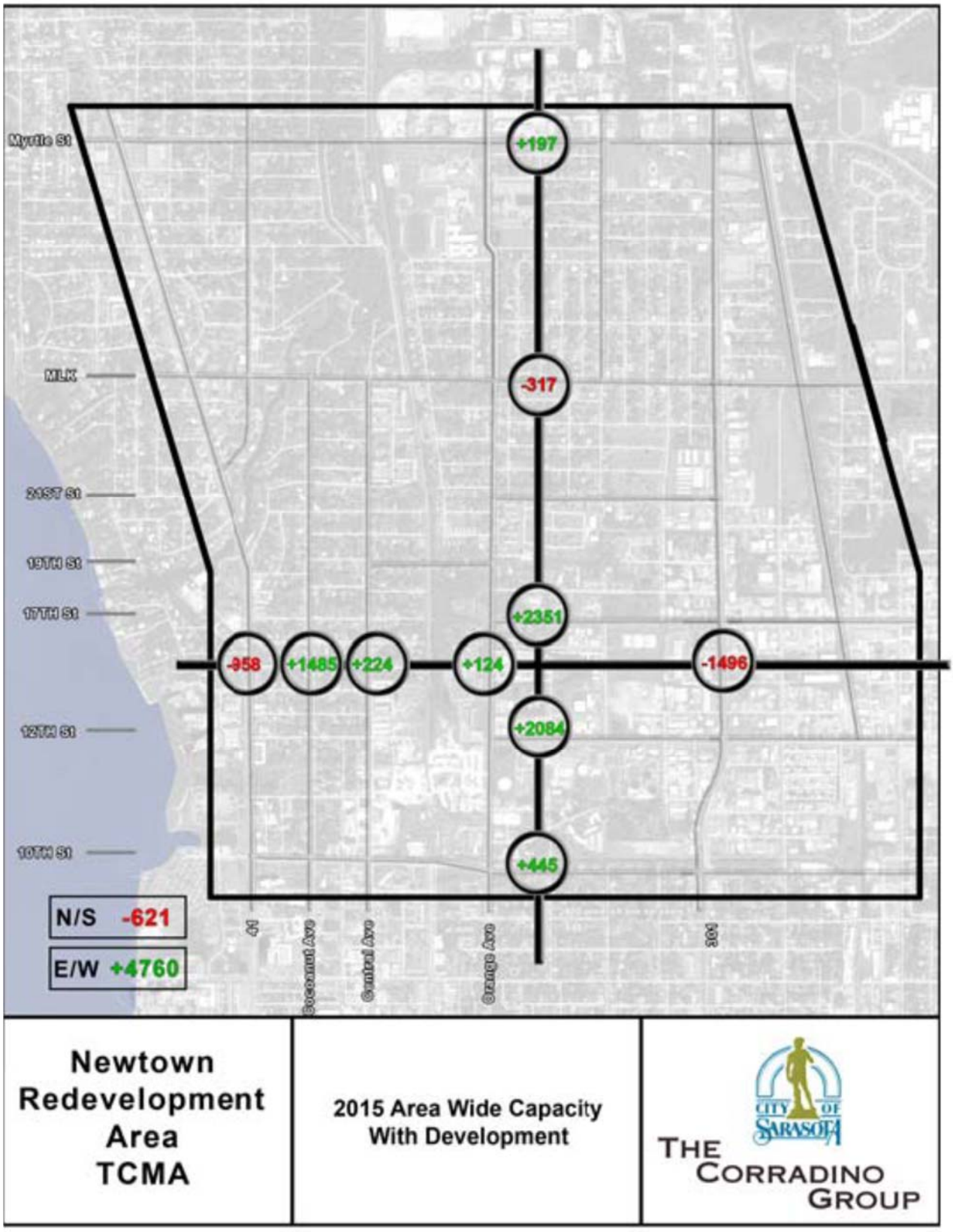

Myrtle St
MLK
21ST St
19TH St
17TH St
12TH St
10TH St
41
Cocoanut Ave
Central Ave
Orange Ave
301
Newtown Redevelopment Area TCMA
Screen Lines
CITY OF SARASOTA
THE CORRADINO GROUP

Screen Line Analysis Existing Condition		
North / South		
US 41	10th to 17th	11
Cocoanut Ave.	10th to 17th	1234
Central Ave.	10th to 17th	741
Orange Ave.	10th to 17th	310
US 301	17th South	-654
TOTAL		1642
East / West		
Myrtle	Bradenton to 301	533
MLK Way	Orange to Osprey	6
17th Street	Orange to US 301	2604
12th Street	Orange to US 301	2154
10th Street	Orange to US 301	631
TOTAL		5927

In the existing condition positive areawide capacity is held. Only US-301 lacks capacity through the study area.

2015 Remaining Capacity		
North / South		
US 41	10th to 17th	-958
Cocoanut Ave.	10th to 17th	1485
Central Ave.	10th to 17th	224
Orange Ave.	10th to 17th	124
US 301	17th South	-1496
TOTAL		-621
East / West		
Myrtle	Bradenton to 301	197
MLK Way	Orange to Osprey	-317
17th Street	Orange to US 301	2351
12th Street	Orange to US 301	2084
10th Street	Orange to US 301	445
TOTAL		4760

In 2015, areawide capacity is maintained. Total capacity would be 4,760 trips. Interior roadways at Cocoanut Avenue, Central Avenue, and Orange Avenue, maintain positive capacity, but US-41 and US-301 fall below.


Myrtle St
MLK
24ST St
19TH St
17TH St
12TH St
10TH St
+197
-317
+2351
-958
+1485
+224
+124
-1496
+2084
+445
N/S -621
E/W +4760
41
Coconut Ave
Central Ave
Orange Ave
301
Newtown Redevelopment Area TCMA
2015 Area Wide Capacity With Development
CITY OF SARASOTA
THE CORRADINO GROUP

Screen Line Analysis 2030		
North / South		
US 41	10th to 17th	-849
Cocoanut Ave.	10th to 17th	962
Central Ave.	10th to 17th	1609
Orange Ave.	10th to 17th	1202
US 301	17th South	-1128
TOTAL		1796
East / West		
Myrtle	Bradenton to 301	1143
MLK Way	Orange to Osprey	-288
17th Street	Orange to US 301	2653
12th Street	Orange to US 301	1782
10th Street	Orange to US 301	281
TOTAL		5572

In 2030, areawide capacity is maintained. Directionally, no deficits exist either on the east/west and north/south roads, due mainly to the various capacity projects specified in the LRTP Model. ((Along Central Avenue (2 lanes to 4 lanes), Myrtle Avenue, (2 lanes to 4 lanes), and Orange Avenue, (2 lanes to 4 lanes)). There is a positive capacity of 1796 trips.

1.5 Demonstrate the Future Projects and Programs will Support Infill

Future projects and infill development will be supported by the TCMA because development will be able to continue as a result of the implementation of the areawide level of service so long as it is positively maintained.

1.6 Demonstrate Planned Roadway Improvements and Alternative Transportation Efforts will Accomplish Mobility Within the TCMA

It has been established that no improvements other than those currently included in the LRTP model will be needed to maintain areawide capacity over time. There are several projects from the standpoint of intersection improvements, physical capacity improvements, or transit improvements that can help maintain this capacity if needed at some point. These have been discussed in more detail, in the Section Three, Data and Analysis, Chapter 5: Assessment of Future Needs, and generally recommended as part of the Amendment.

Key to understanding when an improvement will actually be needed is the ability to monitor the remaining capacity of the transportation network in the TCMA. This will be done by developing a monitoring tool, to measure transportation concurrency in the long term, tracking developments and capacities. This tool is being produced using previously accepted methodologies, currently approved by FDOT and DCA, and used in Miami Beach, Coral Gables, and Hialeah. A Concurrency Management System (CMS) predicts the cumulative demands on public services that will be created by proposed development. Additionally, the CMS allows the user to edit, manage, track, and summarize development orders. The proposed CMS will be a Windows-based application offering increased usability and efficiency over other systems.

Screening Program

The GIS software will use the most recently updated Census Tiger Files as well as any GIS information available from the City of Sarasota. The concurrency-screening program locates a proposed project based on the development's address. Once located, the applicable traffic generation is identified for the proposed development or change in land use. This can be done for any concurrency category. The demand on public services is projected based on project characteristics provided by the applicant. These demands are then compared against the remaining capacities in the applicable service zones and, if adequate, capacities are reserved for the project subject to permitting or other project approvals.

There are a variety of conditions that are managed by the CMS software, including changes to Concurrency applications; extensions to reservations; credit for demolition, termination of reservations; re-allocation to subsequent development applications and approval of applications that have failed the screening analysis but upon a site-specific study have been shown to fulfill concurrency requirements.

Mapping

An address-matchable street file for the process will be developed in ArcView format from the latest updated Census Tiger files or from data available from the city.

System Programming

A user-friendly computer application will be developed to implement the CMS. The CMS will have a Windows graphics interface, will be map-based, will be able to develop and print maps displaying the location of proposed developments and allowable growth, and will encapsulate a database management and reporting system for tracking and analyzing development applications and the status of allowable growth, by category, throughout the area.

Section 2 Sarasota City Plan, Transportation Plan Amendment

Goals, Objectives, and Action Strategies

The following amendment of the City of Sarasota Comprehensive Development Plan is recommended:

Transportation Goal: It shall be the goal of the City of Sarasota to develop and maintain a safe, convenient, balanced and efficient multimodal transportation system which:

- Recognizes and promotes alternative transportation modes,
- is coordinated with future land use plans of the City and adjacent jurisdictions,
- promotes mobility of people, not vehicles,
- maintains the economic viability of the City's businesses, and,
- enhances the quality of life for the City's neighborhoods.

Objective 11: Newtown Transportation Concurrency Management Area
The City adopts a Transportation Concurrency Management Area (TCMA) for the Newtown Community Redevelopment Area. (See Illustration T-11) This area will promote infill development and redevelopment through the planning and implementation of efficient transportation systems, and coordinate land use and transportation on an areawide basis using multimodal opportunities where appropriate.

Action Strategy 11.1
Infill and Redevelopment: Within the TCMA, the City will encourage infill and redevelopment which are supportive of mobility alternatives including walking, bicycling, transit and demand management strategies.

Action Strategy 11.2
Level of Service: The City shall maintain an area-wide level of service D within the Newtown TCMA. The maximum area wide service volume at LOS D is 19,326 vehicles per hour.

Action Strategy 11.3
Development Orders: The City shall require that the TCMA maintain an area-wide Level of Service. Maintenance of this area-wide LOS shall be a basis for the issuance of development approvals and permits within the TCMA.

Action Strategy 11.4
Transit-Oriented Land Uses: The City will develop transit-oriented land uses and higher density residential areas along major corridors served by transit lines. The City will consider creation of a Transit Oriented Development Overlay District to encourage such development within the TCMA.

Action Strategy 11.5
Annual Traffic Counts: The TCMA capacities shall be checked and updated based on annual traffic counts on all applicable links as well as level of service and capacity analysis. This analysis will be utilized in developing comprehensive multimodal projects and transportation demand management strategies to address mobility in Newtown as well as the Capital Improvement Plan.

Action Strategy 11.6
Capital Improvements Program: Every year the City shall establish and update a Capital Improvements Program (CIP) for the TCMA which identifies needed improvements within the TCMA.

Action Strategy 11.7
Parking: The City shall examine parking in order to determine the following:

1. The necessity for park and ride locations or development in coordination with transit.

2. Future on-site parking requirements.

3. The need for the enhancement of on-street or off-street parking facilities.

4. Employer-sponsored transportation demand management programs.

Action Strategy 11.8
Monitoring: The City shall, within twelve months of TCMA adoption, utilize concurrency management system software to monitor the roadway capacities and level of service within the TCMA.

Action Strategy 11.9
Increase Density and Mixed-use: Prior to December 31, 2012, the City shall examine the possibility of increasing the density of residential development in the Newtown Community Redevelopment Area. In addition, examination of other higher density and mixed-use residential areas will be undertaken in an effort to consider densities that meet thresholds for higher levels of transit service.

Action Strategy 11.10
SCAT Coordination: The City shall continue to coordinate with Sarasota County Area Transit to ensure that transit service within the TCMA maximizes mobility and reflects routes which serve to facilitate movement through as well as within the Newtown Community Redevelopment Area with a particular emphasis on routes that service the area as a destination.

Action Strategy 11.11
Maintenance of Transportation Concurrency: The City Neighborhood and Development Services Department will maintain and track transportation concurrency within the established TCMA.

Action Strategy 11.12
Impact Fees: Prior to January 1, 2012, the City shall examine the creation of development impact fees for developments that propose to utilize more than the remaining capacity on both the traffic analysis zones (TAZ) and TCMA levels. Such fees will be used to support the planning, design and construction of multimodal opportunities and will be closely tied to the state Proportionate Fair Share Ordinance.

Action Strategy 11.13
Transit Level of Service: Within the TCMA, the City shall encourage Sarasota County Area Transit to operate all routes within the TCMA at 30-minute headways or better by December 31, 2012. SCAT will also be requested to continue the evening and Sunday services now offered within the TCMA boundaries.

Action Strategy 11.14
Multimodal Connectivity: The City shall examine the connection of major traffic generators, transit stops and areas of density with an interconnected system of sidewalks, bicycle paths routes, lanes and multi-use trails and shall make improvements, where feasible, that support viable, multiple alternative travel paths or modes.

Action Strategy 11.15
Neighborhood Protection: The City shall resist further fragmentation of the Newtown neighborhood by preserving the street network except in cases where there is proof of conclusive local and regional need.

Action Strategy 11.16
Historic Preservation: The City shall strive to preserve the historic character and qualities of the Newtown Area.

Section 3 Data and Analysis

3.1 TCMA Boundary Development, Mapping, Land Use Analysis, Growth Projection, and Methodologies

This task has been designed to develop consensus within the City of Sarasota and the Newtown Redevelopment Area about the boundaries of the project. To present these boundaries and the underlying goals to coordinating agencies, to develop a consensus on the future impacts of the Newtown Redevelopment Plan, to jointly refine the scope of work and methodology to be utilized, and to schedule the review and approval of both the Newtown Redevelopment Area Plan and TCMA Amendment by the Florida DCA.

3.1.1 Boundary

The project team, acting as the Steering Committee, and consisting of the staff from the Newtown Redevelopment Area, the City Engineering Department, the City Planning Department and The Corradino Group have developed a boundary for the TCMA area. This boundary consists of the area bounded by approximately 100' to the north of Myrtle Street, the City Boundary to the east, 100' to the south of 10th Street, and 100' west of US-41.

These boundaries have been chosen because they completely encapsulate the Newtown Redevelopment Area. The boundary was established along 10th Street on the south, because when paired with 12th Street, it is a major east/west corridor. Tenth Street facilitates east/west traffic flow between US-41 and Orange Avenue, while 12th Street facilitates east/west traffic flow between, US-301 and Orange Avenue. These facilities operate most logically in conjunction with one another and effectively service similar origins and destinations as a pair. Myrtle Street acts as the redevelopment area boundary, as well as a natural boundary with limited through access to the north. Both US 41 and US 301 are regional facilities that carry significant through traffic past the area, and act as logical boundaries. The interior of the neighborhood provides an interconnected network of roads that facilitate traffic flow both to the interior destinations of the area, as well as through the neighborhood, providing significant mobility alternatives and connecting Downtown Sarasota with points north.

This network is framed by the following east/west facilities:

- Myrtle Street
- Martin Luther King Jr. Way
- 21st Street
- 19th Street
- 17th Street
- 12th Street

- 10th Street

North/south facilities include:

- US-41
- Bradenton Road
- Cocoanut Avenue
- Central Avenue
- Orange Avenue
- US-301

Of these facilities, five traverse the entire study area including:

- US-41
- Orange Avenue
- US-301
- Martin Luther King, Jr. Way
- 10th Street

The other facilities mentioned connect the through streets, and as partners with one another provide alternative routing to common origins and destinations, thereby enhancing mobility.

3.1.2 Objectives

The project team has outlined the objectives for this tool. These are important in framing the issues to the community and approving bodies.

The main objectives of this analysis are:

- Provide the Newtown Redevelopment Plan, which is focused on the redevelopment of land uses in the area, with a transportation plan that will assure the necessary transportation infrastructure is in place concurrent to the redevelopment of the area.

- Adhere to the Goals Objectives and Action Strategies of the Comprehensive Plan.

These are consistent with the City's defining principles, which focus on:

- Being a safe place for people.

- Having viable neighborhoods working together as a community.

- Being an attractive and clean city that is aesthetically pleasing.

- Being a financially responsible government providing high quality services and infrastructure.

- Achieving economic viability through healthy businesses and quality job opportunities.

The development of a TCMA, in conjunction with the Newtown Redevelopment Plan, will provide a higher level of planning, significantly focused on the nexus between transportation and land use. The results being a multi-modal transportation network satisfying the needs of the pedestrian, transit user, automobile and commuting population, in a manner that is safe and efficient. This focus will contribute the neighborhood cohesion, and allow for the well planned redevelopment of the area consistent with the wishes of the community. This redevelopment will be sustainable because it will be enabled through the implementation of a bank of applicable transportation projects that will have been costed and funded through approved work programs. The end result will be an elevated quality of life for the Newtown Area, as well as the City of Sarasota, creating additional business and residential opportunities for a wider segment of the population. Through methods such as this, Sarasota will enhance its competitive advantage amongst other cities, and be better prepared for the tremendous growth that is facing the State of Florida.

3.1.3 Newtown Redevelopment Area Build-Out Scenario

The project team has developed a future rate of build-out projection detailing changes in the future land uses in the Newtown Redevelopment Area for 2015 and 2025. These projections have been established to create a vision of the desired future condition for which incentives and a supportive regulatory environment is to be created. These have been based on the Newtown Redevelopment Area Future Land Use Map, and provided as the aggregate square footage for commercial and residential, per sub-area, then the aggregate total for the whole area.

Based on the Redevelopment Area Plan, the aggregate number of housing units (excluding mixed use) is approximately 3,038. The aggregate square footage for commercial development (excluding mixed use) is 3,161,624. The aggregate square footage for proposed mixed use development is approximately 1,855,000. According to the zoning code, the mixed use development in the northwest quadrant allows 9 units per acre. The development in the northeast quadrant allows 18 units per acre. The development in the southwest quadrant allows 25 units per acre. Lastly, the development in the southeast quadrant allows 13 units per acre.

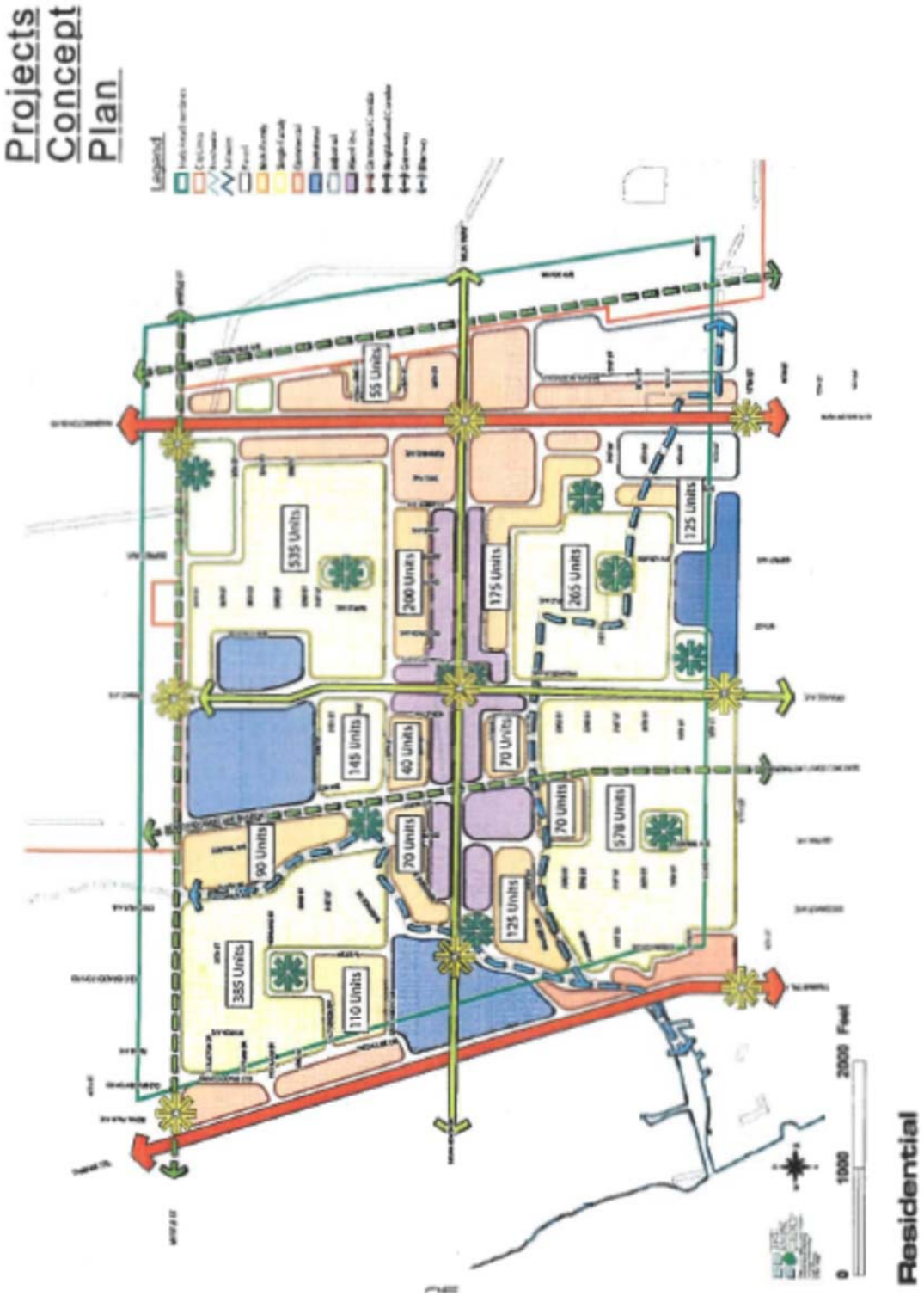
Currently there are 2,300 residential units in the Redevelopment Area, based on the 2000 Census. Of these 1,439 are single family and 864 are multi-family. This is expected to grow to 3,038 per the Redevelopment Plan, an increase of 735 units or 32%. These units equate to a total of 6,469 people living in the Redevelopment Area. Of these 3,983 are in single family units and 2,486 are in multifamily units. Under the build out scenario this will increase to 7,997. That is an increase of 1,528 people or 24%. The table below details this information.

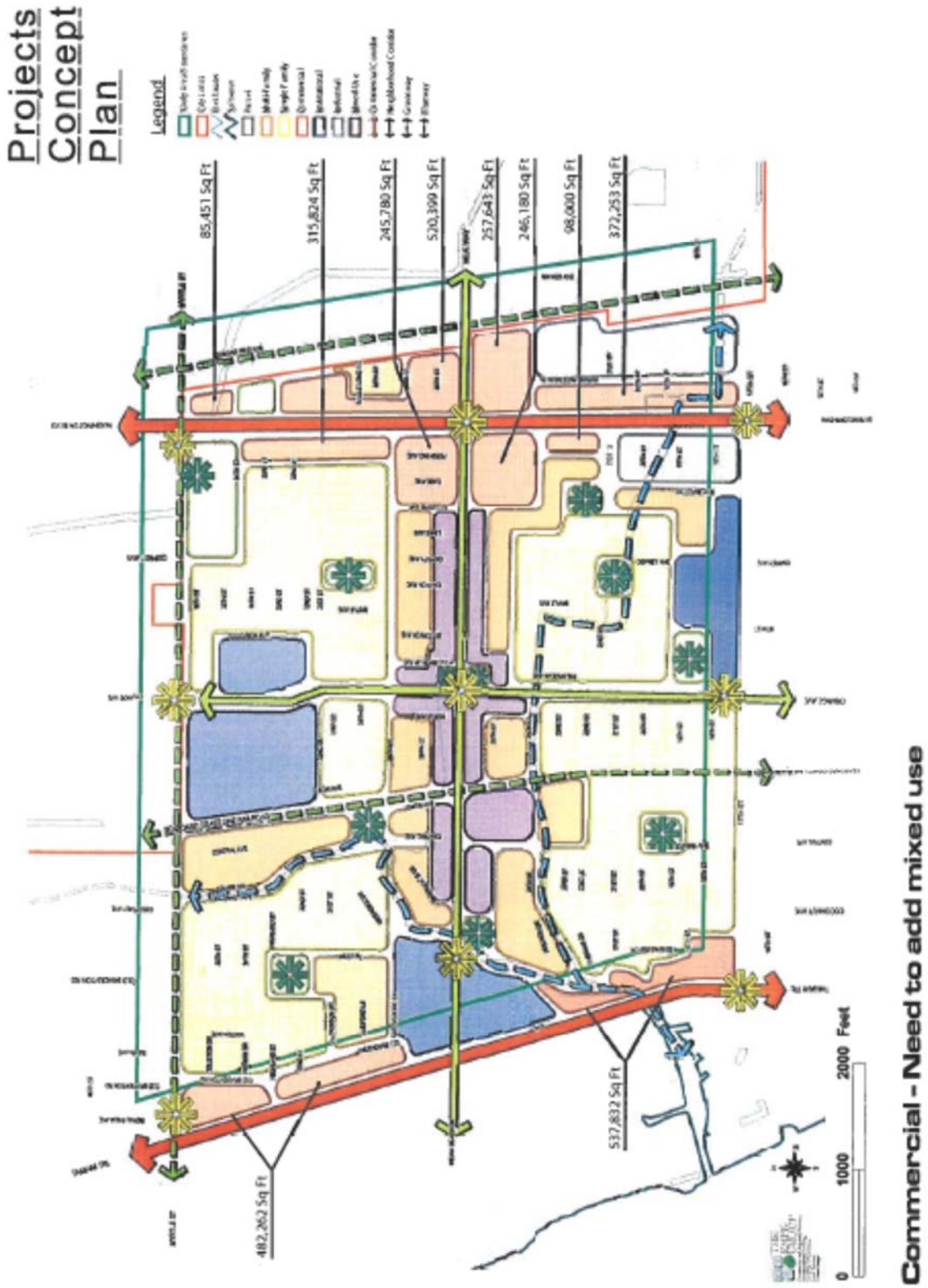
Table 1: Existing / Projected Units

2000 Census				Build Out			
Quadrant	Total Units	Single Family	Multi-Family	Total Units	Single Family	Multi-Family	Commercial SF x 100
NW	560	353	207	840	530	310	315
SW	666	456	210	843	578	265	665
NE	605	409	196	790	535	255	500
SE	472	221	251	565	265	300	375
TOTAL	2303	1439	864	3038	1908	1130	1855

Table 2: Existing Population

2000 Census				Build Out		
Quadrant	Total POP	Single Family	Multi-Family	Total POP	Single Family	Multi-Family
NW	1712	1037	675	2125	1288	837
SW	1850	1268	582	2275	1560	715
NE	1585	1061	524	2117	1418	699
SE	1322	617	705	1480	691	789
TOTAL	6469	3983	2486	7997	4957	3040


Projects Concept Plan
Legend
55 Units
535 Units
200 Units
175 Units
265 Units
125 Units
145 Units
40 Units
70 Units
70 Units
578 Units
90 Units
70 Units
125 Units
385 Units
110 Units
0
1000
2000 Feet
Residential


Projects Concept Plan
Legend
85,451 Sq Ft
315,824 Sq Ft
245,780 Sq Ft
520,399 Sq Ft
257,643 Sq Ft
246,180 Sq Ft
98,000 Sq Ft
372,253 Sq Ft
537,832 Sq Ft
482,262 Sq Ft
0
1000
2000 Feet
Commercial - Need to add mixed use

Methodology

Integral to the TCMA process is the development of a methodology for the establishment of an area wide level of service. This subtask proposes the actual method by which areawide level of service will be established as well as the development of the analytical methods to be employed to support that concept.

Support for the areawide level of service will be provided by the ten tasks of this study, which will be implemented by addressing the seven TCMA criteria required as part of the Comprehensive Plan Amendment. This focuses on the justification of boundaries; the compatibility between the city of Sarasota Comprehensive Plan; and the TCMA concepts to establish that the area has an integrated and connected roadway network; to demonstrate the basis and methodology for the areawide level of service; and the examination of projects and programs that will support infill development while maintaining mobility in the area.

The City's Comprehensive Plan and Transportation Element are focused on providing the appropriate level of service for a safe, convenient, and efficient transportation system, which is multimodal in nature, coordinated with land use policies and the plans and policies of other jurisdictions. The system should continue to enhance and preserve the City's neighborhoods.

Specifically called for in 1998 Transportation Chapter, Action Strategy 3.5 is the "study of the feasibility of an area-based concurrency management monitoring system to replace the existing road based system." The development and implementation of this TCMA effort will fulfill the stated and approved objectives and policies, beginning with the areawide level of service.

Traffic volumes, and capacity surpluses or deficits were shown for each link in the study area. To measure areawide capacity, the capacity of a facility at one point along that facility must be counted. To do so, screen lines were drawn across the area. To measure remaining capacities for east/west routes, a line was drawn across those routes from the north to the south. To measure remaining capacities for north/south routes, a line was drawn from the east to the west, across the area. Where these lines intersected the roadway facilities, the remaining capacities were counted. These capacities were summed, and the result told if the project maintained an areawide capacity at LOS D.

Integrated /Connected Network Roads

This task is intended to demonstrate that there is an integrated and connected network of roads in the TCMA. An inventory has been conducted examining automobile facilities, bicycle facilities, pedestrian facilities, and transit services. Traffic count data collected includes 10 bi-directional 72 hour machine counts and 10 turning movement counts. Level of Service has been provided for the major roadway network in the area. Quality of service, bicycle, pedestrian, and transit services were provided. Transit has been examined to deter its ability to provide mobility presently and within the future. Funding and revenue sources have also been identified.

Inventory

Quality / Level of Service Variables

The Transportation Chapter of the City of Sarasota Comprehensive Plan sets a goal that determines the required level of service for all streets and roads within the City. It states:

It shall be the goal of the City of Sarasota to develop and maintain safe, convenient, and efficient transportation system which:

- Recognizes alternative transportation modes,
- Is coordinated with future land use plans of the City and adjacent jurisdictions,
- Maintains the economic viability of the City's businesses, and,
- Enhances the quality of life for the City's neighborhoods.

This goal is supported by an objective and an action strategy.
Objective 1 - level-of-service for safe, convenient and efficient transportation system. To continue to provide a safe convenient and efficient transportation system with a level-of-service that sustains the City's natural, aesthetic, social, and economic resources.

Level-of-service (LOS) standards shall be as follows:

- LOS D on all State maintained roads with the City which are classified as major arterials or interstate connectors.
- LOS E on all State maintained roads within the City which are not classified as major arterials or interstate connectors,
- LOS C on all County maintained roads within the City; and
- LOS D on all City maintained roads.

This standard has been defined as all City and County roads within the City limits shall provide a LOS D. Both Washington Boulevard and Tamiami Trail are classified as State Major Arterials and must provide a LOS D.

Traffic engineers define 6 Levels of Service for roadways.

- **LOS A** describes free-flow conditions with free-flow speeds. Vehicles are unimpeded in their ability to maneuver within the traffic stream.
- **LOS B** represents relative free-flow operations and free-flow speeds are still maintained. The ability to maneuver with the traffic stream is only slightly restricted and the effects of minor incidents can easily be absorbed.

- **LOS C** describes a condition at or near free-flow speeds. Freedom to maneuver is noticeably restricted and driver vigilance is required. Minor incidents can still be absorbed, but the Level of Service will deteriorate and queues will form behind any blockage.

- **LOS D** is the level at which speeds decline slightly with increased flows. Freedom to maneuver within the traffic stream is noticeably limited. The traffic stream has little capacity to absorb an incident, which will create queuing.

- **LOS E** represents operation at capacity. Operation at this level is volatile, because there are no usable gaps in the traffic. Maneuvering is difficult because vehicles are closely spaced. At capacity the system has no ability to absorb a minor disruption.

- **LOS F** describes breakdown in vehicular flow.

Roadway Facility Type Inventory

The City's thoroughfare plan and FDOT's classification use slightly different nomenclatures as shown in Table 1. The City's Major Arterial is called a Principal arterial by FDOT and City's Major and Minor Collectors are just called urban collectors by FDOT.

Three of the streets that form the external boundaries of the TCMA, Tamiami Trail, Washington Boulevard and 10th Street, are classified as major arterials by the county, however only Tamiami Trail and Washington Boulevard are classified as principal arterials by FDOT. The county also classifies the primary north-south street through the TCMA, Orange Avenue, as a major arterial.

Table 1
Facility Type Inventory

Street	Location	Jurisdiction	County Classification	LOS Standard	FDOT Classification
Myrtle		County	Major Collector	C	Urban Collector
MLK JR. Way	West of Bradenton	City	Minor Collector	D	Urban Collector
MLK JR. Way	Bradenton to Cocoanut	City	Major Collector	D	
MLK JR. Way	East of Cocoanut	City	Minor Collector	D	
17th Street		City	Minor Arterial	D	Minor Arterial
12th Street	East of Orange	City	Major Arterial	D	Urban Collector
10th Street	West of Orange	City	Major Arterial	D	Urban Collector
10th Street	East of Orange	City	Minor Collector	D	
Tamiami Trail		FDOT	Major Arterial	D	Principal Arterial
Bradenton Rd.	North of MLK	City	Major Collector	D	Urban Collector
Cocoanut Ave.		City	Major Collector	D	Urban Collector
Central Ave.		City	Minor Collector	D	
Orange Ave.	North of 12th St.	City	Major Collector	D	Urban Collector
Orange Ave.	South of 12th St.	City	Major Arterial	D	
Osprey		City	Minor Collector	D	
Washington		FDOT	Major Arterial	D	Principal Arterial

Within the TCMA, only Tamiami Trail and Washington Boulevard are under State jurisdiction. Myrtle Street is the only facility under County jurisdiction. All of the other streets in the area are under the jurisdiction of the City of Sarasota.

The Transportation Chapter of the City of Sarasota Comprehensive Plan establishes requirements for thoroughfares as specified in Table 2.

Table 2
Thoroughfare Cross-Sections

Thoroughfare	Right-of-Way	# of Lanes	Median
Interstate Connector	118ft	6 lanes	14 Median
Major Arterial	90-1 00 ft	4 lanes	22 Median
Minor Arterial	90 ft.	4 lanes	15.5 Median
Major Collector	75 ft.	4 lanes	No Median
Minor Collector	60 ft.	2 lanes	10 Median
Residential Road	50 ft.	2 lanes	No Median

Existing Count Data

The City of Sarasota has extensive counts within the TCMA, as shown in Table 3. The table contains the peak hour counts and presents the capacity of the facility at the point where the count was taken. It is apparent that the majority of the facilities within the TCMA are currently operating far below their capacity. Only a short segment of Martin Luther King Jr. Boulevard is operating near capacity and a segment of Tamiami Trail (US 41) is over capacity during the peak period.

Table 3
2004 City Counts

Street	Segment	Volume		Capacity
		AADT	Peak	
10th Street	US 41 to Orange	6,525	718	3,120
10th Street	Orange to US 301	3,956	435	1,184
12th Street	Orange to US 301	7,187	654	3,120
17th Street	US 41 to Central	1,960	204	2,250
17th Street	Orange to US 301	1,960	204	3,120
Central Ave.	10th to 17th	2,930	325	1,184
Central Ave.	17th to MLK	4,068	452	1,184
Central Ave.	MLK to Myrtle	4,068	452	1,184
Cocoanut Ave.	10th to 17th	2,508	278	1,800
Cocoanut Ave.	17th to MLK	2,456	273	1,184
MLK Way	US 41 to Bradenton	4,508	410	1,184
MLK Way	Bradenton to Cocoanut	10,108	920	1,480
MLK Way	Cocoanut to Central	2,508	278	1,184
MLK Way	Central to Orange	2,456	223	1,184
MLK Way	Orange to Osprey	11,652	1,060	1,184
MLK Way	Osprey to US 301	8,498	782	1,184
MLK Way	US 301 East	8,498	782	1,184

Street	Segment	Volume		Capacity
		AADT	Peak	
Myrtle	US 41 to Bradenton	5,469	498	1,554
Myrtle	Bradenton to 301	8,776	799	1,480
Bradenton Rd.	MLK to Myrtle	5,154	560	1,480
Orange Ave.	10th to 17th	9,375	1,022	1,480
Orange Ave.	17th to MLK	6,492	708	1,480
Orange Ave.	MLK to Myrtle	2,176	237	2,250
Osprey Ave.	MLK North	2,739	304	1,480
US 301	17th to Myrtle	41,437	4,680	5,060
US 301	17th South	39,000	3,822	4,920
US 41	10th to 17th	32,215	3,157	6,670
US 41	17th to Myrtle	36,379	3,415	3,390

Table 4 presents the counts recorded by FDOT on the facilities within the TCMA boundaries that are maintained by the State. It is apparent the counts recorded by FDOT are slightly higher than the counts maintained by the City but both sets of counts are very close.

Table 4
2004 FDOT Traffic Counts

Station	Location	NB	SB	AADT
5009	US 41 @ Myrtle	21,500	21,500	43,000
5019	301 @ 19th St.	21,500	22,000	43,500
5077	301 @ 10th St.	20,500	20,500	41,000

Inventory

Table 5 shows that of the north-south facilities only Tamiami Trail and Washington Boulevard have four lanes with a median. The remainder of the streets have two lanes. None of the north-south facilities allow on-street parking. Most of these roads have curbs, gutters and sidewalks that provide a clean urban feel to the community and facilitate pedestrian activity. There are at least two parallel bikeways throughout the length of the TCMA.

Table 5
North/South Streets

	Sidewalk		Bikeway		# of Lanes	Median	On-Street Parking	Curb & Gutter
	1 side	2 side	1 side	2 side				
Tamiami Trail		X			4	Y	N	Y
Bradenton								
Myrtle/MLK	X			X	2	N	N	N
S of MLK		X	X		2	Y	N	Y
Cocoanut Ave		X		X	2	N	N	Y
Central Ave								
10th to 12th	X			X	2	N	N	Y
12th to MLK		X		X	2	N	N	N
N of MLK					2	N	N	N
Orange Ave								
N of 17th St		X		X	2	N	N	Y
S of 17th St	X				2	N	N	1 side
Osprey Ave		X			2	N	N	Y
Washington					4	Y		N
S of 12th		X			4	Y	N	Y

Most of the east-west streets within the TCMA are two lanes with curbs and gutters. These streets have no medians and on-street parking. Table 6 shows that there are one or two streets in each column that deviate, such as the short segments of Dr. Martin Luther King Jr. Way with a median or on-street parking. The eastern segments of the east-west streets also tend to be wider because they are located in an industrial section rather than a residential area. Sidewalks are available on all segments of the street system; however, only the western portions of 12th Street and 17th Street provide a bike path.

Table 6
East West Streets

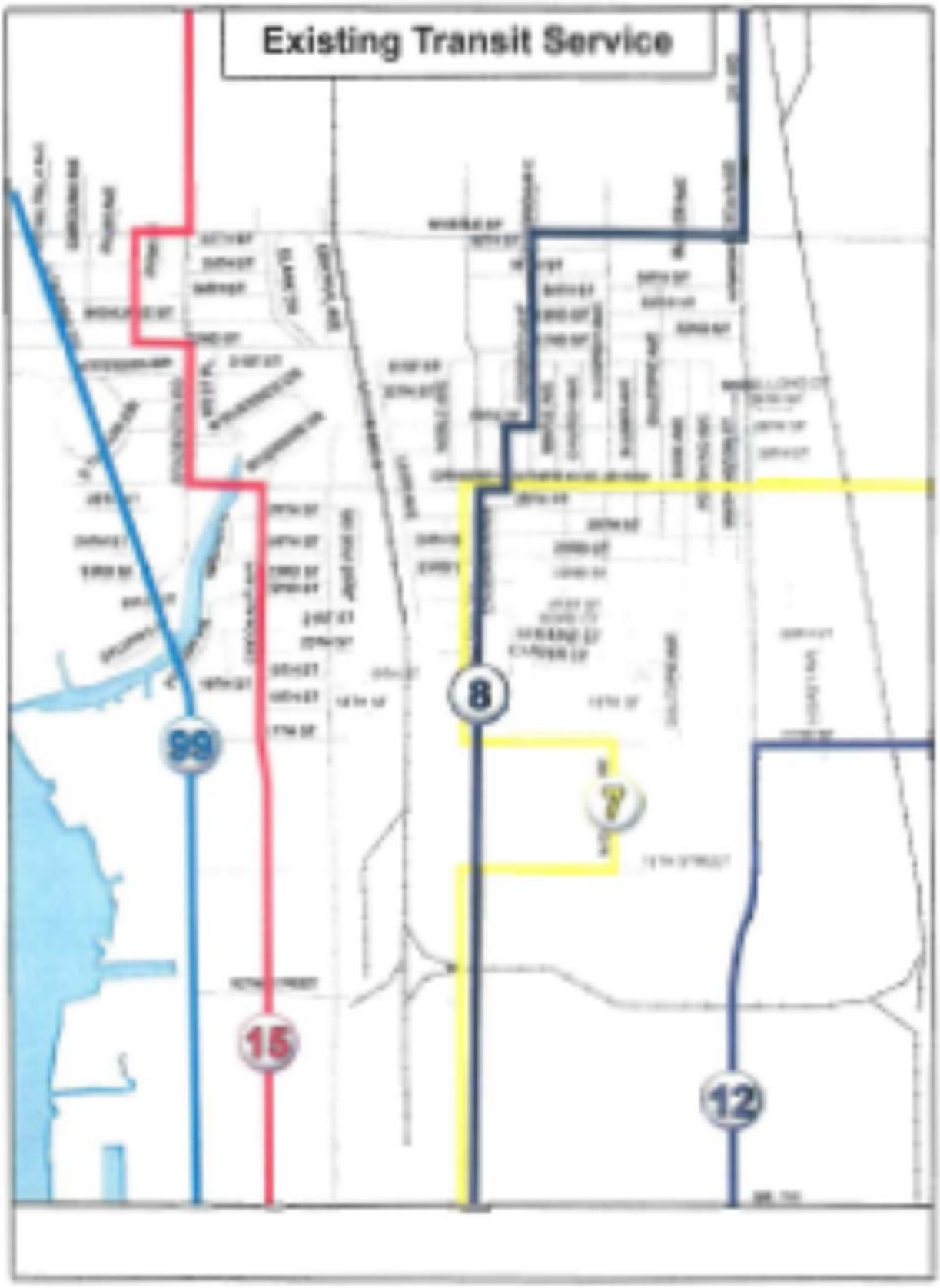
	Sidewalk		Bikeway		# of Lanes	Median	On-Street Parking	Curb & Gutter
	1 side	2 side	1 side	2 side				
10th Street								
West of Osprey		X			2	N	N	Y
Osprey-Orange	X				2	N	N	Y
Orange-41		X			4	Y	N	Y
12th Street								
East		X		X	5	N	N	Y
West	X				2	N	N	Y
17th Street								
East		X		X	3/4	N	N	Y
West		X			2	N	N	Y
19th Street		X			2	N	N	N
21st Street								
East		X			2	N	Y	Y
West	X				2	N	N	N
MLK Jr. Way								
East		X			2	N	Y	Y
West		X			2	N	Y	Y
Cocoanut-Bradenton		X		X	2	Y	N	Y
Myrtle								
Tamiami 1 block		X			2	N	N	Y
To Bradenton	X				2	Y	N	1 side
To 301	X				2	N	N	N

Area Level of Service

The areas surrounding the TCMA display varying traffic conditions. One half mile south of the TCMA is downtown Sarasota. However, because of the density of the grid network, most of the north-south streets operate within acceptable levels. Only Washington Boulevard and Tamiami Trail operate at congested levels. As the street network moves through the TCMA, the grid density decreases with fewer north/south streets. Observation of the Level of Service map indicates a high level of driver knowledge of the street layout as traffic winds through the area. Though the TCMA congested and significantly congested segments reflect drivers moving randomly through the grid. Martin Luther King Jr. Way seems to be strongly impacted by drivers having to move through the grid to continue their northbound route. North of Martin Luther King Jr. Way the grid is dramatically reduced. North of Myrtle Street the north-south network is reduced to only three streets: Tamiami Trail, Bradenton Road and Washington Boulevard. At this point all through arterials exhibit congested or significantly congested conditions.

Existing Transit Services

There are five north-south transit routes and no east-west routes operating through the boundaries of the proposed TCMA. Route 99 operates exclusively along North Tamiami Trail from downtown Sarasota to Bradenton. Route 15 runs in a very large loop. Within the study area this route is operating between downtown Sarasota and Desoto Road along Cocoanut Avenue/ Bradenton Road. Route 7 operates along Orange Avenue from downtown to Martin Luther King Jr. Way then to Lockwood Ridge Road. Route 8 operates from downtown Sarasota to Tallevast Road. Route 8 operates on Orange Avenue then to Osprey Avenue through the Newtown Redevelopment Area. Finally Route 12, which operates between downtown Sarasota and University Parkway, runs along Washington Boulevard to 17th Street where it turns west and continues out of the area. All of the bus routes operate on 60 minute headways.


Existing Transit Service
8
7
15
12

Planned and Committed Transportation Projects

The 5-year Transportation Improvement Plan includes three projects within the boundaries of the proposed TCMA.

- The construction of 17th Street between Orange Avenue and US 41. The project is scheduled for 2007-08. This project would add an additional east-west through street. It subsequently has been rejected by the City.

- The provision of pedestrian amenities along US 41 north from 10th Street to Ringling Boulevard, along the entire north-south length of the area.

- The widening of US 301 from 4 to 6 lanes along the entire north-south length of the area in 2007. This project would increase the carrying capacity for north-south trips.

The Long Range Transportation Plan (LRTP) does not include any additional roadway capacity improvements for the proposed TCMA. The LRTP includes several transit improvements that will enhance the person carrying capacity of the system and will provide additional travel options for the citizens of the Newtown Redevelopment Area. The projects include:

- Regional Bus Rapid Transit (BRT) on US 41 operating at 20 minute headways over an 18 hour time span.

- Regional BRT on US 301 operating at 20 minute headways over an 18 hour time span.

- In the long range time frame, the LRTP recommends the implementation of commuter rail service on the CSX track through the center of the community.

- The LRTP also recommends the implementation of water taxi service along the coast. Though not serving the TCMA directly, this additional service is within easy walking distance of the west portion of the area.

- The LRTP also includes 30 minute headways on local transit routes.

Funding and Revenue

There are a number of existing and potential funding sources that the City can pursue to improve transportation infrastructure. A complete analysis of funding sources has been researched, explained, and presented in this section. Essentially monies are available from local, County, State and federal sources. Each derives their funding from gasoline taxes at the County, State and federal levels. A portion of most of this money is set aside for the municipalities.

The Federal government collects 24.4 cents per gallon on diesel and 18.4 cents per gallon on gasoline to fund the Federal transportation programs. 2.86 cents goes to transit, one cent goes to cleaning up leaking tanks and the remainder goes to roads and bridges.

The State of Florida collects 10.1 cents per gallon that the Florida Department of Transportation (FDOT) retains. 15% of that money goes to transit and the remainder goes to any legitimate state transportation need. The State also collects 4.6 cents on gasoline and 5.6 cents on diesel under the SCETS tax (State Comprehensive Enhanced Transportation System), which must be spent in the district that it is collected.

The State also collects fuel tax money that is distributed directly back to Counties and local governments. Two cents are collected as the Constitutional Fuel Tax which can go only to the acquisition, construction, and maintenance of roads. The County Fuel Tax collects an additional one cent that can be spent on any legitimate county transportation purpose. The municipalities collect another one cent that can be spent on any legitimate municipal transportation purpose. Counties can elect to collect one more cent on what is referred to as the Ninth-Cent Fuel Tax, and between five cents and eleven cents under the Local Option Gas Tax. The Ninth Cent and the Local Option Gas Tax go right back to the local jurisdiction for local transportation needs. Sarasota County collects all of the twelve cents that are available to the local governments.

Federal Transportation Programs

Federal transportation funds are currently authorized under the SAFETEA-LU legislation. Below is a very brief description of the Federal transportation programs that are available to state and local governments. Many of the Federal programs are available only to State Departments of Transportation, which are, in turn, passed on to Counties and local governments. SAFETEA-LU funds are distributed between transit, highway and safety projects.

Transit funds available to local governments:

- Job Access and Reverse Commute Grants are available to provide a transit connection between areas with heavy concentrations of welfare recipients and suburban job markets.

- Transit Enhancements is a 1% set aside for projects that enhance transit facilities in urbanized areas with a population over 200,000 persons.

Transit funds to operators of transit systems:

Sarasota County Area Transit operates the local public transit services. It is eligible to receive the following grants and programs.

Clean Fuel Formula Grant funds are available to transit operators to convert equipment to cleaner fuels.

- Urbanized Area Formula Grant Program money is available to transit operators for capital and operating assistance. These funds only go to urbanized areas over 50,000 population.

- Transit Preventative Maintenance grants are monies that are available to transit operators that report National Transit Database information.

- Paratransit services are funded through transit operators to provide service to people with disabilities that cannot use a bus.

- Transit Capital Investment Grants and Loans provide capital for new fixed guideway systems and extensions, as well as new buses and bus facilities.

Transit funds passed through the State:

- Formula Grants for Non-Urbanized Areas are for areas with a population of less than 50,000 to provide rural transportation.

- Rural Transportation Accessibility Program is federal funds passed through the state DOT to provide handicapped accessibility in areas with a population of less than 50,000.

Highway Funds passed through the State:

- National Highway System (NHS) these funds go directly to FDOT for work on the Interstate system.

- Surface Transportation Program (STP) provides flexible funds through the State to local agencies for any project on any Federal-Aid highway.

- Congestion Management and Air Quality Program (CMAQ) provide flexible funds for projects in Air Quality non-attainment or maintenance areas. The project must show that it will reduce emissions. (Currently the entire State of Florida is an attainment area and is not eligible for CMAQ funds).

- Bicycle Transportation and Pedestrian Walkway funds are eligible for funding through these programs: NHS, STP, CMAQ, Federal Land, Scenic Byways and Recreational Trails. NHS monies can be used for trails within an interstate corridor.

- Recreational Trail Program is for the maintenance of trails for motorized and non-motorized recreational uses. This is 95% money. Local governments apply directly to the state for funds.

- National Scenic Byways program is discretionary money for planning, design, and development of a scenic byway program. Roads must be designated by the State prior to a Federal designation.

New legislation provides:

- The **State & Community Formula Grants** continues to be authorized from the Highway Trust Fund under the existing formula based on population **(**75 percent) and road mileage (25 percent). At least 40 percent of these funds are to be used to address local traffic safety problems.

- The **General Performance Grants** from the Highway Trust Fund, is awarded to a State based upon the performance of its highway safety program (achievement and annual progress, as determined by the Secretary through a rulemaking proceeding) in the three categories noted above. The Federal share for these grants would be 80 percent.

- **ITS Performance Incentive Performance Program** is a formula program designed to provide States with financial incentives to support the deployment and integration of intelligent transportation systems based on the performance of these systems in reducing traffic congestion, improving transportation system reliability, providing better service to users of the highway system, and improving safety and security. This program builds upon the ITS Integration Program, a discretionary deployment incentives program authorized in TEA-21.

- The **New Freedom Initiative** provides formula grants to the States for new transportation services and transportation alternatives for individuals with disabilities beyond those required by the Americans with Disabilities Act of 1990, including motor vehicle programs that assist persons with disabilities with transportation to and from jobs or employment support services. States solicit applications for grants and then award the grants on competitive basis.

Flexible funding:

- Up to 50% of NHS money may be transferred to maintenance, to STP, to CMAQ and to Bridge Replacement and Rehab programs.
- Up to 100% of the NHS money may be transferred to STP if approved by FHWA in advance.
- Up to 50% of maintenance funds can be transferred to NHS, STP, CMAQ and Bridge Programs.
- Up to 50% of the Bridge program money can be transferred to maintenance, NHS, STP and CMAQ.
- Only STP programs and CMAQ programs can be used to fund transit projects.

State of Florida Transportation Programs

The current State legislative transportation program divides the state revenues under several broad programs:

Strategic Intermodal System (SIS) Funds:

The State of Florida has merged many of its funding programs into one large program called the Strategic Intermodal System (SIS). The SIS is made up of statewide and regionally significant facilities containing projects that move both people and goods and includes linkages that provide smooth and efficient transfers between modes and major facilities. Figure 7-1 is a map of the SIS facilities that are eligible for funding.

In FY 2004-05, $100 million of STP funds was allocated to the SIS and funding focused on 36 SIS connectors that were production ready. Future projects will be funded through the Department's five year work program process. Projects will need to focus on capacity and operational improvements to SIS corridors and connectors. The projects should focus on reducing bottlenecks and improving access to the hubs. For hubs, the focus is on improving the function of the hub, not increasing the size of the hub.

Projects to be funded through the SIS will be selected based on the following criteria:

- The extent to which projects meet SIS goals and objectives.
- The cost of the project and the availability of local financial contributions.
- The readiness of the project.
- The balance of quick fix, operational improvements and longer term capacity investments.

- A reasonable distribution of investment among the regions in the state.
- SIS priorities have been funded at $4.7 billion over the next ten years.

Transportation Regional Incentive Program (TRIP):

The State Legislature created the TRlP program in 2005 to improve regionally significant transportation facilities. State funds will be available in Florida to provide incentives to local governments and the private sector to help pay for projects that benefit regional travel and commerce. FDOT will pay for 50% of project costs or up to 50% of the non-federal share of project costs for public transportation facility projects. Projects should be put together by multiple MPO's, MPO's plus external counties or a multi-county regional transportation authority. To be eligible for TRlP funding an area must develop a regional transportation plan. The City of Sarasota is one of the agencies that will be eligible to receive TRlP funding. TRlP is funded at the level of $1.6 billion for the first ten years.

Public Transportation Service Development Program:

This program was enacted by the Florida Legislature to provide initial funding for special projects. Known as Service Development projects, the program is selectively applied to determine whether new or innovative techniques or measures can be used to improve or expand public transit in an area. Service Development projects specifically include projects involving new technologies, services, routes, or vehicle frequencies to increase service to the riding public in a specific location or user group. Service Development projects are subject to specified time duration, but can last no more than three years for system operations and maintenance procedures and no more than two years for marketing and technology projects.

State New Start Transit Program:

New State legislation has established a budget item to fund the 50% non-federal share of FTA New Start money in metropolitan areas. The program generally requires a dedicated local funding source. The State New Start Budget is set at $709 million for the next ten years.

State Transportation Trust Fund (STTF):

The STTF is funded from several revenue sources, including state fuel taxes, vehicle licensing and registration fees, and auto rental surcharges. Fifteen percent of the fund is dedicated to transit and capital rail projects. The state issues block grants from the STTF to public transit operators. Block grants may be used for the eligible capital and operating costs of public transit providers and must be consistent with local comprehensive plans. State budget estimates are for STTF funding to total $7.5 billion during the next ten years.

Florida Department of Transportation Local Agency Program:

The Local Agency Program (LAP) Certification provides local government agencies an opportunity to administer their own transportation projects by receiving federal funds via a reimbursement process administered by FDOT. The program allows FDOT to forge contractual relationships with local governmental agencies that have the authority to plan, develop, design, acquire right-of-way, and construct transportation facilities. Local agencies must be LAP-certified before entering into an LAP Agreement. FDOT is responsible for ensuring the certified Local Agencies comply with all applicable Federal Statutes, rules and regulations. Local Agencies are reimbursed with Federal funds administered by the Federal Highway Administration (FHWA).

The LAP is administered in each District by a District LAP Administrator designated by the District Secretary. The District LAP Administrator consults and advises the Local Agency on project management procedures to be followed. The level of assistance provided is based on the nature of each project and the demonstrated capabilities of the Local Agency. In addition, the District Administrator annually selects certain projects for a Process Review. Project-level direction and oversight are provided through the District Offices of Planning, Environmental Management, Design, Right-of-way, Policy Planning, Environmental Management, Federal-Aid, Design, Contracts Administration, Equal Opportunity, Comptroller, and Program Development. The Central Office LAP Administrator chairs the standing committee on standards and practices for local agencies.

Application Procedure

Local Agencies seeking LAP certification must submit the following to the District LAP Administrator:

- Two (2) copies of the Local Agency Certification Qualification Agreement (Form No. 525-010-33); This form is available at: http://formserver.dot.state.fl.us/ MiscRepositorv/forms/52501O 33.odf.

- The Agency's Organization Chart.

- A narrative addressing qualifications in specific areas where certification is requested: Planning; Right-of-way; Design; Estimates; Construction; Environmental Assessments; Bid & Award; Consultant Selection; Financial Systems; & capability of matching Federal funds.

- A transmittal letter signed by an appointed or elected official of the Local Agency.

The District Local Agency Program Administrator and Task Team will conduct an interview to determine whether the Agency is capable of administering an FHWA funded project. Past performance, current staffing, as well as capability and knowledge of federal and state requirements are considered in the determination of Local Agency Certification. Based on the interview and information provided, the District Local Agency Program Administrator will opt to permit full administration by the Local Agency of all projects, allow limited Local Agency

administration, allow Local Agency administration on projects up to a maximum dollar limit, or deny local agency certification. The District Local Agency Program Administrator will advise the Local Agency by letter that they have been approved or denied certification. Local Agencies that are denied certification may apply again after correcting the deficiencies indicated in the rejection letter. The same steps are followed as in the original application, except that the application package needs only to address those areas affected by the corrected deficiency. Local Agencies that have been granted certification must obtain the District Administrator's approval to administer each Federal-Aid project.

3.3 Compatibility with the Comprehensive Plan

Introduction

One of the requirements for gaining approval for a TCMA is to establish its compatibility with the local comprehensive plan. In this case both the Sarasota City Plan and the Newtown Comprehensive Redevelopment Plan have been reviewed. A brief explanation of both plans is provided.

The basic tenant of a Transportation Concurrency Management Area is to support infill and redevelopment within well defined areas through the utilization of an integrated and connected network of roads. This process will promote an areawide Level of Service and increase uses of multi-modal efforts to accomplish mobility within the area. This overall TCMA goal is not in conflict with any goal or objective in either plan. Furthermore, the proposed TCMA is supportive of both the Sarasota City Plan and Newtown Comprehensive Redevelopment Plan. This TCMA assists in accomplishing the goals and objectives of both plans. This amendment to the Sarasota Comprehensive Plan's Transportation Chapter contains TCMA Goals, Objectives, and Policies which are supportive of these plans and are enumerated herein.

Newtown Comprehensive Redevelopment Plan

The Newtown Redevelopment Area Plan was the result of a planning process that yielded three separate but interrelated documents (Volumes I, II and Ill.) Volume 1: The Plan describes the Goals, Concepts and Strategies for the revitalization of the Newtown Area. The plan's purpose was to:

1. Provide private sector opportunities
2. Provide the market data to support the needed services
3. Provide the design framework for new construction
4. Identify business clustered for development
5. Provide linkages between various activities
6. Make Newtown a destination in Sarasota County

The main goal is "To revitalize the entire community through the stimulation of commercial and housing development in Newtown." The TCMA is supportive of this plan because it requires the provision of transportation infrastructure that is capable of supporting the land use plan. Transportation and land use are inextricably linked. Quality and sustainable development must be cognizant of both issues. The success of the Newtown Area will be measured over decades. The TCMA presents a leveled approach to the implementation of supportive multimodal capacity in the area.

Further goals and objectives of the Newtown Redevelopment Plan were formulated from a comprehensive public involvement process. There are several goals established in eight areas. The main areas are:

1. Administration
2. Economic Development

3. Housing
4. Land use
5. Transportation
6. Community Health, Safety, and Welfare
7. Infrastructure
8. Urban Design / Parks

Most relevant goals in regards to the TCMA concept are Economic Development, Land Use and Transportation.

Economic Development Goals

Goal 1: Maintain the unique and positive character of the community while promoting economic vitality.

Goal 2: Market the Martin Luther King Jr. Way corridor as a local destination point for arts and entertainment as well as a neighborhood / community center.

Land Use Goals

Goal 1: Establish a land use pattern that reflects the redevelopment area as a community of diversified interests and activities while promoting compatibility and harmonious land use relationships.

Goal 2: Encourage innovation in land planning and site development techniques.

Transportation Goals

Goal 1: Create a safe, efficient circulation system, one which provides sufficient access by all modes of transportation within the redevelopment area and the balance of the community.

The goals in the other areas are generally supportive of these main goals. The TCMA is compatible and supportive of this plan because through its general use, it will provide the transportation capacity that can enable all else to be accomplished. Without adequate transportation capacity and infrastructure, concurrency requirements would not be met, halting additional development in the area.

Sarasota City Plan

The City of Sarasota has a long history of planning. The City's first comprehensive plan was developed in 1925. Updates were produced in 1960, 1972, 1979, 1986 and 1989.

Beginning in 1979, plans were prepared under the guidelines of the State's Local Government Comprehensive Planning and Land Development Regulation Act of 1975 which was amended in 1985. This Act imposed extensive requirements on local governments for the preparation of comprehensive plans. The Act also recognized that planning is a continuous and ongoing process and local governments need to periodically assess the appropriateness of their comprehensive plans. In 2005, SB 360 has once again changed the face of growth management in the State of Florida. This has been taken into account as the TCMA Amendment was developed. The current edition of the *Sarasota City Plan* contains eleven Chapters:

- Neighborhood,
- Housing,
- Environmental Protection and Coastal Islands,
- Recreation and Open Space,
- Utilities,
- Transportation,
- Future Land Use,
- Governmental Coordination,
- Capital Improvements,
- Historic Preservation, and
- Public School Facilities.

In 1996, under the leadership of the City Commission, a set of principles was developed. These principles have been expressed in the City's "vision" and "goal" statements. These principles are the foundation upon which the *Sarasota City Plan* and subsequent amendments are based.

Vision

- A city of urban amenities with small town living and feeling.

Goals

- To be a safe place for people.
- To have viable neighborhoods working together as a community.
- To be an attractive and clean city that is aesthetically pleasing.
- To be a financially responsible government providing high quality services and infrastructure.
- To achieve economic viability through healthy business and quality job opportunities.

Individual Chapter Goals

Neighborhood Plan

It shall be the goal of the City to achieve healthy and livable neighborhoods by:

- Maximizing opportunities for all citizens to have meaningful involvement in the decisions that affect their neighborhood;
- Maximizing compatibility between residential and non-residential uses;
- Ensuring neighborhood safety and quality of life;
- Developing safe, aesthetically pleasing and efficient transportation networks; and,
- Preserving, protecting and enhancing neighborhood aesthetics, identity, and natural and historic resources; and
- Embracing an Asset-Based Community Development (ABCD) philosophy by focusing on the capacities and assets of associations and citizens.

Housing Plan

It shall be the goal of the City of Sarasota to provide opportunities for safe, sanitary, and affordable housing to meet the needs of all City residents while recognizing the private sector as the primary provider of housing.

Environmental Protection and Coastal Islands Plan

It shall be the goal of the City of Sarasota to protect, maintain, enhance, and, where appropriate, restore its natural environment.

It shall be the goal of the City of Sarasota to protect life and property in the coastal area from destruction by natural disasters.

Recreation and Open Space Plan

It shall be the goal of the City of Sarasota to provide and maintain a high quality and environmentally sensitive system of open spaces, and recreation facilities which meet the needs of the community.

Utilities Plan

It shall be the goal of the City of Sarasota to meet the existing and future utility needs of the city's residents and businesses through the provision of safe and efficient utility facilities; to construct, maintain, and operate utility facilities in an environmentally sensitive manner; and to coordinate provision of facilities with the future land use plan map.

Transportation Plan

It shall be the goal of the City of Sarasota to develop and maintain a safe, convenient, balanced and efficient multimodal transportation system which:

- Recognizes and promotes alternative transportation modes,
- is coordinated with future land use plans of the City and adjacent jurisdictions,
- promotes mobility of people, not vehicles,
- maintains the economic viability of the City's businesses, and,
- enhances the quality of life for the City's neighborhoods.

This amendment to the Transportation Plan will add an 11th Objective to the Transportation Chapter.

Future Land Use Plan

It shall be the goal of the City of Sarasota to achieve a high quality living environment through:

- encouraging compatible land uses,
- restoring and protecting the natural environment, and
- providing facilities and services which meet the social and economic needs of the community.

Governmental Coordination Plan

The City shall maintain effective and efficient coordination with local, regional, State and Federal governmental entities and agencies.

Capital Improvements Plan

The City shall provide and maintain, in a timely and efficient manner, adequate public facilities for both existing and future populations, consistent with available financial resources.

Historic Preservation Plan

It shall be the goal of the City of Sarasota to identify, document, protect, preserve, and enhance all cultural, historic, architectural and archaeological resources of the City.

Public School Facilities Plan

Collaborate and coordinate with the School Board of Sarasota County (School Board) to provide and maintain a high quality public education system which meets the needs of the City's existing and future population.

Relationship to the Comprehensive Plan

The establishment of a TCMA in the Newtown Redevelopment Area is not in conflict with goals or objectives in the City Plan. The TCMA is supportive of many of the City's Comprehensive Plan goals and objectives.

By the utilization of an areawide level of service, future multimodal capacity will be provided to the Newtown Redevelopment Area. This will allow, and incentivize, redevelopment that will enable a safe, attractive and functional neighborhood to grow. It is a possibility, that without a TCMA, redevelopment may be hampered due to the eventual lack of transportation concurrency. This directly coordinates with the Neighborhood Plan, the Transportation Plan, and the Future Land Use Plan.

A vital neighborhood, with a mix of commercial, educational and residential activities will lead to a safe and aesthetically pleasing neighborhood which will encourage compatible land uses, and be an asset to the City and region as a whole. The redevelopment of Newtown will protect and enhance its historic identity, while striving to provide opportunities for affordable housing. This coordinates with the Future Land Use Plan and the Historic Preservation Plan.

The multi-modal nature of the future transportation system as it affects the Newtown area will serve to maintain the already high quality of the recreation and open space plan within the neighborhood through increased pedestrian and bicycle activity. This coordinates with the Transportation Plan and the Recreation and Open Space Plan.

Vitality in the Newtown area is encouraged by the provision of transportation capacity that will have an impact in meeting the social and economic needs of the city. This is accomplished through the mix of uses and enhancements of any destination. In today's Florida, the cost of urban sprawl is diminishing the quality of life at an ever increasing pace. Redevelopment of neighborhoods in proximity to urban centers will have several benefits. Among them is the ability to maintain development deep inside an urban service area. This TCMA is in coordination with the City's current Future Land Use Plan, and serves to enhance and encourage its realization. This coordinates with the Future Land Use Plan, the Transportation Plan, and the Utilities Plan.

The TCMA is being coordinated between the Planning Department and the Engineering Department of the City of Sarasota. It is being developed with an extensive public involvement process. In addition, it is being coordinated with the Florida Department of Community Affairs, the Florida Department of Transportation, District 1, Sarasota County Departments, the Sarasota County Area Transit Agency, and the Sarasota-Manatee Metropolitan Planning Organization. Each of these groups has been involved in the planning and development of the project. This coordinates with the Governmental Coordination Plan, and the Neighborhood Plan.

As a result of the TCMA, a Concurrency Management System will be developed that will assist in tracking remaining capacities. Tracking the capacities and monitoring the TCMA annual capital improvements will be needed for development within the area. This coordinates with the Capital Improvement Plan.

3.4 Assessment of Existing and Projected Facility Requirements to Maintain the LOS (Assessment of Future Need)

Introduction

This task has been based on the land use plan of the Newtown Comprehensive Redevelopment Area Plan, recently collected and historic traffic count data, and the approved Sarasota/Manatee Metropolitan Planning Organization's 2030 Long Range Model, (SMATS). The goal of the task is to determine the future traffic demands on the roadway network in the study area as a result of the implementation of the Newtown Redevelopment Area Plan. As a result, a determination is made as to whether area wide capacity will exist in the network in 2015 and 2030 with the project. Area wide capacity at the appropriate level of service is the essence of the TCMA concept. For this project, an examination of traffic was conducted on project area links for the existing condition, 2015 and 2030, with and without the project. The impact of the project was determined. Extraordinarily impacted roadways were identified. Areas of heightened demand and bottlenecks were identified. Micro simulation of various intersections was performed and mitigation measures were detailed.

In summary, it was found that area wide Level of Service is maintained in the east / west/ direction, but not in the north / south direction in 2015. Area wide level of service is maintained in all directions in 2030. To remedy this condition, intersection improvements can be implemented at various locations. If these do not remedy the deficient level of service issues, it would be appropriate to add the equivalent of one lane of capacity in the north / south direction.

Of the 10 intersections analyzed, six are not meeting acceptable Level of Service standards. Mitigation recommendations are provided for these intersections which will assist in attaining the required capacity. Implementation of these plans will satisfy the TCMA requirements and allow the Newtown Area to redevelop as planned.

Methodology

Traffic count data, from 2004 counts provided by the City of Sarasota, was used as the base from which ambient growth without the redevelopment was projected. To remain consistent with City methodologies on previous efforts, an overall 1.25% annual growth rate was assumed. The base counts were grown at 1.5% per year between 2004 and 2010, then at 1.0% per year from between 2010 and 2030. Volume projections based on this at 2015 and 2030 were used to measure the impact of the project. Volumes were initially listed as Annual Average Daily Traffic (AADT). (Please refer to Table 5.3) These were converted to peak hour volumes at LOS E, and a representative K Factor was derived. Peak hour capacity, at LOS E for each link was listed. Based on the number of existing lanes (or projected according to the LRTP Model), the capacity per each lane at LOS E was derived. There is a discrepancy between the LRTP model and the LRTP text. Several lane additions are represented in the model, but not listed in the text. The project area is maintaining area wide capacity with and without theses additions. To be conservative, the future

conditions analysis has been performed with the existing condition lane requirements, unless expressly stated in the LRTP report. Additionally, the connection of 17th Street, which is expressly stated in the LRTP, has been removed at the request of the City. Since the level of service standard in the study area is

LOS D, the peak hour LOS E lane capacity was converted to LOS D lane capacity by multiplying it by 90%. The existing, (or projected) peak hour volume was then subtracted, to arrive at a remaining capacity for the subject link. This remaining capacity was subsequently converted into a Volume/Capacity Ratio.

For years 2015 and 2030, (please refer to Table 5.4 and 5.5 respectively) calculations were made for no build and build scenarios.

The percent increase in volume from previous horizon year was shown in the no build scenario. It was assumed that 50% of the project would be built by 2015 and 100% of the project would be built by 2030. The land use data for the project was taken from the Newtown Redevelopment Area Plan. The Sarasota/Manatee MPO Model (SMATS) was used to measure project growth. The newly approved model was examined, and its centroid connections were slightly modified to represent existing conditions in the study area. No other edits were made to the model, which contained future improvements to the system. The land use data from the redevelopment plan was entered and the model was run, without the project and with the project, both in 2015 and 2030. The growth increment in number of trips, per link, for each time horizon was added to the projected volumes for each time horizon. Peak hour volumes with the project were derived, and the percent change from "no-build" was calculated. Remaining capacity at LOS D was calculated and its corresponding Volume/Capacity ratio was shown.

The link by link information was used to determine which corridors within the Newtown TCMA will require additional roadway capacity, or improved multimodal infrastructure to maintain the area wide level of service by 2015, and by 2030.

The capacities and volumes of thoroughfares within and near the TCMA were analyzed to identify deficiencies by road sections. Any deficiencies were compared to current and future deficiencies of the entire road network to illustrate whether the Newtown TCMA has placed an exceptional burden on the transportation network, or is in fact representative of general network conditions.

Existing multimodal infrastructure within the Newtown TCMA was reviewed with respect to concentrations of mixed-use or high intensity land uses. Areas likely to incur heightened demand for multimodal facilities/transit service were identified.

Bottlenecks in the area's automobile and multimodal network were identified, by examining the link counts as well as the intersection analysis which was undertaken for 2015 conditions using detailed capacity analysis procedures. A "Synchro" network of the study area was constructed containing the inventoried intersections. This was used to project traffic volumes at the intersections. Intersections and links which were adversely impacted were assigned mitigation projects. This was done in order to identify a plan by which to implement shorter term solutions and maintain an acceptable level of service as development progresses.

Analysis

Roadway volumes for study area links were gathered from existing City databases. These were used as the basis of the analysis. These counts were conducted in 2004. Through extensive analysis previously conducted by the City, an annual growth rate was derived. The use of this was decided upon so that the analysis presented in the TCMA document would remain consistent with City projections, and it is a rational basis from which to proceed. Additionally it provides a consistent baseline from which to measure project impacts to the roadway network. Base projections were projected to be 1.5% per year between 2004 and 2010, and 1% per year between 2010 and 2030. These projections for 2015 and 2030 were used as the basis from which to analyze the impact of the Build vs. No Build scenarios.

Table 5-1 Growth Projections to 2015

Projections	2004 - 2015	Yr	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
		%inc		1.015	1.015	1.015	1.015	1.015	1.015	1.01	1.01	1.01	1.01	1.01
Street	Link	L	Base Year											
10th Street	US-41 to Orange	Vol	6525	6623	6722	6823	6925	7029	7135	7206	7278	7351	7424	7499
	Orange to 301		3956	4015	4076	4137	4199	4262	4326	4369	4413	4457	4501	4546
12th Street	Orange to 301		7187	7295	7404	7515	7628	7742	7859	7937	8017	8097	8178	8259
17th Street	US-41 to Central		1960	1989	2019	2050	2080	2111	2143	2165	2186	2208	2230	2252
	Orange to 301		1960	1989	2019	2050	2080	2111	2143	2165	2186	2208	2230	2252
MLK	US-41 to Bradenton		4508	4576	4644	4714	4785	4856	4929	4979	5028	5079	5129	5181
	Bradenton to Cocoanut		10108	10260	10414	10570	10728	10889	11053	11163	11275	11387	11501	11616
	Cocoanut to Central		2508	2546	2584	2623	2662	2702	2742	2770	2797	2825	2854	2882
	Central to Orange		2456	2493	2530	2568	2607	2646	2685	2712	2739	2767	2795	2822
	Orange to Osprey		11652	11827	12004	12184	12367	12553	12741	12868	12997	13127	13258	13391
	Osprey to 301		8598	8727	8858	8991	9126	9262	9401	9495	9590	9686	9783	9881
	301 East		8598	8727	8858	8991	9126	9262	9401	9495	9590	9686	9783	9881
Myrtle	US-41 to Bradenton		5469	5551	5634	5719	5805	5892	5980	6040	6100	6161	6223	6285
	Bradenton to 301		8776	8908	9041	9177	9315	9454	9596	9692	9789	9887	9986	10086
			84261											96834
US-41	10th to 17th		32215	32698	33189	33687	34192	34705	35225	35578	35933	36293	36656	37022
	17th to Myrtle		36379	36925	37479	38041	38611	39191	39778	40176	40578	40984	41394	41807
Bradenton Rd	MLK to Myrtle		5154	5231	5310	5389	5470	5552	5636	5692	5749	5806	5864	5923
Cocoanut Ave	10th to 17th		2508	2546	2584	2623	2662	2702	2742	2770	2797	2825	2854	2882
	17th to MLK		2456	2493	2530	2568	2607	2646	2685	2712	2739	2767	2795	2822
Central Ave	10th to 17th		2930	2974	3019	3064	3110	3156	3204	3236	3268	3301	3334	3367
	17th to MLK		4068	4129	4191	4254	4318	4382	4448	4493	4538	4583	4629	4675
	MLK to Myrtle		4068	4129	4191	4254	4318	4382	4448	4493	4538	4583	4629	4675
Orange Ave	10th to 17th		9375	9516	9658	9803	9950	10100	10251	10354	10457	10562	10667	10774
	17th to MLK		6492	6589	6688	6789	6890	6994	7099	7170	7241	7314	7387	7461
	MLK to Myrtle		2176	2209	2242	2275	2310	2344	2379	2403	2427	2451	2476	2501
Osprey	MLK North		2739	2780	2822	2864	2907	2951	2995	3025	3055	3086	3117	3148
US-301	17th South		39000	39585	40179	40781	41393	42014	42644	43071	43501	43936	44376	44820
	17th to Myrtle		41437	42059	42689	43330	43980	44639	45309	45762	46220	46682	47149	47620

Table 5-2 Growth Projections to 2030

Projections	2016 - 2030	Yr	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
		%inc	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Street	Link													
10th Street	US-41 to Orange	Vol	7574	7649	7726	7803	7881	7960	8040	8120	8201	8283	8366	8450
	Orange to 301		4592	4638	4684	4731	4778	4826	4874	4923	4972	5022	5072	5123
12th Street	Orange to 301		8342	8425	8510	8595	8681	8768	8855	8944	9033	9124	9215	9307
17th Street	US-41 to Central		2275	2298	2321	2344	2367	2391	2415	2439	2463	2488	2513	2538
	Orange to 301		2275	2298	2321	2344	2367	2391	2415	2439	2463	2488	2513	2538
MLK	US-41 to Bradenton		5232	5285	5338	5391	5445	5499	5554	5610	5666	5723	5780	5838
	Bradenton to Cocoanut		11732	11850	11968	12088	12209	12331	12454	12579	12705	12832	12960	13090
	Cocoanut to Central		2911	2940	2970	2999	3029	3060	3090	3121	3152	3184	3216	3248
	Central to Orange		2851	2879	2908	2937	2966	2996	3026	3056	3087	3118	3149	3180
	Orange to Osprey		13525	13660	13796	13934	14074	14215	14357	14500	14645	14792	14940	15089
	Osprey to 301		9980	10080	10180	10282	10385	10489	10594	10700	10807	10915	11024	11134
	301 East		9980	10080	10180	10282	10385	10489	10594	10700	10807	10915	11024	11134
Myrtle	US-41 to Bradenton		6348	6411	6476	6540	6606	6672	6738	6806	6874	6943	7012	7082
	Bradenton to 301		10186	10288	10391	10495	10600	10706	10813	10921	11030	11141	11252	11365
US-41	10th to 17th		37392	37766	38144	38525	38911	39300	39693	40090	40491	40895	41304	41717
	17th to Myrtle		42226	42648	43074	43505	43940	44379	44823	45271	45724	46181	46643	47110
Bradenton Rd	MLK to Myrtle		5982	6042	6103	6164	6225	6287	6350	6414	6478	6543	6608	6674
Cocoanut Ave	10th to 17th		2911	2940	2970	2999	3029	3060	3090	3121	3152	3184	3216	3248
	17th to MLK		2851	2879	2908	2937	2966	2996	3026	3056	3087	3118	3149	3180
Central Ave	10th to 17th		3401	3435	3469	3504	3539	3574	3610	3646	3683	3719	3757	3794
	17th to MLK		4722	4769	4817	4865	4913	4963	5012	5062	5113	5164	5216	5268
	MLK to Myrtle		4722	4769	4817	4865	4913	4963	5012	5062	5113	5164	5216	5268
Orange Ave	10th to 17th		10882	10990	11100	11211	11324	11437	11551	11667	11783	11901	12020	12140
	17th to MLK		7535	7611	7687	7764	7841	7920	7999	8079	8160	8241	8324	8407
	MLK to Myrtle		2526	2551	2576	2602	2628	2655	2681	2708	2735	2762	2790	2818
Osprey	MLK North		3179	3211	3243	3276	3308	3341	3375	3409	3443	3477	3512	3547
US-301	17th South		45268	45720	46178	46639	47106	47577	48053	48533	49019	49509	50004	50504
	17th to Myrtle		48096	48577	49063	49554	50049	50550	51055	51566	52082	52602	53128	53660

Existing Condition

In the existing condition, five links exceed LOS D. These are Dr. Martin Luther King Jr. Way (MLK) between Orange and Osprey, and each link on US-41 and US-301. All other links in the study area function better than the acceptable level of service.

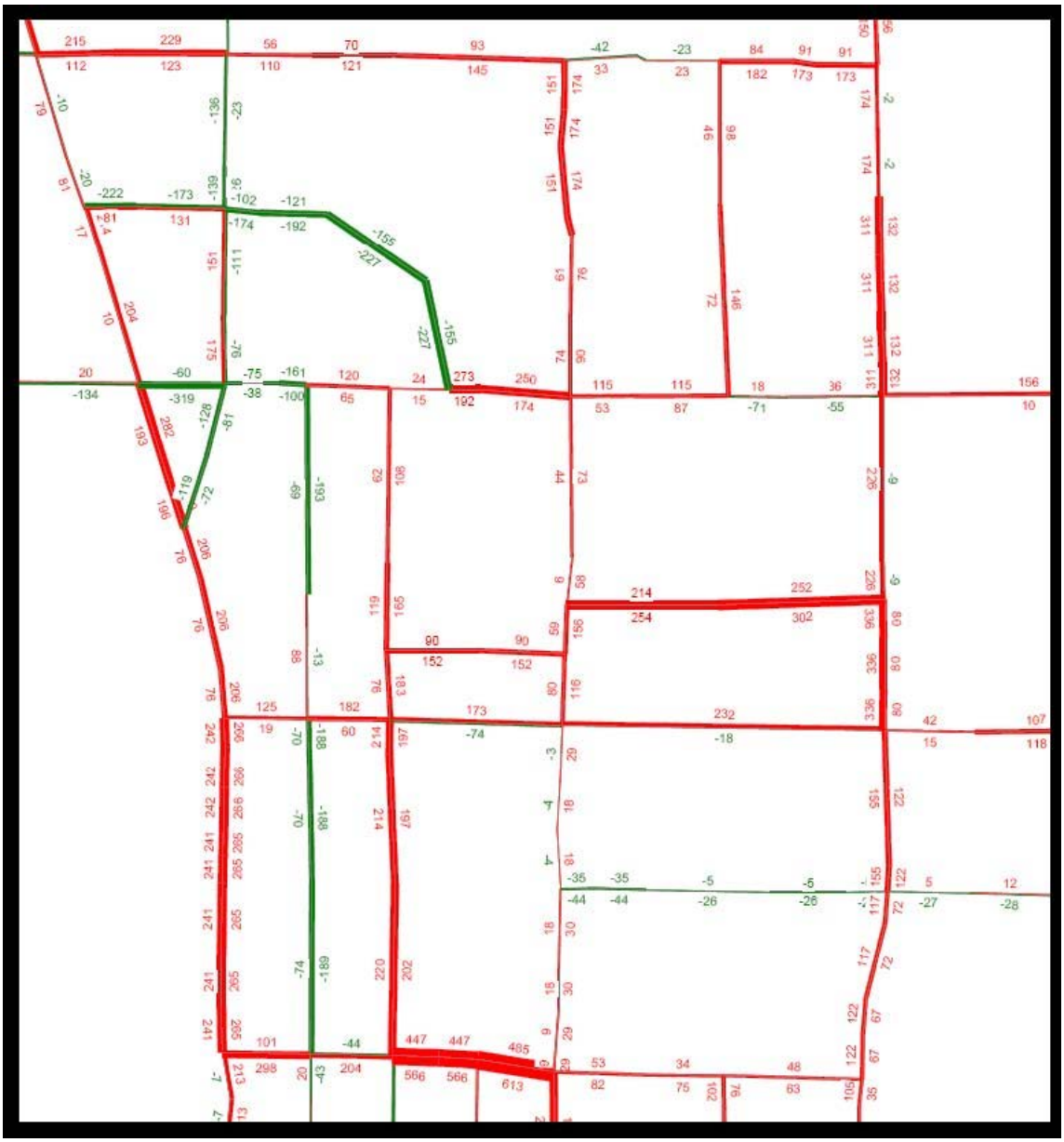
Table 5-3

*GROWTH FROM 2010 TO 2030 = 1%						BASE YEAR				
Street	**Segment**	**AADT**	**Peak Volume**	***k***	**Peak Capacity LOS E**	**Two-Way Lanes**	***Peak Capacity per Lane***	**Peak Capacity LOS D**	**Remaining Peak Capacity @ LOS D**	**Peak V/C Ratio @ LOS D**
10th Street	US 41 to Orange	6,525	**718**	*0.11*	3,120	4	*780*	2,808	**+2,090**	0.26
10th Street	Orange to US 301	3,956	**435**	*0.11*	1,184	2	*592*	1,066	**+631**	0.41
12th Street	Orange to US 301	7,187	**654**	*0.09*	3,120	4	*780*	2,808	**+2,154**	0.23
17th Street	US 41 to Central	1,960	**204**	*0.10*	2,250	2	*592*	1,066	**+862**	0.19
17th Street	Orange to US 301	1,960	**204**	*0.10*	3,120	4	*780*	2,808	**+2,604**	0.07
Central Ave.	10th to 17th	2,930	**325**	*0.11*	1,184	2	*592*	1,066	**+741**	0.30
Central Ave.	17th to MLK Way	4,068	**452**	*0.11*	1,184	2	*592*	1,066	**+614**	0.42
Central Ave.	MLK to Myrtle	4,068	**452**	*0.11*	1,184	2	*592*	1,066	**+614**	0.42
Cocoanut Ave.	10th to 17th	2,508	**278**	*0.11*	1,800	2	*840*	1,512	**+1,234**	0.18
Cocoanut Ave.	17th to MLK	2,456	**273**	*0.11*	1,184	2	*592*	1,066	**+793**	0.26
MLK Way	US 41 to Bradenton	4,508	**410**	*0.09*	1,184	2	*592*	1,066	**+656**	0.38
MLK Way	Bradenton to Cocoanut	10,108	**920**	*0.09*	1,480	2	*740*	1,332	**+412**	0.69
MLK Way	Cocoanut to Central	2,508	**278**	*0.11*	1,184	2	*592*	1,066	**+788**	0.26
MLK Way	Central to Orange	2,456	**223**	*0.09*	1,184	2	*592*	1,066	**+843**	0.21
MLK Way	Orange to Osprey	11,652	**1,060**	*0.09*	1,184	2	*592*	1,066	**+6**	0.99
MLK Way	Osprey to US 301	8,598	**782**	*0.09*	1,184	2	*592*	1,066	**+284**	0.73
MLK Way	US 301 east	8,598	**782**	*0.09*	1,184	2	*592*	1,066	**+284**	0.73
Myrtle	US 41 to Bradenton	5,469	**498**	*0.09*	1,554	2	*777*	1,399	**+901**	0.36
Myrtle	Bradenton to 301	8,776	**799**	*0.09*	1,480	2	*740*	1,332	**+533**	0.60
Bradenton Rd.	MLK to Myrtle	5,154	**560**	*0.11*	1,480	2	*740*	1,332	**+772**	0.42
Orange Ave.	10th to 17th	9,375	**1,022**	*0.11*	1,480	2	*740*	1,332	**+310**	0.77
Orange Ave.	17th to MLK	6,492	**708**	*0.11*	1,480	2	*740*	1,332	**+624**	0.53
Orange Ave.	MLK to Myrtle	2,176	**237**	*0.11*	2,250	2	*880*	1,584	**+1,347**	0.15
Osprey	MLK North	2,739	**304**	*0.11*	1,480	2	*740*	1,332	**+1,028**	0.23
US 301	17th to Myrtle	41,437	**4,680**	*0.11*	5,060	4	*880*	3,168	**-(1,512)**	1.48
US 301	17th South	39,000	**3,822**	*0.10*	4,920	4	*880*	3,168	**-(654)**	1.21
US 41	10th to 17th	32,215	**3,157**	*0.10*	6,670	4	*880*	3,168	**+11**	1.00
US 41	17th to Myrtle	36,379	**3,415**	*0.09*	3,390	4	*848*	3,053	**-(362)**	1.12

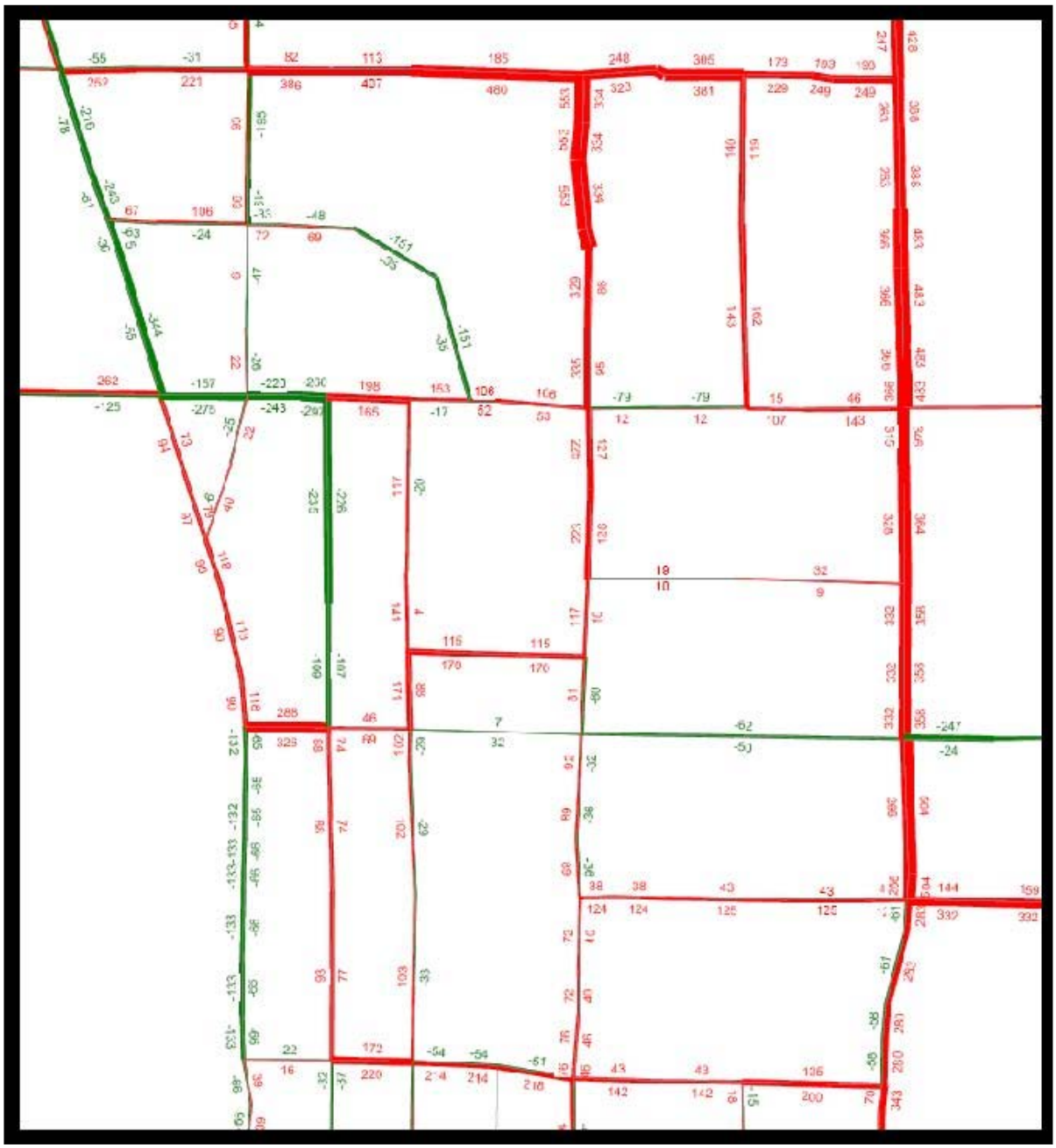
Project Growth

The Land Use Analysis from the Newtown Redevelopment Area Plan was entered into the refined MPO model. The zonal structure and centroid connectors of this model within the TCMA study area were refined to enhance the ability of the model to estimate travel demands. This land use information included the probable future land use conditions as well as population and employment densities and intensities. The model was run for both planning horizons, and the traffic volume increase on each link was added to the growth projections previously performed.

2015 Difference in Volume Build Vs No Build



2030 Difference in Volumes, Build vs. No Build



2015 – No Build vs. Build

Each planning horizon was tested in the No Build (without Newtown Redevelopment Area Development) and Build (with development as specified in the Newtown Redevelopment Are Plan). By 2015 (Table 5-4), there is only one improvement listed in the LRTP. This is a capacity improvement on US-301, taking it from four lanes to a total of six lanes between 17th Street and Myrtle Street. Traffic volumes will be 15% higher than in 2004. In the No Build scenario, without development as specified in the Newtown Redevelopment Plan, five of 28 links exceed LOS D. These are Dr. Martin Luther King Jr. Way (MLK) between Orange and Osprey, and each link on US-41 and US-301. Three other links have reached LOS D. These are along MLK between Osprey Avenue and US-301 and along Orange Avenue between 10th Street and 17th Street. All other links in the study area function better than the acceptable Level of Service. In the Build scenario, (Table 5-4) with the redevelopment project at 50 % build out, most links experience an increase in volume. Seven of 28 links exceed LOS D.

These are Dr. Martin Luther King Jr. Way (MLK) between Orange Avenue and Osprey Avenue, MLK east of US-301, Orange Avenue between 10th Street and 17th Street, (this is the only link to go from acceptable to unacceptable LOS) and each link on US-41 and US 301. One other link has reached LOS D. This is Myrtle Street between Bradenton Rd and US-301.

Table 5-4

Growth from 2004 to 2010= 1.5% Growth from 2010 to 2030= 1.0%		2015 NO BULD							2015 BUILD				
Street	**Segment**	**Two-Way Lanes**	**AADT**	**Peak Volume**	**%Difference from 2004**	**Peak Capacity LOS D**	**Remaining Peak Capacity @LOS D**	**Peak V/CRatio @LOS D**	***Increase***	**Peak Volume**	**Increase from NoBuild**	**Remaining Peak Capacity @LOS D**	**Peak V/CRatio @LOS D**
10 th Street	US 41 to Orange	4	7,499	**825**	+15%	2,808	**+1,983**	0.29	*+1,115*	**1,940**	**135%**	**+868**	0.69
10 th Street	Orange to US 301	2	4,546	**500**	+15%	1,066	**+566**	0.47	*+121*	**621**	**24%**	**+445**	0.58
12 th Street	Orange to US 301	4	8,259	**752**	+15%	2,808	**+2,056**	0.27	*-(28)*	**724**	**-4%**	**+2,084**	0.26
17 th Street	US 41 to Central	2	2,252	**234**	+15%	1,013	**+779**	0.23	*+252*	**486**	**107%**	**+527**	0.48
17 th Street	Orange to US 301	4	2,252	**234**	+15%	2,808	**+2,574**	0.08	*+223*	**457**	**95%**	**+2,351**	0.16
Central Ave.	10 th to 17th	2	3,367	**373**	+15%	1,066	**+692**	0.35	*+468*	**841**	**125%**	**+224**	0.79
Central Ave.	17 th to MLK Way	2	4,675	**519**	+15%	1,066	**+546**	0.49	*+315*	**834**	**61%**	**+231**	0.78
Central Ave.	MLK to Myrtle	2	4,675	**519**	+15%	1,066	**+546**	0.49	-	**519**	**0%**	**+546**	0.49
Cocoanut Ave.	10 th to 17th	2	2,882	**319**	+15%	1,512	**+1,193**	0.21	*-(292)*	**27**	**-91%**	**+1,485**	0.02
Cocoanut Ave.	17 th to MLK	2	2,822	**314**	+15%	1,066	**+752**	0.29	*-(291)*	**23**	**-93%**	**+1,043**	0.02
MLK Way	US 41 to Bradenton	2	5,181	**471**	+15%	1,066	**+594**	0.44	*-(344)*	**127**	**-73%**	**+938**	0.12
MLK Way	Bradenton to Cocoanut	2	11,616	**1,057**	+15%	1,332	**+275**	0.79	*-(103)*	**954**	**-10%**	**+378**	0.72
MLK Way	Cocoanut to Central	2	2,882	**319**	+15%	1,066	**+746**	0.30	*+205*	**524**	**64%**	**+541**	0.49
MLK Way	Central to Orange	2	2,822	**256**	+15%	1,066	**+809**	0.24	*+422*	**678**	**165%**	**+387**	0.64
MLK Way	Orange to Osprey	2	13,391	**1,218**	+15%	1,066	**-(153)**	1.14	*+164*	**1,382**	**13%**	**-(317)**	1.30
MLK Way	Osprey to US 301	2	9,881	**899**	+15%	1,066	**+167**	0.84	*-(48)*	**851**	**-5%**	**+215**	0.80
MLK Way	US 301 east	2	9,881	**899**	+15%	1,066	**+167**	0.84	*+151*	**1,050**	**17%**	**+16**	0.99
Myrtle	US 41 to Bradenton	2	6,285	**572**	+15%	1,399	**+826**	0.41	*+300*	**872**	**52%**	**+526**	0.62
Myrtle	Bradenton to 301	2	10,086	**918**	+15%	1,332	**+414**	0.69	*+217*	**1,135**	**24%**	**+197**	0.85
Bradenton Rd.	MLK to Myrtle	2	5,923	**644**	+15%	1,332	**+688**	0.48	*-(180)*	**464**	**-28%**	**+868**	0.35
Orange Ave.	10 th to 17th	2	10,774	**1,175**	+15%	1,332	**+157**	0.88	*+33*	**1,208**	**3%**	**+124**	0.91
Orange Ave.	17 th to MLK	2	7,461	**814**	+15%	1,332	**+518**	0.61	*+164*	**978**	**20%**	**+354**	0.73
Orange Ave.	MLK to Myrtle	2	2,501	**272**	+15%	1,584	**+1,312**	0.17	*+272*	**544**	**100%**	**+1,040**	0.34
Osprey	MLK North	2	3,148	**349**	+15%	1,332	**+983**	0.26	*+566*	**915**	**162%**	**+417**	0.69
US 301	17 th to Myrtle	4	47,620	**5,378**	+15%	3,168	**-(2,210)**	1.70	*+452*	**5,830**	**8%**	**-(2,662)**	1.84
US 301	17 th South	4	44,820	**4,392**	+15%	3,168	**-(1,224)**	1.39	*+272*	**4,664**	**6%**	**-(1,496)**	1.47
US 41	10 th to 17th	4	37,022	**3,628**	+15%	3,168	**-(460)**	1.15	*+498*	**4,126**	**14%**	**-(958)**	1.30
US 41	17 th to Myrtle	4	41,807	**3,925**	+15%	3,053	**-(872)**	1.29	*+300*	**4,225**	**8%**	**-(1,172)**	1.38

2030 – No Build vs. Build

By 2030, there are several improvements shown in the LRTP model run. Most add lanes and make four lane facilities from two lane facilities, adding one lane in each direction.

2030 LRTP Improvements Model		
Link	**2015 Two Way Lanes**	**2030 Two Way Lanes**
Central Ave – 10th to Myrtle	2	4
MLK – 41 to Cocoanut	2	4
Myrtle – 41 to 301	2	4
Orange – 10th to Myrtle	2	4
301 – 10th to 17th	4	6

Traffic volumes will be 16% higher than in 2015. In the No Build scenario, without development as specified in the Newtown Redevelopment Area Plan, nine of 28 links exceed LOS D. These are Dr. Martin Luther King Jr. Way (MLK) between Bradenton and Cocoanut, between Orange Avenue and Osprey Avenue, MLK between Osprey Avenue and US 301, MLK east of US 301, along Orange Avenue, between 10th St. and 17th St. and each link on US-41 and US-301. All other links in the study area function within an acceptable Level of Service.

In the Build scenario, with the redevelopment project at 100% build out, most links experience an increase in volume. Seven of 28 links exceed LOS D. These are Dr. Martin Luther King Jr. Way (MLK) between Orange Avenue and Osprey Avenue, MLK between Osprey Avenue and US 301, MLK east of 301, on Myrtle and Orange Avenue, and each link on US-41 and US-301. All other links in the study area function within an acceptable Level of Service.

Table 5.5

Growth from 2004 to 2010= 1.5% Growth from 2010 to 2030= 1.0%		**2030**												
		NO-BUILD							**BUILD**					
Street	**Segment**	**Two-Way Lanes**	**AADT**	**Peak Volume**	**%Difference from 2015**	**Peak Capacity LOS D**	**Remaining Peak Capacity @LOS D**	**Peak V/C Ratio @LOS D**	***Increase***	**Peak Volume**	**Increase from No Build**	**Remaining Peak Capacity @LOS D**	**Peak V/CRatio @LOS D**
10th Street	US 41 to Orange	4	8,706	**958**	+16%	2,808	**+1,850**	0.34	*+431*	**1,389**	**45%**	**+1,419**	0.49
10th Street	Orange to US 301	2	5,278	**580**	+16%	1,066	**+485**	0.54	*+204*	**784**	**35%**	**+281**	0.74
12th Street	Orange to US 301	4	9,589	**873**	+16%	2,808	**+1,935**	0.31	*+153*	**1,026**	**18%**	**+1,782**	0.37
17th Street	US 41 to Central	2	2,615	**272**	+16%	1,013	**+741**	0.27	*+640*	**912**	**235%**	**+101**	0.90
17th Street	Orange to US 301	4	2,615	272	+16%	2,808	**+2,536**	0.10	*-(117)*	155	-43%	+2,653	0.06
Central Ave.	10 th to 17th	2	3,909	**434**	+16%	1,066	**+632**	0.41	*+89*	**523**	**21%**	**+543**	0.49
Central Ave.	17 th to MLK Way	2	5,428	**603**	+16%	1,066	**+463**	0.57	*+388*	**991**	**64%**	**+75**	0.93
Central Ave.	MLK to Myrtle	2	5,428	**603**	+16%	1,066	**+463**	0.57	-	**603**	**0%**	**+463**	0.57
Cocoanut Ave.	10 th to 17th	2	3,346	**371**	+16%	1,512	**+1,141**	0.25	*+179*	**550**	**48%**	**+962**	0.36
Cocoanut Ave.	17 th to MLK	2	3,277	**364**	+16%	1,066	**+701**	0.34	*-(389)*	**(25)**	**-107%**	**+1,090**	-0.02
MLK Way	US 41 to Bradenton	2	6,015	**547**	+16%	1,066	**+519**	0.51	*-(393)*	**154**	**-72%**	**+912**	0.14
MLK Way	Bradenton to Cocoanut	2	13,486	**1,227**	+16%	1,332	**+105**	0.92	*-(421)*	**806**	**-34%**	**+526**	0.61
MLK Way	Cocoanut to Central	2	3,346	**371**	+16%	1,066	**+695**	0.35	*+402*	**773**	**108%**	**+293**	0.73
MLK Way	Central to Orange	2	3,277	**298**	+16%	1,066	**+768**	0.28	*+143*	**441**	**48%**	**+625**	0.41
MLK Way	Orange to Osprey	2	15,546	**1,414**	+16%	1,066	**-(349)**	1.33	*-(61)*	**1,353**	**-4%**	**-(288)**	1.27
MLK Way	Osprey to US 301	2	11,472	**1,043**	+16%	1,066	**+22**	0.98	*+146*	**1,189**	**14%**	**-(124)**	1.12
MLK Way	US 301 east	2	11,472	**1,043**	+16%	1,066	**+22**	0.98	*+84*	**1,127**	**8%**	**-(62)**	1.06
Myrtle	US 41 to Bradenton	2	7,297	**664**	+16%	1,399	**+734**	0.48	*+173*	**837**	**26%**	**+561**	0.60
Myrtle	Bradenton to 301	2	11,709	**1,066**	+16%	1,332	**+266**	0.80	*+455*	**1,521**	**43%**	**-(189)**	1.14
Bradenton Rd.	MLK to Myrtle	2	6,877	**747**	+16%	1,332	**+585**	0.56	*-(109)*	**638**	**-15%**	**+694**	0.48
Orange Ave.	10 th to 17th	2	12,508	**1,364**	+16%	1,332	**-(32)**	1.02	*+98*	**1,462**	**7%**	**-(130)**	1.10
Orange Ave.	17 th to MLK	2	8,662	**945**	+16%	1,332	**+387**	0.71	*+180*	**1,125**	**19%**	**+207**	0.84
Orange Ave.	MLK to Myrtle	2	2,903	**316**	+16%	1,584	**+1,268**	0.20	*+871*	**1,187**	**275%**	**+397**	0.75
Osprey	MLK North	2	3,654	**406**	+16%	1,332	**+926**	0.30	*+39*	**445**	**10%**	**+887**	0.33
US 301	17 th to Myrtle	4	55,286	**6,244**	+16%	3,168	**-(3,076)**	1.97	*+847*	**7,091**	**14%**	**-(3,923)**	2.24
US 301	17 th South	4	52,034	**5,099**	+16%	3,168	**-(1,931)**	1.61	*+781*	**5,880**	**15%**	**-(2,712)**	1.86
US 41	10 th to 17th	4	42,982	**4,212**	+16%	3,168	**-(1,044)**	1.33	*-(195)*	**4,017**	**-5%**	**-(849)**	1.27
US 41	17 th to Myrtle	4	48,537	**4,556**	+16%	3,053	**-(1,504)**	1.49	*+195*	**4,751**	**4%**	**-(1,699)**	1.56

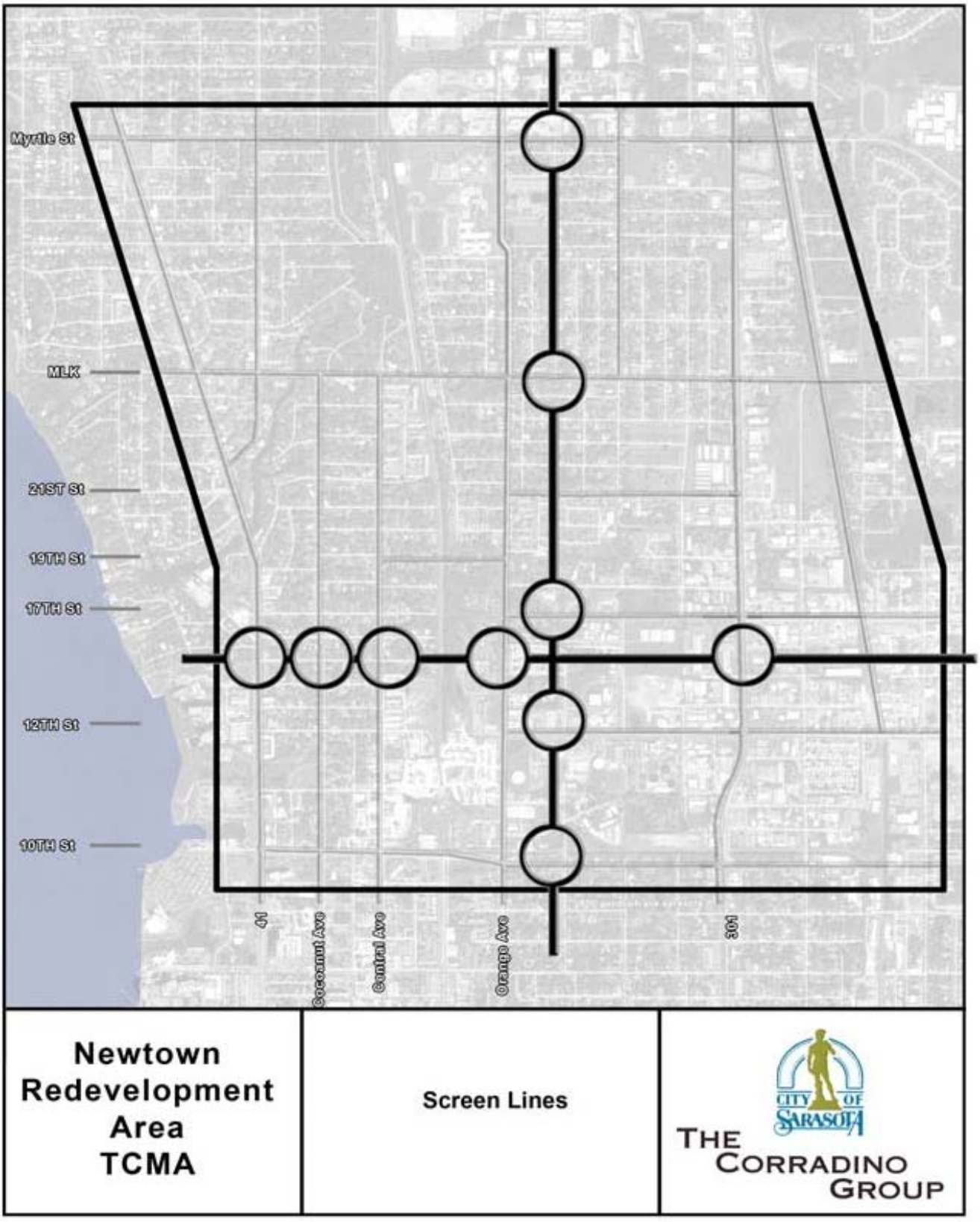
Demonstrate Future Projects and Programs will Support Infill

Area wide Level of Service

Area wide Level of Service is the essence of a Transportation Concurrency Management Area. The concept is that, in order to provide an incentive for infill development or redevelopment in particular areas, certain links may not be able to meet Level of Service standards. The acknowledgement of these links is made and accepted. The thought that travel patterns through an area will use various paths to common origins and destinations, dictates that as long as capacity is maintained in the area, efficient use of the system can be made.

Screen Lines

To arrive at an area wide Level of Service, screen lines have been used to measure capacity at certain points in the network. For east / west capacity, a line was drawn across those facilities just east of Orange Avenue. For north / south capacity a line was drawn across those facilities between 12th Street and 17th Street. Remaining capacities were summed at the points where the roadways were intersected by the screen lines.

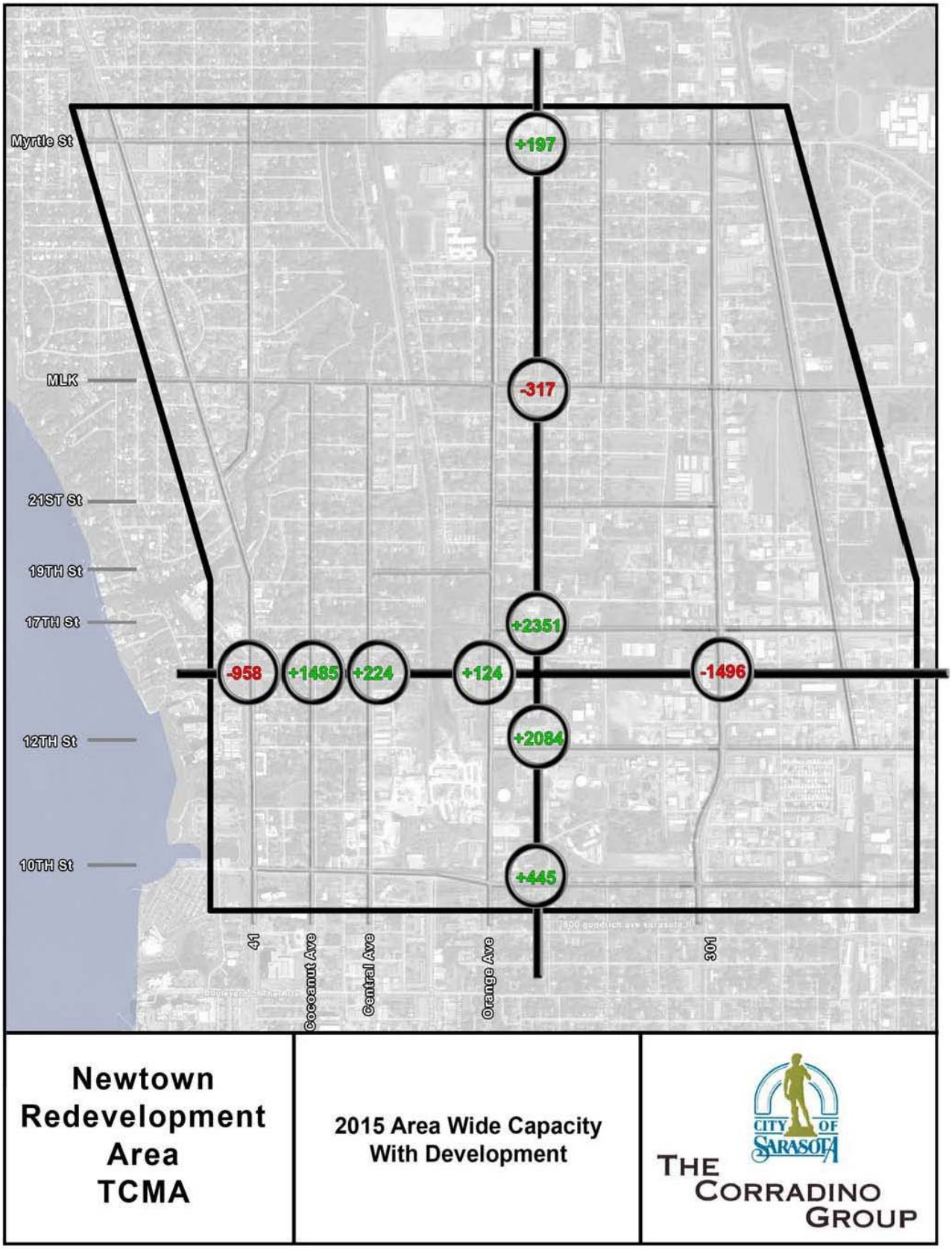

Myrtle St
MLK
21ST St
19TH St
17TH St
12TH St
10TH St
41
Coconut Ave
Central Ave
Orange Ave
301
Newtown Redevelopment Area TCMA
Screen Lines
CITY OF SARASOTA
THE CORRADINO GROUP

In the existing condition, positive area wide capacity is held in both the north / south and east / west directions. Only US 301 lacks capacity through the study area.

Screen Line Analysis Existing Condition		
North / South		
US 41	10th to 17th	11
Cocoanut Ave	10th to 17th	1234
Central Ave	10th to 17th	741
Orange Ave	10th to 17th	310
US 301	17th south	-654
TOTAL		1642
East / West		
Myrtle	Bradenton to 301	533
MLK Way	Orange to Osprey	6
17th Street	Orange to US 301	2604
12th Street	Orange to US 301	2154
10th Street	Orange to US 301	631
TOTAL		5927

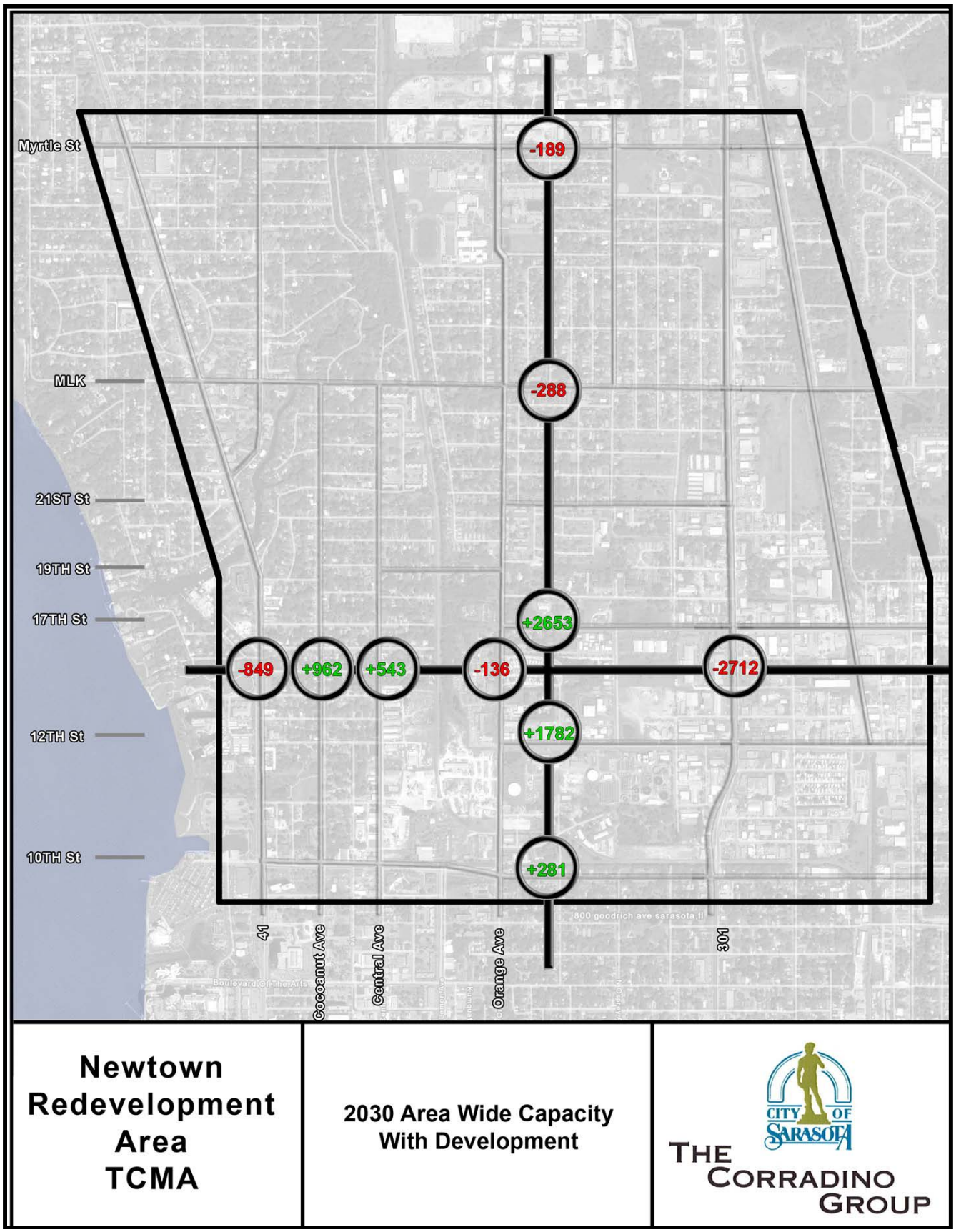
In 2015, area wide capacity is maintained. Only US-41, US-301, and MLK show capacity deficit at the screen lines. All but MLK have positive capacity. Total capacity would be 4,760 trips. North / south roads fall below capacity. Interior roadways at Cocoanut Avenue, Central Avenue, and Orange Avenue, maintain positive capacity, but US-41 and US-301 fall below. There is a negative capacity of 621 trips.

2015 Remaining Capacity		
North / South		
US 41	**10th to 17th**	**-958**
Cocoanut Ave,	**10th to 17th**	**1485**
Central Ave.	**10th to 17th**	**224**
Orange Ave.	**10th to 17th**	**124**
US 301	**17th South**	**-1496**
TOTAL		**-621**
East / West		
Myrtle	**Bradenton to 301**	**197**
MLK Way	**Orange to Osprey**	**-317**
17th Street	**Orange to US 301**	**2351**
12th Street	**Orange to US 301**	**2084**
10th Street	**Orange to US 301**	**445**
TOTAL		**4760**


Myrtle St
MLK
21ST St
19TH St
17TH St
12TH St
10TH St
+197
-317
+2351
-958
+1485
+224
+124
-1496
+2084
+445
41
Cocoanut Ave
Central Ave
Orange Ave
301
Newtown Redevelopment Area TCMA
2015 Area Wide Capacity With Development
CITY OF SARASOTA
THE CORRADINO GROUP

In 2030, area wide capacity is maintained on the east / west and north/south roads, due mainly to the various capacity projects along Central Avenue (two lanes to 4 lanes), Myrtle Street(two lanes to 4 lanes), and Orange Avenue (two lanes to 4 lanes). For east / west roads, all but MLK have positive capacity. Total capacity would be 5572 trips. For north / south roads, the interior roadways at Cocoanut Avenue, Central Avenue, and Orange Avenue maintain positive capacity but US 41 and US 301 fall below. There is a positive capacity of 1796 trips.

Screen Line Analysis 2030		
North / South		
US 41	**10th to 17th**	**-849**
Cocoanut Ave.	**10th to 17th**	**962**
Central Ave.	**10th to 17th**	**543**
Orange Ave.	**10th to 17th**	**-130**
US 301	**17th South**	**-2712**
		-2186
East / West		
Myrtle	**Bradenton to 301**	**-189**
MLK Way	**Orange to Osprey**	**-288**
17th Street	**Orange to US 301**	**2653**
12th Street	**Orange to US 301**	**1782**
10th Street	**Orange to US 301**	**281**
TOTAL		**4240**


Myrtle St
MLK
21ST St
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-136
-2712
+1782
+281
41
Cocoanut Ave
Central Ave
Orange Ave
301
Newtown Redevelopment Area TCMA
2030 Area Wide Capacity With Development
CITY OF SARASOTA
THE CORRADINO GROUP

Deficient Roadway Sections

The capacities and volumes of thoroughfares within and near the TCMA were analyzed to identify deficiencies by road sections. Deficiencies were compared to current and future deficiencies of the entire road network to illustrate whether the Newtown TCMA has placed an exceptional burden on the transportation network, or is in fact representative of general network conditions. It is apparent that the redevelopment of the Newtown Area per its Redevelopment Plan will not place an exceptional burden on the system.

The vast majority of the roadway links in the study area are, and will be functioning better than the acceptable Level of Service with and without the project both in 2015 and 2030. Other than US-41 and US-301, which primarily carry regional traffic, only three roadways will surpass the level of service D standard in either horizon. These are on Orange Avenue and Martin Luther King Jr. Way (MLK) and Myrtle Street.

An exceptional burden is being defined as a roadway link that functions above the acceptable Level of Service and whose volume / capacity ratio increased by 15% or more.

In 2015, only MLK east of US 301 is exceptionally impacted. This however is acceptable, as MLK has been redesigned as a more pedestrian oriented street which will be the facility where the bulk of the commercial and mixed use infill and redevelopment will occur. This is a purposeful result and the basis for implementing the Newtown TCMA. In 2030, US-301 between 10th Street and 17th Street is exceptionally affected.

In 2015 Exceptionally Impacted Links

Roadway	Link	No Build V/C	Build V/C	% Change
MLK	East of 301	.84	.99	17%

In 2030 Exceptionally Impacted Links

Roadway	Link	No Build V/C	Build V/C	% Change
301	10th to 17th	1.07	1.24	15%

Table 5-6 Link Statistics over Time

Growth from 2004 to 2010= 1.5%

Growth from 2010 to 2030= 1.0%

		2004				2016						
		BASE YEAR				NO BUILD				BUILD		
Street	**Segment**	**AADT**	**Peak Volume**	Peak Capacity LOS D	**Peak V/C Ratio @ LOS D**	**AADT**	**Peak Volume**	Peak Capacity LOS D	**Peak V/C Ratio @ LOS D**	**Peak Volume**	**Peak V/C Ratio @ LOS D**	**AADT**
10th Street	US 41 to Orange	6,525	**718**	2,808	0.26	7,499	**825**	2,808	0.29	**1,940**	0.69	8,706
10th Street	Orange to US 301	3,956	**435**	1,066	0.41	4,546	**500**	1,066	0.47	**621**	0.58	5,278
12th Street	Orange to US 301	7,187	**654**	2,808	0.23	8,259	**752**	2,808	0.27	**724**	0.26	9,589
17th Street	US 41 to Central	1,960	**204**	2,027	0.10	2,252	**234**	2,027	0.12	**486**	0.24	2,615
17th Street	Orange to US 301	1,960	**204**	2,808	0.07	2,252	**234**	2,808	0.08	**457**	0.16	2,615
Central Ave.	10th to 17th	2,930	**325**	1,066	0.30	3,367	**373**	1,066	0.35	**841**	0.79	3,909
Central Ave.	17th to MLK Way	4,068	**452**	1,066	0.42	4,675	**519**	1,066	0.49	**834**	0.78	5,428
Central Ave.	MLK to Myrtle	4,068	**452**	1,066	0.42	4,675	**519**	1,066	0.49	**519**	0.49	5,428
Cocoanut Ave.	10th to 17th	2,508	**278**	1,512	0.18	2,882	**319**	1,512	0.21	**27**	0.02	3,346
Cocoanut Ave.	17th to MLK	2,456	**273**	1,066	0.26	2,822	**314**	1,066	0.29	**23**	0.02	3,277
MLK Way	US 41 to Bradenton	4,508	**410**	1,066	0.38	5,181	**471**	1,066	0.44	**127**	0.12	6,015
MLK Way	Bradenton to Cocoanut	10,108	**920**	1,332	0.69	11,616	**1,057**	1,332	0.79	**954**	0.72	13,486
MLK Way	Cocoanut to Central	2,508	**278**	1,066	0.26	2,882	**319**	1,066	0.30	**524**	0.49	3,346
MLK Way	Central to Orange	2,456	**223**	1,066	0.21	2,822	**256**	1,066	0.24	**678**	0.64	3,277
MLK Way	Orange to Osprey	11,652	**1,060**	1,066	0.99	13,391	**1,218**	1,066	1.14	**1,382**	1.30	15,546
MLK Way	Osprey to US 301	8,598	**782**	1,066	0.73	9,881	**899**	1,066	0.84	**851**	0.80	11,472
MLK Way	US 301 east	8,598	**782**	1,066	0.73	9,881	**899**	1,066	0.84	**1,050**	0.99	11,472
Myrtle	US 41 to Bradenton	5,469	**498**	1,399	0.36	6,285	**572**	1,399	0.41	**872**	0.62	7,297
Myrtle	Bradenton to 301	8,776	**799**	1,332	0.60	10,086	**918**	1,332	0.69	**1,135**	0.85	11,709
Bradenton Rd.	MLK to Myrtle	5,154	**560**	1,332	0.42	5,923	**644**	1,332	0.48	**464**	0.35	6,877
Orange Ave.	10th to 17th	9,375	**1,022**	1,332	0.77	10,774	**1,175**	1,332	0.88	**1,208**	0.91	12,508
Orange Ave.	17th to MLK	6,492	**708**	1,332	0.53	7,461	**814**	1,332	0.61	**978**	0.73	8,662
Orange Ave.	MLK to Myrtle	2,176	**237**	1,584	0.15	2,501	**272**	1,584	0.17	**544**	0.34	2,903
Osprey	MLK North	2,739	**304**	1,332	0.23	3,148	**349**	1,332	0.26	**915**	0.69	3,654
US 301	17th to Myrtle	41,437	**4,680**	3,168	1.48	47,620	**5,378**	4,752	1.13	**5,830**	1.23	55,286
US 301	17th South	39,000	**3,822**	3,168	1.21	44,820	**4,392**	3,168	1.39	**4,664**	1.47	52,034
US 41	10th to 17th	32,215	**3,157**	3,168	1.00	37,022	**3,628**	3,168	1.15	**4,126**	1.30	42,982
US 41	17th to Myrtle	36,379	**3,415**	3,053	1.12	41,807	**3,925**	3,053	1.29	**4,225**	1.38	48,537

Areas of Heightened Demand

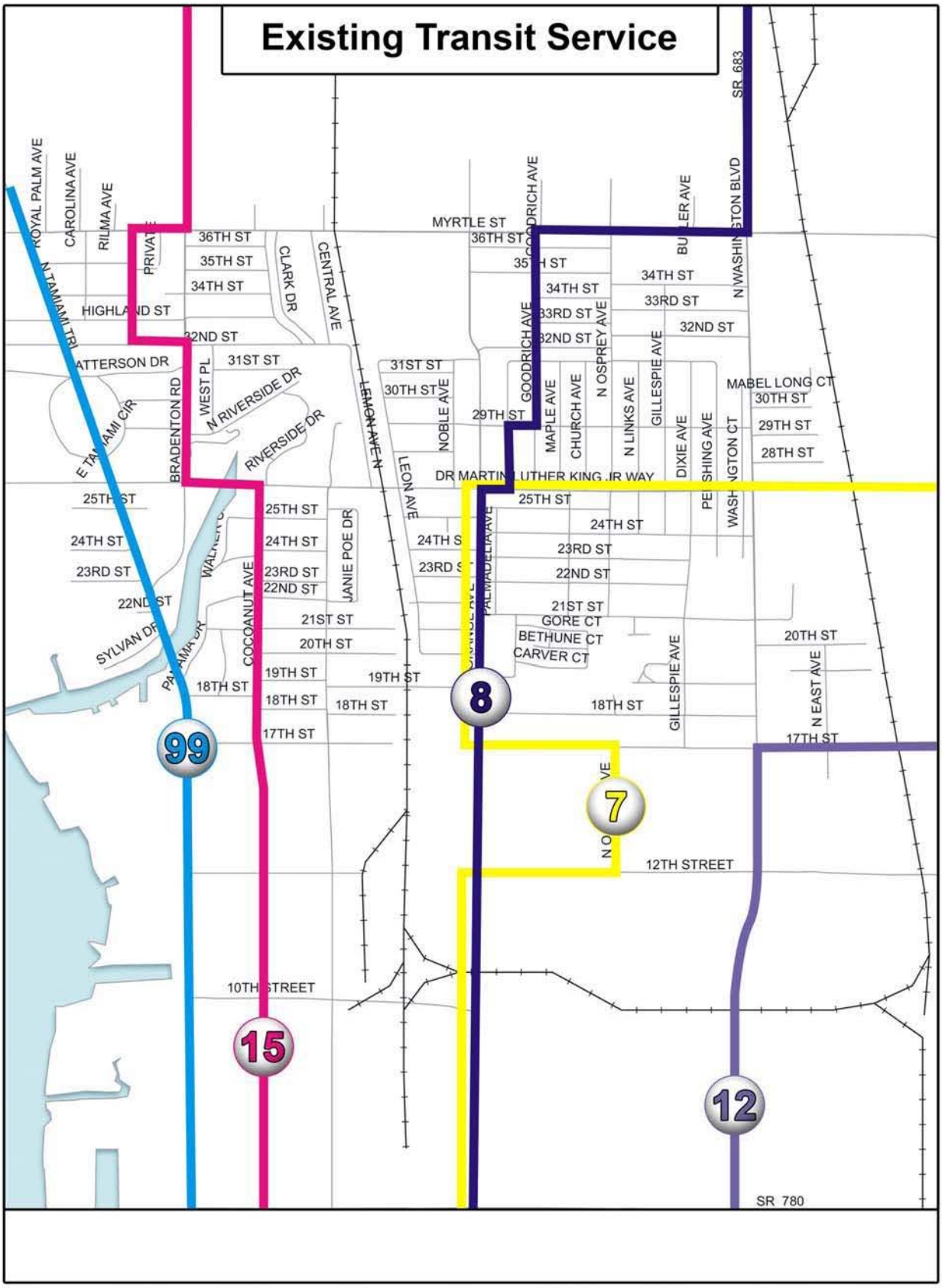
Existing multimodal infrastructure within the Newtown TCMA was reviewed with respect to concentrations of mixed-use or high intensity land uses. Areas likely to incur heightened demand for multimodal facilities/transit service have been identified.

Alternative Modes

Generally sidewalks can be found on both sides of each roadway, and most roadways have a bike lane or room for one. This is sufficient and needed, particularly in the residential areas that provide access to Martin Luther King Jr. Way.

Existing Transit Services

There are five north-south transit routes and no east-west routes operating through the boundaries of the proposed TCMA. Route 99 operates exclusively along North Tamiami Trail from downtown Sarasota to Bradenton. Route 15 runs in a very large loop. Within the study area this route is operating between downtown Sarasota and Desoto Road along Cocoanut Avenue/Old Bradenton Road. Route 7 operates along Orange Avenue from downtown to MLK Way then to Lockwood Ridge Road. Route 8 operates from downtown Sarasota to Tallevast Road. Route 8 operates on Orange Avenue then to Osprey Avenue through the Newtown area. Finally the Route 12, which operates between downtown Sarasota and University Parkway, runs along Washington Boulevard to 17th Street where it turns west and exits the area. All of the bus routes operate on 60 minute headways. An examination of the existing transit services map in light of the Newtown Redevelopment Plan shows that there is adequate transit coverage, yet points to the potential need for east-west transit routes through the area, particularly along Martin Luther King Jr. Way, the main street, where the road has been designed as a more pedestrian friendly street. There may be a need for more transit through the higher density residential areas south of MLK. A transit development plan should be developed to monitor transit activity, need and desire in this area. This would help develop routes and schedule appropriate headways. As capacity of overall roadway deteriorates, transit as an alternative to the automobile can play an important role in maintaining the high quality of life to those that live, work and recreate in Sarasota, expect.


Existing Transit Service
ROYAL PALM AVE
CAROLINA AVE
RILMA AVE
N TAMIAMI TRL
E TAMIAMI CIR
ATTERSON DR
HIGHLAND ST
36TH ST
35TH ST
34TH ST
32ND ST
31ST ST
CLARK DR
CENTRAL AVE
BRADENTON RD
WEST PL
N RIVERSIDE DR
RIVERSIDE DR
LEMON AVE N
LEON AVE
NOBLE AVE
30TH ST
29TH ST
25TH ST
24TH ST
23RD ST
22ND ST
21ST ST
20TH ST
19TH ST
18TH ST
17TH ST
JANIE POE DR
COCOANUT AVE
SYLVAN DR
PANAMA DR
WALDEMERE
MYRTLE ST
GOODRICH AVE
MAPLE AVE
CHURCH AVE
N OSPREY AVE
N LINKS AVE
GILLESPIE AVE
DIXIE AVE
PERSHING AVE
BUTLER AVE
N WASHINGTON BLVD
SR 683
MABEL LONG CT
28TH ST
DR MARTIN LUTHER KING JR WAY
PALMADELIA AVE
GORE CT
BETHUNE CT
CARVER CT
N EAST AVE
N OLIVE AVE
12TH STREET
10TH STREET
SR 780
99
8
7
15
12

Bottlenecks

Bottlenecks in the areas automobile and multimodal network were identified. The areas of greatest concern in both 2015 and 2030 are US-41 and US-301. These facilities carry the bulk of regional traffic, as it flows past the Newtown Area to and from Downtown as they become congested; the Newtown Roadway Network becomes more susceptible to cut through traffic. Flow across the Newtown area can be maintained on a few key facilities, including Myrtle Street, the combination of 21st Street, 19th Street, 17th Street, 12th Street and 10th Street, with Orange Avenue acting as the main distributor of traffic to the various east-west streets. Aside from US-41 and US-301, Orange Avenue is probably the largest potential bottleneck in the Newtown System. Cocoanut Avenue and Central Avenue also may experience congested conditions. In addition the intersections connecting Orange Avenue with its east-west distribution streets and intersections along US-301, can potentially impact the system. These could affect transit as well.

Microsimulation of Congested Areas

The analysis for 2015 conditions was undertaken using detailed capacity analysis procedures. A Synchro network of the study area was constructed containing the inventoried intersections. Each intersection for which data is available and which is over capacity was mitigated to attain the appropriate Level of Service. This was done in order to identify a plan by which to implement shorter term solutions and maintain an acceptable Level of Service as development progresses.

The following intersections were analyzed:

Bradenton / MLK
41 / 10th Street
Orange / MLK
Orange / 17th Street
Orange / 12th Street
Orange / 10th Street
301 / Myrtle
301 / MLK
301 / 17th Street
301 / 12th Street

Six of these intersections exceed acceptable Levels of Service. These include all of those on US-301 and half of the ones counted on Orange Avenue. Intersections along US-41 operate in an acceptable manner, as do the ones along 10th Street. In each case where an intersection has failed, mitigation measures were developed to show what it would take to remedy the condition.

Failing Intersections:

Orange / MLK
Orange / 17th Street
301 / Myrtle
301 / MLK
301 / 17th Street
301 / 12th Street

Orange / MLK

Orange Avenue is an important roadway in the Newtown Area. An examination of the overall roadway network shows a major regional grid consisting of US-41, US301, University Parkway, and Fruitville Road. A sub regional network consists of Bradenton Avenue, Orange Avenue, Martin Luther King Jr. Way, 17th Street, and 12th Street. While Dr Martin Luther King Jr. Way serves as a main street for the area, it is important that a network be developed around that. Orange Avenue and its intersection with Martin Luther King Jr. Way are important to this effort.

Currently this intersection functions at LOS F. The condition can be remedied to LOS D by the conversion of the northbound lanes from a left turn only and a shared through/right to a left turn only, through only, right turn only. Additionally, the east bound intersection can be modified in the same manner.

Lane	**Existing**	**Mitigated**
NB	LT Only Shared Through and Right	LT Only Through Only RT Only
SB	LT Only Shared through and Right	No Change
EB	LT Only Shared Through and Right	No Change
WB	LT Only Shared through and Right	LT Only Through Only RT Only

Orange / 17th

Currently, Orange Avenue at the intersection of 17th Street operates at LOS F and is in need of enhancement. This can be done by taking the single shared use lane and building three single use lanes in each approach.

Lane	**Existing**	**Mitigated**
NB	Shared Left, Through, Right	LT Only Through Only RT Only
SB	LT Only Shared Through and Right	LT Only Through Only RT Only
EB	Shared Left, Through, Right	LT Only Through Only RT Only
WB	LT Only, Shared Through, and Right	LT Only Through Only RT Only

301 / Myrtle

This intersection operates at LOS F, but can be brought to LOS C by enhancing the southbound and eastbound capacity.

Lane	Existing	Mitigated
NB	LT Only, Through Only, Shared Through and Right	No Change
SB	Shared LT, Through Shared, Through and Right	Shared LT, and Through Only Shared Through and Right
EB	LT Only Through Only RT Only	LT Only LT Only Through Only RT Only
WB	LT Only Through Only RT Only	No Change

301 / MLK

This intersection operates at LOS F, but can be brought to LOS D by enhancing the southbound, northbound and eastbound capacity.

Lane	Existing	Mitigated
NB	LT Only, Shared Through and Right	LT Only, Through Only, Through Only Shared Through and Right
SB	LT Only, Shared Through and Right	LT Only, LT Only Through Only Through Only Shared Through and Right
EB	LT Only, Through Only RT Only	LT Only, Through Only Through Only RT Only
WB	LT Only, Through Only Shared Through and Right	No Change

301 / 17th

This intersection operates at LOS F, but can be brought to LOS D by enhancing capacity in all directions.

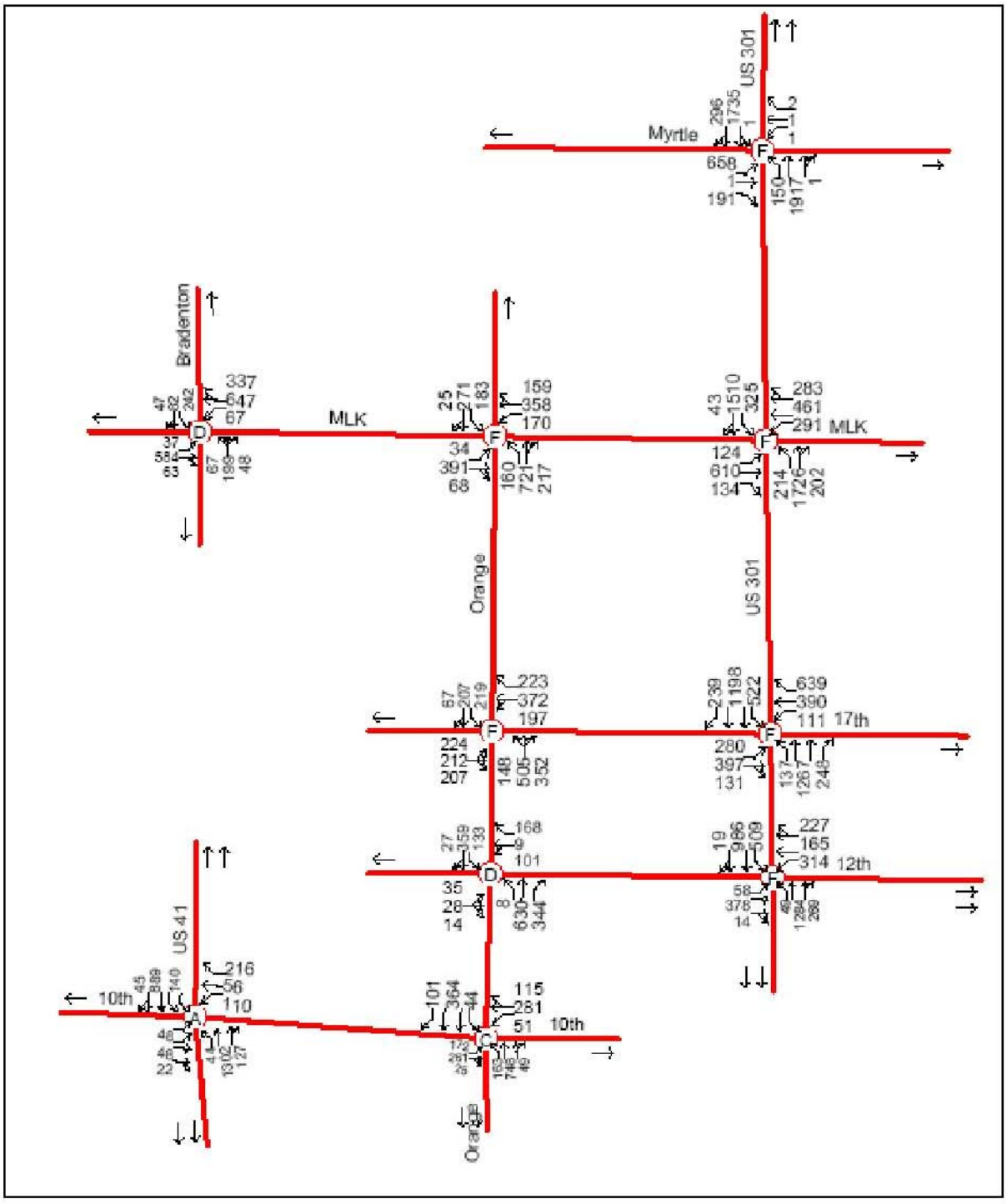
Lane	Existing	Mitigated
NB	LT Only Through Only Through Only RT Only	LT Only Through Only Through Only Through Only Shared Through and Right
SB	LT Only Through Only Through Only RT Only	LT Only LT Only Through Only Through Only Through Only RT Only
EB	LT Only Shared Through and Right	LT Only Through Only Shared Through and Right
WB	LT Only Through Only RT Only	LT Only Through Only Through Only RT Only RT Only

301 / 12th

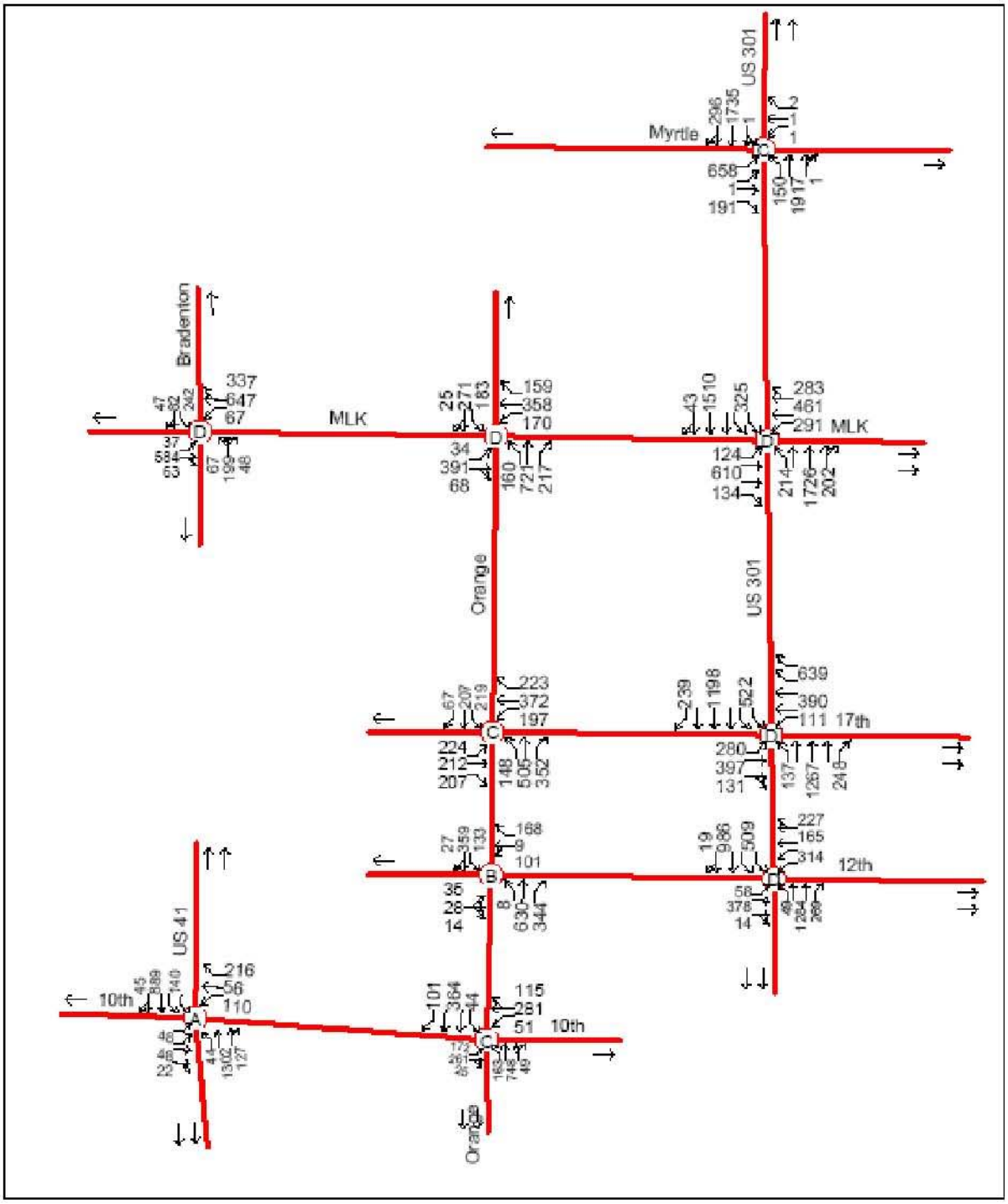
This intersection operates at LOS F, but can be brought to LOS D by enhancing capacity in the northbound, eastbound and southbound directions.

Lane	Existing	Mitigated
NB	LT Only Through Only Shared Through and Right	LT Only Through Only Through Only RT Only
SB	LT Only Through Only Shared Through and Right	LT Only LT Only Through Only Shared Through and Right
EB	LT Only Through Only Shared Through and Right	No Change
WB	LT Only Through Only Shared Through and Right	LT Only LT Only Through Only Shared Through and Right

2015 NOBUILD PM Peak Hour



2015 NOBUILD PM Peak Hour
MITIGATED



Mitigation Projects / With Development for Area wide Capacity

Utilizing the exceptionally affected links, with an understanding of the roadway hierarchy in the Newtown Area, a program of developments has been structured. Over time it may be practical to add capacity on certain roads to enhance mobility, particularly in the north/south direction. From the functional classification of the roadways provided by the City in Task 2, and the utilization of Table 7-6 Service Volumes by Arterial Class, from the Institute of Transportation Engineers, Transportation Planning Handbook, 2nd Edition (p213), the service volume per lane was derived for two lanes, class II arterials at LOS D. This is 1640 vph. Subtracting the existing service volume of the roadways (760vph) an additional lane would provide an additional capacity of 880vph, which would eliminate any north/south deficits. Similar capacity may be warranted along Myrtle Street by 2030 or sooner. Any additional capacity that can be gained along US-41 and US-301 would mitigate already failing levels of service.

Table 7–6 Service Volumes by Arterial Class

Class	Number of Lanes	One Direction Through Service Volume (veh/h)				
		LOS A	LOS B	LOS C	LOS D	LOS E
Class I	1	N/A	660	810	880	900
	2	N/A	1,470	1,760	1,890	1,890
	3	N/A	2,280	2,660	2,840	2,840
	4	N/A	2,840	3,280	3,480	3,480
Class II	1	N/A	N/A	460	760	840
	2	N/A	N/A	1,020	1,640	1,800
	3	N/A	N/A	1,550	2,510	2,710
	4	N/A	N/A	1,890	3,060	3,320
Class III	1	N/A	N/A	N/A	620	800
	2	N/A	N/A	N/A	1,390	1,740
	3	N/A	N/A	N/A	2,130	2,640
	4	N/A	N/A	N/A	2,600	3,230
Class IV	1	N/A	N/A	N/A	690	780
	2	N/A	N/A	N/A	1,540	1,700
	3	N/A	N/A	N/A	2,340	2,570
	4	N/A	N/A	N/A	2,860	3,140

Notes: Class I assumes: 5 intersections at 1.08 km spacing, cycle length = 120 s, free-flow speed = 75 km/h, g/C = 0.45, and arrival type of 3. Class II assumes: 5 intersections at 0.54 km spacing, cycle length = 120 s, free-flow speed = 65 km/h, g/C = 0.45, and arrival type 4. Class III assumes: 5 intersections at 0.32 km spacing, cycle length = 120 s, free-flow speed = 55 km/h, g/C = 0.45, and arrival type 4. Class IV assumes: 5 intersections at 0.22 km spacing, cycle length = 120 s, free-flow speed = 50 km/h, g/C = 0.45, and arrival type 4.

N/A = LOS cannot be achieved.

ITE, Transportation Planning Handbook, Table 7-6 Service Volumes by Arterial Class

Screen Line Analysis 2015 Mitigated		
North / South		
US 41	**10th to 17th**	**-958**
Cocoanut Ave.	**10th to 17th**	**1485**
Central Ave.	**10th to 17th**	**224**
Orange Ave.	**10th to 17th**	**124**
US 301	**17th South**	**88**
TOTAL		**963**
East / West		
Myrtle	Bradenton to 301	197
MLK Way	Orange to Osprey	-317
17th Street	Orange to US 301	2351
12th Street	Orange to US 301	2084
10th Street	Orange to US 301	445
TOTAL		4760

Table 5-7 Mitigated Links over Time (2015)

Growth from 2004 to 2010= 1.5% Growth from 2010 to 2030= 1.0%	2004			2015								
	BASE YEAR			NO-BUILD 2015				BUILD				
Street	Segment	Two-Way Lanes	Remaining Peak Capacity @LOS D	Two-Way Lanes	Peak Capacity LOS D	Remaining Peak Capacity @LOS D	Peak V/C Ratio @LOS D	*Increase*	Peak Volume	Remaining Peak Capacity @ LOS D	Peak V/C Ratio @LOS D	Two-Way Lanes
Central Ave.	10th to 17th	2	**+741**	2	1,066	**+692**	0.35	*+468*	**841**	**+224**	0.79	4
Central Ave.	17th to MLK	2	**+614**	2	1,066	**+546**	0.49	*+315*	**834**	**+231**	0.78	4
Central Ave.	MLK to Myrtle	2	**+614**	2	1,066	**+546**	0.49	-	**519**	**+546**	0.49	4
MLK Way	US 41 to Bradenton	2	**+656**	2	1,066	**+594**	0.44	*-(344)*	**127**	**+938**	0.12	4
MLK Way	Bradenton to Cocoanut	2	**+41**	2	1,332	**+275**	0.79	*-(103)*	**954**	**+378**	0.72	4
Myrtle	US 41 to Bradenton	2	**+901**	2	1,399	**+826**	0.41	*+300*	**872**	**+526**	0.62	4
Myrtle	Bradenton to 301	2	**+533**	2	1,332	**+414**	0.69	*+217*	**1,135**	**+197**	0.85	4
Orange Ave.	10th to 17th	2	**+310**	2	1,332	**+157**	0.88	*+33*	**1,208**	**+124**	0.91	4
Orange Ave.	17th to MLK	2	**+624**	2	1,332	**+518**	0.61	*+164*	**978**	**+354**	0.73	4
Orange Ave.	MLK to Myrtle	2	**+1,347**	2	1,584	**+1,312**	0.17	*+272*	**544**	**+1,040**	0.34	4
US 301	17th to Myrtle	4	**-(1,512)**	6	4,752	**-(626)**	1.13	*+452*	**5,830**	**-(1,078)**	1.23	6
US 301	17th South	4	**-(654)**	6	4,752	**+360**	0.92	*+272*	**4,664**	**+88**	0.98	6
US 41	10th to 17th	4	**+11**	4	3,168	**-(460)**	1.15	*+498*	**4,126**	**-(958)**	1.30	4
US 41	17th to Myrtle	4	**-(362)**	4	3,053	**-(872)**	1.29	*+300*	**4,225**	**-(1,172)**	1.38	4

Table 5-7 Mitigated Links over Time (2030)

Growth from 2004 to 2010= 1.5% Growth from 2010 to 2030= 1.0%	2004			2030						
	BASE YEAR			**2030 NO-BUILD**			**BUILD**			
Street	Segment	Two-Way Lanes	Remaining Peak Capacity @LOS D	Peak Capacity LOS D	Remaining Peak Capacity @ LOS D	Peak V/C Ratio @LOS D	***Increase***	**Peak Volume**	**Remaining Peak Capacity @ LOS D**	**Peak V/C Ratio @LOS D**
Central Ave.	10th to 17th	2	**+741**	1,066	**+632**	0.41	*+89*	**523**	**+543**	0.49
Central Ave.	17th to MLK	2	**+614**	1,066	**+463**	0.57	*+388*	**991**	**+75**	0.93
Central Ave.	MLK to Myrtle	2	**+614**	1,066	**+463**	0.57	-	**603**	**+463**	0.57
MLK Way	US 41 to Bradenton	2	**+656**	1,066	**+519**	0.51	*-(393)*	**154**	**+912**	0.14
MLK Way	Bradenton to Cocoanut	2	**+41**	1,332	**+105**	0.92	*-(421)*	**806**	**+526**	0.61
Myrtle	US 41 to Bradenton	2	**+901**	2,797	**+2,133**	0.24	*+173*	**837**	**+1,960**	0.30
Myrtle	Bradenton to 301	2	**+533**	2,664	**+1,598**	0.40	*+455*	**1,521**	**+1,143**	0.57
Orange Ave.	10th to 17th	2	**+310**	2,664	**+1,300**	0.51	*+98*	**1,462**	**+1,202**	0.55
Orange Ave.	17th to MLK	2	**+624**	2,664	**+1,719**	0.35	*+180*	**1,125**	**+1,539**	0.42
Orange Ave.	MLK to Myrtle	2	**+1,347**	3,168	**+2,852**	0.10	*+871*	**1,187**	**+1,981**	0.37
US 301	17th to Myrtle	4	**-(1,512)**	4,752	**-(1,492)**	1.31	*+847*	**7,091**	**-(2,339)**	1.49
US 301	17th South	4	**-(654)**	4,752	**-(347)**	1.07	*+781*	**5,880**	**-(1,128)**	1.24
US 41	10th to 17th	4	**+11**	3,168	**-(1,044)**	1.33	*-(195)*	**4,017**	**-(849)**	1.27
US 41	17th to Myrtle	4	**-(362)**	3,053	**-(1,504)**	1.49	*+195*	**4,751**	**-(1,699)**	1.56

APPENDIX 6

GLOSSARY

Average Annual Daily Traffic (AADT)

The total yearly traffic volume divided by 365 (or 366 in a leap year). Where all-year counts are not conducted, the raw counts are translated to AADT using a seasonal adjustment factor.

Abatement

See Calming.

Calming

Measures to reduce the volume and/or speed of traffic on local streets. Examples include narrowing the roadway, speed humps, and stop signs.

Access Management

The provision of safe access to parcels. City standards are contained in the Engineering & Design Criteria Manual. The County and FDOT have additional standards for their respective roads.

Adjusted Saturation Flow Rate

The rate of flow of through traffic assuming 100% green time at signals and no stop or yield signs.

Arterial, Major

A street designed primarily for through traffic and inter-city as well as intra-city movement. Service to abutting land is subordinate to traffic movement.

Arterial, Minor

A street designed for intra-city circulation and designation of neighborhood boundaries. It generally does not penetrate identifiable neighborhoods.

Arterial, Principal

Similar to a Major Arterial, these are defined according to FDOT guidelines and include Interstate Connectors as well.

Background Traffic

Traffic which is generated elsewhere. In a typical development review, the developer has no control over this traffic.

Backlogged Facility

Roads not designated as "constrained" which are currently below adopted LOS standard and not programmed for construction in the first three years of FDOT's adopted work program or on the City's CIP.

Bike Lane

A portion of a roadway for the exclusive use of bicycles.

Bike Path

A bikeway separated from motorized traffic. It can be either in the right-of-way or separate.

Bulk Loading Facility

An intermodal site where liquid materials or gases can be exchanged between railroad tank cars and local delivery tank trucks.

Capacity

The maximum rate of flow, usually expressed in vehicles or persons per hour, which can be expected during a specific time period under prevailing roadway, traffic, and control conditions.

Capital Improvements Program (CIP)

The City's five (5) year budget for capital improvements, including design, right-of-way acquisition, and new construction.

Clear Zone

An area surrounding an airport which is subject to peak noise and the highest potential of danger from airport operations.

Collector, Major

A street which has a primary function of inter-neighborhood linkages and aggregating traffic into the arterial system. It may also penetrate a neighborhood, distributing trips to ultimate destinations, and in some instances provide direct access to individual abutting parcels.

Collector, Minor

A street which collects from local streets. Additionally, its purpose is to provide direct access to individual abutting parcels. It is designed to serve internal traffic movements within a neighborhood. It is not meant to handle long through trips.

Concurrency

The necessary public facilities and services to maintain the adopted LOS when development occurs.

Concurrency Management System (CMS)

The process to assure that development orders and permits are not issued until concurrency is met. For transportation, this means that facilities must be in place or under actual construction within three (3) years of issuance of a certificate of occupancy by the City.

Constrained Facility

A road which cannot be expanded by two or more through lanes (i.e. one in each direction) because of intense development, high right-of-way costs, historical, archaeological, aesthetic, or social impact considerations.

Critical Intersection

The intersection of a road segment which has the least amount of green time compared to the adjusted saturation flow rate.

Cross-section

A cross-view from the perspective of facing the middle of a road or railroad, from right-of-way line to right-of-way line, including shoulders, roadway, pavement crown, slope, guardrail, curbs, and drainage ditches.

De Minimis

A development which generates 25 or fewer trips at peak hour, and therefore is considered to not have any significant impact on LOS.

Department of Community Affairs (DCA)

State land planning agency responsible for a number of programs, including Chapters 163 and 380 of the Florida Statutes (F.S.).

Evaluation and Appraisal Report (EAR)

Periodic review and evaluation of a local government comprehensive plan; generally due every five years; requirements for contents are identified in Rule 9J-5.0053, Florida Administrative Code (F.A.C.) and Chapter 163.3191, Florida Statutes (F.S.).

Florida Administrative Code (F.A.C.)

Document in which Florida's administrative regulations are found.

Florida Department of Transportation (FDOT)

State agency responsible for transportation issues and planning in Florida.

Free Flow Speed

The theoretical speed on an empty street dictated principally by the highway geometry and design speed. For this comprehensive plan, the 85th percentile actual speed was used if greater than the posted speed limit.

Friction

The amount of impedance to traffic flow caused by minor streets, driveways, parking spaces, pedestrian movements, and driver behavior.

Florida Standardized Urban Transportation Modeling Structure (FSUTMS)

The preferred software for modeling existing and future traffic at a regional scale.

Functional Classification

The assignment of roads into systems according to the character of service they provide in relation to the total highway network.

Geometry

1. The vertical and horizontal alignment of a road, including grade, curvature, and superelevation or cross-slope.

2. The number, arrangement, lengths, and widths of roadway lanes at or between intersections.

Headway

1. ***Transit***: The typical waiting time between bus or train trips at a specific location. The headway for most bus routes in Sarasota is 60 minutes.

2. ***Traffic:*** The number of seconds of wasted time when a signal at an intersection turns green until traffic actually flows through the intersection.

Highway Capacity Manual (HCM)

The recognized manual describing accepted methodology for computing the capacity and level-of-service for various types of roads; published by the Transportation Research Board (TRB).

Impact Fees

A fee imposed jointly by Sarasota County and the City of Sarasota on new development to fund additional road capacity needed as a result of new development.

Interstate Connector

A street which connects an interchange with I-75 directly to the City limits.

ISTEA

The Intermodal Surface Transportation Efficiency Act passed by the U.S. Congress in 1991.

Intelligent Transportation Systems (ITS)

Real-time monitoring of transportation conditions using advanced technology. Examples include advance trip planning, global positioning systems, and variable message signs.

K30

Estimated traffic at the 30th highest design hour of the year. This usually occurs at peak hour during peak tourist season. It is useful in designing for full-tourism conditions.

K100

Estimated traffic at the 100th highest design hour of the year. In Sarasota, this usually occurs at the end of October or beginning of November. K100 is recommended by FDOT as the appropriate design standard as the optimal balance between cost and benefit.

Local Street

The lowest functional classification. Its sole function is to provide direct access to individual abutting parcels. Its traffic is local in nature.

Level-of-service (LOS)

A grading system for highways and transit comparing capacity to demand.

Mitigation

Specific actions to reduce the amount of traffic so that LOS is not degraded. Examples include deceleration lanes and requiring employees to carpool or ride transit.

Metropolitan Planning Organization (MPO)

The forum for cooperative transportation decision-making; required for urbanized areas with populations over 50,000.

Obstruction

Any structure, vegetation, condition, or land use which obstructs the air space required for aircraft landing and takeoff or otherwise increases the risk of danger to aircraft operations.

Para-transit

Non-fixed route public transportation which involves a shared ride. Examples include multiple-destination taxicabs, vanpools, and subscription bus service.

Piggyback Terminal

An intermodal site where truck trailers or seagoing containers can be transferred on and off railroad flat cars.

Plan and Profile

A pictorial designation of construction improvements. The "plan" is the top view while the "profile" is the vertical cross-section. Normally, three profiles are needed for road projects: centerline and the two curb lines.

Revenue Hours

In a transit system, the sum of the hours which every vehicle is in operation collecting fares. Deadhead times to and from terminals are not included.

Section

A sequence of consecutive roadway segments for which a single LOS is calculated. A section must always be equal to or greater than a segment.

Segment

A piece of roadway between two intersections, normally two signalized intersections but in some cases broken at unsignalized intersections.

Service Volume

The maximum volume which a particular roadway can sustain at a specified LOS.

Station Car

An electric car, capable of going only short distances, to alighting transit passengers whose destination is not served by mass transit or paratransit.

Stopped Delay

The time a vehicle spends stopped in a queue while waiting to enter a signalized intersection.

Super elevation

The degree of height difference between the outer edge and inner edge of a highway, or the outer and inner edges of a railroad track, to compensate for the centrifugal force that acts on a vehicle as it traverses a curve.

Transportation Demand Management (TDM)

A form of TSM which discourages the use of single-occupant automobiles. TDM includes vanpooling, "guaranteed ride home," staggered work hours, parking management, and conventional mass transit.

Transportation Improvement Program (TIP)

The MPO's short-range (5-year) plan for all transportation improvements for which the obligation of federal funds is expected.

Transportation Systems Management (TSM)

Highway improvements to make the existing system operate more efficiently without widening. They include signal timing, turn bays, ITS, and TDM.

Transportation Concurrency Exception Area (TCEA)

A specific geographic area where transportation concurrency requirements do not apply; area must be designated in a local comprehensive plan; requirements found in Rule 9J-5.0055(6), F.A.C.

Transportation Concurrency Management Area (TCMA)

A compact geographical area in which an area wide level of service (LOS) standard is applied for the purpose of meeting the concurrency requirements of Chapter 163, F.S.; area is designated in a local comprehensive plan; requirements are found in Rule 9J5.0055(5), F.A.C.

Thoroughfare

A street which has been officially designated and classified on the City's Thoroughfare Plan.

Urban Collector

FDOT terminology for both Major and Minor Collectors.

APPENDIX 7

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The following publications and data sources were utilized in creating the Goals, Objectives, and Action Strategies of this Transportation Chapter. These documents also underlie the inventory, analysis, and/or emerging issues discussed in this Transportation Chapter. Each of the documents cited below are available for review at the City of Sarasota Public Works Department or Neighborhood and Development Services Department.

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