

Agenda CAC

Citizens Advisory Committee IN-PERSON MEETING

Growth Management Department Planning & Regulation Building Conference Rooms 609/610 2800 N. Horseshoe Dr. Naples, FL, 34104

November 28, 2022, 2:00 P.M.

- 1. Call to Order
- 2. Roll Call
- 3. Approval of the Agenda
- 4. Approval of the September 26, 2022 Meeting Minutes
- 5. Open to Public for Comments
 Items Not on the Agenda
- 6. Agency Updates
 - A. FDOT
 - B. MPO Executive Director
- 7. Committee Action
 - A. Endorse Congestion Management Process (CMP) Origin and Destination (O & D) Report
 - B. Endorse County's Updated Transit Asset Management (TAM) Plan Performance Targets
 - C. Endorse Transit Regional Service and Fare Study Scope

- D. Endorse Transfer of \$2.5 million in FY23 SU Funds to CAT Maintenance & Operations Facility Replacement Project
- 8. Reports & Presentations*
- 9. Member Comments
- 10. Distribution Items
 - A. Revised/Final Congestion Hotspots Fact Sheets
 - B. Draft 2023 MPO Meeting Calendar
- 11. Next Meeting Date

January 23, 2023

New Location: Transportation Management Services Bldg. Main Conference Room, 2885 S. Horseshoe Dr., Naples, FL, 34104

12. Adjournment

*May Require Committee Action

PLEASE NOTE:

The meetings of the advisory committees of the Collier Metropolitan Planning Organization (MPO) are open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda should contact the MPO Director at least 14 days prior to the meeting date. Any person who decides to appeal a decision of the advisory committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact the Collier Metropolitan Planning Organization 72 hours prior to the meeting by calling (239) 252-5814. The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Title VI Coordinator, Ms. Dusty Siegler (239)252-5814 or by Collier MPO Dusty.Siegler@colliercountyfl.gov, or in writing to the Collier MPO, attention: Ms. Siegler, at 2885 South Horseshoe Dr., Naples, FL 34104.

CITIZENS ADVISORY COMMITTEE of the COLLIER METROPOLITAN PLANNING ORGANIZATION MEETING MINUTES

September 26, 2022, 2 p.m.

1. Call to Order

Ms. Middelstaedt called the meeting to order at 2:01 p.m.

2. Roll Call

Ms. McLaughlin called the roll and confirmed a quorum was present.

CAC Members Present

Elaine Middelstaedt, Chair Dennis Stalzer Karen Homiak Stephen Spahr

CAC Members Absent

Neal Gelfand, Vice-Chair Dennis DiDonna Fred Sasser Josh Rincon Rick Hart

MPO Staff

Anne McLaughlin, Executive Director Scott Philips, Principal Planner Dusty Siegler, Administrative Assistant

Others Present

Alex Showalter, Collier Area Transit
Jacob Stauffer, Collier Area Transit
Lorraine Lantz, Collier County Transportation Planning
Victoria Peters, FDOT (arrived late)
Wally Blain, Benesch (virtually via Zoom)

3. Approval of the Agenda

Ms. McLaughlin informed members that MPO Staff handed out a proposed revised Agenda at the meeting. The revised Agenda adds Item 7.E. Item 7.E. is a walk-on item; an amendment to the Unified Planning Work Program (UPWP) for professional services. Staff requested that CAC approve the revised Agenda.

Ms. Homiak moved to approve the revised agenda. Mr. Stalzer seconded. Carried unanimously.

4. Approval of the August 22, 2022 Meeting Minutes

Ms. Middelstaedt notified members that a revision is needed to the August 22, 2022, meeting minutes attached to the agenda. **Ms. McLaughlin** explained Fred Sasser was listed as being present, but he was not. Staff would like CAC's approval of the meeting minutes with the correction of Mr. Sasser being moved from "present" to "absent."

Ms. Homiak moved to approve the August 22, 2022 meeting minutes, as revised. Mr. Stalzer seconded. Carried unanimously.

5. Public Comments for Items not on the Agenda

None.

6. Agency Updates

A. FDOT

Ms. McLaughlin indicated that Ms. Victoria Peters may arrive at the meeting late, and she was unable to make it to the Technical Advisory Committee (TAC) meeting earlier. Ms. Peters wanted to mention Mobility Week is coming up in the end of October, and there are some upcoming sessions, geared mainly to technical staff, on how to submit grant applications. Those sessions are happening in Lee County.

B. MPO Executive Director

Ms. McLaughlin introduced the MPO's new administrative assistant, Ms. Siegler. Ms. Brandy Otero, one of the MPO's principal planners, has accepted a new position with Collier County.

7. Committee Action

A. Endorse Addition of Funds to Cover Cost Increases on Eden Park Elementary and 111th Ave. Projects

Ms. Middelstaedt commented that the construction estimates for the projects are from 2013. Ms. McLaughlin responded it is indicative of how long it takes to go through the process; ten years is typical. The MPO starts with issuing a call for projects. By that time, the project has been conceptualized and costs considered. The earliest a project can get on a priority list is approximately six years from that. It is fortunate if a project gets programmed the first year because there is a cap on spending. Between design and construction, there is usually a two-year gap. There is limited opportunity to change the construction cost estimate until the point is reached where the project is being programmed.

Ms. Peters arrived at the meeting and indicated she had flyers to provide.

Ms. McLaughlin stated construction costs have sky-rocketed, especially in the past few years. Collier County is asking for an additional \$125,000 for the 111th Avenue North Paved Shoulders project. It was prioritized in 2013 by the Bicycle/Pedestrian Advisory Committee. The County is contributing to an overage for Construction Engineering & Inspection (CEI) costs and is doing what it can to cover additional costs. The Eden Park Elementary Safe Routes to School (a competitive grant program that FDOT manages) Sidewalk project was estimated for construction in 2016 and first programed in 2018/2019. Engineering plans were recently completed, and the revised construction cost estimate has now increased significantly. The funding shortfall is just under \$800,000. Collier County was able to secure additional funding for the CEI cost increase. The County requested assistance from the MPO to get additional funds.

According to FDOT's five-year Work Program, there is approximately \$3.3 million in the MPO's SU box for FY 2023 (Ms. McLaughlin can answer any questions about this), and an additional approximate \$519,000 in funding for the Transportation Alternative Program for Urban Areas, which tends to be multi-modal in its focus. Funding is available to cover the amount the County is requesting. However, FDOT recently informed the MPO that FDOT does not yet have budget authority for the 2023 funding and does not anticipate having budget authority until February or March of 2023, after the legislature meets. Because of that and the need to act quickly, Ms. Peters and FDOT are looking to see what other funds might be available sooner.

Ms. Peters explained that spending authority, or budget, allows FDOT to use funds. Typically, when we are in FY 2023, which we are, and the Work Program is open, which it is for a few more weeks, FDOT goes to the legislature and requests spending authority for programmed projects and typically gets approval. FDOT then has authority for the next five years, 2024 to 2028. But when there are current-year requests, such as this case, what FDOT has for budget is what was requested last year. Sometimes, Safe Routes to School has extra budget. FDOT is going to request funds from the extra budget but needs more information on the approximate \$800,000 cost overrun to substantiate the request. There are also other areas of FDOT, such as the safety office, that sometimes have extra budget. Ms. Peters indicated FDOT has a few more weeks and requested additional information on the budget shortfalls from Ms. McLaughlin.

Ms. Peters indicated that sometimes budget can be rolled over from the prior year into the current year. But just because there is money available, does not mean that FDOT has the budget authority. For example, we have seen the funds in the SU box go up for some of the years, but FDOT does not yet have budget authority for the funds.

Ms. Peters commented she is hopeful regarding funding for the Safe Routes to School project shortfall. The project may also tie into the Lake Trafford sidewalk project, which has been in the works for some time. Ms. Peters has explained to FDOT Work Program that the project is for the safety of the children.

Ms. McLaughlin requested CAC's endorsement, stating the cost increases are substantial enough that the MPO Board has expressed it be brought before them for consideration. Staff intends to present the request to the MPO Board at its October meeting.

Ms. Homiak moved to endorse Addition of Funds to Cover Cost Increases on Eden Park Elementary and 111th Ave. Projects. Mr. Stalzer seconded. Carried unanimously.

B. Review Congestion Management Process (CMP) Origin and Destination (O & D) Study

Ms. McLaughlin announced that the MPO's consultant, Wally Blain, was attending the meeting via Zoom to provide a presentation on the current draft CMP O&D Study report. It is a continuation and part of the CMP update that the MPO has Mr. Blain's company under contract to prepare. The purpose is to look at information and data that can help address congestion as the MPO goes into updating the Long-Range Transportation Plan (LRTP).

Mr. Blain introduced himself and indicated he intends to be at the November CAC meeting and bring the report back as a final item for discussion, before it is presented to the MPO Board in December. In Mr. Blain's March presentation to CAC, there was discussion about the corridor fact sheets. That item is on the agenda to be distributed later at the meeting. Benesch has been evaluating how trips are made in Collier County and some of the greater regions in Southwest Florida. The report is very detailed and lengthy. The Congestion Management Committee (CMC) established the analysis that Benesch would undertake.

Mr. Blain provided a presentation regarding the draft CMP O&D Study report:

The data used for the study comes from Replica Data Platform; an analytic platform. The data is sourced from a variety of different avenues; it is an activity-based model, so it is a simulation of real-time collected data. The activity-based modeling removes specifics and information about individuals; the data is already "de-identified" when it is received and there is no personal information attached to it. Several data sources are used, including mobile/cell phone location and point of interest data, land use/real estate data, transaction/sales data (not used much for the purpose of this study), and ground truth data.

On methodology review, the planning subareas in both Collier and Lee Counties were used for analysis. CMC, when it initially reviewed the study, indicated it wanted to subareas to be in line with the

growth management plans and maps. Ultimately, the report identifies 17 subareas in Collier County and 22 subareas in Lee County. The four neighboring/regional counties were also added to show trip interactions related to Collier County.

On the county level summary, there was an analysis of how many trips originate in Collier County daily (an average weekday in Spring of 2021). The data is a little over one year old, but it is the most current data available today. Benesch looked at how many trips stay in Collier County (a little over one million), how many end outside of the County (about 10 %), how many trips come back into the County (about 9%), and how many trips start in Collier County and end in Lee County (approximately 90,000). There is a high correlation and interaction between the two counties. Another item evaluated was trips that pass through Collier County, but do not end or start in Collier County. Approximately 38,000 daily trips pass through Collier County and a majority of the pass-through trips have an origin or destination in Lee County. I-75 carries the majority of the traffic but there are many trips on SR 82 and SR 29 that are considered pass-through trips. Benesch evaluated the impact of the pass-through trips on the transportation system. The highest number of pass-through trips are on I-75, both at Lee County and Broward County. Mr. Blain presented a spaghetti plot map not included in the draft report (but will be included in the final report). The map depicts home to work trips; where people live in Collier County and their associated work trips. Half of the people working and living in Collier County work west of I-75. 9% of Collier County residents work in Lee County. Mr. Blain presented another graphic chart (not included in the draft report) showing residents working from home from 2019 to 2022. The trend shows that, while the number of people working from home has come down since COVID, there has been stabilization over the past year or so in how many people are working from home. Currently, approximately 25,000 are working from home, 7% of the population/16% of workers, on an average weekday.

On subarea reporting, Mr. Blain presented an excerpt of subarea maps included in the report. The maps show trip distributions-where a trip originated in the subarea and where the subarea was the destination. A series of charts for each subarea were created that show when the subarea was the origin, when it was the destination, when it is considered the home location, and what that means for home to work trips. Trip purpose was evaluated, and the most common trip purpose was home. The charts divide up trip distance and trip length. One thing that overwhelms the trip average is out of region or long-distance trips that exceed the highest end range. The charts also show when the trips start and the frequency throughout the day.

On key takeaways/next steps, Replica does the same level of estimating for transit trips, but the data was not included in the data set. Benesch has communicated with Replica. Replica has two conditions to be met; one is that there is a minimum threshold for the size of the system that they want to evaluate. Collier Area Transit does meet that minimum. The second condition is that they are getting the information from the Google transit feed, which transit agencies provide. Benesch has requested Replica to provide the transit information in its next data release so it can be included in the report. On the concentration of work trips, perhaps there is a way to evaluate from a work as destination perspective rather than a home as origin perspective. There was an evaluation of Collier County residents that leave the county for work, but not of out-of-county residents that come to work in Collier County; there is an opportunity to look at this. Some areas have a more diverse mix of land use and have a higher internal capture of trips that stay in the area rather than leave the area. As the MPO looks towards its 2050 LRTP update, there is an opportunity to

evaluate things like safety data correlated with trip and O&D data, subareas that are environmental justice areas and what that means for the goals and evaluations of the LRTP matrix.

On the schedule, Mr. Blain gave a presentation to CMC last week and a presentation to TAC this morning. Benesch hopes to get comments on the draft report back by October 7 so that comments can be reviewed and Benesch can coordinate with Staff to get a revised draft out before the next round of committee meetings, which would be CMC on November 16, TAC and CAC on November 28, and a final MPO Board presentation on December 9.

Mr. Blain asked if there were any questions. Ms. Middelstaedt expressed that the data is very detailed and the report was impressive. She was surprised that there are 3,700 daily trips in Everglades City. Ms. McLaughlin asked what the number of people working from home was prior to COVID, and Mr. Blain's recollection was that it was between 9,000 and 10,000 people. Ms. Middelstaedt commented the higher rate of people working from home may have something to do with the state of the economy; many companies realize it is unnecessary to be in a large or commercial building as many employees can work from home. There are also many benefits of working from home.

Ms. Middelstaedt thanked Mr. Blain for his presentation. **Mr. Blain** indicated he looks forward to seeing CAC in-person in November.

C. Potential Agenda Topics for Joint Meeting with Lee County MPO

Ms. McLaughlin indicated there were some additions from the morning's meeting of TAC. Collier County and Lee County CAC and TAC are going to meet on October 24 at FDOT's Southwest District I office. The TAC meeting will start at 10 a.m., and the CAC meeting will start at 1:30 p.m. The primary focus of the joint meetings is sharing information, but occasionally, there is something that needs to be acted upon and decided. One item that was added to the agenda list at the TAC meeting in the morning was to take another look at Collier MPO's Interlocal Agreement with Lee MPO, which dates from approximately 2009 and has not been updated in some time. This may be an action item at the joint meetings. The remaining items are informational: regional road projects status (Old U.S. 41, U.S. 41, Bonita Beach Road, the intersection at SR 82, I-75, and Vanderbilt Beach Road); regional transit; FDOT COMMUTE with Enterprise update (a van pool for which FDOT has an ongoing pilot project); regional bike path updates (including the feasibility studies for Rail Trail and the Paradise Coast Trail, U.S. Bike Route 15, and the SUN Trail); and an update on discretionary grant programs under the new Bipartisan Infrastructure Law. Ms. McLaughlin is interested to know what Lee MPO and local governments have applied for. Another item added at the meeting this morning was an update on regional airport master planning and its travel demand; this is an economic indicator in terms of tourism. Ms. McLaughlin stated if there are any other suggestions for potential agenda topics, let Staff know.

Ms. Peters indicated she may be able to get attendees at the joint meeting to discuss the I-75 master plan, Old U.S. 41, U.S. 41, and Bonita Beach Road. **Ms. Peters** asked Ms. McLaughlin if Staff wants the same presentations for TAC and CAC as Staff will want for the MPO Board, and **Ms. McLaughlin** indicated the agenda for the joint MPO Board Meeting will be similar; the presentations can be short and do not need to be very detailed.

D. Endorse FDOT Vision Zero Safety Targets for Calendar Year 2023

Ms. McLaughlin explained that the vision zero safety target is the one target that must be adopted annually. The rest of the MPO's targets were adopted over the years and remain constant for the time being. Ms. McLaughlin's rationale is FDOT is doing the major work of reporting to the federal government, which alleviates some of the burden that would otherwise be on Collier MPO if a separate target was adopted. There is an added need to adopt the vision zero safety target this year; some of the discretionary grant programs under the new Bipartisan Infrastructure Law require the adoption of a zero target for fatalities and serious injuries. The federal government wants those awarded the grants to show aggressive steps to meet the target.

Ms. Homiak moved to Endorse FDOT Vision Zero Safety Targets for Calendar Year 2023 and **Mr. Stalzer** seconded. Carried unanimously.

E. Endorse Amendment #2 to FY 22/23-23/24 Unified Planning Work Program (UPWP)

Ms. McLaughlin explained that Collier MPO would like CAC's endorsement of the proposed-Amendment¹. The UPWP is the MPO's planning budget and how the MPO is funded. The funding comes from the federal government, with the federal government and FDOT giving approval. The Amendment is needed because Staff anticipates difficulty in filling the principal planner position vacancy. The position has been posted for a few weeks. Ms. McLaughlin would like the Amendment as a safety net in case the MPO is unable to find a suitable candidate.

The purpose of the Amendment is to move funds from a variety of categories. The best summary is the last chart (Agenda Item 7E, Attachment 2) and shows the funds being moved from personnel to consultant services. The intention is to reach a total of \$145,000, and it moves funds for the tasks of administration, data collection/development, transportation improvement program, and special projects and systems planning, which is where most of the work is being done now. Based on the MPO's general planning contract and the rates set in that contract for planners, the \$145,000 would allow a part-time planner to be hired through a consulting firm, should the need arise. It is a safety net if recruitment proves difficult. The MPO's deadlines are stringent and there is no allowance for not meeting them. Staff requests endorsement so that it can be presented to the MPO Board in November.

Ms. Peters asked for confirmation that the numbers in red on the chart (Agenda Item 7E, Attachment 2) show that the funds are simply being moved from personnel to consulting services and **Ms. McLaughlin** confirmed and added the chart was structured to show that the Amendment is net zero. No money is being requested and no money is being deducted. If the MPO fills the position, there would be a move to put the funds back in personnel.

Ms. Homiak moved to Endorse Amendment #2 to FY 22/23-23/24 Unified Planning Work Program (UPWP) and *Mr. Stalzer* seconded. Carried unanimously.

¹ See Attachment "A" to these meeting minutes.

| 8. Reports and Presentation | (May require Committee Action) |
|-----------------------------|--------------------------------|
|-----------------------------|--------------------------------|

None.

9. <u>Member Comments</u>

None.

10. <u>Distribution Items</u>

A. Congestion Hotspots Fact Sheets

Ms. McLaughlin indicated the Fact Sheets are an informational item. Revisions were proposed at the CMC meeting that need to be processed. The revised Fact Sheets are forthcoming, likely at the November CAC meeting. The current Fact Sheets provide a good idea of the direction; Staff wants to provide realistically feasible strategies for potentially solving congestion issues on the ten major corridors, and that is where the focus of the CMC was.

11. Next Meeting Date

October 24, 2022, 1:30 p.m. – Joint Meeting with Lee MPO CAC at FDOT D1 Southwest Area Office off of Daniels Parkway in Fort Myers – in person.

12. Adjournment

Ms. Middelstaedt adjourned the meeting at 2:53 p.m.

ATTACHMENT A



Agenda CAC

Citizens Advisory Committee IN-PERSON MEETING

Growth Management Department Planning & Regulation Building Conference Rooms 609/610 2800 N. Horseshoe Dr Naples, FL

September 26, 2022, 2:00 PM

- 1. Call to Order
- 2. Roll Call
- 3. Approval of the Agenda
- 4. Approval of the August 22, 2022

 Meeting Minutes
- 5. Open to Public for Comments
 Items Not on the Agenda
- 6. Agency Updates
 - A. FDOT
 - B. MPO Executive Director
- 7. Committee Action
 - A. Endorse Addition of Funds to Cover Cost Increases on Eden Park Elementary and 111th Ave. Projects
 - B. Review Congestion Management Process (CMP) Origin and Destination (O & D) Study

- C. Potential Agenda Topics for Joint Meeting with Lee County MPO
- D. Endorse FDOT Vision Zero Safety Targets for Calendar Year 2023
- E. Endorse Amendment #2 to the FY 22/23-23/24 Unified Planning Work Program (UPWP)
- 8. Reports & Presentations*
- 9. Member Comments
- 10. <u>Distribution Items</u>
 - A. Congestion Hotspots Fact Sheets
- 11. Next Meeting Date

October 24, 2022 – Joint Meeting with Lee MPO CAC at FDOT D1 Southwest Area Office

12. Adjournment

*May Require Committee Action

PLEASE NOTE:

The meetings of the advisory committees of the Collier Metropolitan Planning Organization (MPO) are open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda should contact the MPO Director at least 14 days prior to the meeting date. Any person who decides to appeal a decision of the advisory committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact the Collier Metropolitan Planning Organization 72 hours prior to the meeting by calling (239) 252-5814. The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Collier MPO Title VI Specialist Ms. Dusty Siegler (239) 252-5814 or by email at: Dusty.Siegler@colliercountyfl.gov, or in writing to the Collier MPO, attention: Ms. Siegler, at 2885 South Horseshoe Dr., Naples, FL 34104.

Attachment "A" to CAC Meeting Minutes 9/26/2022

EXECUTIVE SUMMARY COMMITTEE ACTION ITEM 7E

Endorse Amendment #2 to FY 22/23-23/24 Unified Planning Work Program (UPWP)

OBJECTIVE: For the committee to review and endorse the draft amendment to the Fiscal Year (FY) 22/23-23-24 UPWP.

<u>CONSIDERATIONS</u>: The UPWP provides a planning work program that identifies and describes the MPO's budget for activities, studies and technical support expected to be undertaken in the metropolitan area on behalf of the MPO Board. It also lists the funding source(s) for each planning task and specifies whether the task will be conducted by MPO staff, consultants or county agencies.

An amendment is necessary to reallocate funding from personnel services to consultant services within Tasks 1, 2, 3 and 5 to provide general support to the MPO. The MPO has advertised a vacant Principal Planner position and may need assistance from a consultant until a new Principal Planner is hired. This is a net zero revision. There is still sufficient funding to cover salaries within the UPWP.

This item is being brought forward as a walk on item and will be distributed concurrent with the review of the Technical and Citizens Advisory Committees on 9/26/22. The public comment period will close at the MPO Board meeting on 10/14/22.

STAFF RECOMMENDATION: That the committee endorse Amendment 2 to the FY 22/23-23/24 UPWP.

Prepared By: Brandy Otero, Principal Planner

ATTACHMENT(S):

- 1. Amendment #2 to FY 22/23-23/24 UPWP in track changes
- 2. Summary of Changes



COLLIER METROPOLITAN PLANNING ORGANIZATION **BONITA SPRINGS (NAPLES), FL UZA**

UNIFIED PLANNING WORK PROGRAM FISCAL YEARS (FY) 2022/23-2023/24 July 1, 2022-June 30, 2024

This document was approved and adopted by the Collier Metropolitan Planning Organization on

May 13, 2022

Council Member Paul Perry, MPO Chair

2885 Horseshoe Drive S. Naples, FL 34104 (239) 252-5814 Fax: (239) 252-5815 Collier.mpo@colliercountyfl.gov http://www.colliermpo.com

Federal Planning Fund Amendment 1: 9/9/22 Federal Aid Program (FAP) - # 0313-060-M Amendment 2: 10/14/22

Financial Management (FM) - # 439314-4-14-01 & 439314-4-14-02

FDOT Contract #G2821

Contract #G2594

Federal Transit Administration (FTA) Section 5305(d) Funds Financial Management (FM) - #410113 1 14 Contract #G1J00 Contract #G1V40

Prepared by the staff and the participating agencies of the Collier Metropolitan Planning Organization. The preparation of this document has been financed in part through grants from the Federal Highway Administration (CFDA Number 20.205), the Federal Transit Administration (CFDA Number 20.505), the U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of title 23, U.S. Code, and from Local funding provided by Collier County, the City of Naples, the City of Marco Island, and the City of Everglades City. The contents of this document do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

The MPO does not discriminate against anyone on the basis of race, color, religion, sex, age, national origin, disability or family status. For more information on the MPO's commitment to equity and nondiscrimination, or to express concerns visit https://www.colliermpo.org/get-involved/civil-rights/.

TASK 1 ADMINISTRATION

PURPOSE:

To conduct activities (including staff travel and capital expenses) including the development and maintenance of administrative reports and grants contract administration. This task also includes all public involvement activities and administrative support for MPO planning and programs in general, including assistance to Federal, State, and local agency staff, as needed. It provides for the administration of the area-wide multimodal transportation planning process in accordance with Federal and State requirements, and for the technical management over each project included in the UPWP.

PREVIOUS WORK:

- Ongoing administrative activities
- Staff support for MPO Board and Committee meetings
- Develop and Update the UPWP
- Update Staff Services Agreement and Lease Agreement
- Public Involvement activities in compliance with the Public Participation Plan
- Procurement Activities
- Quarterly invoicing request
- Monthly invoicing activities
- Update to Public Participation Plan in 2020
- Maintained MPO website
- Strategic Plan and Annual Report

REQUIRED ACTIVITIES:

- Administer MPO Governing Board meetings and all Advisory Committee meetings including meeting advertisement and the preparation of minutes and agenda packages.
- Attend training at conferences, workshops, etc. (MPO staff and Governing Board members)
 Attend business meetings as required. Including but not limited to FDOT meetings, Title VI,
 ADA and Environmental Justice training opportunities.
- Perform grant and financial tasks including preparing grant agreements, grant compliance tasks, grant reimbursements, timekeeping, inventory, contract management, invoice payment.
- Purchase of office supplies, computers, printers, software, and audio-visual equipment.
- Rental lease payments for office space and MPO vehicle.
- Monthly payments for phone system, cell phones, website hosting, postage (monthly and annual permit) and administrative functions to run the MPO.
- Payment for MPO insurance.
- Participate in joint FDOT/MPO annual certification reviews and in Federal TMA reviews.
- Procure services, supplies, and equipment (including office supplies, printers, computers, iPads, software purchase and licensing, and audio-visual equipment. This includes preparation of Request for Proposals, Request for Professional Services, purchase orders, contracts, etc. Lease of necessary office equipment (printers, copiers, etc.).
- Review and maintain existing agreements, by-laws, and COOP. Modify as necessary to stay in compliance with federal/state rules and laws.

- Prepare and adopt the two-year UPWP; process modifications and amendments; submit progress reports and invoices.
- Monitor and update the annual Strategic Plan and Annual Report.
- Maintain the Public Participation Plan (PPP) and update as necessary. Conduct all activities to
 maintain compliance with plan including to maintain and update website, legal ads, press
 releases, etc.
- Monitor progress towards goals, including Disadvantaged Business Enterprise (DBE) goals and ensure compliance with DBE policy.
- Consultant services to provide general staff support as needed to accomplish required activities
 identified in task.

| End Product/Deliverable(s) | Target Date |
|--|-------------|
| Administer MPO Governing Board and | Ongoing |
| Advisory Committee meetings. | |
| Progress Reports and Invoices to FDOT | Quarterly |
| Amendments and Modifications to FY | As Needed |
| 23/24 UPWP | |
| Draft FY 25/26 UPWP | March 2024 |
| Final FY 25/26 UPWP | May 2024 |
| Strategic Plan and Annual Report | October - |
| | Annually |
| Joint FDOT/MPO annual certification | Spring |
| reviews. | 2023/Spring |
| | 2024 |
| Prepare for the 2024 Federal Certification | Summer 2024 |
| review. | |
| Public Participation Plan (PPP) - Update | Ongoing |
| as necessary. | |
| Agenda packages and public notices for | Monthly |
| MPO Board and advisory committees | |
| Monitor progress towards goals, | Annually |
| including Disadvantaged Business | |
| Enterprise (DBE) goals and ensure | |
| compliance with DBE policy. | |
| Updated Bylaws, COOP, and MPO | As needed |
| Agreements | |

RESPONSIBLE AGENCY: Collier MPO, Consultant Services

Task 1 - Financial Tables

| Deleted: | • |
|----------|---|
| ¶ | |

| Task 1 - Administration | | | | | | | | | | |
|--------------------------|--------------------------------------|-------------------|------------|------------|------------|-------------------|--|--|--|--|
| | Estimated Budget Detail for FY 22/23 | | | | | | | | | |
| | | FHWA | FHWA | FTA | | | | | | |
| Budget | Budget Category | (DL) | (CID | F20F | Trans. | Total | | | | |
| Category | Description onnel Services | (PL) | (SU) | 5305 | Disad. | Total | | | | |
| A. Tels | THE COUNTY SELECTION | | | | | | | | | |
| MPO staff s | MPO staff salaries, fringe | | | | | | | | | |
| benefits, an | d other deductions | \$ <u>225,000</u> | \$0 | \$0 | \$0 | \$ <u>225,000</u> | | | | |
| | Subtotal: | \$ <u>225,000</u> | \$0 | \$0 | \$0 | \$ <u>225,000</u> | | | | |
| | ultant Services | | 1 | ı | ı | | | | | |
| Website ma fees, etc. | aintenance, hosting | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | |
| General S | <u>upport</u> | <u>\$75,000</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$75,000</u> | | | | |
| | Subtotal: | \$ <u>80,000</u> | \$0 | \$0 | \$0 | \$ <u>80,000</u> | | | | |
| C. Trav | el | | | | | | | | | |
| Travel and | d Professional | | | | | | | | | |
| Developm | | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | |
| | Subtotal: | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | |
| D. Oth | er Direct Expenses | | | | | | | | | |
| Building or | | | | | | | | | | |
| Rental/lease | | \$17,000 | \$0 | \$0 | \$0 | \$17,000 | | | | |
| Insurance | | \$6,000 | \$0 | \$0 | \$0 | \$6,000 | | | | |
| Callular Tal | lephone Access and | | | | | | | | | |
| expenses | | \$3,600 | \$0 | \$0 | \$0 | \$3,600 | | | | |
| General Cop equipment | pying Expenses, | | | | | | | | | |
| purchase, p | rinting charges, | | | | | | | | | |
| computer p | ourchase, software | | | | | | | | | |
| maintenan | | \$15,000 | \$0 | \$0 | \$0 | \$15,000 | | | | |
| General Off | ice Supplies | \$3,000 | \$0 | \$0 | \$0 | \$3,000 | | | | |
| Legal Adve | rtising | \$2,000 | \$0 | \$0 | \$0 | \$2,000 | | | | |
| | | | | | | | | | | |
| | Rental and Car ce /expenses | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | |
| | , | 40,000 | 40 | 40 | 40 | 40,000 | | | | |
| | siness reply | | | | | | | | | |
| permit, frei | ght expenses, etc. | \$1,200 | \$0 | \$0 | \$0 | \$1,200 | | | | |
| Talanharr | A access over on acc- | | | | | | | | | |
| | Access, expenses maintenance | \$1,000 | \$0 | \$0 | \$0 | \$1,000 | | | | |
| | Subtotal: | \$53,800 | \$0 | \$0 | \$0 | \$53,800 | | | | |
| | Total: | \$363,800 | \$0 | \$0 | \$0 | \$363,800 | | | | |

Deleted: 300,000
Deleted: 300,000
Deleted: 300,000
Deleted: 300,000

Deleted: 5,000
Deleted: 5,000

| Task 1 - Administration | | | | | | | | | | | |
|--|---|--------------|-------------------|-------------------|--|-----------|--|--|--|--|--|
| | Estimated Budget Detail for FY 2023/24 | | | | | | | | | | |
| Budget Category | Budget Category Description | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total | | | | | |
| A. Personnel Services | | | | | | | | | | | |
| MPO staff sa other deduc | alaries, fringe benefits, and tions | \$305,000 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$305,000 | | | | | |
| R Concu | ltant Services | \$305,000 | \$0 | \$0 | <u> </u> | \$305,000 | | | | | |
| D. Collsu | italit selvices | | | | | | | | | | |
| Website ma | intenance, hosting fees, etc. | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | | |
| | Subtotal: | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | | |
| C. Trave | el | | | l | Ι | | | | | | |
| Travel and Professional Development | | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | | |
| | Subtotal: | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | | |
| D. Other | Direct Expenses | | | ı | ı | | | | | | |
| Building or | room Rental/lease | \$17,000 | \$0 | \$0 | \$0 | \$17,000 | | | | | |
| Insurance | Insurance | | \$0 | \$0 | \$0 | \$6,000 | | | | | |
| Cellular Tele expenses | ephone Access and | \$3,600 | \$0 | \$0 | \$0 | \$3,600 | | | | | |
| General Copying Expenses, equipment lease, printing charges, repairs and maintenance | | \$15,000 | \$0 | \$0 | \$0 | \$15,000 | | | | | |
| General Offi | ce Supplies | \$3,000 | \$0 | \$0 | \$0 | \$3,000 | | | | | |
| Legal Adver | | \$2,000 | \$0 | \$0 | \$0 | \$2,000 | | | | | |
| Motor Pool Rental and Car Maintenance /expenses | | \$5,000 | \$0 | \$0 | \$0 | \$5,000 | | | | | |
| Postage, business reply permit, freight expenses, etc. | | \$1,200 | \$0 | \$0 | \$0 | \$1,200 | | | | | |
| | Telephone Access, expenses and system maintenance | | \$0 | \$0 | \$0 | \$1,000 | | | | | |
| | Subtotal: | \$53,800 | \$0 | \$0 | \$0 | \$53,800 | | | | | |
| | Total: | \$368,800 | \$0 | \$0 | Total: \$368,800 \$0 \$0 \$0 \$368,800 | | | | | | |

TASK 2 DATA COLLECTION / DEVELOPMENT

PURPOSE:

Develop and monitor the multimodal transportation system to preserve capacity, maximize personal mobility and freight movement, ensure user safety and system security, and maintain the transportation system's integrity. Acquire data to evaluate the system's operating efficiency and conditions to assess current needs, validate the MPO's and FDOT D-1 regional transportation planning model, project future travel demand, and identify future improvements. Coordination with local agencies, jurisdictions and municipalities when reviewing and updating the forecasts and plans is essential. Update GIS database to address current conditions that include, but are not limited to functional classification; roadway network for District One Regional Transportation Demand Model; bicycle & pedestrian facilities inventory; and prepare various overlays for analytical purposes. Coordinate with Collier County staff on use of the County's Interactive Growth Model (CIGM) in analyzing amendments and updates to the Long Range Transportation Plan.

PREVIOUS WORK:

- Developed GIS maps for bike/pedestrian planning activities.
- Updated TAZs and socioeconomic data for 2045 LRTP.
- Updated socio-economic data and TAZ structures for the 2045 LRTP Update.
- 2045 Long Range Transportation Plan adoption in 2021.
- Adoption of FY 2022 performance measures.

REQUIRED ACTIVITIES:

- Coordinate with FDOT, local governments, and neighboring MPOs to collect and provide transportation data and information to support MPO, federal, and state planning activities, model development, and performance measures;
- Acquire and analyze data to support performance-based planning efforts such as the Long Range Transportation Plan, MPO Model Development, Transportation Improvement Program, Public Transit Safety Plan, Planning and Corridor Studies, Freight Studies, Complete Streets, Resiliency Studies, Congestion Management Process, etc.;
- Coordinate with federal, state, and local partners to prepare, analyze, and integrate 2020 U.S.
 Census data into MPO planning activities and efforts:
- Participate in the FDOT Statewide Model Task Force and regional modeling activities to support the FDOT D-1 model development, calibration, validation, and maintenance;
- Collaborate with Collier County to update the County Interactive Growth Model;
- Coordinate with the MPO Congestion Management Committee to evaluate data and data platforms used to analyze system conditions and needs.
- Review functional classifications, boundary information, and TAZ data based on 2020 census.
- Review and provide travel demand model information such as Annual Average Daily Traffic (AADT) and volume-to-capacity rations for planning documents, other agency and citizen's requests.
- Prepare and maintain GIS files, and prepare and maintain maps.
- Coordinate with County staff on the County's Crash Data Management System (CDMS)
- Analyze bike/ped facilities and crash data.

- Complete equity analysis in preparation for 2050 LRTP.
- Continue coordination with jurisdictions, agencies, and municipalities within Collier County and adjacent to Collier County on community master plans, transportation system plans, multimodal mobility plans, Local Road Safety Plan etc. and the data used to update and maintain such information.
- Consultant services to provide general staff support as needed to accomplish required activities identified in task.

| End Task/Deliverable(s) | Target Date |
|--|-------------|
| Collier Data for 2020 Validation of the | August 2022 |
| District 1 Regional Planning Model | |
| Updated GIS Files and maps | As needed |
| Coordinate with the County staff on updates | As needed |
| to the County Interactive Growth Model | |
| (CIGM) so that both entities (County and | |
| MPO) are using the most current and accurate | |
| TAZ structure and socioeconomic data | |
| available | |
| Equity Analysis | June 2024 |
| Bike/Ped Crash Data Analysis | As needed |

RESPONSIBLE AGENCY: Collier MPO, Consultant Services

Task 2 - Financial Tables

| Task 2 – DATA COLLECTION/DEVELOPMENT Estimated Budget Detail for FY 2022/23 | | | | | | | |
|---|-----------------------------------|--------------|--------------|-------------|------------------|------------------|--|
| Budget Category | Budget Category Description | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total | |
| A. Pe | rsonnel Servi | ices | | | | | |
| MPO staff salaries, fringe benefits, and other deductions \$30,000 \$0 \$0 \$30,000 | | | | | \$ 30,000 | | |
| Subtotal: | | \$30,000 | \$0 | \$0 | \$0 | \$ <u>30,000</u> | |
| B. Co | nsultant Serv | ices | | | | | |
| Contract/Consultant Services/ General Support \$45,000 \$0 \$0 \$45,000 | | | | | \$ <u>45,000</u> | | |
| | Subtotal | \$15,000 | \$0 | \$0 | \$0 | \$15,000 | |
| | Total: | \$75,000 | \$0 | \$0 | \$0 | \$75,000 | |

| -{ | Deleted: 60,000 |
|-------------|------------------------|
| $ \langle $ | Deleted: 60,000 |
| $ \langle $ | Deleted: 60,000 |
| Y | Deleted: 60,000 |
| | |
| -{ | Deleted: 15,000 |
| \forall | Deleted: 15,000 |
| | |
| | |

| Task 2 - DATA COLLECTION/DEVELOPMENT Estimated Budget Detail for FY 2023/24 | | | | | | | | |
|--|-----------------------------------|--------------|--------------|-------------|------------------|----------|--|--|
| Budget Category | Budget Category Description | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total | | |
| A. Per | A. Personnel Services | | | | | | | |
| MPO staff s fringe bene other dedu | efits, and | \$25,000 | \$0 | \$0 | \$0 | \$25,000 | | |
| | Subtotal: | \$25,000 | \$0 | \$0 | \$0 | \$25,000 | | |
| B. Cor | ısultant Servi | ices | | | | | | |
| Contract/Consultant Services \$15,000 \$0 \$0 \$0 \$15,000 | | | | | | \$15,000 | | |
| Subtotal | | \$15,000 | \$0 | \$0 | \$0 | \$15,000 | | |
| | Total: | \$40,000 | \$0 | \$0 | \$0 | \$40,000 | | |

Deleted: ¶

TASK 3 TIP MONITORING AND DEVELOPMENT

PURPOSE:

Develop Multimodal Transportation Improvement Programs (TIP) for FY 23/24-27/28 and FY 24/25-28/29 that identify all Federal, State, and locally funded transportation improvements consistent with the requirements of Federal and State laws. Coordinate with FDOT and member agencies to address integration of MAP-21 and FAST Performance Management Measures in the TIP as well as new requirements from the Bipartisan Infrastructure Law (BIL). This section also includes transportation system planning tasks related to contingency of operations and short-range transportation planning and programming.

PREVIOUS WORK:

- Coordinated with agencies and jurisdictions on transportation plans and programs.
- Annual preparation of TIP and TIP amendments.
- Annual list of project priorities for inclusion in the TIP.
- Adoption of FY 23-27 TIP

REQUIRED ACTIVITIES

- Develop annual project priorities identifying unfunded highway, transit, bicycle and pedestrian, planning and congestion management projects that are prioritized by the MPO. This activity includes review of applications and associated activities.
- Review FDOT Draft Tentative Work Program and Tentative Work Program for consistency with the LRTP and adopted priorities of the MPO Board.
- Prepare and adopt the TIP. This includes coordinating all efforts with FDOT, local agencies, jurisdictions and the STIP.
- Prepare and process amendments. This includes reviewing amendments for consistency with the TIP and LRTP.
- Coordinate with FDOT and member agencies to address integration of FAST Act Performance Management Measures in performance-based planning.
- Consultant services to provide general staff support as needed to accomplish required activities identified in task.

| End Task | Target Date |
|------------------------------------|-----------------|
| Annual Project Priority Lists | June – Annually |
| FY 23/24-27/28 TIP | June - 2023 |
| FY 24/25-28/29 TIP | June - 2024 |
| | |
| TIP Amendments and Modifications | As needed |
| Adopted Safety Targets and Related | Annually |
| Performance Measures | |

RESPONSIBLE AGENCY: Collier MPO

Deleted: ¶

26

Deleted: ¶

Task 3 - Financial Tables

Deleted: ¶

| | Task 3 - TIP Estimated Budget Detail for FY 22/23 | | | | | | | |
|---|--|-------------------------|--------------|-------------|------------------|-------------------------|--|--|
| Budget Budget Category Category Description | | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total | | |
| A. Pe | A. Personnel Services | | | | | | | |
| MPO staff benefits, a deduction | | \$ <u>10,000</u> | \$0 | \$0 | \$0 | \$ <u>10</u> ,000 | | |
| Subtotal: | | <u>\$10,000</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$10,000</u> | | |
| B. Co | nsultant Services | | | | | | | |
| General S | General Support / Automated | | | | | | | |
| | Subtotal: | \$ <mark>20</mark> ,000 | \$0 | \$0 | \$0 | \$ <mark>20</mark> ,000 | | |
| | Total: | \$30,000 | \$0 | \$0 | \$0 | \$30,000 | | |

Deleted: 30,000

Deleted: 30

Deleted: 30

Deleted: 30

| Task 3 - TIP Estimated Budget Detail for FY 23/24 | | | | | | | | | |
|--|---|----------|-----|-----|-----|----------|--|--|--|
| Budget Category | | | | | | | | | |
| A. Per | A. Personnel Services | | | | | | | | |
| | MPO staff salaries, fringe benefits, and other deductions \$30,000 \$0 \$0 \$0 \$30,000 | | | | | | | | |
| | Subtotal: \$30,000 \$0 \$0 \$0 \$30,0 | | | | | | | | |
| | Total: | \$30,000 | \$0 | \$0 | \$0 | \$30,000 | | | |

TASK 5 SPECIAL PROJECTS AND SYSTEMS PLANNING

PURPOSE:

To complete various recurring and non-recurring planning projects. These projects will assist in providing a balanced, multimodal transportation system.

PREVIOUS WORK:

- Annual Work Program priorities for construction of new sidewalks, pathways and bike lanes.
- Served as liaison to FDOT to communicate the need for bicycle and pedestrian facilities on State roads.
- Completed first Transportation System Performance Report.
- Began Congestion Management Process Update, which will continue into this UPWP for completion.
- Completed first Local Road Safety Plan.

REQUIRED TASKS:

- Attend and participate in workshops and seminars sponsored by FHWA, FDOT and other
 professional organizations as appropriate.
- Coordinate with FDOT and member agencies to address continued integration of Performance Management measures into Bicycle and Pedestrian Planning and Congestion Management Planning.
- Consultant services to provide general staff support as needed to accomplish required activities
 identified in task.

Bicycle/Pedestrian Planning

- Participate in special events that promote bicycle/pedestrian activities and safety education.
- Participate in meetings/workshops related to bicycle/pedestrian initiatives, including those hosted by FDOT, FHWA, CTST, Naples Pathway Coalition, Blue Zones, Healthy Community Coalition of Collier County, and other agencies.
- Coordinate with FDOT and local governments to ensure that roadway expansion and retrofit
 projects work towards meeting the bicycle/pedestrian goals identified in the Bicycle and
 Pedestrian Master Plan.
- Maintain and update the current Bicycle Pedestrian Master Plan as needed, and prior to the LRTP update.
- Depending on new federal and state guidance, prepare documents to address one or more of the following programs:
 - o Vision Zero Action Plan
 - o Safe Streets for All
 - o Complete Streets
 - o Tackling the Climate Crisis Transition to a Clean Energy, Resilient Future
- Prepare updates to SUNTrail maps as opportunity arises.

Deleted: <#>¶

Congestion Management Planning

- Complete the Congestion Management Process Update.
- Prepare an updated Transportation System Performance Report prior to completion of the 2050 Long Range Transportation Plan. This document will become a guiding document of the 2050 LRTP.
- Attend Lee TMOC and Collier/Lee/Charlotte TIM Team to the extent feasible
- Attend and participate in technical meetings and workshops related to the CMC, CMP and congestion relief strategies
- Update the Local Road Safety Plan with current data and statistics. This document will become
 a guiding document of the 2050 LRTP.
- Facilitate "best practices" approach for incorporating CMP measures into existing plans and programs, including preliminary engineering, traffic simulation modeling, and project prioritization.

| End Task/Deliverable | Target Date |
|---|---------------|
| Congestion Management Process Update | December 2022 |
| Updated Transportation System | June 2024 |
| Performance Report | |
| Updated Local Road Safety Plan | June 2024 |
| Proposed revisions to SUNTrails Map | As needed |
| Safe Routes to School Program | As needed |
| applications and prepare letters of support | |
| Collier Bicycle/Pedestrian Facility Map | As needed |
| Update | |
| Bike/Ped Master Plan Update | June 2024 |
| | |

RESPONSIBLE AGENCY: Collier MPO, Consultant Services

| Deleted: ¶ | |
|------------|---------|
| Page | Break |
| | Di Call |

Task 5 – Financial Tables

| | Task 5 - Special Estimated Bud | | | | ıg |
|---|-----------------------------------|-------------------|-------------------|-------------------|----------------------|
| Budget Category & Description | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total |
| A. Personn | el Services | | | | |
| MPO staff salaries, fringe benefits, and other deductions | ¢21.000 | \$0 | \$0 | \$0 | ¢24.000 |
| Subtotal: | \$31,000 \$31.000 | \$0 \$0 | \$0 \$0 | \$0 \$0 | \$31,000 \$31.000 |
| B. Consultant General Support | \$20,000 | \$0 | \$0 | \$0 | \$20,000 |
| Congestion Management Process Update | \$20,000 | \$0 | \$0 | \$0 | \$20,000 |
| Transportation System Performance Report | \$0 | \$100,000 | \$0 | \$0 | \$100,000 |
| Bike/Ped Master Plan | \$67,133 | \$0 | \$0 | \$0 | \$67,133 |
| Subtotal: | \$ <u>107,133</u> | \$100,000 | \$0 | \$0 | \$ <u>207,133</u> |
| Total: | \$138,133 | \$100,000 | \$0 | \$0 | \$238,133 |

Deleted: 51,000

Deleted: 51,000

Deleted: 51,000

Deleted: 51,000

Deleted: 87,133
Deleted: 187,133

Deleted: ¶

Deleted: ¶

| | 5 - Special I imated Bud | | <u> </u> | v | |
|---|-----------------------------|--------------|-------------------|------------------|-----------|
| Budget Category & Description | FHWA (PL) | FHWA (SU) | FTA 5305 | Trans. Disad. | Total |
| A. Personnel Serv | vices | | | | |
| MPO staff salaries, fringe benefits, and other deductions | \$80,000 | \$0 | \$0 | \$0 | \$80,000 |
| Subtotal: | \$80,000 | \$0 | \$0 | \$0 | \$80,000 |
| B. Consultant Servi | ces | | | | |
| Transportation System Performance Report | \$0 | \$50,000 | \$0 | \$0 | \$50,000 |
| Bike/Ped Master Plan | \$54,925 | \$0 | \$0 | \$0 | \$54,925 |
| Subtotal: | \$54,925 | \$50,000 | \$0 \$0 | \$0 \$0 | \$104,925 |
| Total: | \$134,925 | \$50,000 | \$0 | \$0 | \$184,925 |

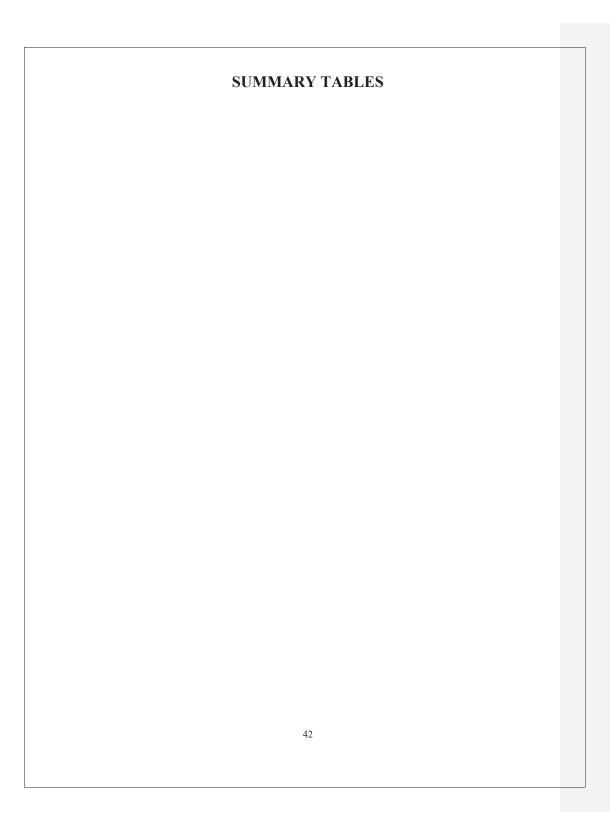


TABLE 3 – FY 2022/23 AGENCY PARTICIPATION

| | FHWA PL | HWA PL FHWA SU | FTA 5307 | FDOT | TD Trust | TD Trust Collier Co. Naples | Naples | Everglades Marco Is. Total | Marco Is | . Tot | al |
|---|------------|----------------|---|------------|-----------|-----------------------------|----------|----------------------------|----------|------------|--------------------|
| State Support/Match for MPO (1) | - | | | \$ 258,232 | - \$ | | - \$ | - \$ | - \$ | s | 258,232 |
| FY 2022/23 Funding | \$ 884,336 | \$ 350,000 | \$ 60,000 | | \$ 27,954 | | - \$ | - \$ | - \$ | S | 1,322,290 |
| FY 2022/23 Local Funding | - \$ | | - \$ | - \$ | | \$ 5,000 | \$ 2,000 | - \$ | \$ 1,000 | \$ | 8,000 |
| 5305 Carryover * | - \$ | | \$ 252,743 | - \$ | | | | - \$ | | \$ | 252,743 |
| De-Obligation from Prior Fiscal Years | | | - \$ | - \$ | - \$ | | \$ | \$ | - \$ | s | - |
| Total cost, including carryover, for all tasks \$884,336 \$ | \$884,336 | | 350,000 \$ 312,743 \$ 258,232 \$ 27,954 | \$ 258,232 | \$ 27,954 | \$ 5,000 | \$ 2,000 | - \$ | \$ 1,000 | 9 9 | 1,000 \$ 1,841,265 |

(1) For FY 2022/2023, FDOT will "soft match" the MPP/PL Funds using toll revenue expenditures as a credit toward the non-Federal matching share.

The amount identified on this line represent the amount of "soft match" required (both State and local) for the amount of Federal PL section 112 funds requested in this UPWP.

* - FTA Section 5305 includes FY 21 and FY 22 funding

TABLE 4 – FY 2022/23 FUNDING SOURCE

| | Task Description | FHWAPL | | | FTA Section | FDOT | | | | Local | | |
|---------|--|------------|--------------------|--------------------------|-----------------|------------|--------------------------|------------------|-------------------|---------|----|-----------|
| Task# | | Federal | FHWA SU Federal | FTA 5305 Carryforward | 5307 (FY 22) | Soft Match | Total Federal Funding | I State TD Trust | | Funding | | Total |
| 1 | Administration | \$ 363,800 | | | | \$ 80,238 | \$ 363,800 | \$ 0 | - | ' | ↔ | 444,038 |
| 2 | Data Collection/Development | \$ 75,000 | | | | \$ 16,542 | \$ 75,000 | \$ | | 1 | ↔ | 91,542 |
| 8 | Transportation Improvement Program (TIP) | \$ 30,000 | | | | \$ 6,617 | \$ 30,000 | \$ | 59 | 1 | 99 | 36,617 |
| 4 | Long Range Planning | \$ 78,543 | \$ 250,000 | | | \$ 17,323 | \$ 328,543 | 3 | - | | 8 | 345,866 |
| S | Special Projects and Systems Planning | \$ 138,133 | \$ 100,000 | | | \$ 30,466 | \$ 238,133 | æ | - 8 | ' | ↔ | 268,599 |
| 9 | Transit and Transportation Disadvantaged | \$ 166,860 | | \$ 252,743 | \$ 60,000 | 886'66 \$ | \$ 166,860 | 0 \$ 27,954 | .4 | | ↔ | 607,545 |
| 7 | Regional Coordination | \$ 32,000 | | | | \$ 7,058 | \$ 32,000 | \$ 0 | - | | 8 | 39,058 |
| ∞ | Locally Funded Activities for all tasks | | | | | se. | €9 | 59 | • > | 8,000 | ↔ | 8,000 |
| | | \$ 884,336 | \$ 350,000 | \$ 252,743 | \$ 60,000 | \$ 258,232 | \$ 1,234,336 | 6 \$ 27,954 | \$ | 8,000 | S | 1,841,265 |
| | | | | | | | | | | | | |
| State S | State Support/Match for MPO (1) | - \$ | - \$ | | | \$ 258,232 | \$ | - | Ļ | | S | 258,232 |
| FY 202 | FY 2022/23 Funding | \$ 884,336 | \$ 350,000 | | \$ 60,000 | - \$ | \$ | - \$ 27,954 | 4 | | \$ | 1,322,290 |
| FY 202. | FY 2022/23 Local Funding | - \$ | - \$ | | | - \$ | \$ | 1 | \$ | 8,000 | \$ | 8,000 |
| Roll Fo | Roll Forward from Prior Fiscal Year | | | \$ 252,743 | | - \$ | \$ | \$ | - | | \$ | 252,743 |
| Total c | Total cost, including carryover, for a | \$ 884,336 | \$ 350,000 | \$ 252,743 | \$ 60,000 | \$ 258,232 | \$ 1,234,336 | 6 \$ 27,954 | \$ \$ | 8,000 | \$ | 1,841,265 |
| *Soft m | *Soft match includes \$105 046 at 1807% and \$63 186 at 20% to match DTGAs | 1807% and | \$63 186 at | 20% to match | PTGAs | | | | | | | |

^{*}Soft match includes \$195,046 at .1807% and \$63,186 at 20% to match PTGAs.

TABLE 5 - FY 2023/24 AGENCY PARTICIPATION

| to | | | 00 | 00 | 1 | 46 | 25 | 83 | 1 | 1 | ' | 1 | 8 |
|-------------------------|-----|------------|----------------|------------------------------|--|---------------------|---------------------------------------|--|-----------------------|---------------------------|---|---|--|
| Amount to Consultant | | | 5,000 | 15,000 | | 306,846 | \$ 104,925 | \$ 123,883 | | | | | \$ 555,654 |
| ₹ŏ | | | S | \$ | \$ | S | \$ | \$ | \$ | \$ | \$ | \$ | _ |
| Total | | | 450,140 | 48,822 | 36,617 | 357,178 | 214,683 | 218,852 | 39,058 | 8,000 | \$ 1,373,350 | - | \$ 27,954 \$ 1,373,350 |
| | | | \$ | • | € | €9 | % | % | € | € | | 8 | ≶ |
| TD Trust | | | 1 | - | - | - | - | 27,954 | - | - | 27,954 | - | 27,954 |
| T | | | S | 8 | \$ | \$ | 8 | \$ | \$ | 8 | \$ | \$ | € |
| Local | | | 1 | - | 1 | 1 | 1 | 1 | ı | 8,000 | 8,000 | - | 8,000 |
| | | | S | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | € |
| FDOT Soft Match | | | 81,340 | 8,822 | 6,617 | 10,332 | 29,758 | 34,495 | 7,058 | 1 | \$ 178,422 | 1 | \$ 178,422 |
| FD | | | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | 8 | \$ | € |
| FHWA | CPG | Ω S | - \$ | \$ - | \$ - | \$ 300,000 | \$ 50,000 | \$ - | \$ - | - | \$ 350,000 | \$ - | \$ 808,974 \$ 350,000 |
| FHWA | CPG | bΓ | \$ 368,800 | 40,000 | 30,000 | 46,846 | \$ 134,925 | \$ 156,403 | 32,000 | 1 | 808,974 | 1 | 808,974 |
| | | | S | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | € |
| Task Description | | | Administration | Data Collection/ Development | Transportation Improvement Program (TIP) | Long Range Planning | Special Projects and Systems Planning | Transit and Transportation Disadvantaged | Regional Coordination | Locally Funded Activities | Total fiscal year 2022/23 funds for all tasks | Total De-obligation from prior fiscal years | Total cost, including carryover, for all tasks |
| Task# | | | 1 | 2 | 3 | 4 | 5 | 9 | 7 | 8 | | | |

| | FHWA PL | FHWA SU FDOT | FDOT | TD Trust | Collier Co. Naples | Naples | Everglades | Marco Is. | Total | |
|--|---------------|--------------|---|-----------|--------------------|----------|------------|-----------|-------------------|---------|
| State Support/Match for MPO (1) | - \$ | - \$ | \$ 178,422 | - \$ | - \$ | - \$ | - \$ | - \$ | \$ 17 | 178,422 |
| FY 2023/24 Funding | \$ 808,974 \$ | \$ 350,000 | - \$ | \$ 27,954 | - \$ | - 8 | - \$ | - \$ | \$ 1,13 | 86,928 |
| FY 2023/24 Local Funding | - \$ | - \$ | - \$ | - \$ | \$ 5,000 \$ | \$ 2,000 | - \$ | \$ 1,000 | S | 8,000 |
| De-Obligation from Prior Fiscal Years | - \$ | - \$ | - \$ | - \$ | - \$ | - \$ | - \$ | - \$ | \$ | - |
| Total cost, including carryover, for all tasks | | \$ 350,000 | 8 808,974 \$ 350,000 \$ 178,422 \$ 27,954 \$ 5,000 \$ 2,000 | \$ 27,954 | \$ 5,000 | \$ 2,000 | - \$ | \$ 1,000 | ,000 \$ 1,373,350 | 3,350 |

(1) For FY 2023/2024, FDOT will "soft match" the MPP/PL Funds using toll revenue expenditures as a credit toward the non-Federal matching share. The amount identified on this line represent the amount of "soft match" required (both State and local) for the amount of Federal PL section 112 funds requested in this UPWP.

TABLE 6 – FY 2023/24 FUNDING SOURCE

| | | FHWA PL | FHWA PL FHWA SU | FDOT | Total Fede | Total Federal State TD | 9 | Local | | |
|--------------------|--|------------|-------------------|--|------------|---------------------------|--------|----------|----|-----------|
| Task# | Task Description | Federal | Federal | Soft Match | Funding | Trust | | Funding | | Total |
| 1 | Administration | \$ 368,800 | | \$ 81,340 | \$ 368,800 | \$ 00 | - | 1 | S | 450,140 |
| 2 | Data Collection/Development | \$ 40,000 | | \$ 8,822 | \$ 40,000 | \$ 00 | - | 1 | S | 48,822 |
| | Transportation Improvement Program | | | | | | | | L | |
| 3 | (TIP) | \$ 30,000 | | \$ 6,617 | \$ 30,000 | \$ 00 | - | 1 | ↔ | 36,617 |
| 4 | Long Range Planning | \$ 46,846 | 46,846 \$ 300,000 | \$ 10,332 | \$ 346,846 | 46 \$ | - | 1 | \$ | 357,178 |
| 5 | Special Projects and Systems Planning | \$ 134,925 | \$ 50,000 | \$ 29,758 | \$ 184,925 | 25 \$ | - | 1 | S | 214,683 |
| | Transit and Transportation | | | | | | | | | |
| 9 | Disadvantaged | \$ 156,403 | | \$ 34,495 | \$ 156,403 | 03 \$ 27,954 | 954 | | s | 218,852 |
| 7 | Regional Coordination | \$ 32,000 | | \$ 7,058 | \$ 32,000 | \$ 00 | - | - | \$ | 39,058 |
| 8 | Locally Funded Activities | - \$ | | \$ | \$ | - | - | 8,000 | S | 8,000 |
| | Total fiscal year 2023/24 funds for all | | | | | | | | | |
| | tasks | \$ 808,974 | \$ 350,000 | \$ 808,974 \$ 350,000 \$ 178,422 | | \$ 1,158,974 \$ 27,954 \$ | 954 \$ | 8,000 \$ | | 1,373,350 |
| | | | | | | | | | | |
| State Supp | State Support/Match for MPO (1) | - \$ | - \$ | \$ 178,422 | \$ | \$ | - | | \$ | 178,422 |
| FY 2023/24 Funding | Funding | \$ 808,974 | \$ 350,000 | \$ | \$ | - \$ 27,954 | 954 | | \$ | 1,186,928 |
| FY 2023/24 | FY 2023/24 Local Funding | - | - \$ | - \$ | \$ | - | \$ | 8,000 | \$ | 8,000 |
| Total cost, | Total cost, including carryover, for all tasks | \$ 808,974 | \$ 350,000 | \$ 808,974 \$ 350,000 \$ 178,422 \$ 1,158,974 \$ 27,954 \$ | \$ 1,158,9 | 74 \$ 27, | 954 \$ | 8,000 | S | 1,373,350 |

| m |
|---------------|
| 2 |
| $\overline{}$ |
| N |
| ~ |
| 0 |
| ~ |

| 1,583,033 | ٠ ٠ | 10 | 145,000 \$ | ٠Ş | \$ 870,995 | 1,583,033 \$ 609,608 \$ (145,000) \$ 870,995 | \$ 609,608 | | Total fiscal year 2021/22 funds for all tasks |
|---------------|-----|------------------|-------------|----|-------------|---|------------------------------|--------------------------------------|---|
| 8,000 | \$ | 8,000 | \$ | | | | - \$ | \$ 8,000.00 | |
| 32,000 | ş | 7,000 | \$ | | ٠ - | - \$ | 32,000.00 \$ 25,000 | \$ 32,000.00 | |
| 507,557 | \$ | 28,630 | \$ | | \$ 385,319 | - \$ | \$ 93,608 | \$ 507,557.00 \$ 93,608 | Transit and Transportation Disadvantaged |
| 238,133 | \$ | | 20,000 | ş | \$ 187,133 | \$ (20,000) | \$ 51,000 | \$ 238,133.00 \$ | |
| 328,543 | \$ | | | | \$ 278,543 | - \$ | \$ 50,000 | \$ 328,543.00 | |
| 30,000 | \$ | - | 20,000 \$ | Ş | \$ - | \$ (20,000) | 30,000.00 \$ 30,000 | \$ 30,000.00 | |
| 75,000 | \$ | - | 30,000 \$ | \$ | \$ 15,000 | \$ (30,000) \$ | 75,000.00 \$ 60,000 \$ | \$ 75,000.00 | |
| 363,800 | \$ | 58,800 | \$ 000'52 | \$ | \$ 5,000 | (75,000) | \$ 300,000 | \$ 363,800.00 \$ 300,000 \$ (75,000) | |
| Amendment | | Direct Expenses | Revision Di | | Consultant | Revision | Personnel | Task Total | |
| Funding After | | Travel and Other | | | | | | | |

EXECUTIVE SUMMARY COMMITTEE ACTION ITEM 7A

Endorse Congestion Management Process (CMP) Origin and Destination Report

OBJECTIVE: For the committee to endorse the CMP Origin and Destination (O&D) Report.

CONSIDERATIONS: The O&D Report is the final deliverable under the CMP 2022 Update. The committee reviewed the draft O&D Report at the September meeting. The revisions made in response to comments received are shown in track changes in **Attachment 1**. A clean version of the final draft O&D Report is shown in **Attachment 2**. Responses to comments submitted by Collier County Transportation Planning Division are provided in **Attachment 3**. The project consultant, Benesch, will give the presentation shown in **Attachment 4**.

The final O&D Report will be placed on the MPO Board's December 9, 2022, agenda for approval.

STAFF RECOMMENDATION: That the committee endorse the final O&D Report.

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S):

- 1. Final O&D Report revised pages in track changes
- 2. Final O&D Report clean copy
- 3. Collier County Transportation Planning Comments-Responses
- 4. Presentation on O&D Report



Congestion Management Process

Origin and Destination Report

October 27, 2022

FINAL DRAFT

Prepared by





Origin and Destination Report



1.0 Introduction

1.1 Purpose

As part of the MPO's Congestion Management Process, a review of travel characteristics is being conducted for the purpose of providing additional insights into trip making and travel patterns within Collier County. This origin and destination study utilizes the Replica (www.replicahq.com) Places data platform for conducting this analysis. The methodology proposed for this analysis was reviewed by the MPO's Congestion Management Committee on May18th 2022 is included in Appendix A.

The Replica Places module allows for analysis of trip making patterns and characteristics as Census, municipal, and county level geographies. The basis for this analysis is the average weekday travel observed during the Spring (March -May) 2021. Additionally, the ability to define geographic boundaries for reporting and analysis within Replica allows for more specific results. For this O-D Study, identification of subareas within Collier County and Lee County. In addition to further sub-dividing Collier and Lee counties, Figure 1 shows the surrounding counties that have been used for conducting this study. The subareas within Collier County for this analysis are based on a review of the Collier County Planning Communities and specific areas defined on the Growth Management Plan. One final revision was made to these 17 subareas by combining the City of Marco Island with the surrounding communities of Goodland, Isles of Capri, and Hammock Bay.

In total 17 subareas were identified for Collier County following this approach. Other areas included in the analysis outside of Collier County include the 22 planning communities identified in Lee County as well as Broward County, Charlotte County, Miami-Dade County, and Glades County.

Undertaking this approach for summarizing travel data allows for results that provide insights into broad overview patterns as well as more granular and specific interactions between subareas. These results will allow the Collier MPO to better coordinate with its regional partners for developing transportation related strategies for addressing regional congestion and mobility. Information regarding travel patterns – time of day, trip lengths, and trip purpose – will be beneficial to the MPO's upcoming LRTP 2050 LRTP and development of the travel demand model.

This The remainder of this report is divided into two major sections for reporting trip characteristics and results of the O-D Study as described below.

- Collier County Results: This section provides a generalized overview of the trips occurring in Collier County on an average weekday. Summary information regarding location of origin and destination of trips identifies the larger regional context of trips interacting with Collier County.
- Collier County Subarea Results: for each of the 17 subareas in Collier County, a detailed review
 of trips beginning and ending within each location includes a review of trip length, trip purpose,
 trip distance, and start time is summarized. Analysis summarizing the residents within each
 subarea and their work location provides additional detail for assessing commuting travel
 patterns.













Origin and Destination Report



1.2 Executive Summary

The Collier MPO examined the trip making patterns within Collier County and the connectivity of these trips to the larger Southwest and South Florida regions. Using trip origins and destinations associated with subareas of Collier County based on the Future Land Use Map, several key insights were identified for these areas based on their location, development patterns, and mix of uses.

In addition to reviewing trip patterns within Collier County, regional trips were entering, exiting, and passing through the County were also evaluated. This regional review also extended to the subarea analysis conducted within Collier County to identify areas of high trip interaction outside of Collier County. Below are some of the key takeaways that were identified from this analysis.

More than 90,000 trips a day start in Collier County and end in Lee County.

38,000 daily trips pass through Collier County, primarily on I-75.

Nearly 9% workers living in Collier County have jobs in Lee County and an additional 2% work within the larger Southwest and South Florida region.

Of the workers that work in Collier County nearly 1-in-3 works in the same subarea where they live or 28% of the total workers living in Collier County.

1.2.1 Trip Characteristics

Many of the County's subareas are well established from a land use perspective and <u>contain a</u> developed transportation grid. In those areas primarily west of CR 951, the trip lengths and time traveled are lower, and number of trips internally captured within a subarea are greater. Trip Characteristics for some of the key subareas of the county are included in Table 1 below.

Table 1: Summary of Key Subarea Trip Characteristics

| Subarea | Average Trip Length (Miles) | Average Trip Duration (Minutes) | Daily Trips Originating | Percent of Trips Remaining Internal | Percent of Population Working from Home |
|----------------------|-----------------------------------|---------------------------------------|----------------------------|---|--|
| Ave Maria | 22 | 29 | 11,100 | 45% | 10.5% |
| Central Naples | 17 | 14 | 80,000 | 24% | 10.0% |
| City of Marco Island | 23 | 26 | 66,000 | 66% | 11.0% |
| City of Naples | 18 | 21 | 133,000 | 39% | 10.0% |
| East Naples | 11 | 15 | 80,000 | 35% | 7.2% |
| Golden Gate | 10 | 15 | 106,000 | 43% | 6.9% |
| Immokalee | 13 | 19 | 60,000 | 72% | 5.4% |
| North Naples | 15 | 18 | 235,000 | 48% | 9.8% |
| Rural Estates | 18 | 26 | 72,000 | 32% | 11.3% |
| South Naples | 15 | 19 | 115,000 | 50% | 8.0% |
| Urban Estates | 14 | 18 | 136,000 | 41% | 10.4% |
| County-Wide | 17 | 20 | 1,100,000 | 44% | 9.1% |













Collier MPO Congestion Management Process

Origin and Destination Report



About half of these subareas have a higher internal capture than the county-wide average. The two sub-areas with the highest rates of internally captured trips (City of Marco Island and Immokalee) demonstrate a balanced mix of land-uses, are more isolated from other areas of development, and are more mature in the development cycle. The Ave Maria subarea also demonstrates a high level of internally captured trips as well as a high percentage of people working from home. However, as a rural village that is still developing, the average trip lengths and trip durations are the longest of those listed in the table. These higher trip measures illustrate the continued reliance of this subarea on the greater region for certain purposes, such as work trips, while the area is not completely built out.

Areas such as South Naples, North Naples or Golden Gate have diverse land use patterns and an integrated road network connectivity which provide for additional destinations or opportunities to satisfy trip making without traveling great distances.

1.2.2 Journey to Work

Highest levels of traffic congestion have long been associated with the daily commute of workers during the AM and PM "Rush Hour." As a key indicator of daily travel patterns, an association of highly correlated home and work locations was completed between the Collier County subareas and the remainder of the study area. Shown in Figure 2, are the highest paired areas of resident location and work locations. Appendix B contains a full reporting of home to work origins and destinations including this pairs where the origin and destination are the same subarea.

Looking at these pairings, 50% of working residents have a work location in the sub areas of Central Naples, City of Naples, East and North Naples; all of which are West of I-75. Additionally, 9% of working residents have a work location located in Lee County.









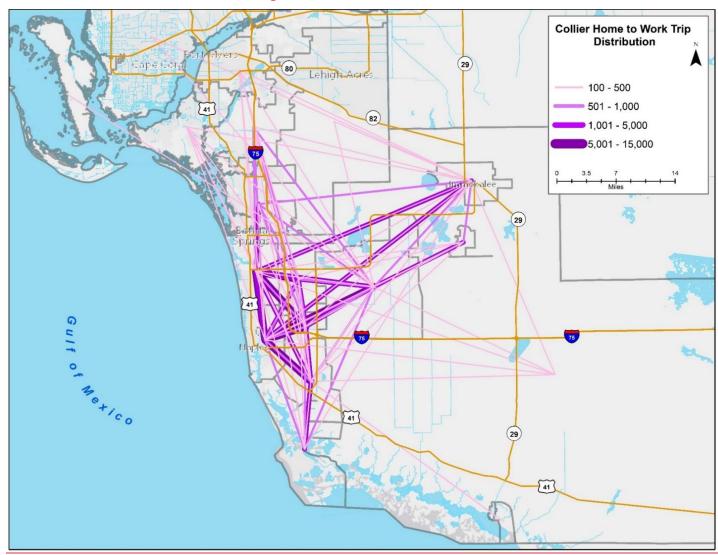




Origin and Destination Report



Figure 2: Home to Work Patterns

















According to the US Census Bureau, the number of people primarily working from home between 2019 and 2021 has tripled.¹ This pattern has held true for Collier County as well. Figure 3 illustrates the recent trends in the number of people working from home from January 2019 through the week of October 17, 2022. Prior to the onset of the COVID-19 pandemic, less than 9,000 people worked from home on a typical weekday as reported in the American Community Survey. During 2020, a sudden spike of residents working from home began to level off during 2021 and stabilize through 2022. In 2022, the number of people working from home has varied, and currently is around 25,000 people on a typical weekday. This is equal to about 16% of workers and 7% of the total population. A recent spike in late September is associated with the landfall of Hurricane Ian.

With slightly more than one-year worth of stable data, it's likely too soon to draw conclusions regarding seasonal fluctuations or expectations for impacts to future travel demand. However, the lowest observed work from home numbers during the spring of 2022 followed by an increase during the summer months should be monitored for continued understanding of this newer trend.

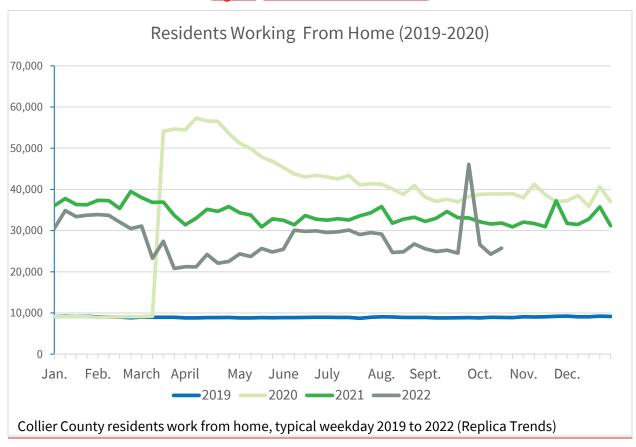


Figure 3: Work from Home Trends

https://www.census.gov/newsroom/press-releases/2022/people-working-from-home.html?utm_campaign=20220915mspios1ccpuprs&utm_medium=email&utm_source=govdelivery















1.2.3 Next Steps

In addition to exploring the results of this analysis, several observations can be made towards identifying future next steps. These next steps include a deeper exploration of certain observations and patterns that were observed as well as expanding the scope of this analysis to investigate additional travel characteristics. A few of these observations and possible next steps are summarized below.

- During the Origin/Destination Study it was discovered that transit trips were not included as
 part of the Replica data set. Discussions were conducted with the data provider to review the
 applications data model. Future releases of travel data will have transit trip information
 included. Exploring key transit trip patterns will aid the MPO and Collier Area Transit in
 understanding and planning for the transportation needs of the public.
- Certain areas, such as North Naples were identified as a high employment location for many areas. Evaluating high employment areas as the destination and examining trips made during the day as compared with home-to-work commute trips can provide insights into the peak traveling periods and assist the MPO in developing future congestion management strategies on congested corridors.
- Evaluating high employment locations from the destination perspective will provide insight into the number of people working in Collier County and living in one of the regions other counties.
- A deeper review of areas with high internally capture origin and destination pairs can provide
 insights into the trip patterns and land use dependency as a complement to future land use
 and transportation planning. This level of review can also aid in better understanding shorterdistance trips and efforts to promote walking and biking as alternatives to driving.
- As part of the MPO's upcoming 2050 LRTP, incorporation of Environmental Justice areas into the analysis of trip patterns would identify areas where transportation options are limited and inform the selection of future project.















Table 2: Daily Trip Origins and Destinations by County

| County | Trip Origin | Trip Destination |
|--------------------|-------------|------------------|
| Collier (Internal) | 1,024,000 | 1,024,000 |
| Lee | 87,000 | 96,000 |
| Broward | 3,000 | 4,800 |
| Miami-Dade | 5,000 | 4,900 |
| Hendry | 3,000 | 3,500 |
| Charlotte | 1,700 | 2,600 |
| Other Counties | 15,000 | 16,400 |
| Total | 1,138,700 | 1,152,200 |

2.2 Trips Passing Through Collier County

In addition to the more than 1 million daily trips occurring in Collier County daily, an additional 38,000 daily trips pass through the County. A breakdown of these pass-through trips by county origin is listed in Table 3. Of specific note is the high number of trips (10,600) passing through Collier County that have both an origin and a destination in Lee County. Trips traveling on SR 82 and SR 29 which enter Exploring this observation in detail, revealed that 9,300 of these trips are the result of a small segment of Bonita Beach Road just west of Vanderbilt Drive being located within Collier County on one and exit on the other are considered to have passed through Collier County while only for a short distance.

Table 3: County to County Pass-Through Trips

| Origin County | Lee | Miami-Dade | Broward | Charlotte | Hendry | Other Counties | Total |
|----------------|--------|------------|---------|-----------|--------|-------------------|--------|
| Lee | 10,601 | 2,762 | 2,868 | 99 | 1,831 | 1,061 | 19,222 |
| Miami-Dade | 2,839 | 0 | 29 | 220 | 178 | 2,344 | 5,610 |
| Broward | 1,882 | 16 | 0 | 226 | 68 | 1,628 | 3,820 |
| Charlotte | 26 | 232 | 291 | 0 | 24 | 48 | 621 |
| Hendry | 1,563 | 134 | 104 | 20 | 200 | 90 | 2,111 |
| Other Counties | 725 | 2,597 | 2,085 | 56 | 88 | 925 | 6,476 |
| Total | 17,636 | 5,742 | 5,383 | 621 | 2,389 | 6089 | 37,860 |

Looking closer at the routes of these pass-through trips, Figure 5 illustrates the daily volume of pass-through traffic crossing the county line at key gateway locations and traveling through the network. I-75 acts as the primary thoroughfare for this regional movement of traffic through Collier County. Table 4 provides additional details on the regional roadways with information regarding total daily trips and pass-through trips entering and exiting Collier County at the key gateway locations.

Within the county, the percentage of trips on each roadway can vary depending on the roadway and time of day. This most clearly exhibited on I-75 where the total number of pass-thru trips remain relatively constant, and the percentage of pass-thru trips varies significantly. North of Golden Gate Parkway, this percentage is roughly 15% (18,000 of 120,000), is close to 30% between CR 951 and Golden Gate Parkway (18,000 of 66,000) and more than 50% (15,000 of 29,000) heading east on Alligator Alley toward Broward County. This change in trips also illustrates the heavier interstate use in the urbanized















| US 41 (Miami-Dade County) | 5,600 | 4,600 | 2,700 | 2,100 | 47.1% |
|---------------------------|-------|-------|-------|-------|-------|
|---------------------------|-------|-------|-------|-------|-------|

3.0 Collier County Subareas

Evaluating and identifying trip patterns for the 17 subareas within Collier County includes a review of trip origins and destinations associated with each subarea as well as a review of work commuting patterns. Utilizing home and works locations captured through the mobile-source data available with Replica, a matrix association of residents' home subarea and work subarea was created. Reviewing trip purpose to isolate work trips originating from a residents' home subarea provided trip characteristics for home to work commuting on a typical weekday during the Spring 2021 Season. Changes in working and commuting habits have emerged because of the COVID-19 pandemic. New data provided by Replica was used to identify the percentage of workers working from home.

For comparison with statistics presented for each of the subareas, select countywide measures are shown in Table 5. Given the newest trends in working from home, additional clarification has been added to the footnotes of Table 5. Presented as a typical weekday pattern, work locations is based on the conditions observed on an average Thursday during the 2021 Spring Season. Not all workers work from home every day. This means that the Collier County residents working from home may have an inoffice physical location not in Collier County.

Table 5: Select Countywide Trip Characteristics

| Measure | Countywide Value |
|---|------------------|
| Average Trip Length | 17.4 miles |
| Median Trip Length | 4.7 miles |
| Average Trip Duration | 20 minutes |
| Median Trip Duration | 9 minutes |
| Countywide Residents | 373,600 |
| Employed Countywide | 158,000 |
| Workers Residents ¹ | |
| Residents Working in Collier | 137,300 |
| County ² | |
| Residents Working in Lee | 14,300 |
| County County ² | |
| Residents Working from Home Home ³ | 34,000 |

Footnotes:

- <u>1- Number of residents living in Collier County that are employed, regardless of employment location.</u>
- 2 Number of Collier County residents with an "in-person" office location in the listed county. For Collier County, this includes residents working from home.
- 3 Number of Collier County residents working from home regardless of "in-person" work location.

Source: Replica 2021 Spring Season, Typical Weekday (Thursday)

















Figure 13: Selected Trip Characteristics for Big Cypress Destinations

3.2.3 Work Location

As a very sparsely populated area of Collier County, there are very few people in the labor force for evaluating the impacts of work trips originating from this subarea. Table 9 indicates that work trips made by residents of Big Cypress are predominantly to the South Naples subarea. A total of 1312 workers travel to South Naples from Big Cypress.

Shown in Figure 13 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that 16 of the 121 (13.2%) Big Cypress subarea residents worked from home during the Spring 2021 quarter.















3.3 Central Naples

The Central Naples subarea is adjacent to the City of Naples and extends north to Pine Ridge Road and as far east as I-75 as shown in the image to the right.

Table 10 identifies the number of trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the Central Naples subarea. The trip origins listed have a destination in the Central Naples subarea and vice-versa for the destinations listed. Of the 82,000 daily trips originating from this area, nearly 24% (19,331) stay within the subarea. Other areas



highly associated with trips in this area include North Naples and the City of Naples where a diverse mix of land uses, and an integrated roadway network connectivity support this relationship

Subarea **Trips From Trips To** Subarea **Trips From Trips To** Central Naples (internal) 19,331 19,331 City of Marco Island 847 814 North Naples 13,657 13,643 San Carlos 756 754 City of Naples 12,924 13,102 Estero 635 648 Golden Gate 6,892 6,938 Fort Myers 470 635 **Urban Estates** 6,228 6,493 South Fort Myers 337 475 **East Naples** 5,781 5,763 Lehigh Acres 328 486 **South Naples** 4,197 3,742 Immokalee 327 364 **Rural Estates** 2,409 2,677 Heritage Bay 277 316 **Bonita Springs** 1,497 Miami-Dade County 268 1,766 242 Out of Region 915 1,035 Cape Coral 239 415

Table 10: Central Naples Trip Origins and Destinations

3.3.1 Trips Beginning in Subarea

Figure 16 provides a summary of the trip purpose, trip distance, trip duration and the busiest start time statistics for the area. Trips originating in Central Naples have a high home trip purpose at about 22,000 or 27% of the daily trips generated in the subarea. Shopping trip purposes is also relatively high at roughly 20,000 or 24% of total trips daily. The more predominant activities in Central Naples include residential dwelling, golfing, commercial services, and other public services including schools and health center. The average distance traveled is 14 miles, and the average duration is estimated at 17 minutes for trips originating in Central Naples. Trip distances for trips starting in Central Naples follow a normal distribution with the highest frequency of trips travel between four and eight miles. More than half of the trips originating from Central Naples have a travel time of less than 10 minutes. With the median trip length less than five miles and trip time less than 10 minutes, many of the trips originating















Congestion Management Process

Origin and Destination Report

October 27, 2022

FINAL DRAFT

Prepared by





Origin and Destination Report



Table of Contents

| 1.0 Intro | oduction | |
|-----------|---|-----|
| 1.1 | Purpose | |
| 1.2 | Executive Summary | |
| 2.0 Coll | ier County Trips | 8 |
| 2.1 | Trips in Collier County | |
| 2.2 | Trips Passing Through Collier County | |
| 3.0 Coll | ier County Subareas | 11 |
| 3.1 | Ave Maria | 12 |
| 3.2 | Big Cypress | 18 |
| 3.3 | Central Naples | 24 |
| 3.4 | City of Marco Island | 30 |
| 3.5 | City of Naples | 36 |
| 3.6 | Corkscrew | 42 |
| 3.7 | East Naples | 48 |
| 3.8 | Everglades City | 54 |
| 3.9 | Golden Gate | 60 |
| 3.10 | Heritage Bay | 66 |
| 3.11 | Immokalee | 72 |
| 3.12 | North Naples | 78 |
| 3.13 | Orange Tree | 84 |
| 3.14 | Royal Fakapalm | 90 |
| 3.15 | Rural Estates | 90 |
| 3.16 | South Naples | 102 |
| 3.17 | Urban Estates | 108 |
| 4.0 App | endices | 114 |
| List of | f Figures | |
| Figure 1 | : Customized Subareas for O-D Study | |
| • | : Home to Work Patterns | |
| _ | : Work from Home Trends | |
| • | : Daily Trips in Collier County : Daily Pass-Through Trips at Key Gateways | |
| | , · · · · · · · · · · · · | |

















| Figure 5: Selected Trip Characteristics for Ave Maria Origins | 13 |
|--|----|
| Figure 6: Destinations for trips Originating in Ave Maria Subarea | 14 |
| Figure 7: Selected Trip Characteristics for Ave Maria Destinations | 15 |
| Figure 8: Origins for trips Ending in Ave Maria Subarea | 16 |
| Figure 9: Ave Maria Home to Work Trip Characteristics | 17 |
| Figure 10: Selected Trip Characteristics for Big Cypress Origins | 18 |
| Figure 11: Destinations for trips Originating in Big Cypress Subarea | 20 |
| Figure 12: Selected Trip Characteristics for Big Cypress Destinations | 21 |
| Figure 13: Origins for trips Ending in Big Cypress Subarea | 22 |
| Figure 14: Big Cypress Home to Work Trip Characteristics | |
| Figure 15: Selected Trip Characteristics for Central Naples Origins | 25 |
| Figure 16: Destinations for trips Originating in Central Naples Subarea | 26 |
| Figure 17: Selected Trip Characteristics for Central Naples Destinations | 27 |
| Figure 18: Origins for trips Ending in Central Naples Subarea | |
| Figure 19: Central Naples Home to Work Trip Characteristics | 29 |
| Figure 20: Selected Trip Characteristics for City of Marco Island Origins | 31 |
| Figure 21: Destinations for trips Originating in City of Marco Island Subarea | 32 |
| Figure 22: Selected Trip Characteristics for City of Marco Island Destinations | 33 |
| Figure 23: Origins for trips Ending in City of Marco Island Subarea | 34 |
| Figure 24: City of Marco Island Home to Work Trip Characteristics | 35 |
| Figure 25: Selected Trip Characteristics for City of Naples Origins | 37 |
| Figure 26: Destinations for trips Originating in City of Naples Subarea | 38 |
| Figure 27: Selected Trip Characteristics for City of Naples Destinations | 39 |
| Figure 28: Origins for trips Ending in City of Naples Subarea | 40 |
| Figure 29: City of Naples Home to Work Trip Characteristics | |
| Figure 30: Selected Trip Characteristics for Corkscrew Origins | |
| Figure 31: Destinations for trips Originating in Corkscrew Subarea | 44 |
| Figure 32: Selected Trip Characteristics for Corkscrew Destinations | |
| Figure 33: Origins for trips Ending in Corkscrew Subarea | |
| Figure 34: Corkscrew Home to Work Trip Characteristics | |
| Figure 35: Selected Trip Characteristics for East Naples Origins | 49 |
| Figure 36: Destinations for trips Originating in East Naples Subarea | 50 |
| Figure 37: Selected Trip Characteristics for East Naples Destinations | 51 |
| Figure 38: Origins for trips Ending in East Naples Subarea | 52 |
| Figure 39: East Naples Home to Work Trip Characteristics | 53 |
| Figure 40: Selected Trip Characteristics for Everglades City Origins | |
| Figure 41: Destinations for trips Originating in Everglades City Subarea | |
| Figure 42: Selected Trip Characteristics for Everglades City Destinations | 57 |
| Figure 43: Origins for trips Ending in Everglades City Subarea | |
| Figure 44: Everglades City Home to Work Trip Characteristics | 59 |
| Figure 45: Selected Trip Characteristics for Golden Gate Origins | |
| Figure 46: Destinations for trips Originating in Golden Gate Subarea | 62 |

















| Figure 48: Origins for trips Ending in Golden Gate Subarea |
|---|
| Figure 50: Selected Trip Characteristics for Heritage Bay Origins |
| Figure 51: Destinations for trips Originating in Heritage Bay Subarea |
| Figure 52: Selected Trip Characteristics for Heritage Bay Destinations |
| Figure 53: Origins for trips Ending in Heritage Bay Subarea |
| Figure 54: Heritage Bay Home to Work Trip Characteristics |
| Figure 55: Selected Trip Characteristics for Immokalee Origins |
| Figure 56: Destinations for trips Originating in Immokalee Subarea |
| Figure 57: Selected Trip Characteristics for Immokalee Destinations |
| Figure 58: Origins for trips Ending in Immokalee Subarea |
| Figure 59: Immokalee Home to Work Trip Characteristics |
| Figure 60: Selected Trip Characteristics for North Naples Origins |
| Figure 61: Destinations for trips Originating in North Naples Subarea |
| Figure 62: Selected Trip Characteristics for North Naples Destinations81Figure 63: Origins for trips Ending in North Naples Subarea82Figure 64: North Naples Home to Work Trip Characteristics83Figure 65: Selected Trip Characteristics for Orange Tree Origins85Figure 66: Destinations for trips Originating in Orange Tree Subarea86Figure 67: Selected Trip Characteristics for Orange Tree Destinations87Figure 68: Origins for trips Ending in Orange Tree Subarea88Figure 69: Orange Tree Home to Work Trip Characteristics89Figure 70: Selected Trip Characteristics for Royal Fakapalm Origins91Figure 71: Destinations for trips Originating in Royal Fakapalm Subarea92Figure 72: Selected Trip Characteristics for Royal Fakapalm Destinations93Figure 73: Origins for trips Ending in Royal Fakapalm Subarea94Figure 74: Royal Fakapalm Home to Work Trip Characteristics95Figure 75: Selected Trip Characteristics for Rural Estates Origins97 |
| Figure 63: Origins for trips Ending in North Naples Subarea |
| Figure 64: North Naples Home to Work Trip Characteristics |
| Figure 65: Selected Trip Characteristics for Orange Tree Origins |
| Figure 66: Destinations for trips Originating in Orange Tree Subarea |
| Figure 67: Selected Trip Characteristics for Orange Tree Destinations |
| Figure 68: Origins for trips Ending in Orange Tree Subarea |
| Figure 69: Orange Tree Home to Work Trip Characteristics |
| Figure 70: Selected Trip Characteristics for Royal Fakapalm Origins |
| Figure 71: Destinations for trips Originating in Royal Fakapalm Subarea |
| Figure 72: Selected Trip Characteristics for Royal Fakapalm Destinations |
| Figure 73: Origins for trips Ending in Royal Fakapalm Subarea |
| Figure 74: Royal Fakapalm Home to Work Trip Characteristics |
| Figure 75: Selected Trip Characteristics for Rural Estates Origins97 |
| |
| Figure 76: Destinations for trips Originating in Rural Estates Subarea98 |
| 1 0 0 |
| Figure 77: Selected Trip Characteristics for Rural Estates Destinations99 |
| Figure 78: Origins for trips Ending in Rural Estates Subarea100 |
| Figure 79: Rural Estates Home to Work Trip Characteristics101 |
| Figure 80: Selected Trip Characteristics for South Naples Origins103 |
| Figure 81: Destinations for trips Originating in South Naples Subarea104 |
| Figure 82: Selected Trip Characteristics for South Naples Destinations105 |
| Figure 83: Origins for trips Ending in South Naples Subarea106 |
| Figure 84: South Naples Home to Work Trip Characteristics107 |
| Figure 85: Selected Trip Characteristics for Urban Estates Origins109 |
| Figure 86: Destinations for trips Originating in Urban Estates Subarea110 |
| Figure 87: Selected Trip Characteristics for Urban Estates Destinations111 |
| Figure 88: Origins for trips Ending in Urban Estates Subarea112 |













Origin and Destination Report



| Figure 89: Urban Estates Home to Work Trip Characteristics | 3 |
|--|---|
|--|---|

List of Tables

| rist of Tables | |
|--|-----|
| Table 1: Summary of Key Subarea Trip Characteristics | |
| Table 2: Daily Trip Origins and Destinations by County | |
| Table 3: County to County Pass-Through Trips | |
| Table 4: Daily Trips at Major County Line Crossings | 10 |
| Table 5: Select Countywide Trip Characteristics | 1 |
| Table 6: Ave Maria Subarea Trip Origins and Destinations | 12 |
| Table 7: Work Locations for Residents of Ave Maria | 17 |
| Table 8: Big Cypress Trip Origins and Destinations | 18 |
| Table 9: Work Locations for Residents of Big Cypress | 23 |
| Table 10: Central Naples Trip Origins and Destinations | 24 |
| Table 11: Work Locations for Residents of Central Naples | 29 |
| Table 12: City of Marco Island Trip Origins and Destinations | 30 |
| Table 13: Work Locations for Residents of City of Marco Island | 35 |
| Table 14: City of Naples Trip Origins and Destinations | 36 |
| Table 15: Work Locations for Residents of City of Naples | 4 |
| Table 16: Corkscrew Trip Origins and Destinations | 42 |
| Table 17: Work Locations for Residents of Corkscrew | 4 |
| Table 18: East Naples Trip Origins and Destinations | 48 |
| Table 19: Work Locations for Residents of East Naples | 53 |
| Table 20: Everglades City Trip Origins and Destinations | 54 |
| Table 21: Work Locations for Residents of Everglades City | 59 |
| Table 22: Golden Gate Trip Origins and Destinations | 60 |
| Table 23: Work Locations for Residents of Golden Gate | 65 |
| Table 24: Heritage Bay Trip Origins and Destinations | 66 |
| Table 25: Work Locations for Residents of Heritage Bay | 7: |
| Table 26: Immokalee Trip Origins and Destinations | 72 |
| Table 27: Work Locations for Residents of Immokalee | 7 |
| Table 28: North Naples Trip Origins and Destinations | 78 |
| Table 29: Work Locations for Residents of North Naples | 83 |
| Table 30: Orange Tree Trip Origins and Destinations | 84 |
| Table 31: Work Locations for Residents of Orange Tree | 89 |
| Table 32: Royal Fakapalm Trip Origins and Destinations | 90 |
| Table 33: Work Locations for Residents of Royal Fakapalm | 9 |
| Table 34: Rural Estates Trip Origins and Destinations | 90 |
| Table 35: Work Locations for Residents of Rural Estates | 10 |
| Table 36: South Naples Trip Origins and Destinations | 102 |
| Table 37: Work Locations for Residents of South Naples | 10 |
| Table 38: Urban Estates Trip Origins and Destinations | 108 |















| Table 39: Work Locations for Residents of Urban Estates | 113 |
|---|-----|
| Appendices | |
| Appendix A: O&D Study Methodology | 114 |
| Appendix B: Subarea Origin and Destination Trip Matrix | 116 |















1.0 Introduction

1.1 Purpose

As part of the MPO's Congestion Management Process, a review of travel characteristics is being conducted for the purpose of providing additional insights into trip making and travel patterns within Collier County. This origin and destination study utilizes the Replica (www.replicahq.com) Places data platform for conducting this analysis. The methodology proposed for this analysis was reviewed by the MPO's Congestion Management Committee on May18th 2022 is included in Appendix A.

The Replica Places module allows for analysis of trip making patterns and characteristics as Census, municipal, and county level geographies. The basis for this analysis is the average weekday travel observed during the Spring (March -May) 2021. Additionally, the ability to define geographic boundaries for reporting and analysis within Replica allows for more specific results. For this O-D Study, identification of subareas within Collier County and Lee County. In addition to further sub-dividing Collier and Lee counties, Figure 1 shows the surrounding counties that have been used for conducting this study. The subareas within Collier County for this analysis are based on a review of the Collier County Planning Communities and specific areas defined on the Growth Management Plan. One final revision was made to these 17 subareas by combining the City of Marco Island with the surrounding communities of Goodland, Isles of Capri, and Hammock Bay.

In total 17 subareas were identified for Collier County following this approach. Other areas included in the analysis outside of Collier County include the 22 planning communities identified in Lee County as well as Broward County, Charlotte County, Miami-Dade County, and Glades County.

Undertaking this approach for summarizing travel data allows for results that provide insights into broad overview patterns as well as more granular and specific interactions between subareas. These results will allow the Collier MPO to better coordinate with its regional partners for developing transportation related strategies for addressing regional congestion and mobility. Information regarding travel patterns – time of day, trip lengths, and trip purpose – will be beneficial to the MPO's upcoming LRTP 2050 LRTP and development of the travel demand model.

The remainder of this report is divided into two major sections for reporting trip characteristics and results of the O-D Study as described below.

- Collier County Results: This section provides a generalized overview of the trips occurring in Collier County on an average weekday. Summary information regarding location of origin and destination of trips identifies the larger regional context of trips interacting with Collier County.
- Collier County Subarea Results: for each of the 17 subareas in Collier County, a detailed review
 of trips beginning and ending within each location includes a review of trip length, trip purpose,
 trip distance, and start time is summarized. Analysis summarizing the residents within each
 subarea and their work location provides additional detail for assessing commuting travel
 patterns.







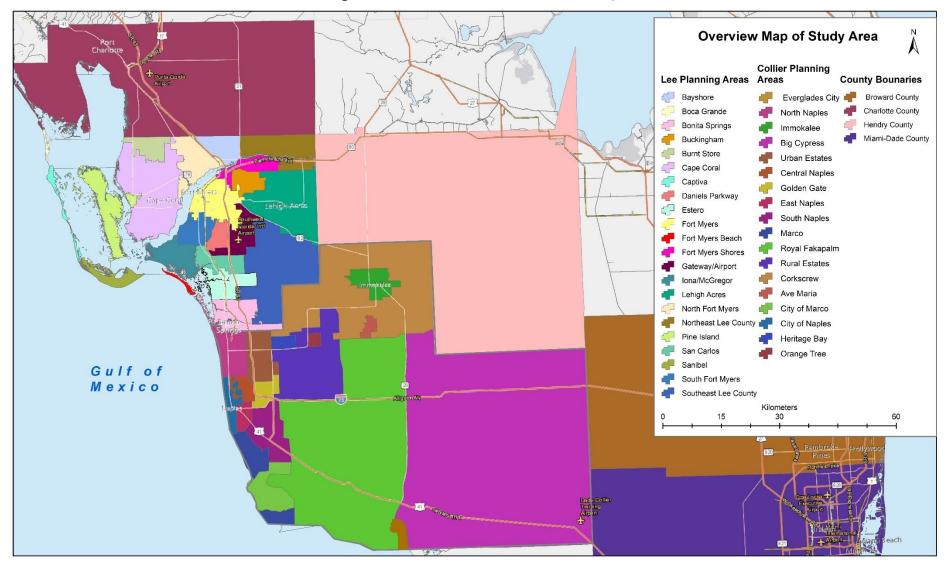








Figure 1: Customized Subareas for O-D Study

















1.2 Executive Summary

The Collier MPO examined the trip making patterns within Collier County and the connectivity of these trips to the larger Southwest and South Florida regions. Using trip origins and destinations associated with subareas of Collier County based on the Future Land Use Map, several key insights were identified for these areas based on their location, development patterns, and mix of uses.

In addition to reviewing trip patterns within Collier County, regional trips were entering, exiting, and passing through the County were also evaluated. This regional review also extended to the subarea analysis conducted within Collier County to identify areas of high trip interaction outside of Collier County. Below are some of the key takeaways that were identified from this analysis.

More than 90,000 trips a day start in Collier County and end in Lee County.

38,000 daily trips pass through Collier County, primarily on I-75.

Nearly 9% workers living in Collier County have jobs in Lee County and an additional 2% work within the larger Southwest and South Florida region.

Of the workers that work in Collier County nearly 1-in-3 works in the same subarea where they live or 28% of the total workers living in Collier County.

1.2.1 Trip Characteristics

Many of the County's subareas are well established from a land use perspective and contain a developed transportation grid. In those areas primarily west of CR 951, the trip lengths and time traveled are lower, and number of trips internally captured within a subarea are greater. Trip Characteristics for some of the key subareas of the county are included in Table 1 below.

Table 1: Summary of Key Subarea Trip Characteristics

| Subarea | Average Trip Length (Miles) | Average Trip Duration (Minutes) | Daily Trips Originating | Percent of Trips Remaining Internal | Percent of Population Working from Home |
|----------------------|-----------------------------------|---------------------------------------|----------------------------|---|--|
| Ave Maria | 22 | 29 | 11,100 | 45% | 10.5% |
| Central Naples | 17 | 14 | 80,000 | 24% | 10.0% |
| City of Marco Island | 23 | 26 | 66,000 | 66% | 11.0% |
| City of Naples | 18 | 21 | 133,000 | 39% | 10.0% |
| East Naples | 11 | 15 | 80,000 | 35% | 7.2% |
| Golden Gate | 10 | 15 | 106,000 | 43% | 6.9% |
| Immokalee | 13 | 19 | 60,000 | 72% | 5.4% |
| North Naples | 15 | 18 | 235,000 | 48% | 9.8% |
| Rural Estates | 18 | 26 | 72,000 | 32% | 11.3% |
| South Naples | 15 | 19 | 115,000 | 50% | 8.0% |
| Urban Estates | 14 | 18 | 136,000 | 41% | 10.4% |
| County-Wide | 17 | 20 | 1,100,000 | 44% | 9.1% |















About half of these subareas have a higher internal capture than the county-wide average. The two sub-areas with the highest rates of internally captured trips (City of Marco Island and Immokalee) demonstrate a balanced mix of land-uses, are more isolated from other areas of development, and are more mature in the development cycle. The Ave Maria subarea also demonstrates a high level of internally captured trips as well as a high percentage of people working from home. However, as a rural village that is still developing, the average trip lengths and trip durations are the longest of those listed in the table. These higher trip measures illustrate the continued reliance of this subarea on the greater region for certain purposes, such as work trips, while the area is not completely built out.

Areas such as South Naples, North Naples or Golden Gate have diverse land use patterns and an integrated road network connectivity which provide for additional destinations or opportunities to satisfy trip making without traveling great distances.

1.2.2 Journey to Work

Highest levels of traffic congestion have long been associated with the daily commute of workers during the AM and PM "Rush Hour." As a key indicator of daily travel patterns, an association of highly correlated home and work locations was completed between the Collier County subareas and the remainder of the study area. Shown in Figure 2, are the highest paired areas of resident location and work locations. Appendix B contains a full reporting of home to work origins and destinations including this pairs where the origin and destination are the same subarea.

Looking at these pairings, 50% of working residents have a work location in the sub areas of Central Naples, City of Naples, East and North Naples; all of which are West of I-75. Additionally, 9% of working residents have a work location located in Lee County.







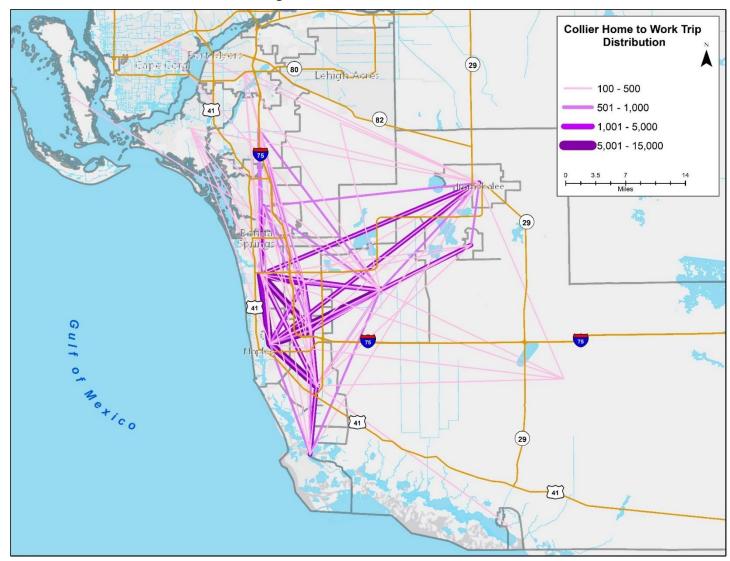








Figure 2: Home to Work Patterns

















According to the US Census Bureau, the number of people primarily working from home between 2019 and 2021 has tripled.¹ This pattern has held true for Collier County as well. Figure 3 illustrates the recent trends in the number of people working from home from January 2019 through the week of October 17, 2022. Prior to the onset of the COVID-19 pandemic, less than 9,000 people worked from home on a typical weekday as reported in the American Community Survey. During 2020, a sudden spike of residents working from home began to level off during 2021 and stabilize through 2022. In 2022, the number of people working from home has varied, and currently is around 25,000 people on a typical weekday. This is equal to about 16% of workers and 7% of the total population. A recent spike in late September is associated with the landfall of Hurricane Ian.

With slightly more than one-year worth of stable data, it's likely too soon to draw conclusions regarding seasonal fluctuations or expectations for impacts to future travel demand. However, the lowest observed work from home numbers during the spring of 2022 followed by an increase during the summer months should be monitored for continued understanding of this newer trend.

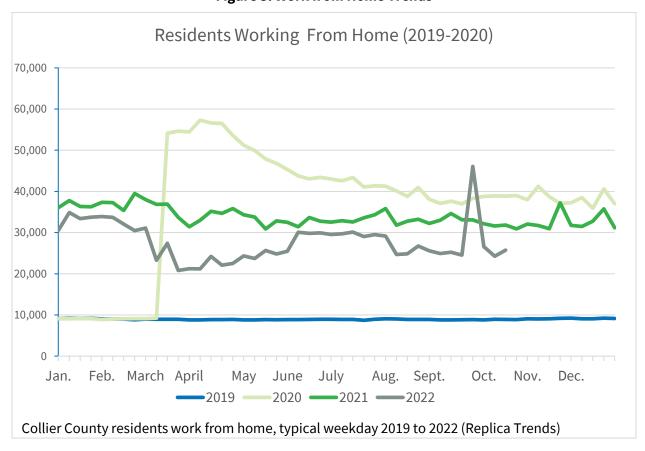


Figure 3: Work from Home Trends

¹https://www.census.gov/newsroom/press-releases/2022/people-working-from-home.html?utm_campaign=20220915mspios1ccpuprs&utm_medium=email&utm_source=govdelivery















1.2.3 Next Steps

In addition to exploring the results of this analysis, several observations can be made towards identifying future next steps. These next steps include a deeper exploration of certain observations and patterns that were observed as well as expanding the scope of this analysis to investigate additional travel characteristics. A few of these observations and possible next steps are summarized below.

- During the Origin/Destination Study it was discovered that transit trips were not included as
 part of the Replica data set. Discussions were conducted with the data provider to review the
 applications data model. Future releases of travel data will have transit trip information
 included. Exploring key transit trip patterns will aid the MPO and Collier Area Transit in
 understanding and planning for the transportation needs of the public.
- Certain areas, such as North Naples were identified as a high employment location for many areas. Evaluating high employment areas as the destination and examining trips made during the day as compared with home-to-work commute trips can provide insights into the peak traveling periods and assist the MPO in developing future congestion management strategies on congested corridors.
- Evaluating high employment locations from the destination perspective will provide insight into the number of people working in Collier County and living in one of the regions other counties.
- A deeper review of areas with high internally capture origin and destination pairs can provide
 insights into the trip patterns and land use dependency as a complement to future land use
 and transportation planning. This level of review can also aid in better understanding shorterdistance trips and efforts to promote walking and biking as alternatives to driving.
- As part of the MPO's upcoming 2050 LRTP, incorporation of Environmental Justice areas into the analysis of trip patterns would identify areas where transportation options are limited and inform the selection of future project.















2.0 Collier County Trips

Utilizing the Replica Places data platform, information regarding number of trips and certain trip characteristics for Collier County have been summarized. This summary compares trip origins and destinations for trips starting and/or ending with Collier County as well as those passing through the county on major regional roadways.

2.1 Trips in Collier County

On an average weekday during the Spring of 2021, there were more than 1.26 million trips made on roadways in Collier County with at least one trip end (origin or destination) occurring in the county. Illustrated in Figure 4, more than 75% of these trips start and end within Collier County and nearly 20% of the trips cross the county line using one of the region's major transportation facilities. Table 2 provides a further breakdown or trip origins and destinations for counties in South Florida and other areas beyond the region. It's important to note for these trips that at least one trip end (origin or destination) is within Collier County.

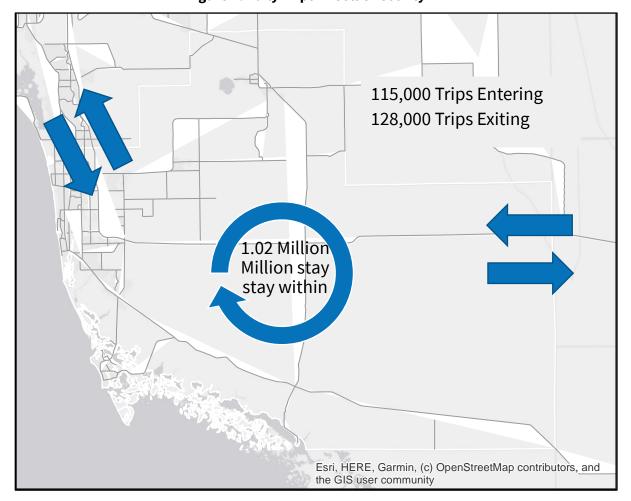


Figure 4: Daily Trips in Collier County















Table 2: Daily Trip Origins and Destinations by County

| County | Trip Origin | Trip Destination |
|--------------------|-------------|------------------|
| Collier (Internal) | 1,024,000 | 1,024,000 |
| Lee | 87,000 | 96,000 |
| Broward | 3,000 | 4,800 |
| Miami-Dade | 5,000 | 4,900 |
| Hendry | 3,000 | 3,500 |
| Charlotte | 1,700 | 2,600 |
| Other Counties | 15,000 | 16,400 |
| Total | 1,138,700 | 1,152,200 |

2.2 Trips Passing Through Collier County

In addition to the more than 1 million daily trips occurring in Collier County daily, an additional 38,000 daily trips pass through the County. A breakdown of these pass-through trips by county origin is listed in Table 3. Of specific note is the high number of trips (10,600) passing through Collier County that have both an origin and a destination in Lee County. Exploring this observation in detail, revealed that 9,300 of these trips are the result of a small segment of Bonita Beach Road just west of Vanderbilt Drive being located within Collier County.

Table 3: County to County Pass-Through Trips

| Origin County | Lee | Miami-Dade | Broward | Charlotte | Hendry | Other Counties | Total |
|----------------|--------|------------|---------|-----------|--------|-------------------|--------|
| Lee | 10,601 | 2,762 | 2,868 | 99 | 1,831 | 1,061 | 19,222 |
| Miami-Dade | 2,839 | 0 | 29 | 220 | 178 | 2,344 | 5,610 |
| Broward | 1,882 | 16 | 0 | 226 | 68 | 1,628 | 3,820 |
| Charlotte | 26 | 232 | 291 | 0 | 24 | 48 | 621 |
| Hendry | 1,563 | 134 | 104 | 20 | 200 | 90 | 2,111 |
| Other Counties | 725 | 2,597 | 2,085 | 56 | 88 | 925 | 6,476 |
| Total | 17,636 | 5,742 | 5,383 | 621 | 2,389 | 6089 | 37,860 |

Looking closer at the routes of these pass-through trips, Figure 5 illustrates the daily volume of pass-through traffic crossing the county line at key gateway locations and traveling through the network. I-75 acts as the primary thoroughfare for this regional movement of traffic through Collier County. Table 4 provides additional details on the regional roadways with information regarding total daily trips and pass-through trips entering and exiting Collier County at the key gateway locations.

Within the county, the percentage of trips on each roadway can vary depending on the roadway and time of day. This most clearly exhibited on I-75 where the total number of pass-thru trips remain relatively constant, and the percentage of pass-thru trips varies significantly. North of Golden Gate Parkway, this percentage is roughly 15% (18,000 of 120,000), is close to 30% between CR 951 and Golden Gate Parkway (18,000 of 66,000) and more than 50% (15,000 of 29,000) heading east on Alligator Alley toward Broward County. This change in trips also illustrates the heavier interstate use in the urbanized area for daily trip making as the total number of trips are nearly five-times greater north of Golden Gate















Parkway than they are on Alligator Alley. With only 15% of the trips on I-75 entering/exiting Lee County passing through, the remaining 85% (more than 119,000 daily trips) on I-75 begin or end in Collier County.

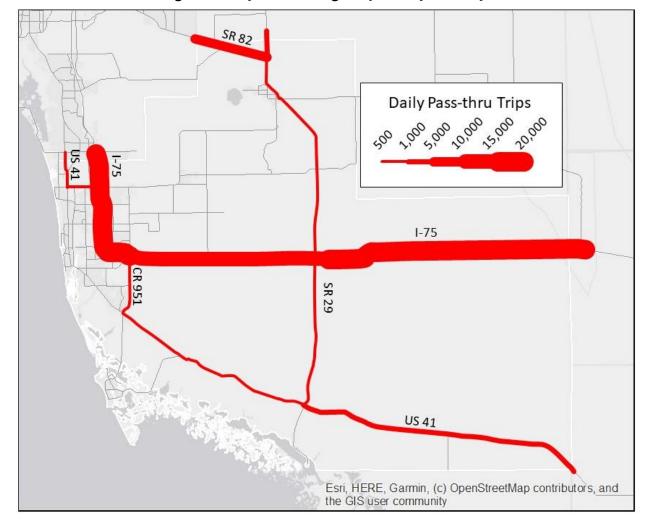


Figure 5: Daily Pass-Through Trips at Key Gateways

Table 4: Daily Trips at Major County Line Crossings

| Roadway Facility | Total Trips Entering | Total Trips Exiting | Pass-Thru Trips Entering | Pass-Thru Trips Exiting | Percent Pass-thru (Regional) Trips |
|---------------------------|-------------------------|------------------------|-----------------------------|----------------------------|--|
| I-75 (Lee County) | 65,000 | 74,000 | 11,000 | 8,700 | 14.2% |
| SR 82 (Lee County | 12,000 | 12,000 | 4,000 | 3,800 | 32.5% |
| SR 29 (Lee County) | 6,200 | 7,100 | 2,400 | 3,000 | 40.6% |
| US 41 (Lee County | 28,000 | 21,000 | 200 | 100 | <1% |
| I-75 (Broward County) | 13,000 | 17,000 | 7,800 | 10,000 | 59.3% |
| US 41 (Miami-Dade County) | 5,600 | 4,600 | 2,700 | 2,100 | 47.1% |















3.0 Collier County Subareas

Evaluating and identifying trip patterns for the 17 subareas within Collier County includes a review of trip origins and destinations associated with each subarea as well as a review of work commuting patterns. Utilizing home and works locations captured through the mobile-source data available with Replica, a matrix association of residents' home subarea and work subarea was created. Reviewing trip purpose to isolate work trips originating from a residents' home subarea provided trip characteristics for home to work commuting on a typical weekday during the Spring 2021 Season. Changes in working and commuting habits have emerged because of the COVID-19 pandemic. New data provided by Replica was used to identify the percentage of workers working from home.

For comparison with statistics presented for each of the subareas, select countywide measures are shown in Table 5. Given the newest trends in working from home, additional clarification has been added to the footnotes of Table 5. Presented as a typical weekday pattern, work locations is based on the conditions observed on an average Thursday during the 2021 Spring Season. Not all workers work from home every day. This means that the Collier County residents working from home may have an inoffice physical location not in Collier County.

Table 5: Select Countywide Trip Characteristics

| Measure | Countywide Value |
|--|------------------|
| Average Trip Length | 17.4 miles |
| Median Trip Length | 4.7 miles |
| Average Trip Duration | 20 minutes |
| Median Trip Duration | 9 minutes |
| Countywide Residents | 373,600 |
| Employed Countywide Residents ¹ | 158,000 |
| Residents Working in Collier County ² | 137,300 |
| Residents Working in Lee County ² | 14,300 |
| Residents Working from Home ³ | 34,000 |

Footnotes:

- 1- Number of residents living in Collier County that are employed, regardless of employment location.
- 2 Number of Collier County residents with an "in-person" office location in the listed county. For Collier County, this includes residents working from home.
- 3 Number of Collier County residents working from home regardless of "in-person" work location.

Source: Replica 2021 Spring Season, Typical Weekday (Thursday)

Summary level information for each of the 17 subareas of Collier County is provided in the following sections along with a matrix of trips origins and destinations, and workers by home and work location for each subarea in Appendix B.















3.1 Ave Maria

Ave Maria is an unincorporated community in northern Collier County. Shown in the image to the right, Ave Maria is south of Immokalee and located along Oil Well Road.

Table 6 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in Ave Maria subarea. The trip origins listed have a destination in the Ave Maria subarea and vice-versa for the destinations listed. The 5,014 trips originating daily within the Ave Maria subarea and remaining within the area represent 45% of the roughly 11,000 daily trips originating from the area. The nearby areas of Immokalee and the Rural Estates,



also experience a high trip interaction with Ave Maria. Of note, are the more than 500 daily trips coming from the North Naples area when compared with other areas which are closer.

3.1.1 Trips Beginning in Subarea

Trips originating in Ave Maria have a high home trip purpose, or destination, with about 2,800 trips or 26% of the daily trips generated in the subarea as shown in Figure 6. Ave Maria is a recently built Village in Rural Collier County that is somewhat isolated from other suburban communities. The pattern of trips associated with this style of development is identifiable as nearly 40% of all trips originating within Ave Maria having a trip distance less than 4 miles in length while more than 30% of trips travel between 16 and 64 miles daily. Many trips can be satisfied within a short distance while others take a greater distance to accomplish for certain activities. This results in an average travel distance of 22 miles and an average time of 29 minutes. Even though there are a high number of trips that travel within the area, there are a significant number of trips originating from the area travelling long distances. Figure 7 illustrates the geographic distribution of destinations for trips originating in the subarea.

Table 6: Ave Maria Subarea Trip Origins and Destinations

| Subarea | Trips From | Trips To | Subarea | Trips From | Trip To |
|----------------------|------------|----------|-------------------|------------|---------|
| Ave Maria (internal) | 5,014 | 5,014 | Corkscrew | 172 | 171 |
| Immokalee | 928 | 901 | Bonita Springs | 171 | 140 |
| Rural Estates | 917 | 839 | Central Naples | 167 | 143 |
| North Naples | 507 | 394 | City of Naples | 165 | 134 |
| Urban Estates | 457 | 364 | East Naples | 164 | 132 |
| Hendry County | 354 | 413 | South Naples | 146 | 113 |
| Orange Tree | 342 | 298 | Fort Myers | 124 | 112 |
| Golden Gate | 217 | 170 | Heritage Bay | 124 | 120 |
| Lehigh Acres | 207 | 263 | Miami-Dade County | 117 | 125 |
| Out of Region | 203 | 221 | Estero | 97 | 68 |







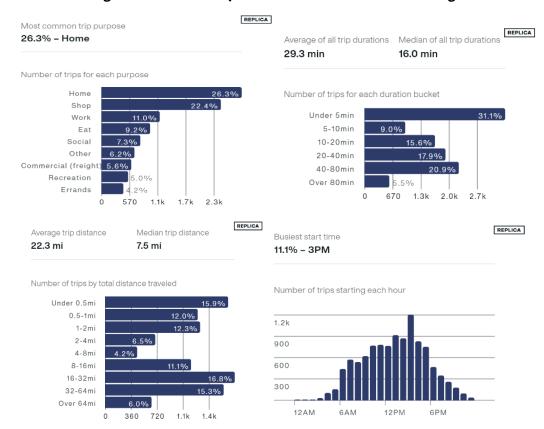








Figure 6: Selected Trip Characteristics for Ave Maria Origins

















Ave Maria Trip Destination Distribution Map 0 - 100 101 - 250 251 - 500 501 - 1,000 1,001 - 5,014 Miles 10 41 Gulf of Mexico [41] 41

Figure 7: Destinations for trips Originating in Ave Maria Subarea















3.1.2 Trips Ending in Subarea

Since the Ave Maria subarea includes the Arthrex Medical Facility as well as other service-related businesses, 19% of all trips ending within the subarea are for work. Shopping and home are also high destinations as shown in Figure 8. Average trip duration and travel distance are similar for trips ending within Ave Maria and trips beginning in Ave Maria. The distribution of trips throughout the day however varies for trips originating and trips ending within the subarea and are understandable given the predominate origin purpose (home) and destination purpose (work). Figure 9 illustrates the geographic distribution of origins for trips ending in the Ave Maria subarea.

REPLICA Most common trip purpose REPLICA 19.0% - Work Average of all trip durations Median of all trip durations 28.7 min 17.0 min Number of trips for each purpose Work 19.0% Number of trips for each duration bucket Shop 18.4% Home 17.4% Under 5min 29.9% Eat 5-10min Other 7.7% 10-20min 16.0% Recreation 7.0% 20-40min 40-80min Social Over 80min Commercial (freight) 670 1.3k 2.0k 0 430 850 1.3k 1.7k REPLICA Median trip distance Average trip distance 20.4 mi 8.6 mi REPLICA Busiest start time 8.0% - 7AM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 11.6% 1-2 mi 11.9% 900 6.2% 2-4mi 670 4-8mi 8-16mi 16-32mi 32-64mi Over 64mi 12AM 850 1.3k 6AM 430

Figure 8: Selected Trip Characteristics for Ave Maria Destinations

3.1.3 Work Location

Table 7 lists the top work location subareas for the more than 1,250 workers living in the Ave Maria subarea. Consistent with observed trip length and duration patterns, the two highest work locations are the Ave Maria subarea and the North Naples subarea. Residents of Ave Maria have work opportunities nearby or at a considerable distance.









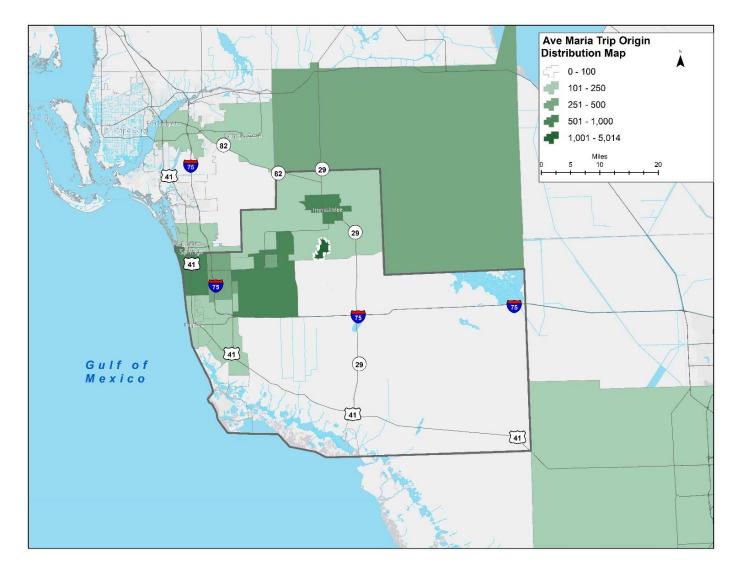






COLLIER Metropolitan Planning

Figure 9: Origins for trips Ending in Ave Maria Subarea

















Shown in Figure 10 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that nearly 275 or 10.5% of the 2,500 Ave Maria subarea residents worked from home during the Spring 2021 quarter.

Table 7: Work Locations for Residents of Ave Maria

| Work Location | Population | Work Location | Population |
|----------------|------------|----------------------|------------|
| Ave Maria | 226 | Orange Tree | 32 |
| North Naples | 171 | San Carlos | 27 |
| Rural Estates | 136 | South Fort Myers | 23 |
| City of Naples | 105 | Miami-Dade County | 22 |
| Central Naples | 87 | East Naples | 22 |
| Urban Estates | 71 | Golden Gate | 19 |
| Immokalee | 64 | Out of Region | 16 |
| Bonita Springs | 56 | Southeast Lee County | 15 |
| Heritage Bay | 51 | Corkscrew | 15 |
| South Naples | 43 | North Fort Myers | 12 |

Figure 10: Ave Maria Home to Work Trip Characteristics

















3.2 Big Cypress

Big Cypress is the largest subarea in Collier County analyzed for this study as shown in the image to the right. This easternmost location in Collier County includes the Big Cypress National Preserve as a dominant feature. Several isolated rural communities within this subarea, including Carnestown, Copeland, Copeland, and Ochopee contribute to the traffic characteristics summarized below. Since this subarea also includes the Rest Area along Alligator Alley, traffic characteristics summarized below are influenced by the long-distance nature of the Interstate 75 traffic.



Table 8 shows the trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the Big Cypress subarea. The trip origins listed have a destination in the Big Cypress subarea and vice-versa for the destinations listed. While the number of trips that originate within the Big Cypress subarea are low, 15% of the 2,300 daily trips stay internal to the area. Other areas highly associated with trips in this area are external to Collier County and even beyond the region. This relationship of trip origins and destinations supports the impact of the I-75 Rest Area.

Table 8: Big Cypress Trip Origins and Destinations

| Subarea | Trips From | Trips To | Subarea | Trips From | Trips To |
|------------------------|------------|----------|----------------------|------------|----------|
| Big Cypress (internal) | 349 | 349 | Rural Estates | 46 | 50 |
| Out of Region | 291 | 286 | Immokalee | 41 | 45 |
| Broward County | 254 | 286 | City of Marco Island | 45 | 45 |
| Miami-Dade County | 275 | 271 | City of Naples | 45 | 37 |
| Everglades City | 67 | 122 | Cape Coral | 35 | 35 |
| Royal Fakapalm | 120 | 118 | North Naples | 33 | 30 |
| South Naples | 112 | 101 | Corkscrew | 25 | 29 |
| Hendry County | 124 | 100 | Lehigh Acres | 17 | 22 |
| Fort Myers | 41 | 79 | North Fort Myers | 24 | 22 |
| Charlotte County | 45 | 59 | Gateway/Airport | 23 | 20 |

3.2.1 Trips Beginning in Subarea

Trips originating in this subarea have a high commercial trip purpose as shown in Figure 11. While many trips originated from within this subarea have long travel times and trip distances, it is interesting to note the number of short distance trips that are under two miles. These shorter distance trips would indicate that these trips are staying within the isolated rural communities mentioned previously. Figure 12 illustrates the geographic distribution of destinations for trips originating in the Big Cypress subarea.

Figure 11: Selected Trip Characteristics for Big Cypress Origins







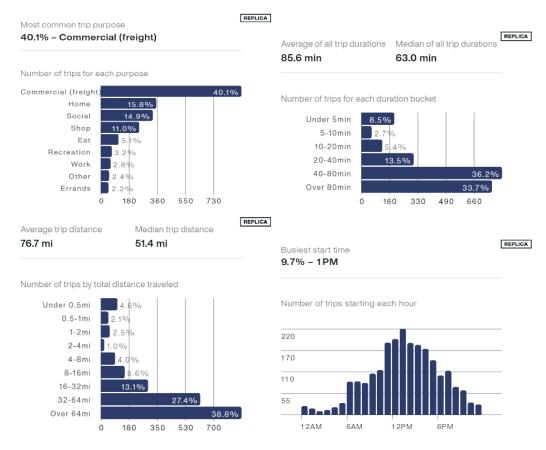






Origin and Destination Report





3.2.2 Trips Ending in Subarea

Figure 13 illustrates characteristics for trips ending in the Big Cypress subarea. Average trip duration and travel distance are similar for trips ending within the subarea as those beginning there. The highest purpose for trips ending in this subarea, like those originating here, is for commercial purposes. The two highest personal trip purposes ending in this subarea are for social and recreation purposes. These trip purposes being higher than the others is a unique condition compared to the other subareas and indicate the influence of the state and national park lands contained within the subarea. Figure 14 illustrates the geographic distribution of origins for trips ending in the Big Cypress subarea.







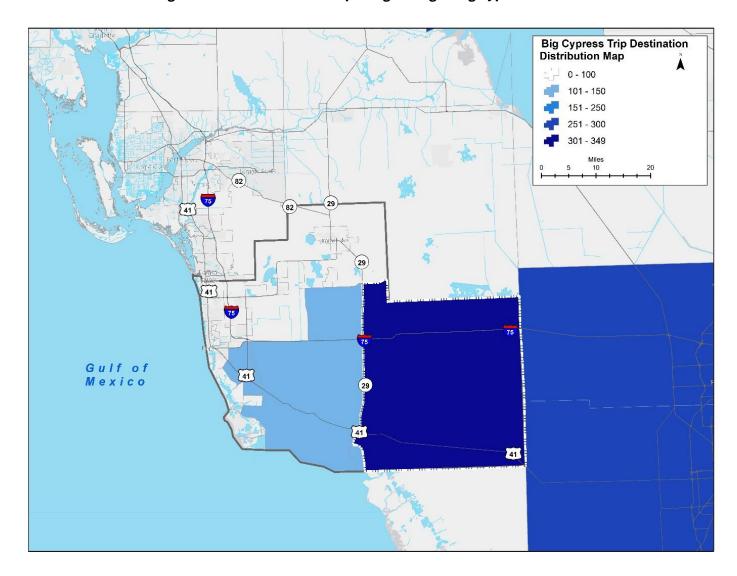








Figure 12: Destinations for trips Originating in Big Cypress Subarea

















REPLICA 43.9% - Commercial (freight) REPLICA Average of all trip durations Median of all trip durations 85.5 min 64.0 min Number of trips for each purpose 43.9% Number of trips for each duration bucket Commercial (freight Social Under 5min Recreation 5-10min Work 10-20min Home 20-40min Shop 40-80min Other Over 80min 170 330 500 School 0.0% 200 390 590 REPLICA Average trip distance Median trip distance REPLICA Busiest start time 74.9 mi 52.8 mi 8.0% - 12PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 2.1% 180 1-2mi 2.3% 2-4mi 130 8-16mi 90 16-32mi 32-64mi Over 64mi 6AM 680 170 340 510

Figure 13: Selected Trip Characteristics for Big Cypress Destinations

3.2.3 Work Location

As a very sparsely populated area of Collier County, there are very few people in the labor force for evaluating the impacts of work trips originating from this subarea. Table 9 indicates that work trips made by residents of Big Cypress are predominantly to the South Naples subarea. A total of 12 workers travel to South Naples from Big Cypress.

Shown in Figure 13 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that 16 of the 121 (13.2%) Big Cypress subarea residents worked from home during the Spring 2021 quarter.















Figure 14: Origins for trips Ending in Big Cypress Subarea

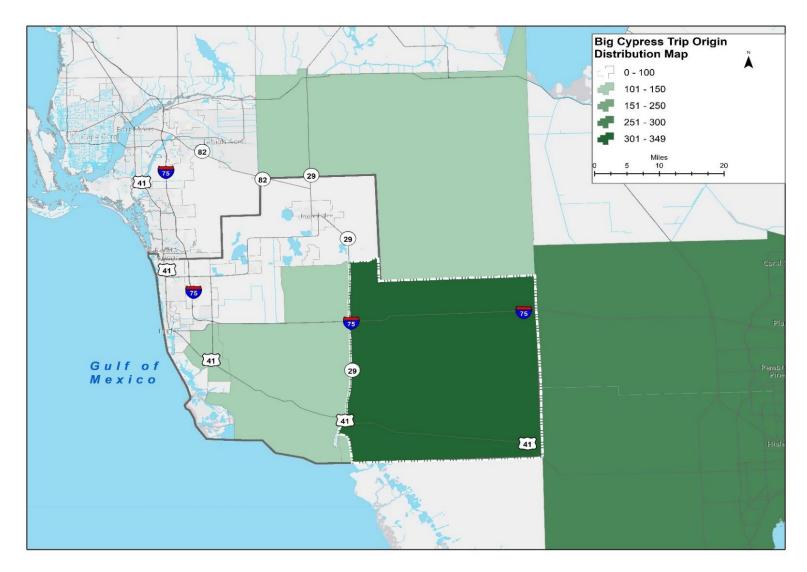
















Table 9: Work Locations for Residents of Big Cypress

| Work Location | Population | Work Location | Population |
|----------------------|------------|----------------------|------------|
| South Naples | 12 | City of Naples | 2 |
| Miami-Dade County | 7 | Fort Myers | 1 |
| Royal Fakapalm | 6 | Immokalee | 1 |
| Ave Maria | 6 | Rural Estates | 1 |
| Central Naples | 5 | Big Cypress | 1 |
| North Naples | 5 | Corkscrew | 1 |
| City of Marco Island | 3 | East Naples | 1 |
| Broward County | 2 | Orange Tree | 1 |
| Everglades City | 2 | | |

Figure 15: Big Cypress Home to Work Trip Characteristics

















3.3 Central Naples

The Central Naples subarea is adjacent to the City of Naples and extends north to Pine Ridge Road and as far east as I-75 as shown in the image to the right.

Table 10 identifies the number of trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the Central Naples subarea. The trip origins listed have a destination in the Central Naples subarea and vice-versa for the destinations listed. Of the 82,000 daily trips originating from this area, nearly 24% (19,331) stay within the subarea. Other areas



highly associated with trips in this area include North Naples and the City of Naples where a diverse mix of land uses, and an integrated roadway network connectivity support this relationship

Subarea **Trips From Trips To** Subarea **Trips From Trips To** Central Naples (internal) 19,331 19,331 City of Marco Island 847 814 North Naples 13,657 13,643 San Carlos 756 754 City of Naples 12,924 13,102 Estero 635 648 Golden Gate 6,892 6,938 Fort Myers 470 635 **Urban Estates** 6,228 6,493 South Fort Myers 337 475 **East Naples** 5,781 5,763 Lehigh Acres 328 486 **South Naples** 4,197 3,742 Immokalee 327 364 Heritage Bay **Rural Estates** 2,409 2,677 277 316 **Bonita Springs** 1,497 Miami-Dade County 268 1,766 242 Out of Region 915 1,035 Cape Coral 239 415

Table 10: Central Naples Trip Origins and Destinations

3.3.1 Trips Beginning in Subarea

Figure 16 provides a summary of the trip purpose, trip distance, trip duration and the busiest start time statistics for the area. Trips originating in Central Naples have a high home trip purpose at about 22,000 or 27% of the daily trips generated in the subarea. Shopping trip purposes is also relatively high at roughly 20,000 or 24% of total trips daily. The more predominant activities in Central Naples include residential dwelling, commercial services, and other public services including schools and health center. The average distance traveled is 14 miles, and the average duration is estimated at 17 minutes for trips originating in Central Naples. Trip distances for trips starting in Central Naples follow a normal distribution with the highest frequency of trips travel between four and eight miles. More than half of the trips originating from Central Naples have a travel time of less than 10 minutes. With the median trip length less than five miles and trip time less than 10 minutes, many of the trips originating in this















subarea can be considered short distance trips. Figure 17 illustrates the geographic distribution of destinations for trips originating in the Central Naples subarea.

REPLICA Most common trip purpose 27.1% - Home Average of all trip durations Median of all trip durations 16.9 min 9.0 min Number of trips for each purpose Home Shop Number of trips for each duration bucket Work 11.0% Under 5min 24.0% Commercial (freight) 10.2% 5-10min 29.3% Eat 10-20min Errands 20-40min Social 4.8% 40-80min Recreation Over 80min Other 4.8k 9.6k 14k 19k 4.4k 8.8k 18k 13k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 14.1 mi 4.7 mi 8.7% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 7.1k 1-2mi 18.8% 5.3k 4-8mi 8-16mi 3.6k 16-32mi 1.8k 32-64mi Over 64mi 12AM 6AM 4.7k 9.4k 14k

Figure 16: Selected Trip Characteristics for Central Naples Origins

3.3.2 Trips Ending in Subarea

Figure 18 provides a summary of trips ending in the Central Naples subarea. The highest trips purposes, distribution of travel distance and travel times for these trips is very similar to origin trips. This suggests that trip-making is more single purpose rather than chaining trips together for multiple purposes. Trips ending in the Central Naples subarea average less than 14 miles and last around 16 minutes. Figure 19 illustrates the geographic distribution of origins for trips ending in the Central Naples subarea.









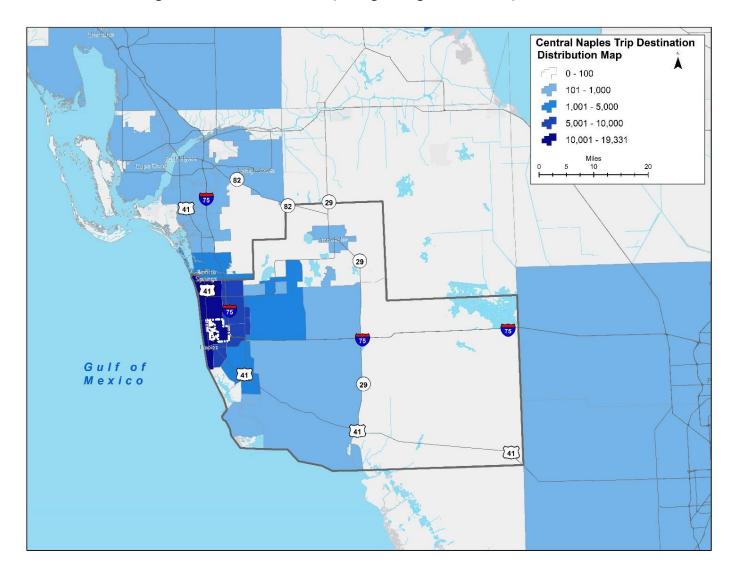






Figure 17: Destinations for trips Originating in Central Naples Subarea

Congestion

















REPLICA Most common trip purpose 26.5% - Shop Average of all trip durations Median of all trip durations 16.3 min 9.0 min Number of trips for each purpose Shop Home Number of trips for each duration bucket Work Under 5min Commercial (freight 5-10min Eat 10-20min Frrands 20-40min 12.4% Recreation 40-80min Social Over 80min Other 9.3k 14k 19k 8.5k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 13.6 mi 4.6 mi 8.1% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 7.5% 0.5-1mi 6.5k 1-2mi 10.9% 2-4mi 19.0% 4.9k 4-8mi 28.0% 8-16mi 16.6% 3.3k 16-32mi

Figure 18: Selected Trip Characteristics for Central Naples Destinations

3.3.3 Work Location

32-64mi Over 64mi

2.0% 4.5k

9.0k

13k

Table 11 lists the top work location subareas for the nearly 9,400 works residing in the Central Naples subarea. This table indicates that work trips made by residents of Central Naples are predominantly to the City of Naples, the North Naples subarea or within the Central Naples subarea.

1.6k

12AM

6AM

12PM

Shown in Figure 20 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that 2,100 or 10% of the 21,000 Central Naples residents worked from home during the Spring 2021 quarter.















Figure 19: Origins for trips Ending in Central Naples Subarea

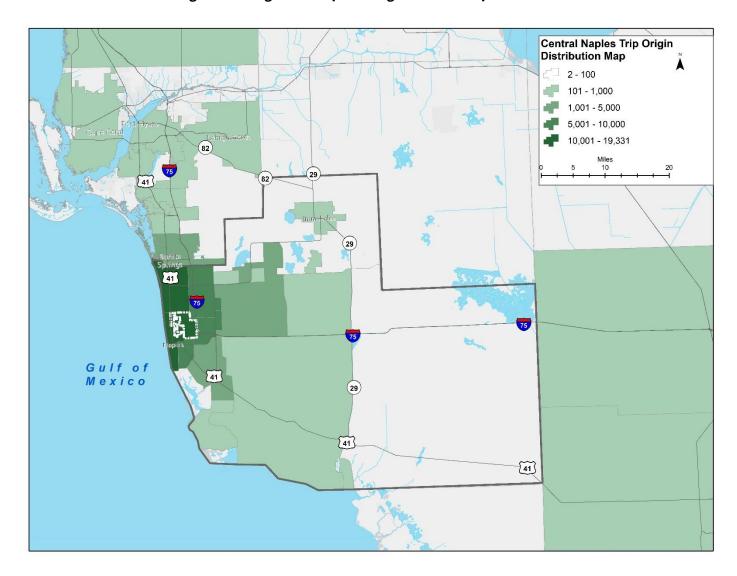
















Table 11: Work Locations for Residents of Central Naples

| Work Location | Population | Work Location | Population |
|----------------------|------------|----------------------|------------|
| City of Naples | 2,542 | Immokalee | 157 |
| North Naples | 2,026 | South Fort Myers | 134 |
| Central Naples | 1,724 | Fort Myers | 120 |
| East Naples | 501 | City of Marco Island | 120 |
| Urban Estates | 439 | Miami Dade County | 109 |
| Golden Gate | 299 | Bonita Springs | 53 |
| South Naples | 295 | Ave Maria | 38 |
| Rural Estates | 260 | Iona/McGregor | 34 |
| San Carlos | 227 | Estero | 27 |
| Out of Region | 216 | Broward County | 14 |

Figure 20: Central Naples Home to Work Trip Characteristics

















3.4 City of Marco Island

The City of Marco Island subarea encompasses the areas of unincorporated Collier County that are beyond the city's official limits but are close in proximity and character to the city. This expansion includes the neighboring areas of Goodland, the Isles of Capri and Hammock Bay as shown in the image to the right. The subarea is predominantly a residential area with several coastline resorts/hotels, commercial activities, and other recreational features.

Table 12 identifies the trip origins and destinations for the top 20 subarea locations when at least one



trip end takes place in this subarea. Trip origins listed have a destination in the City of Marco Island subarea and vice-versa for the destinations listed. The 43,800 trips originating in the City of Marco Island subarea and remaining in the area represents 66% of the nearly 66,000 daily trips originating in the subarea. Other areas highly associated with trips in this area include South Naples, the City of Naples, and East Naples subareas. There are also a high number of trips that originate or end out of the region being studied.

Subarea **Trips From Trips To** Subarea **Trips From** Trips To City of Marco Island (internal) 43,800 43,800 Royal Fakapalm 419 401 **South Naples** 7,503 7,537 Miami-Dade County 393 376 City of Naples 1,560 1,566 **Bonita Springs** 305 363 Out of region 1,522 1,651 Fort Myers 234 334 **East Naples** 1,470 1,495 Estero 205 228 North Naples 1,276 1,418 **Everglades City** 171 146 Golden Gate 1,263 1,444 **Broward County** 170 305 **Central Naples** 814 847 San Carlos 168 268 **Urban Estates** 755 920 **South Fort Myers** 134 235 **Rural Estates** 576 926 **Immokalee** 129 136

Table 12: City of Marco Island Trip Origins and Destinations

3.4.1 Trips Beginning in Subarea

Figure 21 provides a summary of the trip purpose, trip distance, trip duration, and start time statistics for the area. Trips originating in the City of Marco Island subarea have a high home trip purpose at about 29% of the daily trips generated in the subarea, while shopping trip purposes are an estimated 23% of trips daily in the area. The average trip distance of 23 miles and duration of 26 minutes overstates the high number of short distance trips where one in three trips lasts less than five minutes and shorter















than 2 miles. These shorter distance trips support the high percentage of trips internal to the subarea. Figure 22 illustrates the geographic distribution of destinations for trips originating in the City of Marco Island subarea.

REPLICA Most common trip purpose 29.1% - Home Number of trips for each purpose REPLICA Average of all trip durations Median of all trip durations Home 25.7 min 7.0 min Shop 22 5% Eat Work 10.2% Number of trips for each duration bucket Social 32.2% Under 5min Commercial (freight) 5-10min 25.3% Frrands 5 00% 10-20min Recreation 20-40min 16.1% Other 40-80min 3.8k 7.7k 11 k 15k Over 80min 4.2k 8.5k 13k REPLICA Median trip distance Average trip distance REPLICA Busiest start time 23.2 mi 3.1 mi 9.0% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 5.9k 1-2mi 15.3% 2-4mi 4.5k 4-8mi 10.0% 8-16mi 3.0k 16-32mi 1.5k 32-64mi Over 64mi 12AM 6AM 5.8k

Figure 21: Selected Trip Characteristics for City of Marco Island Origins

3.4.2 Trips Ending in Subarea

Ω

2 9k

8 8k

12k

Figure 23 shows the characteristics of trips ending in the City of Marco Island subarea. Since there is such a high number of trips that stay internal to the subarea, these characteristics are very similar to the origin trips shown previously. This relationship is influenced by the subarea's high-end shopping, resort, and residential land use features. Figure 24 graphically illustrates the geographic distribution of origins for trips ending in the City of Marco Island subarea.















City of Marco Island Trip Destination Distribution Map Lehigh-Aeres 82 0 - 100 101 - 1,000 1,001 - 5,000 5,001 - 10,000 10,001 - 43,800 Feet 42,500 21,250 85,000 41 Gulf of Mexico [41] [41]

Figure 22: Destinations for trips Originating in City of Marco Island Subarea















REPLICA Most common trip purpose 27.0% - Home Number of trips for each purpose Average of all trip durations Median of all trip durations 25.0 min 7.0 min Shop Work 13.0% Number of trips for each duration bucket Eat 11.3% Social 9.4% Under 5min 33.3% Commercial (freight) 5-10min 26.2% Recreation 10-20min Errands 20-40min 15.8% Other 40-80min 5.9% Ω 3.4k 6.9k 10k Over 80min 4.2k 8.5k 13k 17k REPLICA Median trip distance REPLICA Average trip distance Busiest start time 22.4 mi 3.0 mi 8.4% - 12PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 5.3k 15.8% 1-2mi 2-4mi 4.0k 4-8mi 10.2% 8-16mi 10.1% 2.7k 16-32mi 1.3k 32-64mi

Figure 23: Selected Trip Characteristics for City of Marco Island Destinations

3.4.3 Work Location

Over 64mi

0

6%

2.9k 5.8k 8.8k

12k

Table 13 lists the top work locations for residents of the City of Marco Island subarea. This table indicates that work trips made by residents of the City of Marco Island are predominantly within the City of Marco Island subarea. More than 60% of the 6,900 workers living in the City of Marco Island subarea also work within the subarea.

12AM

Shown in Figure 25 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips follow a similar pattern as all trips originating from the subarea. The average trip distance of 55 miles and average trip duration of 44 minutes illustrate the impact of the 348 workers traveling outside of the region. It was estimated that 2,100 or 11% of the 19,000 people residing in the City of Marco Island subarea worked from home during the Spring 2021 quarter.















City of Marco Island Trip Origin Distribution Map Lehigh-Acres 0 - 100 101 - 1,000 1,001 - 5,000 5,001 - 10,000 10,001 - 43,800 Feet 42,500 21,250 85,000 [41] Gulf of Mexico 41 [41]

Figure 24: Origins for trips Ending in City of Marco Island Subarea











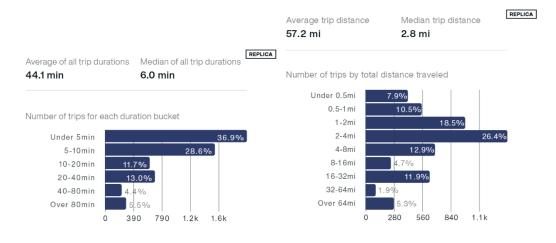


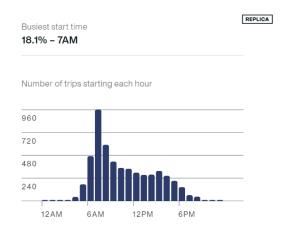


Table 13: Work Locations for Residents of City of Marco Island

| Work Location | Population | Work Location | Population |
|----------------------|------------|------------------|------------|
| City of Marco Island | 4,363 | Broward County | 91 |
| North Naples | 405 | South Fort Myers | 85 |
| South Naples | 399 | Golden Gate | 77 |
| Out of region | 348 | Royal Fakapalm | 45 |
| City of Naples | 295 | Immokalee | 35 |
| Central Naples | 229 | Ave Maria | 25 |
| Miami-Dade County | 191 | Everglades City | 25 |
| East Naples | 142 | Rural Estates | 23 |
| San Carlos | 137 | Estero | 12 |
| Urban Estates | 115 | Orange Tree | 11 |

Figure 25: City of Marco Island Home to Work Trip Characteristics



















3.5 City of Naples

The City of Naples subarea is inclusive of the current city limits as shown in the image to the right.

Table 14 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the City of Naples subarea. Trip origins listed have a destination in the City of Naples subarea and vice-versa for the destinations listed. The 52,570 trips originating in the City of Naples subarea and remaining within the area represent 40% of the more than 130,000 daily trips originating in the subarea. The nearby areas of



North Naples, Central Naples and East Naples have high trip interactions with more than 10,000 daily trips coming into the City of Naples.

| Subarea | Trips From | Trips To | Subarea | Trips From | Trips To |
|---------------------------|------------|----------|----------------------|------------|----------|
| City of Naples (Internal) | 52,570 | 52,570 | City of Marco Island | 1,566 | 1,560 |
| North Naples | 18,196 | 17,337 | Estero | 907 | 940 |
| Central Naples | 13,102 | 12,924 | San Carlos | 668 | 791 |
| East Naples | 10,454 | 10,465 | Fort Myers | 574 | 820 |
| South Naples | 7,812 | 6,818 | Miami-Dade County | 527 | 545 |
| Golden Gate | 7,360 | 7,159 | South Fort Myers | 461 | 569 |
| Urban Estates | 6,857 | 6,550 | Immokalee | 423 | 407 |
| Bonita Springs | 3,047 | 2,377 | Heritage Bay | 387 | 337 |
| Rural Estates | 2,781 | 3,089 | Lehigh Acres | 362 | 566 |
| Out of region | 2,404 | 2,466 | Broward County | 336 | 57 |

Table 14: City of Naples Trip Origins and Destinations

3.5.1 Trips Beginning in Subarea

Figure 26 provides a summary of the trips purpose, trip distance, trip duration and start time statistics for the area. Trips originated in the City of Naples have a high home trip purpose at about 32% of the trips daily in the area. The average trip distance of 18 miles and the average trip duration of 21 minutes are more than double the median values for these measures. As seen in the graphs, a large portion of trips originated here are shorter distance. However, the regional nature of the uses in this subarea explains the longer trips. Figure 27 illustrates the geographic distribution of destinations for trips originating in the City of Naples subarea.















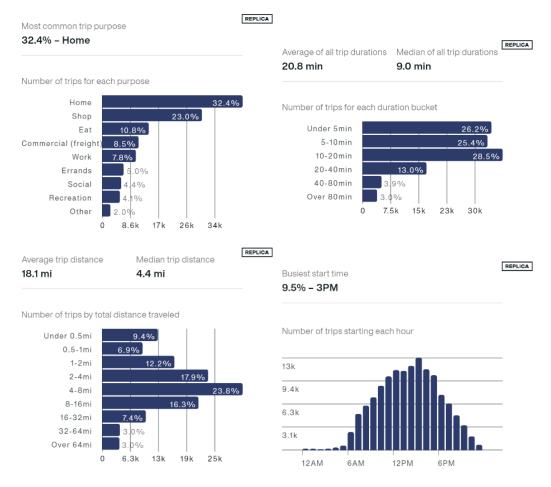


Figure 26: Selected Trip Characteristics for City of Naples Origins

3.5.2 Trips Ending in Subarea

Figure 28 shows the characteristics of trips ending in the City of Naples subarea. These trips demonstrate very similar characteristics in terms of trip distance and duration compared with the trip origins. While shopping is the top purpose for trips ending in the City of Naples subarea, the percentage of work trips ending in the subarea (15.5%) is twice the percentage of work trips when the origin is the City of Naples (7.8%). This indicates that a significant number of individuals working within the subarea are commuting from another subarea. The distribution of starting times for trips ending in the subarea is also another distinct difference when compared with trips originating within the subarea. Figure 29graphically illustrates the geographic distribution of origins for trips ending in the City of Naples subarea.















Figure 27: Destinations for trips Originating in City of Naples Subarea

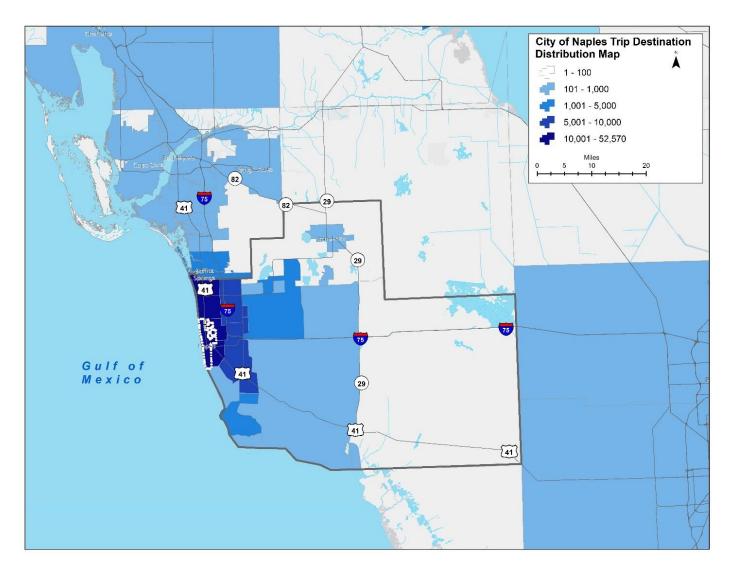


















Figure 28: Selected Trip Characteristics for City of Naples Destinations

3.5.3 Work Location

Table 15 lists the top work locations for the more than 6,400 workers residing in the City of Naples. This table indicates that residents of the City of Naples also predominantly work within the City of Naples. The North Naples and Central Naples nearby subareas are the workplace for more than 500 residents each.

Shown in Figure 30 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originating within the study area, work trips exhibit a more disparate pattern with longer averages and lower median values. These trips also demonstrate a distinct A.M. peak pattern. Trips are most commonly between two to eight miles or under 10 minutes. Information regarding working from home is also made available through Replica. It was estimated that 1,600 or 10% of 16,374 residents in the City of Naples subarea worked from home during the Spring 2021 quarter.















Figure 29: Origins for trips Ending in City of Naples Subarea

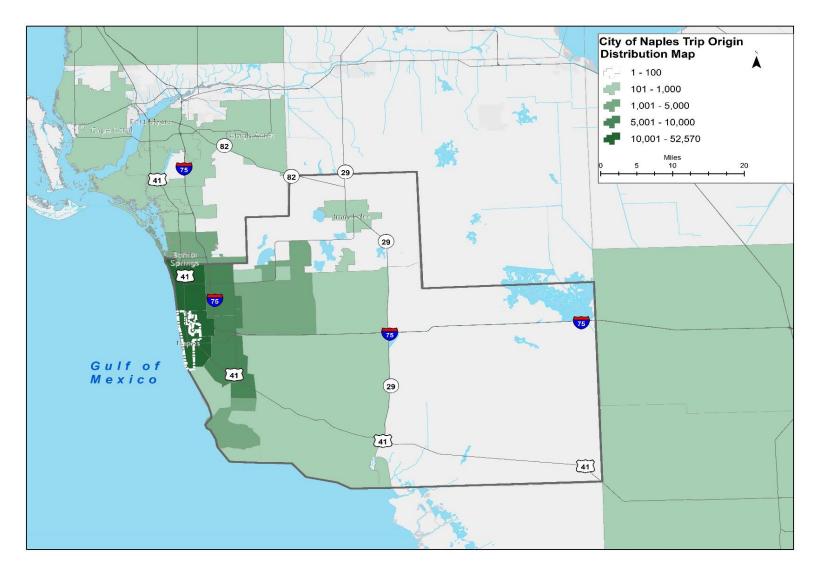
















Table 15: Work Locations for Residents of City of Naples

| Work Location | Population | Work Location | Population |
|----------------------|------------|----------------------|------------|
| City of Naples | 3,165 | Miami-Dade County | 82 |
| North Naples | 771 | South Fort Myers | 80 |
| Central Naples | 537 | Rural Estates | 51 |
| East Naples | 428 | Cape Coral | 41 |
| Out of region | 410 | Ave Maria | 35 |
| Urban Estates | 219 | Broward County | 32 |
| San Carlos | 147 | City of Marco Island | 27 |
| South Naples | 110 | Fort Myers | 19 |
| Golden Gate | 106 | Immokalee | 16 |
| Bonita Springs | 90 | Iona/McGregor | 13 |

Figure 30: City of Naples Home to Work Trip Characteristics













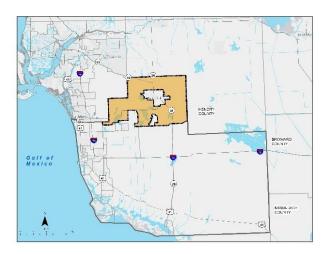




3.6 Corkscrew

The Corkscrew subarea is in northern Collier County and surrounds Immokalee. The Corkscrew subarea is primarily comprised of wetland features, agricultural land uses, and rural residential communities.

Table 16 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the Corkscrew subarea. The trip origins listed have a destination in the Corkscrew subarea and vice-versa for the destinations listed. The 685 trips originating in the Corkscrew subarea and remaining within the area



represent 22% of the more than 3,000 daily trips originating from the area. The nearby subareas of Immokalee, Rural Estates and Ave Maria have a have trip generation with Corkscrew compared to the other subareas. As a more rural area, the overall daily trips in to and out of this area are relatively low.

Subarea Trips From Trips To Subarea **Trips From Trips To** Corkscrew (internal) 685 685 Royal Fakapalm 56 49 **Immokalee** 573 608 Miami-Dade County 53 58 **Rural Estates** 307 Orange Tree 249 51 61 Ave Maria 171 172 **Bonita Springs** 47 42 **Out of Region** 150 132 City of Naples 46 39 North Naples 150 **Broward County** 104 42 59 **South Naples Hendry County** 141 129 39 28 Lehigh Acres 112 141 San Carlos 34 31 **Urban Estates** 110 80 **Central Naples** 33 32 Golden Gate 60 37 Fort Myers 53 32

Table 16: Corkscrew Trip Origins and Destinations

3.6.1 Trips Beginning in Subarea

Figure 31 provides a summary of the trip purpose, trip distance, trip duration and start time statistics for the area. Trips originating in the Corkscrew subarea have a high commercial trip purpose at about 26% of the daily trips, which is consistent with the agricultural and mining uses in the area. The average trip distance traveled is around 30 miles and the average trip duration is 36 minutes. Both of which are indicative of the rural nature of this area. Figure 32 illustrates the geographic distribution of destinations for trips originating in the Corkscrew subarea.















Most common trip purpose 26.2% - Commercial (freight) Average of all trip durations Median of all trip durations 36.6 min 19.0 min Number of trips for each purpose Commercial (freight) Number of trips for each duration bucket Social 17.4% 16.7% Under 5min 5-10min Work 10-20min Eat 20-40min Recreation 40-80min Errands Over 80min Other 140 290 430 160 320 480 REPLICA REPLICA Median trip distance Average trip distance Busiest start time 30.1 mi 10.3 mi 8.4% - 4PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 260 1-2mi 2-4mi 190 4-8mi 130 8-16mi 16.0% 16-32mi 64 32-64mi Over 64mi 6AM 12AM 0 110 220 340

Figure 31: Selected Trip Characteristics for Corkscrew Origins

3.6.2 Trips Ending in Subarea

Figure 33 shows characteristics for trips ending in the Corkscrew subarea. Along with the map in Figure 34 illustrating the geographic distribution of origins for trips ending in the Corkscrew subarea, these characteristics are like those for trips originating within the area. Social and shopping trips are among some of the main trip purposes for trips in the area.







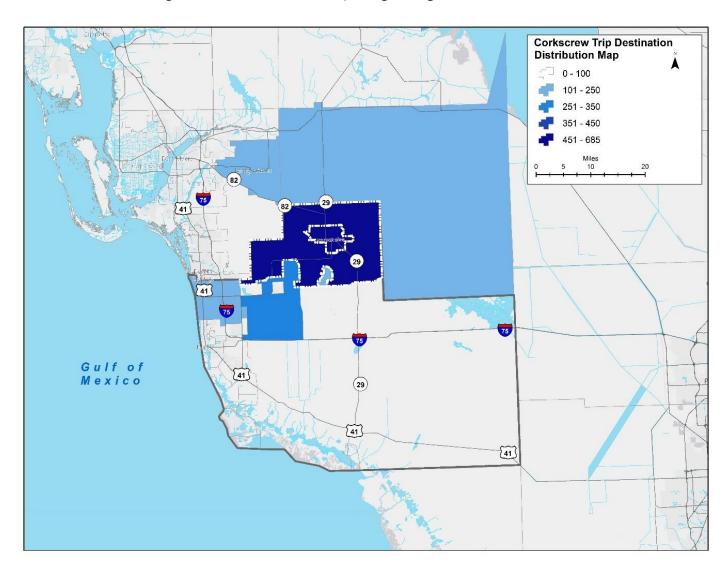








Figure 32: Destinations for trips Originating in Corkscrew Subarea

















REPLICA Average of all trip durations Median of all trip durations Most common trip purpose 37.6 min 20.0 min 26.3% - Commercial (freight) Number of trips for each purpose Number of trips for each duration bucket Commercial (freight Under 5min 22.4% Home 5-10min 11.7% Social 22.0% 10-20min Shop 12.2% 20-40min Work 11.7% 40-80min Recreation Over 80min Errands 0 150 300 450 600 Eat 170 330 500 660 REPLICA Average trip distance Median trip distance 29.1 mi 12.0 mi REPLICA Busiest start time 8.5% - 7AM Number of trips by total distance traveled Under 0.5mi Number of trips starting each hour 0.5-1mi 1-2mi 270 2-4mi 9.7% 200 4-8mi 8-16mi 130 16-32mi 67 32-64mi Over 64mi 12AM 6AM 0 120 250 370

Figure 33: Selected Trip Characteristics for Corkscrew Destinations

3.6.3 Work Location

Table 17 lists the top work location subareas for the 900 workers living in the Corkscrew subarea. This table indicates that work trips made by residents of Corkscrew are predominantly to the nearby Immokalee subarea as well as North Naples

Shown in Figure 35 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are shorter in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that 80 or 8.8% of the people residing in the Corkscrew subarea worked from home during the Spring 2021.















Figure 34: Origins for trips Ending in Corkscrew Subarea

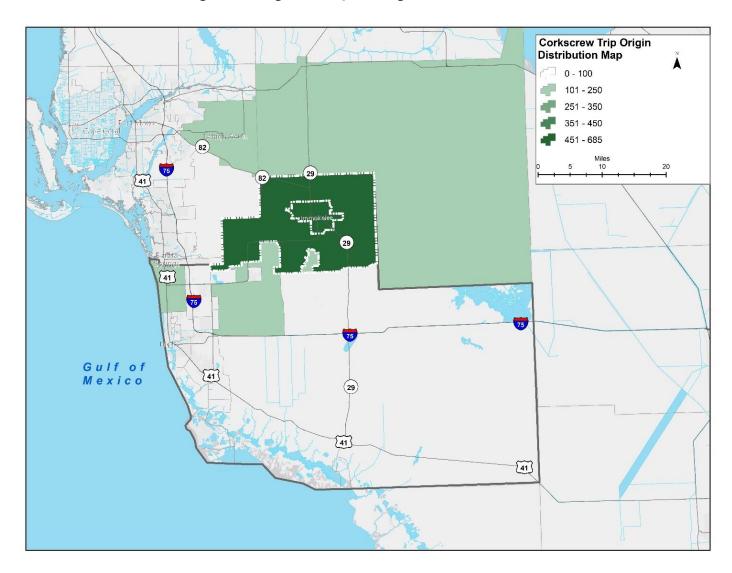
















Table 17: Work Locations for Residents of Corkscrew

| Work Location | Population | Work Location | Population |
|----------------|------------|-------------------|------------|
| Immokalee | 101 | Fort Myers | 12 |
| North Naples | 57 | East Naples | 12 |
| Ave Maria | 30 | South Fort Myers | 10 |
| City of Naples | 28 | Heritage Bay | 7 |
| San Carlos | 20 | Miami-Dade County | 5 |
| Rural Estates | 20 | Estero | 5 |
| Central Naples | 20 | Lehigh Acres | 5 |
| South Naples | 17 | Sanibel | 5 |
| Urban Estates | 17 | Bonita Springs | 4 |
| Corkscrew | 13 | Fort Myers Shores | 4 |

Figure 35: Corkscrew Home to Work Trip Characteristics

















3.7 East Naples

East Naples is in southwest Collier County as illustrated in the image to the right.

Table 18 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the East Naples subarea. The trip origins listed have a destination in the East Naples subarea and vice-versa for the destinations listed. The 28,132 trips originating in the East Naples subarea and remaining in the area represent 34% of the more than 82,000 daily trips originating in the area. This percentage is a relatively higher percentage than the internal trips



in other subareas. Other areas of high trip interaction include the neighboring South Naples and City of Naples subareas

Subarea **Trips From Trips To Subarea Trips From Trips To** East Naples (Internal) 28,132 28,132 **Out of Region** 788 896 **South Naples** 12,327 12,263 Estero 346 339 City of Naples 10,465 10,454 San Carlos 307 441 Golden Gate 6,706 6,962 Fort Myers 304 487 Central Naples 5,763 5,781 **Immokalee** 254 328 North Naples 5,230 5,449 South Fort Myers 252 390 **Urban Estates** 2,843 2,969 Royal Fakapalm 244 239 **Rural Estates** 1,538 1,881 Miami-Dade County 230 214 City of Marco Island 1,289 Heritage Bay 197 1,495 182 **Bonita Springs** 1,148 936 Gateway/Airport 174 350

Table 18: East Naples Trip Origins and Destinations

3.7.1 Trips Beginning in Subarea

Figure 36 provides a summary of the trip purpose, trip distance, trip duration and the start time statistics for the area. Trips originating from East Naples have a high home trip purpose at 30% of the daily trips generated in the subarea, while shopping trips are a quarter of the total trips at 21,000 trips in the area. The average trip distance traveled is around 11 miles and the average trip duration is 15 minutes. Figure 37 illustrates the geographic distribution of destinations for trips originating in the East Naples subarea.















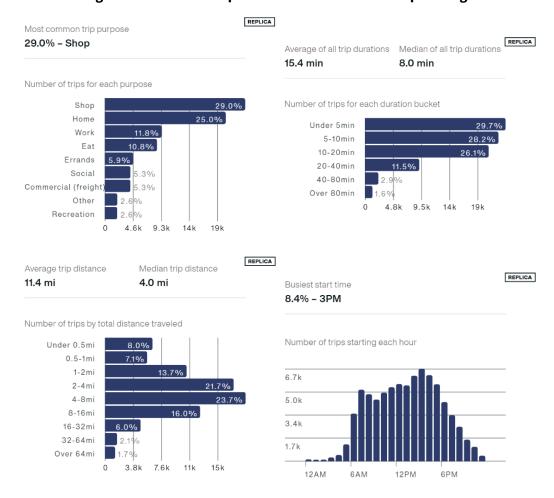


Figure 36: Selected Trip Characteristics for East Naples Origins

3.7.2 Trips Ending in Subarea

Figure 38 shows the characteristics of trips ending in East Naples, including features such as trip's purpose, trip distance, trip duration and the busiest start time trips. More than 30% of the trips ending in East Naples have a high home destination, while shopping trips account for one-in-four trips ending in the area. Like the trip origins where these two top purposes are reversed combined with the high percentage of trips internal to the area, the average trip distance and trip duration are nearly the same for these destination trips and the origin trips. The busiest start time shows an early afternoon spike during the 3 P.M. hour. Figure 39 graphically illustrates the geographic distribution of origins for trips ending in the East Naples subarea.







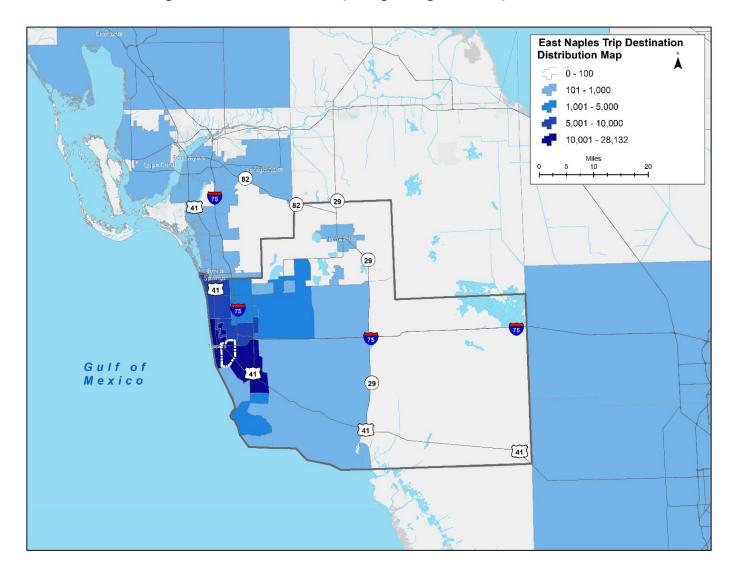








Figure 37: Destinations for trips Originating in East Naples Subarea

















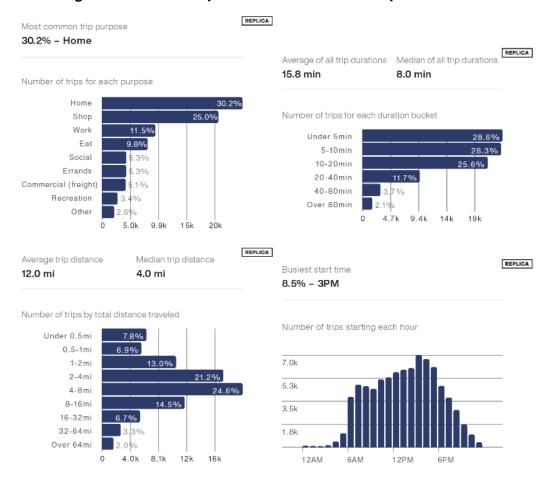


Figure 38: Selected Trip Characteristics for East Naples Destinations

3.7.3 Work Location

Table 19 lists the top work location subareas for the 9,900 workers residing in the subarea. This table indicates that work trips made by residents of East Naples are predominantly internal to the East Naples subarea, the City of Naples, or North Naples.

Shown in Figure 40 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance on average, and demonstrate a distinct A.M. peak starting as early as 5 A.M. While these trips are longer than the average trips in the subarea, more than 40% are less than 4 miles in length. Information regarding working from home is also made available through Replica. It was estimated that 1,650 or 7.2% of the 22,800 residents in the East Naples subarea worked from home during the Spring 2021 quarter.















Figure 39: Origins for trips Ending in East Naples Subarea

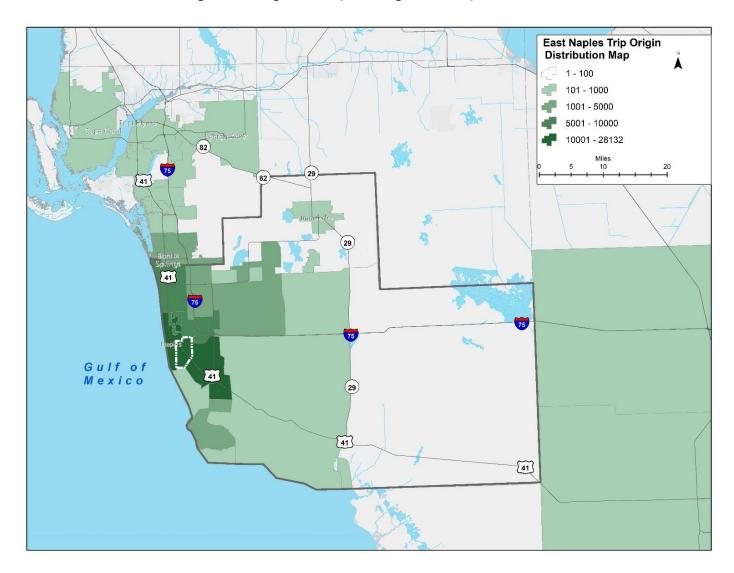
















Table 19: Work Locations for Residents of East Naples

| Work Location | Population | Work Location | Population |
|----------------------|------------|-------------------|------------|
| East Naples | 2,753 | Rural Estates | 156 |
| City of Naples | 2,348 | Out of Region | 119 |
| North Naples | 1,179 | Immokalee | 107 |
| Central Naples | 760 | Miami-Dade County | 107 |
| South Naples | 567 | Ave Maria | 86 |
| City of Marco Island | 393 | Bonita Springs | 70 |
| Golden Gate | 379 | Fort Myers | 54 |
| Urban Estates | 299 | Royal Fakapalm | 28 |
| San Carlos | 191 | Estero | 23 |
| South Fort Myers | 167 | Broward County | 18 |

Figure 40: East Naples Home to Work Trip Characteristics

















3.8 Everglades City

The Everglades City subarea is inclusive of the City of Everglades City, Chokoloskee, and Plantation Island. These small communities, located in southern Collier County, have a long history with connections to fishing and nature.

Table 20 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the Everglades City subarea. The trip origins listed have a destination in the Everglades City subarea and vice-versa for the destinations listed. The 1,668 trips originating in the Everglades



City subarea and remaining in the area represent 45% of the more than 3,700 daily trips originating in the subarea. Separated from other built areas by large distances, reduces the amount of direct interaction with external locations. While more than half of the trips leave the area, no single external area exhibits a high correlation of trips.

Subarea **Trips From Trips To Subarea Trips From Trips To** Everglades City (internal) 1,668 1,668 **Big Cypress** 122 67 **South Naples** 375 368 Golden Gate 46 63 Royal Fakapalm 333 294 **Urban Estates** 27 52 Out of Region 261 268 **Central Naples** 35 42 City of Marco Island 146 171 **Bonita Springs** 35 40 Miami-Dade County 115 108 Lehigh Acres 22 39 **East Naples** 77 86 Fort Myers 11 27 **Broward County Immokalee** 64 78 24 27 North Naples 76 **Rural Estates** 12 23 64 City of Naples **South Fort Myers** 57 74 11 21

Table 20: Everglades City Trip Origins and Destinations

3.8.1 Trips Beginning in Subarea

Figure 41 provides a summary of the trip purpose, trip distance, trip duration and start time statistics for the area. Trips originating in the Everglades City subarea have a high home trip purpose at about 31% of the daily trips, while shopping trips are at estimated at 24% of daily trips generated in the subarea. While a considerable number of trips originating within the area are less than ½ mile in distance and less than 5 minutes, the average trip distance of 46 miles and trip duration of 52 minutes underscore the remote location of this subarea. Figure 42 illustrates the geographic distribution of destinations for trips originating in the Everglades City subarea.

















Figure 41: Selected Trip Characteristics for Everglades City Origins

3.8.2 Trips Ending in Subarea

Figure 43 shows the characteristics of trips endings in the Everglades City subarea. As expected, these trip characteristics are similar for trips originating in the area. High trip purposes for trips ending in the Everglades City subarea are slightly different than trip origins and the other subareas with shopping and social trips being the highest. Like some of the other rural subareas (Big Cypress and Corkscrew), social trips do make up a higher percentage. This could be a result of the lower total number of trips and the connected feel of the established rural communities within these subareas. Average trip distance and trip duration measures however are comparable with those for origin trips. The distribution and frequency of these trips are also similar to those of origin trips. The distribution of trip start times however follows a different pattern than that of the trip origins. This could be attributed to the length of time it takes to travel for longer distance trips and the amount of time it takes to reach the Everglades City subarea. Figure 44 graphically illustrates the geographic distribution of origins for trips ending in the Everglades City subarea.















Figure 42: Destinations for trips Originating in Everglades City Subarea

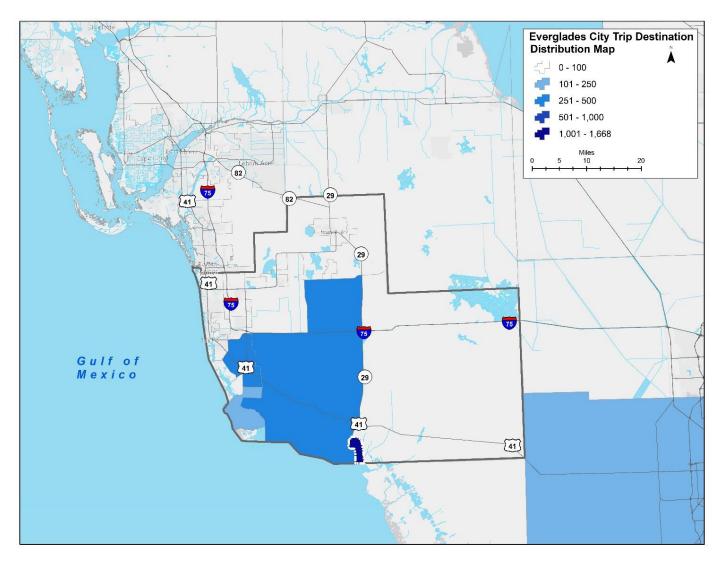


















Figure 43: Selected Trip Characteristics for Everglades City Destinations

3.8.3 Work Location

Table 21 lists the top work locations for 239 workers residing in the Everglades City subarea. There is not a strong relationship between work locations for residents of this area. However, the highest locations of South Naples, North Naples and the City of Naples are a great distance away. This is illustrated in Figure 45 where the average and median travel times for this subarea are nearly equal. Most other subareas, excluding the nearby Big Cypress area, have median commute times that are significantly less than the average. There are a considerable number of trips ending at work with a relatively short distance. This can be explained by the compact size of the subarea and the ability to travel short distances during the workday. Information regarding working from home is also made available through Replica. Less than 50 of the 480 people (10.3%) residing in the Everglades City subarea worked from home during the Spring 2021 quarter.















Figure 44: Origins for trips Ending in Everglades City Subarea

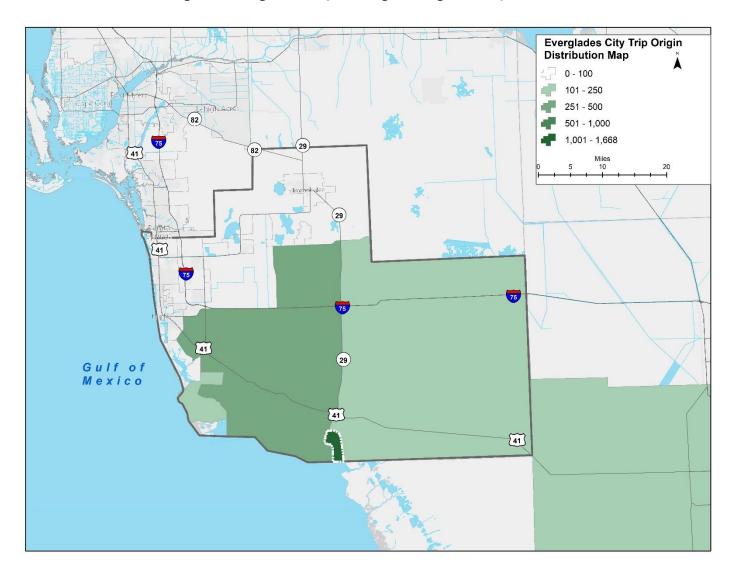
















Table 21: Work Locations for Residents of Everglades City

| Work Location | Population | Work Location | Population |
|----------------------|------------|------------------|------------|
| South Naples | 60 | Big Cypress | 4 |
| North Naples | 44 | Ave Maria | 4 |
| City of Naples | 20 | San Carlos | 3 |
| Everglades City | 18 | Gateway/Airport | 2 |
| Miami-Dade County | 17 | Immokalee | 2 |
| East Naples | 13 | Marco | 2 |
| Royal Fakapalm | 11 | South Fort Myers | 1 |
| City of Marco Island | 10 | Golden Gate | 1 |
| Central Naples | 8 | Out of Region | 0 |
| Urban Estates | 7 | | |

Figure 45: Everglades City Home to Work Trip Characteristics

















3.9 Golden Gate

The Golden Gate Community is in western Collier County and includes Golden Gate City as illustrated in the image to the right.

Table 22 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end occurs in the Golden Gate subarea. The trip origins listed have a destination in the Golden Gate subarea and vice-versa for the destinations listed. The 45,537 trips originating daily within the Golden Gate subarea and remaining within the area represent 42% of the more than 108,000 daily trips



originating from the area. The nearby areas of North Naples, Urban Estates, South Naples, and City of Naples also experience high trip interaction with the Golden Gate subarea. These areas have diverse land use patterns and integrated road network connectivity with Golden Gate.

Subarea **Trips From Trips To Subarea Trips From** Trip To Golden Gate (internal) 45,537 45,537 San Carlos 907 773 North Naples 8,427 8,639 Out of Region 732 836 8,291 341 **Urban Estates** 8,311 Fort Myers 687 South Naples 7,881 Estero 673 622 8,381 City of Naples 7,159 7,360 **South Fort Myers** 263 565 **Central Naples** 6,938 6,892 **Orange Tree** 381 494 **East Naples** 6,962 6,706 Lehigh Acres 264 479 **Rural Estates** 5,348 5,667 **Immokalee** 396 459 Miami-Dade County **Bonita Springs** 1,508 1,565 465 413 City of Marco Island 1,444 1,263 **Broward County** 304 374

Table 22: Golden Gate Trip Origins and Destinations

3.9.1 Trips Beginning in Subarea

Trips originating in Golden Gate have a high shopping trip purpose at about 26,000 or 24% of the daily trips generated in the subarea. Similarly, home trip purposes are 24% as shown in Figure 46. The Golden Gate subarea is primarily residential with a few commercial services and schools which could account for the high shopping and home trip purposes in the area. Figure 46 also provides summary statistics regarding travel distance and travel times. The average distance traveled in the area is around 10 miles with an average duration of 15 minutes for trips originating from within the subarea. This suggests that on average, residents travel to areas near the Golden Gate or within the area. Nearly half of the trips originating in Golden Gate travel between 4 and 16 miles. Trips originating from Golden Gate have a relatively short trip duration, as most trip journeys are between 10 and 20 minutes. Furthermore, more than a quarter of the trips (i.e., 29,000 trips) are under 5 minutes. Around 50% of the overall trips in the area are made within 10 minutes, which suggests that there are a significant number of persons making















short trips within the Golden Gate area or in neighboring areas. Figure 47 illustrates the geographic distribution of destinations for trips originating in the Golden Gate subarea.

REPLICA Most common trip purpose 24.1% - Shop REPLICA Average of all trip durations Median of all trip durations 14.8 min 9.0 min Number of trips for each purpose Shop 24.1% Number of trips for each duration bucket Home Under 5min 27.0% Work 15.2% 5-10min 23.3% Fat 10.0% 10-20min 31.0% 7.8% Social 20-40min 14.0% Frrands 40-80min Commercial (freight 4.0% Over 80min 1.6% Recreation 6% 13k 20k 27k Other 5.2k 10k 16k REPLICA Average trip distance Median trip distance 10.4 mi 4.9 mi REPLICA Busiest start time 8.8% - 7AMNumber of trips by total distance traveled Under 0.5mi Number of trips starting each hour 0.5-1 mi 9.5k 2-4mi 4-8mi 7.2k 8-16mi 4.8k 16-32mi 2.4k Over 64mi 12AM 6AM

Figure 46: Selected Trip Characteristics for Golden Gate Origins

3.9.2 Trips Ending in Subarea

About 40% of all trips ending in Golden Gate are for home purposes with about 43,000 trips, while only 22,000 trips end in Golden Gate for shopping purposes. The average trip distance is around 10 miles, and the average travel time is about 14 minutes. Almost one quarter of the trips ending in Golden Gate have a 4-8-mile travel distance. While around 20% of total trips travel 8-16 miles before ending in Golden Gate. This accounts for about 22,000 trips. Many of the trips in the area (34,000 trips) have a 10–20-minute travel time (32.2% of total trips). There is also a significant number of shorter distance trips, under 5 minutes, that ended in Golden Gate. Figure 48 provides summary statistics regarding travel distance and travel times for these trips. Figure 49 illustrates the geographic distribution of origins for trips ending in the Golden Gate subarea.







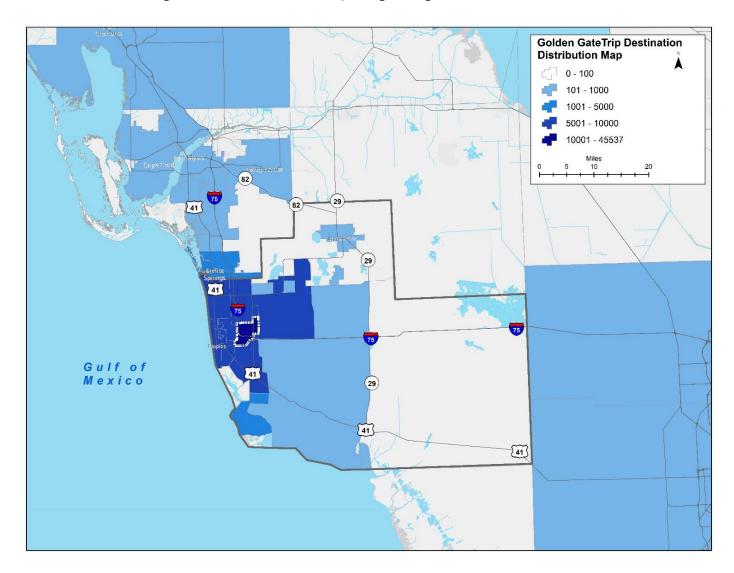








Figure 47: Destinations for trips Originating in Golden Gate Subarea

















REPLICA Most common trip purpose 40.6% - Home REPLICA Average of all trip durations Median of all trip durations 14.3 min 9.0 min Number of trips for each purpose 40.6% Home Number of trips for each duration bucket Shop Eat 9.0% Under 5min Social 7.9% 5-10min Work 10-20min Errands 20-40min 11.9% Commercial (freight) 40-80min Recreation Over 80min Other 0 8.6k 17k 26k REPLICA Median trip distance Average trip distance REPLICA 10.2 mi 4.7 mi Busiest start time 9.3% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 8.2% 0.5-1mi 1-2mi 9.9k 14.0% 2-4mi 7.4k 4-8mi 8-16mi 20.9% 16-32mi 2.5k 32-64mi Over 64mi 1.5% 6AM 12AM 5.3k 11k 16k 21k

Figure 48: Selected Trip Characteristics for Golden Gate Destinations

3.9.3 Work Location

Table 23 lists the top work location subareas for 26,700 workers living in the Golden Gate subarea. This table indicates that work trips made by residents of Golden Gate are predominantly to the North Naples subarea.

Shown in Figure 50 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It is estimated that 3,600 or 6.9% of the residents in the Golden Gate subarea worked from home during the Spring 2021 quarter.















Figure 49: Origins for trips Ending in Golden Gate Subarea

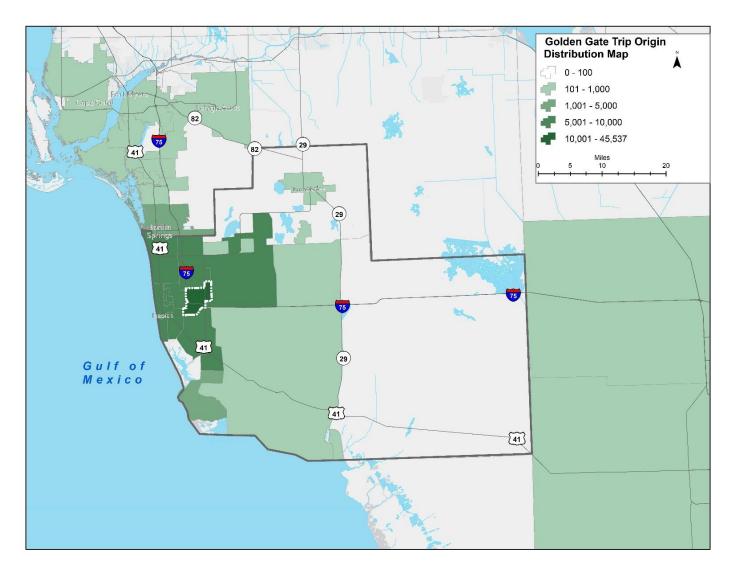
















Table 23: Work Locations for Residents of Golden Gate

| Work Location | Population Work Location | | Population |
|----------------------|--------------------------|-------------------|------------|
| North Naples | 4,428 | Bonita Springs | 366 |
| Golden Gate | 3,502 | South Fort Myers | 327 |
| City of Naples | 3,212 | Miami-Dade County | 295 |
| Central Naples | 2,434 | Ave Maria | 227 |
| East Naples | 1,935 | Estero | 199 |
| Urban Estates | 1,519 | Fort Myers | 132 |
| Rural Estates | 1,141 | Immokalee | 118 |
| South Naples | 908 | Out of Region | 92 |
| City of Marco Island | 739 | Broward County | 43 |
| San Carlos | 573 | Orange Tree | 36 |

Figure 50: Golden Gate Home to Work Trip Characteristics

















3.10 Heritage Bay

The Heritage Bay subarea is located northern Collier County along CR 846 (Immokalee Road) as shown in the image to the right. This subarea was developed based on its unique land use pattern compared with the surrounding area and the Growth Management Plan.

Table 24 lists the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the subarea. Trip origins listed have a destination in the Heritage Bay subarea and vice-versa for the



destinations listed. With 24% of the trips originating in the Heritage Bay subarea and remaining, the percentage of internal trips for this subarea is lower than many other areas in the County, reflecting the dependent nature of the shopping and retail uses this subarea for other nearby areas. The Urban Estates, Rural Estates, and North Naples subareas have a high trip interaction with the Heritage Bay subarea. The diverse development of these areas reflects the dependency of trip making in this part of the county between adjacent subareas where single-use development is more predominant.

Trips From Subarea **Trips To Subarea Trips From Trips To** Heritage Bay (internal) 2,949 2,949 **East Naples** 197 182 **Urban Estates South Naples** 2,584 2,511 210 156 Rural Estates 1,817 1,695 Out of region 111 127 North Naples 1,239 1,185 Ave Maria 120 124 **Bonita Springs** 519 Fort Myers 64 106 446 **Orange Tree** 351 419 San Carlos 112 105 Golden Gate 357 390 Estero 108 101 City of Naples 337 387 Lehigh Acres 43 99 **Central Naples** 316 277 South Fort Myers 63 91 **Immokalee** 194 198 Gateway/Airport 46 75

Table 24: Heritage Bay Trip Origins and Destinations

3.10.1 Trips Beginning in Subarea

Figure 51 provides a summary of the trip purpose, trip distance, trip duration, and start time statistics for the area. Trips originating in the Heritage Bay have a high home trip purpose at about 29% of total trips with shopping comprising roughly 22% of the daily trips. Heritage Bay is primarily a residential community with a commercial node located at the intersection of Collier Blvd and Immokalee Road. The average trip distance of 14 miles and average trip duration of 20 minutes are comparable with other















areas in Collier County where a diverse mix of uses exist. Figure 52 illustrates the geographic distribution of destinations for trips originating in the Heritage Bay subarea.

REPLICA Most common trip purpose 28.6% - Home Average of all trip durations Median of all trip durations 20.0 min 13.0 min Number of trips for each purpose Home 22.0% Shop Number of trips for each duration bucket Work 9.9% Under 5min Eat 9.8% 5-10min Recreation 10-20min Social 20-40min Errands 40-80min Commercial (freight) Over 80min Other 710 1.4k 2.1k 2.1 k 690 1.4k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 14.4 mi 6.6 mi 7.7% - 12PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 12.6% 0.5-1mi 1-2mi 930 2-4mi 700 4-8mi 17.0% 8-16mi 460 16-32mi 13.4% 32-64mi 230 Over 64mi 1.8% 590 1.2k 1.8k 12AM 6AM

Figure 51: Selected Trip Characteristics for Heritage Bay Origins

3.10.2 Trips Ending in Subarea

Figure 53 shows the characteristics for trips ending in the Heritage Bay subarea. Trips ending in Heritage Bay are influenced by the commercial and restaurant uses as indicated by the high number of shopping and eating trips. The average trip distance and duration measures are equal to those for trips originating in the subarea. While these destination trips occur throughout the day, an early afternoon spike around 3 P.M. is noticeable. Figure 54 graphically illustrates the geographic distribution of origins for trips ending in the Heritage Bay subarea.















Figure 52: Destinations for trips Originating in Heritage Bay Subarea

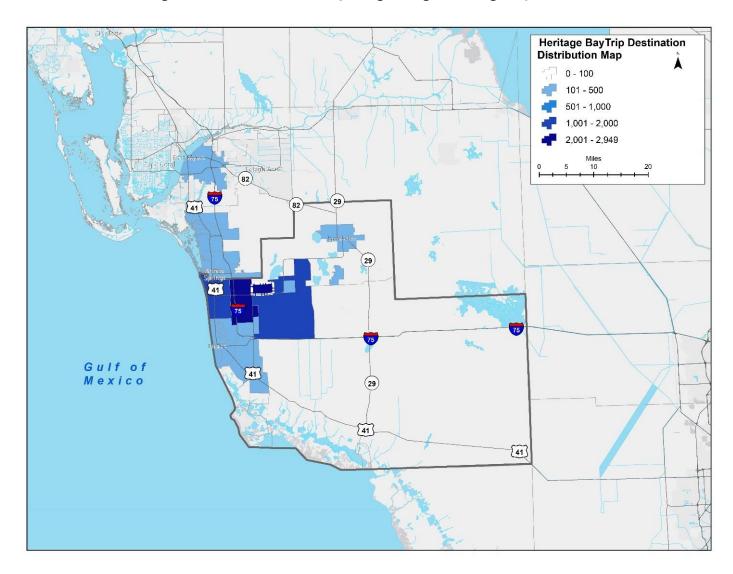


















Figure 53: Selected Trip Characteristics for Heritage Bay Destinations

3.10.3 Work Location

Table 24 lists the top work location subareas for 1,200 workers living in the Heritage Bay subarea. This table indicates that residents predominantly work in the to the North Naples and Ave Maria subareas.

Shown in Figure 55 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originating within the study area, work trips on average are longer and take longer. There is distinct peak period in the morning between 6 A.M. to 9 A.M. Information regarding working from home is also made available through Replica. It was estimated that 370 of the 3,000 people (12.1%) residing in the Heritage Bay subarea worked from home during the Spring 2021 quarter.















Figure 54: Origins for trips Ending in Heritage Bay Subarea

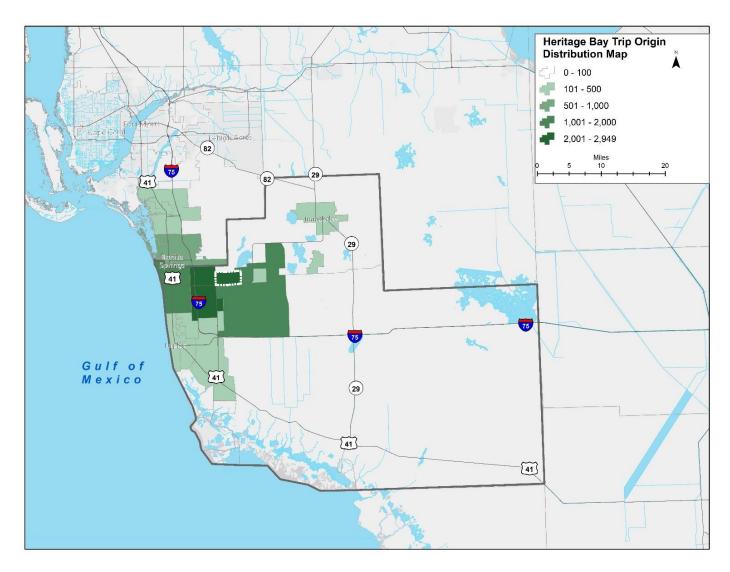
















Table 25: Work Locations for Residents of Heritage Bay

| Work Location | Population | Work Location | Population |
|----------------|------------|----------------------|------------|
| North Naples | 165 | Bonita Springs | 31 |
| Ave Maria | 156 | South Fort Myers | 26 |
| Rural Estates | 133 | Orange Tree | 26 |
| Central Naples | 115 | Miami-Dade County | 24 |
| City of Naples | 103 | East Naples | 23 |
| Urban Estates | 97 | North Fort Myers | 20 |
| San Carlos | 53 | City of Marco Island | 20 |
| Immokalee | 39 | Golden Gate | 16 |
| South Naples | 36 | Out of Region | 14 |
| Heritage Bay | 32 | Estero | 13 |

Figure 55: Heritage Bay Home to Work Trip Characteristics













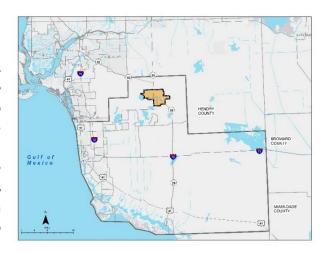




3.11 Immokalee

The Immokalee subarea is an urban area located in northeast Collier County.

Table 26 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end takes place in the Immokalee subarea. Trip origins listed have a destination in the Immokalee subarea and vice-versa for the destinations listed. 72% of the 60,000 daily trips originating in the Immokalee subarea, remained in the area. This internal rate is the highest rate for all subareas in Collier County. Other areas of higher trip interaction include Lehigh Acres in Lee County and



Hendry County. As a more isolated urban area Immokalee provides shopping and other service-related needs for the residents and surrounding lower density rural areas.

Subarea **Trips From Trips To Subarea Trips From Trips To** Immokalee (internal) 43,465 43,465 South Fort Myers 328 534 Lehigh Acres 2,639 2,542 San Carlos 453 439 **Hendry County** 423 1,695 1,944 City of Naples 407 Fort Myers 1,230 Golden Gate 459 396 967 **Rural Estates** 1,258 1,150 **Central Naples** 364 327 1,001 423 Out of Region 1,073 Estero 311 Ave Maria 901 928 South Naples 391 291 North Naples 902 820 Cape Coral 211 276 **Urban Estates** 872 751 **Bonita Springs** 319 264 Corkscrew 608 573 **East Naples** 254

Table 26: Immokalee Trip Origins and Destinations

3.11.1 Trips Beginning in Subarea

Figure 56 provides a summary of the trip purpose, trip distance, trip duration, and start time statistics for the area. Trips originating from Immokalee have a high home or shopping trip purpose. Combined with the high number of internal trips occurring in this area, this relationship can be expected as and relate a higher rate of single purpose trips. The number of shorter distance trips is a result of the compact size of this area and internal nature of the trips. Because of the isolated nature of Immokalee from other areas results in extremely different average and median travel distances. Half of the trips originating in Immokalee are less than two miles in length. The two highest external (not Immokalee) subareas for trip interaction are Lehigh Acres and Hendry County. While these subareas are not in Collie County, they are closer in location than the developed areas of Collier County. Figure 57 illustrates the geographic distribution of destinations for trips originating in the Immokalee subarea.

















Figure 56: Selected Trip Characteristics for Immokalee Origins

3.11.2 Trips Ending in Subarea

Figure 58 shows the characteristics of trips ending in the Immokalee subarea. Due to the high number of internal trips within the subarea, these characteristics nearly mirror those of origin trips. Any slight variation in these measures is a result of trips beginning outside of the subarea when the purpose for entering the subarea is different than the purpose for leaving the subarea. Figure 59 graphically illustrates the geographic distribution of origins for trips ending in the Immokalee subarea.







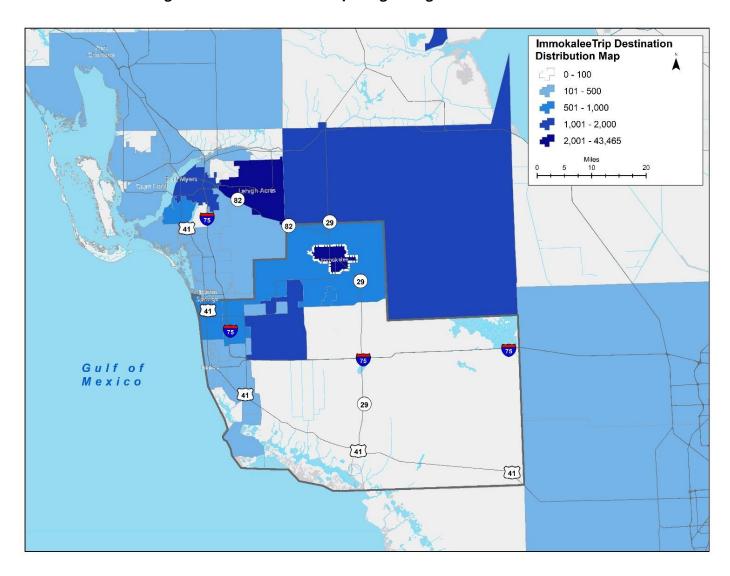








Figure 57: Destinations for trips Originating in Immokalee Subarea

















REPLICA Most common trip purpose 30.3% - Home Average of all trip durations Median of all trip durations Number of trips for each purpose 6.0 min 18.4 min 30.3% Home Shop 21.0% Number of trips for each duration bucket 11.1% Social 10.7% Under 5min Eat 5-10min 20.3% Errands 10-20min School 20-40min Other 40-80min Commercial (freight) 3.2% Over 80min 7.3k 11k 20k Ω 5 1k 10k 15k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 12.7 mi 1.9 mi 8.9% - 3PMNumber of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 1-2mi 5.4k 2-4mi 4.0k 8-16mi 2.7k 16-32mi 32-64mi 1.3k Over 64mi 2.8k 5.6k 8.4k 12AM 6AM 12PM

Figure 58: Selected Trip Characteristics for Immokalee Destinations

3.11.3 Work Location

Table 27 lists the top work locations for11,500 workers living in the Immokalee subarea. This table indicates that work trips made by residents of Immokalee are predominantly within the Immokalee subarea. A significant number of residents also work in the North Naples area which greatly influences the home to work trip measures as shown in Figure 60. These home to work trips reflect the single purpose trip and eliminate any trips that were chained or for multiple purposes. While there are a considerable number of work locations outside of the area, the high number of jobs located within the area result in work commute trips that are similar in time and distance as all other trips. Work trips however exhibit a distinct peak at 6 A.M. Information regarding working from home is also made available through Replica. It was estimated that 1,400 or 5.4% of the 26,500 residents in the Immokalee subarea worked from home during the Spring 2021 quarter.















Figure 59: Origins for trips Ending in Immokalee Subarea

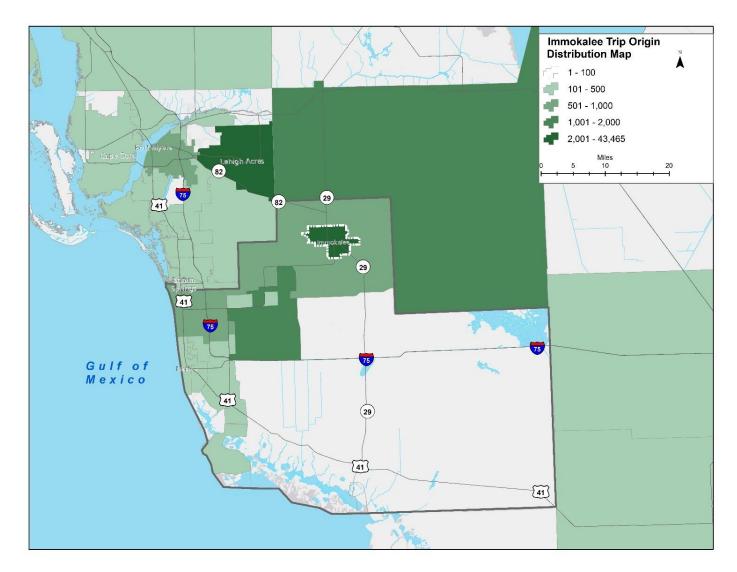
















Table 27: Work Locations for Residents of Immokalee

| Work Location | Population | Work Location | Population |
|----------------------|------------|----------------------|------------|
| Immokalee | 5,737 | Urban Estates | 185 |
| North Naples | 1,017 | South Fort Myers | 177 |
| Ave Maria | 626 | Bonita Springs | 164 |
| City of Naples | 534 | Golden Gate | 159 |
| Estero | 492 | South Naples | 159 |
| Rural Estates | 321 | Fort Myers | 156 |
| San Carlos | 295 | Out of region | 153 |
| Central Naples | 288 | City of Marco Island | 126 |
| Corkscrew | 211 | Heritage Bay | 115 |
| East Naples | 193 | Orange Tree | 86 |

Figure 60: Immokalee Home to Work Trip Characteristics

















3.12 North Naples

The North Naples subarea, located in northwest Collier County, is adjacent to Lee County Line as shown in the image to the right.

Table 28 identifies the number of trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the North Naples subarea. Trip origins listed have a destination in the North Naples subarea and vice-versa for the destinations listed. The 111,944 trips originating in North Naples subarea and remaining in the area represent about 47% of the 240,000 daily trips



originating in the subarea are. The nearby areas of Urban Estates, City of Naples, Bonita Spring and Central Naples experience a high connection to the North Naples areas with over 10,000 daily trips.

Subarea **Trips From** Trips To Subarea **Trips From** Trips To North Naples (internal) 111,944 111,944 Out of region 3,044 3,357 **Urban Estates** 26,095 25,896 San Carlos 1,950 2,539 **Bonita Springs** 18,387 15,689 Fort Myers 1,649 2,051 City of Naples 17,337 18,196 South Fort Myers 1,438 1,554 City of Marco **Central Naples** 13,657 13,643 1,418 1,276 Island Golden Gate 8,639 8,427 Heritage Bay 1,185 1,239 **Rural Estates** 5,993 7,270 Cape Coral 927 1,278 **East Naples** 5,449 5,230 Lehigh Acres 916 1,307 **South Naples** 5,043 4,926 Immokalee 820 902 Estero 3,392 3,437 **Orange Tree** 737 1,084

Table 28: North Naples Trip Origins and Destinations

3.12.1 Trips Beginning in Subarea

Figure 61 provides the trip purpose, trip distance, trip duration and start time statistics for the area. 31% of the daily trips originating in North Naples subarea have a high home trip purpose. Shopping trips are also a dominant trip purpose accounting for 24% of total trips daily. North Naples possesses a diverse mixed land use that offers a wide range of resources and services to residents and nearby subareas. The average trip generated in this area travels 14 miles and lasts 18 minutes. More than 50% of these trips have a destination that is less than 5 miles away. As with other subareas in northern Collier County close to the I-75 corridor, subareas in southern Lee County (Bonita Springs and Estero) have a high trip interaction with the North Naples subarea. Figure 62 illustrates the geographic distribution of destinations for trips originating in the North Naples subarea.

















Figure 61: Selected Trip Characteristics for North Naples Origins

3.12.2 Trips Ending in Subarea

Figure 63 shows the characteristics of trips ending in the North Naples subarea. Trips ending in North Naples also have a high shopping trip purpose (26% of daily trip destinations) or home trip purpose (22% of daily trip destinations). At 13% of the daily trip destinations, more work trips end in the North Naples than those that originate within the area. The average trip distance of 15 miles and average travel time of 19 minutes are roughly the same as those measures for trip origins. Figure 64 illustrates the geographic distribution of origins for trips ending in the North Naples subarea.















Figure 62: Destinations for trips Originating in North Naples Subarea

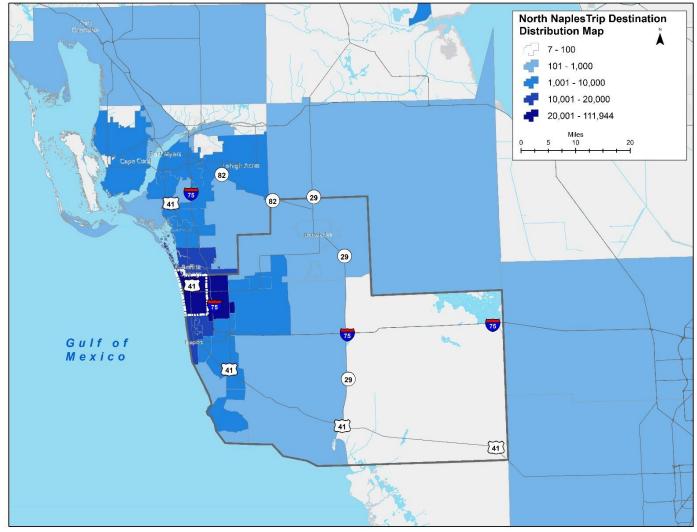


















Figure 63: Selected Trip Characteristics for North Naples Destinations

3.12.3 Work Location

Table 29 lists the top work locations for the more than 21,500 workers living in the North Naples subarea. This table indicates that residents of North Naples also have jobs that are predominantly within the subarea.

Shown in Figure 65 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average have longer travel times and distances. The average work trip of 38 miles is more than 2.5 times longer than the average trip originating within the North Naples area. However then median trip distance of just under 5 miles is comparable with the same measure for all trips originating in the area. The work trips also demonstrate a distinct A.M. peak pattern. Information regarding working from home is also made available through Replica. It was estimated that 5,600 or 9.8% of North Naples subarea 57,000 residents worked from home during the Spring 2021 quarter.















Figure 64: Origins for trips Ending in North Naples Subarea

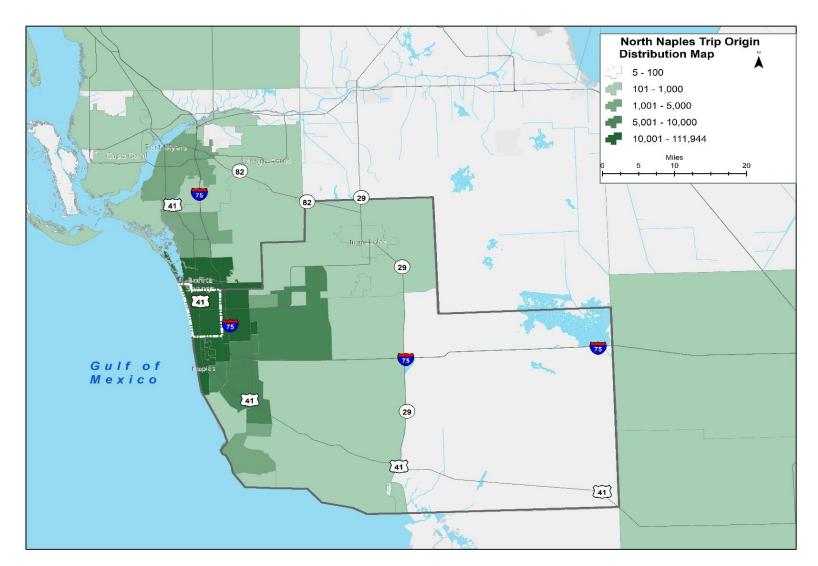
















Table 29: Work Locations for Residents of North Naples

| Work Location | Population | Work Location | Population |
|------------------|------------|----------------------|------------|
| North Naples | 9,810 | South Naples | 336 |
| City of Naples | 2,937 | Miami-Dade County | 294 |
| Central Naples | 1,525 | Fort Myers | 290 |
| Urban Estates | 1,087 | Estero | 248 |
| Out of region | 935 | Rural Estates | 222 |
| Bonita Springs | 876 | City of Marco Island | 120 |
| East Naples | 700 | Ave Maria | 105 |
| San Carlos | 645 | Immokalee | 102 |
| Golden Gate | 607 | Sanibel | 66 |
| South Fort Myers | 342 | Iona/McGregor | 64 |

Figure 65: North Naples Home to Work Trip Characteristics

















3.13 Orange Tree

The Orange Tree subarea is a small community located in central Collier County. This subarea was created specifically for this analysis base on review of the Growth Management Plan and the areas distinct development pattern compared with surrounding areas.

Table 30 identifies the trip origins and destinations for the top 20 subarea locations when at least one trip end occurs in the Orange Tree subarea. The trip origins



listed have a destination in the Orange Tree subarea and vice-versa for the destinations listed. 3,434 trips originated in the Orange Tree subarea and remained within the area representing 18% of the more than 19,000 daily trips originating from the area. More trips originated from the Rural Estates subarea and ended in Orange Tree. Shopping and school-related trips within this subarea are attractive to the trips originating in the predominantly residential Rural Estates.

Table 30: Orange Tree Trip Origins and Destinations

| Subarea | Trips From | Trips To | Subarea | Trips From | Trips To |
|---------------------------|---------------|----------|----------------------|------------|----------|
| Rural Estates | 3,698 | 3,421 | Central Naples | 263 | 229 |
| Orange Tree (Internal) | 3,434 | 3,434 | Immokalee | 240 | 309 |
| Urban Estates | 1,341 | 990 | East Naples | 179 | 122 |
| North Naples | 1,084 | 737 | San Carlos | 135 | 101 |
| Golden Gate | 494 | 381 | Out of Region | 119 | 124 |
| Heritage Bay | 419 | 351 | Estero | 109 | 75 |
| City of Naples | 380 | 293 | City of Marco Island | 78 | 66 |
| Bonita Springs | 365 | 253 | Corkscrew | 61 | 51 |
| South Naples | 326 | 191 | Fort Myers | 53 | 90 |
| Ave Maria | 298 | 342 | Lehigh Acres | 52 | 68 |

3.13.1 Trips Beginning in Subarea

Figure 66 documents characteristics of trips originating in Orange Tree, including trip purpose, trip distance, trip duration and start time. Trips originating from the Orange Tree area have a high home trip purpose at 34%. With an average trip distance of 16 miles and an average trip duration of 20 minutes, the distribution of trips indicates that short distance trips are not common. Figure 67 illustrates the geographic distribution of destinations for trips originating in the Orange Tree subarea and the clustering that occurs in the eastern portion of the county.















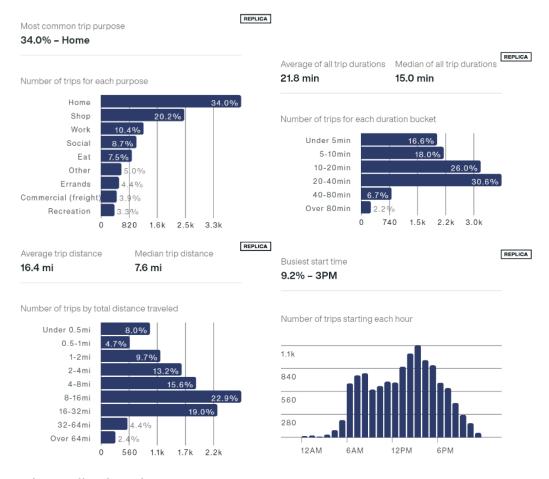


Figure 66: Selected Trip Characteristics for Orange Tree Origins

3.13.2 Trips Ending in Subarea

Figure 68 illustrates the characteristics of trips ending in Orange Tree. Trips ending in Orange Tree have a high shopping trip purpose 27% of total trips, while home trips purposes are slightly lower at 25% of total trips ending in the area. The average trip distance of 15 miles and average trip duration of 21 minutes are nearly equal to trips originating from the area. Additionally, the distribution of trips across the time and distance bands are comparable for the origin and destination trips. The distribution of these trips, shown in Figure 69, would also imply that there is a direct connection with trips being made for a single purpose rather than combining trips purposes since less than 20% of the trips are internal to the subarea. The distribution of trips made throughout the day is also comparable for trips ending in the area with those that originate there.















Figure 67: Destinations for trips Originating in Orange Tree Subarea

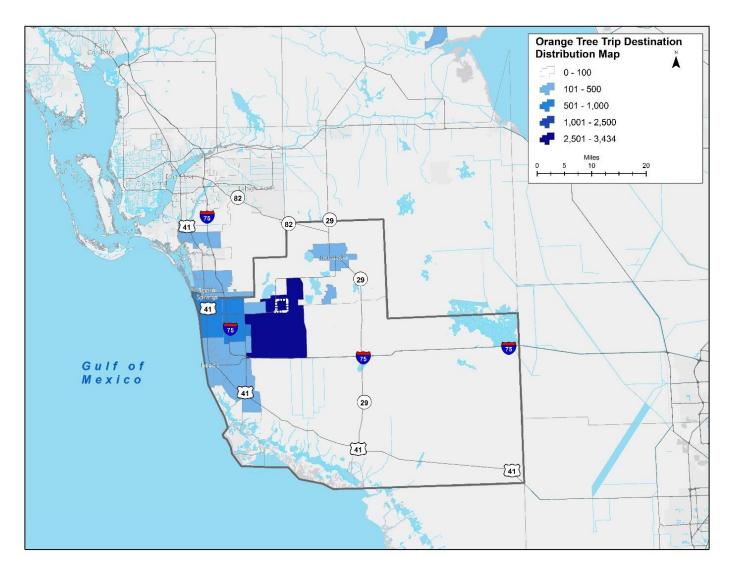


















Figure 68: Selected Trip Characteristics for Orange Tree Destinations

3.13.3 Work Location

Table 31 lists the top work locations for nearly 2,500 workers living in the Orange Tree subarea. No single area has a high percentage of employee location and only a small percentage of residents work in the Orange Tree subarea. Shown in Figure 70 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance and demonstrate a distinct A.M. peak pattern. This is reflective of the few numbers of workers that have jobs located within the subarea or nearby. Information regarding working from home is also made available through Replica. It was estimated that nearly 600 of the Orange Tree subarea's 4,600 residents (12.9%) worked from home during the Spring 2021 quarter.















eport

Figure 69: Origins for trips Ending in Orange Tree Subarea

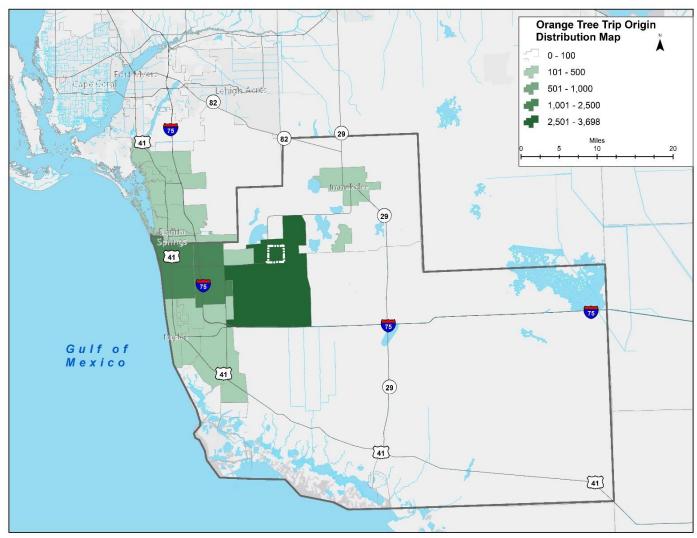
















Table 31: Work Locations for Residents of Orange Tree

| Work Location | Population | Work Location | Population |
|----------------|------------|----------------------|------------|
| North Naples | 375 | San Carlos | 55 |
| Rural Estates | 230 | Bonita Springs | 51 |
| City of Naples | 224 | Heritage Bay | 39 |
| Ave Maria | 209 | East Naples | 32 |
| Central Naples | 170 | Charlotte County | 29 |
| Urban Estates | 134 | City of Marco Island | 29 |
| Orange Tree | 115 | Out of Region | 28 |
| South Naples | 90 | South Fort Myers | 28 |
| Immokalee | 72 | Miami-Dade County | 27 |
| Golden Gate | 61 | Estero | 26 |

Figure 70: Orange Tree Home to Work Trip Characteristics

















3.14 Royal Fakapalm

The Royal Fakapalm subarea is the second largest subarea, and like the Corkscrew area is largely dominated by environmentally protected areas including the Florida Panther National Wildlife Refuge. Isolated areas of development include Port of the Islands and Royal Hammock along Tamiami Trail East as well as other rural communities.

Table 32 shows the trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the Royal Fakapalm



subarea. The trip origin shows the number of trips that begin in the subareas with Royal Fakapalm as the destination and vice versa for the trip destination listed. More than 6,400 trips originated in the Royal Fakapalm on an average weekday during the Spring of 2021, with 24% of those trips staying internal to the subarea. Due to the nature of the developed portions of this subarea the South Naples subarea is also a high destination area for trips originating in the Royal Fakapalm subarea

Subarea **Trips From Trips To** Subarea **Trips From** Trips To Royal Fakapalm (internal) 1,500 1,500 Out of region 163 162 South Naples **Broward County** 1,223 1,174 144 120 City of Marco 457 433 **Urban Estates** 137 132 **Rural Estates Central Naples** 313 331 136 134 **Everglades City** 273 301 **Bonita Springs** 109 104 **East Naples** 257 253 **Big Cypress** 86 84 Miami-Dade County 252 258 Fort Myers 83 61 North Naples 207 **Immokalee** 82 94 240 City of Naples 234 195 San Carlos 68 52 Golden Gate 216 217 Gateway/Airport 54 56

Table 32: Royal Fakapalm Trip Origins and Destinations

3.14.1 Trips Beginning in Subarea

Figure 71 includes charts showing the purpose, duration, distance and start time of trips originating in the Royal Fakapalm subarea. Trips Originating in Royal Fakapalm have a high commercial (freight) trip purpose at about 20% of the daily trips generated in the subarea. The average of trip distance of more than 25 miles and the average trip duration of 32 minutes are among the highest averages for the subareas studied. Like the Big Cypress subarea, the influence of commercial trips could be influencing these higher averages. Unlike the Big Cypress subarea, agricultural land uses within the Royal Fakapalm subarea are contributing to these commercial trips. Less than 3% of the trips originating from this area have a destination outside of the South Florida region. Figure 75 illustrates the geographic distribution















of destinations for trips originating in the Royal Fakapalm subarea which shows the high association of trips within the area and the neighboring South Naples subarea.

REPLICA Most common trip purpose 19.9% - Commercial (freight) REPLICA Average of all trip durations Median of all trip durations Number of trips for each purpose 32.3 min 22.0 min Commercial (freight Home Number of trips for each duration bucket Shop 16.7% Social Under 5min 13.9% Work 7.6% 5-10min 9.8% Eat 10-20min Errands 20-40min Recreation 40-80min School Over 80min 250 510 760 370 730 1.0k 0 1.1k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 25.6 mi 14.9 mi 8.0% - 1PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 510 1-2mi 2-4mi 380 4-8mi 8-16mi 20.9% 250 16-32mi 130 32-64mi 12.7% Over 64mi 12AM 6AM 300 910 0 610

Figure 71: Selected Trip Characteristics for Royal Fakapalm Origins

3.14.2 Trips Ending in Subarea

Like trips starting in the subarea, Figure 73 illustrates the trip characteristics for trips ending in the Royal Fakapalm subarea. These summary statistics suggest that roughly a quarter or 1,600 of the total trips ending in Royal Fakapalm are a return to home trip. The average trip distance of 26 miles and average trip duration of 33 minutes are comparable to those measures for the trips originating within the area. The distribution of trip lengths is indicative of the development pattern with very few short distance trips compared with those traveling between 16 and 32 miles. Figure 74 graphically illustrates the geographic distribution of origins for trips ending in the Royal Fakapalm subarea.







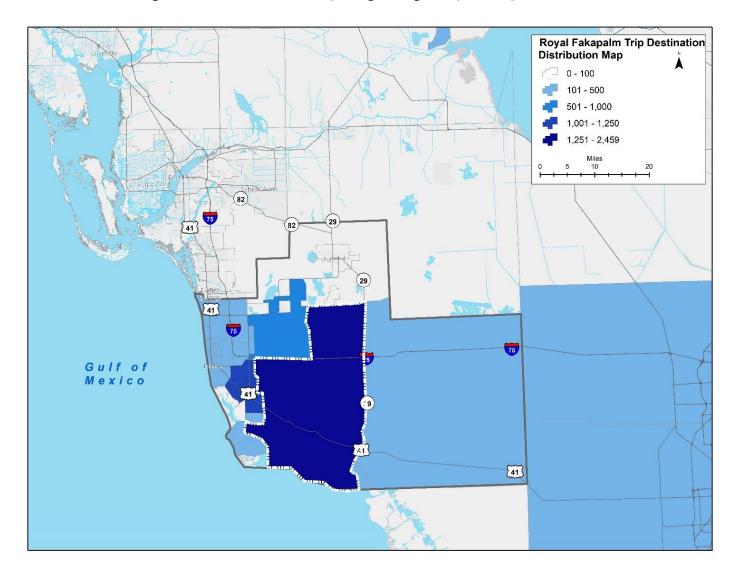








Figure 72: Destinations for trips Originating in Royal Fakapalm Subarea

















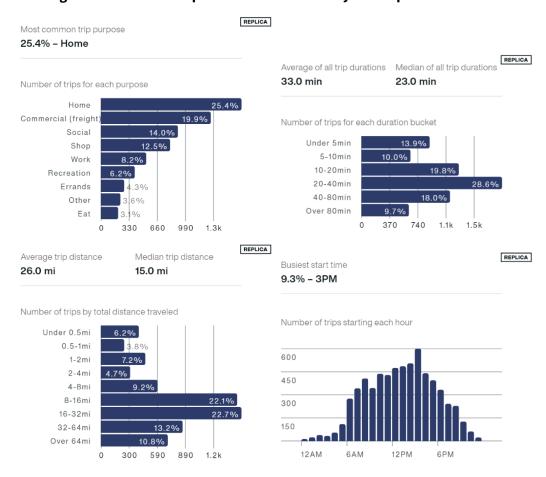


Figure 73: Selected Trip Characteristics for Royal Fakapalm Destinations

3.14.3 Work Location

Table 33 provides a breakdown of the top work subareas for 900 workers living in the Royal Fakapalm subarea. Due to the rural nature of this area and sparse development, more than 90% of these workers are required to travel outside of the subarea for employment. This is illustrated further in Figure 75 by the low percentage of home to work trips that are less than 5 miles in distance compared to those over 40 miles.

The statistics shown for the home to work commute eliminate any trip chaining and focuses on the single purpose trips. These trips have a distinct A.M. peak with a mid-day bump as well. Information regarding working from home is also made available through Replica. It was estimated that 250 or 11% of the 2,300 people residing in the Royal Fakapalm subarea worked from home during the Spring 2021 quarter.















Figure 74: Origins for trips Ending in Royal Fakapalm Subarea

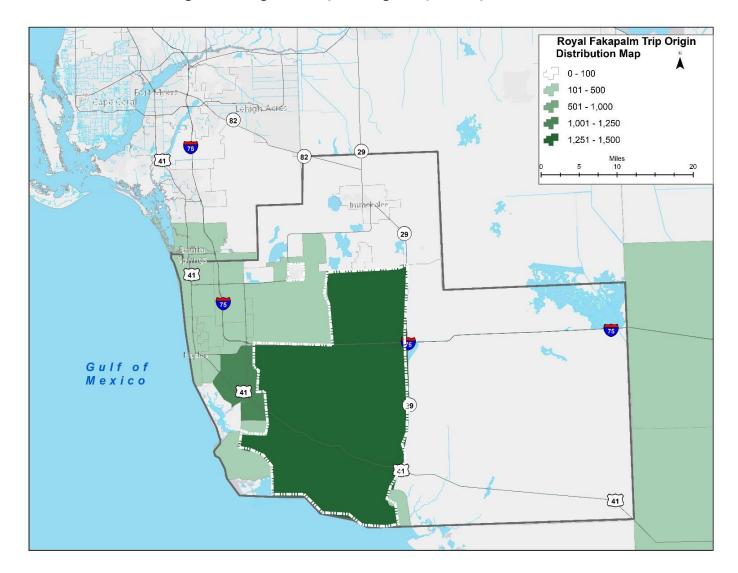
















Table 33: Work Locations for Residents of Royal Fakapalm

| Work Location | Population | Work Location | Population |
|----------------------|------------|------------------|------------|
| South Naples | 194 | Central Naples | 19 |
| North Naples | 97 | San Carlos | 18 |
| East Naples | 89 | Big Cypress | 17 |
| City of Marco Island | 76 | Gateway/Airport | 13 |
| Royal Fakapalm | 63 | Ave Maria | 11 |
| City of Naples | 59 | Fort Myers | 10 |
| Everglades City | 47 | Golden Gate | 9 |
| Urban Estates | 33 | Rural Estates | 9 |
| Out of region | 23 | South Fort Myers | 6 |
| Miami-Dade County | 22 | Immokalee | 5 |

Figure 75: Royal Fakapalm Home to Work Trip Characteristics













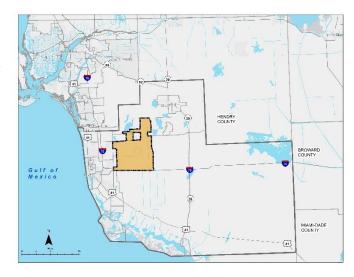




3.15 Rural Estates

The Rural Estates subarea is dominated by large lot single-family land uses located east of CR 951. Much of the area is divided by canals and waterways with limited transportation routes connecting through the area and beyond.

Table 34 shows the trip origins and destinations for the top 20 subareas when at least one trip end takes place in the Rural Estates subarea. The trip origins are shown as the number of trips coming from the subareas having a destination within the



Rural Estates and vice versa for the trip destinations listed as the trips going to that subarea. There are an estimated 69,000 trips made originating in the Rural Estates on an average weekday, one-third of the trips staying within the subarea.

Table 34: Rural Estates Trip Origins and Destinations

| Subarea | Trips From | Trips To | Subarea | Trips From | Trips To |
|--------------------------|------------|----------|----------------------|------------|----------|
| Rural Estates (internal) | 22,777 | 22,777 | Bonita Springs | 1,957 | 1,340 |
| Urban Estates | 9,501 | 8,782 | Immokalee | 1,150 | 1,258 |
| North Naples | 7,270 | 5,993 | Out of Region | 997 | 1,070 |
| Golden Gate | 5,667 | 5,348 | Ave Maria | 839 | 917 |
| Orange Tree | 3,421 | 3,698 | San Carlos | 689 | 674 |
| City of Naples | 3,089 | 2,781 | Fort Myers | 432 | 652 |
| South Naples | 3,167 | 2,491 | City of Marco Island | 926 | 576 |
| Central Naples | 2,677 | 2,409 | Miami-Dade County | 505 | 515 |
| Heritage Bay | 1,695 | 1,817 | Estero | 674 | 484 |
| East Naples | 1,881 | 1,538 | Royal Fakapalm | 527 | 463 |

3.15.1 Trips Beginning in Subarea

Figure 76 illustrates trip purpose, trip duration, trip distance and start time for the trips originating in the Rural Estates. The trips have a high shopping trip purpose at account for more than 22% of the daily trips generated in the subarea. The average trip distance of 18 miles and the average trip duration of 26 minutes are influenced by the number of trips that travel longer distance. As is common with other areas of a more rural development pattern there is a lower percentage of short distance trips. Figure 77 illustrates the geographic distribution of destinations for trips originating in the Rural Estates subarea which includes a considerable number of trips traveling to locations outside of Collier County.















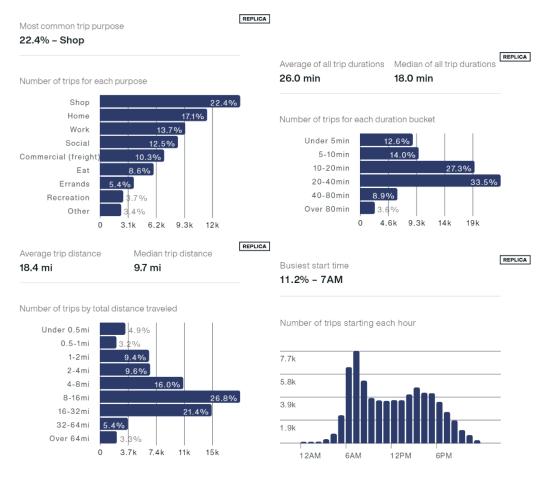


Figure 76: Selected Trip Characteristics for Rural Estates Origins

3.15.2 Trips Ending in Subarea

Figure 78 provides an overview of the characteristics for trips ending in the Rural Estates. This summary shows that nearly half of the ending in the Rural Estates are a return home trip. This is not unexpected given the predominately single-family land use of the area. While the distribution of trip purpose is different for the destination trips compared with the origin trips, the average trip distances and travel times are comparable. With a distinct A.M. peak for trip origins and P.M. peak for trip destinations, it's reasonable to conclude that these times are dominated by the journey to work trips. Figure 79 graphically illustrates the geographic distribution of origins for trips ending in the Rural Estates subarea.







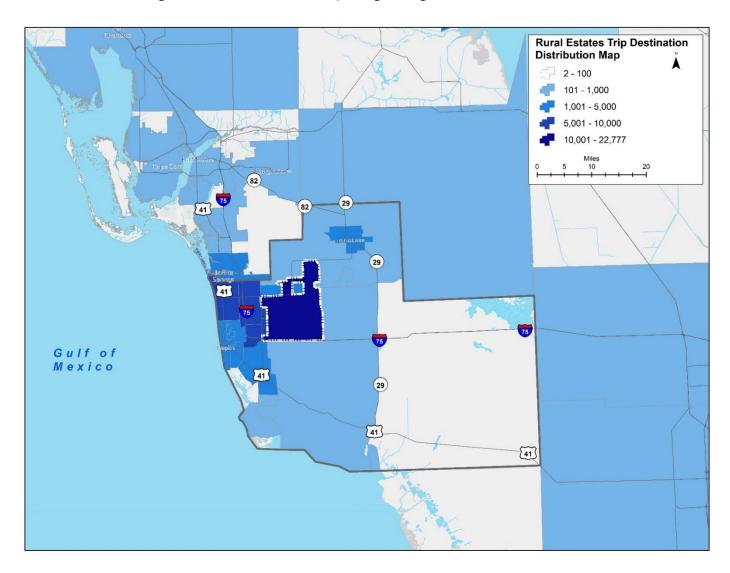








Figure 77: Destinations for trips Originating in Rural Estates Subarea

















REPLICA Most common trip purpose 44.6% - Home Average of all trip durations Median of all trip durations 26.5 min 18.0 min Number of trips for each purpose 44.6% Home Social 14.4% Number of trips for each duration bucket Shop Commercial (freight Under 5min Work 5-10min Fat 10-20min 27.3% 20-40min 36.8% Errands Other 40-80min Recreation Over 80min 13k REPLICA Average trip distance Median trip distance REPLICA Busiest start time 18.8 mi 10.5 mi 9.9% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 7.2k 1-2mi 8.7% 2-4mi 5.4k 4-8mi 8-16mi 3.6k 16-32mi 1.8k 32-64mi Over 64mi 12AM 4.0k 8.1k 16k 12k

Figure 78: Selected Trip Characteristics for Rural Estates Destinations

3.15.3 Work Location

Table 35 lists the top work locations for 20,100 workers living in the Rural Estates subarea. Shown in Figure 80 are characteristics related to the work commute trip. Compared with trip time and distance for all trips originating in the subarea, work trips on average are shorter in time but longer in distance. Information regarding working from home is also made available through Replica. It was estimated that 11.3% or 4,600 of the 41,0000 people residing in the Golden Gate subarea worked from home during the Spring 2021 quarter.















Figure 79: Origins for trips Ending in Rural Estates Subarea

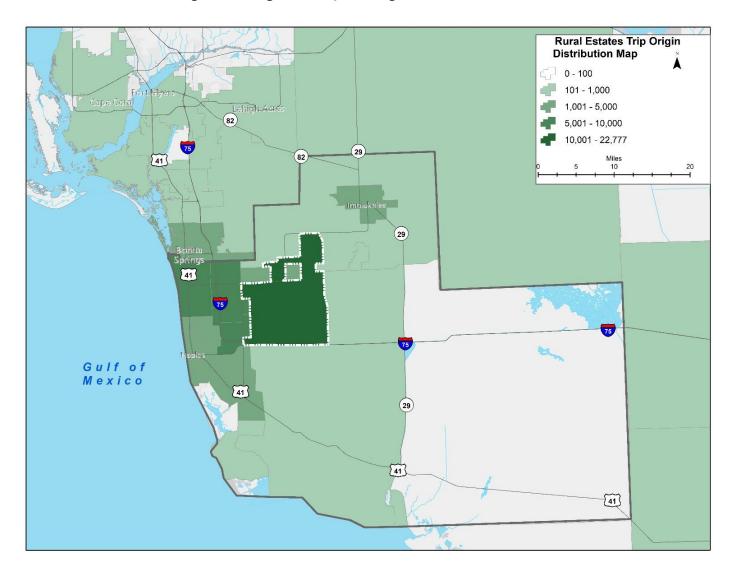
















Table 35: Work Locations for Residents of Rural Estates

| Work Location | Population | Work Location | Population |
|----------------|------------|----------------------|------------|
| North Naples | 3,616 | Golden Gate | 538 |
| Rural Estates | 2,612 | City of Marco Island | 487 |
| City of Naples | 2,546 | Immokalee | 438 |
| Urban Estates | 1,680 | Orange Tree | 403 |
| Central Naples | 1,389 | South Fort Myers | 374 |
| Ave Maria | 1,078 | Miami-Dade County | 350 |
| East Naples | 1,072 | Fort Myers | 318 |
| Bonita Springs | 665 | Estero | 194 |
| South Naples | 653 | Heritage Bay | 193 |
| San Carlos | 575 | Out of Region | 158 |

Figure 80: Rural Estates Home to Work Trip Characteristics

















3.16 South Naples

The South Naples Subarea was another of the initial planning communities that was expanded based on review of the GMP map. Areas east of Collier Blvd (CR 951) as well as areas south of Tamiami Trail East were consolidated into this area based on the similarity of land uses and development.

Table 36 identifies the number of trip origin and destination for the top 20 subarea locations when at least one trip end



takes place in the South Naples subarea. The trip origins listed have a destination in the South Naples subarea and vice-versa for the destinations listed.

With 48% of the more than 120,000 average daily trips originating in the subarea staying internal, the South Naples subarea has one of the highest rates of trips staying within the area. This can be attributed to this subarea having one of the better mixes of land uses to accommodate multiple trip purposes. The nearby areas of East Naples, Golden Gate, City of Naples, and City of Marco Island also have a high trip interaction with the South Naples subarea.

Subareas Trips Trips To Subarea Trips From Trips **From** To South Naples 57,338 57,338 Royal Fakapalm 1,147 1,163 (internal) **Bonita Springs East Naples** 12,263 12,327 1,149 1,091 Golden Gate 8,381 Fort Myers 873 7,881 572 City of Naples 6,818 7,812 San Carlos 590 777 City of Marco 7503 **South Fort Myers** 554 7,537 378 Island North Naples 4,926 5,043 248 551 Cape Coral Estero Central 3,742 4,197 454 542 Naples **Urban Estates** 2,908 3,269 Lehigh Acres 265 512 **Rural Estates** 2,491 3,167 Gateway/Airport 268 495 Out of region 1,335 1,488 Miami-Dade County 521 490

Table 36: South Naples Trip Origins and Destinations

3.16.1 Trips Beginning in Subarea

Figure 81 provides a summary of trip purpose, trip distance, trip duration and start time statistics. Nearly 50% of the trips originating in this area are for shopping or home purposes. These purposes seem to contribute to the large number of trips that can be taken in less than 10 minutes and less than 5 miles. Even with many short distance trips, the average trip distance for the South Naples subarea is 15 miles and the average trip duration is nearly 19 minutes. The distribution of trips throughout the day also















reflects a high rate of trips being produced throughout the day with the absence of a strong A.M or P.M. peak. Figure 82 illustrates the geographic distribution of destinations for trips originating in the South Naples subarea.

REPLICA Most common trip purpose 24.2% - Shop Average of all trip durations Median of all trip durations 18.7 min 10.0 min Number of trips for each purpose 24.2% Shop Home Number of trips for each duration bucket Work Under 5min Commercial (freight 5-10min Social 10-20min 20-40min Errands 40-80min Recreation Other Over 80min 5.8k 12k 17k 23k 6.5k 13k 19k REPLICA Median trip distance Average trip distance REPLICA Busiest start time 5.4 mi 15.4 mi 8.0% - 2PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 7.5% 1-2mi 2-4mi 7.2k 4-8mi 8-16mi 4.8k 16-32mi 9.7% 2 4k 32-64mi Over 64mi 6AM 12PM 12AM

Figure 81: Selected Trip Characteristics for South Naples Origins

3.16.2 Trips Ending in Subarea

Figure 83 shows the purpose, distance, duration and start time for trips ending in the South Naples subarea. Trips ending in South Naples have a high home trip purpose at about 35% of average weekday trips. The average trip distance is around 15 miles and a travel time of 18 minutes. Like trips originating in this area, the number of trips increases throughout the day with a peak in the early afternoon. Figure 84 shows the geographic distribution of trips ending in the South Naples subarea.







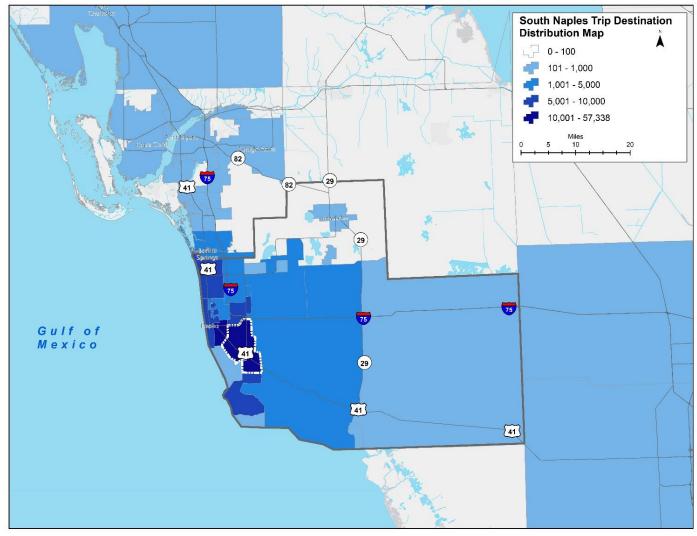








Figure 82: Destinations for trips Originating in South Naples Subarea

















REPLICA Most common trip purpose 34.9% - Home Average of all trip durations Median of all trip durations 18.1 min 9.0 min Number of trips for each purpose 34.9% Home Shop 22.1% Number of trips for each duration bucket Commercial (freight 9.9% Under 5min Work 5-10min 10-20min Eat 20-40min 16.3% Frrands 40-80min Recreation Over 80min Other 13k 8.0k 16k 24k 32k REPLICA REPLICA Median trip distance Average trip distance Busiest start time 14.9 mi 5.1 mi 8.3% - 3PM Number of trips by total distance traveled Number of trips starting each hour Under 0.5mi 0.5-1mi 9.5k 1-2mi 2-4mi 18.0% 7.1k 4-8mi 23.5% 4 8k 8-16mi 16-32mi 2.4k 32-64mi Over 64mi 12AM 6AM

Figure 83: Selected Trip Characteristics for South Naples Destinations

3.16.3 Work Location

0

5.4k

11k

16k

22k

Table 37 provides a list of the top work location subareas for 17,500 workers living in the South Naples subarea. This table indicates that residents of South Naples predominantly work in the South Naples subarea or one of the neighboring areas.

Shown in Figure 85 are selected characteristics related to the work commute trip. Even though a high number of residents work within the South Naples subarea, the home-to-work trips exhibit longer travel times and travel greater distances when compared with all trips generated daily. Information regarding working from home is also made available through Replica. It was estimated that 3,800 or 8% of residents in the South Naples subarea worked from home during the Spring 2021 quarter.















Figure 84: Origins for trips Ending in South Naples Subarea

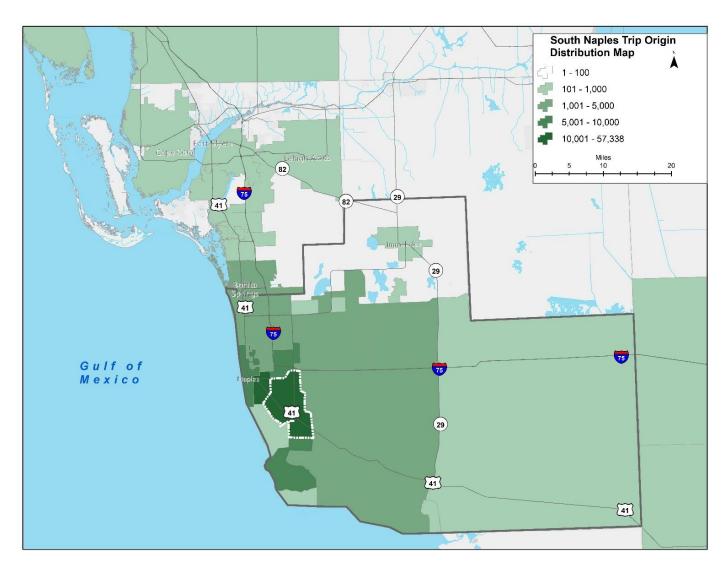
















Table 37: Work Locations for Residents of South Naples

| Work Location | Population | Work Location | Population |
|----------------|------------|-------------------|------------|
| South Naples | 4,433 | Rural Estates | 335 |
| City of Naples | 2,706 | Miami-Dade County | 310 |
| North Naples | 2,015 | Royal Fakapalm | 281 |
| City of Marco | 1,600 | Everglades City | 264 |
| East Naples | 1,410 | South Fort Myers | 252 |
| Central Naples | 1,021 | Ave Maria | 235 |
| Urban Estates | 642 | Bonita Springs | 141 |
| Golden Gate | 475 | Immokalee | 127 |
| Out of region | 449 | Big Cypress | 113 |
| San Carlos | 444 | Broward County | 89 |

Figure 85: South Naples Home to Work Trip Characteristics

















3.17 Urban Estates

The Urban Estates subarea is located west of CR 951 in northern Collier County. This area contains a mix of retail shopping centers, estate lot residences and gated single-family residential communities.

Table 38 identifies the number of trip origin and destination for the top 20 subarea locations when at least one trip end takes place in the Urban Estates subarea. The trip origins listed have a destination in the Urban Estates subarea and vice-versa for the destinations listed. The 55,270 trips originating in



Urban Estates subarea and remaining within the area represents about 39% of the more than 140,000 trips originating within the area on an average weekday. There is also a strong connection between this area and adjacent North Naples subarea.

Table 38: Urban Estates Trip Origins and Destinations

| Subarea | Trips From | Trips To | Subarea | Trips From | Trips To |
|--------------------------|------------|----------|-------------------------|------------|----------|
| Urban Estates (internal) | 55,270 | 55,270 | Out of region | 1,617 | 1,929 |
| North Naples | 25,896 | 26,095 | San Carlos | 1,085 | 1,407 |
| Rural Estates | 8,782 | 9,501 | Fort Myers | 772 | 1,378 |
| Golden Gate | 8,291 | 8,311 | Estero | 1,452 | 1,360 |
| City of Naples | 6,550 | 6,857 | Orange Tree | 990 | 1,341 |
| Central Naples | 6,493 | 6,228 | South Fort Myers | 726 | 1,137 |
| Bonita Springs | 6,796 | 5,748 | Lehigh Acres | 472 | 912 |
| South Naples | 3,269 | 2,908 | Gateway/Airport | 437 | 903 |
| East Naples | 2,969 | 2,843 | Immokalee | 751 | 872 |
| Heritage Bay | 2,511 | 2,584 | City of Marco Island | 920 | 755 |

3.17.1 Trips Beginning in Subarea

Figure 86 summarizes the trip purpose, trip distance, trip duration and start time for trips originating in the area. Trips originating in Urban Estates have a high home trip purpose at about 28% of the average daily weekday trips generated in the subarea. The average distance traveled is 13 miles and the average duration is estimated at 18 minutes for these trips. Figure 87 illustrates the geographic distribution of destinations for trips originating in the Urban Estates subarea. In addition to the high number of internal trips and trips to adjacent areas, there are a high number of trips to other areas within Collier County as well as subareas is southern Lee County.















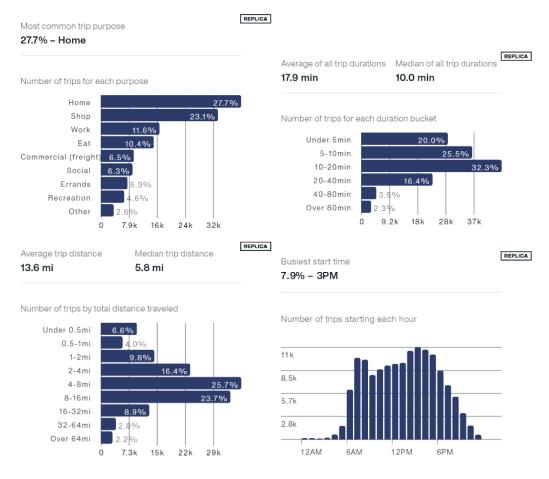


Figure 86: Selected Trip Characteristics for Urban Estates Origins

3.17.2 Trips Ending in Subarea

Figure 88 provides the trip characteristics summary for trips ending in the Urban Estates subarea. These summary statistics suggest that 30% in the Urban Estates have a home purpose. The consistent trip purposes of home and shopping for origin and destination trips speaks to the blend of land uses that exist within this area. While there are some short distance trips, the most common trips ending in this area are between 4-8 miles in length. Figure 89 graphically illustrates the geographic distribution of origins for trips ending in the Urban Estates subarea.







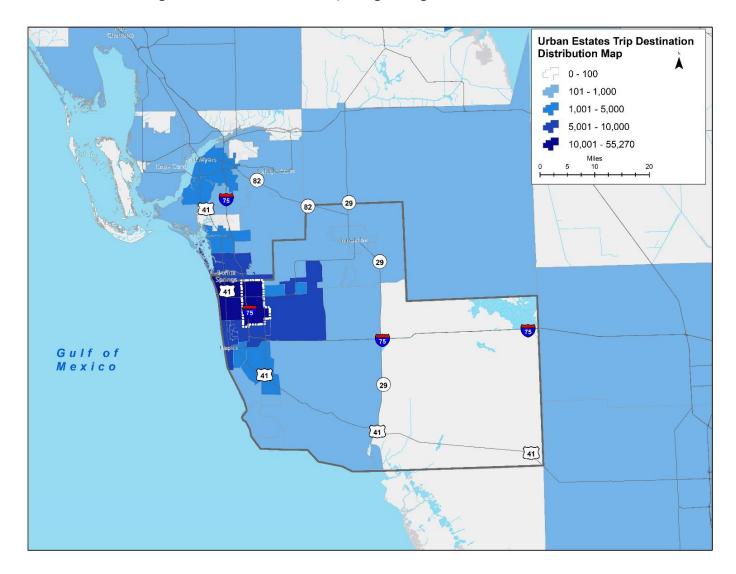








Figure 87: Destinations for trips Originating in Urban Estates Subarea

















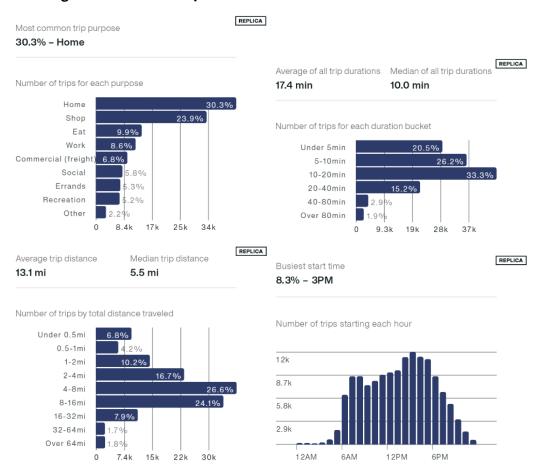


Figure 88: Selected Trip Characteristics for Urban Estates Destinations

3.17.3 Work Location

Table 39 lists the top work location subareas for the 21,000 workers living in the Urban Estates subarea. While there is a high number of residents who work within the subarea, the highest number of jobs are held in the North Naples subarea.

Shown in Figure 90 are selected characteristics related to the work commute trip. Compared with trip time and distance for all trips originated within the study area, work trips on average are longer in time and distance. Information regarding working from home is also made available through Replica. It was estimated that 5,000 or 10.4% of the 48,500 residents in the Urban Estates subarea worked from home during the Spring 2021 quarter.















Figure 89: Origins for trips Ending in Urban Estates Subarea

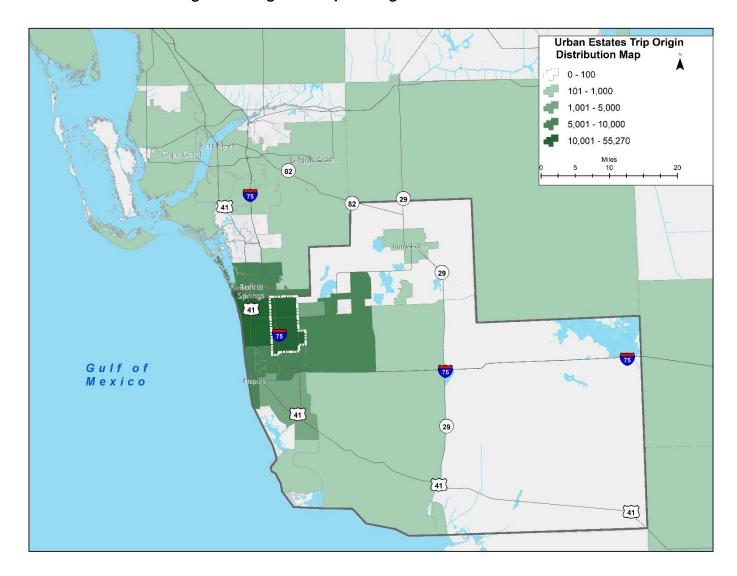
















Table 39: Work Locations for Residents of Urban Estates

| Work Location | Population | Work Location | Population |
|------------------|------------|-------------------|------------|
| North Naples | 5403 | Out of region | 382 |
| Urban Estates | 4884 | South Naples | 376 |
| City of Naples | 2431 | Miami-Dade County | 325 |
| Central Naples | 1288 | City of Marco | 302 |
| East Naples | 1174 | Immokalee | 232 |
| Golden Gate | 642 | Fort Myers | 207 |
| Rural Estates | 595 | Ave Maria | 207 |
| San Carlos | 555 | Broward County | 193 |
| South Fort Myers | 477 | Estero | 121 |
| Bonita Springs | 462 | Gateway/Airport | 97 |

Figure 90: Urban Estates Home to Work Trip Characteristics















Collier MPO Congestion Management Process

Origin and Destination Report



4.0 Appendices

Appendix A: O&D Study Methodology













Origin & Destination Study Methodology



1.0 Purpose and Objective

The once distinct urbanized areas of Naples, Bonita Springs and Cape Coral have coalesced into a larger urbanized area within the context of the rapidly growing region of Southwest Florida. Facilitated through the regional transportation connections of Interstate 75, US 41 and SR 29, growth and connectivity in Collier and Lee Counties has resulted in continuous urban and suburban development patterns where trip-making patterns cross the county line with routine frequency. In Collier County population has grown from around 150,000 to 375,000, nearly 150%, from 1990 to 2020 based on the decennial Census. Additionally, recent growth in the eastern rural lanes of Collier County known as the Rural Lands Stewardship Area, has resulted in new travel patterns beginning to emerge with connections to the east coast of Florida.

As a result of this growth, as with other areas in the United States, transitioning from a smaller metro area to a medium-sized and large area brings with it the challenge of addressing congestion on the transportation system. Identifying root causes of congestion and prioritizing implementable solutions as part of the Congestion Management Process is a core requirement that the MPO is addressing. To that end, the Collier MPO desires to better understand trip origin and destination patters to better plan for and develop the multimodal transportation system.

2.0 Approach

The Replica data platform will be used as the basis for conducting this origin and destination study. The Replica platform utilizes a composite set of data provided by third-party sources in order to extrapolate observed trip making patterns and travel behaviors to the entire population. These data sources include multiple types of mobile location data, consumer transaction data, census reported data and observed "ground-truth" data.

The data sources utilized by Replica are intended to cover a broad spectrum of sources and activities in order to minimize a sample size bias that may exist from relying on a single data source. This approach also provides a more resilient data stream to protect against disruptions in individual data sources. Below is a summary of each data source and its purpose.

- <u>Mobile location data</u> is used to create a representative sample of daily movement patterns.
 Four unique sources of data, collected from personal mobile devices and in-dash vehicle systems, are used to provide de-identified (anonymous) location and travel data.
 - Location-based services (LBS) data:
 - b. Cellular network data:
 - c. Vehicle in-dash GPS data
 - d. Point-of-interest (POI) data
- <u>Consumer resident data</u> provides demographic data from public and private sources for determining the basis of where people work and live, as well as the characteristics of the population.
- <u>Land use / real estate data</u> includes building, land use, and transportation network data that are used in determining where people travel and by what means the travel occurs.
- <u>Credit transaction data</u> provided by financial companies, this data captures consumer spending and is used to support levels of activity and spending by time and place.













Origin & Destination Study Methodology



Ground truth data is included as a final step in calibrating and improving overall accuracy of
the Replica output, The ground truth data includes auto and freight volumes, transit ridership,
and bicyclist and pedestrian counts.

Utilizing the Places module within Replica allows for the creation of customized geographies and subareas for reporting travel. As the initial basis for evaluating trip origins and destination, a county-to-county level summary will be provided to illustrate the trips that are contained within Collier County, pass through Collier County without stopping, enter from outside with a destination in Collier and exit Collier County having an origin inside the county. The basis for this analysis is the average weekday travel observed during the Spring (March -May) 2021.

A further narrowing of areas used for reporting origins and destinations will utilize the Planning Community boundaries that have been established by Lee and Collier counties. Maps illustrating these areas are shown below in Figure 1 and Figure 2.

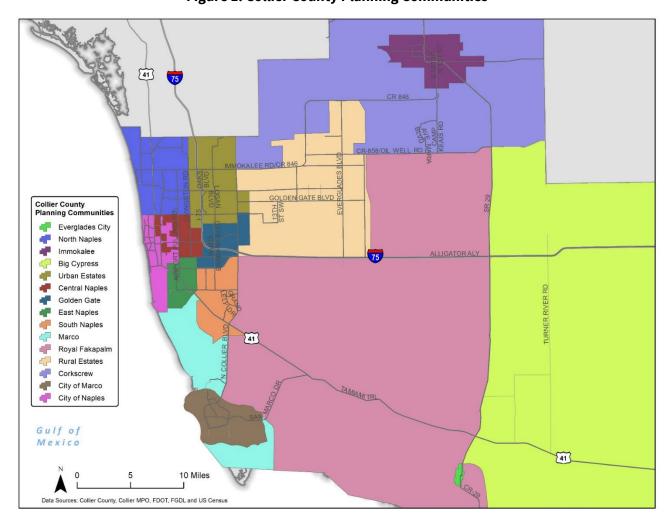


Figure 1: Collier County Planning Communities

















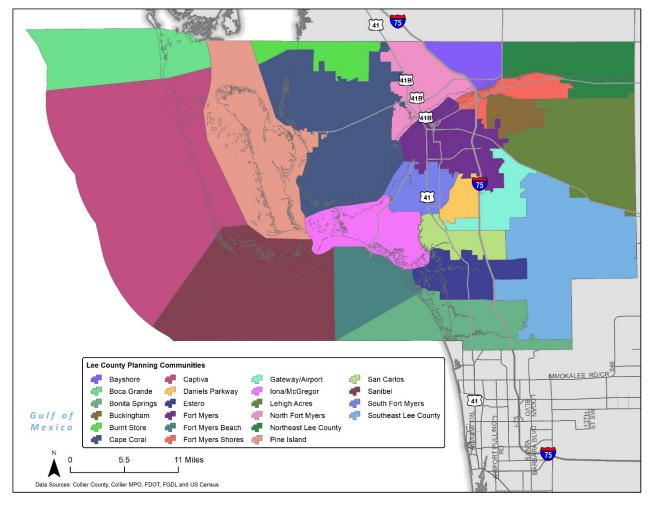


Figure 2: Lee County Planning Communities

In addition to these 37 sub areas, trip origins and destinations will be summarized for the three adjacent counties of Broward, Hendry, and Miami-Dade, along with Charlotte County to the north of Lee County. Trips originating or destined for locations outside of these areas will be listed as other in the trip tables and will be included in the total trip count.

Trips that cross the Collier County line to the north or east will be summarized based on transportation facility. This summarization will be limited to the major regional facilities listed below.

- 1. Interstate 75
- 2. Livingston Road
- 3. SR 29
- 4. SR 82
- 5. US 41 / Tamiami Trail













Origin & Destination Study Methodology



3.0 Analysis and Results

Adding the Planning Community Areas into the Replica data platform will provide trip characteristic information that can be summarized across multiple data elements. Maps illustrating travel patterns will be prepared to illustrate the highest destinations and origins paired with the Collier County Planning Areas. Additional details will be provided in tabular format and summarized to identify key patterns and observations. Focused on the county-wide travel patterns and the 15 Planning Communities in Collier County, it is anticipated that these summaries will be 3-5 pages in length.

Key variables to be summarized in tabular format will include trips made on a daily-basis as well as those made during the AM (6-9) and PM (4-7) peak periods. Characteristics such as trip purpose will also be presented to illustrate high origin-destination pairs for work trips in the AM peak and home trips in the PM peak. As discussed previously, trips passing through Collier County will be summarized as well to illustrate larger regional trip patterns. It is envisioned that these trip tables will aid the MPO in validating the regional travel demand model and other tools used in developing the Long Range Transportation Plan.

Additional charts and graphics illustrating averages and frequency distribution of trip characteristics such as trip length, trip distance, and trip purpose will also be prepared for each of the sub-area summaries. An example of one these charts is provided below in Figure 3.

REPLICA Median trip distance Average trip distance 10 mi 6.6 mi Number of trips by total distance traveled Under 0.5mi 0.5-1mi 1-2mi 11.8% 2-4mi 14.8% 4-8mi 8-16mi 28.9% 16-32mi 32-64mi 2.3% Over 64mi 1.8% 1.0k 2.0k 3.1k 4.1k

Figure 3: Example Trip Distance Chart













Collier MPO Congestion Management Process

Origin and Destination Report



Appendix B: Subarea Origin and Destination Trip Matrix













| | | | | | | | | Collier Co | unty Subarea | a: Origins | | | | | | | |
|----------------------|-----------|-------------|-------------------|----------------------------|-------------------|-----------|-------------|--------------------|----------------|-----------------|-----------|-----------------|----------------|-------------------|------------------|-----------------|------------------|
| Destinations | Ave Maria | Big Cypress | Central Naples | City of Macro Island | City of Naples | Corkscrew | East Naples | Everglades City | Golden Gate | Heritage Bay | Immokalee | North Naples | Orange Tree | Royal Fakapalm | Rural Estates | South Naples | Urban Estates |
| Ave Maria | 5,014 | 12 | 143 | 46 | 134 | 172 | 132 | 12 | 170 | 120 | 901 | 394 | 298 | 26 | 839 | 113 | 364 |
| Big Cypress | 18 | 349 | 14 | 37 | 37 | 25 | 17 | 122 | 18 | 1 | 45 | 30 | 5 | 86 | 50 | 101 | 17 |
| Central Naples | 167 | 17 | 19,331 | 847 | 13,102 | 32 | 5,763 | 35 | 6,938 | 316 | 364 | 13,643 | 263 | 136 | 2,677 | 3,742 | 6,493 |
| City of Marco Island | 39 | 35 | 814 | 43,800 | 1,560 | 24 | 1,470 | 171 | 1,263 | 70 | 129 | 1,276 | 66 | 419 | 576 | 7,503 | 755 |
| City of Naples | 165 | 45 | 12,924 | 1,566 | 52,570 | 39 | 10,465 | 57 | 7,159 | 337 | 407 | 17,337 | 380 | 234 | 3,089 | 6,818 | 6,550 |
| Corkscrew | 172 | 25 | 32 | 27 | 39 | 685 | 20 | 3 | 37 | 35 | 608 | 104 | 61 | 48 | 249 | 28 | 80 |
| East Naples | 164 | 26 | 5,781 | 1,495 | 10,454 | 20 | 28,132 | 77 | 6,962 | 197 | 328 | 5,449 | 179 | 257 | 1,881 | 12,263 | 2,969 |
| Everglades City | 10 | 67 | 42 | 146 | 74 | 3 | 86 | 1,668 | 63 | 4 | 27 | 76 | 1 | 273 | 23 | 368 | 52 |
| Golden Gate | 217 | 17 | 6,892 | 1,444 | 7,360 | 37 | 6,706 | 46 | 45,537 | 357 | 459 | 8,639 | 494 | 216 | 5,667 | 7,881 | 8,291 |
| Heritage Bay | 124 | 1 | 277 | 84 | 387 | 35 | 182 | 2 | 390 | 2,949 | 198 | 1,185 | 419 | 10 | 1,695 | 156 | 2,511 |
| Immokalee | 928 | 41 | 327 | 136 | 423 | 608 | 254 | 24 | 396 | 194 | 43,465 | 820 | 240 | 82 | 1,150 | 291 | 751 |
| North Naples | 507 | 33 | 13,657 | 1,418 | 18,196 | 104 | 5,230 | 64 | 8,427 | 1,239 | 902 | 111,944 | 1,084 | 240 | 7,270 | 4,926 | 25,896 |
| Orange Tree | 342 | 5 | 229 | 78 | 293 | 61 | 122 | 3 | 381 | 351 | 309 | 737 | 3,434 | 24 | 3,421 | 191 | - |
| Royal Fakapalm | 35 | 120 | 120 | 401 | 173 | 49 | 244 | 333 | 190 | 10 | 96 | 196 | 18 | 1,500 | 527 | 1,147 | 126 |
| Rural Estates | 917 | 46 | 2,409 | 926 | 2,781 | 249 | 1,538 | 12 | 5,348 | 1,817 | 1,258 | 5,993 | 3,698 | 313 | 22,777 | 2,491 | 8,782 |
| South Naples | 146 | 112 | 4,197 | 7,537 | 7,812 | 28 | 12,327 | 375 | 8,381 | 210 | 391 | 5,043 | 326 | 1,223 | 3,167 | 57,338 | 3,269 |
| Urban Estates | 457 | 26 | 6,228 | 920 | 6,857 | 80 | 2,843 | 27 | 8,311 | 2,584 | 872 | 26,095 | 1,341 | 137 | 9,501 | 2,908 | 55,270 |
| Bayshore | 1 | 3 | 8 | 7 | 4 | 3 | 12 | - | 16 | - | 19 | 41 | 5 | 3 | 18 | 11 | 21 |
| Boca Grande | - | - | 2 | 1 | 1 | 1 | 1 | 1 | - | - | 2 | 6 | 1 | 1 | - | 1 | 2 |
| Bonita Springs | 171 | 29 | 1,766 | 363 | 3,047 | 42 | 1,148 | 35 | 1,508 | 519 | 319 | 18,387 | 109 | 365 | 1,957 | 1,149 | 6,796 |
| Buckingham | 5 | 3 | 9 | 5 | 20 | 3 | 4 | 1 | 9 | 3 | 27 | 30 | 3 | 1 | 13 | 35 | 31 |
| Burnt Store | - | - | 5 | 2 | 5 | - | 1 | - | 4 | - | 1 | 5 | - | - | 2 | 1 | 3 |
| Cape Coral | 43 | 35 | 239 | 269 | 322 | 23 | 153 | 3 | 127 | 25 | 211 | 927 | 46 | 36 | 249 | 248 | 344 |
| Captiva | - | 2 | 5 | 9 | 15 | - | 6 | 2 | 8 | 6 | 1 | 35 | 4 | | 2 | 4 | 10 |
| Daniels Parkway | 17 | 14 | 60 | 43 | 83 | 3 | 27 | 1 | 34 | 8 | 46 | 202 | 17 | - | 76 | 73 | 126 |
| Estero | 97 | 10 | 635 | 228 | 907 | 20 | 346 | 7 | 673 | 108 | 423 | 3,392 | 30 | 109 | 674 | 454 | - |
| Fort Myers | 124 | 41 | 470 | 334 | 574 | 53 | 304 | 11 | 341 | 64 | 967 | 1,649 | 83 | 53 | 432 | 572 | 772 |
| Fort Myers Beach | 7 | 6 | 48 | 44 | 146 | - | 33 | 9 | 47 | 5 | 29 | 538 | 6 | 11 | 38 | 48 | 155 |
| Fort Myers Shores | 39 | 5 | 40 | 37 | 84 | 7 | 37 | 9 | 29 | 9 | 144 | 157 | 9 | 9 | 76 | 45 | 72 |
| Gateway/Airport | 34 | 23 | 232 | 305 | 313 | 7 | 174 | 6 | 147 | 46 | 211 | 689 | 54 | 30 | 256 | 268 | 437 |
| Iona/McGregor | 11 | 13 | 89 | 46 | 196 | 5 | 66 | 8 | 101 | 16 | 104 | 460 | 12 | 10 | 103 | 97 | 191 |
| Lehigh Acres | 207 | 17 | 328 | 221 | 362 | 141 | 160 | 22 | 264 | 43 | 2,639 | 916 | 48 | 52 | 341 | 265 | 472 |
| North Fort Myers | 23 | 24 | 77 | 53 | 53 | 9 | 40 | 1 | 50 | 13 | 122 | 289 | 28 | 22 | 92 | 100 | 153 |
| Northeast Lee County | 8 | 2 | 10 | 14 | 9 | 4 | 10 | 1 | 8 | - | 47 | 31 | 10 | 3 | 11 | 18 | 15 |
| Pine Island | 2 | 3 | 14 | 14 | 49 | | 6 | 1 | 5 | 5 | 14 | 33 | 2 | 1 | 28 | 11 | 10 |
| San Carlos | 67 | 14 | 756 | 268 | 668 | 31 | 307 | 8 | 773 | 112 | 453 | 1,950 | 68 | 135 | 689 | 590 | - |
| Sanibel | 11 | 3 | 19 | 46 | 56 | 6 | 22 | 7 | 26 | 7 | 9 | 138 | 11 | 18 | 70 | 43 | 115 |
| South Fort Myers | 55 | 14 | 337 | 235 | 461 | 24 | 252 | 11 | 263 | 63 | 328 | 1,438 | 34 | 42 | 332 | 378 | 726 |
| Southeast Lee County | 24 | 7 | 86 | 20 | 61 | 27 | 37 | | 44 | 19 | 147 | 186 | 8 | 28 | 109 | 75 | 225 |
| Broward County | 90 | 254 | 180 | 305 | 336 | 59 | 166 | 64 | 304 | 23 | 153 | 366 | 144 | 22 | 310 | 215 | 290 |
| Charlotte County | 44 | 45 | 112 | 115 | 127 | 9 | 68 | 6 | 86 | 23 | 239 | 311 | 38 | 21 | 125 | 200 | 183 |
| Hendry County | 354 | 124 | 33 | 17 | 43 | 129 | 16 | 17 | 33 | 42 | 1,695 | 92 | 38 | 46 | 129 | 42 | 137 |
| Miami-Dade County | 117 | 275 | 268 | 376 | 527 | 58 | 230 | 115 | 465 | 28 | 144 | 630 | 252 | 51 | 505 | 521 | 467 |
| Out of Region | 203 | 291 | 915 | 1,651 | 2,404 | 132 | 788 | 261 | 732 | 111 | 1,073 | 3,044 | 163 | 119 | 997 | 1,335 | 1,617 |
| Grand Total | 11,176 | 2,234 | 80,160 | 65,936 | 133,125 | 3,047 | 79,945 | 3,637 | 106,068 | 12,089 | 60,326 | 234,903 | 13,530 | 6,412 | 72,193 | 115,064 | 135,546 |

| | | | | | | | | Collier Coun | ity Subarea: | Destinations | | | | | | | |
|----------------------|-----------|-------------|-------------------|----------------------------|-------------------|-----------|-------------|--------------------|----------------|-----------------|-----------|-----------------|----------------|-------------------|------------------|-----------------|------------------|
| Origins | Ave Maria | Big Cypress | Central Naples | City of Macro Island | City of Naples | Corkscrew | East Naples | Everglades City | Golden Gate | Heritage Bay | Immokalee | North Naples | Orange Tree | Royal Fakapalm | Rural Estates | South Naples | Urban Estates |
| Ave Maria | 5,014 | 18 | 167 | 39 | 165 | 171 | 164 | 10 | 217 | 124 | 928 | 507 | 35 | 342 | 917 | 146 | 457 |
| Big Cypress | 12 | 349 | 17 | 35 | 45 | 29 | 26 | 67 | 17 | 1 | 41 | 33 | 120 | 5 | 46 | 112 | 26 |
| Central Naples | 143 | 14 | 19,331 | 814 | 12,924 | 33 | 5,781 | 42 | 6,892 | 277 | 327 | 13,657 | 120 | 229 | 2,409 | 4,197 | 6,228 |
| City of Marco Island | 46 | 37 | 847 | 43,800 | 1,566 | 27 | 1,495 | 146 | 1,444 | 84 | 136 | 1,418 | 78 | 401 | 926 | 7,537 | 920 |
| City of Naples | 134 | 37 | 13,102 | 1,560 | 52,570 | 46 | 10,454 | 74 | 7,360 | 387 | 423 | 18,196 | 173 | 293 | 2,781 | 7,812 | 6,857 |
| Corkscrew | 171 | 29 | 33 | 24 | 46 | 685 | 19 | 2 | 60 | 27 | 573 | 150 | 56 | 51 | 307 | 39 | 110 |
| East Naples | 132 | 17 | 5,763 | 1,470 | 10,465 | 19 | 28,132 | 86 | 6,706 | 182 | 254 | 5,230 | 244 | 122 | 1,538 | 12,327 | 2,843 |
| Everglades City | 12 | 122 | 35 | 171 | 57 | 2 | 77 | 1,668 | 46 | 2 | 24 | 64 | 333 | 3 | 12 | 375 | 27 |
| Golden Gate | 170 | 18 | 6,938 | 1,263 | 7,159 | 60 | 6,962 | 63 | 45,537 | 390 | 396 | 8,427 | 190 | 381 | 5,348 | 8,381 | 8,311 |
| Heritage Bay | 120 | 1 | 316 | 70 | 337 | 27 | 197 | 4 | 357 | 2,949 | 194 | 1,239 | 10 | 351 | 1,817 | 210 | 2,584 |
| Immokalee | 901 | 45 | 364 | 129 | 407 | 573 | 328 | 27 | 459 | 198 | 43,465 | 902 | 96 | 309 | 1,258 | 391 | 872 |
| North Naples | 394 | 30 | 13,643 | 1,276 | 17,337 | 150 | 5,449 | 76 | 8,639 | 1,185 | 820 | 111,944 | 196 | 737 | 5,993 | 5,043 | 26,095 |
| Orange Tree | 298 | 5 | 263 | 66 | 380 | 51 | 179 | 1 | 494 | 419 | 240 | 1,084 | 18 | 3,434 | 3,698 | 326 | 1,341 |
| Royal Fakapalm | 24 | 118 | 110 | 419 | 200 | 56 | 239 | 294 | 173 | 7 | 80 | 212 | 2,459 | 19 | 463 | 1,163 | 116 |
| Rural Estates | 839 | 50 | 2,677 | 576 | 3,089 | 307 | 1,881 | 23 | 5,667 | 1,695 | 1,150 | 7,270 | 527 | 3,421 | 22,777 | 3,167 | 9,501 |
| South Naples | 113 | 101 | 3,742 | 7,503 | 6,818 | 39 | 12,263 | 368 | 7,881 | 156 | 291 | 4,926 | 1,147 | 191 | 2,491 | 57,338 | 2,908 |
| Urban Estates | 364 | 17 | 6,493 | 755 | 6,550 | 110 | 2,969 | 52 | 8,291 | 2,511 | 751 | 25,896 | 126 | 990 | 8,782 | 3,269 | 55,270 |
| Bayshore | - | 2 | 10 | 7 | 24 | 1 | 10 | - | 29 | 6 | 17 | 75 | 7 | 2 | 26 | 34 | 38 |
| Boca Grande | - | - | - | - | 1 | - | - | 1 | - | - | - | 7 | - | 1 | 4 | - | 2 |
| Bonita Springs | 140 | 13 | 1,497 | 305 | 2,377 | 47 | 936 | 40 | 1,565 | 446 | 264 | 15,689 | 77 | 253 | 1,340 | 1,091 | 5,748 |
| Buckingham | 8 | 1 | 22 | 4 | 28 | 1 | 12 | - | 10 | 5 | 39 | 53 | 3 | 1 | 17 | 33 | 48 |
| Burnt Store | - | - | 4 | 2 | 4 | - | 1 | - | 6 | - | 3 | 7 | = | - | 3 | = | 4 |
| Cape Coral | 51 | 35 | 415 | 97 | 527 | 23 | 267 | 17 | 374 | 53 | 276 | 1,278 | 40 | 45 | 360 | 551 | 688 |
| Captiva | - | - | 7 | 16 | 22 | - | 3 | - | 3 | 1 | 4 | 49 | 2 | 1 | 2 | 6 | 11 |
| Daniels Parkway | 6 | 2 | 112 | 26 | 155 | 6 | 76 | 2 | 108 | 16 | 92 | 269 | 7 | 10 | 70 | 78 | 201 |
| Estero | 68 | 8 | 648 | 205 | 940 | 26 | 339 | 13 | 622 | 101 | 311 | 3,437 | 32 | 75 | 484 | 542 | 1,360 |
| Fort Myers | 112 | 79 | 635 | 234 | 820 | 32 | 487 | 27 | 687 | 106 | 1,230 | 2,051 | 59 | 90 | 652 | 873 | 1,378 |
| Fort Myers Beach | 7 | 7 | 47 | 26 | 97 | 1 | 34 | 4 | 34 | 9 | 30 | 424 | 6 | 5 | 41 | 47 | 132 |
| Fort Myers Shores | 40 | 4 | 103 | 16 | 145 | 9 | 91 | 6 | 86 | 10 | 186 | 308 | 11 | 16 | 79 | 111 | 193 |
| Gateway/Airport | 26 | 20 | 381 | 120 | 525 | 10 | 350 | 14 | 342 | 75 | 237 | 1,152 | 55 | 38 | 358 | 495 | 903 |
| Iona/McGregor | 11 | 11 | 92 | 66 | 173 | 7 | 61 | 13 | 67 | 19 | 135 | 384 | 10 | 13 | 86 | 71 | 152 |
| Lehigh Acres | 263 | 22 | 486 | 92 | 566 | 112 | 414 | 39 | 479 | 99 | 2,542 | 1,307 | 51 | 68 | 458 | 512 | 912 |
| North Fort Myers | 27 | 22 | 142 | 31 | 142 | 8 | 83 | 7 | 147 | 28 | 148 | 387 | 31 | 25 | 143 | 181 | 296 |
| Northeast Lee County | 9 | - | 12 | 8 | 18 | 3 | 7 | 4 | 16 | - | 48 | 66 | 6 | - | 8 | 31 | 31 |
| Pine Island | 4 | 2 | 28 | 5 | 31 | 1 | 12 | 4 | 14 | 3 | 26 | 41 | 2 | 3 | 26 | 19 | 28 |
| San Carlos | 69 | 9 | 754 | 168 | 791 | 34 | 441 | 17 | 907 | 105 | 439 | 2,539 | 41 | 101 | 674 | 777 | - |
| Sanibel | 11 | 2 | 17 | 46 | 57 | 4 | 26 | 2 | 25 | 9 | 13 | 124 | 3 | 14 | 54 | 28 | 83 |
| South Fort Myers | 62 | 18 | 475 | 134 | 569 | 15 | 390 | 21 | 565 | 91 | 534 | 1,554 | 33 | 62 | 452 | 554 | 1,137 |
| Southeast Lee County | 40 | 2 | 28 | 18 | 64 | 22 | | - | 52 | 18 | 141 | 217 | 6 | 20 | 100 | 73 | 213 |
| Broward County | 174 | 286 | 270 | 170 | 657 | 42 | 221 | 78 | 374 | 35 | 201 | 562 | 116 | 43 | 425 | 439 | 571 |
| Charlotte County | 48 | 59 | 187 | 50 | 267 | 17 | 136 | 15 | 189 | 46 | 182 | 482 | 32 | 43 | 223 | 238 | 349 |
| Hendry County | 413 | 100 | 61 | 12 | 52 | 141 | 39 | 12 | 41 | 59 | 1,944 | 127 | 28 | 59 | 185 | 70 | 172 |
| Miami-Dade County | 125 | 271 | 242 | 393 | 545 | 53 | 214 | 108 | 413 | 31 | 191 | 561 | 208 | 63 | 515 | 490 | 460 |
| Out of Region | 221 | 286 | 1,035 | 1,522 | 2,466 | 150 | 896 | 268 | 836 | 127 | 1,001 | 3,357 | 234 | 124 | 1,070 | 1,488 | 1,929 |
| Grand Total | 10,822 | 2,269 | 81,551 | 63,743 | 132,178 | 3,150 | 82,192 | 3,715 | 108,231 | 12,092 | 60,327 | 237,662 | 7,028 | 12,454 | 69,418 | 120,665 | 141,505 |

| | | | | | | | | Collier Count | y Subarea: H | ome Locatio | n | | | | | | |
|----------------------|-----------|-------------|-------------------|----------------------------|-------------------|-----------|-------------|--------------------|----------------|-----------------|-----------|-----------------|----------------|-------------------|------------------|-----------------|------------------|
| Work Location | Ave Maria | Big Cypress | Central Naples | City of Macro Island | City of Naples | Corkscrew | East Naples | Everglades City | Golden Gate | Heritage Bay | Immokalee | North Naples | Orange Tree | Royal Fakapalm | Rural Estates | South Naples | Urban Estates |
| Ave Maria | 226 | 6 | 38 | 25 | 35 | 30 | 86 | 4 | 275 | 156 | 626 | 105 | 270 | 11 | 1,078 | 235 | 207 |
| Big Cypress | 2 | 1 | 3 | 9 | - | 2 | 15 | 4 | 9 | 3 | 8 | 4 | 3 | 17 | 12 | 113 | 15 |
| Central Naples | 87 | 5 | 1,724 | 229 | 537 | 20 | 760 | 10 | 2,918 | 115 | 288 | 1,525 | 192 | 19 | 1,389 | 1,021 | 1,288 |
| City of Marco Island | 12 | 3 | 120 | 4,363 | 27 | 5 | 393 | 12 | 950 | 20 | 126 | 120 | 33 | 76 | 487 | 1,600 | 302 |
| City of Naples | 105 | 2 | 2,542 | 295 | 3,165 | 28 | 2,348 | 23 | 3,679 | 103 | 534 | 2,937 | 258 | 59 | 2,546 | 2,706 | 2,431 |
| Corkscrew | 15 | 1 | 5 | - | - | 13 | 1 | - | 18 | 10 | 211 | 32 | 14 | 1 | 111 | 6 | 8 |
| East Naples | 22 | 1 | 501 | 137 | 428 | 12 | 2,753 | 15 | 2,345 | 23 | 193 | 700 | 39 | 89 | 1,072 | 1,410 | 1,174 |
| Everglades City | 3 | 2 | 4 | 23 | 3 | - | 15 | 18 | 17 | - | - | 1 | - | 47 | 9 | 264 | 10 |
| Golden Gate | 19 | - | 299 | 45 | 106 | 2 | 379 | 1 | 4,260 | 16 | 159 | 607 | 72 | 9 | 538 | 475 | 642 |
| Heritage Bay | 51 | - | 7 | = | - | 7 | 13 | - | 41 | 32 | 115 | 24 | 48 | 3 | 193 | 45 | 49 |
| Immokalee | 64 | 1 | 157 | 25 | 16 | 101 | 107 | 2 | 132 | 39 | 5,737 | 102 | 107 | 5 | 438 | 127 | 232 |
| North Naples | 171 | 5 | 2,026 | 405 | 771 | 57 | 1,179 | 47 | 5,205 | 165 | 1,017 | 9,810 | 431 | 97 | 3,616 | 2,015 | 5,403 |
| Orange Tree | 32 | 1 | 5 | 10 | 5 | 2 | 9 | - | 51 | 26 | 86 | 26 | 138 | 2 | 403 | 51 | 38 |
| Royal Fakapalm | 3 | 6 | 10 | 35 | 1 | _ | 28 | 11 | 22 | - | 4 | 6 | 2 | 63 | 12 | 281 | 18 |
| Rural Estates | 136 | 1 | 260 | 12 | 51 | 20 | 156 | - | 1,503 | 133 | 321 | 222 | 285 | 9 | 2,612 | 335 | 595 |
| South Naples | 43 | 13 | 295 | 399 | 110 | 17 | 567 | 62 | 1,067 | 36 | 159 | 336 | 97 | 194 | 653 | 4,433 | 376 |
| Urban Estates | 71 | - | 439 | 91 | 219 | 17 | 299 | 7 | 1,757 | 97 | 185 | 1,087 | 146 | 33 | 1,680 | 642 | 4,884 |
| Bayshore | - | - | - | - | - | - | 1 | - | - | - | 3 | - | - | - | 7 | - | 1 |
| Boca Grande | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bonita Springs | 56 | - | 53 | 3 | 90 | 4 | 70 | - | 409 | 31 | 164 | 876 | 57 | 1 | 665 | 141 | 462 |
| Buckingham | - | - | - | - | - | 1 | - | - | - | - | 7 | 5 | - | - | - | - | - |
| Burnt Store | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cape Coral | 1 | - | 1 | 6 | 41 | - | - | - | - | 1 | 59 | 22 | 2 | - | 52 | 1 | 45 |
| Captiva | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Daniels Parkway | 1 | - | - | - | - | - | - | - | 9 | 6 | - | 18 | 2 | - | 11 | - | 21 |
| Estero | 10 | - | 27 | 11 | 12 | 5 | 23 | - | 236 | 13 | 492 | 248 | 29 | - | 194 | 53 | 121 |
| Fort Myers | 3 | 1 | 120 | 9 | 19 | 12 | 54 | - | 152 | 7 | 156 | 290 | 14 | 10 | 318 | 44 | 207 |
| Fort Myers Beach | - | - | 5 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Fort Myers Shores | - | - | - | - | - | 3 | 1 | - | 4 | - | 52 | 11 | - | - | 9 | - | 3 |
| Gateway/Airport | - | - | 5 | 3 | 8 | 1 | - | 2 | 11 | 2 | 7 | 29 | - | 13 | 83 | 39 | 97 |
| Iona/McGregor | - | - | 34 | - | 13 | - | 1 | - | 20 | - | - | 36 | - | - | - | - | - |
| Lehigh Acres | 1 | - | 10 | - | 6 | 5 | - | - | 31 | - | 77 | 4 | - | - | 30 | 2 | 38 |
| North Fort Myers | 12 | - | - | - | - | 1 | - | - | 26 | 20 | 42 | 8 | 25 | - | 84 | - | - |
| Northeast Lee County | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 5 | - | - |
| Pine Island | - | - | - | - | - | - | - | - | - | - | 3 | - | - | - | 13 | - | 1 |
| San Carlos | 27 | - | 227 | 115 | 147 | 20 | 191 | 3 | 660 | 53 | 295 | 645 | 67 | 18 | 575 | 444 | 555 |
| Sanibel | 7 | - | - | - | 7 | 4 | - | - | - | 9 | - | 64 | 26 | 1 | 87 | - | 50 |
| South Fort Myers | 23 | | 134 | 77 | 80 | 10 | 167 | 1 | 386 | 26 | 177 | 342 | 29 | 6 | 374 | 252 | 477 |
| Southeast Lee County | 15 | | 3 | - | 3 | 1 | - | - | - | 7 | 32 | 9 | 10 | - | 56 | - | 8 |
| Broward County | 4 | 2 | 14 | 85 | 32 | 2 | 18 | - | 49 | 2 | 18 | 66 | 3 | 1 | 72 | 89 | 193 |
| Charlotte County | 8 | | - | - | 4 | 1 | - | - | - | 9 | 7 | - | 31 | - | 111 | - | - |
| Hendry County | 1 | - | 100 | - 4.42 | - | - | - 107 | - 17 | 17 | - 24 | 8 | - | - | - | - | - 240 | 11 |
| Miami-Dade County | 22 | | 109 | 142 | 82 | 5 | 107 | 17 | 346 | 24 | 50 | 294 | 34 | 22 | 350 | 310 | 325 |
| Out of Region | 16 | | 216 | 348 | 410 | 3 | 119 | - 220 | 100 | 14 | 153 | 935 | 31 | 23 | 158 | 449 | 382 |
| Grand Total | 1,269 | 58 | 9,393 | 6,902 | 6,430 | 411 | 9,861 | 239 | 26,705 | 1,198 | 11,571 | 21,546 | 2,495 | 829 | 20,103 | 17,583 | 20,669 |

Collier County Transportation Planning Comments/Responses

General Comments:

- A short Executive Summary or Conclusion of the report would be helpful.
 - Text was updated to clarify executive summary and key sub-categories
- During the presentation to the TAC on 9/26/22, Benesch provided what seemed like a useful map of the higher volume areas. I believe this map may be very useful for determining patterns or traffic trends between subarea. That map and an explanation of what it depicts should be added to the report. Possibly in a conclusion section or ES section.
 - Map and chart used in presentation have been added to the executive summary section
- It would be helpful to have some trend analysis to be used in future plans or the AUIR. For example can the quarterly or seasonal data provided in this report be extrapolated for annual trends? Can it be used in the AUIR, LRTP, Bike Ped Master Plan Update, congestion plan/report?
 - I believe there is some value as indicated. One of the more recent opportunities Replica provides is the ability for us to grant access to our clients on a limited basis to explore the application and data. It comes with a presentation/introduction from Replica. I think there is value in letting you and others see/use the application to better understand the capabilities and uses. I'd like to discuss this with you to better understand your expectations before proceeding.
- Could a reason for the larger amounts of people considered working from home data be that
 this was during season, and people may have come down to this area for a vacation but were
 also working remotely? Did the work from home trend increase in other jurisdictions (other
 areas of the country)? Is the work from home trend still increasing in other areas?
 - It's possible that the relocation of people could be impacting the amount of people working from home. In the graph that was added, there was a higher number of people working from home in the summer of 2022 than in the spring of 2022.
- Can some of the locations for the short trip data be used in the future when determining locations for sidewalks, bike lanes, SUP for a future Bike/Ped Master Plan? This could help determine potential usage areas.
 - I definitely think there could be ways to explore this. I have seen some examples
 where others have created an index of expected walking potential based on land-use
 compared with walking data from Replica as a way of identifying areas where walking
 could be increase. It's also possible to look at where walking trips are occurring and
 overlaying that with existing/planned infrastructure.

Specific Comments:

- Page 1 5th paragraph 1st Sentence should start with The remainder.... not This remainder....
 - This was corrected.
- Page 8 Table 5. Define the label "Countywide Workers". When all Residents Working are added (137,300 + 14,300 + 34,000 = 185,600) it does not equal the Countywide Worker total = 158,000. Should it? A better explanation of the categories would help.

- Clarification was added to the table. Specifically, those working from home are a subset of the total workers.
- Page 18-20 the text is 3.2.2 indicates 13 workers travel to South Naples from Big Cypress but Table 9 indicated only 12 people.
 - This was changed for consistency between the table and text
- Page 21 3.3.1 indicates that the predominant activity included golfing but page 22 figure 14 does not specify golfing. Is that a recreational activity? Recreational purposes are not a large category in this location. Should there be a better explanation here?
 - Golfing was removed since this was more indicative of the subarea's land use and not representative of the major trip generators.















Congestion Management Process Update: Origin-Destination Study

Technical and Citizens Advisory Committees November 28, 2022



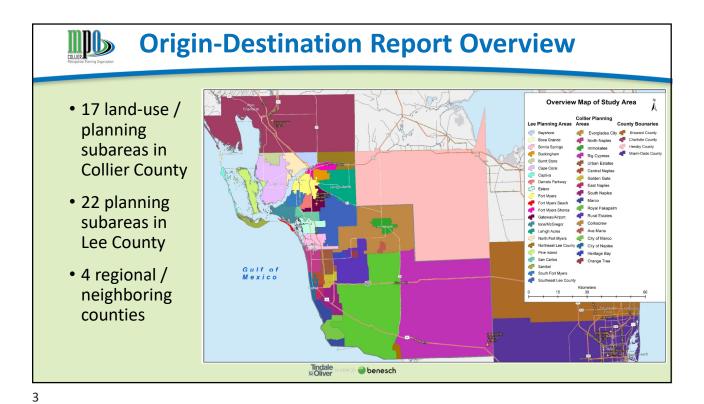
1



Origin-Destination Study

- Recap Origin-Destination Report
- Changes since September meeting
- Today's Action

Tindale Solver benesch



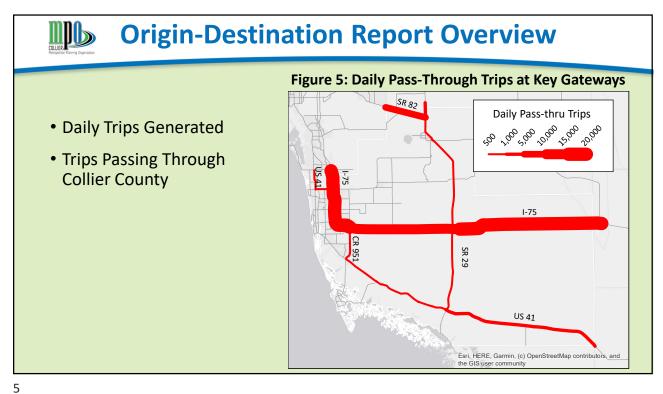
Origin-Destination Report Overview

 Daily Trips Generated

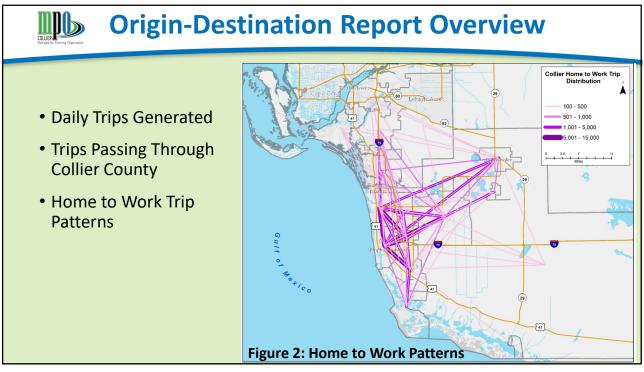
 115,000 Trips Entering 128,000 Trips Exting

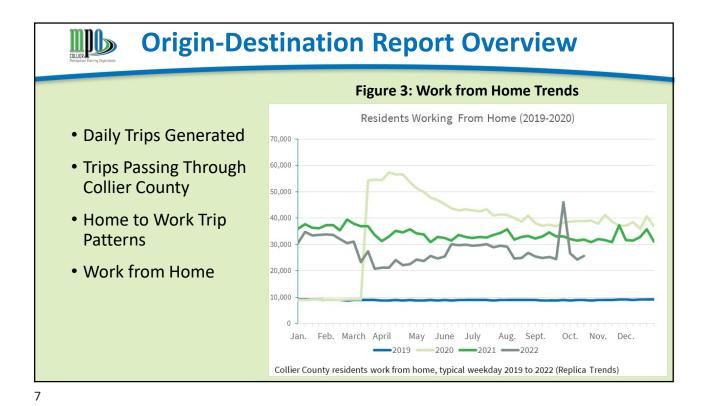
 Figure 4: Daily Trips in Collier County

 Figure 4: Daily Trips in Collier County



J





Subarea Reporting REPLICA 11.1% - 3PM • Trip Characteristics for Origin, Destination, and Home-to-Work Trips Median of all trip durations 26.3% - Home 29.3 min 16.0 min Number of trips for each duration bucket Under 0.5mi Shop 0.5-1mi 1-2mi Eat 2-4mi 10-20min 20-40min Other 8-16mi 16-32mi 40-80min 32-64mi Over 80min Over 64mi 670 1.3k 2.0k Tindale Coliver benesch



Changes since September

- Corrections to typos and text inconsistencies with tables.
- Updates to the Executive Summary section;
 - · Home-to-work detail added
 - · Work from home trends added
- Clarification added to Table 5 and text for explaining work locations.
- Revised text describing the number of trips passing through Collier County with an origin and a destination in Lee County.



9



Today's Action

CMC endorse the findings of the Origin-Destination Report and forward to MPO for approval.

Tindale benesch



Contact

Wally Blain, AICP

Benesch Project Manager 615-241-6739 wblain@benesch.com

Anne McLaughlin

MPO Executive Director 239-252-5884

Anne.mclaughlin@colliercountyfl.gov

Tindale Oliver

11















Congestion Management Process Update: Origin-Destination Study

Congestion Management Committee November 16, 2022



EXECUTIVE SUMMARY COMMITTEE ACTION ITEM 7B

Endorse County's Updated Transit Asset Management Plan Performance Targets

<u>OBJECTIVE:</u> For the committee to endorse Collier County's updated Transit Asset Management (TAM) Plan performance targets.

CONSIDERATIONS: The Federal Transit Administration (FTA) published the final Transit Asset Management rule in July, 2016, requiring public transit agencies to develop and implement transit asset management plans. The rule became effective on October 1, 2018, and requires an update to the plan every four years. The rule also requires public transit agencies to set and report transit targets annually to the local MPO to ensure coordination and that the transit provider's projects and services are programmed in the MPO's Transportation Improvement Program (TIP). The MPO is also required to include the TAM targets as part of the planning efforts of the Long-Range Transportation Plan update and in the MPO's Transportation Improvement Program.

The MPO adopted the County's original TAM plan and performance targets on October 12, 2018. The Board of County Commissioners approved an updated TAM plan and performance targets on November 8, 2022. The new TAM performance targets are shown in **Attachment 1**. (See the BCC Executive Summary shown in **Attachment 2** for more information.)

Staff is bringing this item forward for endorsement, followed by Board adoption in December, in order to maintain consistency with the County's TAM plan and performance targets.

STAFF RECOMMENDATION: That the committee endorse the County's updated Transit Asset Management plan performance targets for adoption by the MPO.

Prepared By: Anne McLaughlin, MPO Director

Attachments:

- 1. TAM performance targets adopted by BCC on 11/8/22
- 2. Executive Summary BCC meeting 11/8/22

TAM Plan

TAM Plan Name: Collier County
TAM Plan Type: Tier II
Agency Name: Collier County

Account Executive Name: Michelle Arnold Last Modified Date: 09/22/2022

Introduction

Brief Overview

Collier Area Transit (CAT) provides Fixed Route, ADA Complementary Paratransit, and Transportation Disadvantages services for Collier County. CAT currently owns 67 Revenue Service Vehicles; 6 Service Vehicles; 2 Transfer Centers; 1 Administrative Building; 1 Maintenance/Operations Building; 1 Fueling Island and Storage Building; and 1 Bus Wash Facility. Maintenance of the facilities and buses is performed by Collier County, however, a contractor operates the bus services for CAT.

Methods for Target-Setting

Collier Area Transit adheres to FTA and FDOT vehicle replacement requirements for useful life and mileage. Collier County Facilities targets are set utilizing Transit Economic Requirements Model (TERM) Scale and useful life.

Performance Targets & Measures

| Agency Name | Asset Category | Asset Class | 2022 Target | 2023 Target | 2024 Target | 2025 Target | 2026 Target | 2027 Target |
|-------------------|---------------------|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Collier County | Equipment | Non Revenue/Service Automobile | 25% | 0% | 100% | 100% | 100% | 0% |
| Collier County | Equipment | Other Rubber Tire Vehicles | 25% | 0% | 0% | 0% | 40% | 60% |
| Collier County | Facilities | Maintenance | 25% | 100% | 100% | 100% | 0% | 0% |
| Collier County | Facilities | Passenger Facilities | 0% | 0% | 0% | 0% | 0% | 0% |
| Collier County | Facilities | Bus Wash Facility | | 0% | 0% | 0% | 0% | 0% |
| Collier County | Facilities | Fuel Station | | 0% | 0% | 0% | 0% | 0% |
| Collier County | Revenue Vehicles | BU - Bus | 25% | 0% | 0% | 4% | 12% | 12% |
| Collier County | Revenue Vehicles | CU - Cutaway | 25% | 0% | 0% | 4% | 8% | 0% |
| Collier County | Revenue Vehicles | VN - Van | 25% | 100% | 25% | 25% | 0% | 0% |

Capital Asset Inventory

Asset Inventory Summary

| Asset Category/Class | Total Number | Avg Age | Avg Mileage | Avg Replacement Cost/Value | Total Replacement Cost/Value | |
|-----------------------------------|-----------------|------------|----------------|-------------------------------|---------------------------------|--|
| Revenue Vehicles | 66 | 5.2 | 236,511 | \$262,840.18 | \$17,347,452.00 | |
| BU - Bus | 32 | 6.6 | 378,345 | \$454,679.00 | \$14,549,728.00 | |
| CU - Cutaway Bus | 30 | 3.4 | 102,748 | \$82,286.00 | \$2,468,580.00 | |
| VN - Van | 4 | 7.0 | 105,064 | \$82,286.00 | \$329,144.00 | |
| Equipment | 6 | 4.5 | N/A | \$23,952.67 | \$143,716.00 | |
| Non Revenue/Service Automobile | 1 | 5.0 | N/A | \$26,700.00 | \$26,700.00 | |
| Other Rubber Tire Vehicles | 5 | 4.4 | N/A | \$23,403.20 | \$117,016.00 | |
| Facilities | 5 | 18.8 | N/A | \$5,945,972.60 | \$29,729,863.00 | |
| Maintenance | 1 | 37.0 | N/A | \$18,000,000.00 | \$18,000,000.00 | |
| Passenger Facilities | 2 | 22.5 | N/A | \$5,120,185.00 | \$10,240,370.00 | |
| Bus Wash Facility | 1 | 5.0 | N/A | \$921,800.00 | \$921,800.00 | |
| Fuel Station | 1 | 7.0 | N/A | \$567,693.00 | \$567,693.00 | |

Asset Condition Summary

| Asset Category/Class | Total Number | Avg Age | Avg Mileage | Avg Replacement Cost/Value | Total Replacement Cost/Value | % At or Exceeds ULB | % of Track Miles in Slow Zone | Number of Facilities less than 3 on TERM scale |
|--------------------------------------|-----------------|------------|----------------|----------------------------------|------------------------------------|---------------------------|--|--|
| Revenue Vehicles | 66 | 5.2 | 236,511 | \$262,840.18 | \$17,347,452.00 | 5% | N/A | N/A |
| BU - Bus | 32 | 6.6 | 378,345 | \$454,679.00 | \$14,549,728.00 | 6% | N/A | N/A |
| CU - Cutaway Bus | 30 | 3.4 | 102,748 | \$82,286.00 | \$2,468,580.00 | 0% | N/A | N/A |
| VN - Van | 4 | 7.0 | 105,064 | \$82,286.00 | \$329,144.00 | 25% | N/A | N/A |
| Equipment | 6 | 4.5 | N/A | \$23,952.67 | \$143,716.00 | 0% | N/A | N/A |
| Non Revenue/Service Automobile | 1 | 5.0 | N/A | \$26,700.00 | \$26,700.00 | 0% | N/A | N/A |
| Other Rubber Tire Vehicles | 5 | 4.4 | N/A | \$23,403.20 | \$117,016.00 | 0% | N/A | N/A |
| Facilities | 5 | 18.8 | N/A | \$5,945,972.60 | \$29,729,863.00 | N/A | N/A | 1 |
| Maintenance | 1 | 37.0 | N/A | \$18,000,000.00 | \$18,000,000.00 | N/A | N/A | 1 |
| Passenger Facilities | 2 | 22.5 | N/A | \$5,120,185.00 | \$10,240,370.00 | N/A | N/A | 0 |
| Bus Wash Facility | 1 | 5.0 | N/A | \$921,800.00 | \$921,800.00 | N/A | N/A | 0 |
| Fuel Station | 1 | 7.0 | N/A | \$567,693.00 | \$567,693.00 | N/A | N/A | 0 |

Decision Support

Decision Support Tools

The following tools are used in making investment decisions:

| Process/Tool | Brief Description |
|-------------------|---|
| OMS CarteGraph | OMS Cartegraph, is a software system that tracks assets and work orders associated with such assets to help estimate necessary maintenance and replacement year for assets. An evaluation of our fleet is based on the year, mileage, and any other field specified in the report. The system produces an Overall Condition Index (OCI) that helps identify the replacement schedule. |
| Faster | Faster is a software system used by the County Fleet Division to track the maintenance, age, and mileage of the Transit fleet. This information is used to determine the replacement or overhauling of the fleet. |

Investment Prioritization

The Florida Department of Transportation and the Federal Transit Administration determine the replacement schedule of assets purchased through grant funds. Collier Area Transit will replace vehicles and equipment per this policy. The maintenance schedules for vehicles and equipment will be established according to the original manufacturer's recommendations. Facility investments will be based on available funding and condition rating.

Proposed Investments

| Project Name | Project Name Project Year | | Asset Class | Cost | Priority | Updated Date |
|---|---------------------------|---------------------|-------------------------------|-----------------|----------|--------------------------|
| Replacement of 2 Support Vans | 2026 | Equipment | Other Rubber Tire Vehicles | \$46,000.00 | Low | 5/11/2022 3:41:42 PM |
| Replacement of Support Truck | 2026 | Equipment | Other Rubber Tire Vehicles | \$26,200.00 | Low | |
| two (2) 40ft Bus Replacement | 2025 | Revenue Vehicles | BU - Bus | \$1,160,000.00 | Medium | 9/16/2022 12:24:26 PM |
| Five (5) 35ft Buses Replacement | 2024 | Revenue Vehicles | BU - Bus | \$2,800,000.00 | Medium | |
| Replace 4 Cutaway Vehicles | 2024 | Revenue Vehicles | CU - Cutaway Bus | \$360,000.00 | Medium | |
| Replacement Maintenance and Operations Facility | 2024 | Facilities | Maintenance | \$18,000,000.00 | High | 9/22/2022 4:40:59 PM |
| 40' Bus Replacement | 2023 | Revenue Vehicles | BU - Bus | \$489,000.00 | Medium | 9/16/2022 12:21:32 PM |
| Support truck | 2023 | Equipment | Other Rubber | \$26,200.00 | Medium | |

| replacement | | | Tire Vehicles | | | |
|-------------------------------|------|---------------------|---------------------|--------------|--------|--|
| Replace 3 Cutaway Vehicles | 2023 | Revenue Vehicles | CU - Cutaway Bus | \$250,000.00 | Medium | |

Signature

I, Michelle Arnold, hereby certify on 09/23/2022 that the information provided in this TAM Plan is accurate, correct and complete.

EXECUTIVE SUMMARY

Recommendation to approve the Transit Asset Management (TAM) Plan for Collier Area Transit (CAT).

<u>OBJECTIVE:</u> To monitor and manage the capital assets of the public transit system to enhance safety; reduce maintenance costs; increase reliability; and improve performance.

CONSIDERATIONS: On July 26, 2016, the Federal Transit Administration (FTA) published the final Transit Asset Management rule requiring all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets to develop and implement transit asset management (TAM) plans. The rule also defines the term "state of good repair," and requires that public transportation providers establish state of good repair standards and performance measures for four asset categories: rolling stock, equipment, transit infrastructure, and facilities. The rule became effective on October 1, 2018 and requires an update to the plan every four years.

The table below describes performance measures guidelines for each of the asset categories contained in the final rule for transit asset management.

| Asset Category | Performance Measure |
|-----------------------|---|
| Equipment | Percentage of non-revenue, support-service and maintenance vehicles that |
| | have met or exceeded their useful life benchmark |
| Rolling Stock | Percentage of revenue vehicles within a particular asset class that have |
| | either met or exceeded their useful life benchmark |
| Infrastructure | Percentage of track segments with performance restrictions |
| Facilities | Percentage of facilities within an asset class rated below condition 3 on the |
| | TERM scale |

The rule also requires public transportation agencies to set and report transit targets annually to the local Metropolitan Planning Organization (MPO) to ensure coordination and that the transit provider's projects and services are programmed in the MPO's Transportation Improvement Program (TIP). The MPO is also required to include the TAM targets as part of the planning efforts of the Long Range Transportation Plan (LRTP) update.

The Public Transit staff has prepared the attached updated TAM Plan in accordance with the rules and have established the following transit asset targets. Calculating performance measures helps transit agencies to quantify the condition of the assets, which facilitates setting targets that support local funding prioritization. Targets have been established based on FTA's Useful Life Benchmark (ULB) as required. The ULB for equipment and rolling stock is based on the number of years in service while the ULB for facilities is based on the condition of the facility. FTA does provide a Transit Economic Requirements Model (TERM) scale for facilities and requires utilizing a goal of less than 3.0 on the TERM scale when determining a target (see TERM rating table below). Assets may exceed the ULB but because these are benchmarks, other aspects are utilized to determine whether an asset has reached its replacement life. For example, vehicles are evaluated based on vehicle miles, years in service and maintenance costs to determine the replacement life.

| TERM Rating | Conditi | Description |
|-------------|---------|---|
| | on | |
| Excellent | 4.8 - | No visible defects; new or near new condition; may still be under warranty if |
| | 5.0 | applicable |
| Good | 4.0 - | Good condition, but no longer new; may be slightly defective or deteriorated, |
| | 4.7 | but is overall functional |
| Adequate | 3.0 - | Moderately deteriorated or defective, but has not exceeded useful life |
| | 3.9 | |
| Marginal | 2.0 - | Defective or deteriorated; in need of replacement; exceeded useful life |
| | 2.9 | |
| Poor | 1.0 - | Critically damaged or in need of immediate repair; well past useful life |
| | 1.9 | |

The table below provides the established targets for each major asset category that Collier Area Transit (CAT) has within its inventory. The target represents the percentage that each asset meets the performance measure (met or exceeded the ULB). For example, in 2023 100% of the maintenance facility will have met or exceeded the ULB. In the case of the maintenance facility, the useful life of that building is 35 years. In addition, an assessment was completed for that facility that concluded the facility cannot be brought up to current building codes. Therefore, based on the age of the facility and the building code factors the maintenance facility has met its useful life and remain with that rating until the condition of the facility is improved. It should be noted that staff is utilizing a template (TAMplate) provided by FTA for the preparation of the TAM Plan and associated tables. With the template, the targets for 2022 were imported from the prior year's report which evaluated the assets differently. Unfortunately, the 2022 targets cannot be edited and as a result causes some inconsistencies with the corrected targets reported for 2023 going forward.

Performance Targets

| Agency Name | Asset Category | Asset Class | 2022 Target | 2023 Target | 2024 Target | 2025 Target | 2026 Target | 2027 Target |
|-------------------|---------------------|---------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Collier County | Equipme nt | Non- Revenue/Service Automobile | 25% | 0% | 100% | 100% | 100% | 0% |
| Collier County | Equipme nt | Other Rubber Tire Vehicles | 25% | 0% | 0% | 0% | 40% | 60% |
| Collier County | Facilities | Maintenance | 25% | 100% | 100% | 100% | 0% | 0% |
| Collier County | Facilities | Passenger Facilities | 0% | 0% | 0% | 0% | 0% | 0% |
| Collier County | Facilities | Bus Wash Facility | 0% | 0% | 0% | 0% | 0% | 0% |
| Collier County | Facilities | Fuel Station | 0% | 0% | 0% | 0% | 0% | 0% |
| Collier County | Revenue Vehicles | BU - Bus | 25% | 0% | 0% | 4% | 12% | 12% |
| Collier County | Revenue Vehicles | CU - Cutaway | 25% | 0% | 0% | 4% | 8% | 0% |
| Collier County | Revenue Vehicles | VN - Van | 25% | 100% | 25% | 25% | 0% | 0% |

The Collier MPO staff has been provided the TAM Plan for an initial review. Once the Board approves the TAM Plan, the MPO Board will be asked to approve the performance measures and targets in support of the TAM Plan.

County staff will utilize the state of good repair information when making recommendations to the Board for future **Board of County Commissioners** grant opportunities.

<u>ItEGALINGONSIDERATIONS:</u> This item has been reviewed by the County Attorney, is approved as to form and bealtp:andsequires majority vote for approval. -JAK

Ites Cauning a Crecommendation to a language also Transit Wasset Management (TAM) Plan for Collier Area Transit GAT)

GROWTH MANAGEMENT IMPACT: There is no impact to the Growth Management Plan.

Meeting Phend A/PiON: That the Board approve Transit Asset Management (TAM) Plan for Collier Area Transit

(CAT).
Prepared by:
Prepared by

Name: Omar Deleon ATTIACOPEM BNT (SM

Submitted by:

Title: Division Director - Pub Tran & Nbrhd Enh Public Transit & Neighborhood Enhancement

Name: Michelle Arnold 10/11/2022 10:18 AM

Approved By:

| - | | |
|----|-------|---|
| ĸ | eview | ٠ |
| 7/ | CVICW | • |

| Growth Management Department | Jeanne Marcella | Growth I | Management Department | Completed | 10/11/20 | 22 10:30 AM |
|---------------------------------------|---------------------|-----------|--|---------------|---------------------------------------|-------------|
| Public Transit & Neighborhood Enhance | ement | Michelle | Arnold | | Director Review 10/11/2022 3:31 PM | |
| Public Transit & Neighborhood Enhance | ement | Yousi Ca | ardeso | Additional Re | Completed | |
| Growth Management Operations Supp | ort | Nicole D | iaz | Additional Re | Completed | |
| Growth Management Operations Supp | ort | Brandy (| Brandy Otero Additional Reviews 10/12/2022 1:48 Pl | | | |
| Growth Management Operations Supp | ort | Michelle | DAndrea | Additional Re | | Completed |
| Growth Management Department | Trinity Scott | Transpo | rtation | Completed | 10/17/20 | 22 10:09 AM |
| Grants | Erica Robinson | Level 2 (| Grants Review | Completed | 10/20/2 | 022 1:15 PM |
| Office of Management and Budget | Debra Windsor | Level 3 (| DMB Gatekeeper Review | Completed | 10/20/2 | 022 1:28 PM |
| Grants | Therese Stanley | Addition | al Reviewer | Completed | 10/21/2 | 022 7:31 AM |
| County Attorney's Office | Jeffrey A. Klatzkow | Level 3 (| County Attorney's Office Review | Completed | 10/26/2 | 022 9:15 AM |
| Office of Management and Budget | Christopher Johnson | on | Additional Reviewer | Completed | 10/31/2 | 022 7:49 AM |
| County Manager's Office | Amy Patterson | Level 4 (| County Manager Review | Completed | 11/02/20 | 22 11:22 AM |
| Board of County Commissioners | Geoffrey Willig | Meeting | Pending | 11/08/2022 9 | 9:00 AM | |

EXECUTIVE SUMMARY COMMITTEE ACTION ITEM 7C

Endorse Transit Regional Service and Fare Study Scope

OBJECTIVE: For the committee to endorse the Transit Regional Service and Fare Study Scope.

<u>CONSIDERATIONS</u>: The County Public Transit & Neighborhood Enhancement (PTNE) Division, Jacobs Engineering Group and Collier MPO staff have reached consensus on the Scope of Professional Services for the Collier Area Transit Regional Service and Fare Study shown in **Attachment 1**.

The Study will evaluate the prospect of implementing additional regional bus service between Collier and Lee Counties, including the evaluation of and recommendation for a regional fare structure that would be implemented with any future service. The study is designed to help guide County PTNE and the MPO in the development of transit service strategies to connect and create mobility options for residents of Collier and Lee County.

The project is funded in the MPO's Unified Planning Work Program (UPWP) for FYs 2023-2024. The solicitation process will follow the County Procurement Division's protocol under the MPO's General Planning Contract.

The Transit Regional Service and Fare Study Scope will be placed on the MPO Board's December 9, 2022, agenda for approval.

STAFF RECOMMENDATION: That the committee endorse the Transit Regional Service and Fare Study Scope.

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S):

1. Transit Regional Service and Fare Study Scope

7C Attachment 1 TAC/CAC 11/28/22



JACOBS 9010 Strada Stell Cr. Suite 108 Naples, FL 34109 United States www.jacobs.com

JACOBS ENGINEERING GROUP INC. SCOPE OF PROFESSIONAL SERVICES FOR

"COLLIER AREA TRANSIT REGIONAL SERVICE AND REGIONAL FARE STUDY"

PROFESSIONAL SERVICES: METROPOLITAN PLANNING CONTRACT NO. 18-7432-MP November 9, 2022

1.0 INTRODUCTION

The general objective for this task is to contract outside Consultant Engineering Services from Jacobs Engineering Group, Inc. (referred to hereafter as CONSULTANT) for the Collier County Public Transit & Neighborhood Enhancement (PTNE) Division and Collier Metropolitan Planning Organization (MPO) (PTNE and MPO referred to hereafter as COUNTY), to provide transportation planning services for a Regional Transit Service and Regional Fare Study (Study).

The Study will evaluate the prospect of implementing additional regional bus service between Collier County and Lee County, including the evaluation of and recommendation for a Regional Fare structure that would be implemented with any future service. The study is designed to help guide the COUNTY in the development of transit service strategies to connect and create mobility options for the residents of Collier and Lee County.

As identified within the PTNE Transit Development Plan, further study would be necessary to evaluate regional service and regional fares. The Study will gather appropriate information to assist the analysis and decision-making of technical staff and policy makers regarding potential cross-jurisdictional transit projects.

2.0 SERVICES TO BE PERFORMED

In accordance with the general scope of Basic Services stated herein, the CONSULTANT shall perform services necessary to complete the following tasks:

- Task 1: Project Kick-Off, Data Collection and Analysis
- Task 2: Transit Investment and Policy Assessment
- Task 3: Regional Travel Pattern and Market Analysis
- Task 4: Regional Transit Vision Framework
- Task 5: Scenario Development and Recommendations
- Task 6: Develop Cost Estimates and List of Funding Opportunities
- Task 7: Public Participation and Committee/Board Meetings

TASK I: PROJECT KICK-OFF, DATA COLLECTION AND ANALYSIS

Project Kick-Off

The CONSULTANT shall meet with appropriate COUNTY representatives at a kick-off meeting. The purpose of the meeting shall include but not be limited to:

- Identify CONSULTANT and COUNTY staff project roles and responsibilities
- Review project objectives
- Establish any ground rules upon which the Study process will be conducted
- Transfer and Review of project information and needs (COUNTY will provide all relevant information in its possession)
- Prepare milestone schedule of deliverables (COUNTY and CONSULTANT mutual agreement)
- Identify members of the Leadership Committee, and the vision, goals, and action plan

Note: Leadership Committee is anticipated to comprise of members of PTNE and PTAC.

Data Collection and Analysis

Immediately following the Notice to Proceed, the CONSULTANT shall begin collecting information and materials relative to planning and evaluating a regional service and fare structure. The information should include data necessary for:

- Preparation of a transportation services inventory to include formal and informal transportation providers
- Establishing a base transit condition Analyze the existing conditions for transit and evaluate the level of current and latent demand (Lee-Collier intercounty)
- Identifying passenger needs and cross jurisdictional service gaps, including consideration of specific groups or geographic areas
- Developing service strategies
- Identify data gaps and make recommendations for resolving

A meeting will be held with COUNTY staff to summarize findings from the data analysis and identify gaps in any information missing/needed.

Deliverables: Technical Memorandum summarizing data collection, data analysis and gap analysis and Meeting minutes (when applicable).

TASK II: TRANSIT INVESTMENT AND POLICY ASSESSMENT

CONSULTANT will review and analyze existing local and neighboring government transit supportive plans and policies. CONSULTANT will review and consider findings of transit and transit-related studies and plans completed for Collier and neighboring counties. The CONSULTANT will:

 Review documents, including but not limited to LeeTran Transit Development Plan (TDP), MOU's and agreements for regional service with neighboring counties such as Tampa, Manatee and Sarasota Counties

- Summarize the transit planning landscape, identify implemented service proposals, and articulate how these transit studies can be integrated
- Summarize existing vision, goals, and recommended strategies
- Evaluate current fare policy and financial implications of administering a "joint-fare" Structure
- Document financial and operational implications of administering a joint fare structure

A meeting will he held with COUNTY staff to discuss findings and recommended strategies to advance.

Deliverables: Technical Memorandum summarizing data collection and findings and Meeting minutes (when applicable).

TASK III: REGIONAL TRAVEL PATTERN AND MARKET ANALYSIS

CONSULTANT will review transit options to serve and provide greater mobility to the citizens (Collier-Lee only) that have cross-jurisdictional needs because they live and/or work within adjacent counties.

Note: LeeTran currently provides a route which drops off to the CAT system in Collier County. The intention of all proposed regional routes is for a CAT bus to drop off in Lee County, to connect to the LeeTran system.

The CONSULTANT will explore the potential for greater connectivity to citizens when partnered with other transit systems. The goal is to target the non-user. Tasks include:

- Provide an overview of the existing passenger transportation patterns across jurisdictions and ways the data may be utilized as a starting point for the initiation of a regional system
 - o Analysis of traffic patterns shall be consistent with TDP and Long Range Plan(s)
 - Includes analysis of the draft Collier MPO Origin and Destination Report (provided by Collier MPO)
- Identify key activity centers and workforce commutes to major employment centers, and identify connections across transit networks in support of regional and economic community benefits
- Analyze ridership for the last five fiscal years of available data for CAT and Lee County transit (LeeTran). Note: will consider/evaluate/exclude any anomalies in the data due to the COVID pandemic.
- Demographic analysis for Collier and Lee County to identify areas with populations most likely to use public transportation
- Develop a ranking system (quantitative and/or qualitative) to evaluate priority Origin-Destination pairs
- After analyzing transit markets evaluate the Regional Corridors identified in the CAT TDP further, and evaluate additional corridors (up to two if identified) to provide effective interregional public transit connections

The "Regional Corridors" to be considered/further studied, as identified in the CAT TDP are:

<u>New UF/IFAS and Lehigh Acres Route</u> – A need to connect Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. Existing, roadway constraints do not allow for transit vehicles to enter and exit the UF/IFAS campus. The CONSULTANT will evaluate alignment and endpoint of this route and to determine the demand and costs. This service should be explored jointly by CAT and LeeTran based on mutual considerations and consensus.

<u>I-75 Premium Express</u> – It is envisioned that this route would be a premium express commuter service operating along managed lanes on I-75. The Route would begin service at the Government Center, head north on Airport Pulling Road, turn east on Radio Road, north on Livingston Road, east on Golden Gate Parkway and go north on I-75 before ending in the vicinity of the Florida Gulf Coast Town Center. The northern terminus and operating plan requires coordination with LeeTran. The route would require one vehicle to provide 90-minuteheadway service from 6 AM to 8 PM. The CONSULTANT will evaluate an alignment and endpoint of this route and to determine the demand and costs.

• <u>Note:</u> CONSULTANT can recommend other "Regional Corridors" (Up to two) if additional options are deemed feasible.

A meeting will be held with the COUNTY to review the analysis. Corridors advanced by the Leadership Committee at this meeting will be included in the subsequent tasks.

Deliverables: Technical Memorandum to document information presented, ranking system methodology developed, data analyzed, and corridors identified and Meeting minutes (when applicable).

TASK IV: REGIONAL TRANSIT VISION FRAMEWORK

CONSULTANT shall <u>assist</u> PTNE staff with the development of a regional transit vision framework. Tasks include:

- Draft vision and goals statement
- Draft strategy performance measures
- Vision decision making framework or workplan
- Developing Strategies for Advancing Conceptual Regional Transit Vision Work with staff and the Leadership Committee in the creation of a regional passenger transportation vision, supplemented with guiding goals, objectives and strategies
- Identifying the Conceptual Regional Transit Vision The consultant will work with the Leadership Committee, to be sure to include public involvement from participants on and off site, to lead a conversation to develop a regional definition of transportation needs

A meeting will be held with the COUNTY to review the proposed regional transit vision and finalize the goals statement, measures, and framework.

Deliverables: Meeting minutes to document the final vision goals statement, strategy performance measures, and decision-making framework.

TASK V: SCENARIO DEVELOPMENT AND RECOMMENDATIONS

CONSULTANT will <u>assist</u> PTNE staff with development of a Regional Service and Regional Fare Study (not a fare price study) based on <u>recommended</u> "Regional Corridors." The plan will include:

- Route development including stops, frequency, span of service, turnaround, layover, rest areas, vehicles, etc.
- Funding needs/gaps
- Fare policy
- Fare revenue allocation

CONSULTANT will meet with the COUNTY and LeeTran representatives to identify a plan for revenue sharing and items to include in a potential MOU between the associated agencies. Any vision

framework items that do not reach a consensus in the meeting will be identified for further coordination/negotiation in the Study report. The MOU will include discussion and recommendations regarding revenue split between agencies and utilization of farebox media.

Deliverables: Technical Memorandum that documents the results of the Regional Service and Regional Fare Study and include all analysis, peer review, public and agency comments, potential Title VI impacts, any necessary mitigation measures, and a recommendation for modification to the fare structure.

TASK VI: DEVELOP COST ESTIMATES AND LIST OF FUNDING OPPORTUNITIES

CONSULTANT will analyze applicable data and information to evaluate regional fares and develop a recommended fare cost allocation for recommended "Regional Corridors." CONSULTANT will provide recommendations for technical staff and policy makers towards potential cross-jurisdictional transit projects. The study will be used to support transit agencies, MPO, and FDOT coordinated transit planning efforts.

Data that will be used to evaluate cost estimates based on existing agency budgets for:

- Total and revenue miles and hours
- Fuel volumes and prices
- Cost per revenue/platform hour and mile
- Annual operating cost
- Route and service modifications enacted

Note: CAT and LeeTran to provide previous annual operating and capital cost data by platform and revenue hours and miles.

CONSULTANT will develop conceptual level cost estimates for the capital and annual operating costs for recommended "Regional Corridors." The CONSULTANT will identify potential funding opportunities for recommended regional routes. Potential funding sources will be evaluated by:

- Identifying High Priority Transit Investments Focus on realistic service expansion options that can be pursued by individual providers or through partnerships in order to leverage funding. Funding strategies identified with its associated regional route.
- Identifying Existing and Future Funding Gaps COUNTY to provide information on existing and future funding with their service.

Deliverables: List of Funding opportunities, applicable cost estimates along with cost allocation and fare allocation strategies.

TASK VII: PUBLIC PARTICIPATION AND COMMITTEE/BOARD MEETINGS

CONSULTANT shall be prepared to attend up to four presentations to committee/board meetings. CONSULTANT shall perform a ridership outreach as part of the study consisting of:

Surveys

CONSULTANT will prepare surveys (up to two) and email blasts for the COUNTY to distribute and advertise as appropriate. The CONSULTANT will prepare information and materials for distribution. The COUNTY will prepare the distribution list.

• Each survey will consist of a paper and online survey in coordination with the COUNTY to solicit and compile public comments. Survey advertisements will include a QR code. The COUNTY will advertise the online survey on board busses, local agencies, and COUNTY webpages. The COUNTY advertisements may also be placed in libraries, government centers, malls, airport, local business bulletin boards, etc.

• Content of surveys will be developed along with PTNE staff to garner required/desired information regarding existing and potential future CAT services and facilities.

The CONSULTANT will work with the COUNTY to ensure that survey materials are multi-lingual (English – Spanish) and persons have access to multi-lingual staff (English – Spanish – Creole) for information dissemination and questions in accordance with the CAT Limited English Proficiency (LEP) Plan.

Interviews

A maximum of two CAT bus operator interviews and two LeeTran bus operator interviews (by CAT staff) will be facilitated to receive input and comments on proposed regional routes (such as ridership, traffic delays, etc.).

Interviews with riders at a maximum of three CAT bus stops will be conducted (by CAT staff) in order to gain feedback on needs for regional service. Bilingual staff will be available to perform interviews.

o Need to Survey additional riders (by CAT/LeeTran staff) will be evaluated

Agency Review

A maximum of four telephone/Microsoft teams interviews with CAT and LeeTran staff will be facilitated to receive agency input on the analysis for incorporation into the report.

Committee/Board Meetings

A maximum of five presentations will be given based on direction/request from CAT. It is anticipated that these presentations will be given to the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), Public Transit Advisory Committee (PTAC), and the Collier MPO Board.

- TAC 1 meeting
- CAC 1 meeting
- PTAC 2 meetings
- Collier MPO Board 1 meeting

Deliverables: Public Involvement summary of all interviews and surveys included in Study report. Committee/Board PowerPoint presentation(s).

Note: It is assumed the Study report will be on consent to the Board of County Commissioners meeting and will not require a presentation.

TASK VIII: REGIONAL STUDY REPORT

The CONSULTANT will document the results of Tasks I though VIII of the Study. The draft report will be prepared for review and comment by the COUNTY prior to producing the final report. Deliverables include:

- **Draft Report** Prepare a draft report to document the results of the study. A "Draft" MOU will be included as an appendix to the report.
- **Final Report** The draft report will be updated to reflect COUNTY comments and changes resulting from any public and committee/board participation. Following public participation, sufficient time for all comments, the CONSULTANT will make recommendations and prepare the final report. Note: A "Final" MOU may not be completed as part of this study and may be completed (by others) as part of a future study.

3.0 SCOPE EXCLUSIONS AND ASSUMPTIONS

Scope Assumptions

The following assumptions are made when preparing the scope of work for this Work Order.

- OUNTY will be responsible for all distribution of and advertisement of public involvement materials (surveys, notices)
- o LeeTran and CAT will provide ridership and fare data for the last three fiscal years, as well as annual operating and capital cost data as well as revenue hours and miles
- Origin-Destination Studies will NOT be performed as part of this study
- o CONSULTANT will rely on existing/available ridership and cost data for analysis

Scope Exclusions

The following tasks are <u>not included</u> in the Scope of Work for this Work Order:

- 1. Services other than those specifically listed above including, but not limited to:
 - Fare Elasticity Model

CONSULTANT's Cost Opinions:

In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the PROJECT, CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate PROJECT cost or schedule. Therefore, CONSULTANT makes no warranty that COUNTY's actual PROJECT costs, financial aspects, economic feasibility, or schedules will not vary from CONSULTANT's opinions, analyses, projections, or estimates.

4.0 REQUIREMENTS AND PROVISIONS FOR WORK

Project Schedule

Consultant shall be ready to begin work immediately upon Notice to Proceed (NTP). Overall Work Order Schedule shall not extend beyond 365 Calendar Days from NTP unless mutually agreed to and extended by Collier County.

Detailed milestone schedule will be developed with PTNE staff upon NTP.

Progress Billing

The CONSULTANT shall provide written progress reports that detail the work performed. Progress reports shall be delivered to the County concurrently with the monthly Invoice. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percentage complete against the actual work accomplished.

Consultants Compensation

The COUNTY will compensate the CONSULTANT a Fee of \$119,838.00 for the above Tasks on a LUMP SUM basis, per the Fee Schedule agreed upon under Contract No. 18-7432 Professional Services: Metropolitan planning (MP) – Schedule B.

A man-hour estimate for the above Scope of Services has been prepared for the sole purpose of establishing the maximum upset limit for this Task Work Order not to exceed \$119,838.00.

EXECUTIVE SUMMARY COMMITTEE ACTION ITEM 7D

Endorse Transfer of \$2.5 Million in FY23 SU Funds to CAT Maintenance & Operations Facility Replacement Project

<u>OBJECTIVE:</u> For the committee to endorse transferring up to \$2.5 million in FY23 Surface Transportation Block Grant – Urban (SU) funds to the Collier Area Transit (CAT) Maintenance & Operations Facility Replacement Project.

CONSIDERATIONS: The Florida Department of Transportation (FDOT) notified Collier MPO that \$3.5 million remains unprogrammed in Financial Project Number (FPN) 405016-1 SU funds in FY 2023. Approximately \$1 million of that balance is slated to cover cost over-runs on two County bike/ped projects according to Board action taken during the September 9, 2022 meeting, leaving \$2.5 million unprogrammed. FDOT has the option of transferring the contract authority (obligation limitation) associated with the unprogrammed balance to another MPO if Collier MPO does not have a viable project to obligate the funds to in the current State fiscal year (23), which ends on June 30, 2023.

The CAT Maintenance & Operations Facility Replacement Project is ranked number 1 in the MPO's 2022 Transit Priorities list adopted on June 10, 2022. (**Attachment 1**). The total estimated cost of the project is \$7.9 million. The MPO Board previously approved the transfer of \$3 million in FY22 SU funds to the Project at the February 11, 2022 meeting. The additional \$2.5 million would bring the MPO's total contribution to \$5.5 million.

The proposed transfer of funds would constitute an administrative amendment to the FY 2023-2027 TIP. MPO staff is following the policy outlined in MPO Resolution 2018-02 (**Attachment 2**) by bringing the proposal to the TAC/CAC for endorsement, then to the MPO Board for approval at the December 9, 2022 meeting.

STAFF RECOMMENDATION: That the committee endorse the transfer of up to \$2.5 million in FY23 SU Funds to the CAT Maintenance & Operations Facility.

Prepared By: Anne McLaughlin, MPO Director

Attachments:

- 1. 2022 Transit Priorities (CAT M&O Facility highlighted)
- 2. MPO Resolution 2018-2

| 2022 Transit Priorities Adopted 6-10-22 | | | | | | | | | | | |
|---|--------------------------------|---------|------------------------|-------------|--------------------------|---------------------------|--------------|--|--|--|--|
| Improvement | Category | Ranking | Implementation Year | Annual Cost | 3-Year Operating Cost | 10-Year Operating Cost | Capital Cost | | | | |
| Maintenance and Operations Facility Replacement | Transit Asset Management (TAM) | 1 | 2025 | \$ - | \$ - | \$ - | \$7,900,000 | | | | |
| Administration/Passenger Station Roof Replacement | Transit Asset Management (TAM) | 2 | 2022 | \$ - | \$ - | \$ - | \$357,000 | | | | |
| Route 15 from 90 to 45 minutes | Increase Frequency | 3 | 2023 | \$163,238 | \$489,715 | \$1,632,384 | \$503,771 | | | | |
| Route 11 from 30 to 20 minutes | Increase Frequency | 4 | 2023 | \$652,954 | \$1,958,861 | \$6,529,536 | \$503,771 | | | | |
| Route 12 from 90 to 45 minutes | Increase Frequency | 5 | 2023 | \$282,947 | \$848,840 | \$2,829,466 | \$503,771 | | | | |
| Route 16 from 90 to 45 minutes | Increase Frequency | 6 | 2024 | \$156,105 | \$468,316 | \$1,561,054 | \$503,771 | | | | |
| Immokalee Transfer Facility (Building) | Transit Asset Management (TAM) | 7 | 2025 | | \$0 | | \$585,000 | | | | |
| Fixed Route Bus - Replacement | Transit Asset Management (TAM) | 8 | 2023 | \$ - | \$ - | \$ - | \$520,000 | | | | |
| Route 14 from 60 to 30 minutes | Increase Frequency | 9 | 2024 | \$243,915 | \$731,744 | \$2,439,146 | \$512,698 | | | | |
| Site SL-15 Creekside | Park and Ride | 10 | 2024 | \$ - | \$ - | \$ - | \$564,940 | | | | |
| Beach Lot Vanderbilt Beach Rd | Park and Ride | 11 | 2024 | \$ - | \$ - | \$ - | \$2,318,200 | | | | |
| Route 17/18 from 90 to 45 minutes | Increase Frequency | 12 | 2024 | \$258,550 | \$775,649 | \$2,585,495 | \$503,771 | | | | |
| Route 13 from 40 to 30 minutes | Increase Frequency | 13 | 2024 | \$83,712 | \$251,135 | \$837,115 | \$512,698 | | | | |
| New Island Trolley | New Service | 14 | 2025 | \$551,082 | \$1,653,246 | \$5,510,821 | \$864,368 | | | | |
| Study: Mobility on Demand | Other Improvements | 15 | 2025 | \$ - | \$ - | \$ - | \$150,000 | | | | |
| Study: Fares | Other Improvements | 16 | 2025 | \$ - | \$ - | \$ - | \$150,000 | | | | |
| Support Vehicle - Replacement | Transit Asset Management (TAM) | 17 | 2024 | \$ - | \$ - | \$ - | \$30,000 | | | | |
| New Bayshore Shuttle | New Service | 18 | 2026 | \$201,000 | \$602,999 | \$2,009,995 | \$531,029 | | | | |
| Support Vehicle - Replacement | Transit Asset Management (TAM) | 19 | 2025 | \$ - | \$ - | \$ - | \$30,000 | | | | |
| Radio Rd Transfer Station Lot | Park and Ride | 20 | 2027 | \$ - | \$ - | \$ - | \$479,961 | | | | |
| Beach Lot Pine Ridge Rd | Park and Ride | 21 | 2027 | \$ - | \$ - | \$ - | \$2,587,310 | | | | |
| Immokalee Rd - Split Route 27 creating EW Route | Route Network Modifications | 22 | 2028 | \$189,885 | \$569,654 | \$1,898,846 | \$550,016 | | | | |
| Fixed Route Bus - Replacement | Transit Asset Management (TAM) | 23 | 2027 | \$ - | \$ - | \$ - | \$525,000 | | | | |
| Collier Blvd - Split Route 27 creating NS Route | Route Network Modifications | 24 | 2028 | \$189,885 | \$569,654 | \$1,898,846 | \$550,016 | | | | |
| Fixed Route Bus - Replacement | Transit Asset Management (TAM) | 25 | 2027 | \$ - | \$ - | \$ - | \$525,000 | | | | |
| New Route 19/28 - Extend Hours to 10:00 PM | Service Expansion | 26 | 2028 | \$29,288 | \$87,863 | \$292,876 | \$0 | | | | |
| Fixed Route Bus - Replacement | Transit Asset Management (TAM) | 27 | 2027 | \$ - | \$ - | \$ - | \$525,000 | | | | |
| Route 24 - Extend Hours to 10:00 PM | Service Expansion | 28 | 2028 | \$30,298 | \$90,893 | \$302,976 | \$0 | | | | |
| Fixed Route Bus - Replacement | Transit Asset Management (TAM) | 29 | 2027 | \$ - | \$ - | \$ - | \$525,000 | | | | |
| Goodlette Frank Rd - Split Route 25 creating NS Route | Route Network Modifications | 30 | 2028 | \$183,805 | \$551,416 | \$1,838,052 | \$550,016 | | | | |
| MOD – North Naples | New Service | 31 | 2030 | \$81,723 | \$245,169 | \$817,230 | \$81,961 | | | | |
| New Autonomous Circulator | New Service | 32 | 2030 | \$52,411 | \$157,232 | \$524,105 | \$569,681 | | | | |
| MOD – Marco Island | New Service | 33 | 2030 | \$108,912 | \$326,736 | \$1,089,119 | \$81,961 | | | | |
| MOD – Golden Gate Estates | New Service | 34 | 2030 | \$163,446 | \$490,338 | \$1,634,460 | \$81,961 | | | | |
| New Naples Pier Electric Shuttle | New Service | 35 | 2030 | \$82,213 | \$246,638 | \$822,125 | \$569,681 | | | | |
| MOD – Naples | New Service | 36 | 2030 | \$193,889 | \$581,666 | \$1,938,887 | \$81,961 | | | | |

RESOLUTION 2018-02

A RESOLUTION OF THE COLLIER METROPOLITAN PLANNING ORGANIZATION ESTABLISHING A POLICY REGARDING THE REPROGRAMMING AND USE OF SURFACE TRANSPORTATION – URBAN FUNDS TO COVER COST OVER-RUNS ON LOCAL AGENCY AND FDOT-MANAGED PROJECTS.

WHEREAS, the Collier Metropolitan Planning Organization ("MPO") is authorized to establish policy regarding the reprogramming and use of Surface Transportation-Urban funds allocated to the MPO as a Transportation Management Area; and

WHEREAS, the Florida Department of Transportation ("FDOT") reserves a variable amount of Surface Transportation-Urban funds in the Collier MPO Work Program on an annual basis (under the project description "Collier MPO Identified Operational Improvements Funding") for use in covering cost-over runs on Local Agency Projects ("LAP") and FDOT-managed projects; and

WHEREAS, on occasion the FDOT may contact the MPO Director and request the MPO's concurrence if an opportunity arises to tap into the reserved Surface Transportation-Urban funds to cover cost-over-runs on LAP and FDOT-managed projects; and

WHEREAS, the MPO wishes to establish a policy to guide the MPO Director's future handling of such requests requiring MPO concurrence.

NOW, THEREFORE, BE IT RESOLVED BY THE COLLIER METROPOLITAN PLANNING ORGANIZATION THAT:

- 1. The Collier MPO is authorized to establish a policy regarding the reprogramming and use of Surface Transportation-Urban funds allocated to the MPO as a Transportation Management Area.
- 2. To be considered eligible for reprogramming to use Surface Transportation-Urban funds to cover cost over-runs, a project must meet the following criteria:
 - a. FDOT recommends the project be considered; and
 - b. The project is either programmed and underway in the fiscal year that Surface Transportation-Urban funds are available or the project is on an MPO Board-approved list of prioritized projects awaiting funding; and
 - c. The sponsoring agency is capable of meeting FDOT's deadlines to obligate, encumber and expend the available funds.
- 3. If the above criteria are met, the process for bringing a recommended project(s) to the MPO Board for approval is as follows:
 - a. If FDOT deadlines and the MPO advisory committee schedule allows, the MPO Director shall submit eligible projects for endorsement by the Citizen and Technical Advisory Committees prior to bringing a recommended list of projects to the MPO to consider authorizing the



- reprogramming and use of the available Surface Transportation-Urban funds.
- b. If FDOT timelines require more immediate action, such that there is not sufficient time for consideration and a recommendation by the MPO advisory committees, the MPO Director will place the list of eligible recommended projects for the reprogramming and use of available Surface Transportation-Urban funds before the MPO on the next available agenda for its consideration and a final decision.

This Resolution was PASSED and DULY ADOPTED by the Collier Metropolitan Planning Organization Board on May 11, 2018.

Attest:

By: ____

Anne McLaughlin

Collier MPO Executive Director

COLLIER COUNTY METROPOLITAN

PLANNING ORGANIZATION

By:

Commissioner William L. McDaniel, Jr.

MPO Chair

Approved as to form and legality:

Scott R. Teach

Deputy County Attorney



EXECUTIVE SUMMARY DISTRIBUTION ITEM 10A

Revised/Final Congestion Management Process (CMP) Corridor Fact Sheets

OBJECTIVE: For the committee to receive copies of the revised/final CMP corridor fact sheets.

<u>CONSIDERATIONS</u>: The CMP corridor fact sheets shown in **Attachment 1** have been revised in response to comments received since the prior distribution.

STAFF RECOMMENDATION: N/A

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S):

1. Revised/Final Corridor Fact Sheets



What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Evaluate the feasibility of removing the bulbout north of Cougar Dr Evaluate the feasibility of a new southbound dedicated right-turn to allow existing right-turn lane to be extended and used as an auxiliary/merge lane for school buses exiting the County facility
- Consider expanding traffic signal capabilities through technology and communications improvements
- Conduct a study to evaluate possible intersection improvements at Pine Ridge Rd and Airport-Pulling Rd
- Work with local schools to stagger arrival/dismissal times if possible, and optimize signal timing at Cougar Dr during times of increased school traffic
- Evaluate the feasibility of and estimated right-of-way needed for constructing additional turn lanes at the J and C Blvd / Airport-Pulling Rd intersection to better accommodate truck traffic

- lane at YMCA Rd (Bed Bath & Beyond Plaza), or extending the existing turn at Pine Ridge Rd back to this location
- Consider increasing transit frequency and/or expand hours of operation for routes along and adjacent to the corridor so that it becomes a more viable option for employees in the area
- Evaluate the feasibility of removing the striping south of Cougar Dr to extend the northbound right-turn lane queue length and allow for additional school traffic vehicles
- Conduct a study to develop alternatives for a new buffered bike lane or shared-use path along the corridor, which has been identified as a network gap priority by the most recent Bicycle & Pedestrian Master Plan based on public feedback

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

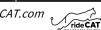
- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:



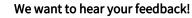






How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

















10A Attachment 1 TAC/CAC 11/28/22

Collier County's Congestion Hotspots

CR 31 / Airport-Pulling Rd

(From CR 896 / Pine Ridge Rd to Orange Blossom Dr)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).





CR 31 / Airport-Pulling Rd (From CR 896 / Pine Ridge Rd to Orange Blossom Dr)

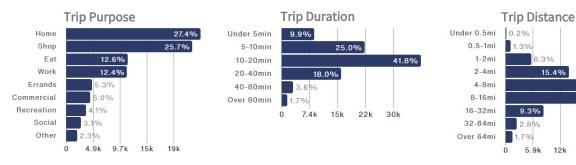
Ouick Facts

Corridor Length: 1.4 Miles Number of Major Intersections: 5 Number of Daily Trips (Avg. Weekday): ~89k

~14 min Avg. Daily Duration of **Bottleneck Conditions**



Annual Vehicle Hours of Delay



Corridor Challenges

- Freight & Small Truck Traffic: Truck traffic accessing the large industrial/warehouse area west of the corridor can worsen traffic congestion when making trips to/from Pine Ridge Rd and the I-75
- School Traffic: Multiple schools east of the corridor, along with the County school bus maintenance facility, can create additional stress on the corridor during times of heavy activity.
- Signal Coordination: Four signalized intersections exist along this relatively short corridor. Additional traffic signals also exist along Pine Ridge Road creating challenges related to timing and coordination.

Corridor Opportunities

- Naples Boulevard: Most of the large concentration of retail stores and restaurants on the southwest end of the corridor is already accessed primarily by a large signalized intersection at Naples Boulevard, which reduces the number of turning movements along the corridor and connects to Pine Ridge Road.
- Canal Right-of-Way: The canal along the east side the corridor provides an opportunity for creating future multi-use path segments for recreation and connecting to other non-motorized facilities or transit stop locations.





Southbound

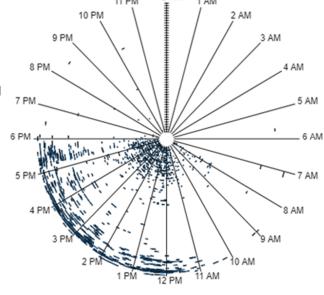
Location Approaching Pine Ridge Rd

> Time 12-6 PM

Bottleneck Occurrences

Each line in this circular graph represents a traffic bottleneck during 2021 in the southbound direction at Pine Ridge Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the early-afternoon and PM peak period at the beginning and end of the year. These conditions are noticeably less common during the middle of the year.













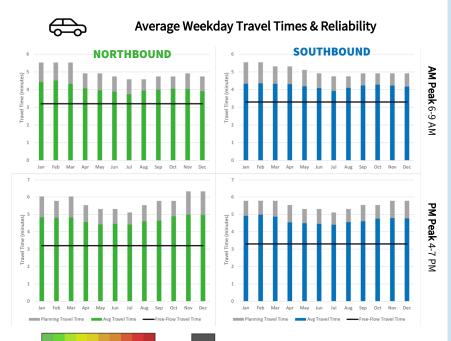






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor during months when visitors and part-time residents are more common can be seen in the longer travel times from roughly November to March. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases. A similar pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



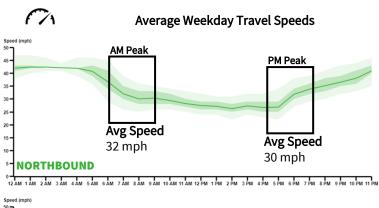
Estimated Traffic Delay Costs

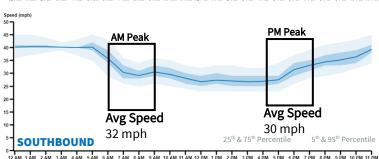
| | | | | | | 2011001 | | gcot coot | | | | |
|------|----------|----------|--------|--------|------|---------|------|-----------|--------|----------|----------|----------|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2022 | \$\$\$ | \$\$\$\$ | \$\$\$ | \$\$\$ | | | | | | | | |
| 2021 | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$\$ |
| 2019 | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$ | \$\$ | \$\$\$ | \$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ |

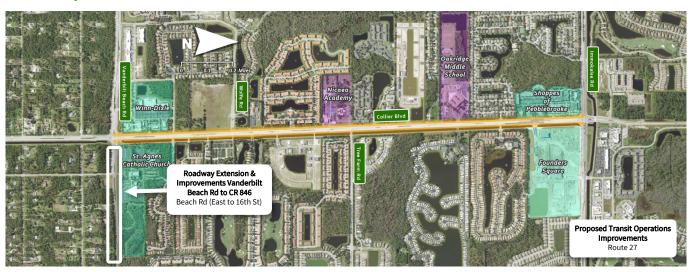
Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Although speeds drop noticeably during the AM and PM peak periods, they become the lowest in both directions during mid-afternoon, reaching roughly 26 MPH and remaining at similar levels until the end of the PM peak. As shown in the circular graph to the left, most bottlenecks occur during this same time, roughly between 12 and 6 PM. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. Shopping trips are numerous in this area throughout the day, and when combined with trips home, account for almost 70% of all trips made on this corridor during the PM peak.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Incorporate Complete Streets principles on new roadways and identify opportunities to add new bike facilities to existing roadways to make better connections to the existing shareuse path along the canal on the east side of the corridor
- Provide funding assistance for promoting existing car/vanpool awareness and app availability
- · Consider upgrading signage and pavement markings at locations where the shared-use path crosses roadways and driveway entrances to make drivers more aware of potential conflicts and enhance safety conditions
- Consider Alternative Intersection Design concepts at major intersections following the construction of the Vanderbilt Beach Drive Extension project
- Evaluate the feasibility of extending the southbound rightturn lane used for accessing Oakridge Middle School, and work with the school to identify feasible locations for curbing/ waiting areas that will not obstruct traffic patterns and create delays while parents are waiting to drop off/pick up their students

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips

- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:



How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

CR 951 / Collier Blvd

(From CR 862 / Vanderbilt Beach Rd to CR 846 / Immokalee



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

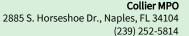
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









CR 951 / Collier Blvd (From CR 862 / Vanderbilt Beach Rd to CR 846 / Immokalee Rd)

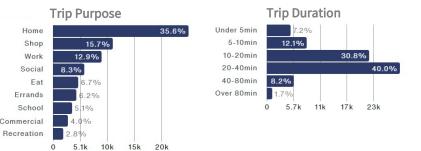
Quick Facts

Corridor Length: 2.01 Miles Number of Major Intersections: 6 Number of Daily Trips (Avg. Weekday): ~72k

~1 min Avg. Daily Duration of **Bottleneck Conditions**







Trip Distance 1-2mi 2-4mi 4-8mi 8-16mi 16-32mi 32-64mi

Corridor Challenges

- Surrounding Roadway Network: The layout of newer residential developments on both sides of the corridor does not provide many alternatives for making short trips or re-routing without using major arterial roadways.
- Access to I-75: A limited number of access points to I-75 in the area can create additional congestion along the corridor from commuters trying to access the Immokalee Road interchange and those trying to avoid it by using Vanderbilt Beach Road instead.

Corridor Opportunities

- Additional Commuting Options: The upcoming Vanderbilt Road Extension Project should help relieve congestion along this corridor to some degree as it provides east-west commuters with an alternative route.
- Residential Traffic Patterns: The congestion along this corridor is mostly generated from residential land uses, which would indicate that it's less affected by surges in seasonal visitors and can be easier to manage than corridors with a mix of trip types and destinations.

Where is Congestion Usually the Worst?



Direction Southbound

Location

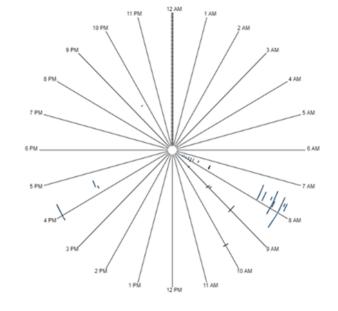
Approaching Vanderbilt Beach Rd

> Time 7-9 AM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the southbound direction at Vanderbilt Beach Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred mostly during the AM peak period and during the second half of the year.









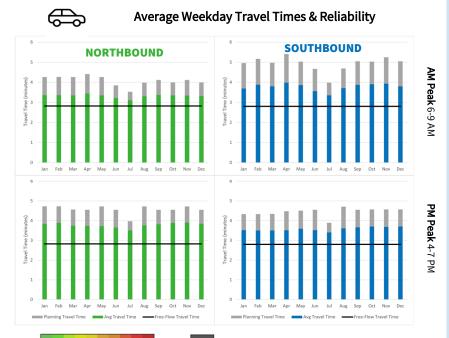






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor are not as pronounced as in some areas, but can still be seen in the longer travel times from roughly September to May, which coincides with school activity. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases during the same months. A similar pattern is shown below by the higher monthly delay costs over the past two years. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



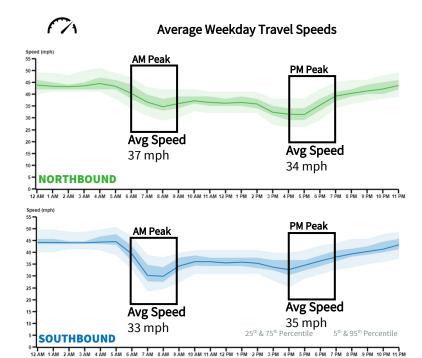
Estimated Traffic Delay Costs

| | | | | | | Lowest | Lowest cost | | St Data Unavallable | | | |
|------|----------|----------|----------|----------|--------|--------|-------------|------|---------------------|--------|--------|--------|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2022 | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ | | | | | | | | |
| 2021 | \$\$ | \$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$ | \$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ |
| 2020 | \$\$ | \$\$ | \$ | \$ | \$ | \$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ |
| 2019 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ | \$\$ |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Speeds are lowest during the AM and PM peak periods at roughly 30 MPH, with a slight recovery period in between those two times. As shown in the circular graph to the left, most bottlenecks only occur during the peak periods and are not overly common occurrences. Trip purposes also change throughout the day. While home trips are most common throughout the entire day and even more so during the PM peak period, school trips along this corridor are equally as common as work trips during the AM peak period with each accounting for roughly 26% of all trips made.





What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Work with FDOT to conduct an access management study to identify opportunities for consolidating driveways, limiting left turn locations, or implementing other solutions for reducing potential vehicle conflict points
- Consider increasing transit frequency and/or expanding hours of operation for routes in this area so that it becomes a more viable option for employees in the area, as well as those making trips to the Lorenzo Walker Technical College and the Salvation Army Social Services/Youth Center
- Evaluate the feasibility of constructing new dedicated rightturn lanes in key areas with high levels of activity during peak periods such as the eastbound approach to Airport-Pulling Rd, shopping center entrances, or smaller roadways used for accessing neighborhoods or multiple businesses
- Coordinate with the City of Naples and Collier County to create appropriate and place-specific policies that encourage mixed-use, dense, and transit-oriented development patterns in the areas surrounding the corridor
- Incorporate Complete Streets principles into the planning and design of the surrounding roadway network as new development and improvement projects are approved and advanced
- Provide funding assistance promoting awareness of and incentives for using existing carpool/vanpool and transit options for commuters who pass through the corridor while traveling from home to work and back on a regular basis

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

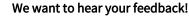
R19

Transit Routes Available:

RideCAT.com

How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

















Collier County's Congestion Hotspots

SR 84 / Davis Blvd

(From US 41 / Tamiami Trail to CR 31 / Airport-Pulling Rd)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).







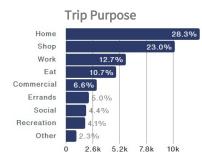
SR 84 / Davis Blvd (From US 41 / Tamiami Trail to CR 31 / Airport-Pulling Rd)

Ouick Facts

Corridor Length: 1.01Miles Number of Major Intersections: 3 Number of Daily Trips (Avg. Weekday): ~46k

~9 min Avg. Daily Duration of **Bottleneck Conditions**









Corridor Challenges

- Traffic on US 41: The west end of the corridor intersects with another busy corridor, which can worsen traffic problems during times of high activity.
- Freight & Small Truck Traffic: Industrial, warehouse, or repair/service businesses are numerous along the corridor. Frequent freight trucks, box trucks, or other similar vehicles can worsen traffic congestion.

Corridor Opportunities

- Transit-Oriented Development (TOD): The corridor's existing density provides a long-term option of developing a variety of land uses that provide housing, employment, and recreation activities in one area, which makes non-motorized and transit trips easier and more practical.
- **Location & Proximity:** The location of this corridor allows it to be one of the primary gateways to the City of Naples. Proximity to the City's Community Redevelopment Agency (CRA) District also offers additional benefits for planning and implementing transportation improvements, as well as "placemaking" elements that could make the corridor inviting for users of all types of transportation in the future.

Where is Congestion Usually the Worst?



Direction Eastbound

Location Approaching Airport-Pulling Rd

> Time 3-6 PM

Year

2022

2021

2020

2019

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Although speeds drop to the lowest in the eastbound direction during the PM peak at roughly 22 MPH, they remaining consistently low in both directions throughout the middle of the day as well. As shown in the circular graph to the left, most bottlenecks occur during the first part of year between 3 and 6 PM in the eastbound direction. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. Shopping trips are the second most common trip purpose throughout the day, accounting for 13% of all trips during the AM peak period and 24% during the PM peak period.









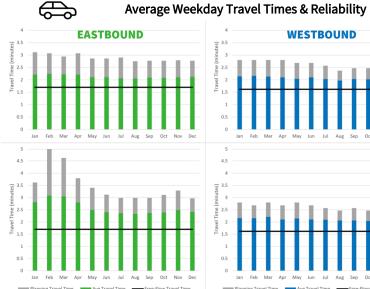


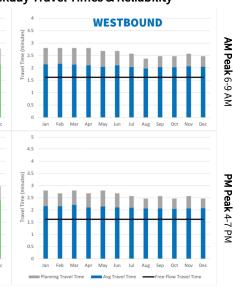


The seasonal patterns of congestion occurring along this corridor can be seen in the longer travel times during the first part of the year, especially in the eastbound direction. Seasonal patterns in travel time may not be as distinct along this corridor because of its short length, but additional unpredictability associated with delay is present throughout the year. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases at the beginning of the year. A similar pattern is shown below by the higher monthly delay costs from 2019 through 2021. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.

Estimated Traffic Delay Costs

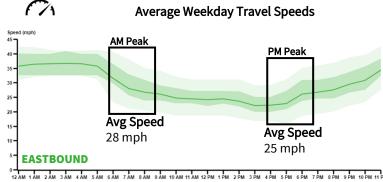
Congestion Throughout the Year...

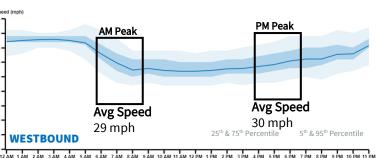




| • | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|--------|----------|--------|--------|------|------|------|--------|--------|--------|--------|--------|
| 2 | \$ | \$\$ | \$\$ | \$ | | | | | | | | |
| L | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
|) | \$\$\$ | \$\$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ |
|) | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

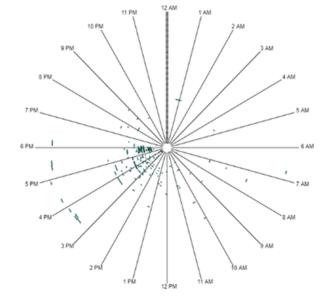




Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at Airport-Pulling Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the PM peak period towards the beginning and the year.





Davis Blvd at Airport-Pulling Rd - Facing West



What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Provide funding assistance for promoting existing car/ vanpool awareness and app availability
- Evaluate the feasibility of a grade-separated intersection at Golden Gate Pkwy and Livingston Rd
- Consider expanding regional transit options to provide express bus service for commuters routinely traveling to/ from southwest Collier County during peak hours, as well as identifying potential opportunities for dedicated bus lanes that could help improve travel times for passengers
- Consider expanding traffic signal capabilities through technology and communications improvements
- Coordinate with the analysis performed as part of the upcoming intersection improvements at Livingston Rd to identify opportunities for reducing crossing-related conflicts and delays once future regional greenway connections are made and non-motorized crossings become more frequent
- Program funding for the evaluation, design, and construction of interchange improvements at Golden Gate

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:



RideCAT.com



How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

CR 886 / Golden Gate Pkwy

(From CR 881 / Livingston Rd to I-75)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

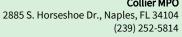
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot Corridors?

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









CR 886 / Golden Gate Pkwy (From CR 881 /Livingston Rd to I-75)

Ouick Facts

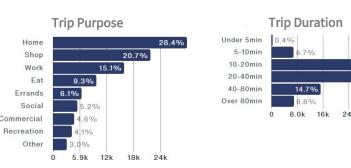
Corridor Length: 1.03 Miles Number of Major Intersections: 3

Number of Daily Trips (Avg. Weekday): ~100k





Annual Vehicle Hours of Delay





Corridor Challenges

Commuter Traffic: This corridor experiences high congestion levels during AM and PM peak hours primarily because it becomes overloaded by commuter traffic traveling between the southwest part of the County and the I-75 interchange, as well as the Golden Gate area east of

Freight & Small Truck Traffic: Truck traffic from the large industrial/warehouse area south of the Golden Gate Canal between Airport-Pulling Rd and Livingston Rd can add to commuter traffic and worsen congestion when using this corridor to access I-75.

Corridor Opportunities

- Lack of Development Density: The large lot sizes and less-dense development patterns along the corridor on both sides of the I-75 interchange do not currently contribute to worsening congestion levels, and can provide flexibility for future development and transportation improvements.
- Regional Greenway Connections: This corridor provides important east-west connection opportunities to/from the existing shared-use path/greenway along Livingston Road both west to the Gordon River Greenway and east along the proposed Golden Gate Canal Greenway (Paradise Coast Trail).

Where is Congestion Usually the Worst?



Direction Westbound

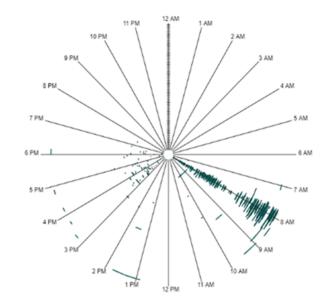
Location Approaching Livingston RD

> Time 7-9 AM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the westbound direction at Livingston Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred mostly during the AM peak period just before and after 8 AM. These conditions are noticeably less common during the middle of the year.





Congestion Throughout the Year...

along this corridor can be seen in the longer travel times from roughly September to May, which coincides with school activity and may be worsened by seasonal visitors at the beginning and end of the year combined with commuting patterns. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases during the same months. A similar, though less consistent, pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



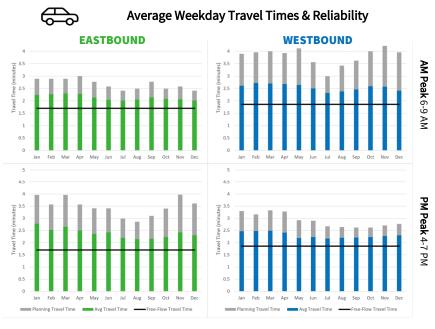








The seasonal patterns of congestion occurring



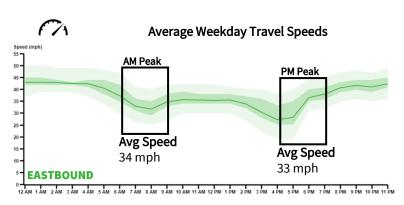
Estimated Traffic Delay Costs

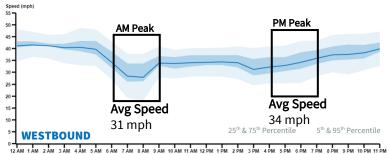
| | | | | | | 2011030 | | riigiicat coat | Data onave | | | |
|------|----------|----------|--------|------|------|---------|------|----------------|------------|----------|----------|--------|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2022 | \$\$ | \$\$ | \$\$ | \$\$ | | | | | | | | |
| 2021 | \$\$\$ | \$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$ | \$ | \$ | \$ | \$\$ | \$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ |
| 2019 | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$ | \$\$ | \$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$ |

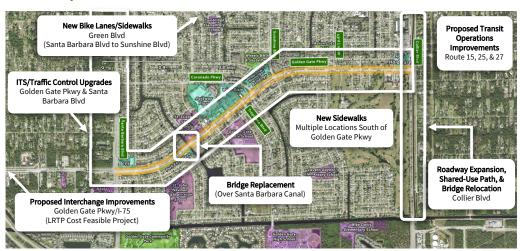
Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Speeds are lowest during the AM and PM peak periods at roughly 27 MPH, with a slight recovery period in between those two times. As shown in the circular graph to the left, most bottlenecks only occur during the peak periods with those in the westbound direction mostly just before and after 8 AM. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. School trips and shopping trips are the second most common during AM and PM peak periods, respectively.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Work with nearby private schools, especially on the west side of the corridor, to identify feasible locations for off-site parking lots and/or curbing/waiting zones that will not obstruct traffic patterns and create delays while parents are waiting to drop off/pick up their students
- Consider upgrading crosswalk visibility at intersections providing non-motorized access to nearby schools, and consider pedestrian signals/beacons in high-activity locations
- Conduct a localized public awareness campaign to help reduce careless driving behavior and create a safer environment for the large number of school children in the area
- Advance the recommended improvements from the MPO's recent Golden Gate City Walkable Community Study to enhance safety conditions and add new non-motorized options along surrounding roadways to better connect existing schools, parks, and other destinations, including the proposed Golden Gate Canal Greenway
- Consider a new limited-stop Express Bus pilot route from the Golden Gate Community Center lot that is intended for residents of the surrounding area commuting to/from high employment areas in the western part of the County
- Work with local schools to stagger arrival and/or dismissal times if possible, and optimize corridor signal timing during times with increased school traffic

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

₹28

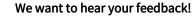
Transit Routes Available:

RideCAT.com



How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

















Collier County's Congestion Hotspots

CR 886 / Golden Gate Pkwy

(From Santa Barbara Blvd to CR 951 / Collier Blvd)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

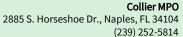
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









CR 886 / Golden Gate Pkwy (From Santa Barbara Blvd to CR 951 / Collier Blvd)

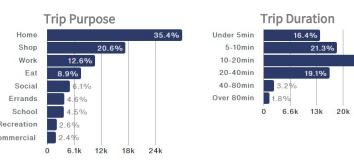
Ouick Facts

Corridor Length: 2.19 Miles Number of Major Intersections: 8 Number of Daily Trips (Avg. Weekday): ~86k

~8 min Avg. Daily Duration of **Bottleneck Conditions**



Annual Vehicle Hours of Delay





Corridor Challenges

- School Traffic: The high concentration of schools along this corridor creates spikes in traffic volumes on a roadway not designed so support them.
- **Trips from Surrounding Neighborhoods:** Multiple signalized intersections connecting to residential areas can create situations in which traffic along the corridor is stopped at frequent intervals for a small number of vehicles.
- Local & Regional Traffic: This corridor provides access to an I-75 interchange from either end, which can intensify congestion when regional "pass through" trips coincide with local or school-related traffic.

Corridor Opportunities

- Non-Motorized Improvements: The combination of schools, residential areas, and parallel streets with minimal traffic provides options and increases the benefits for new bicycle and pedestrian facilities that can be used for both neighborhood recreation and short trips to destinations in the Golden Gate area.
- **Roadway Connections:** Despite residential development patterns that lack a full grid roadway network, the areas surrounding the corridor contain several alternative routes that make connections to major roadways without using Golden Gate Parkway.
- Existing Transit Routes: This corridor offers a sizeable number of options for existing transit services and transfer opportunities to/from a variety of destinations due to centralized location.

......

Where is Congestion Usually the Worst?



Eastbound

Location **Approaching**

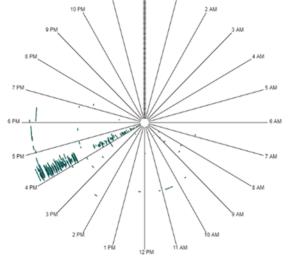
> Time 4-5 PM

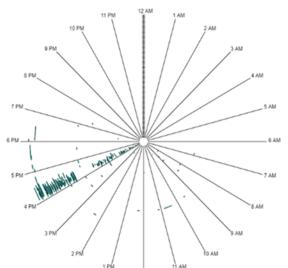
Sunshine Blvd

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at Sunshine Blvd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred mostly during the early PM peak period between 4 and 5 PM at the beginning and end of the year. These conditions are noticeably less common during the middle of the year.















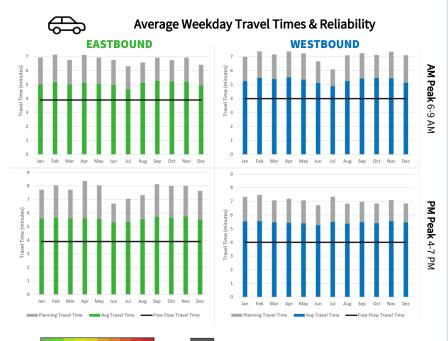






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor can be seen in the longer travel times from roughly September to May, which coincides with activity from the numerous schools in the area. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases during the same months. A similar pattern is shown below by the higher monthly delay costs, especially during the first part of the year. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.





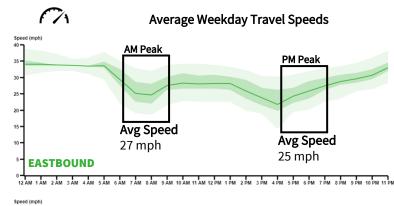
Estimated Traffic Delay Costs

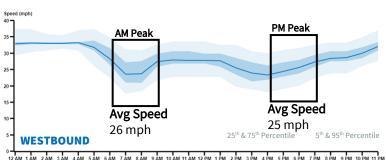
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|----------|----------|--------|--------|--------|------|------|----------|----------|----------|----------|----------|
| 2022 | \$\$ | \$\$ | \$\$ | \$\$ | | | | | | | | |
| 2021 | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$\$ | \$ | \$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ |
| 2019 | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 35 MPH. Although speeds reach their lowest during the PM peak period in the eastbound direction at roughly 21 MPH, they also experience a noticeable but slightly less severe drop in the westbound direction to roughly 24 MPH during both peak periods. As shown in the circular graph to the left, most bottlenecks only occur during the peak periods with those in the eastbound direction mostly just after 4 PM. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. School trips are also common, accounting for nearly 20% of all trips along this corridor during the AM peak period.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Improve incident management, especially near I-75 to account for higher crash rate
- Consider a new Park-and-Ride lot with an Express Bus route to serve longer commute trips to Lee County, Naples, Marco Island, or other parts of Collier
- Conduct a study to develop alternatives for new or improved bicycle/pedestrian facilities that can connect to the shared-use path on the north side of the corridor (west of Northbrooke Dr) to encourage non-motorized trips
- Identify opportunities for making parallel roadway connections to create alternate routes for short vehicle trips along the corridor
- Provide funding assistance for promoting car/vanpool awareness and app availability
- Consider expanding traffic signal capabilities through technology and communications improvements
- Evaluate carpool or ridesharing program options for nearby schools, and identify potential funding sources

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:



How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

CR 846 / Immokalee Road

(From CR 851 / Goodlette-Frank Road to CR 951 / Collier Blvd)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

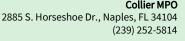
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









CR 846 / Immokalee Road (From CR 851 / Goodlette-Frank Road to CR 951 / Collier Blvd)

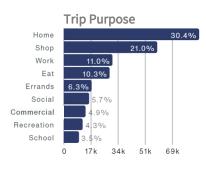
Ouick Facts

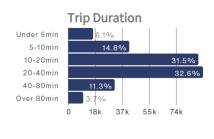
Corridor Length: 6.25 Miles Number of Major Intersections: 14 Number of Daily Trips (Avg. Weekday): ~280k

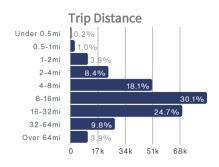
~32 min Avg. Daily Duration of **Bottleneck Conditions**











Corridor Challenges

- I-75 Interchange: Vehicles going to/from I-75 result in higher traffic volumes and more "pass through" trips along the corridor with more growth expected in the future.
- High-Intensity Land Uses: Major activity generators which include a mix of retail, office, school, and residential land uses are also found on all four corners of I-75.

Corridor Opportunities

- Right-of-Way: Unused right-of-way and median space could allow for new turn lanes or intersection upgrades in key locations to be implemented more easily.
- Parallel Facilities: Existing roadways, such as Piper Boulevard or 24th Avenue, and existing segments of shared use path on the north side of the Cocohatchee Canal west of Livingston Road could provide the foundation for alternative travel routes used for local or nonmotorized trips along the corridor.

Where is Congestion Usually the Worst?



Direction Eastbound

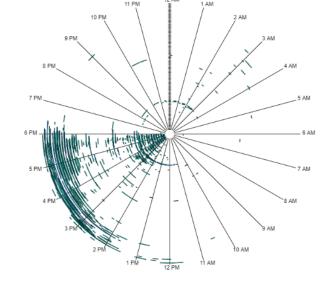
Location Approaching I-75

> Time 3-6 PM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at I-75. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the mid-afternoon and PM peak period at the beginning and end of the year. These conditions are noticeably less common during the middle of the year.









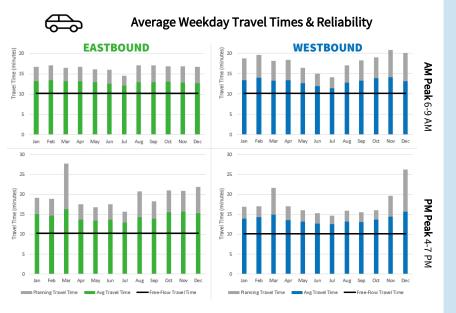






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor during months when visitors and part-time residents are more common can be seen in the longer travel times from roughly October to March. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases. The same pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.





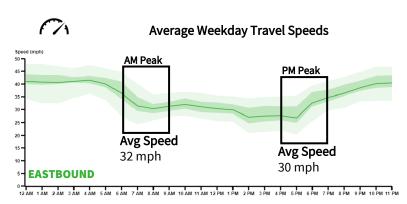
Estimated Traffic Delay Costs

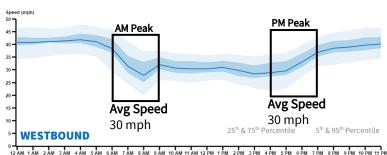
| | | | | | | | | - | | | | |
|------|----------|----------|--------|--------|------|------|------|------|------|--------|--------|--------|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2022 | \$\$\$ | \$\$\$\$ | \$\$\$ | \$\$\$ | | | | | | | | |
| 2021 | \$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$\$ | \$\$ | \$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ |
| 2019 | \$\$ | \$\$ | \$\$ | \$ | \$ | \$ | \$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ | \$\$\$ |
| | | | | | | | | | | | | |

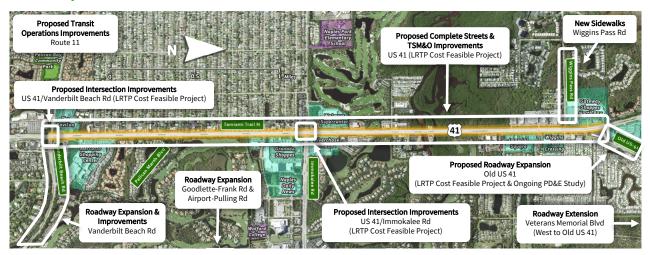
Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Although speeds are lowest during the AM and PM peak periods at roughly 30 MPH, there is also a noticeable drop in travel speeds in between those times. As shown in the circular graph to the left, most bottlenecks occur roughly between 2 and 6 PM. Trip purposes also change throughout the day along this corridor, with work being the most common purpose during the AM peak and home being the common purpose during the PM peak.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Consider establishing a new regional Bus Rapid Transit (BRT) or Express Bus service along US 41, with the potential for dedicated bus lanes to help improve travel times and a new Park-and-Ride lot at the Creekside Transfer Center
- Coordinate with FDOT to identify innovative, effective Connected Vehicle (CV) technologies associated with the US 41 Florida's Regional Advanced Mobility Elements (FRAME) effort in Lee County, and adopt complimentary strategies that can be deployed along this corridor
- Consider expanding traffic signal capabilities through technology and communications improvements

- Improve incident management, especially during times of the year with additional seasonal visitors on the roadways
- Consider upgrading and adding pedestrian facilities such as signage, signals, crosswalks, and other pavement markings near areas with high vehicle turning movements, especially near transit stops, to improve safety conditions for bicyclists and pedestrians
- Program funding for the evaluation, design, and construction of intersection improvements at US 41 and Immokalee Rd, as called out in the MPO's 2045 LRTP

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:



How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

US 41 / Tamiami Trail

(From CR 862 / Vanderbilt Beach Rd to CR 887 / Old US 41)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

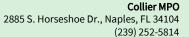
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









US 41 / Tamiami Trail (From CR 862 / Vanderbilt Beach Rd to CR 887 / Old US 41)

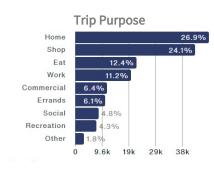
Ouick Facts

Corridor Length: 3.25 Miles Number of Major Intersections: 9

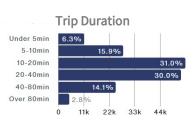
~4 min Avg. Daily Duration of **Bottleneck Conditions**



~87k **Annual Vehicle** Hours of Delay



Number of Daily Trips (Avg. Weekday): ~180k



......



Corridor Challenges

- Regional Traffic: Being one of the few continuous north-south corridors that can be used for regional trips between Lee and Collier counties, and the primary one in the western part of the county, results in higher traffic volumes.
- **High Activity Areas & Visitor Destinations:** Big box retail, dining, and recreational clusters are common on multiple corners of all three major intersections along this corridor. This activity is intensified during seasonal months when visitors add to traffic conditions.

Corridor Opportunities

- Lack of Development Density: A combination of conservation/drainage areas and undeveloped land on the north end of the corridor can provide opportunities for Collier and Lee counties to plan and control future growth and development, which can help limit the worsening of traffic congestion.
- Right-of-Way & Setback Space: Wide right-of-way conditions and median areas along this corridor, combined with large areas of adjacent parking lots, can provide flexibility and additional options for designing roadway improvements or dedicating space for premium, limited-stop regional transit services in the future.



Location

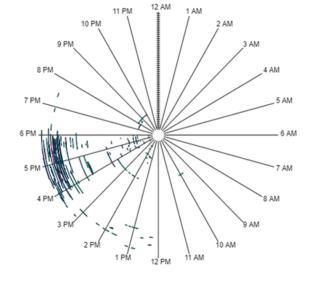
Time

Immokalee Rd

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the northbound direction at Immokalee Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the PM peak period and are noticeably more common towards the end of the year.





Where is Congestion Usually the Worst?



Direction Northbound

Approaching

4-6 PM







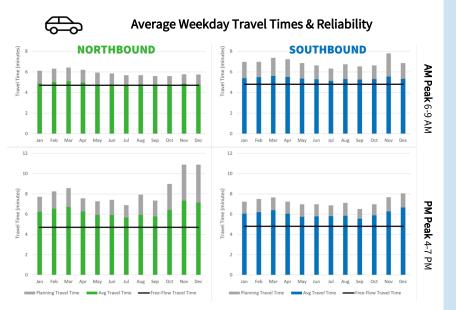






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor during months when visitors and part-time residents are more common can be seen in the longer travel times from roughly October to March, especially during the PM peak period. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases. A similar pattern is shown below by the higher monthly delay costs, especially during the first part of the year. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



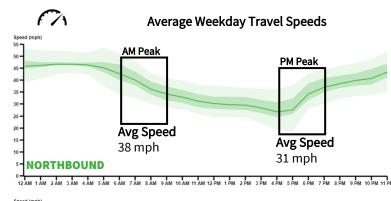
Estimated Traffic Delay Costs

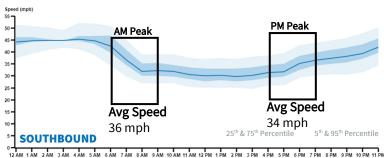


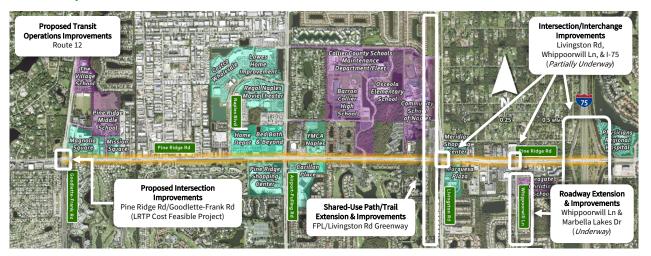
Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 50-55 MPH. Speeds reach their lowest during the PM peak period in the northbound direction at roughly 26 MPH, but experience a more prolonged and less severe drop in the southbound direction beginning during the AM peak period and reaching a low of roughly 29 MPH during mid-day. As shown in the circular graph to the left, most bottlenecks occur during the peak periods with those in the northbound direction mostly between 4 and 6 PM. Trip purposes also change throughout the day. Typically, work trips are most common in the morning and home trips in evening. Along this corridor, however, shopping trips are more common than trips to work during the AM peak period and only slightly less common that trips home during the PM peak period.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Consider a new Park-and-Ride lot at Physicians Regional Hospital with an Express Bus route to serve longer commute trips
- Provide funding assistance for promoting existing car/vanpool awareness and app availability, and evaluate the potential for new carpool or ridesharing programs for nearby schools
- Consider increasing transit frequency and/or expanding hours of operation for routes along and adjacent to the corridor so that it becomes a more viable option for employees in the area
- Improve incident management, especially near I-75 to account for a higher crash rate
- Advance the intersection improvement recommendations at Livingston Rd, Whippoorwill Ln, and I-75 made by the County's recent Corridor Congestion Study, and evaluate the feasibility of similar intersection improvements at Airport-Pulling Rd
- Evaluate the need for and feasibility of constructing additional turn lanes or extending existing storage capacity for accessing Osceola Trail from both directions to accommodate potential spikes in school traffic at this location
- Work with schools to stagger arrival/dismissal times if possible, and optimize signal timing at Airport-Pulling Rd, Osceola Trail, and Livingston Rd for times of increased school traffic

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips

- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available: R12 Airport Rd to Creekside Commerce Park R20 Pine Ridge Road R25 Golden Gate Parkway & Goodlette – Frank R26 Pine Ridge Road/ Naples Blvd/ Clam Pass

PILLIE ARIA TRANSIT

How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

CR 896 / Pine Ridge Rd

(From CR 851 / Goodlette-Frank Rd to I-75)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

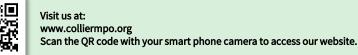
Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

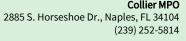
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot Corridors?

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).









CR 896 / Pine Ridge Rd (From CR 851 / Goodlette-Frank Rd to I-75)

10-20mi

Trip Duration

Ouick Facts

Corridor Length: 3.67 Miles Number of Major Intersections: 13

Shop

Eat

Number of Daily Trips (Avg. Weekday): ~210k

Trip Purpose



~277k **Annual Vehicle** Hours of Delay





Corridor Challenges

Recreation

- I-75 Interchange: This corridor's access to I-75 creates demand from other neighboring arterial roadways, resulting in higher traffic volumes and more "pass through" trips.
- Mix of Trip Purposes: The variety of commuter traffic, trucks associated with warehouse/ industrial areas, shopping/recreational trips, and school traffic can create a high number of vehicles and difficulty proposing solutions to address all activity effectively.

Corridor Opportunities

- Regional Non-Motorized Connections: This corridor intersects with multiple north-south shared-use path segments. These areas could become opportunities for bicycle and pedestrian connections to the larger countywide greenway network in the future.
- Existing Transit Routes: This corridor offers a variety options for existing transit services and transfer opportunities for traveling in multiple directions throughout the county.

Where is Congestion Usually the Worst?



Direction Eastbound

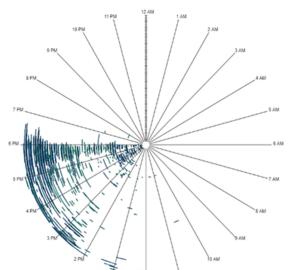
Location **Approaching** Livingston Rd

> Time 4-6 PM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at Livingston Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the mid-afternoon and PM peak period. These conditions are less common during the middle of the year, especially those occurring before 5 PM.













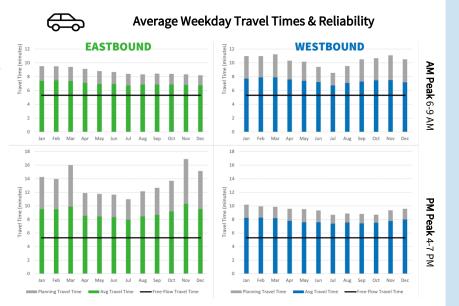






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor can be seen in the longer travel times from roughly September to May, which coincides with school activity and may be worsened by seasonal visitors at the beginning and end of the year combined with commuting patterns. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases during the same months. A similar pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.





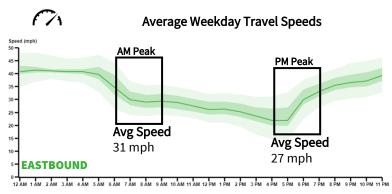
Estimated Traffic Delay Costs

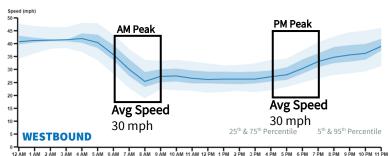
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|----------|----------|--------|--------|------|------|------|--------|------|--------|----------|----------|
| 2022 | \$\$\$ | \$\$\$ | \$\$\$ | \$\$\$ | | | | | | | | |
| 2021 | \$\$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$ | \$ | \$\$ | \$\$ | \$\$\$ | \$\$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$\$\$ |
| 2019 | \$\$\$ | \$\$ | \$\$ | \$\$ | \$\$ | \$ | \$\$ | \$\$\$ | \$\$ | \$\$\$ | \$\$\$\$ | \$\$\$\$ |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 40-45 MPH. Although speeds drop noticeably during both peak periods, they become the lowest in the eastbound direction during the PM peak period at roughly 22 MPH. Travel speeds in the westbound direction drop sharply in the morning to roughly 25 MPH and then remain at this relatively low level throughout the afternoon. As shown in the circular graph to the left, most bottlenecks occur roughly between 12 and 6 PM in the eastbound direction, becoming more common later in the afternoon. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. Shopping trips are the second most common purpose throughout the day.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Consider upgrading non-motorized crossing facilities on the west side of the Livingston Rd intersection to improve safety conditions and accommodate additional greenway crossings in the future without affecting traffic conditions
- Consider expanding traffic signal capabilities through technology and communications improvements to optimize turning movements during peak periods at Livingston Rd
- Evaluate the feasibility of adding capacity and additional turn lanes to Orange Blossom Dr to serve as an alternative route for accessing Airport-Pulling Rd and Livingston Rd
- Provide funding assistance for promoting existing car/ vanpool awareness and app availability
- Evaluate the feasibility of a new interchange at Vanderbilt Beach Rd and I-75
- Advance the displaced-left design concept from the Transportation Systems Performance Report Action Plan or evaluate other innovative intersection solutions at Vanderbilt Beach Rd and Livingston Rd to accommodate additional traffic volumes once the Vanderbilt Beach Rd Extension Project is completed

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:





How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!















Collier County's Congestion Hotspots

CR 862 / Vanderbilt Beach Rd

(From CR 31 / Airport-Pulling Rd to CR 881 / Livingston Rd)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

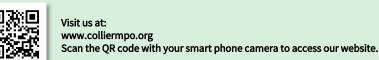
Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

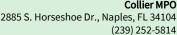
Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).







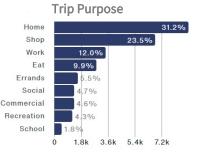
CR 862 / Vanderbilt Beach Rd (From CR 31 / Airport-Pulling Rd to CR 881 / Livingston Rd)

Ouick Facts

Corridor Length: 1.01 Miles Number of Major Intersections: 2 Number of Daily Trips (Avg. Weekday): ~29k











Corridor Challenges

- Commuter Traffic: This corridor experiences surges in commuter traffic in the morning and afternoon, especially in the eastbound direction during the PM peak period, which is likely worsened by vehicles trying to access the I-75 interchanges and creating a burden on turning capacity at the Livingston Road intersection.
- Potential Bicycle & Pedestrian Conflicts: As future connections and improvements are made to the greenway along Livingston Rd, the crossing at this corridor could experience increased activity that could lead to safety problems without adequate investments in facility upgrades.

Corridor Opportunities

Lack of Development Density: The combination of natural areas, parks, golf courses, and undeveloped land north of this corridor do not currently contribute to the significant worsening of congestion levels.

Where is Congestion Usually the Worst?



Direction Eastbound

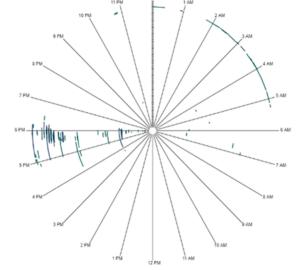
Location Approaching Livingston Rd

> Time 5-6 PM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at Livingston Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the PM peak period between 5 and 6 PM. Note that the overnight bottleneck conditions occurring 2 and 5 AM towards the end of the year are likely related to planned maintenance or construction activity.













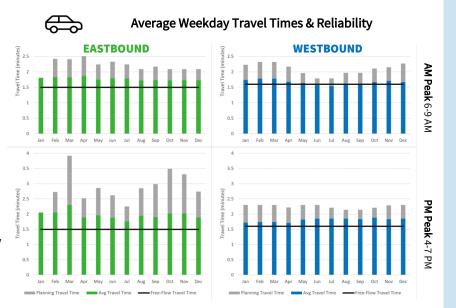






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor can be seen in the longer travel times from roughly September to May, which coincides with school activity and may be worsened by seasonal visitors at the beginning and end of the year combined with commuting patterns. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases during the same months. A similar, although less pronounced, pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



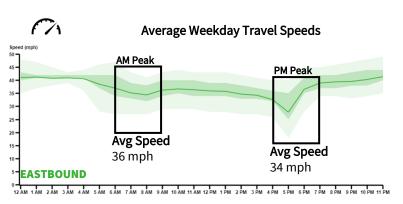
Estimated Traffic Delay Costs

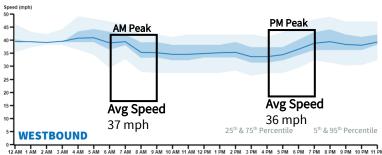
| | | | | | | Lowest | COST | Highest cost | Data Unava | illable | | |
|------|----------|----------|------|-----|-----|--------|------|--------------|------------|----------|----------|----------|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 2022 | \$ | \$\$ | \$\$ | \$ | | | | | | | | |
| 2021 | \$\$ | \$\$ | \$\$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$\$ |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$\$ |
| 2019 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$\$\$ | \$\$\$ | \$\$\$\$ | \$\$\$\$ | \$\$\$\$ |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Although speeds drop most severely during the PM peak period in the eastbound direction, they remain relatively more stable in the westbound direction throughout the day. As shown in the circular graph to the left, most bottlenecks occur roughly between 5 and 6 PM in the eastbound direction. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. Shopping trips are the second most common purpose throughout the day.







What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Develop a pilot project for a community shuttle/circulator route connecting the Creekside Transfer Center to the commercial areas surrounding US 41/Vanderbilt Beach Rd intersection via Gulf Shore Dr
- Evaluate the feasibility of converting existing off-street sidewalk into a shared-use path to encourage nonmotorized transportation and reduce short vehicle trips from surrounding hotels and condominiums
- Consider expanding traffic signal capabilities through technology and communications improvements to optimize traffic flow at US 41 during seasonal months
- Consider upgrading existing bike lanes with additional signage, pavement markings, green paint, audible pavement markings, and/or traffic separators to increase safety conditions, and extending west to Gulfshore Dr, which has been identified as a network gap priority by the most recent Bicycle & Pedestrian Master Plan based on public feedback
- Evaluate the feasibility of constructing a roundabout at Hammock Oak Dr, Vanderbilt Dr, and/or Gulf Shore Dr
- Evaluate the feasibility of a new dedicated right-turn lane at the eastbound entrance to the Vanderbilt Beach Public

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

Transit Routes Available:





How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

















Collier County's Congestion Hotspots

CR 862 / Vanderbilt Beach Rd

(From CR 901 / Vanderbilt Dr to US 41 / Tamiami Trail)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot **Corridors?**

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).







CR 862 Vanderbilt Beach Rd (From CR 901 / Vanderbilt Dr to US 41 / Tamiami Trail)

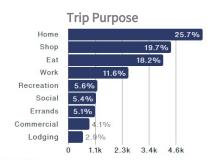
Ouick Facts

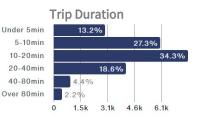
Corridor Length: 1 Mile Number of Major Intersections: 4 Number of Daily Trips (Avg. Weekday): ~22k

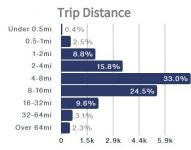
~2 min Avg. Daily Duration of **Bottleneck Conditions**











Corridor Challenges

- **Seasonality:** This corridor is a small roadway that is highly susceptible to spikes in traffic during months with increased seasonal visitors because of its location between coastal hotels/condominiums and shopping/dining destinations to the east.
- Beach Trips: The public beach parking on the far west end, combined with "turnaround trips" and regular traffic from local residents and visitors, can create congestion that accumulates and eventually affects this corridor.

Corridor Opportunities

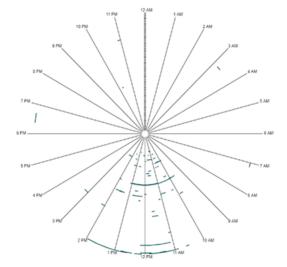
- Non-Motorized Facilities: The existing space along this corridor provides an opportunity for upgrading and expanding the existing sidewalk into a larger share-use path. The surrounding density of hotels/condominiums and proximity to the beach could likely produce a high demand for recreational and short non-motorized trips for other purposes.
- Alternative Route Options: The grid network of neighborhood streets east of Vanderbilt Drive can provide multiple alternative northern routes to US 41 that could be modified to incorporate elements of Complete Streets or used for re-routing in cases of severe delays or crash incidents.
- **Employee Shuttles/Vanpools:** The concentration of hotels and resorts in this area could provide an opportunity to provide alternative transportation options to employees who use this corridor on a regular basis for commuting to work.

When is Congestion Usually the Worst? **M** Direction Eastbound Time 11AM- 4PM

Bottleneck Occurrences

Each line in this graph represents a traffic bottleneck during 2021 in the westbound direction at Gulfshore Dr. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Unlike roadways with a high degree of commuter traffic, bottlenecks at this location occurred more often during mid-day rather than the AM and PM peak periods typically associated with congestion. These conditions are consistent with recreational trips by seasonal visitors/retirees and regular beach activity in the area.











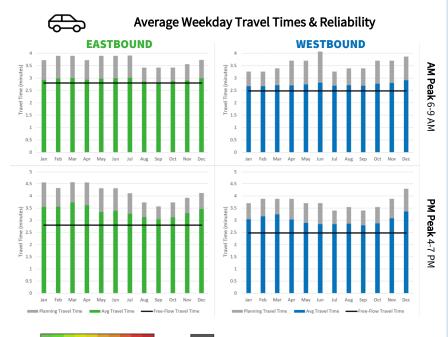






Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor during months when visitors and part-time residents are more common can be seen in the longer travel times from roughly November to June. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for "planning ahead" to arrive on time, which also increases. A similar pattern is shown below by the higher monthly delay costs, especially during the first part of the year. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



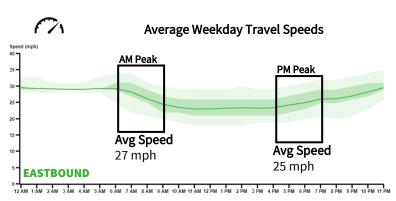
Estimated Traffic Delay Costs

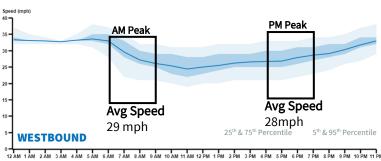
| | | | | | | | | - | | | | | |
|------|----------|----------|--------|------|------|------|------|--------|--------|------|--------|--------|--|
| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| 2022 | \$\$ | \$\$\$ | \$\$\$ | \$\$ | | | | | | | | | |
| 2021 | \$\$ | \$\$ | \$\$\$ | \$\$ | \$\$ | \$\$ | \$ | \$ | \$ | \$ | \$ | \$\$ | |
| 2020 | \$\$\$\$ | \$\$\$\$ | \$\$\$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$\$ | |
| 2019 | \$\$ | \$\$\$ | \$\$\$ | \$ | \$ | \$ | \$\$ | \$\$\$ | \$\$\$ | \$\$ | \$\$\$ | \$\$\$ | |
| | | | | | | | | | | | | | |

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.

Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 35 MPH. Reductions in speed to do not follow the typical peak pattern for most congested corridors, but rather decline more gradually as morning activity increases, remain relatively low throughout the mid-day, and then gradually recover again in the late afternoon. This reflects the lack heavy commuting traffic and high level of visitors or recreational trips to the beach using the corridor. Similarly, the circular graph to the left shows that most bottlenecks occur between 10 AM and 2 PM, and are not overly common occurrences. Trip purposes also indicate a similar pattern of mid-day visitor or non-work-related activity, with trips for shopping, eating, recreational, or social purposes accounting for nearly 50% of all activity along the corridor.





EXECUTIVE SUMMARY DISTRIBUTION ITEM 10B

Draft 2023 MPO Meeting Calendar

OBJECTIVE: For the committee to receive a copy of the draft 2023 MPO Meeting Calendar.

CONSIDERATIONS: The draft 2023 MPO Meeting Calendar is provided in **Attachment 1**. The MPO Board is expected to approve a final 2023 Meeting Calendar at their December 9th meeting.

STAFF RECOMMENDATION: N/A.

Prepared By: Anne McLaughlin, MPO Director

ATTACHMENT(S):

1. Draft 2023 MPO Meeting Calendar



STRIKETHROUGH = CANCELLED MEETING DATES IN RED = ADDED MEETING

2023 Meeting Schedule

Collier Metropolitan Planning Organization (MPO) 2885 S. Horseshoe Drive, Naples, FL 34104

www.CollierMPO.com
(239) 252-5814

10/14/2022 MPO BOARD MEETING DRAFT

*Note that locations have changed for meetings previously held in Conference Room 609/610, Collier County Growth Management Division, Planning & Regulation Bldg., 2800 North Horseshoe Drive, Naples, FL, due to unavailability of the Conference Room.

Metropolitan Planning Organization (MPO) – Monthly at 9:30 a.m. MPO Board Meetings are held on the second Friday of the month at the Board of County Commissioners Chambers, Admin. Bldg. F, 3299 Tamiami Trail East, Naples, FL, 34112, unless otherwise noted. February 10, 2023 March 10, 2023 April 14, 2023 May 12, 2023 June 9, 2023 September 8, 2023 October 13, 2023 *November 17, 2023 December 8, 2023 *TENTATIVE JOINT MEETING with Lee County MPO, location and time TBD. Date subject to change.

| Technical Advisory Committee (TAC) – Monthly at 9:30 a.m. TAC Meetings are held on the fourth Monday of the month at the County Transportation Management Services Bldg., Main Conference Room, 2885 South Horseshoe Drive, Naples, FL, 34104, unless otherwise noted. | | | | | | | | | |
|---|-------------------|--------------------|-------------------|--|--|--|--|--|--|
| January 23, 2023 | February 27, 2023 | March 27, 2023 | April 24, 2023 | | | | | | |
| May 22, 2023 | August 28, 2023 | September 25, 2023 | *October 23, 2023 | | | | | | |
| November 27, 2023 | | | | | | | | | |
| * TENTATIVE JOINT MEETING with Lee County TAC, location and time TBD. Date subject to change. | | | | | | | | | |

| Citizen Advisory Committee (CAC) – Monthly at 2:00 p.m. CAC Meetings are held on the fourth Monday of the month at the County Transportation Management Services Bldg., Main Conference Room, 2885 South Horseshoe Drive, Naples, FL, 34104, unless otherwise noted. | | | | | | | | |
|---|-------------------|--------------------|-------------------|--|--|--|--|--|
| January 23, 2023 | February 27, 2023 | March 27, 2023 | April 24, 2023 | | | | | |
| May 22, 2023 | August 28, 2023 | September 25, 2023 | *October 23, 2023 | | | | | |
| November 27, 2023 | | | | | | | | |
| * TENTATIVE JOINT MEETING with Lee County CAC, location and time TBD. Date subject to change. | | | | | | | | |

| BPAC Meetings are held or | Bicycle/Pedestrian Advisory Committee (BPAC) – Monthly at 9:00 a.m. BPAC Meetings are held on the third Tuesday of the month at the Collier County Government Center, Admin. Bldg. F, IT Training Room, 5th Floor, 3299 Tamiami Trail East, Naples, 34112, unless otherwise noted. January 17, 2023 April 18, 2023 | | | | | | | | |
|--|---|--------------------|-------------------|--|--|--|--|--|--|
| January 17, 2023 | February 21, 2023 | March 21, 2023 | April 18, 2023 | | | | | | |
| May 16, 2023 | August 15, 2023 | September 19, 2023 | *October 17, 2023 | | | | | | |
| November 21, 2023 | | | | | | | | | |
| * TENTATIVE JOINT MEETING with Lee County BPCC, location and time TBD. Date subject to change. | | | | | | | | | |

| | n management Committe | | | | | | | | | |
|----------------------------|---|--------------------------------|----------------------------|--|--|--|--|--|--|--|
| CMC Meetings are held on t | CMC Meetings are held on the third Wednesday of every other month at the Collier County Transportation Management | | | | | | | | | |
| Services Bldg., South Co | nference Room, 2885 South Hors | eshoe Drive, Naples, FL, 34104 | I, unless otherwise noted. | | | | | | | |
| January 18, 2023 | March 15, 2023 | May 17, 2023 | July 19, 2023 | | | | | | | |
| September 20, 2023 | November 15, 2023 | | | | | | | | | |

Local Coordinating Board (LCB) for the Transportation Disadvantaged – Quarterly at 1:30 p.m. LCB Meetings are held quarterly on the first Wednesday of the corresponding month at the Collier County Government Center, Admin. Bldg. F, IT Training Room, 5th Floor, 3299 Tamiami Trail East, Naples, 34112, unless otherwise noted. March 1, 2023 Pecember 6, 2023 Pecember 6, 2023

| | | | • |
|---------------|-------------|-------------------|------------------|
| March 1, 2023 | May 3, 2023 | September 6, 2023 | December 6, 2023 |
| | | | |