Three Rivers Access Study

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Final Report

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EXECUTIVE SUMMARY

The focus of this study is to assess the overall capacity of County Route 57 in light of possible future redevelopment of Three Rivers Point. In an effort to appropriately plan for future growth, the Town of Clay collaborated with Syracuse Metropolitan Transportation Center (SMTC) to engage in transportation planning based on smart growth principles. The targeted study area under review includes Three Rivers Point and adjacent lands, as well as lands on the north side of Oneida River in the Town of Schroeppel.

With the guidance of a Study Advisory Committee and the input from the community, SMTC and the consulting team of edr Companies and Clark Patterson Lee completed this access study for the Three Rivers Point area. The study involved understanding the opportunities and constraints of the existing area, developing alternative redevelopment scenarios, assessing the possible traffic impacts from the proposed hypothetical redevelopment and determining plausible mitigation measures.

Historically, Three Rivers Point, which is immediately adjacent to the confluence of the Seneca, Oswego, and Oneida Rivers, has been a very attractive destination for many who have lived in the region. Native Americans and early European settlers considered this site a very unique place and were attracted by the surrounding natural beauty and easy access. Over the years, an active transportation network evolved. Railroad tracks were first laid around 1871, followed by the New York State Barge Canal in 1918. Eventually County Route 57 provided access for cars and trucks traveling north to Oswego. These transportation systems were used primarily for commercial purposes, which eventually led to commercial uses in the area. By the mid 1900's an entertainment night club called the Three Rivers Inn developed and became well-known throughout the region. Today, many of the commercial uses have closed down. The Seneca, Oswego and Oneida rivers are used primarily by recreational boaters, and single-family residential is the primary land use in the area.

Over the last decade or so, for a variety of reasons, this area has received much attention for its cultural heritage and natural resources. The governing towns have expressed an interest in preserving these resources and supporting potential economic development. Many existing studies and land use plans that address one or more of these issues were reviewed for this study. As indicated in all of the existing plans and studies, there is an interest in redeveloping this area in a sustainable manner. One primary concern is whether redevelopment of this area with a balanced mix of residential and commercial uses would overwhelm the transportation capacity of County Route 57. Based on known land use goals for this area with the application of smart growth principles, two alternative redevelopment concepts were created. Based on these concepts and proposed uses, an analysis was conducted of the potential traffic impacts on County Route 57 and four strategic intersections. This analysis was compared to the existing conditions and future No-Build conditions of the same transportation network.

The traffic analysis revealed that the possible impacts would not be significantly more than if no development occurred. Essentially, the impacts from increased traffic could be mitigated with appropriate measures, such as a turn lane and traffic signal. Based on these results, with some improvements, the transportation network does have capacity for additional commercial and residential growth. It is noted that certain intersections currently present vehicular safety and access issues, such as the intersection of Maider Road and County Route 57, which should be addressed regardless of future growth.

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1.0 INTRODUCTION

This is an access study of Three Rivers Point and adjacent lands located at the confluence of the Oswego, Seneca, and Oneida Rivers in the Town of Clay, Onondaga County, and the Town of Schroeppel, Oswego County, New York. The Syracuse Metropolitan Transportation Council (SMTC) on behalf of the Town of Clay completed this study as part of the 2010-2012 Unified Planning Work Program (UPWP). The SMTC retained the consulting team of edr Companies and Clark Patterson Lee to complete this access study for the Three Rivers Point area (Access Study). This Access Study includes a primary area, made up of Three Rivers Point and adjacent lands, as well as the southern peninsula of the Town of Schroeppel, and a secondary area, the County Route 57 corridor from 57A (to the north) and State Route 31 (to the south) (Study Area) (see Figure 1). edr focused on creating redevelopment scenarios for the Study Area and Clark Patterson Lee analyzed potential traffic impacts generated from each redevelopment scenario.

A Study Advisory Committee (SAC) was formed by SMTC to include various stakeholder representatives. SAC members were responsible for reviewing and critiquing the redevelopment scenarios from their professionals perspective. Agency and municipal government representation on the SAC included:

- Town of Clay
- Town of Schroeppel
- Onondaga County Department of Transportation
- Oswego County Department of Community Development, Tourism and Planning
- Syracuse Onondaga County Planning Agency
- Central New York Regional Planning and Development Board
- Central New York Regional Transportation Authority (CENTRO)
- New York State Canal Corporation
- New York State Department of Transportation, Region 3
- New York State Department of Environmental Conservation

A total of four SAC meetings were held over the course of this study to discuss the various nuances regarding the Study Area and to finalize the boundaries of the Study Area.

This study's progress unfolded in three stages. The

View of Three Rivers Point from Route 57.

first stage consisted of understanding the historic influences, community context, current land uses, zoning regulations, natural features and overall conditions of the Study Area. The second stage consisted of developing alternative redevelopment scenarios and understanding the potential traffic impacts generated from each redevelopment option. The third stage consisted of assessing traffic impacts and mitigation options for each redevelopment scenario.

This report includes a summary of existing relevant town and regional transportation and land use planning studies. It also describes the existing conditions of the Study Area, including an analysis of local traffic issues. The traffic analysis focuses on the four main intersections in the Study Area (see Section 1.1.1 Study Area) and consists of peak hour volumes, vehicular delays and level of service data. A No-Build growth analysis was conducted to provide a baseline assessment to which future redevelopment concepts can be compared.

The focus of this Access Study is to determine redevelopment opportunities for the primary area with an understanding of the level of potential traffic impacts redevelopment may have on the transportation network that services the Study Area. Three Rivers Point has been underutilized for the last two decades and the Town of Clay is very interested in encouraging its revitalization. At the same time, however, the town is acutely aware of the many complex traffic congestion issues its residents, visitors and business owners experience daily. Thus, assessing the potential transportation impacts from redevelopment alternatives will help the town proactively and intelligently plan for and manage growth in the Three Rivers Study Area.

1.1 Study Area and Method

1.1.1 Study Area

The Study Area is located in the Towns of Clay and Schroeppel, the southern boundary of which is approximately 2.5 miles north of the City of Syracuse in northern Onondaga County. To the west of the Study Area is the Town of Lysander and to the north is the Town of Schroeppel, Oswego County (see Figures 1 and 2). Initially this study focused on redevelopment of only town-owned lands in the Study Area. After critical review and consideration of potential opportunities and constraints, SMTC revisited the primary study boundary and expanded it to extend to the waterfront and to include strategic adjacent lands. Some of this property is underutilized and would allow for potential realignment of the Maider Road

View of Oswego River at Three Rivers Point.

intersection with the CSX Rail line and County Route 57 (see Figure 3 for existing locations). The final limits of the Study Area were reviewed and discussed during the first SAC meeting and revisited after the second SAC meeting, along with other issues regarding land ownership, former land uses and relevant planning studies. It was determined that this Access Study should be expanded across the Oneida River to include the land south of Hoag Drive on the Schroeppel peninsula.

The primary area in this study includes approximately 150 acres in the Town of Schroeppel, with approximately 6,767 feet of shoreline, and 85 acres in the Town of Clay, with approximately 3,136 feet of shoreline, which is a small but significant section of the 26 miles of shoreline within the Town of Clay. The secondary area includes 3.06 miles of County Route 57, which is a north-south highway connecting the City of Syracuse to Oswego, and four strategic intersections along Route 57 corridor (see Figure 1).

The four intersections included in this Access Study are:

1. County Route 57 and New York State Route 31
2. County Route 57 and Verplank Road
3. County Route 57 and Maider Road
4. County Route 57 and County Road 57A

1.1.2 Study Goals and Method

The goals of this study are essentially to understand the potential traffic impacts redevelopment of the Study Area would have on County Route 57 and the four identified intersections (see Section 1.1.1 herein). The specific study goals are:

1. Develop two alternative concepts that respect the natural resource protection, waterfront revitalization, and brownfield redevelopment goals set forth in Town of Clay's existing plans.
2. Understand the potential traffic impacts generated from each alternative concept.
3. Assess the potential for multi-modal accessibility at Three Rivers Point.
4. Invite the community to review and discuss redevelopment options.

The methodology for this study occurred in three stages; first, developing an existing conditions profile of the Study Area, second, developing two alternative mixed-use concepts for the Study Area, and third, assessing possible traffic impacts generated from each concept. The first stage included reviewing existing plans and studies, collecting relevant traffic, land use, and census data, and visiting the Study Area in July 2010. Weekday and Saturday midday turning movement data were collected by SMTC in 2009 and 2010. Weekday morning turning movement counts were conducted between 7:00 a.m. and 9:00 a.m., weekday evening traffic peak turning movement counts were conducted between 4:00 p.m. and 6:00 p.m., and Saturday midday turning movement counts were conducted between 11: 00 a.m. and 1:00 p.m.

Once the data were collected and the profile of the Study Area was understood, the traffic volumes were analyzed to determine the Level of Service (LOS) for each of the four intersections in the study corridor. Capacity analyses were performed to determine the LOS under existing as well as the future (2020) No-Build conditions. A No-Build future analysis considers growth occurring in the general area at a predetermined modest rate and no additional development. The analysis of existing and No-Build conditions were used as a baseline to which the projected traffic impacts from the two redevelopment alternative concepts were compared.

The second stage consisted of developing two alternative redevelopment concepts for the Town of Clay portion of the Study Area and a land use plan for that portion in the Town of Schroeppel. Existing residential uses in the Study Area were assumed to remain residential in both alternative concepts. The third stage consisted of conducting a traffic analysis. Possible traffic impacts were analyzed based on the two hypothetical redevelopment scenarios. This traffic analysis was compared to the

current conditions and future No-Build conditions. This was followed with the identification of possible mitigation strategies.

Community input was sought at key milestones throughout this study (see Appendix A). On November 17, 2010 the two development concepts were presented to and reviewed by the community. After an initial overview, the full group (approximately 40 people) was divided into two smaller groups to review and comment on each alternative concept (see Appendix E). After specific comments were shared, additional discussion with the full group was facilitated. The SAC then met after this meeting to review the proposed alternative concepts in light of the public input. In response thereto, Alternative Concept 2 was revised to reflect the community's preference for future uses at the Three Rivers Point. The two alternative concepts (including the land use plan) then underwent a traffic impact analysis. The results of that analysis were shared with the community on June 29, 2011. After the potential impacts were presented, a community discussion was facilitated, with the goal of garnering opinions and concerns. The primary focus for this study was again explained as an exercise to understand how much growth could occur in the Study Area before the existing roadway capacity was overwhelmed and in need of significant improvements. It was also noted that the two alternative concepts were hypothetical scenarios. Some local residents commented on their preference to keep the area rural in character, others indicated their interest in incorporating trails that would allow for access to the waterfront during all seasons. Some commented on the relative safety at certain intersections along County Route 57 in the Study Area as well as the occasional congestion at the intersection of Routes 31 and 57 (see Appendix E). After reviewing the public's comments and potential traffic related impacts, it was noted by the SAC that the results of this study will serve the Towns of Clay and Schroeppel as a solid basis from which they can review future development proposals for the Study Area at Three Rivers Point.

2.0 RELEVANT STUDIES

Historic Three Rivers Point and the Erie Canal System have received much attention regarding strategic planning for economic development. Also, the Town of Clay has experienced significant growth over the last decade and has undertaken multiple studies evaluating its local resources in light of growth pressures. The Town of Schroeppel, however, has experienced significantly less development pressure. Many of these town and regionally-based planning studies are relevant to this Access Sstudy and the Three Rivers Study Area. A summary review of the most relevant of these studies is provided below, with a focus on understanding each study's recommendation(s) for this Study Area. Interestingly, all the relevant recommendations for this area are compatible in that they support sustainable redevelopment of the Study Area in a way that is respectful of the area's character and sensitive to the historic, cultural, scenic and natural resources.

2.1 Town of Clay Three Rivers Point Redevelopment Study

In 2000, the Town of Clay retained edr to prepare alternative development concepts for Three Rivers Point which included waterfront properties to the east of County Route 57 and a 66-acre brownfield area formerly used by Cibro Petroleum Products for storing fuel oil and asphalt (see Figure 4). The study goals included creating a marina/boating facility, preserving historic, cultural and sensitive environmental features, capturing scenic views, developing a recreational tourism experience and improving transportation connections (see Figure 5). The preferred alternative concept addressed those goals while re-connecting the community to the waterfront, celebrating the history of Three Rivers Point, and promoting mixed-use development (see Figures 6 & 7). The scope of the 2000 study did not include specific implementation strategies or assessment of potential impacts from the preferred mixed-use development; consequently, the viability of the preferred alternative was never measured.

In summary, the 2000 study was an initial effort at understanding the potential redevelopment options and land uses for the Three Rivers area and as such, acts as a platform from which alternative concepts can be further developed. The primary difference between the 2000 study and this Access Study is the assessment of the potential traffic impacts from the redevelopment scenarios. In this study the viability of each alternative concept will be measured and mitigation opportunities will

Approaching Three Rivers Point from Gaskin Road.

be identified where appropriate. Implementation strategies for potential redevelopment will also be included.

2.2 Town of Clay Draft Local Waterfront Revitalization Plan

In 2008 the Town of Clay initiated development of its draft Local Waterfront Revitalization Plan (Draft LWRP) by inventorying its local waterfront revitalization area, which includes approximately 26 miles of shoreline along the Oneida, Seneca and Oswego Rivers. A Waterfront Stakeholders Group, which included private property owners, representatives of homeowner associations and business owners who live and/or work in the waterfront corridor, served as the LWRP advisory committee. The committee met on three occasions to discuss and identify the future vision for revitalization of the waterfront corridor. The Draft LWRP (Town of Clay, 2008) includes waterfront development policies for redevelopment along the waterfront corridor, and suggests future development projects within the waterfront corridor must be consistent with these policies. The LWRP policies address issues relative to the following four different waterfront conditions: 1) Developed waterfront, 2) Natural waterfront, 3) Public waterfront and 4) Working waterfront, which are summarized as follows:

1) Developed Waterfront Policies:

Policy 1. Foster a pattern of development in the waterfront area that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a waterfront location, and minimizes adverse effects of development.

Section 1.1. Concentrate development and redevelopment in or adjacent to traditional waterfront communities.

Section 1.2. Ensure that development or uses take appropriate advantage of their waterfront location.

Section 1.3. Protect stable residential areas.

Section 1.4. Maintain and enhance natural areas, recreation, open space and agricultural lands.

Section 1.5. Minimize adverse impacts of new development or redevelopment.

Policy 2. Preserve historic resources of the waterfront area.

Section 2.1. Maximize preservation and retention of historic resources.

Section 2.2. Protect and preserve archaeo-

View of cottages in the Town of Schroeppel at the confluence of three rivers.

logical resources.

Section 2.3. Protect and enhance resources that are significant to the waterfront culture.

Policy 3. Enhance visual quality and protect scenic resources throughout the waterfront area.

Section 3.1. Protect and improve visual quality throughout the waterfront area.

Section 3.2. Protect aesthetic values associated with recognized areas of high scenic quality.

2) Natural Waterfront Policies

Policy 4. Minimize loss of life, structures, and natural resources from flooding and erosion.

Section 4.2. Preserve and restore natural protective features.

Section 4.6. Consider sea level rise when siting and designing projects involving substantial public expenditures.

Policy 5. Protect and improve water quality and supply.

Section 5.2. Manage land use activities and use best management practices to minimize non-point pollution of waterfront areas.

Section 5.3. Protect and enhance the quality of waterfront area waters.

Section 5.4. Limit the potential for adverse impacts of watershed development on water quality and quantity.

Section 5.5. Protect and conserve the quality and quantity of potable water.

Policy 6. Protect and restore the quality and function of the ecosystem.

Section 6.1. Protect and restore ecological quality.

Section 6.2. Protect and restore significant coastal fish and wildlife habitats.

Section 6.3. Protect and restore freshwater wetlands.

Section 6.4. Protect vulnerable fish, wildlife, and plant species, and rare ecological communities.

Section 6.5. Protect natural resources and associated values in identified regionally important natural areas.

Policy 7. Protect and improve air quality in the waterfront area.

Policy 8. Minimize environmental degradation in the waterfront area from solid waste and hazardous substances and wastes.

3) Public Waterfront Policies

Policy 9. Provide for public access to, and recreational use of, the waterway, public lands, and public resources of the waterfront area.

Section 9.1. Promote appropriate and adequate physical public access and recreation throughout the waterfront area.

Section 9.2. Provide public visual access from public lands to waterfront lands and waters or open space at all sites where physically practical.

View of docks on Oneida River.

Section 9.3. Preserve the public interest in and use of lands and waters held in public trust by the State, and other public entities.

Section 9.4. Assure public access to public trust lands and navigable waters.

4) Working Waterfront Policies

Policy 10. Protect water-dependent uses and promote siting of new water-dependent uses in suitable locations.

Policy 11. Promote sustainable use of living marine resources.

Section 11.2. Provide for commercial and recreational use of marine resources.

Section 11.4. Promote recreational use of marine resources.

Policy 12. Protect agricultural lands.

Section 12.3. Minimize adverse impacts on agriculture from unavoidable conversion of agricultural land.

The draft LWRP is currently undergoing review by the NYS Department of State Division of Coastal Resources. Three Rivers Point is specifically identified in the Draft LWRP as an area for revitalization with mixed-use development as the preferred land use.

2.3 Brownfield Opportunity Area Program Application

In 2009 the Town of Clay submitted an application for funding to participate in the Nomination Phase of the NYS Department of State's Brownfield Opportunity Area Program and to complete a study of the identified Brownfield Opportunity Area (BOA), the boundary of which is very similar to this primary Study Area. The application provides a broad inventory of the tax parcels in the proposed Study Area, which includes former land uses (with a focus on the former industrial uses), current land uses, property ownership, natural resources, infrastructure systems, the need to clean up known brownfield sites and the potential to reclaim or recapture the local waterfront with future redevelopment of the area. The application is still pending and when it is acted upon this Access Study may be concluded. It is anticipated that the recommendations in this Access Study will be considered and directly influence actions taken when planning for the proposed Brownfield Opportunity Area.

2.4 Town of Clay Draft Northern Land Use Study

This planning study by the Town of Clay's Department of Planning and Development has been ongoing for a few years. The purpose of the proposed Northern Land Use Study (Town of Clay, 2011) is to provide the Town of Clay with an analysis of existing conditions and the potential impacts from possible build out scenarios based on the town's existing zoning and land use regulations. The study

Example of nearby waterway access.

focuses on the predominantly undeveloped areas north of Route 31 and north of NY State Route 481 in the eastern section of the town, including this Study Area. The goal of the study is to identify the preferred uses and development densities for specific areas and how to structure the town's zoning and land use regulations to encourage such uses in the northern section of Clay. In general, the study recommends that future development take environmental constraints into consideration, emphasize waterfront development, incorporate "Smart Growth" principles and promote circulation within and between neighborhoods. Specific recommendations for the Three Rivers Study Area include:

1. Expand sewers along Gaskin Road to service Gaskin Road, Linda Lane and the Three Rivers Area.
2. Extend the municipal water system in the areas west of Route 481.
3. Create a Planned Development District at Three Rivers for mixed commercial and residential development.
4. Create a riverfront district as an overlay for waterfront properties.

It is noted that in 2010 the Town of Clay acted on the recommendation to create a planned development district and rezoned several parcels in the primary Study Area as Planned Development District. The other specific recommendations were taken into consideration when developing the alternative development scenarios for this Access Study.

2.5 New York State Erie Canal Recreationway Plan

In 1992 the New York State Canal Corporation was established as a subsidiary of the NYS Thruway Authority, with the focus of operating, preserving and renewing the Canal System for recreation and economic development. The Canal Recreation Commission was then established and charged with the responsibility for preparing and periodically revising a Recreationway Plan, which was developed in 1995. The 1995 NYS Canal Recreationway Plan (Beyer, 1995) presents strategic implementation steps for the development of the Canal Recreationway including specific Canal Harbors. The Canal System was divided into fifteen segments, which were accorded thematic characteristics. The section of canal that runs along the Study Area is included in the "Gateway to the Great Lakes" segment. It is at Three Rivers Point that the Erie Canal portion of the NYS Barge Canal System connects to the Oswego River/Oswego Canal, which ultimately empties into Lake Ontario. The interpretive opportunities for this segment of the Canal System, as identified in the 1995 Recreationway Plan, include water transportation, recreation and military history. The Recreationway Plan encourages preserving and celebrating the historic and cultural resources associated with the Canal System, while creating and/or enhancing recreational opportunities along the canal which may directly or indirectly foster economic development for the surrounding communities.

Potential area for redevelopment at Three Rivers.

2.6 Clay-Cicero Route 31 Transportation Study

New York State Route 31 is a critical east-west transportation corridor through the Towns of Clay and Cicero. In 2010 the SMTC completed the Clay-Cicero Route 31 Transportation Study (SMTC, 2010). This study reviewed and assessed potential impacts from future land use patterns and transportation alternatives specifically associated with the Route 31 corridor. The focus area for this study was the Route 31 corridor in the Towns of Clay and Cicero, north to Verplank Road (Town of Clay) and Mud Mill Road (Town of Cicero) and south to Route 481. The issues reviewed during this study were:

- regional accessibility
- arterial congestion
- development pressure, and
- coordinated planning

Even though the Clay-Cicero Route 31 transportation study covered an area broader than this Access Study, its assessment of the western section of Route 31 at the intersection of County Route 57 north to Verplank Road is relevant to this Access Study. The study's full set of recommendations is intended to influence land use and growth management decisions within both towns; study recommendations that are pertinent to this Access Study include the following:

- Revise the existing Town of Clay and Town of Cicero planning documents to include lower levels of future growth.
- New development should focus on increasing density and mixing uses.
- Enhance transit service, with supportive land use practices.
- Upgrade Verplank Road.
- Build new local road connections in the Clay commercial area through developer mitigation.
- Require new development to include pedestrian, bicycle, and transit accommodations.
- Practice good access management in commercial areas.
- Require roadway connections between residential areas (discourage cul-de-sacs).

Railroad bridge and tracks crossing Oneida River along County Route 57.

2.7 Other Route 31 & 57 Transportation Studies

The recommendations of the Clay – Cicero Route 31 Transportation Study do not stand alone. For many years the Town of Clay has been concerned about increased traffic congestion along County Route 57, with specific concerns at its intersection with Route 31. In 1999 the Route 31 & Route 57 Land Use and Circulation Study was prepared for the Town of Clay (CHA, 1999) and the area was again studied in 2006 in the Route 31 & Route 57 Corridor Study (FRA, 2006). This intersection and the two corridors (Routes 57 and 31) are heavily used and the vehicular traffic congestion will continue as development continues to increase. The town's ongoing challenge is to manage improvements to the Town of Clay's transportation network so that it keeps pace with future commercial and residential growth. Based on these two transportation studies,

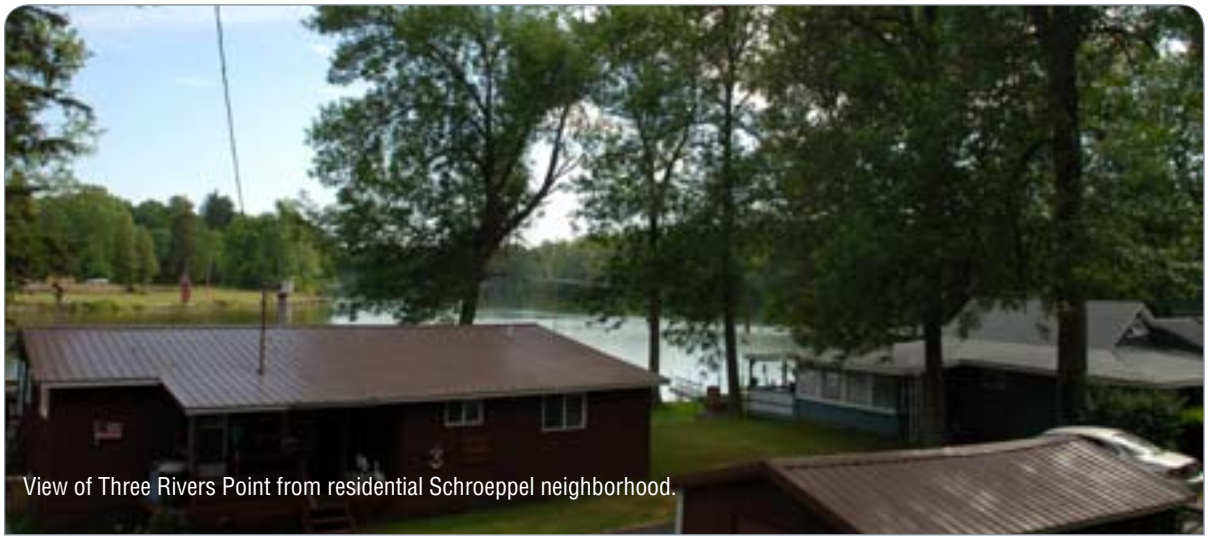
some recommended transportation improvements include:

- Improving the full spectrum of connectivity for alternative active transportation, i.e. biking and walking.
- Creating a network of connected streets throughout the town, which allows for alternative transportation routes.
- Encouraging development patterns (commercial and residential) that support active transportation, alternative transportation routes, and, where appropriate, slows vehicular traffic.

2.8 Town of Schroeppel Comprehensive Plan

The Town of Schroeppel's 1992 Comprehensive land use plan (Plan) was updated in 2001 (Town of Schroeppel, 2001). The Plan's overall land use and development goals are to encourage economic growth where appropriate, protect environmentally sensitive areas, maintain rural character, and conserve natural resources. In support of its specific goal to "protect environmentally sensitive areas and conserve natural resources", the Town is focused on protecting its environmentally sensitive shorelines from unsustainable development and its riverine communities along the Oneida and Oswego Rivers from unwanted flooding. A Plan strategy is to require a minimum 50-foot buffer, maintaining at least 75% existing vegetation with buildings setback a minimum of 100 feet from the waters edge. It is also the Town's goal to promote environmentally compatible development by planning for growth in and near existing municipal water systems, such as the Village of Phoenix water system, or natural aquifers such as the Sand Ridge Aquifer. The strategy is to encourage growth where adequate water supply currently exists.

In addition to encouraging environmentally sound growth; the Town is focused on providing adequate recreational community facilities for all town residents. A Plan strategy to achieve this is to require a minimum of 10% of land to be set aside for parkland in new residential developments. In support of this goal, the Town encourages using State Canal lands for public recreation. This Study Area does include shoreline along the Oneida and Oswego Rivers much of which is owned by New York State Canal Corporation and currently leased by private residents. Nevertheless, low-impact recreational opportunities could be captured along these shorelines, giving residents and visitors a venue to enjoy the beauty in this area.



View of Three Rivers Point from residential Schroeppel neighborhood.

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3.0 STUDY AREA PROFILE

3.1 Regional Context

3.1.1 Demographics

The Study Area is located on the northwestern edge of the Town of Clay in Onondaga County and the southern tip of the Town of Schroeppel in Oswego County. Development patterns in the Town of Lysander, across the Seneca River to the west, and the Town of Schroeppel and Oswego County, across the Oneida River to the north, may influence (and be influenced by) redevelopment opportunities in the Study Area. According to the U.S. Census Bureau, in 2000, the Town of Clay was significantly more populated than the Towns of Lysander and Schroeppel. Median income in the Town of Lysander was higher than in the Towns of Clay and Schroeppel and the same is true of the median property value, which was substantially higher in the Town of Lysander than in Clay or Schroeppel (See Table 1). Median age in all three towns ranged between 35 and 38 years of age, and is trending upward. The 2008 American Community Survey estimate indicates a median age in Clay and Lysander of between 37 and 42 years of age. This statistic is important, as the age of the local population will influence the future needs of the community.

3.1.2 Site Access

This site is easily accessible by land or by water. Boaters can approach the area from points west, such as Baldwinsville, points north, such as Oswego or Phoenix and points east, such as Brewerton. Three Rivers sits between the two busiest locks on the Canal System (Lock 23 in Brewerton and Lock 24 in Baldwinsville), and consequently has strong growth potential for canal tourism. At this juncture in the Canal System boaters can access Onondaga Lake to the south, the Finger Lakes to the west, Lake Ontario and the St. Lawrence River to the north and the Hudson River to the east.

There are no designated bike lanes on the roads that provide access to the Study Area. However, State Route 31 within the Study Area is contiguous with New York State Bike Route 5, a posted bicycle route that runs east-west across New York State. Additionally, the SMTC has rated the suitability of major roads in the area for use by cyclists, particularly commuters. County Route 57 is rated as "good" for bicyclists in the segment between Three Rivers Bridge and Gaskin Road, "good" to "fair" for much of the segment between Gaskin Road and Route 31 and "fair" south of Route 31. Maider Road and Verplank Road are rated as

Table 1. Sociodemographic Profile

	Town of Clay	Town of Lysander	Town of Schroeppel	Onondaga County
Total population	58,805	19,285	8,566	458,336
Total housing units	23,398	7,448	3,590	196,633
Percentage owner-occupied	72.8%	81.2%	77.0%	64.5%
Median Income (by household)	$50,412	$59,128	$39,662	$40,847
Median property value	$85,500	$108,300	$77,700	$85,400
Median age	35.0	37.6	36.5	36.3

U.S. Census Bureau, 2000.

"average" while Gaskin Road is rated "fair." These ratings are based on road conditions and other features, such as speed limits, safety/comfort level and pavement quality.

In terms of automotive highway access, County Route 57 and Gaskin Road provide direct access to the site. NYS Route 31 is a principal east/west arterial that intersects with County Route 57 less than two miles south of Three Rivers Point. Regionally, Interstate 481 provides access to this part of the Town of Clay and Town of Schroeppel at interchanges with State Route 31 and County Route 57A.

County Route 57 is a two-lane, urban minor arterial with 12-foot travel lanes except for its intersections with New York State Route 31 (where there are as many as seven lanes) and County Route 57A (where County Route 57 widens to four lanes).

The posted speed limit for County Route 57 is 40 miles per hour. County Route 57 intersects with Maider Road, a local road, just south of Three Rivers Bridge where County Route 57 crosses the Oneida River. As it runs east, Maider Road follows the shoreline for a quarter mile or so and then intersects with Bonstead Road, another local road, which continues to follow the shoreline, terminating at Morgan Road to the east (see Figure 1). Maider Road dead-ends at I-481 about a mile east of County Route 57.

Of the four intersections to be studied (see Section 1.1.1 Study Area, Page 2), three of them do not have a traffic signal. There is a traffic signal located at the intersection of County Route 57 with NYS Route 31 with designated turning lanes. All four directional approaches (north, south, east and west) at this intersection include two through lanes and at least one exclusive left turn lane and one right turn lane. Specific traffic volumes for each intersection are included in Appendix B. At the other three intersections east-west movements are controlled by stop signs. The CSX rail line cuts through the Study Area and only provides freight services.

3.2 Historic Context

The Study Area and its surrounds have a rich story steeped in history and culture. As early as the 1790's, this area was revered as a very "unique place" by Native Americans and early European settlers. Undoubtedly, with its natural beauty and easy access, Three Rivers Point has long been a destination for many who live in the region. Archeological investigations indicate evidence of Native American settlements and encampments along the rivers at Three Rivers Point, which is considered a place of historic significance to Native Americans. This location is thought to have been a regular meeting place for members of the Iroquois Confederacy prior to the late 1790s. Apparently the first European American settler in the Town of Clay also took up residence at Three Rivers Point in 1793 (www.townofclay.org).

Around 1871, the Syracuse Northern Railroad installed railroad tracks from Syracuse to Oswego,

crossing the Oneida River at Three Rivers Point. Those railroad tracks, which run parallel to County Route 57, are currently owned and operated by CSX Rail, and include a north-south route linking rail yards in Syracuse with Phoenix, Fulton and Oswego. At the present time, passenger service is not provided along this rail line. There is a rail siding on this line near the County Route 57 and Maider Road intersection.

Decades later, Three Rivers Point was a significant site on the New York State Barge Canal, which opened in 1918. At Three Rivers Point, westbound travel on the Oneida River could proceed north along the Oswego River to Phoenix, Fulton, Oswego and ultimately to Lake Ontario or turn south into the Seneca River to Baldwinsville and points west. While the Barge Canal was used for commercial purposes, the only historic commercial uses that emerged in the Study Area were two petroleum product storage facilities (one of which is the former Cibro site). These were located along Maider Road east of Three Rivers Point. A third bulk petroleum storage facility was located on Gaskin Road (see Brownfield Opportunity Area Program Application, 2009). These facilities originally transported materials by barge, but later began using train transportation as well as other overland transportation options. All three facilities were closed by the mid 1990's (see Brownfield Opportunity Area Program Application, 2009). Currently, recreational boaters are the primary users of the canal system.

The Three Rivers Inn, which was an entertainment nightclub and hotel, was formerly located at Three Rivers Point. The Inn was a destination entertainment club with a regional reputation, featuring talented screen and stage artists. Three Rivers Inn burned down in 1973 and was the last commercial business at Three Rivers Point.

3.3 Physical Site Conditions

The primary Study Area located in the Town of Clay consists of approximately 85 acres, the majority of which is Town-owned property. Other parcels in the primary Study Area are either privately owned or owned by the New York State Canal Corporation (see Figure 8). Active land uses include single-family residential development, Northern Ready Mix, an industrial cement plant, and the Sunoco/ Atlantic Richfield property, which is currently storing hazardous materials. The remaining land, approximately 71 acres, has been unused for over a decade. The unused parcels consist of former commercial, residential and industrial land.

Former Three Rivers Inn site.

East of County Route 57 along Maider Road is a block of five single-family residential parcels, all of which are included in the R-10 One Family Residential District (the R-10 designation indicates that minimum parcel size is 10,000 square feet). The nearest commercial land uses are 1.7 miles to the south along NYS Route 31 and 2.4 miles to the north in the Village of Phoenix. Across the Seneca River, in the Town of Lysander, is the Radisson River Park owned by the Empire State Development Corporation. Currently the park includes a boat launch and there are plans for picnic areas and boat storage. Immediately north of the Study Area, the dominant land use along the river's edge is residential development within the Town of Schroeppel.

With the goal of encouraging redevelopment, the Town of Clay recently rezoned the town-owned parcels and the privately owned industrial sites in the Study Area to Planned Development District (PDD) (see Figure 8). The privately owned residential properties remain in the R-10 One Family Residential District (see Figure 8).

County Route 57 and the CSX rail line cut the Study Area into two sections. The western section includes the former Three Rivers Inn and the eastern section includes the former Cibro site. At the former Three Rivers Inn site, the area is primarily a patchwork of gravel/asphalt with a few large swaths of grass growing through it. Some large specimen trees exist, scattered along the outer fringes. The site is devoid of any buildings or structures aside from a seawall along the river's edge, which is owned by the New York State Canal Corporation.

Topography is primarily flat with the only moderate to steep grades along the river edge and the embankment of County Route 57. Panoramic views over the confluence of the Oswego, Seneca and Oneida Rivers are a beautiful natural amenity. Currently this area is vacant and underutilized. Field investigations indicate that sites along the shoreline adjacent to the County Route 57 Bridge abutments, are popular fishing locations (see Figure 9).

Vehicular and pedestrian access to the site is from County Route 57 and Gaskin Road, a two-lane local road. Gaskin Road provides a direct and immediate connection to the adjacent residential neighborhood to the south. An informal but well traveled dirt path exists under the County Route 57 Bridge, adjacent to the abutments. This footpath links the western and eastern sections of the Study Area.

View of fishermen at Three Rivers Point.

Informal footpath under County Route 57 bridge.

East of the County Route 57 embankment and west of the CSX rail line embankment is a triangular low-lying depression filled with common reed and successional scrub-shrub vegetation. This area appears to inadvertently function as a storm water collection area.

Immediately to the east of the CSX rail line is a linear woodlot, which provides a visual buffer for the adjacent cluster of single-family homes. This woodlot, in conjunction with the CSX rail line and County Route 57 embankments, block any visual or physical connectivity between these homes and the Study Area. Maider Road, a two-lane paved local road, is the only formal vehicular and pedestrian connection between County Route 57 and points east along the Oneida River within the Study Area. The County Route 57 and Maider Road intersection has inadequate sight distance due to bridge support structures and rail line utilities. This intersection is very challenging for vehicular as well as pedestrian traffic due to the steep incline and poor sight distance. According to an Onondaga County Department of Transportation study, sight distance is 360 feet to the left and 320 feet to the right. For an entrance road with a 40-mile per hour speed limit, sight distance should be 445 feet in both directions. Potential future realignment of Maider Road should be considered to correct this issue (see Section 9.1 herein). On the north side of Maider Road across the roadway from the single-family homes, is a very steep embankment that leads down to the river's edge. Residents have constructed decks and stairs down the embankment to provide waterfront access from Maider Road. Further east along the river's edge the embankment becomes less steep.

East and south of the single-family homes is a brownfield site, which was formally occupied by the Cibro petroleum bulk storage facility for fuel oil and asphalt. The former Cibro asphalt plant is a 66-acre site located off of Maider Road. When operational, there were waterfront docks on the Oneida River for unloading petroleum products. As stated in the Town of Clay's 2009 Brownfield Opportunity Area Program Application, this site is currently being investigated for water and soil contamination.

Another brownfield site located in the Study Area, on the north side of Maider Road, across from the former Cibro facility, is a former Atlantic Refining Company Asphalt Terminal. Contamination investigations are currently underway on this site. Future redevelopment options are clearly contingent upon the success of brownfield

View of structures on former Cibro brownfield site.

mitigation and clean-up efforts. Currently there are numerous derelict buildings, foundations, pipes, and tanks on site. Further east along Maider Road are additional woodlots with mixed successional vegetation. Within these woodlots are old rail lines that formerly served the industrial uses in this area, as well as additional petroleum product storage tanks and pipes connecting to the Oneida River.

The Study Area located in the Town of Schroeppel includes the Oneida River shoreline north to Hoag Road and from the Oswego River shoreline east to the Oneida River. Route 57 and the CSX rail line run north through the area (see Figure 10). This area is semi-rural in character and relatively flat with stunning views at the confluence of the three rivers. The flood plain, which covers the southern portion of the peninsula and wetlands along or near the shoreline, constrain future land use options (see Figure 11). The lands along County Route 57 are zoned Industrial and those along the shoreline are zoned R-1 Residential. All of the developed land is active and the uses include single family residential homes along the southern shoreline of the Oswego and Oneida Rivers and commercial development along Hoag Drive (see Figure 10). The businesses include a distribution warehouse and a carwash. The residential land uses include single-family homes and cottages. Much of the undeveloped land is in the flood plain and includes significantly wet areas. All of the land in this area is either privately owned or owned by the New York State Canal Corporation (see Figure 11).

3.4 County Route 57 Transportation Corridor

As previously described, this Access Study includes County Route 57 from NYS Route 31 north to County Route 57A. For the last two decades, while commercial development has increased rapidly along Route 31 causing an increase in traffic along County Route 57, the Study Area has been underutilized and thus generated minimal traffic. With the prospects of redevelopment, this situation could quickly change. For purposes of understanding the potential traffic impacts from redevelopment, the existing traffic conditions on County Route 57 and at the four intersections along the corridor must be understood (see Figure 1). Traffic counts were performed in 2005 and again in 2009. Based on these data, total weekday morning and afternoon peak hour and Saturday midday peak hour traffic volumes for the four intersections

View of docks on Oneida River.

included in this Access Study are shown in Table 2.

The traffic volume at the signalized intersection of Routes 57 and 31 has increased over the last five years, with the most significant increase (21%) documented during the Saturday midday peak hour (see Table 2). Based on the 2009/2010 data, the three unsignalized intersections operate at Level of Service A, which in practical terms means the traffic flows smoothly with minimal interruptions at the intersections. The signalized intersection at Routes 57 and 31 poses the most significant constraint on travel through the area because it is the busiest of the Study Area intersections. Approximately half of the traffic volume at this intersection is through traffic on NYS Route 31.

Table 2. Total Traffic Volume 2005, 2009/2010

Intersection	AM Peak		Volume Change	PM Peak		Volume Change	Saturday Midday Peak		Volume Change
	2005	2009		2005	2009		2005	2010	
County Route 57 at Route 31	1,642	1,806	9.98%	3,428	3,377	-1.48%	2,801	3,387	20.92%
County Route 57 at Verplank Road	n/a	306	n/a	n/a	633	n/a	n/a	667	n/a
County Route 57 at Maider Road	n/a	316	n/a	n/a	612	n/a	n/a	606	n/a
County Route 57 at County Road 57A	n/a	412	n/a	n/a	803	n/a	n/a	717	n/a

2005 study conducted by FRA Engineering, P.C.; 2009/2010 traffic data from SMTC.

4.0 STUDY AREA ASSESSMENT

4.1 Opportunities and Constraints

The Study Area is ripe for redevelopment and rich with potential. Although some former land uses have left an imprint, which must be cleaned up, the opportunities for capturing the natural beauty of the area and celebrating the rich history unique to this site are significant. The challenge is to identify a balanced mix of uses in a physical form that respects the site's natural, cultural and scenic resources with a density that is economically sustainable by the regional community. Critical consideration of the opportunities and constraints listed below and the traffic analysis of County Route 57 will help develop a firm foundation upon which strategic decisions regarding future redevelopment can be based (see Figures 9 & 11).

The following potential opportunities and possible constraints for the Town of Clay portion of the Study Area should be considered when redeveloping this area (see Figure 9):

Opportunities:

1. Develop a Riverwalk, which is sensitively designed to recognize the Native American Heritage at Three Rivers Point as well as contribute to the revitalization of a strategic waterfront.
2. Encourage recognition of the site as the location of a former world-class entertainment nightclub and destination hotel.
3. Encourage waterfront development with a mix of residential, retail, office space and public open space to promote a "waterfront village" atmosphere. Three Rivers Point should be developed as a destination attraction accessible by both land and water.
4. Enhance pedestrian connectivity by connecting adjacent waterfront developments and existing neighborhoods, specifically linking Three Rivers Point, Gaskin Road and Maider Road using pedestrian walkways and limited access roadways.
5. Capture the scenic views. Moderate grades at the shoreline permit water-related development with panoramic views.
6. Improve the railroad crossing at Maider Road. Relocating Maider Road south to maximize usable land with access to water could alleviate steep road incline and poor sight distance.

Identified area of opportunity at Three Rivers Point.

Constraints:

1. The higher elevation of County Route 57 and the CSX rail line create a visual and physical barrier to connecting Three Rivers Point and Maider Road.
2. County Route 57's status as a busy arterial roadway presents a potential challenge to development proposals spanning this route at Three Rivers Point. Simultaneously, the CSX rail line crossing at Maider Road will need to be taken into consideration when designing a pedestrian link between adjacent waterfront developments.
3. The present location of Maider Road may limit waterfront access and future development along the river's edge.
4. Steep banks along the Oneida River shoreline may limit waterfront accessibility.
5. The low-lying depression between County Route 57 and the CSX rail line is currently land locked and inaccessible.
6. Future development options are contingent upon the success of brownfield mitigation and clean-up efforts.
7. The lack of municipal sewer and water service could limit the type and density of redevelopment allowed (see Appendix E).

In light of its rural character combined with environmental and land ownership constraints, development opportunities in the Town of Schroeppel Study Area are minimal, but unique (see Figure 11). The following opportunities and possible constraints should be considered when developing this area.

Opportunities:

1. Lands outside the floodplain along the Oswego shoreline are easily accessible from County Route 57 and could provide water frontage and unique views.
2. Hoag Drive provides access from Route 57 to the eastern shoreline of Oneida River.
3. The upland areas are developable for recreational or residential uses with access to Oneida River.
4. An existing private drive along the southern shoreline of the Oneida River provides an opportunity for access to the Oneida River without crossing wetlands.

Constraints:

1. A significant portion of the Oneida River Shoreline is in the Floodplain and thus

Example of informal waterway recreational and/or transportation usage at Three Rivers Point.

undevelopable. However, this area could be used for seasonal recreational trails.

2. The CSX rail line bisects this area, drastically limiting access to the majority of lands east of the railroad. Additionally, uses between County Route 57 and the rail line would require significant buffering of noise and other related impacts.
3. The New York State Canal Corporation owns the lands with the prime views at the confluence of the three rivers, thus, limiting redevelopment options.
4. The incompatibility of industrial and residential uses may cause constraints on lands neighboring the existing light industrial use.
5. The potential to enhance pedestrian and vehicular connections between the southern waterfronts and lands east of County Route 57 is constrained by ownership.

4.2 County Route 57 Corridor

4.2.1 Current Capacity Analysis

A capacity analysis was conducted at each of the study corridor intersections. Intersection capacity analysis compares the actual volume of traffic at an intersection to the maximum volume of traffic that can pass through an intersection within a specified period of time (typically one hour) based on factors such as the number of travel lanes and the type of traffic control in place (such as a stop sign or a traffic signal). Capacity analysis procedures are used to calculate the amount of "control delay" experienced by drivers at an intersection. Control delay is the time that a driver spends decelerating, stopped, moving up in queue, and accelerating as a result of a traffic signal or stop sign. A letter grade – called a level of service (LOS) – is assigned to individual movements and/or a whole intersection based on the average control delay. There are six possible levels of service, from LOS A to LOS F, and each level of service corresponds to a range of delay values. LOS A represents ideal conditions with minimal delay to travelers. LOS F indicates that excessive delay is experienced at an intersection. Generally, LOS D is considered the minimum acceptable level of service. Detailed parameters for LOS for both signalized and unsignalized intersections are shown in Tables 3a and 3b.

Traffic operations in the Study Area were evaluated based on LOS changes, if any. In 2005 the Route

Table 3a Signalized Intersections Level of Service

Level of Service	Average Control Delay (seconds/vehicle)
A	0 -1 0.0
B	> 10.0 – 20.0
C	> 20.0 – 35.0
D	> 35.0 – 55.0
E	> 55.0 – 80.0
F	> 80.0

Table 3b Unsignalized Intersection Level of Service

Level of Service	Average Control Delay (seconds/vehicle)
A	0 -1 0.0
B	> 10.0 – 15.0
C	> 15.0 – 25.0
D	> 25.0 – 35.0
E	> 35.0 – 50.0
F	> 50.0

57/31 intersection operated at LOS B during the weekday morning peak hour and LOS C during both the weekday evening peak hour and Saturday midday peak hour. By 2009 traffic volumes increased, degrading the LOS for all peak hours to D (see Table 4). This indicates that delay over the years has been steadily increasing. Turning movements and traffic volumes are illustrated in Appendix B.

4.2.2 Future No-Build Conditions

An analysis of future traffic conditions without consideration of redevelopment of the Study Area serves as a baseline measurement, against which impacts to the roadway network from future redevelopment scenarios are compared. This is the 2020 No-Build Conditions. "Future" for the purpose of this Access Study refers to the expected completion of both development concepts in the year 2020. The future No-Build scenario represents the 2020 conditions at the Study Area intersections, without additional development in the primary area. No-Build conditions include background traffic growth in the vicinity of the Study Area due to local and regional development. A background growth rate of 1.5 percent per year was applied to the traffic volumes of the study intersections, based on recent trends in population growth. In addition, traffic volumes were generated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition (ITE, 2008), for the anticipated development of 200,000 square feet of new office space along NYS Route 31 and 100,000 square feet of specialized retail space over the next ten years (based on information from the Town of Clay's Planning and Development Department) (see Appendix C). The expected traffic volumes from the office and retail space were distributed throughout the corridor and included in the future No-Build analysis. Using these data, traffic volumes were calculated for the year 2020. The intersection geometry and signal timings were assumed to remain unchanged from the 2010 conditions.

The capacity analysis for the 2020 No-Build conditions indicates that the three unsignalized intersections will continue to operate at LOS A. The signalized intersection at Routes 57 and 31 will experience a degradation of LOS for the weekday evening and Saturday peak hours. During the Saturday peak hour, two approaches, northbound and eastbound, will operate at LOS F (see Table 5 and Appendix C).

The increase in traffic volume over the next 10

Vehicles at stop sign along Verplank Road.

Table 4. Summary of Intersection Level of Service 2005 & 2009/2010

Intersection	AM Peak *		PM Peak *		SAT Midday Peak*	
	2005	2009	2005	2009	2005	2010
County Route 57 at Route 31	B (19.8)	D (37.1)	C (32.1)	D (39.0)	C (28.6)	D (52.1)
County Route 57 at Verplank Road	n/a	A (1.6)	n/a	A (2.1)	n/a	A (1.8)
County Route 57 at Maider Road	n/a	A (1.3)	n/a	A (1.1)	n/a	A (0.6)
County Route 57 at County Road 57A	n/a	A (3.9)	n/a	A (5.5)	n/a	A (3.1)

*Level of Service followed by HCM Average Control Delay (seconds/vehicle) stated in parentheses.
2005 study conducted by FRA Engineering, P.C., only includes County Route 57/Route 31 intersection.

years, whether under the No-Build condition or either of the two alternative development concepts, will not have an impact on the three unsignalized intersections along County Route 57. However, the intersection of County Route 57 and Route 31 will experience degradation in LOS, under the No-Build condition, which may require some mitigation at the intersection. Phasing of the traffic signal may need to be adjusted to accommodate the changes in traffic patterns. (The traffic analysis prepared for the draft alternative concepts assumes that adjustments to signal timing have been made.)

Table 5. 2009/2010 & 2020 Future No-Build Level of Service

Intersection	AM Peak *		PM Peak *		SAT Midday Peak*	
	2009	2020	2009	2020	2010	2020
County Route 57 at Route 31	D (37.1)	D (41.2)	D (39.0)	E (66.5)	D (52.1)	E (76.2)
County Route 57 at Verplank Road	A (1.6)	A (1.6)	A (2.1)	A (2.4)	A (1.8)	A (2.0)
County Route 57 at Maider Road	A (1.3)	A (1.3)	A (1.1)	A (1.2)	A (0.6)	A (0.6)
County Route 57 at County Road 57A	A (3.9)	A (4.0)	A (5.5)	A (7.7)	A (3.1)	A (3.5)

*Level of Service followed by HCM Average Control Delay (seconds/vehicle) stated in parentheses.
2009/2010 traffic data from SMTC.

5.0 REDEVELOPMENT AND LAND USE CONCEPTS

5.1 Redevelopment Vision and Goals

The purpose of this study is to understand the potential traffic impacts from redevelopment of the Study Area. To achieve this, alternative development concepts were created to reflect the goals stated in the relevant plans for the Towns of Clay and Schroeppel. Redevelopment of Three Rivers Point as a hamlet center with a mixture of uses that service new and existing residential neighborhoods is recommended in all of the Town of Clay's recent planning studies. The anticipated redevelopment uses include residential, retail commercial, professional office, entertainment, and recreational. Of equal importance is the protection and celebration of the natural, scenic, and historic resources in the Study Area. Opening up the waterfront for community access and recreational enjoyment has been of interest for many years. Mindful of the Town's vision for this area, as reflected in its Local Waterfront Revitalization Plan and Northern Land Use Plan, the two alternative redevelopment concepts include a mix of land uses at a scale that is sensitive to the Study Area's context (see Figures 12 and 14). The overarching design intent is to enhance and celebrate the local and regional heritage at Three Rivers Point, embrace the waterfront for community use and enjoyment, integrate respectfully with the natural environment, and create a neo-traditional neighborhood with a healthy mix of uses.

Future land uses in the Schroeppel portion of the Study Area were selected based on environmental conditions, rural character, and availability of infrastructure (sewer and water). The Town of Schroeppel's existing Comprehensive Plan emphasizes the need to protect riparian resources and wetlands. To that end, the focus behind the Land Use Plan, which was developed for this Access Study, is to minimize potential impacts to natural resources by proposing low intensity uses for the eastern portion of the area where wetlands and floodplain zones converge. The proposed Land Use Plan includes land uses compatible with the existing riverine community along the southern shoreline (see Figure 15).

In keeping with the vision of both towns, the goals for redevelopment of the Study Area are:

1. Provide public access to the waterfront.
2. Protect natural resources of significance.
3. Establish pedestrian connections throughout the new development and to the existing neighborhoods.
4. Include a sustainable mixture of residen-

View along Maider Road of docks in Oneida River.

tial, commercial, professional office and entertainment uses.

5. Protect Three Rivers Point as a place of significance to the Onondaga Nation.
6. Protect and enhance views of the three rivers.

5.2 Redevelopment Concepts

5.2.1 Concept Alternative 1

Redevelopment Concept Plan Alternative 1 (Concept Alternative 1) showcases a small hamlet center located west of Route 57, near Three Rivers Point (see Figure 12). This hamlet center includes one-story retail-commercial, two-story mixed-use with commercial and residential, town house clusters, and two story apartments. The hamlet center opens up to a community green at the tip of Three Rivers Point. This preserves the site as an important civic space inviting all visitors to the water's edge. Scenic views across all three rivers can be enjoyed during all seasons. Safe and convenient pedestrian access throughout the complex is provided with connections to the proposed trail system along the Oneida River and residential greenway. When fully developed, the hamlet center will provide convenient services for the new and existing residential neighborhoods. With a direct connection to Gaskin Road, local residents have convenient walking and biking access to the hamlet center, avoiding the need to travel on Route 57. To the east of Route 57, a hamlet-style residential neighborhood is laid out with the streets in a grid pattern. This development pattern is not expected to continue beyond this complex. Water-related recreation is supported along Oneida River with the addition of a marina (off of Bonstead Road), docks, and fishing access (at Three Rivers Point). As illustrated in Figure 12, pedestrian connections to future conservation or cluster residential developments south of this site will be encouraged to foster connectivity while protecting additional open space. This is in keeping with the Town's objectives as stated in the Draft Northern Land Use Plan, and highlights the distinct character, scale, and waterfront focus of this complex. In summary, Concept Alternative 1 proposes a combination of 86 townhomes, 48 apartments, 60 single-family homes, a marina with boat storage, and over 25,000 square feet of retail commercial space.

5.2.2 Concept Alternative 2

The Redevelopment Concept Plan Alternative 2 (Concept Alternative 2) showcases the historic, scenic, and natural significance of Three Rivers Point by dedicating the Point as a community park with interpretive signage, recreational trails, and waterfront access for birding, fishing and boating (see Figure 14). Visitors can enjoy the scenic views at the confluence of the three rivers while picnicing or participating in other passive recreation. The other main attraction is a modestly sized (15,000 square feet) entertainment center and hotel reminiscent of the Three Rivers Inn, but at a contemporary scale. Located east of Route 57, the entertainment center can also serve as a community center for local residents. It is centrally aligned with the main pedestrian axis from the entertainment center to the fishing pier and riverwalk along the Oneida River. A small cluster of mixed-use buildings line this route, providing a modest node of commercial, professional, and recreational activity. Maider Road is realigned and serves as the main spine for this mixed-use neighborhood. Townhouses add diversity to the single-family residential units in the neighborhood. Residential land uses are buffered from the entertainment center by a water feature. Additional single-family housing is provided along Route 57. An active trail system is laced throughout, allowing for safe and convenient walking, biking, cross-country skiing and snowshoeing. In summary, Concept Alternative 2 proposes a combination of 34 townhomes, 8 apartments, 33 single-family homes, a marina with boat storage, and over 28,000 square feet of retail commercial space including a 15,000 square foot entertainment center.

5.2.3 Land Use Plan

The Land Use Concept Plan (Land Use Plan) for the portion of the Study Area in the Town of Schroeppel balances protection of environmental resources with development (see Figure 15). The opportunity to enhance and promote the physical relationship of the Study Area between the Towns of Schroeppel and Clay across the Oneida River is complicated by three factors: land ownership, public access, and topography (see Figure 11). The riverfront in the Town of Schroeppel is owned by the New York State Canal Corporation and lined with privately owned waterfront cottages, limiting public access to the water. The remaining shoreline is privately owned, and the eastern shoreline is essentially low-lying and in the flood plain. The focus for the Town of Schroeppel Study Area is to encourage land uses that complement its semi-rural character and take advantage of the water frontage that is accessible. The proposed Land Use Plan includes residential town homes and a low-impact park, featuring nature trails and campsites along the Oneida River waterfront (see Figure 15). The land outside the floodplain along the Oswego River shoreline is easily accessible from County Route 57 and could provide water frontage and unique views to residential owners. If the opportunity arises, development of a trail system that connects the residential uses west of Route 57 to the southern shoreline would add recreational value to the area. Additionally, a nature trail throughout the park would connect the campsites to a boat launch and docks on the shore of the Oneida River, providing overnight camping options for boaters and recreational opportunities for residents. The low impact park and campgrounds is an appropriate use of this wooded area, and would serve as an ideal neighboring land use to the adjacent light industrial area if provided with an adequate naturalized buffer. In keeping with the Town of Schroeppel's development goals, commercial uses along the Route 57 corridor are discouraged to avoid corridor sprawl, minimize dilution of the commercial area to the north, and protect environmental integrity of the low lying wet areas and forest. Commercial and light industrial uses, if any, should be located off of Hoag Drive north of the flood plain, where such uses currently exist.

View of waterfront cottages in Town of Schroeppel across the water at Three Rivers Point.

5.2.4 Summary

Both Concept Alternatives and the Land Use Plan meet the many development policies and objectives as stated in the Town of Clay's LWRP and Northern Land Use Plan and the Town of Schroeppel's Comprehensive Plan. Concept Alternatives 1 and 2 include a few similar features such as a marina, improved public access to the river's edge, a recreational trail system, a diverse mix of uses (commercial, residential, professional, and civic recreational), improvements to the Maider Road intersection, and an improved storm water management system, which is incorporated as a water feature. The primary difference between these Concept Alternatives is their central organizing feature. Concept Alternative 1 proposes a mixed-use hamlet center near Three Rivers

Point, while Concept Alternative 2 proposes an hotel/entertainment center on the eastern side of Route 57, at the location of the existing brownfield. Aside from the obvious difference in use-type and form, the other distinguishing difference is the type of traffic generated, which is discussed in detail in Section 7. In both concepts the existing homes on Maider Road are maintained as is, and Maider Road is realigned to intersect with Route 57 approximately 640 feet south of the Route 57 Bridge. This will improve vehicular circulation and safety without compromising local access.

Opportunities to generate a synergistic spatial relationship at Three Rivers Point and along the Oneida River can be met with strategic coordination between the two towns and New York State Canal Corporation. The Land Use Plan proposes uses with minimal impact on existing environmental conditions and which directly complement what is proposed in the Town of Clay. Impacts associated with the Land Use Plan are minimal, other than a possible slight increase in traffic during the boating season due to a probable increase in campers.

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6.0 PUBLIC INPUT

The community was given an opportunity to review and comment on the two preliminary Concept Alternatives (see Figures 12 & 13) at a public informational meeting on November 17, 2010. After an introductory presentation of the purpose of this study, a review of the existing conditions, and a description of the alternative concepts, the audience broke out into two small groups to review and discuss each concept. After approximately thirty minutes, the two groups reconvened to share comments and answer additional questions. Although some residents do not want additional development at Three Rivers Point, others support redevelopment. Some local residents prefer that Gaskin Road serve local traffic only, and suggest that it be dead-ended when Three Rivers Point is redeveloped. There is strong support within the community to respect and preserve the local heritage, as well as the scenic views and natural beauty in the area. Storm water management was mentioned as a concern, which warrants extra attention with any new development, as many existing properties currently experience wet conditions during the rainy season or heavy storm events. A full summary of public comments is provided in Appendix E. The SAC met on December 20, 2010 to review and discuss the preliminary Concept Alternatives in light of the community's input. In response to the community's interest in preserving the natural setting at Three Rivers Point, the SAC modified Concept Alternative 2 by enlarging the civic space at Three Rivers Point (see Figure 14). This modified version of Concept Alternative 2 was assessed (along with Concept Alternative 1) for potential traffic impacts. The modification included removing the proposed hamlet center at Three Rivers Point to provide a larger civic space allowing the community access to the waterfront at Three Rivers Point. A second public meeting was held on June 29, 2011 to review and discuss the conclusions from the traffic model. During that meeting, it was emphasized that the Concept Alternatives are hypothetical and intended to simply illustrate the potential capacity of the existing transportation system. In summary, the community supports public waterfront access and a balance of mixed-use development (commercial and residential) with cultural and natural resource preservation and recreational trails. Concerns regarding traffic impacts generated from redevelopment were alleviated by the suggested mitigation measures (see Section 7.3).

7.0 TRAFFIC ASSESSMENT FOR FUTURE ALTERNATIVE CONCEPTS

7.1 Traffic Assessment Method

This traffic study of the Three Rivers Study Area includes analysis of the potential traffic impacts of Concept Alternatives 1 and 2 and the Land Use Plan (Build Alternatives). The results are assessed compared to the existing and future No-Build volumes and levels of service (see Section 4; Table 5). The study focused on the following four key intersections:

- County Route 57 / New York State Route 31
- County Route 57 / Verplank Road
- County Route 57 / Maider Road
- County Route 57 / County Route 57A

Trip Generation

Each of the Concept Alternatives includes a specified number of residential units by type (townhouse, apartment, and single family homes) and a total square footage of commercial space. In order to calculate the expected trip generation of each hypothetical alternative (including the land use plan), the project team made some assumptions about the specific types of commercial uses included in the total square footage. The traffic volumes generated by each Concept Alternative were then established using the ITE Trip Generation Manual, 8th Edition. Table 7 identifies the land use assumptions, with the appropriate ITE land use code, and Table 8 summarizes the total trip generation for each Build Alternative.

All site-generated trips were assumed to be new trips; in other words, pass-by trips were not included in the analysis. Pass-by trips are trips made to a site by traffic already "passing by" that site on an adjacent street and, if included in the analysis, would reduce the number of new trips generated by the site. Excluding pass-by trips from the analysis effectively results in a "worst case" scenario.

Trip Distribution

Existing traffic volumes along County Route 57 and at the subject intersections were analyzed to determine the directional distribution at each location. It was assumed that future directional distribution would be similar to existing conditions. Traffic models distributed estimated traffic volumes throughout the roadway network within the confines of the Study Area, which does not

Intersection of Maider Road and County Route 57.

include an analysis of roadways outside the Route 57 corridor such as Interstate 481 or Route 31.

For the development on the Schroeppel side, the peak hour directional distributions along Route 57 were calculated to be:

- AM – 36% northbound/64% southbound
- PM – 60% northbound/40% southbound
- Saturday – 46% northbound/54% southbound

For the remainder of the development along Route 57, the peak hour directional distributions along Route 57 were calculated to be:

- AM – 48% northbound/52% southbound (entering) and 30% northbound/70% southbound (exiting)
- PM – 34% northbound/66% southbound (entering) and 52% northbound/48% southbound (exiting)
- Saturday – 38% northbound/62% southbound (entering) and 41% northbound/59% southbound (exiting)

Along Gaskin Road it was assumed that the traffic that may use that roadway would originate only from the development(s) on the west side of Route 57. In Concept Alternative 1 this would include 28 townhomes, 2 mixed use buildings, and one stand-alone 16 unit apartment complex. Concept Alternative 2 included 6 single unit dwellings. Under both Alternatives it was assumed that 95% would use Route 57 and 5% would use Gaskin Road. These volumes are summarized in Appendix G.

The site generated traffic volumes were added to the 2020 No-Build traffic volumes to determine the expected 2020 traffic volumes for each alternative concept. The level of service (LOS) and delay results are summarized in Table 9. This table includes previously mentioned values for the existing and No-Build alternatives for comparison purposes. It should be noted that the existing phase timings for the signal at the intersection of Route 57 with Route 31 can be modified to improve the LOS and delay at this intersection. The existing conditions and No-Build Alternative with revised timings are shown in this table. If signal timing is pursued, investigations would need to be undertaken to determine if the timings at this signal are synchronized with other signals in the signal network. Under Concept Alternative 1, a new road is proposed as a part of the development. The analysis of its intersection with Route 57 is provided in Table 9 as well.

Table 6. Additional Peak Hour Vehicles Using Gaskin Road

	Most Likely Scenario			Worst Case Scenario		
	West of CR 57	East of CR 57	TOTAL	West of CR 57	East of CR 57	TOTAL
Alternative 1	2	0	**2**	37	6	**43**
Alternative 2	0	0	**0**	6	5	**11**

Capacity Analysis for Concept Alternatives

In Concept Alternative 1, there are a few different land uses assumed on the west side of Route 57. These are town homes, an apartment complex, and two mixed-use buildings with apartments, a hotel and a restaurant. The rational assumption is that the majority of traffic generated would be either commuter traffic or visitors (from out of the area) traveling to the hotel or restaurant. With that, it is assumed that 100% of the hotel visitors and 95% of the other (local) vehicles will utilize Route 57, with 5% of local traffic utilizing Gaskin Road. This results in a maximum of two vehicles (one northbound and one southbound) utilizing Gaskin Road during the peak hour (see Table 6). Additionally, 100% of the hotel traffic west of Route 57 is assumed to use Route 57. The traffic generated east of the railroad is assumed to have a 10%-90% split, where 10% of the traffic uses Maider Road/Bonstead Road and the remaining 90% uses Route 57.

By comparison, although unlikely, if 100% of the traffic (local and visitors) generated by the proposed land use on the western side of Route 57 utilizes Gaskin Road, a total of 23 northbound vehicles and 14 southbound vehicles will travel on Gaskin Road during the peak hour, which equates to approximately one vehicle every two minutes. With regard to the development proposed on the east side of Route 57, it is not likely that these vehicles will cross Route 57 to utilize Gaskin Road as an alternate route to Route 57. However, in the unlikely event that this does occur, it is reasonable to assume that only the traffic associated with the apartment complex on the east side of Route 57, heading to or coming from the south, would utilize Gaskin Road. This additional traffic would create an increase of six vehicles during the peak hour, or one every 10 minutes. Under this scenario, a total of approximately 43 vehicles might utilize Gaskin Road during the peak hour. Thus, the range of potential increase in traffic might be as low as two vehicles or as high as 43 vehicles during the peak hour (see Table 6).

Under Concept Alternative 2 (modified), there are only six single-family residential homes proposed on the west side of Route 57, and similar to Concept Alternative 1, it is assumed only a small portion of local vehicles will utilize Gaskin Road. Additionally, the residential properties west of Route 57 are assumed to have a 5%-95% split, where 5% of this traffic will use Gaskin Road and 95% will use County Route 57. Because so few homes are included on the west side of Route 57, no

Car crossing County Route 57 bridge.

County Route 57 Bridge over Oneida River.

additional traffic along Gaskin Road is anticipated. If all traffic generated by these six homes were to utilize Gaskin Road, it would amount to a modest increase of four northbound and two southbound vehicles, or roughly one vehicle every ten minutes. In the unlikely event that vehicles from the east side of Route 57 choose to utilize Gaskin Road, it would likely be limited to the eight single family homes along the roadway directly across from the development on the west side of Route 57. Arguably the only vehicles that would utilize Gaskin Road under this analysis would be those heading to or coming from the south. This would add up to an additional five vehicles during the peak hour, or one every 12 minutes. Additionally, the traffic east of County Route 57 is assumed to have a 10%-90% split, where 10% of the traffic uses Maider Road/ Bonstead Road and the remaining 90% would

Table 7.
Land Use Assumptions For Traffic Analysis

ITE Land Use Description (Code)	Concept Design Alternative 1	Concept Design Alternative 2
Possible New Land Uses for Town of Clay		
Single Family Detached Housing (210)	60 units	33 units
Apartment (220)	48 total units	8 total units
Residential Condominium/Townhouse (230)	134 units (includes 48 in Schroeppel)	82 units (includes 48 in Schroeppel)
Hotel (310)	8 rooms	8 rooms
Movie Theater without Matinee* (443)	N/A	10,500 SF ball-room/concert space
General Office Building (710)	11,410 SF office (includes 1,200 SF marina office)	7,800 SF office (includes 1,200 SF marina office)
Convenience Market (Open 15-16 Hours) (852)	2,500 SF	N/A
Copy Print and Express Ship Store (920)	2,115 SF	N/A
High Turnover (Sit-Down) Restaurant (932)	5,000 SF	5,000 SF
Possible New Land Uses for Town of Schroeppel		
Campground/Recreational Vehicle Park (416)	15 campsite camp-ground	15 campsite camp-ground
Regional Park (417)	25 acre park	25 acre park

*In some cases there was not an exact ITE match for the proposed use. In those situations a similar land use was utilized.

use Route 57. As with Concept Alternative 1, it is rational to assume that traffic from the eastern side of County Route 57 would choose to use Route 57.

7.2 Potential Impacts

The results of the traffic analysis show that the redevelopment concepts developed for this analysis would generate relatively minor increases in delay at the study intersections, as discussed below.

Route 57 / Verplank Road and Route 57 / Route 57A

The capacity analysis showed that these intersections will continue to operate at LOS A with minimal delay during all peak hours under the future No-Build conditions as well as each of the Future Build conditions. No perceptible impacts to either of these intersections are expected as a result of either future development scenario included in this study.

Route 57 / Maider Road

Concept Alternative 1 would have no perceptible impact on operations at the Maider Road / County Route 57 intersection. However, because Concept Alternative 2 includes a large entertainment/ recreational use that would be a destination during evening peak hours and on Saturdays, it would likely result in a noticeable increase in delay at the Route 57 / Maider Road intersection. Saturday midday level of service at this intersection would be expected to degrade, from LOS A if no redevelopment occurs, to LOS D under Concept Alternative 2.

Route 57 / Route 31

The traffic analysis shows that, in 2020, the County Route 57/NY Route 31 intersection is expected to operate at LOS E during weekday evening peak hours and on Saturdays, regardless of whether or not the Study Area is redeveloped.

This result is partially based on an adjustment in the current signal timing for Future Build Alternatives. The signal timings at the County Route 57/Route 31 intersection were adjusted in the model using the optimization tools provided in Synchro as shown in Table 8. This resulted in modest improvements in LOS and shorter delay values than were previously reported. These signal timings were carried over into the Build Alternatives. Since these timings vary slightly from the existing timings in the Synchro models, they must be approved by NYSDOT before

Table 8.
Summary of Site Generated Volumes

Alternative 1		
AM Peak	PM Peak	SAT Peak
247	302	195
Alternative 2		
AM Peak	PM Peak	SAT Peak
155	266	371

*These Site Benerated Volumes are a combination of entering and exiting volumes.

final implementation to ensure that this will not impact other signals in the project vicinity that may be coordinated with the Route 31 signal. As of this writing, NYSDOT has indicated that signal timings are likely to be adjusted at this intersection in the near future.

Gaskin Road

The potential distribution of vehicles over local roadways, such as Route 57 and Gaskin Road, was based on rational assumptions informed by standard traffic patterns. The rational assumption for this Study Area is that the majority of vehicles will use Route 57 rather than Gaskin Road. See Section 7.1 for a complete discussion of Gaskin Road trip distribution and potential traffic impacts.

7.3 Recommended Mitigation Measures

7.3.1 Traffic Calming

Local residents voiced concerns about the potential increase in traffic on Gaskin Road. To avoid any future increase in traffic on Gaskin Road, local residents suggested creating a dead end at the northern end of the road. This extreme mitigation measure may not be necessary. The traffic model indicates that only a small increase in traffic is expected on Gaskin Road. As previously explained, even with a higher percentage of traffic using Gaskin Road, there would be a minor to modest increase in the number of vehicles during peak hours. This suggests that closing the northern end of the roadway is not warranted as a mitigation measure.

A noticeable increase in traffic on Gaskin Road is extremely unlikely, but is possible. If more than the anticipated minimal increase in traffic along Gaskin Road does occur, an exploration of traffic calming elements, such as signage and speed bumps could be undertaken, with improvements made as necessary.

7.3.2 Road Realignment

Of the known constraints in the Study Area, one of the more challenging is the existing location of the Maider Road intersection with the CSX Rail line. Successful redevelopment in this area will require a realignment of Maider Road. Each Concept Alternative includes relocating and realigning the Maider Road intersection with the CSX Rail line and County Route 57 to improve the existing situation.

View of Railroad Bridge from Bridge on County Route 57.

7.3.3 Potential for Passenger Rail Service

Another known constraint in the Study Area is the CSX rail line itself. One idea discussed over the past few years was to include passenger rail service to the Three Rivers area once it is redeveloped. After discussing this possibility with the New York State Department of Transportation it was determined that the successful development of rail passenger service on this line between Three Rivers and the City of Syracuse would be unlikely. This rail line is active and dedicated to freight service, which is not strategically connected to a schedule. Due to the importance of a schedule to passenger service, combining the two service-types on this one line presents logistical barriers. Additionally, construction of a new railroad siding and platform would be required to accommodate passenger service: the costs for these improvements would likely be borne by some combination of a private developer, the municipalities involved and other public sources – not by CSX. Due to these substantial barriers, passenger rail service is unlikely on this railroad line.

7.3.4 Signal Timings

The traffic analysis indicates that signal timings at the County Route 57/NY Route 31 intersection can be adjusted to reduce current delay times and improve LOS. NYSDOT is analyzing these signal timings and is developing a new signal timing plan for this intersection regardless of whether or not either of the Build Alternatives is carried through. Implementation of an optimized signal timing plan is assumed in the analysis of both 2020 Build Alternatives since NYSDOT is likely to continually monitor their signals for optimal performance based upon traffic patterns that naturally change over time. As such, optimized signal timing would mitigate impacts from future development.

7.3.5 Turn Lane and Signal

Concept Alternative 2, if built, could result in an improved level of service and reduced delay at Maider Road with the addition of a designated left-turn lane at Maider Road for the westbound direction; however, the delay experienced without the turn lane is within acceptable limits during the morning and evening peak hours. Under this scenario, the proposed entertainment center, which is located east of Route 57, would be the major traffic generator, causing a direct impact on Maider Road. The delay at the Maider Road intersection would only occur during isolated occasions, and although a turn lane warrant analysis was not

Bridge Construction Traffic at Intersection of County Route 57 and Maider Road.

performed at this location, a westbound left turn lane was analyzed in the model. This analysis suggests a turn lane may be necessary to manage the increased traffic. According to Onondaga County Department of Transportation policy, if it is determined that a turn lane is warranted, the addition of a turn lane at a three-way intersection would also require a traffic signal. The installation of a traffic signal should be analyzed prior to implementation. The Manual of Uniform Traffic Control Devices (MUTCD) outlines nine warrants for traffic signals that should be used as guidance. Additionally, if a signal is installed, a left turn lane may no longer be necessary for improved LOS and delay.

Table 9.
Level of Service and Delay (in seconds)

Scenario/Location	AM* Peak Hour					PM* Peak Hour					Saturday* Peak Hour				
	Rt. 31	Verplank	Maider	New Road	CR 57A	Rt. 31	Verplank	Maider	New Road	CR 57A	Rt. 31	Verplank	Maider	New Road	CR 57A
Existing (2010)	D (37.1)	A (1.6)	A (1.3)	-	A (3.9)	D (39.0)	A (2.1)	A (1.1)	-	A (5.5)	D (52.1)	A (1.8)	A (0.6)	-	A (3.1)
Existing with new signal timings (2010)	C (23.8)	A (1.6)	A (1.3)	-	A (3.9)	D (36.6)	A (2.1)	A (1.1)	-	A (5.5)	D (40.7)	A (1.8)	A (0.6)	-	A (3.1)
No-Build Alternative (2020)	D (41.2)	A (1.6)	A (1.3)	-	A (4.0)	E (66.5)	A (2.4)	A (1.2)	-	A (7.7)	E (76.2)	A (2.0)	A (0.6)	-	A (3.5)
No-Build Alternative with new signal timings (2020)	C (28.8)	A (1.6)	A (1.3)	-	A (4.0)	E (59.5)	A (2.4)	A (1.2)	-	A (7.7)	E (62.2)	A (2.0)	A (0.6)	-	A (3.5)
Build Alternative 1 (2020)	C (30.4)	A (1.4)	A (3.1)	A (1.8)	A (3.7)	E (64.8)	A (2.6)	B (3.6)	A (1.2)	A (9.5)	E (65.1)	B (2.2)	B (1.6)	A (0.8)	A (3.7)
Build Alternative 2 (2020)	D (39.6)	A (1.5)	A (3.2)	-	A (3.8)	E (62.8)	A (2.5)	C (4.6)	-	A (8.6)	E (67.2)	B (2.2)	D (9.2)	-	A (4.0)
Build Alternative 2 with westbound left turn lane at Maider Road (2020)	-	-	A (3.1)	-	-	-	-	C (4.2)	-	-	-	-	C (6.8)	-	-

*Level of Service followed by HCM Average Control Delay (seconds/vehicle) stated in parentheses.

8.0 ASSESSMENT OF ALTERNATIVE CONCEPTS

The hypothetical Concept Alternatives were developed in light of each town's future vision for the Study Area and surrounding neighborhoods. The full implication of each Concept Alternative can be assessed by determining how well each meets the goals of this Access Study. The concepts assessed are Concept Alternative 1, Concept Alternative 2, and the Land Use Plan (see Figures 12, 14, and 15). This assessment will provide a basis from which to assess the differences between each alternative, in comparison to the Study goals set forth in Section 1.1.2.

8.1 Study Goal 1.

Develop three alternative concepts that respect natural resource protection, waterfront revitalization, and brownfield redevelopment goals set forth in existing town plans.

Natural resource protection, waterfront revitalization, and redevelopment of underutilized brownfield properties represent the primary goals set forth in the various planning studies reviewed for this Access Study (see Section 2). The two Concept Alternatives and the Land Use Plan meet these goals by addressing the reuse of the Cibra brownfield site, encouraging public access to the shorelines of the Seneca and Oneida Rivers, and providing a compatible mixture of uses in the Study Area, without overdeveloping the water's edge.

There is unanimous community support for redevelopment options that preserve and celebrate the site's historic and cultural resources while creating and/or enhancing recreational opportunities that foster economic development for the surrounding communities. The difference is how and to what extent. With a focus on waterfront revitalization, each Concept Alternative balances active waterfront access (private and public) with natural resource protection. Both Concepts include recreational activity along the Oneida River with a marina, boat launches and supporting retail businesses, such as a bait and tackle shop. Both Concepts also support healthy reuse of the existing brownfield sites. However, only Concept Alternative 2 promotes preservation of the historically important Three Rivers Point as open space designed for recreational enjoyment (either passive or non-programmed active use).

Intersection of CR 57 and Maider Road and the Railroad.

In Concept Alternative 1 mixed use development is proposed for Three Rivers Point with the public waterfront reserved for civic use only, respecting its cultural heritage. In each case, the goals of protecting the natural, cultural and historic resources of this site are met, but to different degrees and with different outcomes.

Waterfront revitalization and brownfield redevelopment is central to each Concept Alternative, although expressed differently. Also central to each Concept is the incorporation of transportation systems that support healthy lifestyles. Although in different ways, each Concept Alternative incorporates connectivity between trails, sidewalks and streets allowing for walking, running, biking, and cross country skiing.

8.2 Study Goal 2.

Understand the potential traffic impacts generated from and relative costs associated with each Concept Alternative.

Once the Concept Alternatives were completed and traffic volumes generated per Concept Alternative were determined, the generated traffic volumes were put into the Synchro models and the impacts at each location were determined. Based on the results of the traffic assessment, the potential traffic impacts are minimal. As previously noted, the Land Use Concept for the Town of Schroeppel was included with both Concept Alternatives when analyzing traffic impacts (see Table 7).

Traffic volumes associated with Concept Alternative 1 are highest during weekday evening peak periods (see Table 7). Even with the potential increase in traffic, impacts to the Level of Service at each studied intersection would be negligible. Under Concept Alternative 2 (modified) higher traffic volumes would be generated during Saturday midday peak periods (11a.m.-1p.m.). Under this scenario impacts to the Level of Service may require the addition of a signal and turn lane at the County Route 57 / Maider Road intersection.

Manageable traffic increase is only part of the final conclusion. It should be noted that there is additional undeveloped land between Route 31 and Three Rivers which was not factored into this Access Study. It is unknown how redevelopment of any or all of the lands will impact the local transportation system. The Town of Clay should be mindful of preserving capacity at the intersection of Route 57 and 31 and should structure its zoning and land use regulations accordingly.

The redevelopment costs of the Study Area pursuant to each Concept Alternative are roughly the same. Environmental remediation will be a necessary expense regardless of end use for the brownfield site. The same applies to expenses associated with re-alignment of Maider Road, which will be necessary regardless of the specific redevelopment alternative. The Town of Clay should remain mindful of the probable need for some roadway improvements and/or intersection improvements as a consequence of redevelopment of the Three Rivers Point.

Bridge Construction Traffic at Intersection of CR 57 and Maider Road.

8.3 Study Goal 3.

Assess the potential for multi-modal accessibility at Three Rivers Point.

Multi-modal accessibility was considered for each redevelopment Concept Alternative. Circulation systems through the site accommodate walkers, joggers, and bikers. Transportation to the site can be achieved by car, bus, boat, or bike. In light of the existing Centro bus route which uses County Route 57, bus turnouts are included in each Concept. Of initial interest was the potential for passenger rail service, however, this service is unlikely due to the current use of the rail line for freight service. Converting a freight line to a passenger line is highly unlikely due to the need for a passenger schedule.

8.4 Study Goal 4.

Invite the community to review and discuss redevelopment options.

This Access Study included two public informational meetings. The first meeting engaged the community to review and comment on two preliminary Concept Alternatives. The second meeting shared the results of the traffic analysis. Community support was similar for both Concept Alternatives. Some community neighbors strongly prefer to live in a low density residential area. Other community members simply want the local roadways improved to better handle any increase in traffic volume due to general growth in the area/ region (see Appendix E).

County Route 57 bridge over Three Rivers Point.

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9.0 IMPLEMENTATION STRATEGIES

Redevelopment and revitalization of the Study Area can be encouraged through effective land use regulations, appropriate regulatory permits/ approvals, and with infrastructure improvements, some of which can be undertaken by the local municipality. An outcome of this Access Study is recognition by both towns that they can take strategic implementation steps that will encourage the type of redevelopment that best fits their vision for this Study Area. A few recommended implementation strategies are discussed below.

9.1 Regulatory framework

9.1.1 Town zoning regulations

Town of Clay. With the goal of encouraging redevelopment, the Town of Clay recently rezoned the town-owned parcels and the privately owned industrial sites in the Study Area to Planned Development District (PDD). The privately owned residential properties remain in the R-10 One Family Residential District (see Figure 8). The new zoning regulations appear to encourage redevelopment of the type proposed in both Concept Alternatives. It is recommended the Town Board review the PDD requirements in light of this study to ensure that they will effectively guide redevelopment in the pattern and density preferred.

It must be noted that there is a lot of undeveloped acreage between Route 31 and the Study Area. The town should proactively encourage preferred land use patterns and density preferences for these lands. Future land uses and density will impact the transportation systems and if not carefully managed, may negatively impact redevelopment at Three Rivers Point. A conservation subdivision or low density approach to residential development north of Verplank Road would be a compatible use and pattern of development. In the Northern Land Use Study, it is suggested this area be zoned for Residential land use with 10 acre lots or larger. This type of low density development, especially if structured in a conservation subdivision pattern, would also be compatible with a higher density mixed-use development within the Study Area. Conservation subdivision would contribute to the conservation of meaningful open space and natural resource protection.

Town of Schroeppel. The Town of Schroeppel Study Area includes lands along County Route 57 which are zoned industrial and lands along the shoreline which are zoned R-1 Residential (see Figure 10). Unfortunately, the proposed land uses

Three Rivers Point Recreational and Transportation Usage.

(high density townhomes and recreational use) are not allowed under the current zoning districts. The Town should review its future land use preferences for this area and revise its zoning regulations to effectively promote the preferred land uses.

9.1.2 Permitting requirements

Due to the nature of the Study Area and the fact that much of the shoreline is owned by New York State Canal Corporation, any development within the Study Area will most likely require specific permits and/or approvals from the Town (Schroeppel or Clay), Onondaga County, New York State, and the Federal Government. The following is a list of the local, state, and federal agencies from which permits or approvals will most likely be required prior to undertaking any redevelopment in the Study Area. The permits and/or approvals actually required will be determined once a development plan is officially proposed.

- Town Clay (Site plan approval, subdivision approval, floodplain permit)
- Town of Schroeppel (Site plan approval, subdivision approval, floodplain permit)
- Onondaga County
  - Department of Transportation
  - Syracuse Onondaga County Planning Agency
  - Department of Health
- New York State
  - Department of Environmental Conservation (Article 15, Protection of Waters Permit Stormwater Pollution Prevention Plan; Article 24, Freshwater Wetlands Section 401 Water Quality Certification)
  - Department of Transportation
  - Canal Corporation
  - Office of Parks, Recreation and Historic Preservation
- Federal Government
  - United States Army Corps of Engineers (Section 404 of the Clean Water Act; Section 10 Navigable Waters)
  - National Oceanic and Atmospheric Administration Marine Fisheries Service Permit

9.2 Infrastructure Improvements

Although the Concept Alternatives are hypothetical, some of the recommended improvements could be advanced by the local municipalities prior to receiving private redevelopment proposals. These improvements include the development of a public park and/or campground, a pedestrian trail (walking, running, biking, cross country skiing) along the Oneida and Seneca Rivers, including a walkway under the County Route 57 and CSX Railroad bridges, and the installation of infrastructure for public water and sewer (where possible). Such improvements will revitalize the area from a public accessibility and enjoyment aspect, which in turn may encourage the type of mixed-use redevelopment suggested in the Concept Alternatives.

Initial steps needed to advance changes to the local transportation system include studying a Maider Road re-alignment and implementing signal timing adjustments at the State Route 31/ County Route 57 intersection. Maider Road at the intersections with the CSX Railroad and County Route 57 should also be reviewed and assessed for improvement purposes. It was noted during each public informational meeting that Maider Road at these two intersections is challenging due to inadequate sight distance caused by the bridge support structures and rail line utilities. Realignment of Maider Road would address

this issue which needs improving regardless of whether the Study Area is redeveloped. However, improvement of this intersection could help may encourage redevelopment of the Study Area. The necessity of other noted intersection improvements such as adding a new turn lane and signal at the intersection of Maider Road and Route 57 will depend on the actual redevelopment project. Undertaking such an improvement prior to understanding how this area will be redeveloped is arguably premature. Addressing this issue at the time redevelopment is proposed will allow for the redesign of this intersection in a way that fits in with whatever development is proposed.

Undoubtedly, the brownfield sites in the Study Area will need to be remediated and improved prior to being reused. The required degree of environmental remediation will be determined on a site-by-site basis using knowledge of known contaminants present on site and the economic feasibility of future reuse and redevelopment of that site

In summary, recommended improvements include:

- Public park and/or campground
- Civic recreational park at Three River's Point
- Riverside trails
- Public sewer infrastructure
- Signal timing adjustments at County Route 57/31
- Study of the realignment of Maider Road
- Open space/natural resource preservation

Beautiful July Day at Three Rivers Point overlooking the confluence of Oswego, Seneca, and Oneida Rivers.

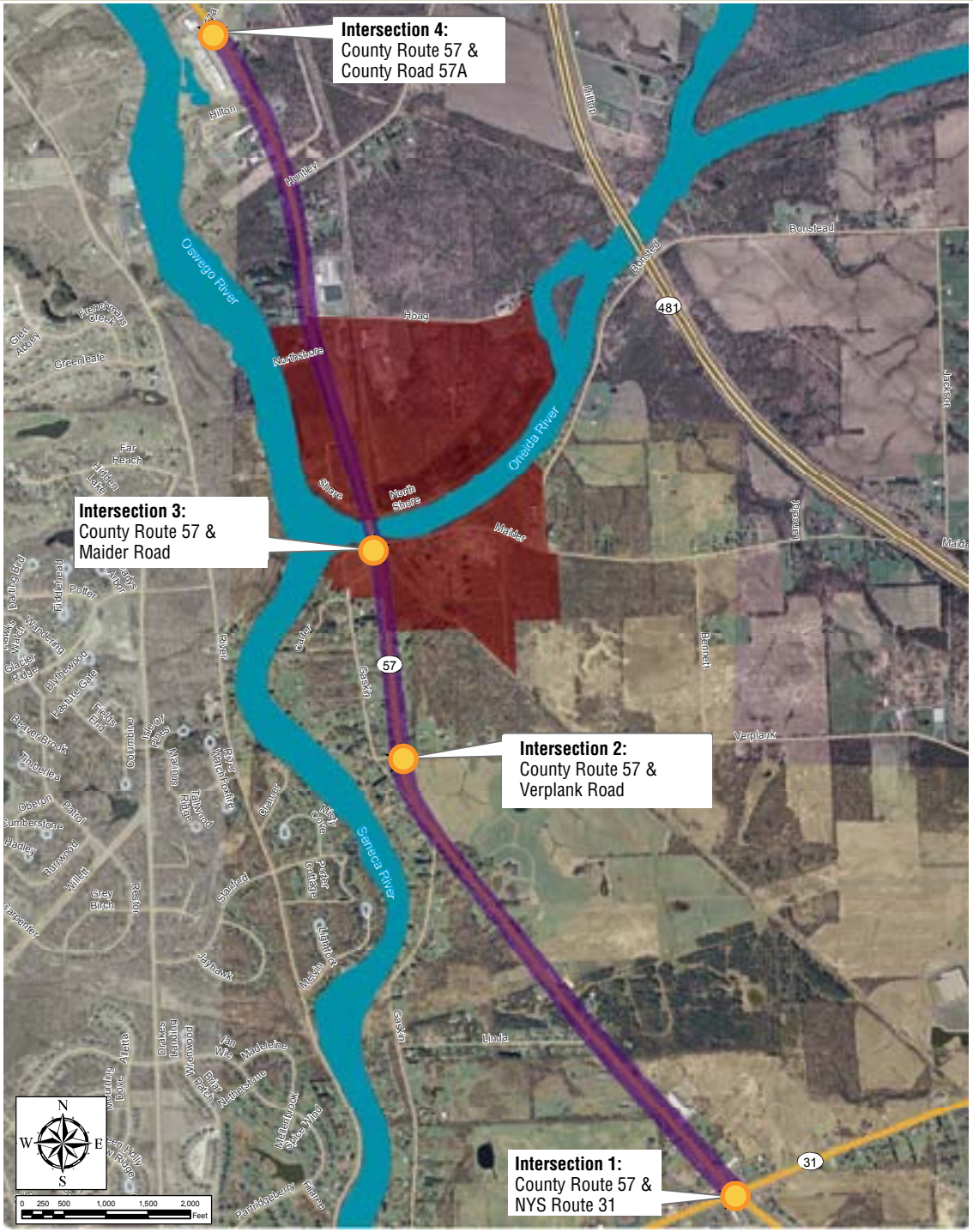
9.3 Potential Funding Sources

Once the Towns of Clay and Schroeppel determine which improvements to undertake, the immediate next step is to decide how to fund such improvements. Funding can come from private and/or public sources. The Towns of Clay and Schroeppel, with advance planning, could include budget for the costs of such improvements. Another option is to seek grant funds for specific capital improvement projects. Federal funding may be available for the discussed roadway improvements through SMTC's Transportation Improvement Program. Other transportation fund sources that may be beneficial are the Transportation Enhancements Program and Recreational Trails Program. Existing funding sources are likely to change and new sources are likely to be created. Because there are too many unknowns about when, how, or who will instigate redevelopment of the Study Area, it will be necessary, when the time comes, to conduct timely research into an appropriate funding source. Currently, many of the funding sources focus attention on smart growth and sustainable communities. With the appropriate redevelopment plan, such sources may be a good match for funding assistance.

SOURCES

- Brownfield Opportunity Area Program Application, 2009
- Draft Local Waterfront Revitalization Plan for the Town of Clay, April 2008
- FamousInterview.com, http://www.famousinterview.ca/interviews/lorraine_arsenault.htm
- ITE Trip Generation Manual, 8th Edition
- New York State Erie Canal Recreationway Plan, 1995
- https://www.nysdot.gov/divisions/engineering/technical-services/highway-data-services/functional-class-maps/onondaga, file name “RegCo33_Onondage_County_2000_FC.pdf”
- Route 31 & 57 Land Use and Circulation Study, 1999
- Route 31 & 57 Corridor Study, 2006
- Town of Clay Draft Northern Land Use Study, 2011
- Town of Clay Three Rivers Point Redevelopment Study, 2000
- Town of Schroeppel Comprehensive Plan, 2001
- http://www.townofclay.org/indexB.html
- U.S. Census Bureau, www.census.org

FIGURES



Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 1:
Study Area

March 2011

Notes:
Base Map:One-foot orthoimagery, 2006.

LEGEND

- Study Intersection
- Primary Study Area
- Secondary Study Area

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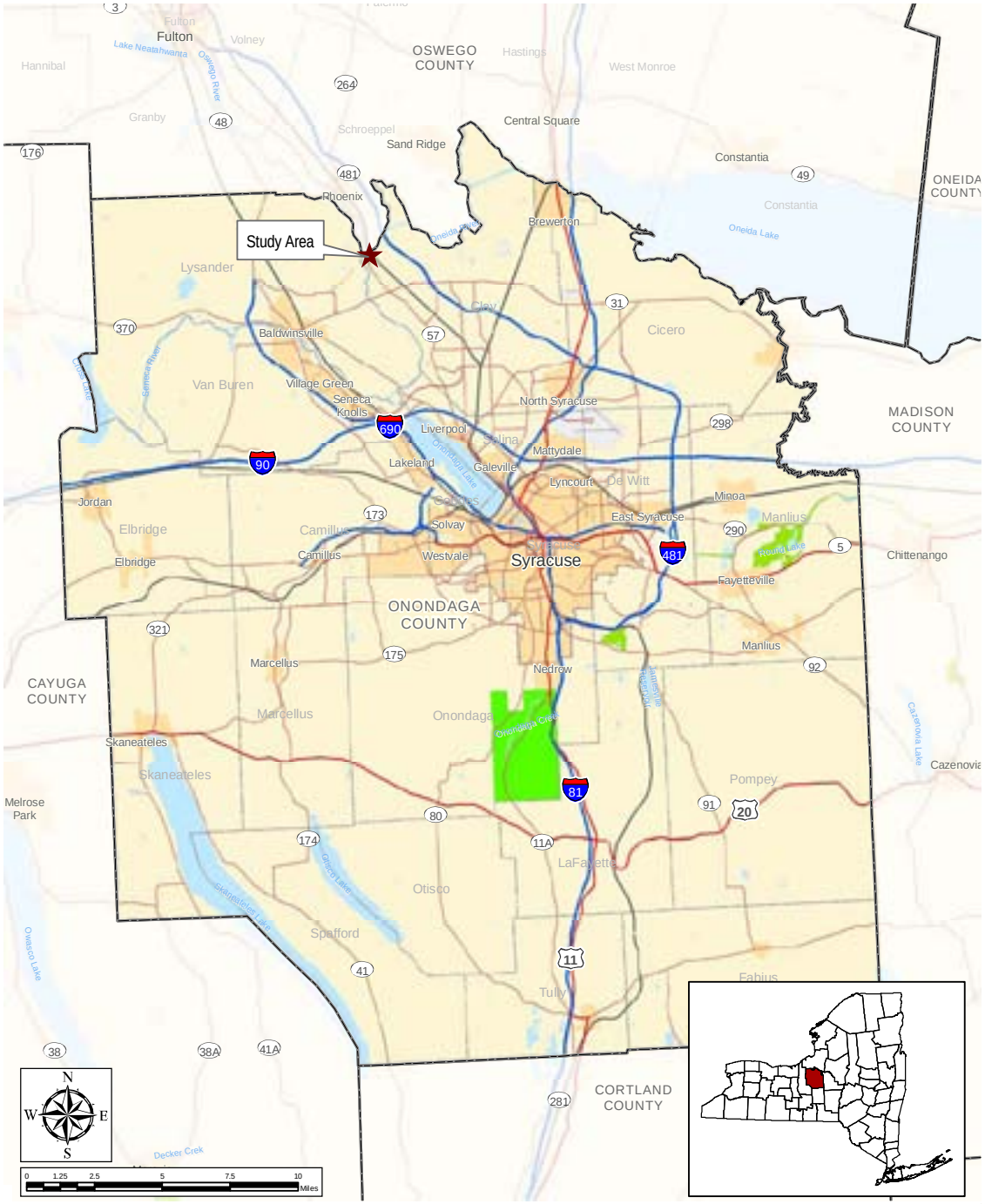

Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 2:
Regional Context

March 2011

Notes:
Base Map: ESRI StreetMap North America, 2008.

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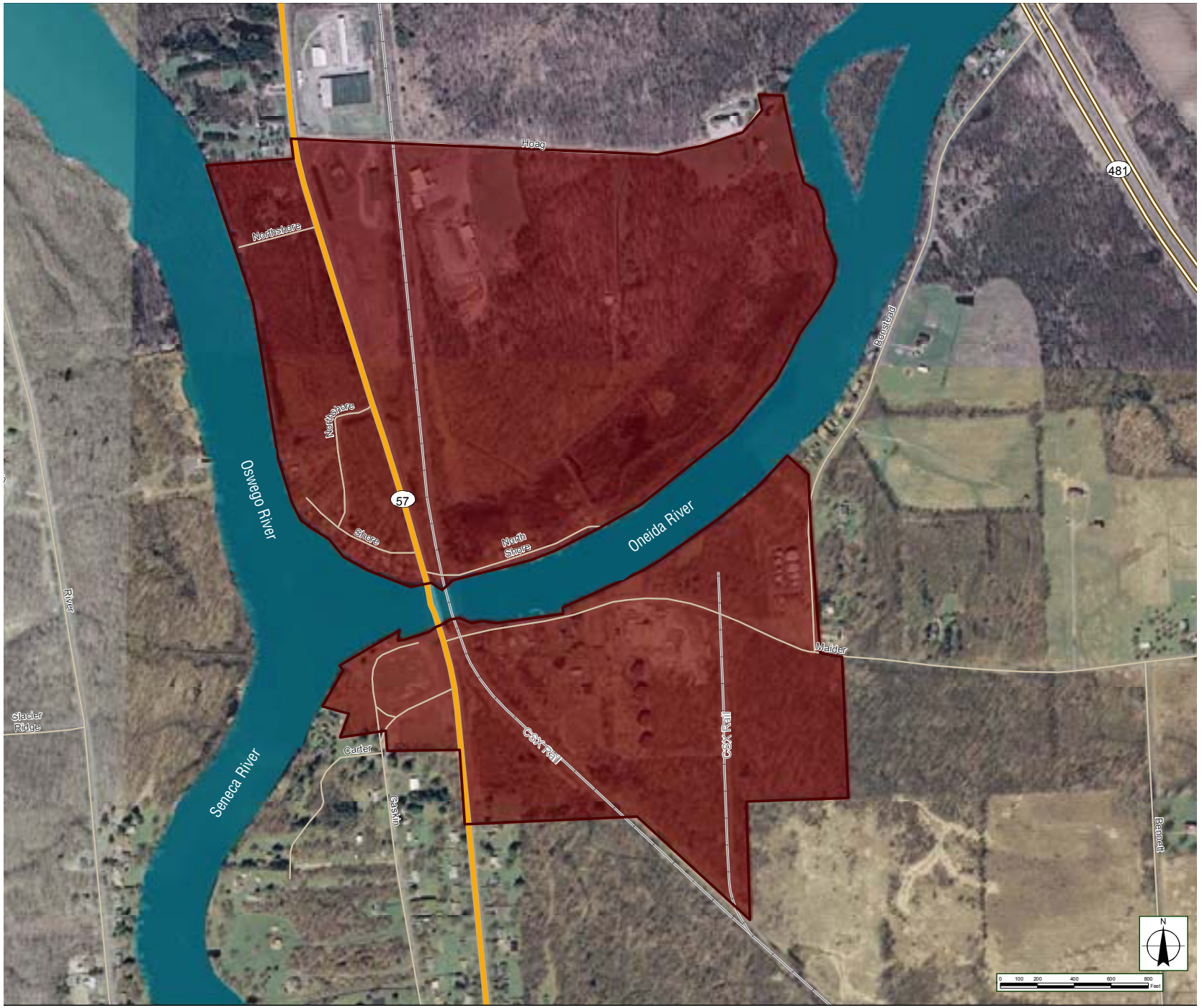

Towns of Clay and Schroeppel, New York

Figure 3:
Primary Study Area

March 2011

Notes:
Base Map:One-foot orthoimagery, 2006.

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www.edrcompanies.com

Figure 4:
Study Areas - 2000
Three Rivers Study

LEGEND

- Commercial
- Residential
- Parking
- Public Open Spaces - paved
- Public Open Spaces - recreation
- Waterfront Activities
- Trails - walking, biking, cross country skiing

edr COMPANIES
www.edrcompanies.com

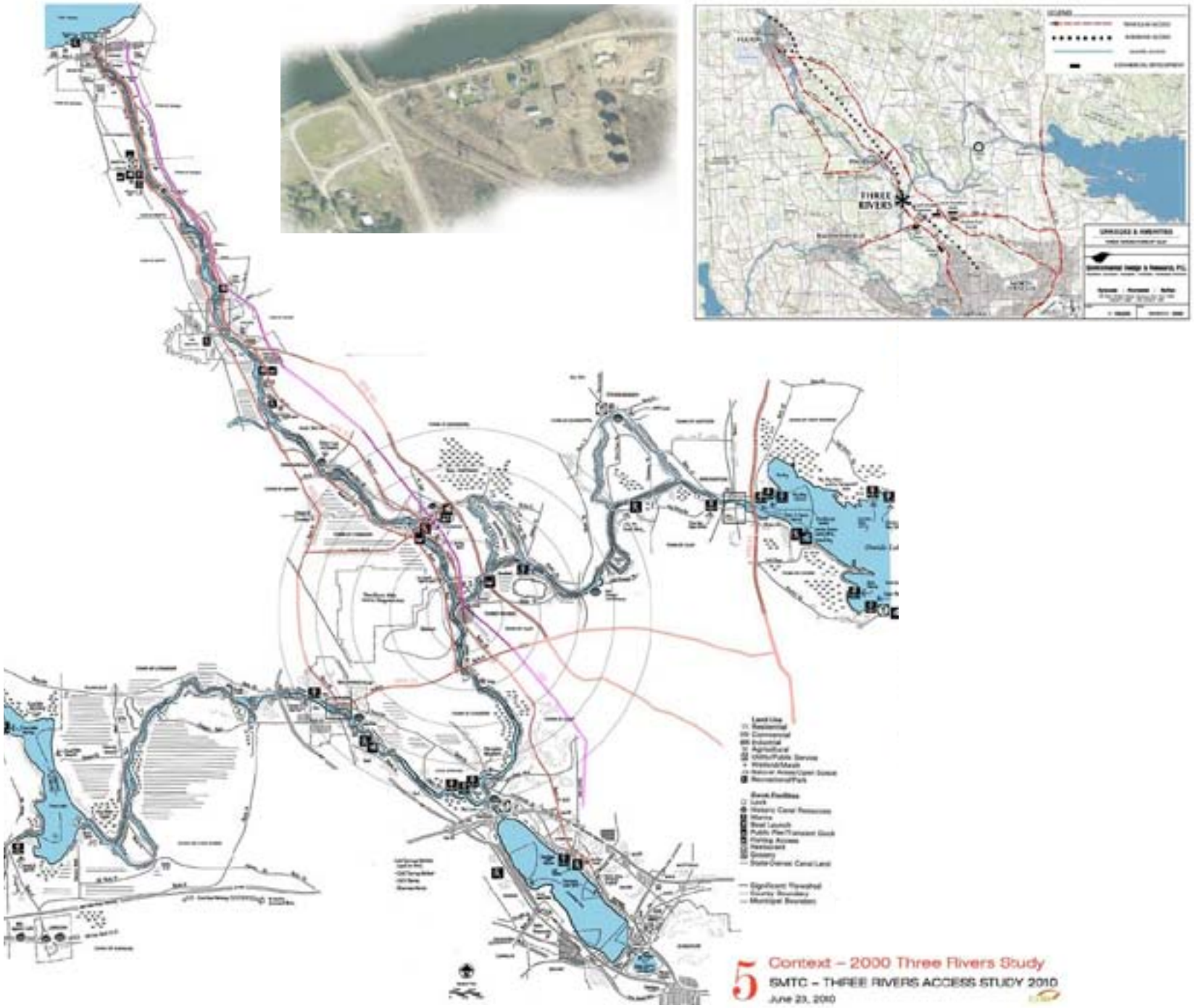
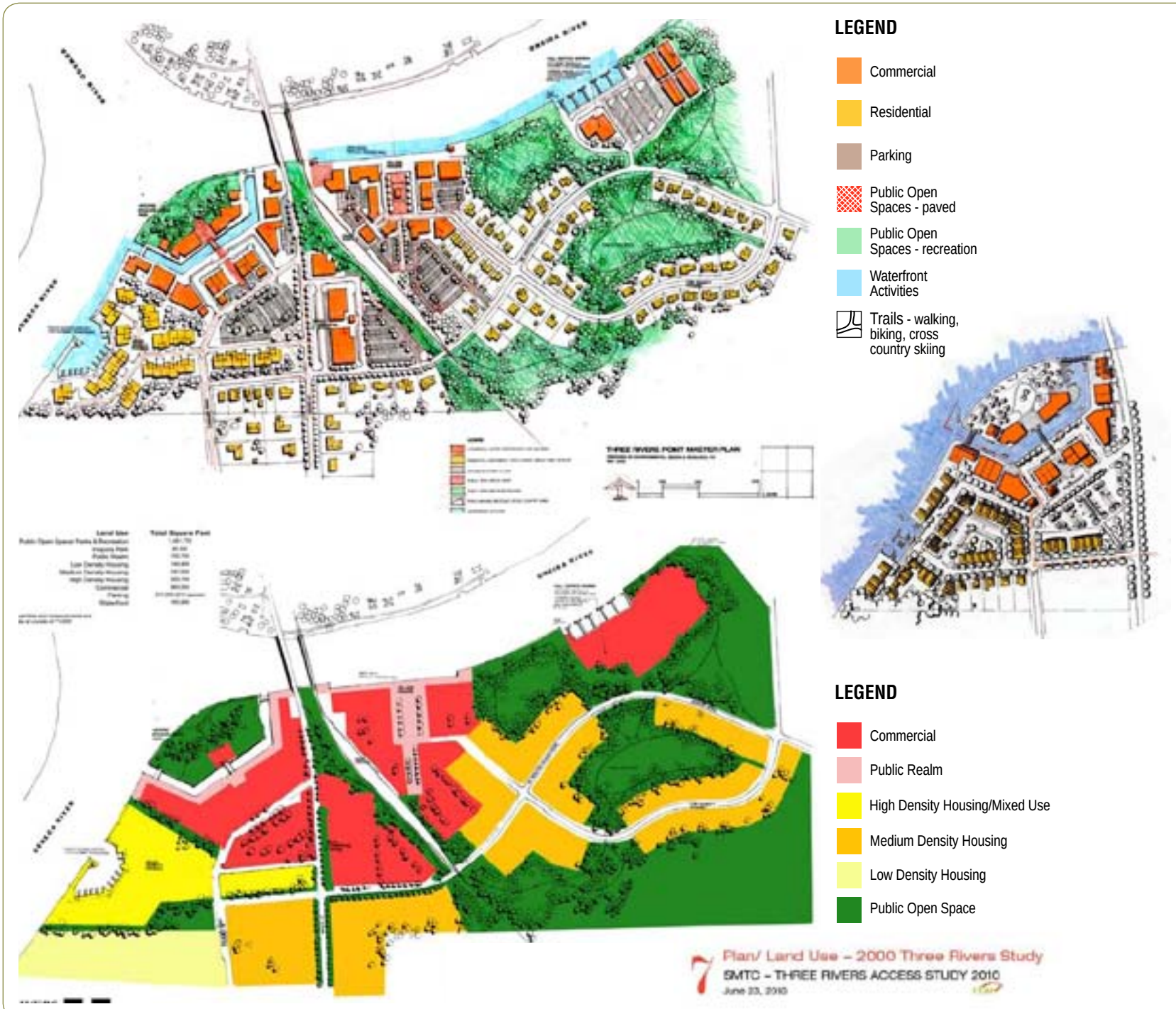


Figure 5:
Context - 2000
Three Rivers Study

Figure 6:
Character Studies -
2000 Three Rivers
Study



Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 7: Plan/Land Use - 2000 Three Rivers Study

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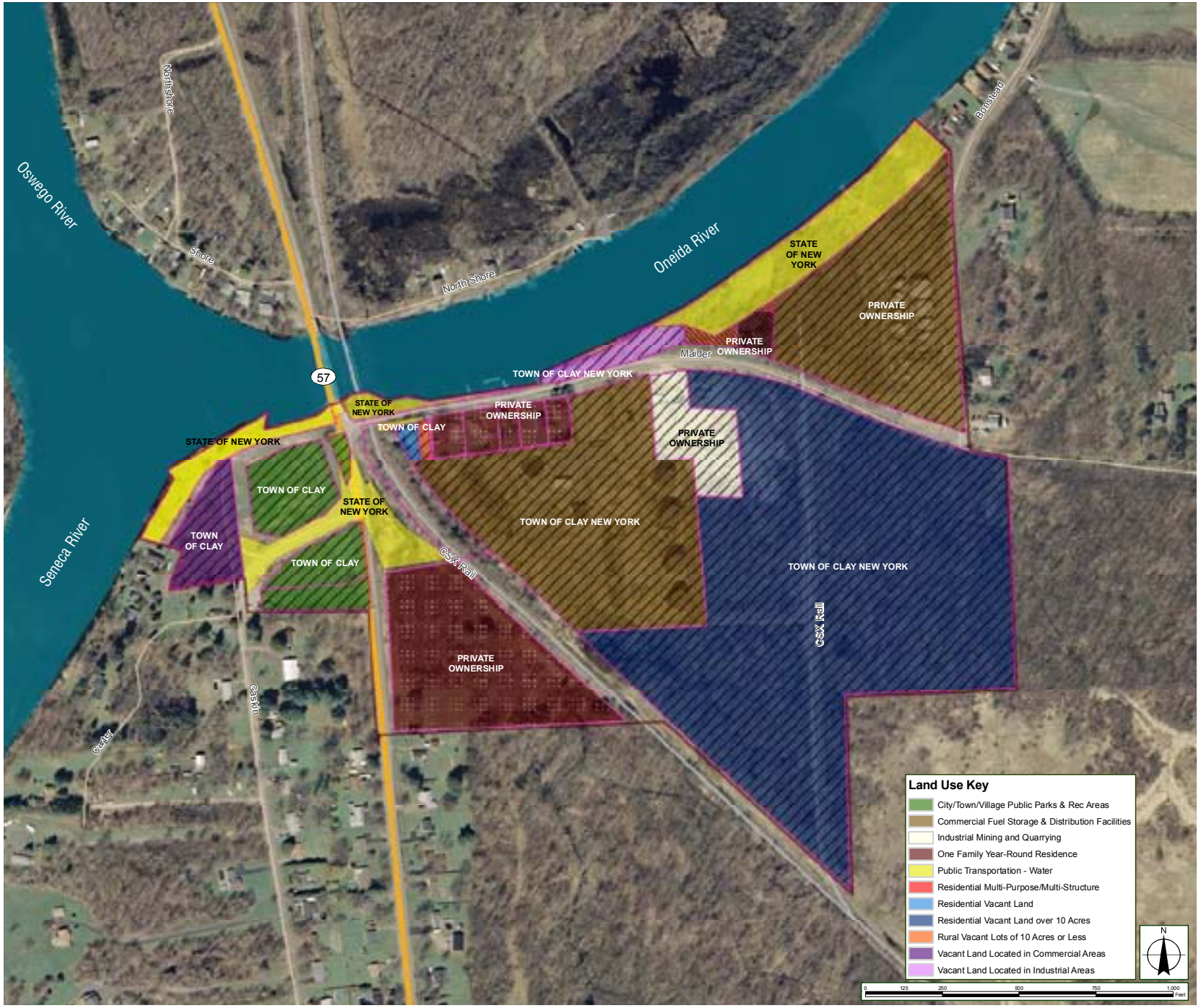

Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 8: Zoning and Ownership - Town of Clay

LEGEND

- Primary Study Area
- Tax Parcel
- RA 100
- Planned Dev. District
- One Family Residential District
- NY State-Owned Property

March 2011

Notes:
Tax Parcel Data provided by Town of Clay; ownership based on best available data from Canal Corporation and Onondaga County records. Data represented are inteded for presentation purposes only.

Base Map: One-foot orthoimagery, 2006.

edr COMPANIES
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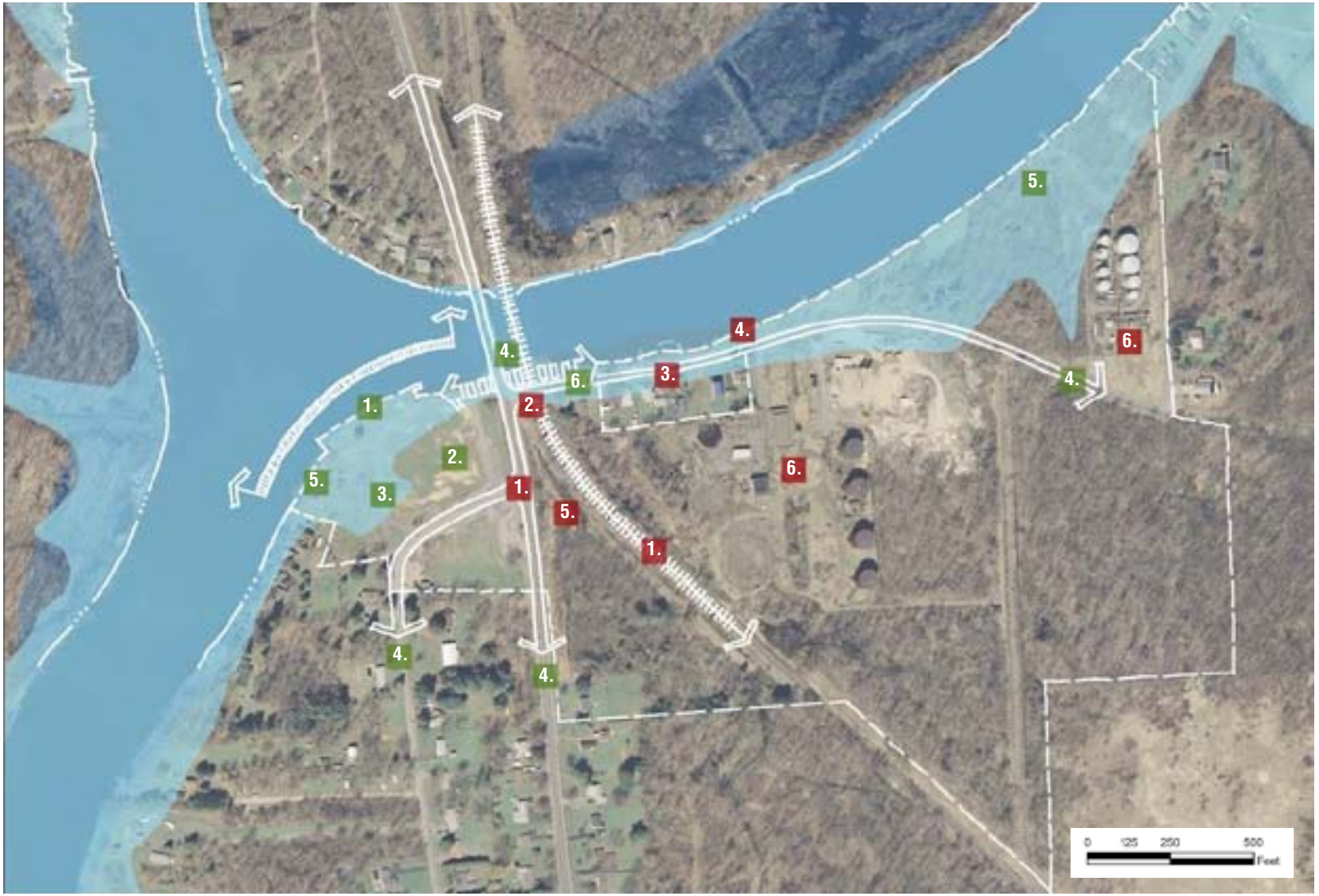
Figure 9:
Opportunites and
Constraints for the
Town of Clay



LEGEND

- Opportunities
- Constraints
- FEMA Floodplain
- NWI Wetland

nd

N

OPPORTUNITIES

1. Riverwalk - Celebration of historic places - the significance of Three Rivers Point to Native American Heritage should be recognized as well as the revitalization of a strategic waterfront to service the regional population.
2. Recognition of the site as the location of a former world-class entertainment night club and destination motel.
3. Opportunity for waterfront development with a mix of residential, retail, office space and public open space to promote a "waterfront village" atmosphere. Three Rivers point should be developed as a destination attraction accessible by both land and water.
4. Opportunity to connect adjacent waterfront developments and existing neighborhoods specifically Three Rivers Point, Gaskin Road and Maider Road by pedestrian walkways and limited access roadways.
5. Moderate grades at shoreline permit water related development with panoramic views.
6. Steep road incline and poor site distance could be alleviated by relocating Maider Rd. south to maximize usable land with access to water.

CONSTRAINTS

1. The higher elevation of Route 57 and the CSX rail line create a visual and physical barrier to linking Three Rivers Point and Maider Rd.
2. Traffic speed and volume on Route 57 presents a hazardous constraint to potential development at Three Rivers Point. Simultaneously, the CSX rail line crossing at Maider Road will need to be taken into consideration when designing a pedestrian link between adjacent waterfront developments.
3. The present configuration of Maider Rd. may limit waterfront access and residential development in this area.
4. Steep bank and shoreline currently limits shoreline accessibility.
5. Low-lying depression filled with Phragmites and successional scrub shrub vegetation is currently a land locked wasteland.
6. Abandoned petroleum product storage facility - future development options are contingent upon the success of brownfield mitigation and clean-up efforts.

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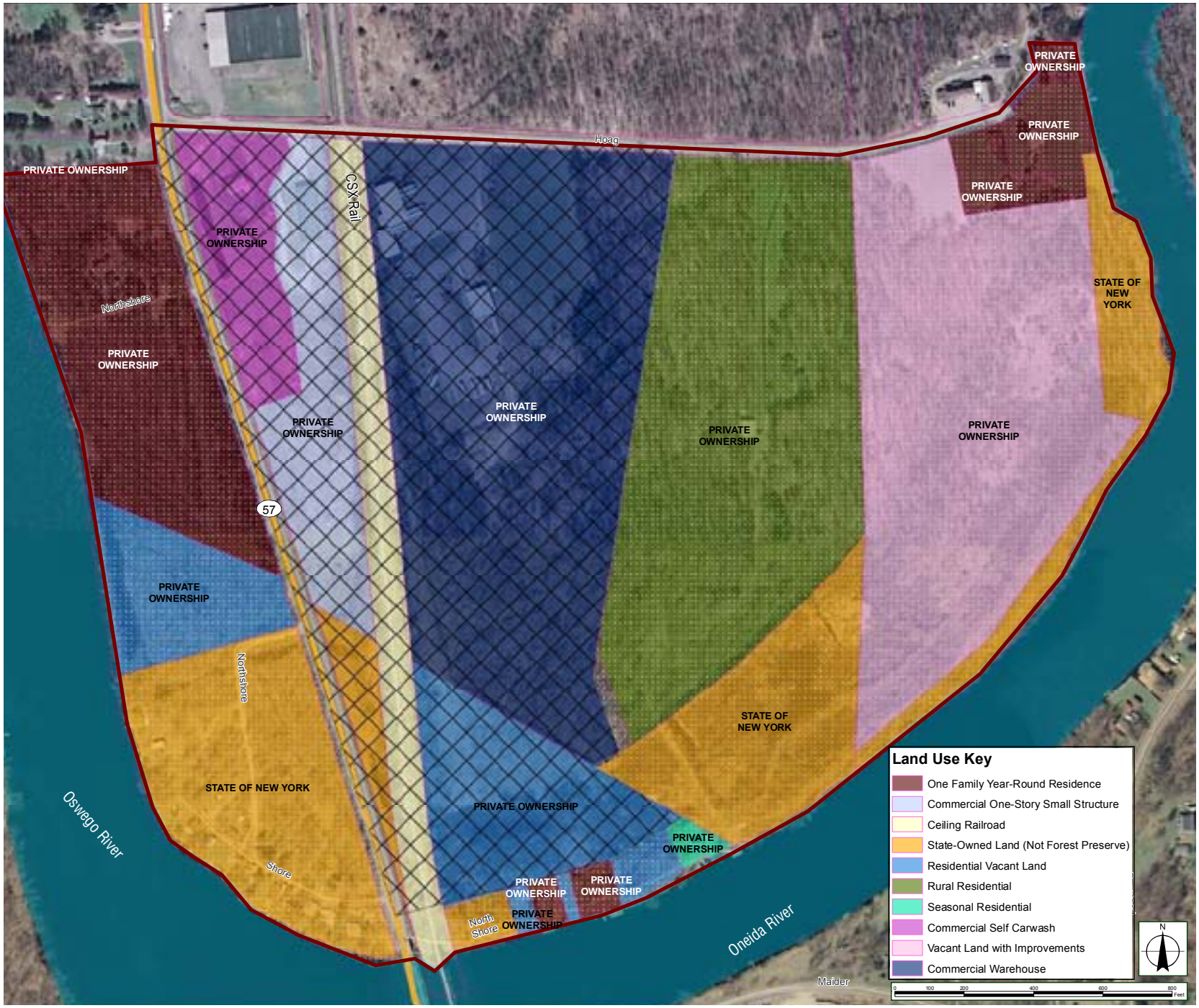

Figure 10:
Zoning and Ownership - Town of Schroeppel

LEGEND

- Primary Study Area
- Tax Parcel
- Planned Dev. District
- One Family Residential District
- NY State-Owned Property

March 2011

Notes:
Base Map: One-foot orthoimagery, 2006.

OPPORTUNITIES

1. Lands easily accesible from Rte. 57, outside floodplain with water frontage and views. Opportunity for development as housing or recreation.
2. Existing Hoag Drive and CSX R.R. crossing provide sole access to eastern 3/4 of study area.
3. Upland area developable as residential or recreation uses. Recreatioal uses (site, not buildings) could expand into floodplain and access Oneida River frontage.
4. Existing private drive provides opportunity for access to river frontage without crossing wetlands.

CONSTRAINTS

1. Areas adjacent to river frontage in floodplain not suitable for buildings-no opportunity for waterfront residential or commercial uses; may have value for recreation.
2. Active CSX railroad line bisects site - limits access to east 3/4 of study area and requires buffering of noise for adjacent uses.
3. Lands with prime view owned by Canal Corp. and largely in floodplain.
4. Industrial use would require buffer if adjacent land to the south and east is developed as residential or recreation..
5. Potential southern connection to east 3/4 of study area (under Route 57 & R.R.) crosses lands owned by the Canal Corp.

Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 11: Opportunites and Constraints for the Town of Schroeppel

LEGEND

- Opportunities
- Constraints
- FEMA Floodplain
- NWI Wetland
- Canal Corp. land

N

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Figure 12: Town of Clay Redevelopment Concept Alternative 1

LEGEND

- Commercial Development, 1 sty.
- Mixed Use Commercial/ Residential, 2 sty.
- Apartment, 2 sty.
- Townhouse Cluster Development
- R 15 Single Family Detached
- R 7.5 Single Family Detached
- Open Space
- Existing Roads
- Proposed Roads
- Trails/Walks

SITE DATA

Commercial Square Footage: 25,525 s.f.
Total Commercial Parking Spaces:154
Townhouse Units: 86
Apartments (stand alone & mixed use): 48
R 15 Single Family Units: 7
R 7.5 Single Family Units: 53

SITE DATA

Commercial Square Footage: 39,450 s.f.
(including 15,000 s.f. entertainment center)
Total Commercial Parking Spaces: 815
(including 525 spacs for entertainment center)
Townhouse Units: 42
Apartments (stand alone & mixed use): 23
R 10 Single Family Units: 19

N

Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 13: Town of Clay Redevelopment Concept Alternative 2 (Preliminary)

LEGEND

- Commercial Development, 1 sty.
- Mixed Use Commercial/ Residential, 2 sty.
- Apartment, 2 sty.
- Townhouse Cluster Development
- R 10 Single Family Detached
- R 7.5 Single Family Detached
- Open Space
- Existing Roads
- Proposed Roads
- Trails/Walks

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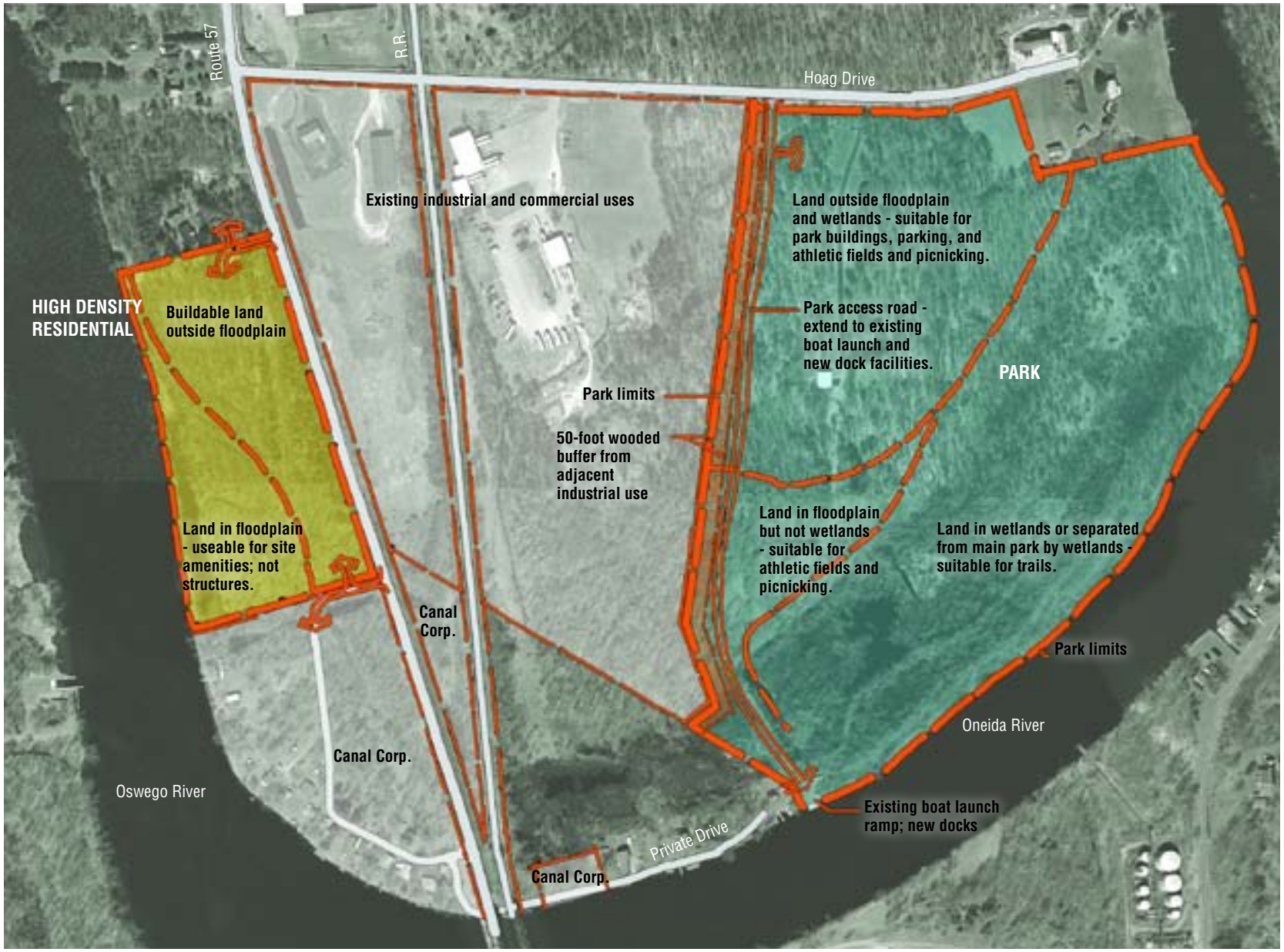
SITE DATA

Commercial Square Footage: 28,150 s.f.
(including 15,00 s.f. entertainment center)
Total Commercial Parking Spaces: 628
(including 525 spaces for entertainment center)
Townhouse Units: 34
Apartments (stand alone & mixed use): 8
R 10 Single Family Units: 19
R 7.5 Single Family Units: 14

Figure 14: Town of Clay Redevelopment Concept Alternative 2

LEGEND

- Commercial Development, 1 sty.
- Mixed Use Commercial/ Residential, 2 sty.
- Apartment, 2 sty.
- Townhouse Cluster Development
- R 10 Single Family Detached
- R 7.5 Single Family Detached
- Open Space
- Existing Roads
- Proposed Roads
- Trails/Walks



Three Rivers Access Study

Towns of Clay and Schroeppel, New York

Figure 15: Town of Schroeppel Land Use Plan

LEGEND

- Canal Corp and existing industrial/ commercial land not considered for development
- Park development land
- High density residential development land

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APPENDICES

APPENDIX A : PUBLIC INVOLVEMENT PLAN

Three Rivers Access Study

Public Involvement Plan

Financial assistance for the preparation of this document was provided, in part, by the U.S. Department of Transportation's Federal Highway and Federal Transit Administrations and the New York State Department of Transportation. The Syracuse Metropolitan Transportation Council (SMTC) is solely responsible for its content.

For further information, contact:

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126 N. Salina Street, 100 Clinton Square, Suite 100
Syracuse, New York 13202
Phone: (315) 422-5716; Fax: (315) 422-7753; Email: amckeon@smtcmpo.org
www.smtcmpo.org

I. Introduction

Engaging the public early and often in the planning process is critical to the success of any transportation plan or program, and is required by numerous state and federal laws. Such legislation underscores the need for public involvement, calling on Metropolitan Planning Organizations (MPO) such as the Syracuse Metropolitan Transportation Council (SMTC) to provide citizens, affected public agencies, businesses, local government, and other interested parties with a reasonable opportunity to comment on transportation plans and programs.

While public participation is mandated, it is also practical. No single organization has a monopoly on good ideas – they often germinate through an open exchange of information. It is the SMTC's intention to promote the shared obligation of the public and decision makers to define the goals and objectives of the **Clay Three Rivers Access Study**, to develop alternatives, and to evaluate the alternatives.

II. Goals

The intent of the Public Involvement Plan (PIP) for the **Clay Three Rivers Access Study** is to:

(1) Create public awareness of the study's goals, objectives, and process, as well as to publicize the public participation opportunities and activities available throughout the study; and

(2) Involve the public throughout the planning process.

III. Formation of Study Advisory Committee and Interested Stakeholder Group

The PIP includes the formation of two groups to assist the SMTC in the study effort: a Study Advisory Committee (SAC) and a stakeholders group. Selected representatives from the following affected agencies and groups will be invited to participate in this study as SAC members:

- Town of Clay
- Town of Schroeppel
- Central New York Regional Transportation Authority (CNYRTA)
- New York State Department of Transportation (NYSDOT)
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Thruway Authority (Canal Corporation)
- Onondaga County Department of Transportation (OCDOT)
- Syracuse – Onondaga County Planning Agency (SOCPA)
- Oswego County Department of Community Development, Tourism and Planning
- CSX
- Onondaga Nation

- Other SMTC member agencies as appropriate.

The SAC will meet regularly with the SMTC to assist in managing the project. The SAC's role will be to advise the SMTC on the technical content of deliverables and to provide needed input and guidance throughout the project.

It is anticipated that a minimum of five SAC meetings will be held throughout the course of the study. Securing a meeting location (facility) and announcing the SAC meetings through mailings will be the responsibility of the SMTC. Conducting the SAC meetings (including preparation of agenda, materials, presentations, etc.), and preparing the minutes from each meeting will be the responsibility of the selected consultant.

In addition to the SAC, a list of interested stakeholders (a broader group of interested individuals with significant relations and interest in the study area) will be maintained by the SMTC. The SMTC will attempt to obtain a list of property owners and residential addresses adjacent to the study area from the Town and will automatically include those individuals on the stakeholders list. Additional stakeholders will be added based on input from the SAC and the community. The stakeholders will be sent pertinent study information, kept apprised of significant study developments, notified of all public meetings, and encouraged to provide feedback and comment regarding the **Clay Three Rivers Access Study.**

The SMTC and project sponsors will determine initial representation on the SAC and the stakeholders group. However, the SMTC will actively seek input at its "kick-off meeting" and throughout the course of the study regarding additional individuals who could participate in this planning activity and provide valuable input and perspective.

IV. Meetings and Public Comment

The SMTC will hold public involvement meetings/workshops at specific stages during the study. The SMTC will be responsible for securing a meeting location, issuing press releases, and mailing meeting fliers. The selected consultant will be responsible for creating meeting materials (including an agenda, presentation slides, a flier, and any visual aids), running the meetings, and preparing a summary of each meeting. Two public meetings are anticipated.

The first public meeting will provide the opportunity to formally present the study to the public, present an inventory of existing conditions within the study area, introduce the two initial concepts proposed by the town and seek initial feedback from the public. The SAC will consider citizen input obtained from this meeting and, if necessary, the initial concept plans will be modified based on public comments.

The second public meeting will take place after the alternatives analysis task of the project. At this meeting, the potential impacts of each concept plan and the transportation system and land use mitigation measures associated with each concept plan will be

summarized and presented. The public will be invited to provide feedback on the study's methods, results and proposed mitigation measures, as well as on the concept plans.

Note: All meetings (SAC and public) will be held in a handicapped accessible facility in compliance with the Americans with Disabilities Act. The SMTC will make every effort to respond to those who need a sign language interpreter, assistive learning system, or any other accommodations to facilitate the public's participation in the transportation planning process.

To further increase its outreach to the public, the SMTC will be initiating and conducting a variety of public involvement activities:

Material distribution at locations within study area: If deemed necessary (at the discretion of the SAC and/or other appropriate SMTC committees), the SMTC may distribute miscellaneous study-specific information at sites throughout the study area (e.g. schools, community centers, convenience stores, etc.). This information may include one or more of the following: introductory flier, meeting notice, comment card, and a pre-addressed survey on a particular study issue. It is also the SMTC's intent to work with and encourage other agencies to include this information in their publications or to assist in material distribution.

Coordination with existing community organizations: The SMTC will work to coordinate public outreach activities for this study with existing activities of community groups in the study area. The SMTC will seek the assistance of the Town of Clay Department of Planning and Zoning and community organizations to "get the word out" about the study and help publicize public meetings. The SMTC will reach out to these community groups early in the study process to inform them of the study and opportunities for public input. If requested, SMTC staff will attend existing community meetings to provide a brief overview of the project. Detailed discussion of the analysis and recommendations will be provided at the study-specific public meetings.

All citizens (especially those who are not able to attend the public meetings or participate in direct contact with the SMTC staff) are encouraged to submit comments to the SMTC at any time. This message will be publicized and made clear throughout the study's project schedule, verbally, and on all study material and publications. The public is also welcome to attend any of the publicized SMTC Executive, Planning and Policy Committee meetings in which the **Clay Three Rivers Access Study** may be on the agenda as a discussion item.

V. Press Releases/Media Coverage

The SMTC will issue news releases (announcing the details of all public meetings) to all major and minor newspapers, television stations, and radio in advance. If necessary, the

SMTC will also send additional news releases, or take the initiative to promote media coverage on pertinent developments pertaining to the **Clay Three Rivers Access Study**.

If possible, all media inquiries should be directed to the SMTC staff director or project manager. However, this is not always possible. If you (e.g. SMTC committee members, SAC members, and/or interested stakeholders associated with the study) are interviewed by the media, please limit your comments to your respective agency's opinion or involvement in the study. As for speaking to the media on specific issues and questions regarding the **Clay Three Rivers Access Study**, its progress and development, this is the exclusive responsibility of the SMTC.

VI. SMTC Publications

The SMTC publishes a newsletter, DIRECTIONS, that offers news about its activities and particular studies. This newsletter is distributed to nearly 1,500 individuals, some of whom include the media; local, state, and federal agencies associated with the SMTC; municipal and elected officials; community agencies and representatives; and a large number of interested citizens. It is anticipated that articles on the **Clay Three Rivers Access Study** (e.g. study development issues or the announcement or coverage of a public meeting) will be published in subsequent issues of DIRECTIONS. Should the need arise for the production of a separate newsletter/flier/report to convey a timely study development the SMTC staff is prepared to perform this additional task. It is also important to note that the mailing list of the SMTC newsletter, DIRECTIONS, will be updated to include all members of the SAC, stakeholders, and others interested or involved in the **Clay Three Rivers Access Study.**

VII. Miscellaneous Public Involvement Efforts

To further its public involvement efforts, the SMTC will be asking the SAC members and interested stakeholders to assist them in better notifying citizens and community groups living and/or working in the study area about the public meetings and the study in general. Such a request is imperative in order to get the "grassroots community" involved. By helping to distribute fliers/announcements and speaking to the members of the community about the **Clay Three Rivers Access Study**, the SAC and interested stakeholders will serve to further promote public involvement in areas (and to individuals) that were not reached through the standard outreach.

Meeting notices and study-specific material previously mentioned may also be posted at libraries, local stores, shopping centers, and/or businesses.

Approved documents, such as the study's Final Report, may be made available at libraries in the vicinity of the study area. News releases will be produced to announce the availability of such items, as well as invite written comments to be submitted to the SMTC.

The SMTC web site (www.smtcmpo.org) will also serve as a resource for general information about the SMTC, the **Clay Three Rivers Access Study,** and any final approved reports.

If a certain need arises to get public perception/opinion on a particular topic/issue, surveys may be used at one or more of the public meetings.

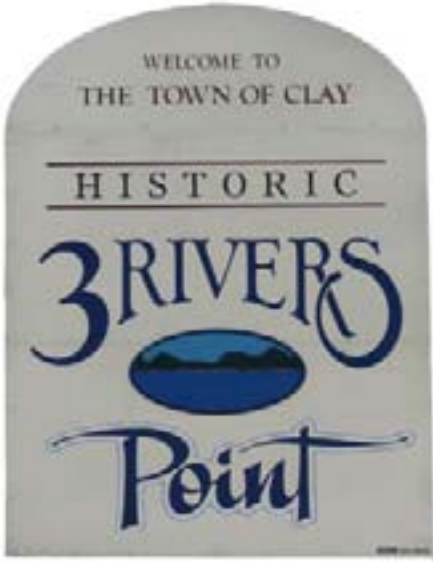
VIII. Conclusion

It is important for the SMTC to understand public attitudes and values throughout the **Clay Three Rivers Access Study**, as well as solicit input from affected citizens and community representatives. Through the activities described in this public involvement plan, the SMTC will solicit public input and provide opportunities for the public to develop greater awareness of and active involvement in the project. In a study that has the potential to enhance the quality of life and recreational opportunities for nearby residents and visitors, public involvement is paramount.

Three Rivers Access Study Public Meeting

What is your vision for Three Rivers Point?

The Syracuse Metropolitan Transportation Council (SMTC) is currently conducting a transportation access study for the Three Rivers Point area on behalf of the Town of Clay. The purpose of this study is to assess the potential transportation impacts associated with redevelopment of the Three Rivers Point area and to guide adoption of a reuse plan for the area.



The Town of Clay's Local Waterfront Revitalization Plan (LWRP) proposes redeveloping the Three Rivers Point area into a mixed-use center to include housing, office space, retail space, and public open space.

This access study will refine redevelopment options for the Three Rivers Point area, examine access to the area, assess the impacts of redevelopment on the local transportation system, and, ultimately, provide the town with a guide for redeveloping this area.

The goals of this meeting are to:

- **review existing conditions within the study area;**
- **present preliminary redevelopment concepts; and**
- **gather public feedback on these concepts.**

November 17, 2010
7:00 p.m.
Clay Town Hall
4401 Route 31

The meeting facility is handicapped accessible.

For more information, or to request accommodations, please contact:
Aaron McKeon
Syracuse Metropolitan Transportation Council
126 North Salina St., Syracuse, NY 13202
315.422.5716
amckeon@smtcmpo.org
www.smtcmpo.org

SMTC

PUBLIC MEETING

June 29, 2011
6:30 p.m.
Clay Town Hall
4401 Route 31

Three Rivers Access Study

The Syracuse Metropolitan Transportation Council (SMTC), working on behalf of the Town of Clay, is conducting a transportation access study for the Three Rivers Point area. The purpose of this study is to identify the possible transportation impacts associated with the kind of development that may be considered for this area in the future.

This is the final public meeting. We will be discussing the results of the traffic study and suggested ways of mitigating traffic impacts in this area.

The goals of this final public meeting are to:

- **Review the conceptual redevelopment plans,**
- **Share the results of the traffic study,**
- **Discuss ideas for how to offset impacts of additional traffic.**

We want to hear your thoughts on how to improve the transportation network in this area, including how roads, trails and bikeways can work together to meet your transportation needs.

The meeting facility is handicapped accessible.

For more information or to request accommodations, please contact: Aaron McKeon
Syracuse Metropolitan Transportation Council
126 North Salina Street, Suite 100, Syracuse, NY 13202
315.422.5716 | amckeon@smtcmpo.org
www.smtcmpo.org

SMTC

APPENDIX B : TRAFFIC VOLUME FIGURES

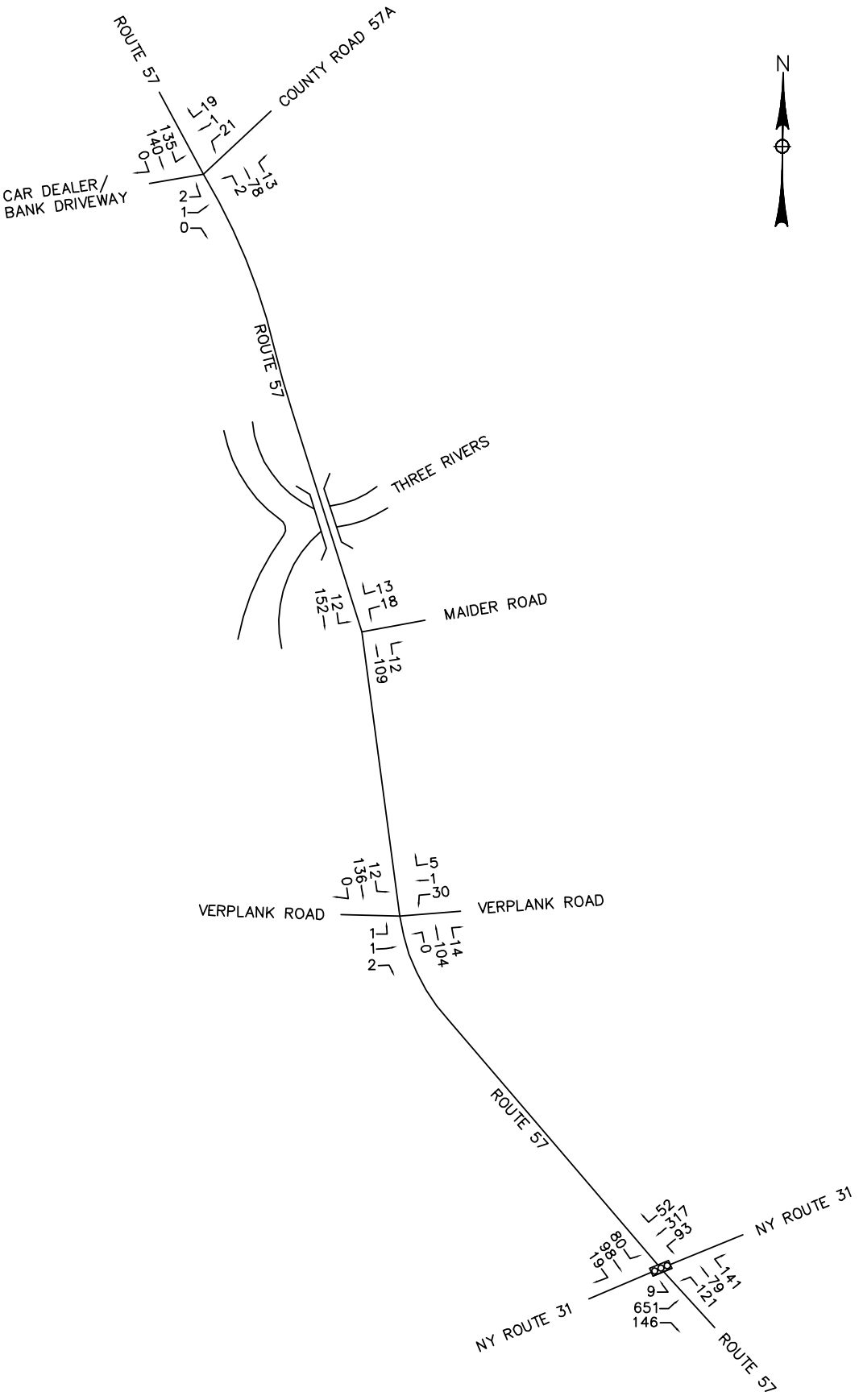


FIGURE 1

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekday AM Peak Hour

PROJECT # DATE:

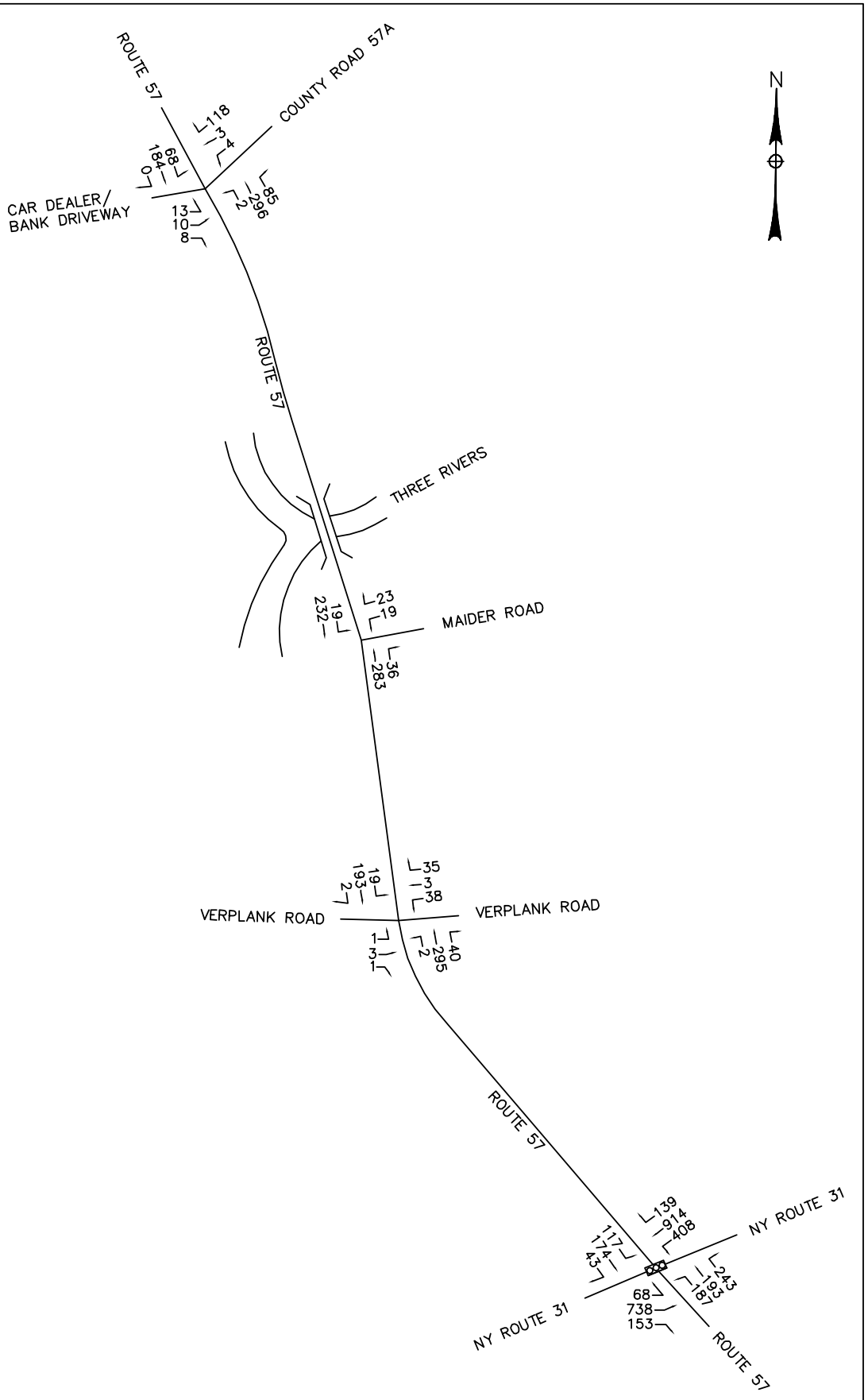


FIGURE 2

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekday PM Peak Hour

PROJECT # DATE:

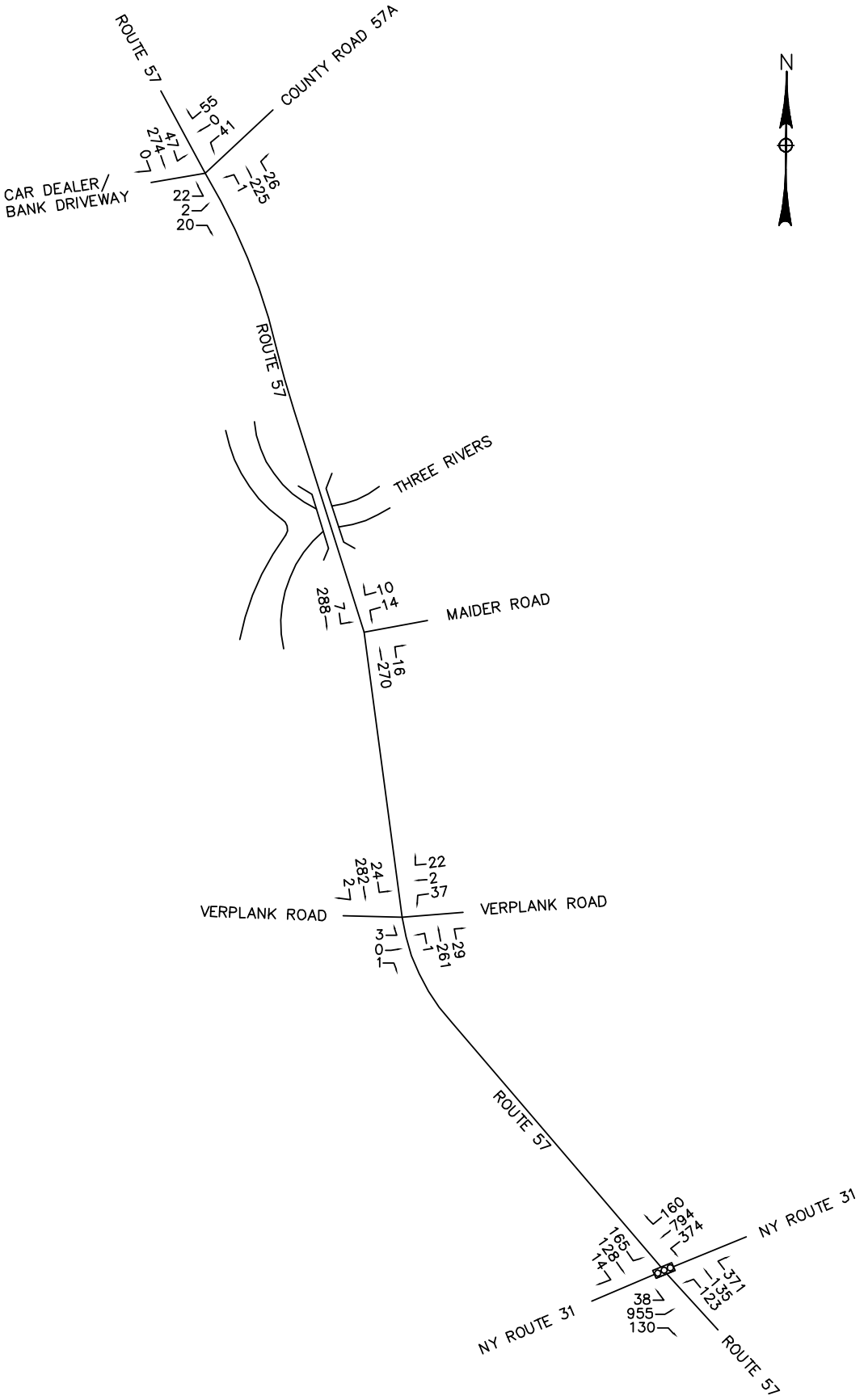


FIGURE 3

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekend Peak Hour

PROJECT # DATE:

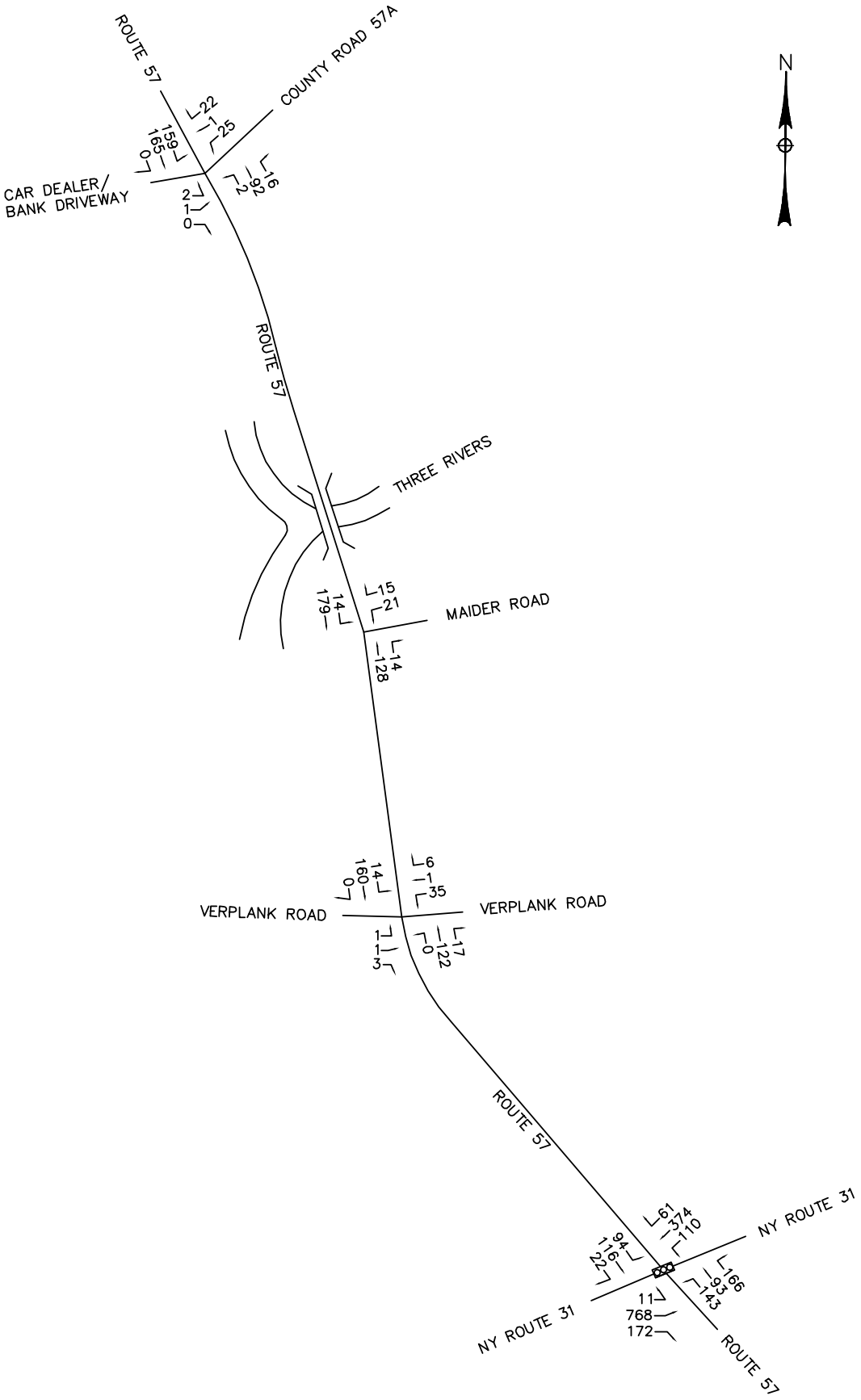


FIGURE 4

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2020 NO BUILD TRAFFIC VOLUMES
Weekday AM Peak Hour

PROJECT # DATE:

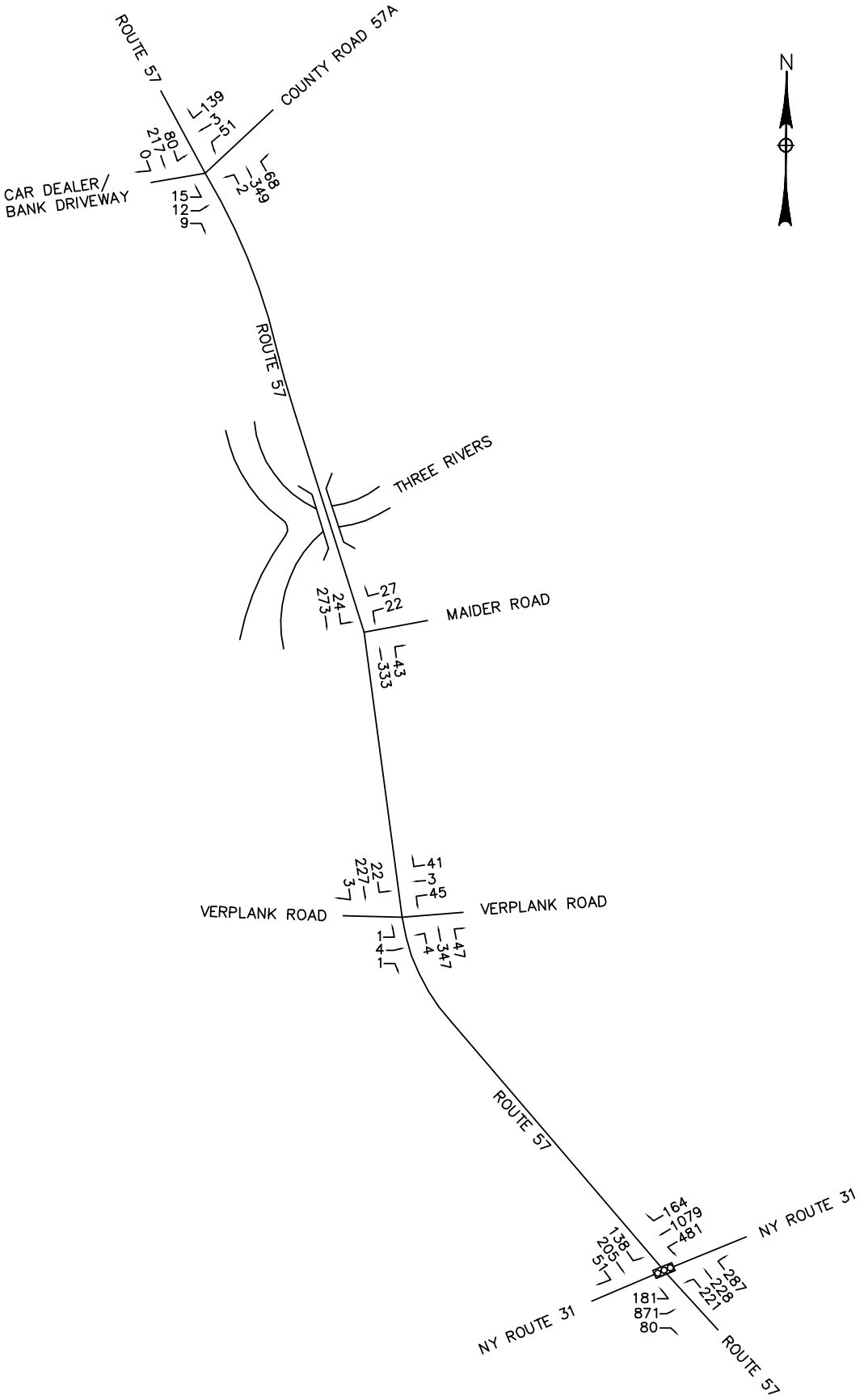


	FIGURE 5
	THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY
	2020 NO BUILD TRAFFIC VOLUMES **Weekday PM Peak Hour**
	PROJECT # DATE:

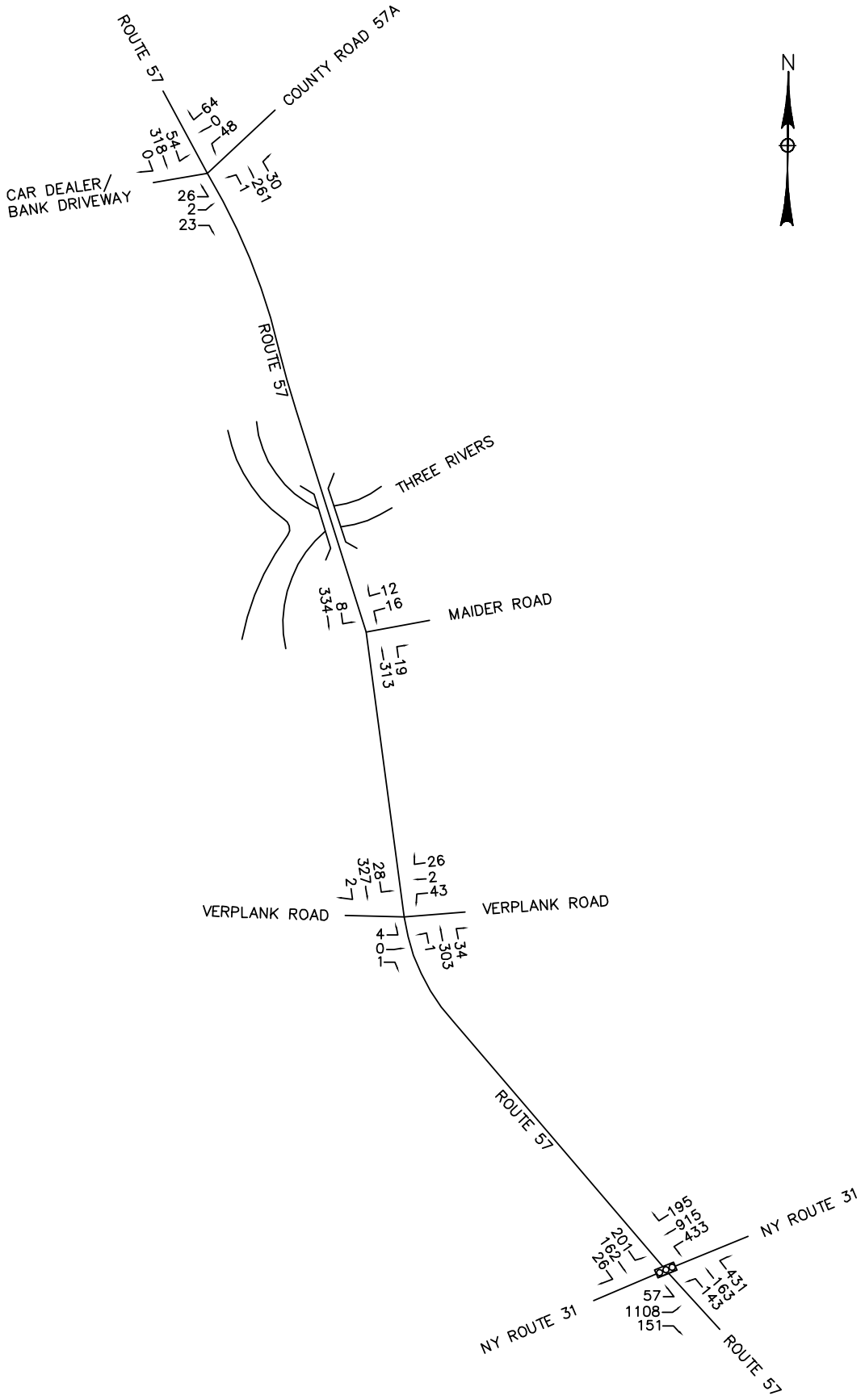


FIGURE 6

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2020 PROJECTED TRAFFIC VOLUMES
Weekend Peak Hour

PROJECT # DATE:

APPENDIX C : SYNCHRO 6 REPORTS

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3442		3433	3464	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3442		3433	3464	
Volume (vph)	121	79	141	80	98	19	9	651	146	93	317	52
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.89	0.89	0.89	0.93	0.93	0.93
Adj. Flow (vph)	136	89	158	89	109	21	10	731	164	100	341	56
RTOR Reduction (vph)	0	0	48	0	15	0	0	20	0	0	14	0
Lane Group Flow (vph)	136	89	110	89	115	0	10	875	0	100	383	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	16.0	34.3	47.1	7.8	26.1		7.8	26.1		7.8	26.1	
Effective Green, g (s)	17.0	35.3	48.1	8.8	27.1		8.8	27.1		8.8	27.1	
Actuated g/C Ratio	0.18	0.37	0.50	0.09	0.28		0.09	0.28		0.09	0.28	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	608	1301	793	162	975		162	972		315	978	
v/s Ratio Prot	c0.04	0.03	c0.07	c0.05	0.03		0.01	c0.25		c0.03	0.11	
v/s Ratio Perm												
v/c Ratio	0.22	0.07	0.14	0.55	0.12		0.06	0.90		0.32	0.39	
Uniform Delay, d1	33.8	19.7	12.8	41.7	25.6		39.8	33.1		40.8	27.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.1	0.4	12.7	0.2		0.7	13.0		2.6	1.2	
Delay (s)	34.7	19.8	13.2	54.4	25.8		40.6	46.1		43.4	29.0	
Level of Service	C	B	B	D	C		D	D		D	C	
Approach Delay (s)		22.4			37.5			46.0			31.9	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM Average Control Delay	37.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	1	2	30	1	5	0	104	14	12	136	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	2	33	1	5	0	113	15	13	148	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	301	302	148	297	295	121	148			128		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	301	302	148	297	295	121	148			128		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	95	100	99	100			99		
cM capacity (veh/h)	643	605	899	648	611	931	1434			1458		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	4	39	128	161
Volume Left	1	33	0	13
Volume Right	2	5	15	0
cSH	736	675	1434	1458
Volume to Capacity	0.01	0.06	0.00	0.01
Queue Length 95th (ft)	0	5	0	1
Control Delay (s)	9.9	10.7	0.0	0.7
Lane LOS	A	B		A
Approach Delay (s)	9.9	10.7	0.0	0.7
Approach LOS	A	B		

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	26.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	18	0	13	0	109	12	12	152	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	20	0	14	0	118	13	13	165	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	330	323	165	316	316	125	165			132		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	330	323	165	316	316	125	165			132		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	97	100	98	100			99		
cM capacity (veh/h)	609	589	879	632	594	926	1413			1454		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	34	132	178
Volume Left	20	0	13
Volume Right	14	13	0
cSH	729	1700	1454
Volume to Capacity	0.05	0.08	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	10.2	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	10.2	0.0	0.6
Approach LOS	B		

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	27.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	1	0	21	1	19	2	78	13	135	140	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	0	23	1	21	2	85	14	147	152	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	556	549	76	459	535	85	152			99		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556	549	76	459	535	85	152			99		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	95	100	98	100			90		
cM capacity (veh/h)	373	398	970	447	405	957	1426			1492		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	3	45	87	14	223	76
Volume Left	2	23	2	0	147	0
Volume Right	0	21	0	14	0	0
cSH	381	592	1426	1700	1492	1700
Volume to Capacity	0.01	0.08	0.00	0.01	0.10	0.04
Queue Length 95th (ft)	1	6	0	0	8	0
Control Delay (s)	14.5	11.6	0.2	0.0	5.3	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.5	11.6	0.2		4.0	
Approach LOS	B	B				

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	24.5%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3433		1770	3448		3433	3469	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3433		1770	3448		3433	3469	
Volume (vph)	187	193	243	117	174	43	68	738	153	408	914	139
Peak-hour factor, PHF	0.95	0.95	0.95	0.85	0.85	0.85	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	197	203	256	138	205	51	72	785	163	425	952	145
RTOR Reduction (vph)	0	0	47	0	21	0	0	17	0	0	12	0
Lane Group Flow (vph)	197	203	209	138	235	0	72	931	0	425	1085	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	20.2	24.7	42.7	9.6	14.1		9.6	34.4		13.0	37.8	
Effective Green, g (s)	21.2	25.7	43.7	10.6	15.1		10.6	35.4		14.0	38.8	
Actuated g/C Ratio	0.21	0.25	0.43	0.10	0.15		0.10	0.35		0.14	0.38	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	716	894	680	184	510		184	1200		473	1323	
v/s Ratio Prot	0.06	0.06	c0.13	c0.08	c0.07		0.04	0.27		c0.12	c0.31	
v/s Ratio Perm												
v/c Ratio	0.28	0.23	0.31	0.75	0.46		0.39	0.78		0.90	0.82	
Uniform Delay, d1	33.8	30.1	19.1	44.3	39.6		42.5	29.6		43.2	28.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.6	1.2	24.2	3.0		6.2	4.9		22.6	5.8	
Delay (s)	34.7	30.7	20.2	68.4	42.5		48.7	34.6		65.7	34.1	
Level of Service	C	C	C	E	D		D	C		E	C	
Approach Delay (s)		27.8			51.6			35.6			42.9	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	39.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	101.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	3	1	38	3	35	2	295	40	19	193	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	3	1	41	3	38	2	321	43	21	210	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	639	621	211	602	600	342	212			364		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	639	621	211	602	600	342	212			364		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	100	90	99	95	100			98		
cM capacity (veh/h)	360	396	829	403	407	700	1358			1194		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	83	366	233
Volume Left	1	41	2	21
Volume Right	1	38	43	2
cSH	433	501	1358	1194
Volume to Capacity	0.01	0.16	0.00	0.02
Queue Length 95th (ft)	1	15	0	1
Control Delay (s)	13.4	13.6	0.1	0.9
Lane LOS	B	B	A	A
Approach Delay (s)	13.4	13.6	0.1	0.9
Approach LOS	B	B		

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	19	0	23	0	283	36	19	0	232
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	21	0	25	0	308	39	21	0	252
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	520	514	126	495	621	327	252			347		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	520	514	126	495	621	327	252			347		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	96	100			98		
cM capacity (veh/h)	445	456	924	479	397	714	1313			1212		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	46	347	273
Volume Left	21	0	21
Volume Right	25	39	252
cSH	584	1700	1212
Volume to Capacity	0.08	0.20	0.02
Queue Length 95th (ft)	6	0	1
Control Delay (s)	11.7	0.0	0.8
Lane LOS	B		A
Approach Delay (s)	11.7	0.0	0.8
Approach LOS	B		

Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	42.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	10	8	4	3	118	68	184	0	2	296	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	11	9	4	3	128	74	200	0	2	322	92
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	804	766	100	588	674	322	414			200		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	804	766	100	588	674	322	414			200		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	96	99	99	99	81	94			100		
cM capacity (veh/h)	209	309	936	359	350	674	1141			1370		

Direction, Lane #	EB 1	WB 1	SE 1	SE 2	NW 1	NW 2
Volume Total	34	136	174	100	324	92
Volume Left	14	4	74	0	2	0
Volume Right	9	128	0	0	0	92
cSH	301	642	1141	1700	1370	1700
Volume to Capacity	0.11	0.21	0.06	0.06	0.00	0.05
Queue Length 95th (ft)	9	20	5	0	0	0
Control Delay (s)	18.5	12.1	3.9	0.0	0.1	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	18.5	12.1	2.5		0.1	
Approach LOS	C	B				

Intersection Summary					
Average Delay	3.4				
Intersection Capacity Utilization	40.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3487		1770	3476		3433	3450	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3487		1770	3476		3433	3450	
Volume (vph)	123	135	371	165	128	14	38	955	130	374	794	160
Peak-hour factor, PHF	0.86	0.86	0.86	0.78	0.78	0.78	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	143	157	431	212	164	18	40	995	135	390	827	167
RTOR Reduction (vph)	0	0	14	0	8	0	0	10	0	0	17	0
Lane Group Flow (vph)	143	157	417	212	174	0	40	1120	0	390	977	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	19.8	21.1	45.9	9.1	10.4		9.1	29.6		19.8	40.3	
Effective Green, g (s)	20.8	22.1	46.9	10.1	11.4		10.1	30.6		20.8	41.3	
Actuated g/C Ratio	0.21	0.22	0.47	0.10	0.11		0.10	0.31		0.21	0.41	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	717	785	745	179	399		179	1068		717	1431	
v/s Ratio Prot	0.04	0.04	c0.26	c0.12	0.05		0.02	c0.32		0.11	c0.28	
v/s Ratio Perm												
v/c Ratio	0.20	0.20	0.56	1.18	0.44		0.22	1.05		0.54	0.68	
Uniform Delay, d1	32.5	31.6	18.9	44.8	41.1		41.1	34.5		35.2	23.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.6	3.0	125.6	3.4		2.9	41.1		3.0	2.7	
Delay (s)	33.2	32.1	22.0	170.4	44.5		44.0	75.6		38.1	26.5	
Level of Service	C	C	C	F	D		D	E		D	C	
Approach Delay (s)		26.3			112.3			74.5			29.7	
Approach LOS		C			F			E			C	

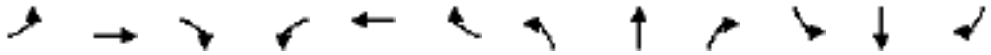
Intersection Summary				
HCM Average Control Delay	52.1	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.81			
Actuated Cycle Length (s)	99.6	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	82.1%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	0	1	37	2	22	1	261	29	24	282	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	0	1	40	2	24	1	284	32	26	307	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	686	677	308	662	662	299	309			315		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	686	677	308	662	662	299	309			315		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	89	99	97	100			98		
cM capacity (veh/h)	342	366	732	368	374	740	1252			1245		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	4	66	316	335
Volume Left	3	40	1	26
Volume Right	1	24	32	2
cSH	395	450	1252	1245
Volume to Capacity	0.01	0.15	0.00	0.02
Queue Length 95th (ft)	1	13	0	2
Control Delay (s)	14.2	14.4	0.0	0.8
Lane LOS	B	B	A	A
Approach Delay (s)	14.2	14.4	0.0	0.8
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	14	0	10	0	270	16	7	288	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	15	0	11	0	293	17	8	313	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	641	639	313	630	630	302	313			311		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	641	639	313	630	630	302	313			311		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	99	100			99		
cM capacity (veh/h)	380	391	727	392	396	737	1247			1250		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	311	321
Volume Left	15	0	8
Volume Right	11	17	0
cSH	487	1700	1250
Volume to Capacity	0.05	0.18	0.01
Queue Length 95th (ft)	4	0	0
Control Delay (s)	12.8	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	12.8	0.0	0.2
Approach LOS	B		

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	30.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	22	2	20	41	0	55	1	225	26	47	274	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	2	22	45	0	60	1	245	28	51	298	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	707	675	149	521	647	245	298			273		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	707	675	149	521	647	245	298			273		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	99	98	89	100	92	100			96		
cM capacity (veh/h)	288	359	871	412	373	756	1260			1287		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	104	246	28	200	149
Volume Left	24	45	1	0	51	0
Volume Right	22	60	0	28	0	0
cSH	419	558	1260	1700	1287	1700
Volume to Capacity	0.11	0.19	0.00	0.02	0.04	0.09
Queue Length 95th (ft)	10	17	0	0	3	0
Control Delay (s)	14.7	12.9	0.0	0.0	2.3	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.7	12.9	0.0		1.3	
Approach LOS	B	B				

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	37.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3456		1770	3442		3433	3464	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3456		1770	3442		3433	3464	
Volume (vph)	143	93	166	94	116	22	11	768	172	110	374	61
Peak-hour factor, PHF	0.89	0.89	0.89	0.90	0.90	0.90	0.89	0.89	0.89	0.93	0.93	0.93
Adj. Flow (vph)	161	104	187	104	129	24	12	863	193	118	402	66
RTOR Reduction (vph)	0	0	46	0	14	0	0	18	0	0	13	0
Lane Group Flow (vph)	161	104	141	104	139	0	12	1038	0	118	455	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	21.5	27.8	48.8	9.7	16.0		7.0	32.3		16.0	41.3	
Effective Green, g (s)	22.5	28.8	49.8	10.7	17.0		8.0	33.3		17.0	42.3	
Actuated g/C Ratio	0.21	0.27	0.47	0.10	0.16		0.08	0.31		0.16	0.40	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	730	963	745	179	555		134	1083		552	1385	
v/s Ratio Prot	0.05	0.03	c0.09	c0.06	c0.04		0.01	c0.30		0.03	c0.13	
v/s Ratio Perm												
v/c Ratio	0.22	0.11	0.19	0.58	0.25		0.09	0.96		0.21	0.33	
Uniform Delay, d1	34.4	28.9	16.3	45.4	38.8		45.5	35.6		38.6	21.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.2	0.6	13.0	1.1		1.3	19.0		0.9	0.6	
Delay (s)	35.1	29.1	16.8	58.5	39.9		46.8	54.6		39.5	22.6	
Level of Service	D	C	B	E	D		D	D		D	C	
Approach Delay (s)		26.2			47.4			54.5			26.0	
Approach LOS		C			D			D			C	

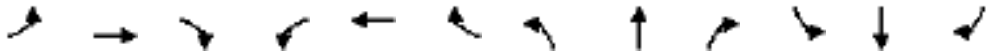
Intersection Summary					
HCM Average Control Delay	41.2	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.52				
Actuated Cycle Length (s)	105.8	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	74.2%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	1	3	35	1	6	0	122	17	14	160	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	3	38	1	7	0	133	18	15	174	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	353	355	174	350	346	142	174			151		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	353	355	174	350	346	142	174			151		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	94	100	99	100			99		
cM capacity (veh/h)	592	564	870	597	571	906	1403			1430		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	46	151	189
Volume Left	1	38	0	15
Volume Right	3	7	18	0
cSH	723	627	1403	1430
Volume to Capacity	0.01	0.07	0.00	0.01
Queue Length 95th (ft)	1	6	0	1
Control Delay (s)	10.0	11.2	0.0	0.7
Lane LOS	B	B		A
Approach Delay (s)	10.0	11.2	0.0	0.7
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	34.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	21	0	15	0	128	14	14	179	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	23	0	16	0	139	15	15	195	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	388	379	195	372	372	147	195			154		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	388	379	195	372	372	147	195			154		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	98	100			99		
cM capacity (veh/h)	556	547	847	580	552	900	1379			1426		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	39	154	210
Volume Left	23	0	15
Volume Right	16	15	0
cSH	681	1700	1426
Volume to Capacity	0.06	0.09	0.01
Queue Length 95th (ft)	5	0	1
Control Delay (s)	10.6	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	10.6	0.0	0.6
Approach LOS	B		

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	31.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	1	0	25	1	22	2	92	16	159	165	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	0	27	1	24	2	100	17	173	179	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	654	647	90	540	629	100	179			117		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	654	647	90	540	629	100	179			117		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	93	100	97	100			88		
cM capacity (veh/h)	311	342	950	385	350	936	1394			1469		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	3	52	102	17	262	90
Volume Left	2	27	2	0	173	0
Volume Right	0	24	0	17	0	0
cSH	321	526	1394	1700	1469	1700
Volume to Capacity	0.01	0.10	0.00	0.01	0.12	0.05
Queue Length 95th (ft)	1	8	0	0	10	0
Control Delay (s)	16.3	12.6	0.2	0.0	5.5	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	16.3	12.6	0.1		4.1	
Approach LOS	C	B				

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	25.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3433		1770	3448		3433	3469	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3433		1770	3448		3433	3469	
Volume (vph)	221	228	287	138	205	51	80	871	181	481	1079	164
Peak-hour factor, PHF	0.95	0.95	0.95	0.85	0.85	0.85	0.94	0.94	0.94	0.96	0.96	0.96
Adj. Flow (vph)	233	240	302	162	241	60	85	927	193	501	1124	171
RTOR Reduction (vph)	0	0	90	0	15	0	0	12	0	0	8	0
Lane Group Flow (vph)	233	240	212	162	286	0	85	1108	0	501	1287	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	37.0	28.0	53.2	28.0	19.0		16.0	47.4		20.2	51.6	
Effective Green, g (s)	38.0	29.0	54.2	29.0	20.0		17.0	48.4		21.2	52.6	
Actuated g/C Ratio	0.26	0.20	0.38	0.20	0.14		0.12	0.34		0.15	0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	908	715	597	357	478		210	1162		507	1271	
v/s Ratio Prot	0.07	0.07	c0.13	c0.09	c0.08		0.05	0.32		c0.15	c0.37	
v/s Ratio Perm												
v/c Ratio	0.26	0.34	0.36	0.45	0.60		0.40	0.95		0.99	1.01	
Uniform Delay, d1	41.7	49.1	32.1	50.3	58.0		58.6	46.5		61.1	45.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	1.3	1.7	4.1	5.4		5.7	17.4		37.2	28.3	
Delay (s)	42.3	50.3	33.8	54.5	63.4		64.3	63.9		98.2	73.8	
Level of Service	D	D	C	D	E		E	E		F	E	
Approach Delay (s)		41.5			60.3			63.9			80.6	
Approach LOS		D			E			E			F	

Intersection Summary			
HCM Average Control Delay	66.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	143.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	4	1	45	3	41	4	347	47	22	227	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	4	1	49	3	45	4	377	51	24	247	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	754	733	248	711	709	403	250			428		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	754	733	248	711	709	403	250			428		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	100	86	99	93	100			98		
cM capacity (veh/h)	295	339	790	338	350	648	1316			1131		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	7	97	433	274
Volume Left	1	49	4	24
Volume Right	1	45	51	3
cSH	365	434	1316	1131
Volume to Capacity	0.02	0.22	0.00	0.02
Queue Length 95th (ft)	1	21	0	2
Control Delay (s)	15.0	15.7	0.1	0.9
Lane LOS	C	C	A	A
Approach Delay (s)	15.0	15.7	0.1	0.9
Approach LOS	C	C		

Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	45.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	22	0	27	0	333	43	24	273	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	24	0	29	0	362	47	26	297	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	764	758	297	734	734	385	297			409		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	764	758	297	734	734	385	297			409		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	93	100	96	100			98		
cM capacity (veh/h)	301	329	743	330	339	662	1265			1150		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	53	409	323
Volume Left	24	0	26
Volume Right	29	47	0
cSH	456	1700	1150
Volume to Capacity	0.12	0.24	0.02
Queue Length 95th (ft)	10	0	2
Control Delay (s)	13.9	0.0	0.9
Lane LOS	B		A
Approach Delay (s)	13.9	0.0	0.9
Approach LOS	B		

Intersection Summary				
Average Delay		1.3		
Intersection Capacity Utilization	44.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	12	9	51	3	139	2	349	68	80	217	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	13	10	55	3	151	2	379	74	87	236	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	946	867	118	692	793	379	236			453		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	946	867	118	692	793	379	236			453		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	95	99	81	99	76	100			92		
cM capacity (veh/h)	152	266	912	295	294	618	1328			1104		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	39	210	382	74	205	118
Volume Left	16	55	2	0	87	0
Volume Right	10	151	0	74	0	0
cSH	234	474	1328	1700	1104	1700
Volume to Capacity	0.17	0.44	0.00	0.04	0.08	0.07
Queue Length 95th (ft)	15	56	0	0	6	0
Control Delay (s)	23.4	18.5	0.1	0.0	4.0	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	23.4	18.5	0.1		2.6	
Approach LOS	C	C				

Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	49.9%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		0.97	0.95	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	3539	1583	1770	3487		1770	3476		3433	3450	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	3433	3539	1583	1770	3487		1770	3476		3433	3450	
Volume (vph)	143	157	431	191	149	16	44	1108	151	434	921	186
Peak-hour factor, PHF	0.86	0.86	0.86	0.78	0.78	0.78	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	166	183	501	245	191	21	46	1154	157	452	959	194
RTOR Reduction (vph)	0	0	8	0	7	0	0	8	0	0	13	0
Lane Group Flow (vph)	166	183	493	245	205	0	46	1303	0	452	1140	0
Turn Type	Prot		pt+ov	Prot			Prot			Prot		
Protected Phases	8	4	4 5	3	7		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	29.2	36.1	57.1	9.1	16.0		9.1	44.0		16.0	50.9	
Effective Green, g (s)	30.2	37.1	58.1	10.1	17.0		10.1	45.0		17.0	51.9	
Actuated g/C Ratio	0.24	0.30	0.46	0.08	0.14		0.08	0.36		0.14	0.41	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	828	1049	735	143	473		143	1249		466	1430	
v/s Ratio Prot	0.05	0.05	c0.31	c0.14	0.06		0.03	c0.37		c0.13	0.33	
v/s Ratio Perm												
v/c Ratio	0.20	0.17	0.67	1.71	0.43		0.32	1.04		0.97	0.80	
Uniform Delay, d1	37.9	32.7	26.1	57.6	49.7		54.3	40.1		53.8	32.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.4	4.8	348.8	2.9		5.9	37.4		34.9	4.7	
Delay (s)	38.4	33.0	31.0	406.4	52.6		60.2	77.5		88.7	36.7	
Level of Service	D	C	C	F	D		E	E		F	D	
Approach Delay (s)		32.9			242.2			76.9			51.4	
Approach LOS		C			F			E			D	

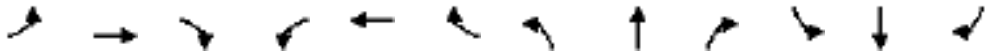
Intersection Summary				
HCM Average Control Delay	76.2	HCM Level of Service	E	
HCM Volume to Capacity ratio	0.98			
Actuated Cycle Length (s)	125.2	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	96.9%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	0	1	43	2	26	1	303	34	28	327	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	1	47	2	28	1	329	37	30	355	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	797	786	357	768	768	348	358			366		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	797	786	357	768	768	348	358			366		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	85	99	96	100			97		
cM capacity (veh/h)	285	316	688	311	323	695	1201			1192		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	77	367	388
Volume Left	4	47	1	30
Volume Right	1	28	37	2
cSH	323	391	1201	1192
Volume to Capacity	0.02	0.20	0.00	0.03
Queue Length 95th (ft)	1	18	0	2
Control Delay (s)	16.3	16.5	0.0	0.9
Lane LOS	C	C	A	A
Approach Delay (s)	16.3	16.5	0.0	0.9
Approach LOS	C	C		

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	16	0	12	0	313	19	8	334	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	17	0	13	0	340	21	9	363	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	744	741	363	731	731	351	363			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	744	741	363	731	731	351	363			361		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	95	100	98	100			99		
cM capacity (veh/h)	323	342	682	335	346	693	1196			1198		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	30	361	372
Volume Left	17	0	9
Volume Right	13	21	0
cSH	431	1700	1198
Volume to Capacity	0.07	0.21	0.01
Queue Length 95th (ft)	6	0	1
Control Delay (s)	14.0	0.0	0.3
Lane LOS	B		A
Approach Delay (s)	14.0	0.0	0.3
Approach LOS	B		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	26	2	23	48	0	64	1	261	30	54	318	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	2	25	52	0	70	1	284	33	59	346	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	818	782	173	602	749	284	346			316		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	818	782	173	602	749	284	346			316		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	99	97	85	100	90	100			95		
cM capacity (veh/h)	233	309	841	356	323	713	1210			1241		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	55	122	285	33	232	173
Volume Left	28	52	1	0	59	0
Volume Right	25	70	0	33	0	0
cSH	350	499	1210	1700	1241	1700
Volume to Capacity	0.16	0.24	0.00	0.02	0.05	0.10
Queue Length 95th (ft)	14	24	0	0	4	0
Control Delay (s)	17.2	14.5	0.0	0.0	2.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	17.2	14.5	0.0		1.3	
Approach LOS	C	B				

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	41.9%	ICU Level of Service	A	
Analysis Period (min)	15			

APPENDIX D : TRIP GENERATION CALCULATIONS & NO-BUILD TRAFFIC VOLUME CALCULATIONS

Trip Generation Calculations

200,000 SF General Office Building (LUC 710)

Weekday AM Peak Hour

Average Rate = 1.55

1.55 * 200 = 310 total trips [at Rt 57 & Rt 31]

310 * 50% = 155 trips [at Rt 57]

Travel Direction	Ratio	Vehicle
Entering	88%	136
Existing	12%	19

Weekday PM Peak Hour

Average Rate = 1.49

1.49 * 200 = 298 total trips [at Rt 57 & Rt 31]

298 * 50% = 149 trips [at Rt 57]

Travel Direction	Ratio	Vehicle
Entering	17%	25
Existing	83%	124

Weekend Peak Hour

Average Rate = 0.41

0.41 * 200 = 82 total trips [at Rt 57 & Rt 31]

82 * 50% = 41 trips [at Rt 57]

Travel Direction	Ratio	Vehicle
Entering	54%	22
Existing	46%	19

Summary									
General Office Building	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
	136	19	155	25	124	149	22	19	41

ITE Trip Generation, 8th Edition

Trip Generation Calculations

100,000 SF Specialty Retail Center (LUC 814)

Weekday PM Peak Hour

Average Rate = 2.71

2.71 * 100 = 271 total trips [at Rt 57 & Rt 31]

271 * 50% = 135 trips [at Rt 57]

Travel Direction	Ratio	Vehicle
Entering	44%	59
Existing	56%	76

Weekend Peak Hour

Average Rate = 2.71

2.71 * 100 = 271 total trips [at Rt 57 & Rt 31]

271 * 50% = 135 trips [at Rt 57]

Travel Direction	Ratio	Vehicle
Entering	44%	59
Existing	56%	76

Summary									
Specialty Retail Center	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
	---	---	---	59	76	135	59	76	135

ITE Trip Generation, 8th Edition

--- could be not calculated since Specialty Retail Center's AM Peak Hour does not practically fall into the timeframe between 07:00am and 09:00am

No Build 2020 Projected Traffic Volume Calculations

(North-South bound of NY County Route 57 at intersection with NY State Route 31)

Factors:

Growth Rate = 1.5%

Number of Year = 10

Formula:

Projected Future Traffic Volume

= (Current Traffic Volume *((1 + Growth Rate) ^Number of Year)) + Trip Generation Volume

Table 1: 2020 No- Build Traffic Volume

Intersection	Traffic Count Time	Current Traffic Volume (Total)	Growth Factor %	Number Of Years	Trip Generation Volume	2020 Traffic Volume (at Rt 57)
Route 57 & Route 31	AM Peak hour	1,806	1.5	10	78	**2,155**
	PM Peak Hour	3,377	1.5	10	142	**4,026**
	SAT Peak Hour	3,387	1.5	10	88	**3,983**
Route 57 & Verplank Rd	AM Peak hour	306	1.5	10	---	**355**
	PM Peak Hour	633	1.5	10	---	**735**
	SAT Peak Hour	667	1.5	10	---	**774**
Route 57 & Maider Rd	AM Peak hour	316	1.5	10	---	**367**
	PM Peak Hour	612	1.5	10	---	**710**
	SAT Peak Hour	606	1.5	10	---	**703**
Route 57 & County Rd 57A	AM Peak hour	412	1.5	10	---	**478**
	PM Peak Hour	803	1.5	10	---	**932**
	SAT Peak Hour	717	1.5	10	---	**832**

APPENDIX E : PUBLIC COMMENTS

SUMMARY OF COMMENTS FROM PUBLIC MEETING #1

Context and history of the Three Rivers area:

When the Three Rivers Inn was around both Chubby Checker and Frank Sinatra were said to have visited it.
The Clay Town historian has a stack of pictures regarding the Three Rivers Inn that she is willing to share.
There was a concern over whether or not the Native Americans have been invited to comment on this study.

General questions/comments:

There was a question about how many homes and the number of people expected to move in if the concept plans were to come to fruition.
A gentleman was concerned that the area would eventually look just like the area south of Route 31 and that he was not in favor of that. He moved into the area because of the suburban/rural atmosphere and he is afraid that there will be a population density that he does not want. He likes the semi-rural density they currently have.
It seemed that many were in favor of keeping the area a family friendly area.
How do these concepts fit with the Town's desire to limit growth North of Route 31?
The Town should first clean up the area and then focus on redevelopment.
Consider green development for this area.
Would the proposed commercial uses be seasonally dependent?

Specific features of the plans that people liked:

Re-routing Maider is a positive.

Concerns about impacts:

School district (Phoenix CSD)
Traffic volume on Route 57.
Location of new water and sewer – will existing residences be able to connect?
Traffic on Gaskin Road.
Safety along the shoreline.

Routing for detours if there is an accident on Route 57.

Stormwater management (runoff from Route 57).

Safety of vehicles, peds, and bicyclists, especially at: Route 57/Verplank Road and Route 57/Maider Road.

It will be a challenge to widen Route 57 north of Route 31.

Suggestions for modifying concept plans:

Transportation system:

Dead-end Gaskin Road.

Include turn lane on Route 57 at Verplank Road.

Land uses (general)

Include a buffer (concern primarily about noise) between entertainment center and residential areas.

Include more public park space, especially west of Route 57. Retain as much green space as possible.

No residential development and limited commercial development west of Route 57.

No commercial use, just park space.

Encourage residential use east of Route 57.

This area should be an alternative to intense development on Route 31.

Retain the waterfront as a community resource and not a private use.

Land uses (specific)

Include a welcome center with historic items west of Route 57 where the three rivers intersect.

Eliminate the boat slips at the Three Rivers Point

Include a hotel/motel with a couple of restaurants for any boaters coming in to the area.

Include the moat idea represented in the 2000 study.

Provide fishing access.

An additional marina is not necessary.

Aaron McKeon

From: [redacted]
Sent: Wednesday, December 01, 2010 12:36 PM
To: Aaron McKeon
Subject: Three Rivers Access Study Public Meeting November 17, 2010

Hello,

As Historian of the Town of Clay and Historian of the oldest Church in Clay, Immanuel, I am very interested in having History as part of the overall concept of the site. Please add me to your mailing list.
Historian@townofclay.org.

I have many old photos and other data about the site when it was a Tourist area. Also history on the first settlers and the Iroquois when they used it as a meeting place. Also the famous Three Rivers Inn in the 50's. Naomi Bray has much past information also. I think I have given her everything I have, although things keep showing up.

Having the tip at the junction of the three rivers as a boat docking area, I think is the perfect spot. At this point, it would seem that at least one restaurant, a gift shop and most important a Museum with information about these four important times in it's history should be included. And of course a motel or hotel for visitor's who come by land nearby.

It would seem that someplace on the site, a Theater for entertainment and a meeting place for organizations would be very well received.

As far as building housing of various types, that really needs to be studied by those with that expertise. I do know that some seniors have mentioned this would be a perfect place to retire to a senior friendly apartment or town house, with no outside upkeep. Of course at a price they could afford.

Making Gaskin a dead end road is also a good idea for the residents who have small children who play outside.

Personally, I feel it was a great meeting, getting input from all types of residents. You did promise to let us have a copy of your report on the meeting. I am very interested in getting a copy for the new file I started. We live on Bonstead Road not far from the site.

Hoping to hear from you,

[redacted]

Thank you for attending the public meeting for the ***Three Rivers Access Study*** on November 17, 2010. Please provide any additional comments in the space below.

This form can be returned to the comment box or to any SMTC staff member at tonight's meeting. You may also return this form via mail (SMTC, 126 N. Salina St., Suite 100, Syracuse, N.Y. 13202) or fax (315-422-7753). **Please return comment forms by November 30, 2010**.

- Please keep the areas green as possible
- Please - no high density housing. It will ruin a natural place - along the river
- Keep things tasteful
- What a great area for a 55+ community
- Please evaluate the impact on the Phoenix Central School District if you are seriously planning a high density population.
- Go back to the idea of using land as a community park + not for high density housing

Name (optional)

Address (optional)

Email (optional)

Would you like to be added to the SMTC mailing list? Yes ☐ No ☒

For additional information on the ***Three Rivers Access Study***, please contact Aaron McKeon at the SMTC by phone (315-422-5716) or email (amckeon@smtcmpo.org).

Thank you - the public meeting was informative. The material was well presented.

Public Comment from Informational Meeting #1

RECEIVED NOV 3 0 2010

Thank you for attending the public meeting for the ***Three Rivers Access Study*** on November 17, 2010. Please provide any additional comments in the space below.

This form can be returned to the comment box or to any SMTC staff member at tonight's meeting. You may also return this form via mail (SMTC, 126 N. Salina St., Suite 100, Syracuse, N.Y. 13202) or fax (315-422-7753). **Please return comment forms by November 30, 2010.**

- I would like to know how many acres are included in this project in the 2 separate parcels on each side of Rt 57
- Of the total acres - how much is delegated to park area
- Our family's number 1 priority is the amount of public area, as we understood it - that the land acquired was to be made into a park
- Is there a public boat launch site?
- When it is called a "destination" does that mean some people are expected to stay overnight? If so what about hotels motels?
- How will the community benefit monetarily from the destination entertainment center?
- What about crime - vandalism or property in the area - especially seasonal property?

Name (optional) [redacted]

Address (optional) [redacted]

Email (optional) [redacted]

Would you like to be added to the SMTC mailing list? Yes ☒ No ☐

For additional information on the ***Three Rivers Access Study***, please contact Aaron McKeon at the SMTC by phone (315-422-5716) or email (amckeon@smtcmpo.org).

Public Comment from Informational Meeting #1

Clay Three Rivers Access Study
Public Meeting Notes

Meeting Date & Time:	**June 29, 2011, 6:30 PM**
Location:	**Clay Town Hall**
Attendees:	**14 (excluding SAC members)**

Welcome & Introductions – SMTC Staff

Aaron McKeon introduced the project team and gave a brief overview of the project and SMTC's role in the project.

Presentation – Access Study Findings – EDR

Project Manager Jane Rice gave a presentation on the progress to date with the Three Rivers Access Study, emphasizing the fact that the study is meant to examine potential traffic impacts resulting from hypothetical redevelopment of the Three Rivers Point area.

Jane walked meeting attendees through the process, which included:

- An evaluation of existing site conditions;
- A review of existing planning documents, for both the Town of Schroeppel and the Town of Clay;
- Development of concept plans for the study area;
- Public review of these concept plans;
- Hypothetical allocation of land uses and square footage within the concept plans;
- Traffic analysis based on these land use allocations.

Jane summarized the outcome of the traffic analysis, which anticipates minor impacts to the study area intersections. Also discussed was the possibility of increased traffic on Gaskin Road and ways in which this might be mitigated.

The floor was then opened for questions and comments.

Questions and Comments

Q: Could Maider Road be reconfigured around the railroad?

A: When dealing with the railroad, changes could take a long time but they are possible.

Q: Is there a signal planned for Maider Road?

A: No. Our analysis shows that a signal would be needed under Redevelopment Concept Alternative 2, but no signal is currently planned.

Q: Since you are trying to create a pedestrian friendly environment would a traffic light help?

A: A signal has not been proposed for this location but, yes, a signal would benefit pedestrian movements.

Q: Are you proposing any speed limit modifications?

A: This hypothetical proposal has high volumes associated with it and this is intended to give the public a good baseline for any future proposals. Speed limits were changed for this study but changes in speed limits are a good mitigation once there is a real proposal.

Q: Explain Level of Service "A".

A: Level of Services A indicates that there is no noticeable delay for drivers: the intersection has enough capacity (lanes / turn lanes / roadway width) to accommodate the peak-hour traffic volumes.

Q: We got the feeling at the last meeting that nobody wanted this type of development so why is it still being proposed?

A: We are not proposing anything. We are just looking at potential impacts of a "what if" scenario.

Q: What about commuter rail to this area?

A: Getting service on this CSX line is difficult because they do not like to mix freight and pedestrians on the same line. However, this can happen.

Q: Why is Maider Road being proposed as a dead end?

A: Maider is proposed this way to respect the current property owners and to continue to provide access to their homes. If this was a real development there would have been some sort of meeting with these home owners. The dead end scenario is hypothetical.

Q: Have you looked at safety?

A: Safety was discussed but this study did not include a safety analysis. If a real development were being proposed, a safety analysis would have been completed.

Q: Who do we contact for complaints about the Route 57 and Route 31 signal?

A: New York State Department of Transportation

Next Steps

The study is nearly complete: when it's complete, it will be available for public review on the SMTC's website.

Jane Rice thanked meeting attendees for their time and adjourned the meeting.

Thank you for attending the public meeting for the ***Three Rivers Access Study*** on June 29, 2011. Please provide any additional comments in the space below.

This form can be returned to the comment box or to any SMTC staff member at tonight's meeting. You may also return this form via mail (SMTC, 126 N. Salina St., Suite 100, Syracuse, N.Y. 13202) or fax (315-422-7753). **Please return this comment form by July 15, 2011.**

Interesting + Informative —

Looking forward to possible development of that area.

Name (optional) _____

Address (optional) _____

Email (optional) _____

Would you like to be added to the SMTC mailing list? Yes ☐ No ☑

For additional information on the ***Three Rivers Access Study***, please contact Aaron McKeon at the SMTC by phone (315-422-5716) or email (amckeon@smtcmpo.org).

Public Comment from Informational Meeting #2

Thank you for attending the public meeting for the ***Three Rivers Access Study*** on June 29, 2011. Please provide any additional comments in the space below.

This form can be returned to the comment box or to any SMTC staff member at tonight's meeting. You may also return this form via mail (SMTC, 126 N. Salina St., Suite 100, Syracuse, N.Y. 13202) or fax (315-422-7753). **Please return this comment form by July 15, 2011.**

I believe I understood the whole program better.

Thank you for the information.

Name (optional) [redacted]

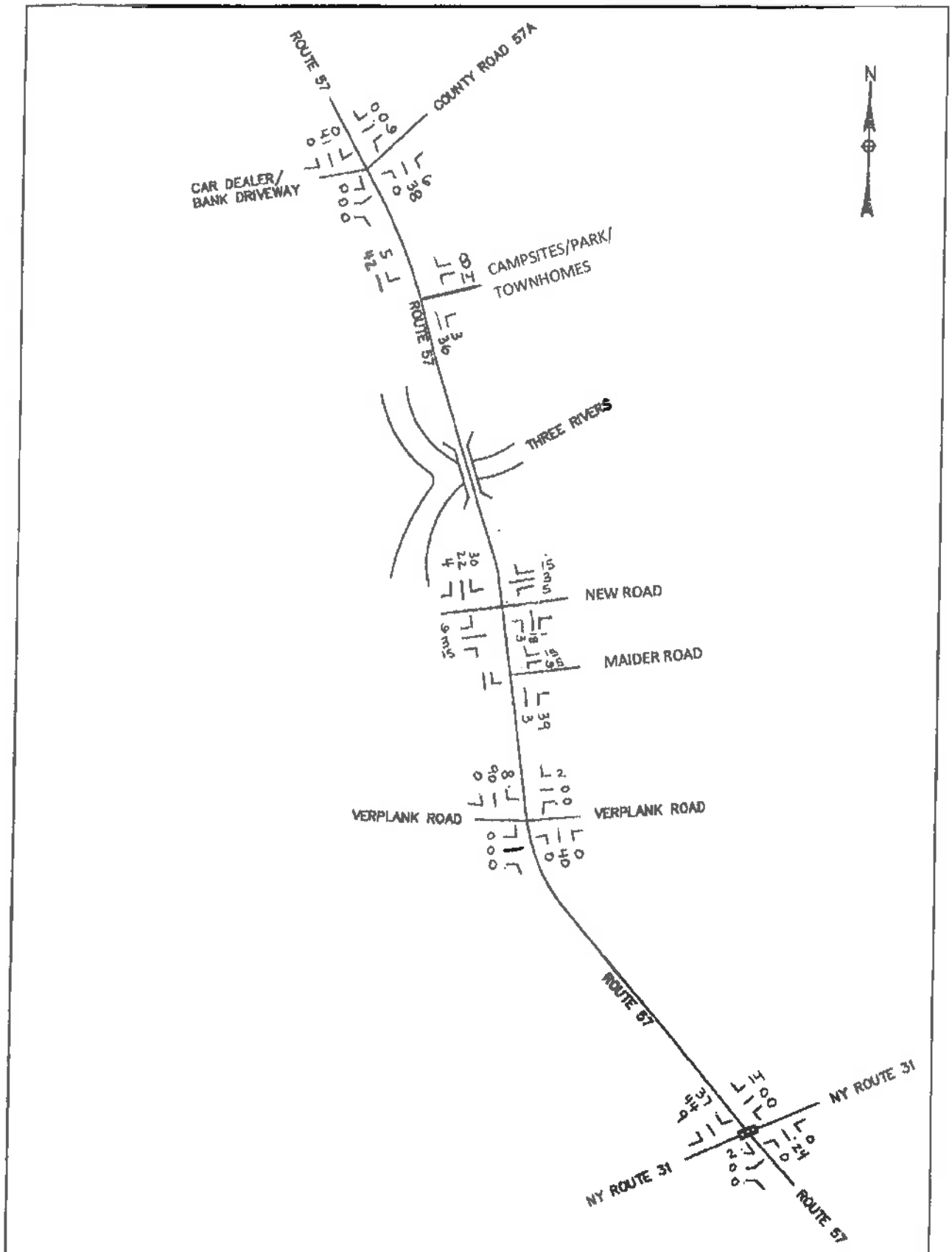
Address (optional) [redacted]

Email (optional) [redacted]

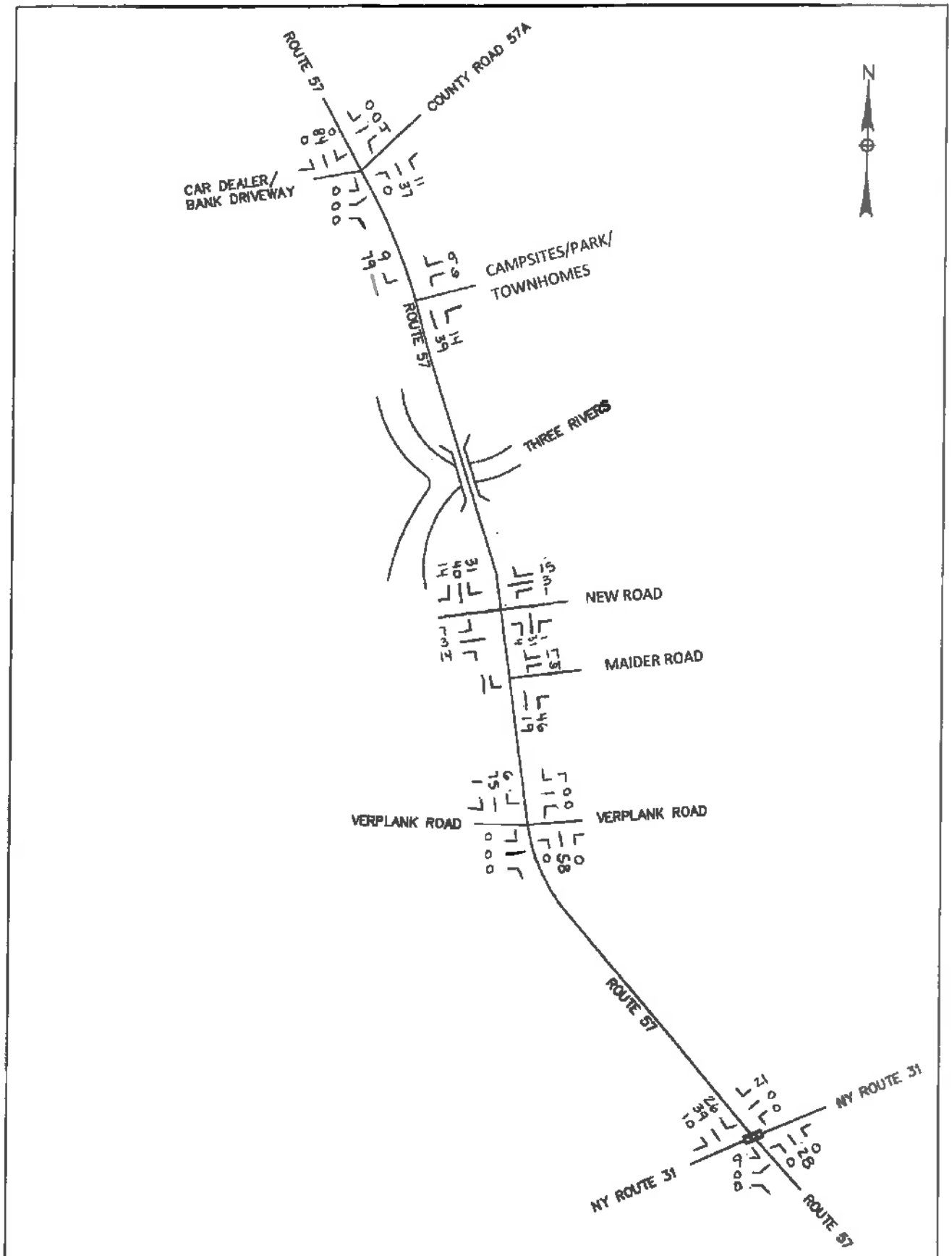
Would you like to be added to the SMTC mailing list? Yes ☐ No ☐

For additional information on the ***Three Rivers Access Study***, please contact Aaron McKeon at the SMTC by phone (315-422-5716) or email (amckeon@smtcmpo.org).

APPENDIX F : SITE GENERATED TRAFFIC VOLUME FIGURES



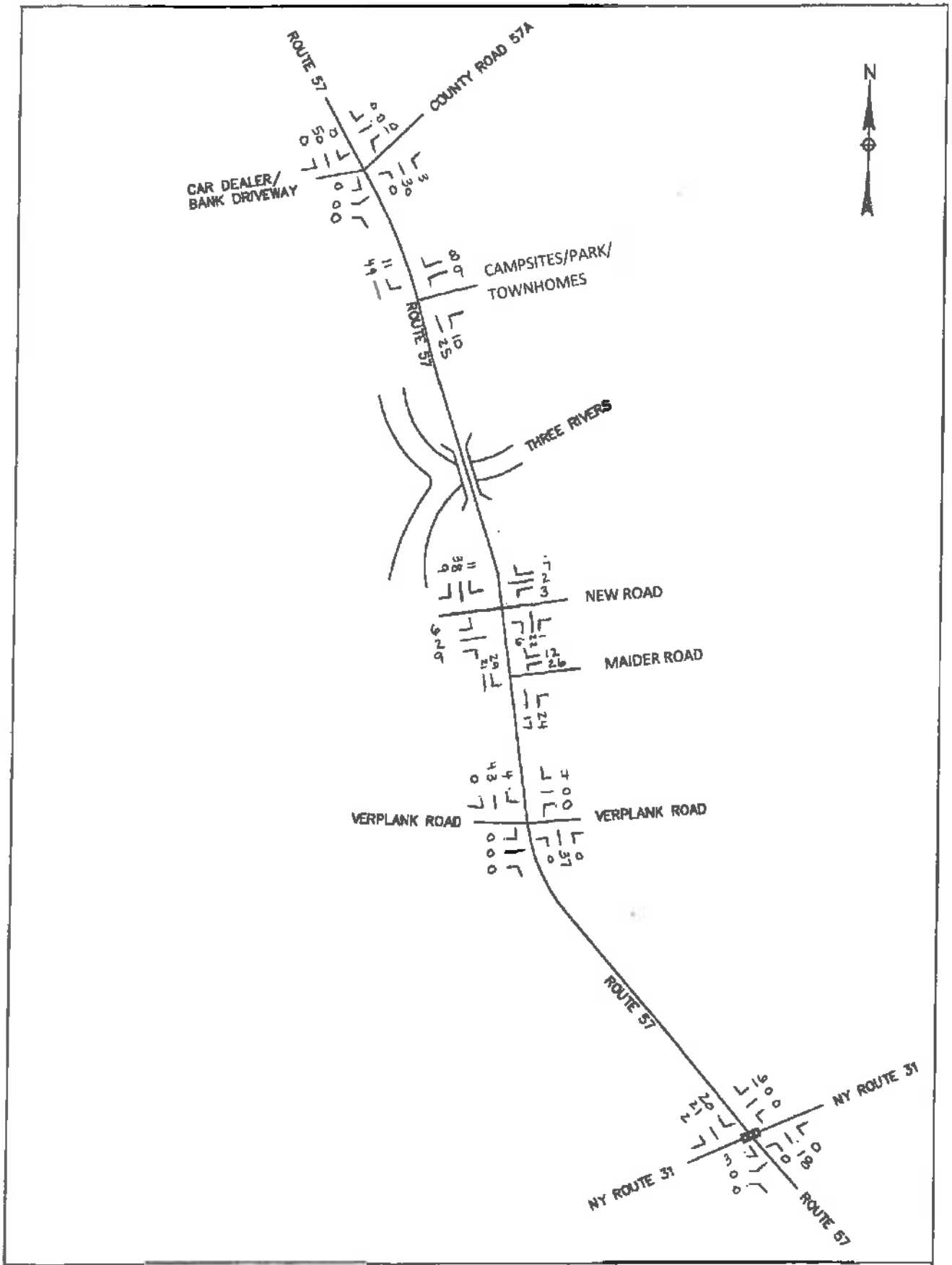
	THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY
	SITE GENERATED VOLUMES - ALTERNATIVE 1 Weekday AM Peak
	PROJECT # DATE



THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

SITE GENERATED VOLUMES - ALTERNATIVE 1
Weekday PM Peak

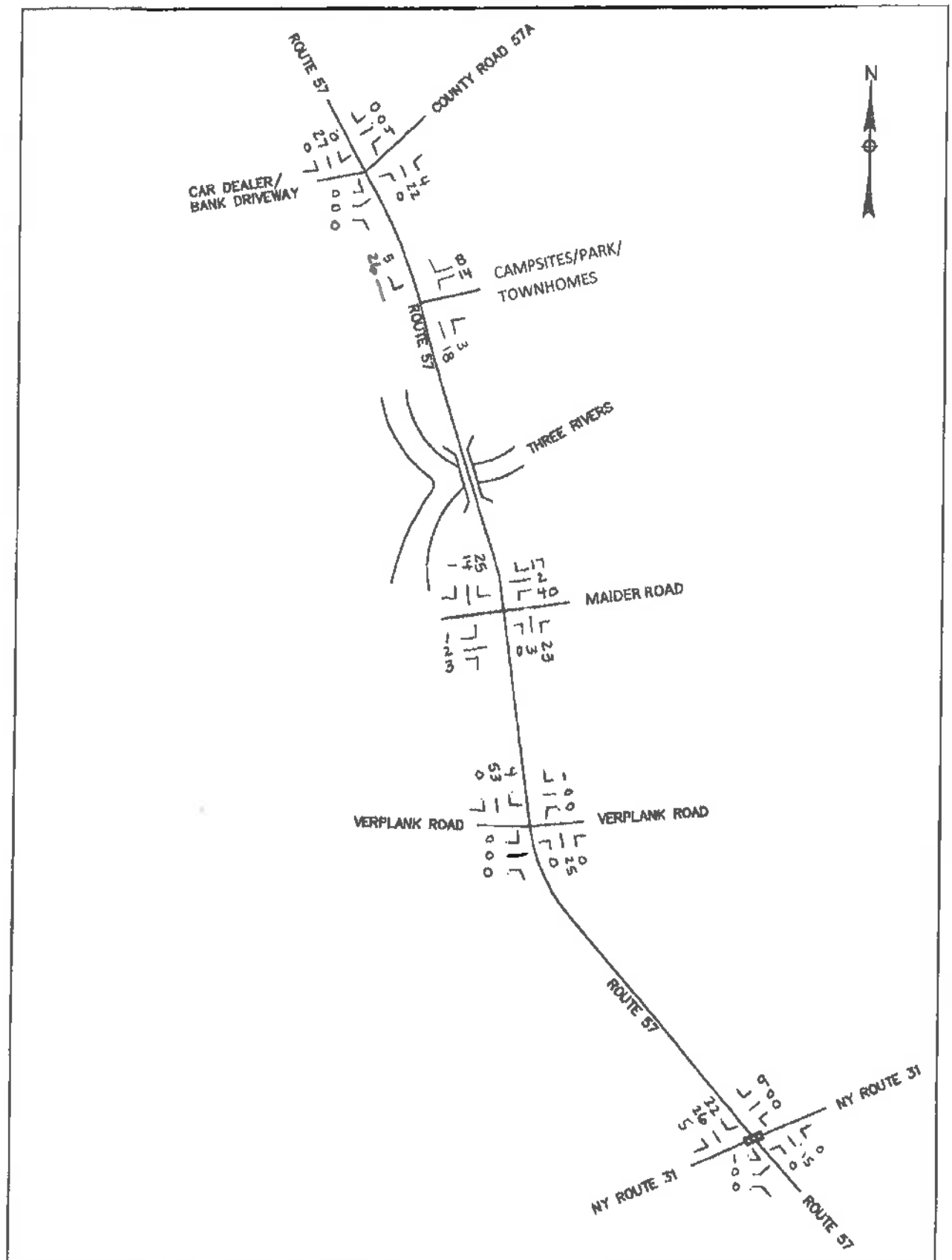
PROJECT # DATE:



THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

SITE GENERATED VOLUMES - ALTERNATIVE 1
Weekend Peak

PROJECT #: DATE:

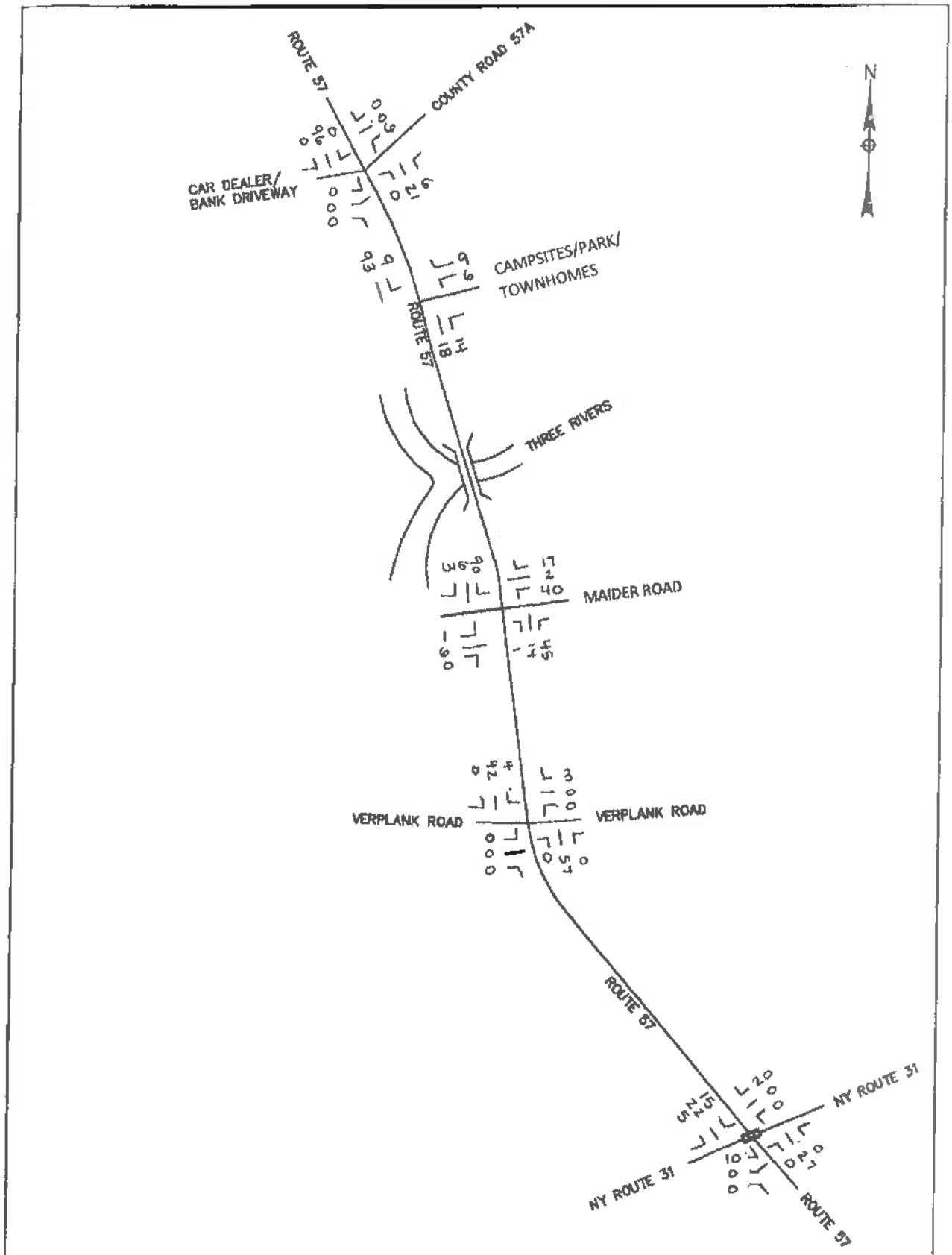


THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

SITE GENERATED VOLUMES - ALTERNATIVE 2
Weekday AM Peak

PROJECT #

DATE:

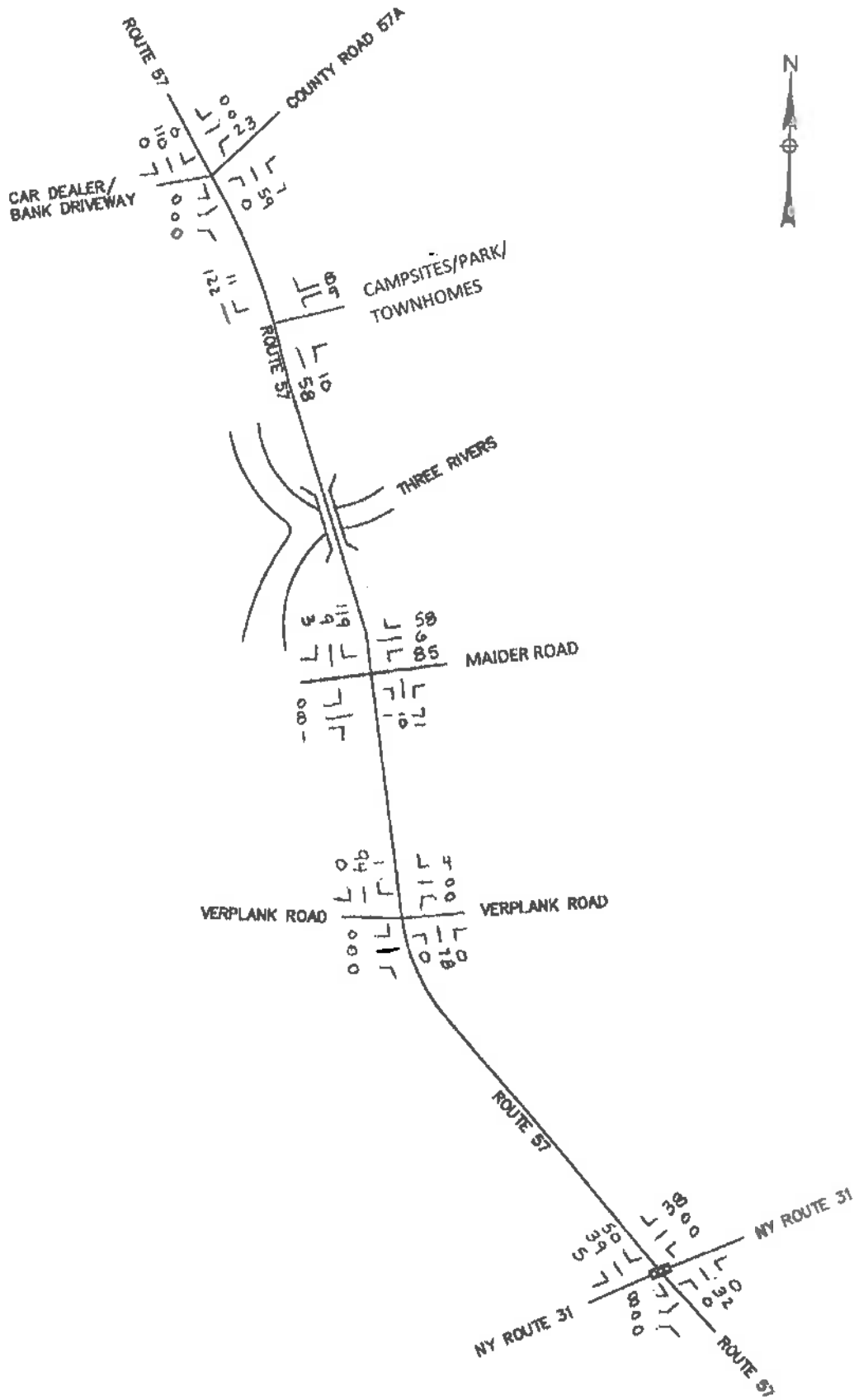


THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

SITE GENERATED VOLUMES - ALTERNATIVE 2
Weekday PM Peak

PROJECT #

DATE:



THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

SITE GENERATED VOLUMES - ALTERNATIVE 2
Weekend Peak

PROJECT # DATE

APPENDIX G : TRIP GENERATION CALCULATIONS AND FUTURE BUILD TRAFFIC VOLUME CALCULATIONS

Clay 3 Rivers

Back-up Documentation

Site Generated Traffic

SMTC - Three Rivers Access Study

Town of Clay - Onondaga County, New York

Concept Design
Alternative: 1

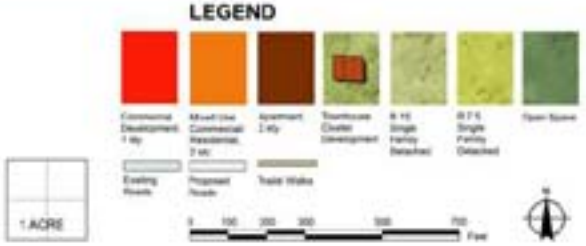
1st Public review draft

October 2010

SITE DATA

Commercial Square Footage: 25,525 - s.f.
Total Commercial Parking Spaces: 154
Townhouse Units: 60
Apartments (stand alone & mixed use): 48
R1S Single Family Units: 7
R7.5 Single Family Units: 69

LEGEND



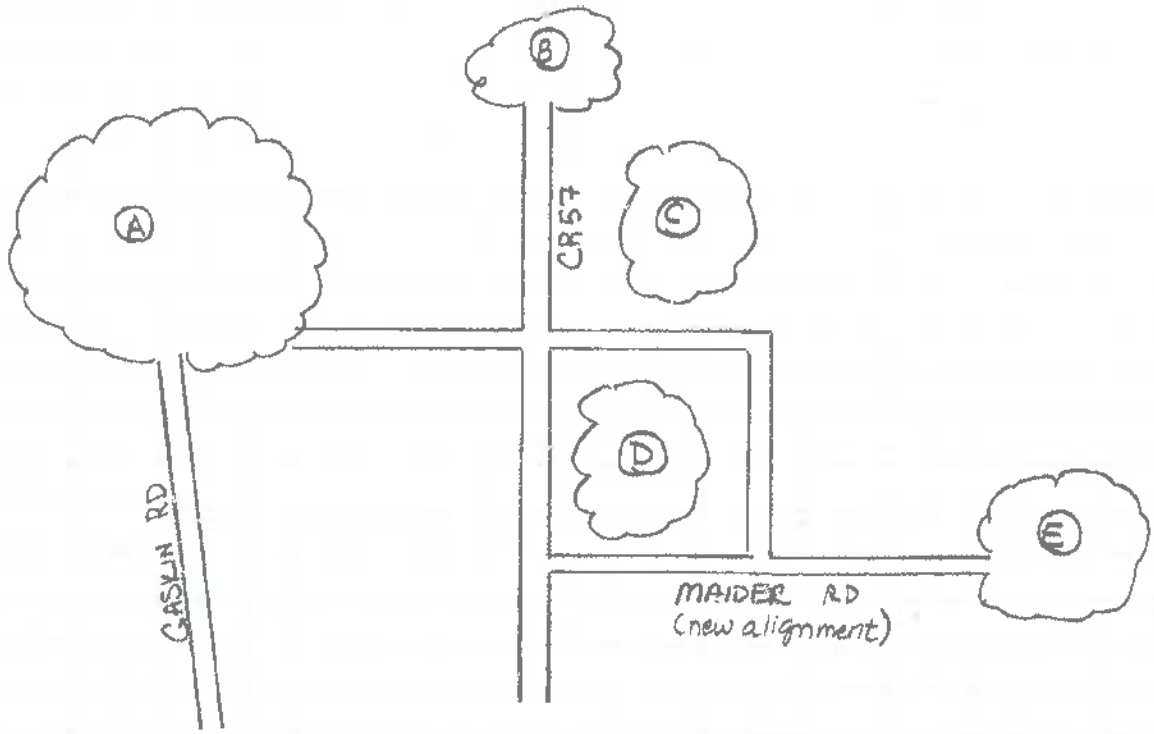
EDR

BY J. MICHALEWICZ DATE _____ CHECKED BY _____ DATE _____

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT _____ JOB NO. _____ SHEET NO. 1

CONCEPT DESIGN ALTERNATIVE (1)



(A)
- 28 townhomes
- 2 - Mixed use buildings
  - 4 apartments (each) on second floor
  - hotel - 4500 sf / 8 rooms
  - restaurant (Apple Bees / Denny's) - 5000 sf
- Stand alone 116 unit apartment complex

(B)
- 48 Townhomes
- 15 campsite campground
- day use recreational trails / picnic area (25 acres)

(C)
- Stand alone 116 unit apartment complex

(D)
- 1 - mixed use building
  - 8 apartments on second floor
  - 10,210 sf office space

(D) (cont.)

- 2,500 sf Convenience Store
- 2,115 sf Copy Store

(E)

- 53 Single family units (zoned R 7.5)
- 7 Single family units (zoned R 15)
- 58 town homes
- 1,200 sf marina office

SMTC - Three Rivers Access Study

Town of Clay - Onondaga County, New York

Concept Design
Alternative: 2

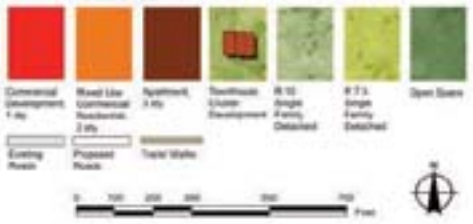
October 2010

SITE DATA

Commercial Square Footage: ~~89,400 s.f.~~ 25,100 s.f.
(including 15,000 s.f. entertainment center)
Total Commercial Parking Spaces: ~~648~~ 428
(including 525 spaces for entertainment center)
Townhouse Units: ~~48~~ 24
Apartments (stand alone & mixed use): ~~80~~ 0
R 1/3 Single Family Units: 19
R 1/3 Single Family Units: 14

1 ACRE

LEGEND



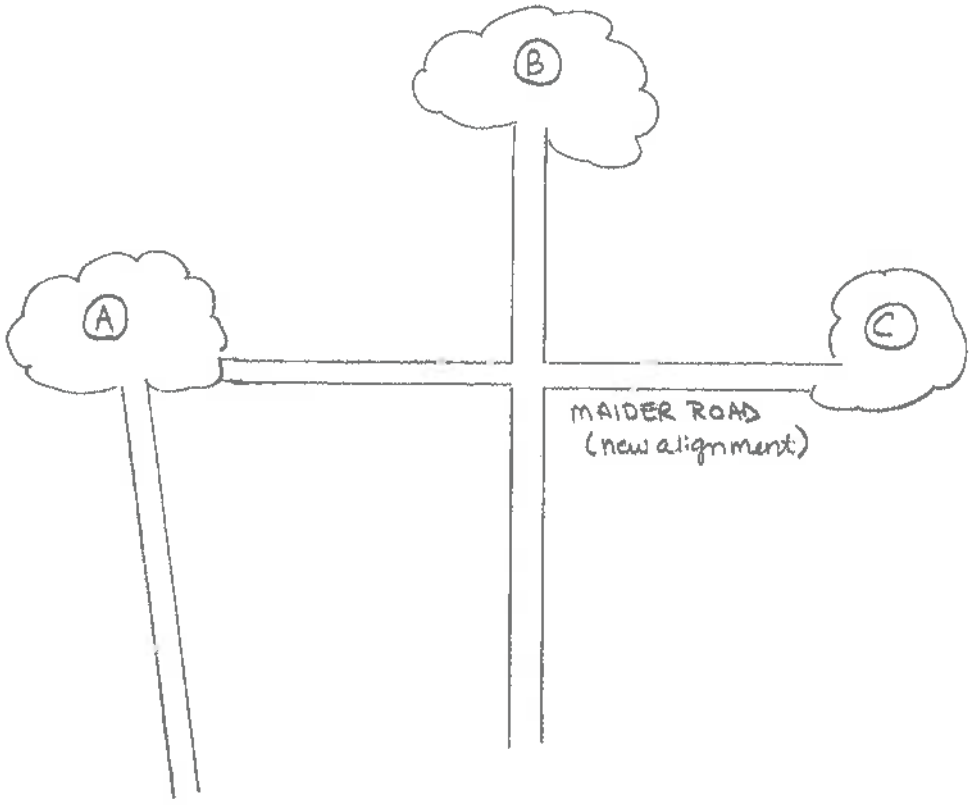
EDR

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE _____

PROJECT CLAY 3 RIVERS _____ CALC. NO. _____ REV. _____

SUBJECT _____ JOB NO. _____ SHEET NO. 1

CONCEPT DESIGN ALTERNATIVE (2)



(A) • 6 single family units (zoned R7.5)

(B) • 48 town homes
- 15 campground
- day use. recreational trails / picnic area (25 acres)

(C) • 8 single family units (zoned R7.5)
- 19 single family units (zoned R10)
- 34 town homes
- 2 - mixed use buildings
  - 4 apartments (each) on second floor
  - 6600 SF office
  - restaurant (AppleBees/ Dennys) 5000 SF
  - ice cream shop 1600 SF

BY _____ DATE _____ CHECKED BY _____ DATE _____

PROJECT _____ CALC. NO. _____ REV. _____

SUBJECT _____ JOB NO. _____ SHEET NO. 2

(C) cont

- 1200 SF marina office
- 15,000 SF Entertainment Center
  - 4500 sf / 8 room hotel
  - 10,500 sf ballroom/ concert space

ITE Land Use Assumptions

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT _____ JOB NO. _____ SHEET NO. 1

ITE Land Use Codes and Assumptions (8th Edition)

- **CODE 210 - "SINGLE FAMILY DETACHED HOUSING"**

  → Will be used for both R 7.5 and R 15 residential
  → # trips
  = 0.75 trips / dwelling unit (weekday peak hour of adjacent street traffic btwn 7am and 9am.)
  25% Ent / 75% Exit
  = 1.01 trips / dwelling unit (weekday peak hour of adjacent street traffic btwn 4pm and 6pm)
  63% Ent / 37% Exit
  = 0.93 trips / dwelling unit (Saturday peak hour of generator)
  64% Ent / 36% Exit

- **CODE 230 - "RESIDENTIAL CONDOMINIUM / TOWNHOUSE**

  → Will be used for all town homes
  → # trips
  = 0.44 trips / dwelling unit (weekday peak hour of adjacent street traffic btwn 7am and 9am)
  19% Ent / 81% Exit
  = 0.52 trips / dwelling unit (weekday peak hour of adjacent street traffic btwn 4pm and 6pm)
  64% Ent / 36% Exit
  = 0.47 trips / dwelling unit (Saturday peak hour of generator)
  54% Ent / 46% Exit

- **CODE 220 - "APARTMENT"**

  → Will be used for all apartments
  → # trips
  = 0.51 trips / dwelling unit (week day peak hour of adjacent street traffic btwn. 7am and 9am)
  20% Ent / 80% Exit
  = 0.62 trips / dwelling unit (weekday peak hour of adjacent street traffic btwn. 4pm and 6pm)
  65% Ent / 35% Exit
  = 0.52 trips / dwelling unit (Saturday peak hour of generator)
  directional dist. not avail → assume 50% Ent / 50% Exit

ITE Land Use (cont.)

- **CODE 310 - "HOTEL"**

  → Will be used for the overnight lodging
  → assume (to be conservative) all rooms are occupied
  → # trips
  = 0.67 trips / occupied room (weekday peak hour of adjacent street traffic btwn. 7am and 9am)
  58% Ent / 42% Exit
  = 0.70 trips / occupied room (weekday peak hour of adjacent street traffic btwn. 4pm and 6pm)
  49% Ent / 51% Exit
  = 0.87 trips / occupied room (Saturday peak hour of generator)
  directional dist not available → assume 50% Ent / 50% Exit)

- **CODE 932 - "HIGH TURN OVER (SIT-DOWN) RESTAURANT**

  → Will be used for Apple Bees / Denny's
  → # trips
  = 11.52 trips / 1000 SF (weekday peak hour of adjacent street traffic btwn. 7am and 9am)
  52% Ent / 48% Exit
  = 11.15 trips / 1000 SF (weekday peak hour of adjacent street traffic btwn 4pm and 6pm)
  59% Ent / 41% Exit
  = 14.07 trips / 1000 SF (Saturday peak hour of generator)
  53% Ent / 47% Exit

- **CODE 936 - "COFFEE/DONUT SHOP WITHOUT DRIVE THROUGH WINDOW"**

  → Will be used for Ice Cream Parlor - table w/in this use shows icecream
  → # trips:
  = 0 trips (AM)
  = 20.00 trips / 1000 SF (weekday peak hour of adjacent street traffic btwn 4pm and 6pm)
  50% Ent / 50% Exit
  → No info for Saturday. Assume same as weekday pm peak. Likely that Saturday overall has more volume than weekday but it would be more spread out

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT _____ JOB NO. _____ SHEET NO. 3

ITE Land Use (Cont)

- CODE 920 - "COPY PRINT AND EXPRESS SHIP STORE"

  → # trips
  = 2.78 trips/ 1000SF (weekday peak hour of adjacent street traffic btwn. 7am and 9am)
  75% Ent / 25% Exit
  = 7.41 trips / 1000SF (weekday peak hour of adjacent street traffic btwn. 4pm and 6pm)
  44% Ent / 56% Exit
  → No information for Saturday. Likely not high traffic on Saturday. Assume similar to AM volumes

- CODE 852 - "CONVENIENCE MARKET (OPEN 15-16 HOURS)"

  → # trips
  = 31.02 trips/ 1000 SF (weekday peak hour of adjacent street traffic btwn. 7am and 9am)
  50% Ent/50% Exit
  = 34.57 trips / 1000SF (weekday peak hour of adjacent street traffic btwn 4pm and 6pm)
  49% Ent/ 51% Exit
  → No information for Saturday. For Code 851 (Convenience Store open 24 hours) Sat. peak is 15% more than AM and 47% more than PM. Assume this land use is 30% more than PM
  = 34.57 + (30%)(34.57) = 44.94 trips / 1000 SF
  50% Ent / 50% Exit

- CODE 710 - "GENERAL OFFICE BUILDING"

  → will be used for Marina Office and General Office (in looking at Code 420, MARINA, the AM, PM, and SATURDAY Volumes were similar)
  → # trips:
  = 1.55 trips/ 1000 SF w/ 88% Ent / 12% Exit (Weekday AM Peak)
  = 1.49 trips / 1000SF w/ 17% Ent/ 83% Exit (Weekday PM Peak)
  = 0.41 trips / 1000SF w/ 54% Ent/ 46% Exit (Saturday Peak)

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT _____ JOB NO. _____ SHEET NO. 4

ITE Land Use Codes (cont)

- CODE 443 - "MOVIE THEATER WITHOUT MATINEE"

  → to be used for Entertainment Complex. This land use Code is for theaters with evening and weekend showings. The traffic volume / distribution / plume seems to match that of proposed Clay 3 Rivers use.

  → # trips
  - = 0.22 trips / 1000 SF (weekday peak hour of adjacent Street traffic btwn 7am and 9pm)
    50% Ent / 50% Exit (assumed)
  - = 6.16 trips / 1000 SF (weekday peak hour of adjacent Street traffic btwn 4pm and 6pm)
    94% Ent / 6% Exit
  - = 15.77 trips / 1000 SF (Saturday peak hour of generator)
    61% Ent / 39% Exit

- CODE 416 - "CAMPGROUND / RECREATIONAL VEHICLE PARK"

  → # trips
  - = 0.22 trips / occupied campsite (weekday peak hour of adjacent Street traffic btwn 7am and 9am)
    42% Ent / 58% Exit
  - = 0.37 trips / occupied campsites (weekday peak hour of adjacent Street traffic btwn 4pm and 6pm)
    69% Ent / 31% Exit
  - → No info for Saturday. Assume same as pm peak.

- CODE 417 - "REGIONAL PARK"

  → parkland north of Clay 3 Rivers (approx 25 acres). Land use includes trails, picnic areas, ball fields, and/or bldgs.

  → # trips
  - = 0.15 trips/acre w/ 57% Ent / 43% Exit (Weekday AM peak)
  - = 0.26 trips/acre w/ 44% Ent / 56% Exit (weekday PM peak)
  - = 0.34 trips/acre w/ 48% Ent / 52% Exit (Saturday peak)

Trip Generation Volumes

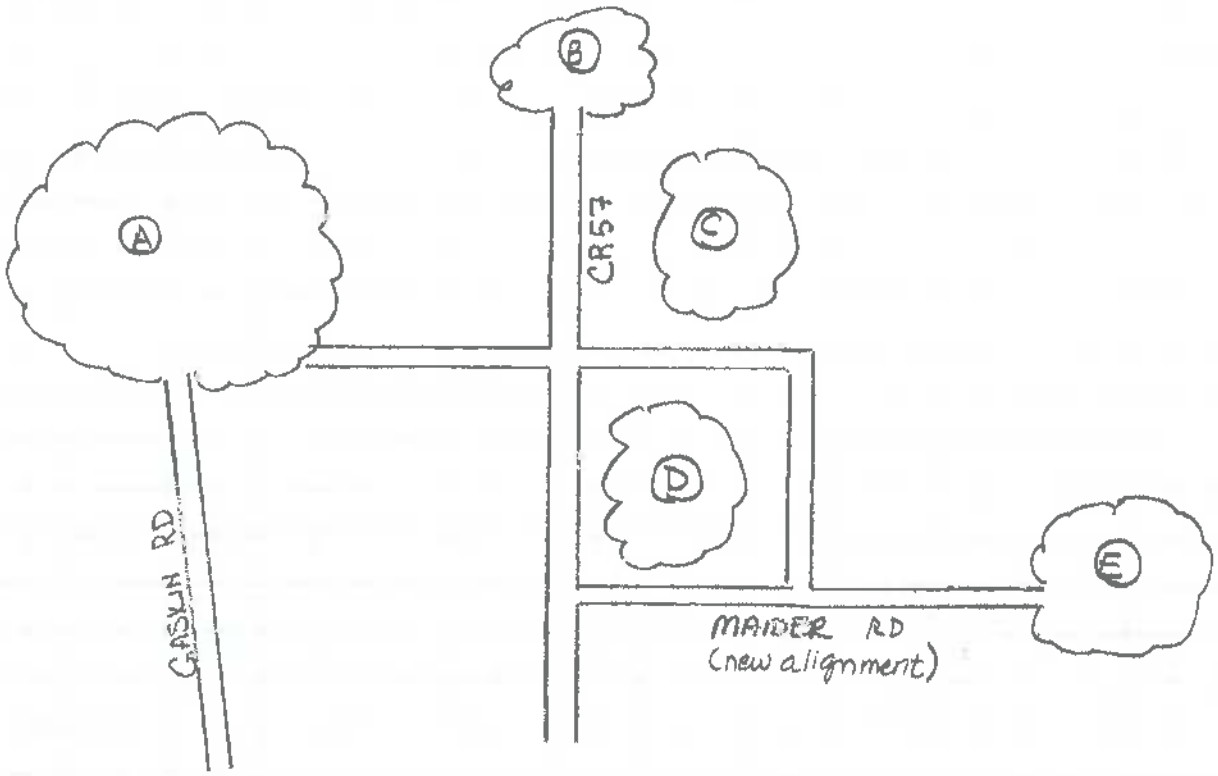
Alternative 1

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 1

CONCEPT DESIGN ALTERNATIVE (1) (ITE TRIP GENERATION VOLUMES)



(A)
- 28 townhomes
- 2 – Mixed use buildings:
  - 1-bldg
    - 4 apartments on second floor
    - 8 room hotel (4500 SF) hotel
  - 1-bldg
    - 4 apartments on second floor
    - 5000SF restaurant (AppleBees)
- Stand alone 116 unit apartment complex

(B)
- 48 townhomes
- 15 campsite campground
- day use recreational trails/ picnic area (25 acres)

(C)
- Stand alone 116 unit apartment complex

(D)
- 1 – mixed use building
  - 8 apartments on second floor
  - 10,210 sf office space

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT ① JOB NO. _____ SHEET NO. 2

(D) (cont)

- 2,500 sf Convenience Store
- 2,115 sf Copy Store

(E)

- 53 Single family units (zoned R 7.5)
- 7 Single family units (zoned R 15)
- 58 town homes
- 1,200 sf marina office

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT ALT (1) JOB NO. _____ SHEET NO. 3

(A) 28 TOWNHOMES

AM Peak = (28 units)(0.44 trips/unit) = 12.32 Say 12
19% Ent = 2 trips
81% Exit = 10 trips
PM Peak = (28 units)(0.52 trips/unit) = 14.56 Say 15
64% Ent = 10 trips
36% Exit = 5 trips
Saturday Peak = (28 units)(0.47 trips/unit) = 13.16 Say 14
54% Ent = 8 trips
46% Exit = 6 trips

24 APARTMENTS (16+4+4)

AM Peak = (24 units)(0.51 trips/unit) = 12.24 say 13
20% Ent = 3 trips
80% Exit = 10 trips
PM Peak = (24 units)(0.62 trips/unit) = 14.88 say 15
65% Ent = 10 trips
35% Exit = 5 trips
Saturday Peak = (24 units)(0.52 trips/unit) = 12.48 say 13
50% Ent = 6 trips
50% Exit = 7 trips

8 Room HOTEL (assume all occupied)

AM Peak = (8 rooms)(0.67 trips/room) = 5.36 Say 6
58% Ent = 3 trips
42% Exit = 3 trips
PM Peak = (8 rooms)(0.70 trips/room) = 5.60 Say 6
49% Ent = 3 trips
51% Exit = 3 trips
Saturday Peak = (8 rooms)(0.87 trips/room) = 6.96 Say 7
50% Ent = 3 trips
50% Exit = 4 trips

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. ____ REV. ____
SUBJECT ALT (1) JOB NO. ____ SHEET NO. 4

(B) 48 TOWNHOMES

AM Peak = (48 units)(0.44 trips/unit) = 21.12 say 22
19% Ent = 4 trips
81% Exit = 18 trips
PM Peak = (48 units)(0.52 trips/unit) = 24.96 say 25
64% Ent = 16 trips
36% Exit = 9 trips
Saturday Peak = (48 units)(0.47 trips/unit) = 22.56 say 23
54% Ent = 13 trips
46% Exit = 10 trips

15 CAMPSITE CAMPGROUND

AM Peak = (15 sites)(0.22 trips/site) = 3.3 say 4
42% Ent = 2 trips
58% Exit = 2 trips
PM Peak = (15 sites)(0.37 trips/site) = 5.55 say 6
69% Ent = 4 trips
31% Exit = 2 trips
Saturday Peak = (15 sites)(0.37 trips/site) = 5.55 say 6
69% Ent = 4 trips
31% Exit = 2 trips

25 ACRE PARK

AM Peak = (25 acres)(0.15 trips/acre) = 3.75 say 4
57% Ent = 2 trips
43% Exit = 2 trips
PM Peak = (25 acres)(0.26 trips/acre) = 6.5 say 7
44% Ent = 3 trips
56% Exit = 4 trips
Saturday Peak = (25 acres)(0.34 trips/acre) = 8.5 say 9
48% Ent = 4 trips
52% Exit = 5 trips

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. ____ REV. ____
SUBJECT ALT (1) JOB NO. ____ SHEET NO. 5

(C) 116 APARTMENTS

AM Peak = (116 units)(0.51 trips/unit) = 8.116 say 9
20% Ent = 2 trips
80% Exit = 7 trips
PM Peak = (116 units)(0.62 trips/unit) = 9.92 say 10
65% Ent = 7 trips
35% Exit = 3 trips
Saturday Peak = (116 units)(0.52 trips/unit) = 8.32 say 9
50% Ent = 4 trips
50% Exit = 5 trips

(D) 8 APARTMENTS

AM Peak = (8 units)(0.51 trips/unit) = 4.08 say 4
20% Ent = 1 trips
80% Exit = 3 trips
PM Peak = (8 units)(0.62 trips/unit) = 4.96 say 5
65% Ent = 3 trips
35% Exit = 2 trips
Saturday Peak = (8 units)(0.52 trips/unit) = 4.16 say 5
50% Ent = 2 trips
50% Exit = 3 trips

10,210 SF OFFICE SPACE

AM Peak = (10.21)(1.55) = 15.83 say 16
88% Ent = 14 trips
12% Exit = 2 trips
PM Peak = (10.21)(1.49) = 15.21 say 16
17% Ent = 3 trips
83% Exit = 13 trips
Saturday Peak = (10.21)(0.41) = 4.19 say 5
54% Ent = 3 trips
46% Exit = 2 trips

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS ____ CALC. NO. ____ REV. ____
SUBJECT ALT ① ____ JOB NO. ____ SHEET NO. 6

2500 SF CONVENIENCE STORE

AM Peak = (2.5)(31.02) = 77.55 say 78
50% Ent = 39 trips
50% Exit = 39 trips
PM Peak = (2.5)(34.57) = 86.43 say 87
49% Ent = 43 trips
51% Exit = 44 trips
Saturday Peak = (2.5)(4.94) = 12.35 say 13
50% Ent = 6 trips
50% Exit = 7 trips

2115 SF COPY STORE

AM Peak = (2.115)(2.78) = 5.88 say 6
75% Ent = 4 trips
25% Exit = 2 trips
PM Peak = (2.115)(7.41) = 15.67 say 16
44% Ent = 7 trips
56% Exit = 9 trips
Saturday Peak = (2.115)(2.78) = 5.88 say 6
75% Ent = 4 trips
25% Exit = 2 trips

(E) 60 SINGLE FAMILY UNITS (53+7)

AM Peak = (60 units)(0.75 trips/unit) = 45
25% Ent = 11 trips
75% Exit = 34 trips
PM Peak = (60 units)(1.01 trips/unit) = 60.6 say 61
63% Ent = 38 trips
37% Exit = 23 trips
Saturday Peak = (60 units)(0.93 trips/unit) = 55.8 say 56
64% Ent = 36 trips
36% Exit = 20 trips

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 7

58 TOWN HOMES

AM Peak = (58 units X 0.44 trips/unit) = 25.52 say 26
19% Ent = 5 trips
81% Exit = 21 trips
PM Peak = (58 units X 0.52 trips/unit) = 30.16 say 31
64% Ent = 20 trips
36% Exit = 11 trips
Saturday Peak = (58 units X 0.47 trips/unit) = 27.26 say 28
54% Ent = 15 trips
46% Exit = 13 trips

1200 SF MARINA OFFICE

AM Peak = (1.2)(1.55) = 1.86 say 2
88% Ent = 2
12% Exit = 0
PM Peak = (1.2)(1.49) = 1.788 say 2
17% Ent = 0
83% Exit = 2
Saturday Peak = (1.2)(0.41) = 0.49 say 1
54% Ent = 1
46% Exit = 0

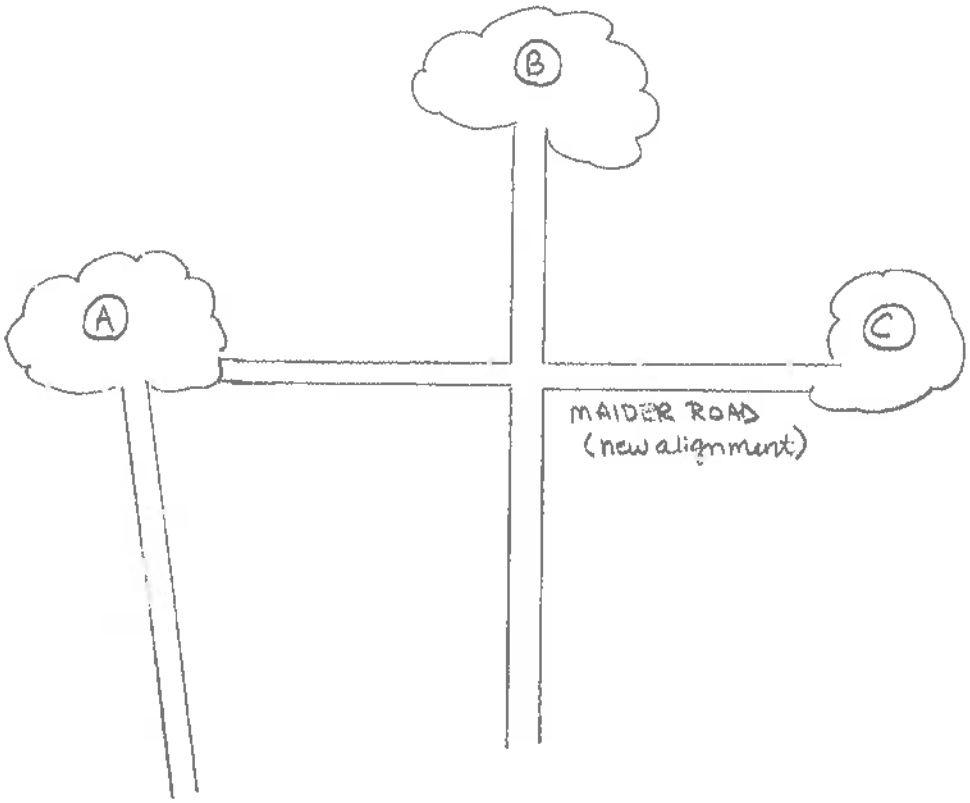
Alternative 2

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 1

CONCEPT DESIGN ALTERNATIVE (2) (ITE TRIP GENERATION VOLUMES)



(A) • 6 single family units (zoned R7.5)

(B) • 48 town homes
• 15 campground
• day use recreational trails / picnic area (25 acres)

(C) • 8 single family units (zoned R7.5)
• 19 single family units (zoned R10)
• 34 town homes
• 2 - mixed use buildings
  • 8 apartments total (4 in each building)
  • 6600 SF office
  • restaurant (AppleBees/ Dennys) 5000 SF
  • ice cream shop 1600 SF

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 2

(C) cont

- 1200 SF marina office
- 15,000 SF Entertainment Center
  - 4500 sf / 8 room hotel
  - 10,500 sf ballroom/ concert space

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. ____ REV. ____
SUBJECT ALT (2) JOB NO. ____ SHEET NO. 3

(A) 6 SINGLE FAMILY UNITS

AM Peak = (6 units)(0.75 trips/unit) = 4.5 Say 5
25% Ent = 1 trips
75% Exit = 4 trips
PM Peak = (6 units)(1.01 trips/unit) = 6.06 Say 6
63% Ent = 4 trips
37% Exit = 2 trips
Saturday Peak = (6 units)(0.93 trips/unit) = 5.58 Say 6
64% Ent = 4 trips
36% Exit = 2 trips

(B) 48 TOWN HOMES

AM Peak = (48 units)(0.44 trips/unit) = 21.12 Say 22
19% Ent = 4 trips
81% Exit = 18 trips
PM Peak = (48 units)(0.52 trips/unit) = 24.96 Say 25
64% Ent = 16 trips
36% Exit = 9 trips
Saturday Peak = (48 units)(0.47 trips/unit) = 22.56 Say 23
54% Ent = 13 trips
36% Exit = 10 trips

15 CAMPSITE CAMPGROUND

AM Peak = (15 sites)(0.22 trips/site) = 3.3 Say 4
42% Ent = 2 trips
58% Ent = 2 trips
PM Peak = (15 sites)(0.37 trips/site) = 5.55 Say 6
69% Exit = 4 trips
31% Ent = 2 trips
Saturday Peak = (15 sites)(0.37 trips/site) = 5.55 Say 6
69% Exit = 4 trips
31% Ent = 2 trips

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT ALT (2) JOB NO. _____ SHEET NO. 4

25 ACRE PARK

AM Peak = (25 acres)(0.15 trips/acre) = 3.75 say 4
57% Ent = 2 trips
43% Exit = 2 trips
PM Peak = (25 acres)(0.26 trips/acre) = 6.5 say 7
44% Ent = 3 trips
56% Exit = 4 trips
Saturday Peak = (25 acres)(0.34 trips/acre) = 8.5 say 9
48% Ent = 4 trips
52% Exit = 5 trips

27 SINGLE FAMILY UNITS (19+8)

AM Peak = (27 units)(0.75 trips/unit) = 20.25 say 21
25% Ent = 5 trips
75% Exit = 16 trips
PM Peak = (27 units)(1.01 trips/unit) = 27.27 say 28
63% Ent = 18 trips
37% Exit = 10 trips
Saturday Peak = (27 units)(0.93 trips/unit) = 25.11 say 26
64% Ent = 16 trips
36% Exit = 10 trips

34 TOWNHOMES

AM Peak = (34 units)(0.44 trips/unit) = 14.96 say 15
19% Ent = 3 trips
81% Exit = 12 trips
PM Peak = (34 units)(0.52 trips/unit) = 17.68 say 18
64% Ent = 12 trips
36% Exit = 6 trips
Saturday Peak = (34 units)(0.47 trips/unit) = 15.98 say 16
54% Ent = 9 trips
56% Exit = 7 trips

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT ALT ② JOB NO. _____ SHEET NO. 5

8 APARTMENTS

AM Peak = (8 units)(0.51 trips/unit) = 4.08 say 4
20% Ent = 1 trip
80% Exit = 3 trips
PM Peak = (8 units)(0.62 trips/unit) = 4.96 say 5
65% Ent = 3 trips
35% Exit = 2 trips
Saturday Peak = (8 units)(0.52 trips/unit) = 4.16 say 5
50% Ent = 2 trips
50% Exit = 3 trips

7800 SF OFFICE (6600 + 1200)

AM Peak = (7.8)(1.55) = 12.09 say 13
88% Ent = 11 trips
12% Exit = 2 trips
PM Peak = (7.8)(1.49) = 11.62 say 12
17% Ent = 2 trips
83% Exit = 10 trips
Saturday Peak = (7.8)(0.41) = 3.20 say 4
54% Ent = 2 trips
46% Exit = 2 trips

5000 SF RESTAURANT (APPLE BEES / DENNY'S)

AM Peak = (5)(11.52) = 57.6 say 58
52% Ent = 30 trips
48% Exit = 28 trips
PM Peak = (5)(11.15) = 55.75 say 56
59% Ent = 33 trips
41% Exit = 23 trips
Saturday Peak = (5)(14.07) = 70.35 say 71
53% Ent = 38 trips
47% Exit = 33 trips

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____
SUBJECT ALT (2) JOB NO. _____ SHEET NO. 6

1600 SF RESTAURANT (ICE CREAM)

AM Peak = 0
PM Peak = (1.6)(20) = 32
50% Ent = 16 trips
50% Exit = 16 trips
Saturday Peak = (1.6)(20) = 32
50% Ent = 16 trips
50% Exit = 16 trips

8 Room HOTEL (assume all occupied)

AM Peak = (8 rooms)(0.67 trips/room) = 5.36 say 6
58% Ent = 3 trips
42% Exit = 3 trips
PM Peak = (8 rooms)(0.70 trips/room) = 5.60 say 6
49% Ent = 3 trips
51% Exit = 3 trips
Saturday Peak = (8 rooms)(0.87 trips/room) = 6.96 say 7
50% Ent = 3 trips
50% Exit = 4 trips

10,500 SF BALLROOM / CONCERT SPACE

AM Peak = (10.5)(0.22) = 2.31 say 3
50% Ent = 2 trips
50% Exit = 1 trips
PM Peak = (10.5)(6.16) = 64.68 say 65
94% Ent = 61 trips
6% Exit = 4 trips
Saturday Peak = (10.5)(15.77) = 165.59 say 166
61% Ent = 101 trips
39% Exit = 65 trips

Volume Assignments

DIRECTIONAL DISTRIBUTION ASSUMPTIONS

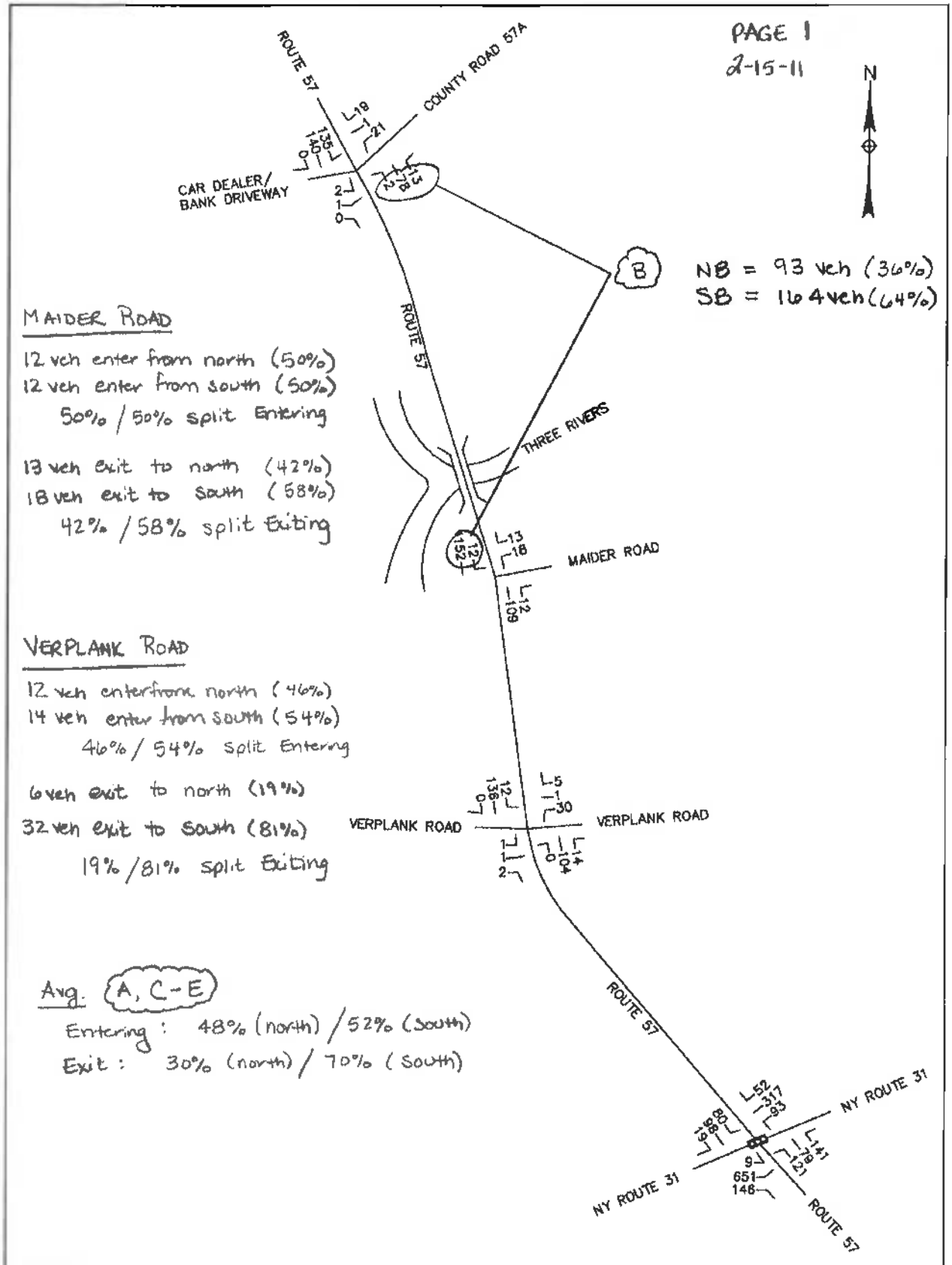


FIGURE 1

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekday AM Peak Hour

PROJECT # DATE:

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT AM PEAK JOB NO. _____ SHEET NO. 2

VOLUME ASSIGNMENTS BASED UPON EXISTING VOLUMES

SITE GENERATED VOLUMES

LOCATIONS (A, C-E) ENT 48% NB / 52% SB
EXIT 30% NB / 70% SB

LOCATION (B) 36% NB
64% SB

"EXITING" VEHICLES	"ENTERING" VEHICLES
• CR 57 / 57 A	
2 NB L = 2%	0 EB R = 0%
78 NB T = 84%	140 SB T = 87%
13 NB R = 14%	21 WB L = 13%
• VERPLANK	
0 SB R = 0%	1 EB L = 1%
136 SB T = 92%	104 NB T = 94%
12 SB L = 8%	5 WB R = 5%
• CR 57 / RT 31	
19 SB R = 10%	9 EB L = 6%
98 SB T = 49%	79 NB T = 57%
80 SB L = 41%	52 WB R = 37%

• MAIDER
152 SB T = 93%
12 SB L = 7%

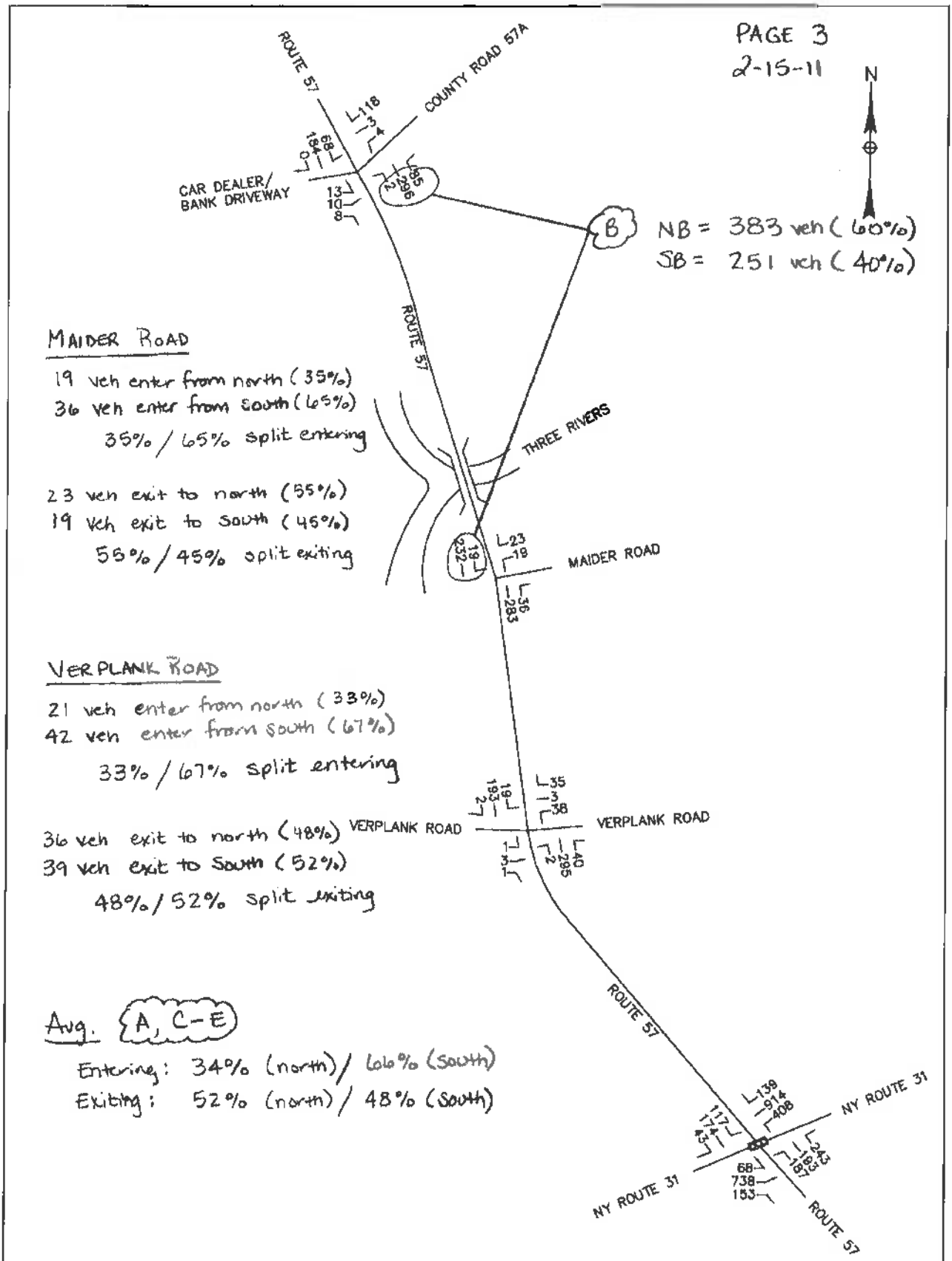


FIGURE 2

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekday PM Peak Hour

PROJECT # DATE:

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT PM PEAK JOB NO. _____ SHEET NO. 4

VOLUME ASSIGNMENTS BASED UPON EXISTING VOLUMES

SITE GENERATED VOLUMES

LOCATIONS (A, C-E) ENT 34% NB / 66% SB
EXIT 52% NB / 48% SB

LOCATION (B) NB 60 %
SB 40 %

"EXITING" VEHICLES	"ENTERING" VEHICLES
• CR 57 / CR 57A	
2 NBL = 1%	8 EB R = 4%
296 NB T = 77%	184 SB T = 94%
85 NB R = 22%	4 WB L = 2%
• CR 57 / VERPLANK	
2 SB R = 1%	1 EB L = 0%
193 SB T = 91%	295 NB T = 89%
19 SB L = 8%	35 WB R = 11%
• CR 57 / RT 31	
43 SB R = 13%	68 EB L = 17%
174 SB T = 52%	193 NB T = 48%
117 SB L = 35%	139 WB R = 35%

- MAIDER

232 SBT = 95%
19 SBL = 5%

PAGE 5
2-15-11

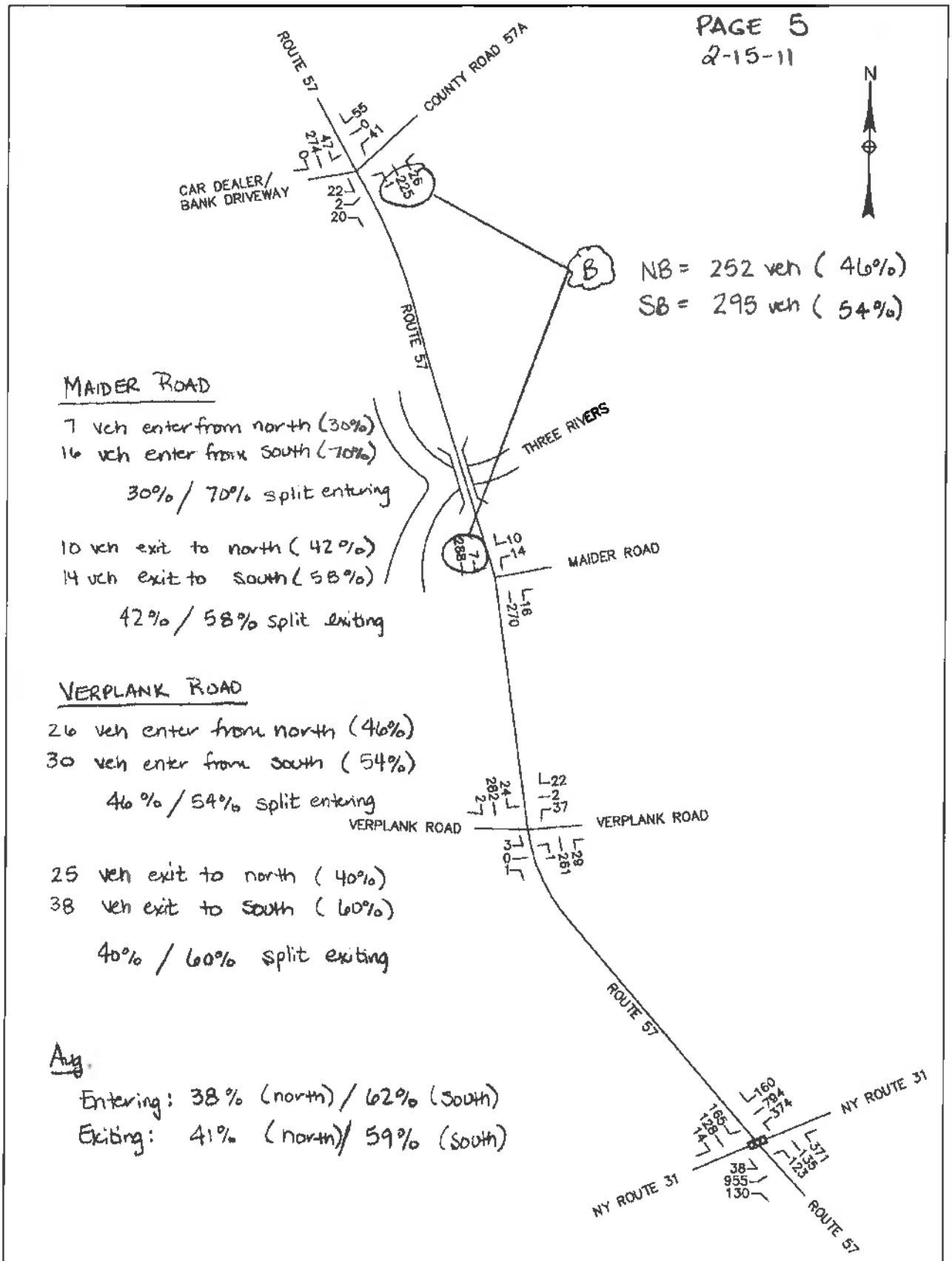


FIGURE 3

THREE RIVERS ACCESS STUDY, TOWN OF CLAY, NY

2010 EXISTING TRAFFIC VOLUMES
Weekend Peak Hour

PROJECT # DATE:

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT SAT PEAK JOB NO. _____ SHEET NO. 6

VOLUME ASSIGNMENTS BASED UPON EXISTING VOLUMES

SITE GENERATED VOLUMES

LOCATIONS (A, C-E)
ENT 38 % NB / 62 % SB
EXIT 41 % NB / 59 % SB

LOCATION (E)
NB 46 %
SB 54 %

"EXITING" VEHICLES

- CR 57 / CR 57A
  - 1 NBL = 0%
  - 225 NB T = 90%
  - 26 NB R = 10%
- CR 57 / VERPLANK
  - 2 SB R = 0%
  - 282 SB T = 92%
  - 24 SB L = 8%
- CR 57 / RT 31
  - 14 SB R = 5%
  - 128 SB T = 42%
  - 165 SB L = 53%

"ENTERING" VEHICLES

- 20 EB R = 6%
- 274 SB T = 82%
- 41 WB L = 12%
- 3 EB L = 1%
- 261 NB T = 91%
- 22 WB R = 8%
- 38 EB L = 11%
- 135 NB T = 41%
- 160 WB R = 48%

- MAIDER
  - 288 SBT = 98%
  - 7 SBL = 2%

Alternative 1

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. ____ REV. ____
SUBJECT ALT ① JOB NO. ____ SHEET NO. 1

DIRECTIONAL DISTRIBUTION ASSUMPTIONS
(to be conservative, no deduction to be made for pass by trips)

ALT ① - 5 CONCENTRATIONS OF TRAFFIC - A → E

(A) MIXED USE
- RESIDENTIAL & RESTAURANT
  - → assume 95% of volume to use CR 57 with directional distribution similar to existing (see pp 1-6)
  - → assume 5% of volume to use Gaskin Road
- HOTEL
  - → assume 100% of volume to use CR 57 with existing directional distribution

(B) MIXED USE
- RESIDENTIAL / CAMPGROUND / PARK
  - → assume 100% of volume to use CR 57 with existing directional distribution

(C) RESIDENTIAL
- → assume 100% of volume to use CR 57 with existing directional distribution

(D) MIXED USE
- RESIDENTIAL / OFFICE / COMMERCIAL
  - → assume 100% of volume to use CR 57 with existing directional distribution with appropriate split btwn new access and new Maider Rd.

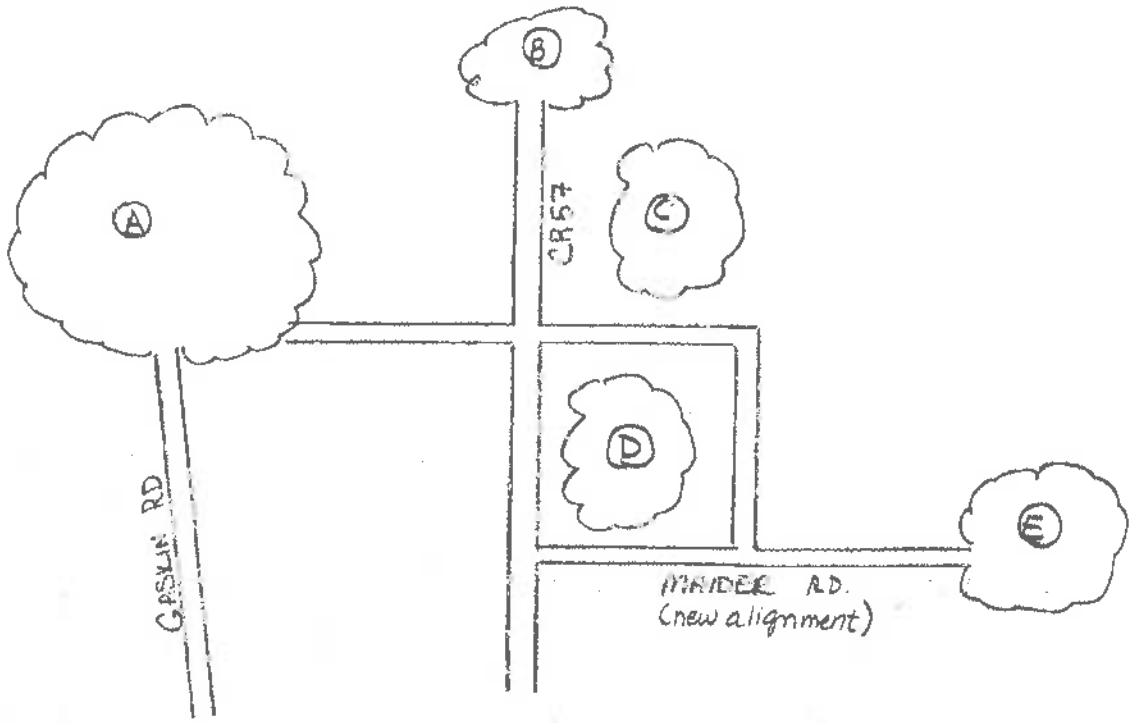
(E) MIXED USE
- RESIDENTIAL & MARINA OFFICE
  - → assume 90% of volume to use CR 57 (Maider Rd) with existing directional distribution
  - → assume 10% of volume to use eastbound Maider / Bonstead

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 2

CONCEPT DESIGN ALTERNATIVE (1)



(A)
- 28 town homes
- 2 – Mixed use buildings
  - 4 apartments (each) on second floor
  - hotel - 4500 sf / 8 rooms
  - restaurant (Apple Bees / Denny's) - 5000 sf
- Stand alone 110 unit apartment complex

(B)
- 48 town homes
- 15 campsite campground
- day use recreational trails / picnic area (25 acres)

(C)
- Stand alone 110 unit apartment complex

(D)
- 1 – mixed use building
  - 8 apartments on second floor
  - 10,210 sf office space

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT ① JOB NO. _____ SHEET NO. 3

(D) (cont.)

- 2,500 sf Convenience Store
- 2,115 sf Copy Store

(E)

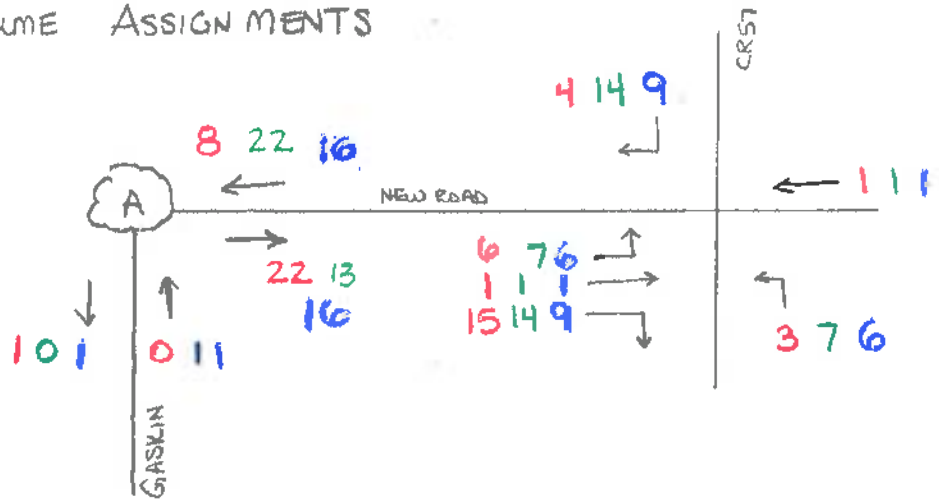
- 53 Single family units (zoned R 7.5)
- 7 Single family units (zoned R 15)
- 58 town homes
- 1,200 sf marina office

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 4

VOLUME ASSIGNMENTS



AM PEAK (RED)

TOWNHOMES:	2 ENT	10 EXIT	5% GASKIN = 0 ENT, 1 EXIT
APARTMENT:	3 ENT	10 EXIT	95% CR57 = 5 ENT, 19 ENT
	5 ENT	20 ENT	
HOTEL:	3 ENT	3 EXIT	100% CR57

PM PEAK (GREEN)

TOWNHOMES:	10 ENT	5 EXIT	5% GASKIN = 1 ENT 0 EXIT
APARTMENT:	10 ENT	5 EXIT	95% CR57 = 19 ENT 10 ENT
	20 ENT	10 EXIT	
HOTEL:	3 ENT	3 EXIT	100% CR57

SAT PEAK (BLUE)

TOWNHOMES:	8 ENT	6 EXIT	5% GASKIN = 1 ENT, 1 EXIT
APARTMENT:	6 ENT	7 EXIT	95% CR57 = 13 ENT, 12 EXIT
	14 ENT	13 EXIT	
HOTEL:	3 ENT	4 EXIT	100% CR57

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT ① JOB NO. _____ SHEET NO. 5

AM PEAK (RED)

ENT: 48% NB 52% SB → 46% NB 50% SB 4% WB
EXIT: 30% NB 70% SB → 28% NB 68% SB 4% EB

8 ENT = 3 NB L, 4 SB R, 1 WB T
22 EXIT = 6 EB L, 15 EB R, 1 EB T

PM PEAK (GREEN)

ENT: 34% NB 66 SB → 32% NB 64% SB 4% WB
EXIT: 52% NB 48 SB → 50% NB 46% SB 4% EB

22 ENT = 7 NB L, 14 SB R, 1 WB T
13 EXIT = 7 EB L, 5 EB R, 1 EB T

SAT PEAK (BLUE)

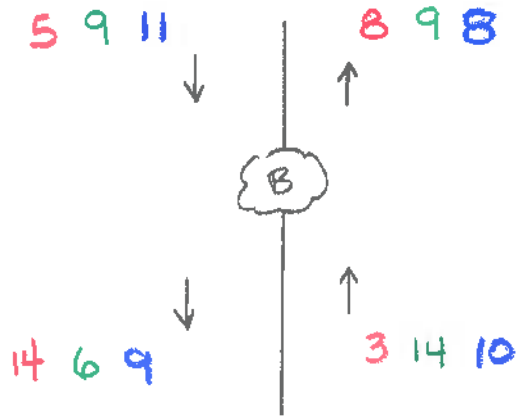
ENT: 38% NB 62% SB → 36% NB 60% SB 4% WB
EXIT: 41% NB 59% SB → 39% NB 57% SB 4% EB

16 ENT = 6 NB L 9 SB R 1 WB T
16 EXIT = 6 EB L 9 EB R 1 EB T

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 6



AM PEAK (RED)	ENT	EXIT	Direct Dist
TOWN HOMES	4	18	= 36% NB
CAMPGROUND	2	2	64% SB
PARK	2	2	
	8	22	
	3NB / 5SB	8NB / 14SB	

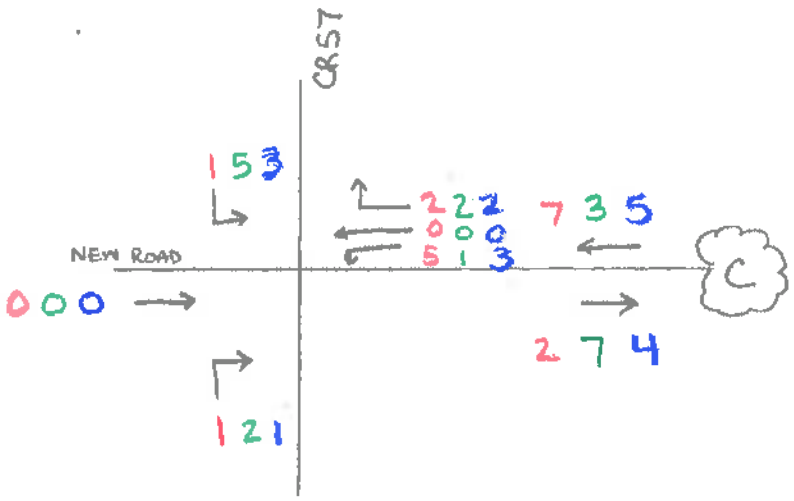
PM PEAK (GREEN)			
TOWN HOMES	16	9	60% NB
CAMP GROUND	4	2	40% SB
PARK	3	4	
	23	15	
	14NB / 9SB	9NB / 6SB	

SAT PEAK (BLUE)			
TOWN HOMES	13	10	46% NB
CAMPGROUND	4	2	54% SB
PARK	4	5	
	21	17	
	10NB / 11SB	8NB / 9SB	

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT ① JOB NO. _____ SHEET NO. 7



AM PEAK (RED)

2 ENT 7 EXIT

ENT : 48% NB 52% SB → 46% NB 50% SB 4% EB
EXIT : 30% NB 70% SB → 28% NB 68% SB 4% WB

2 ENT = 1 NBR 1 SBL 0 EBT
7 EXIT = 2 WBR 5 WBL 0 WBT

PM PEAK (GREEN)

7 ENT 3 EXIT

ENT : 34% NB 66 SB → 32% NB 64% SB 4% EB
EXIT : 52% NB 48% SB → 50 % NB 46% SB 4% WB

7 ENT = 2 NBR 5 SBL 0 EBT
3 EXIT = 2 WBR 1 WBL 0 WBT

SAT PEAK (BLUE)

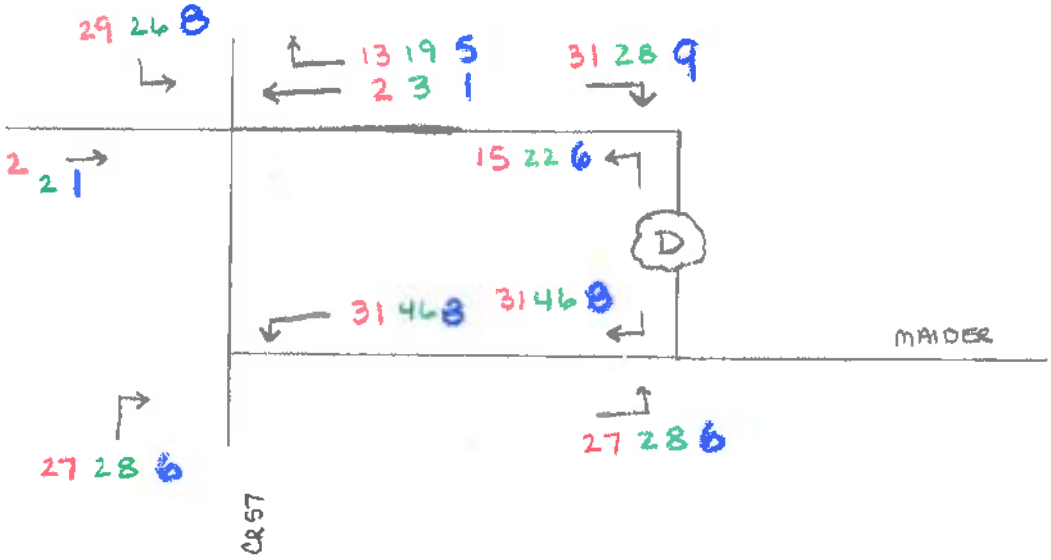
ENT: 38% NB 62% SB → 36% NB 60% SB 4% EB
EXIT: 41% NB 59% SB → 39% NB 57% SB 4% WB

4 ENT = 1 NBR 3 SBL 0 EBT
5 EXIT = 2 WBR 3 WBL 0 WBT

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 8



AM PEAK (RED)

	ENT	EXIT
APARTMENTS	1	3
OFFICE	14	2
CONVENIENCE	39	39
COPY STORE	4	2
	58	46

% DIST SAME AS (C)

58 ENT = 27 NBR 29 SBL 2 EBT
46 EXIT = 13 WBR 31 WBL 2 WBT

PM PEAK (GREEN)

APARTMENT	3	2
OFFICE	3	13
CONVENIENCE	43	44
COPY STORE	7	9
	56	68

% DIST SAME AS (C)

56 ENT = 28 NBR 26 SBL 2 EBT
68 EXIT = 19 WBR 46 WBL 3 WBT

BY J MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 9

SATURDAY PEAK (BLUE)

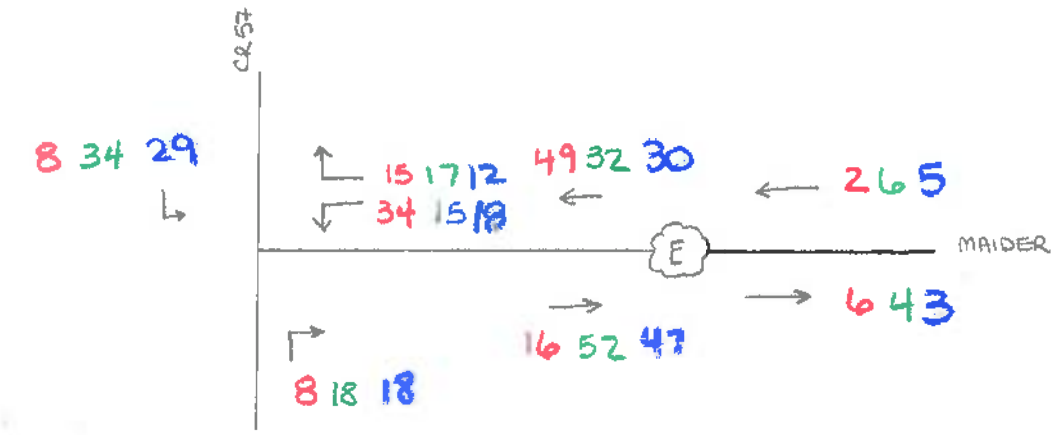
	ENT	EXIT
APARTMENT	2	3
OFFICE	3	2
CONVENIENCE	6	7
COPY STORE	4	2
	15	14

% DIST SAME AS (C)

15 ENT = 6 NBR 8 SBL 1 EBT

14 EXIT = 5 WBR 8 WBL 1 WBT

BY J. MICHNIEWICZ DATE ____ CHECKED BY ____ DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. ____ REV. ____
SUBJECT ALT (1) ____ JOB NO. ____ SHEET NO. 10



AM PEAK (RED)

	ENT	EXIT
SINGLE FAMILY	11	34
TOWN HOMES	5	21
MARINA OFFICE	2	0
	18	55

10% MAIDER = 2 ENT 6 EXIT
90% CR 57 = 16 ENT 49 EXIT

ENT : 48% NB 52% SB
EXIT : 30% NB 70% SB

16 ENT = 8 NBR 8 SBL
49 EXIT = 15 WBR 34 WBL

PM PEAK (GREEN)

	ENT	EXIT
SINGLE FAMILY	38	23
TOWN HOMES	20	11
MARINA OFFICE	0	2
	58	36

10% MAIDER = 6 ENT 4 EXIT
90% CR 57 = 52 ENT 32 EXIT

ENT : 34% NB 66% SB
EXIT : 52% NB 48% SB

52 ENT = 18 NBR 34 SBL
32 EXIT = 17 WBR 15 WBL

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PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (1) JOB NO. _____ SHEET NO. 11

SAT PEAK (BLUE)	ENT	EXIT	
SINGLE FAMILY	36	20	10% MAIDER = 5ENT 3EXIT
TOWN HOMES	15	13	90% CR57 = 47ENT 30EXIT
MARINA OFFICE	1	0	

ENT = 38% NB 62% SB
EXIT = 41% NB 59% SB

47 ENT = 18 NBR 29 SBL
30 EXIT = 12 WBR 18 WBL

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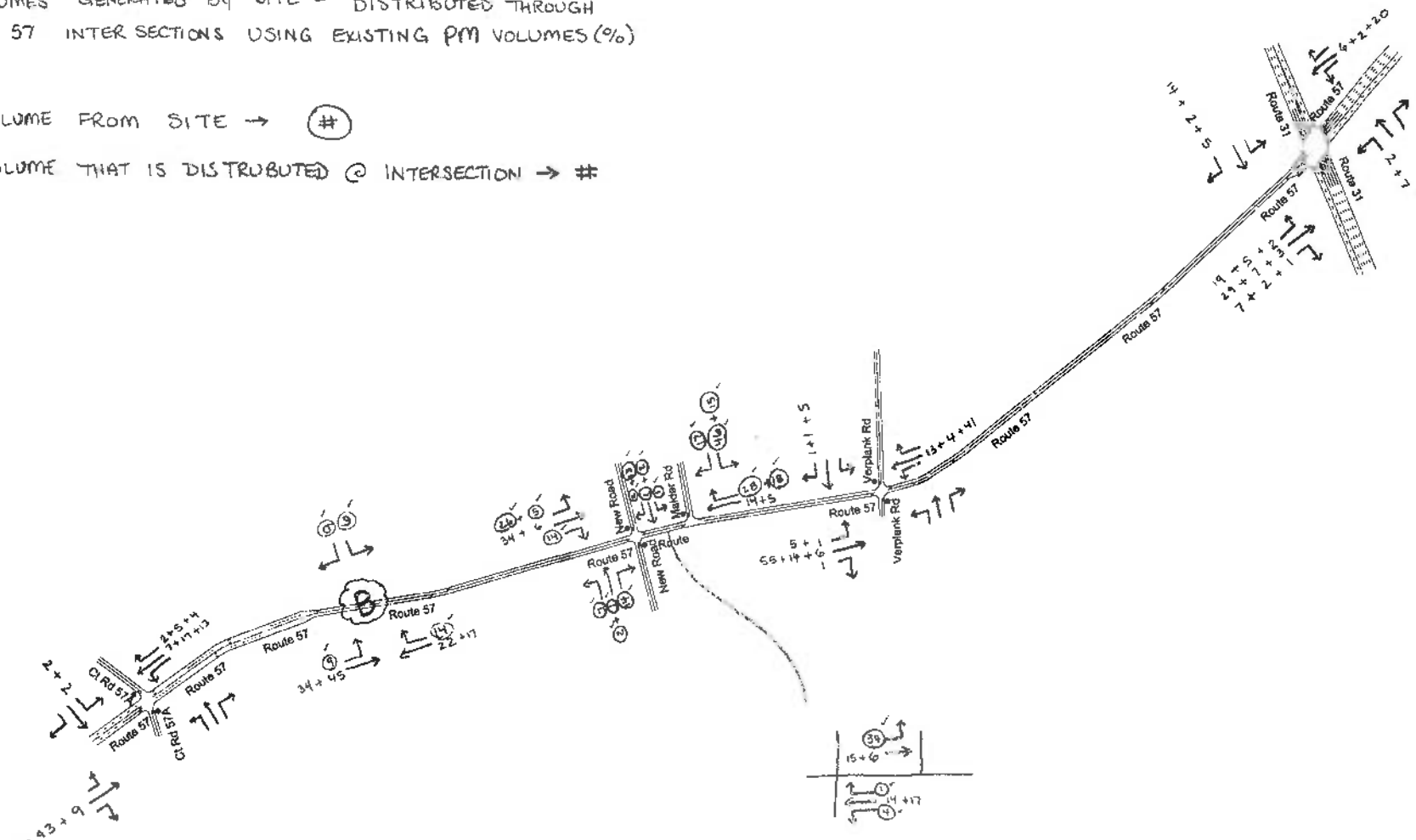
Alternative 1 PM PEAK – SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE – DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING PM VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRIBUTED @ INTERSECTION → #

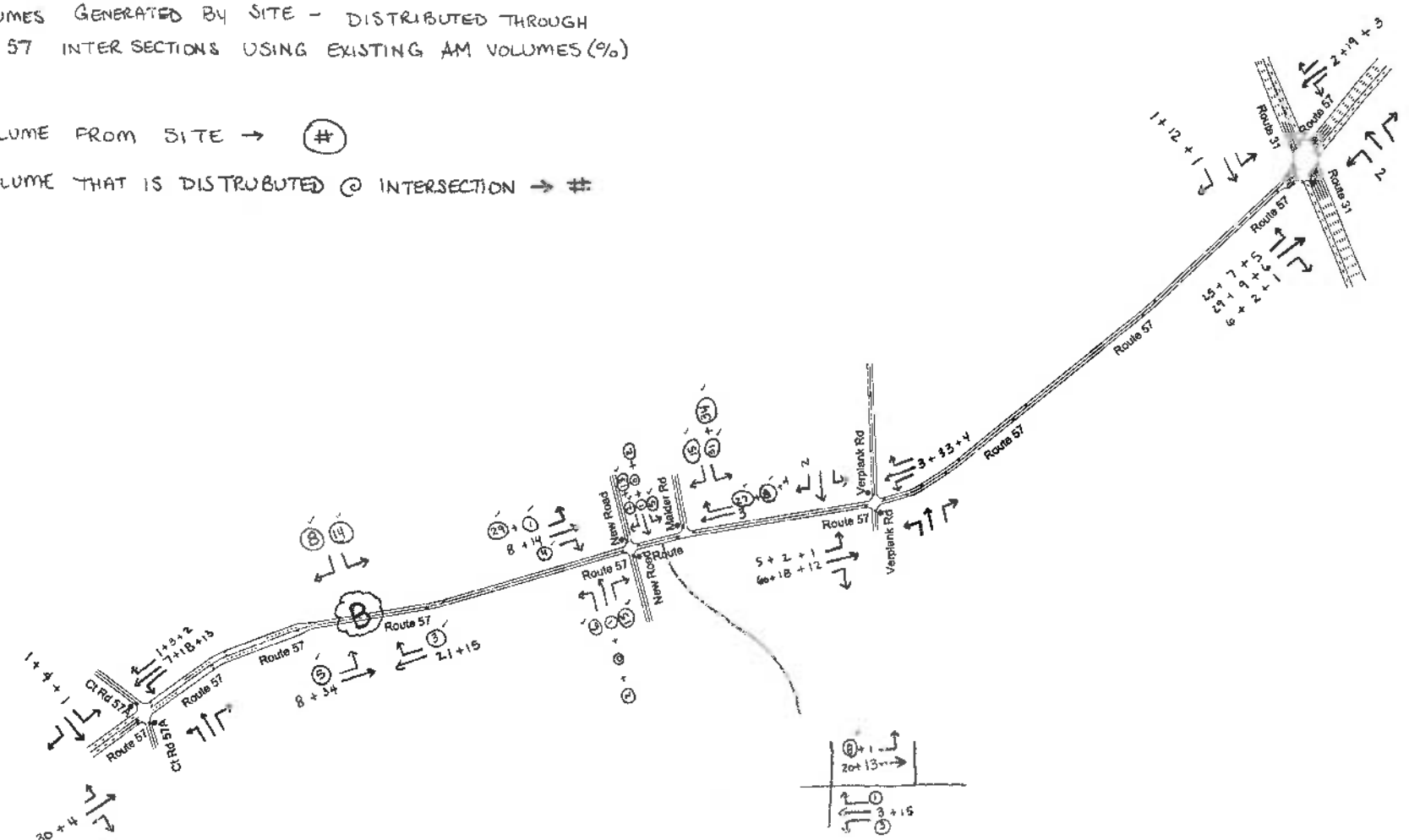


Alternative 1 AM PEAK – SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE – DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING AM VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRUBUTED @ INTERSECTION → #:



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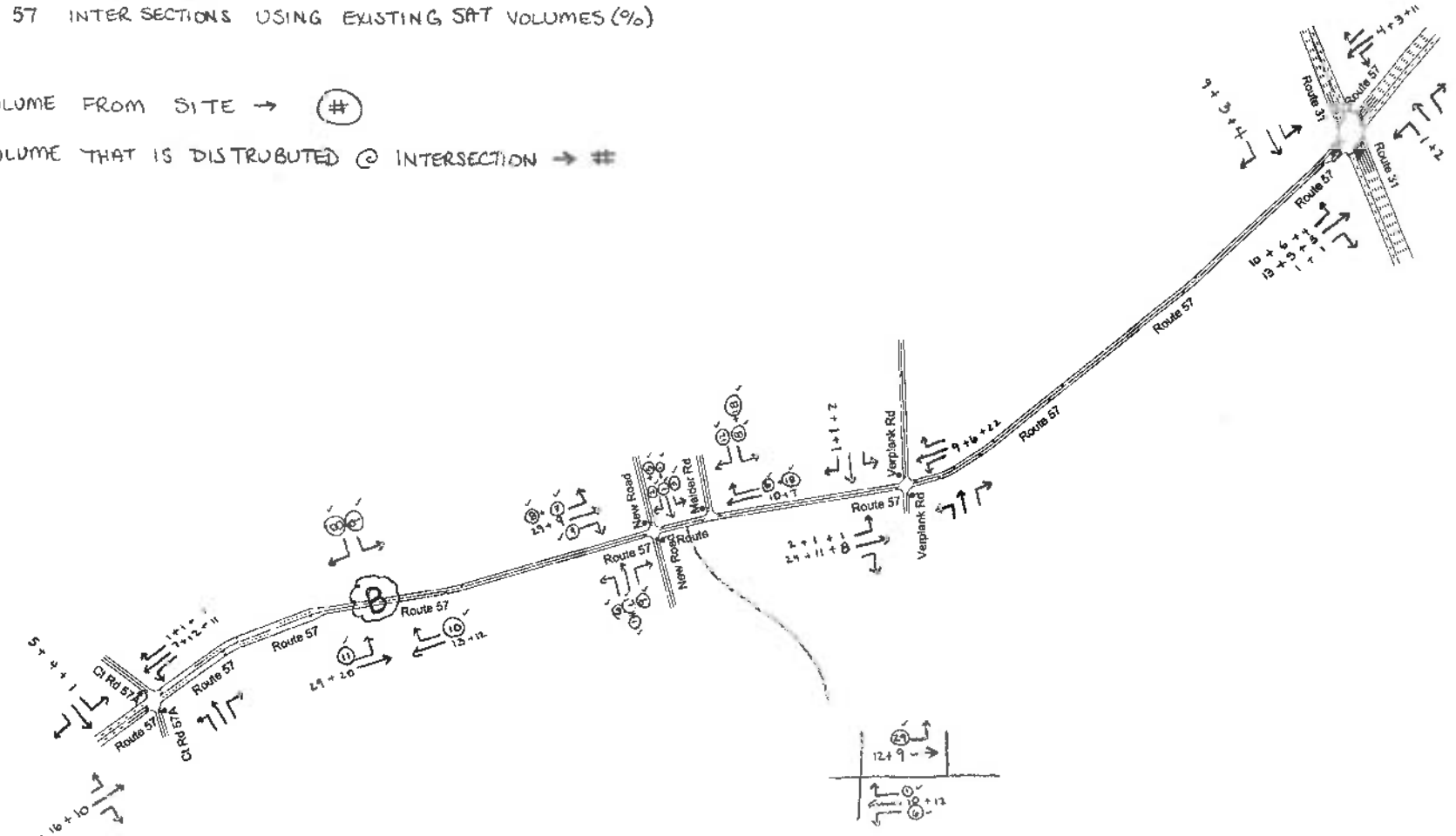
Alternative 1 SAT PEAK – SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE – DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING SAT VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRUBUTED @ INTERSECTION → #



Alternative 2

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 1

ALT (2) - 3 CONCENTRATIONS OF TRAFFIC - A → C

(A) RESIDENTIAL
- → assume 95% of volume to use CR 57 with directional distribution similar to existing
- → assume 5% of volume to use Gaskin Road

(B) MIXED USE
- RESIDENTIAL / CAMPGROUND / PARK
  - → assume 100% of volume to use CR 57 with existing directional distribution

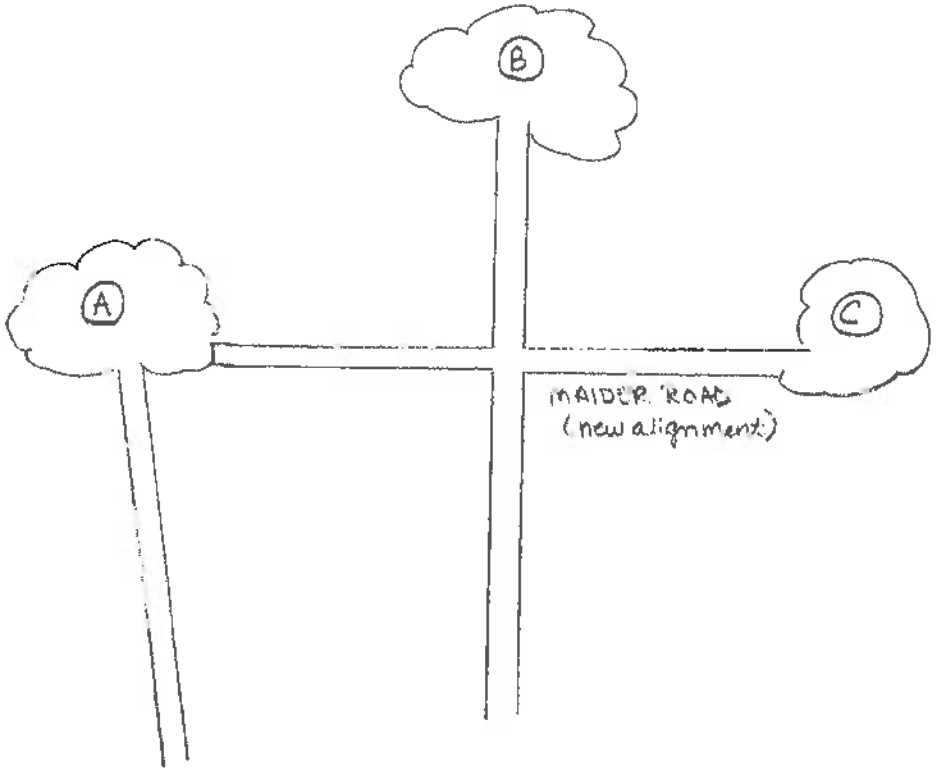
(C) MIXED USE
- RESIDENTIAL / OFFICE / RESTAURANT / ENTERTAINMENT CTR
  - → assume 90% of volume to use CR 57 with existing directional distribution
  - → assume 10% of volume to use eastbound Maider / Bonstad

BY J. MICHNIEWICZ DATE _____ CHECKED BY _____ DATE 2-15-11

PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 2

CONCEPT DESIGN ALTERNATIVE (2)



(A) • 6 single family units (zoned R 7.5)

(B) • 48 town homes
- 15 campground
- day use recreational trails / picnic area (25 acres)

(C) • 8 single family units (zoned R 7.5)
- 19 single family units (zoned R 10)
- 34 town homes
- 2 - mixed use buildings
  - 4 apartments (each) on second floor
  - 6600 SF office
  - restaurant (Applebees / Dennys) 5000 SF
  - ice cream shop 1600 SF

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PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 3

(C) cont.

- 1200 SF marina office
- 15,000 SF Entertainment Center
  - 4500 sf / 8 room hotel
  - 10,500 sf ballroom / concert space

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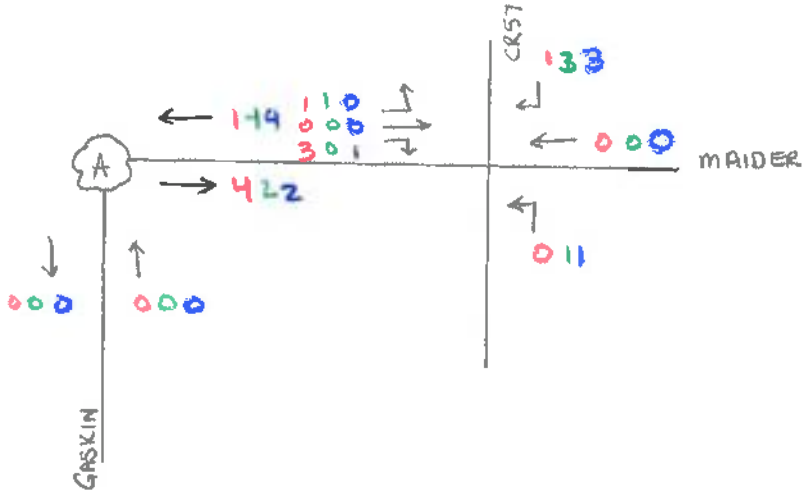
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 4

VOLUME ASSIGNMENTS



AM PEAK (RED)

1 ENT } 5% GASKIN = 0/0
4 EXIT } 95% CR57 = 1 ENT / 4 EXIT

ENT : 48% NB 52% SB
EXIT : 30% NB 70% SB

1 ENT = 0 NBL 1 SBR
4 EXT = 1 EBL 3 EBR

PM PEAK (GREEN)

ENT : 34% NB 66% SB
EXIT : 52% SB 48% SB

4 ENT = 1 NBL 3 SBR
2 EXIT = 1 EBL 0 EBR

SAT PEAK (BLUE)

ENT : 38% NB 62% SB
EXIT : 41% NB 59% SB

4 ENT = 1 NBL 3 SBR
2 EXIT = 0 EBL 1 EBR

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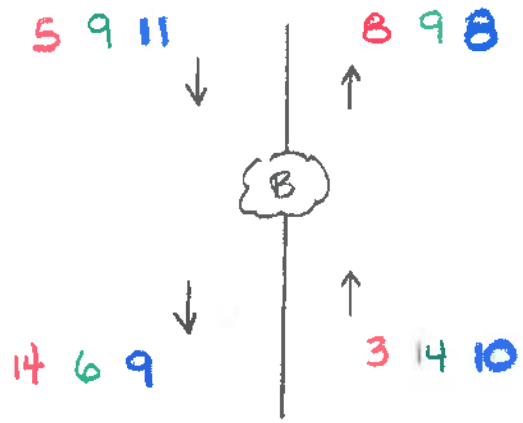
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 5



AM PEAK (RED)	ENT	EXIT	Direct Dist
TOWN HOMES	4	18	= 36% NB
CAMPGROUND	2	2	64% SB
PARK	2	2	
	8	22	
	3NB / 5SB	8NB / 14SB	

PM PEAK (GREEN)			
TOWN HOMES	16	9	60% NB
CAMP GROUND	4	2	40% SB
PARK	3	4	
	23	15	
	14NB / 9SB	9NB / 6SB	

SAT PEAK (BLUE)			
TOWN HOMES	13	10	46% NB
CAMPGROUND	4	2	54% SB
PARK	4	5	
	21	17	
	10NB / 11SB	8NB / 9SB	

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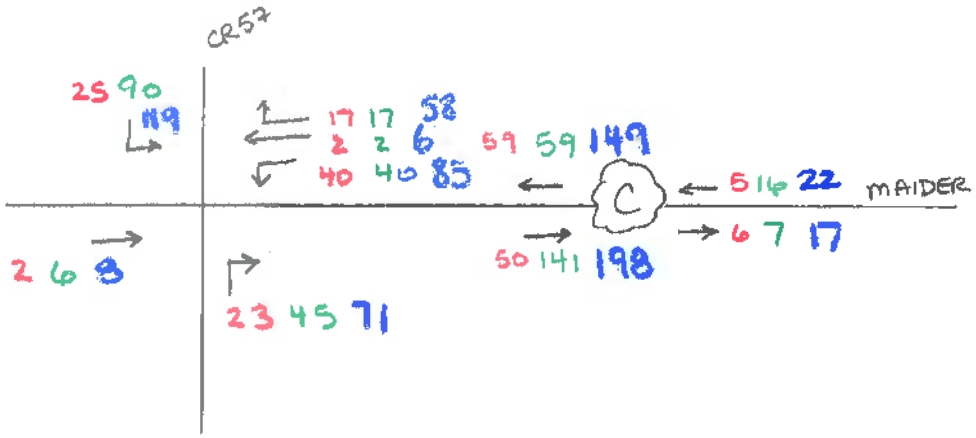
PROJECT CLAY 3 RIVERS CALC. NO. _____ REV. _____

SUBJECT ALT (2) JOB NO. _____ SHEET NO. 6



AM PEAK (RED)	ENT	EXIT
SINGLE FAMILY	5	16
TOWNHOMES	3	12
APARTMENT	1	3
OFFICE	11	2
RESTAURANT	30	28
RESTAURANT	0	0
HOTEL	3	3
CONCERT	2	1
	55	65

10% MAIDER = 5 ENT 6 EXIT
90% CR 57 = 50 ENT 59 EXIT

ENT: 48% NB 52% SB → 46% NB 50% SB 4% EB
EXIT: 30% NB 70% SB → 28% NB 68% SB 4% WB

50 ENT = 23 NBR 25 SBL 2 EBT
59 EXIT = 17 WBR 40 WBL 2 WBT

BY J. MICHNIEWICZ DATE CHECKED BY DATE 2-15-11
PROJECT CLAY 3 RIVERS CALC. NO. RFV.
SUBJECT ALT ② JOB NO. SHEET NO. 7

PM PEAK (GREEN)

	ENT	EXIT
SINGLE FAMILY	18	10
TOWN HOMES	12	6
APARTMENT	3	2
OFFICE	11	2
RESTAURANT	33	23
RESTAURANT	16	16
HOTEL	3	3
CONCERT	61	4
	157	66

10% MAIDER = 16 ENT 7 EXIT
90% CR57 = 141 ENT 59 EXIT

ENT : 34% NB 66% SB → 32% NB 64% SB 4% EB
EXIT : 52% NB 48% SB → 50% NB 46% SB 4% WB

141 ENT = 45 NBR 90 SBL 6 EBT
59 EXIT = 17 WBR 40 WBL 2 WBT

SAT PEAK (BLUE)

	ENT	EXIT
SINGLE FAM	16	10
TOWN HOMES	9	7
APARTMENT	2	3
OFFICE	33	28
RESTAURANT	38	33
RESTAURANT	16	16
HOTEL	3	4
CONCERT	101	65
	218	166

10% MAIDER = 22 ENT 17 ENT
90% CR57 = 198 ENT 149 EXIT

ENT : 38% NB 62% SB → 36% NB 60% SB 4% EB
EXIT : 41% NB 59% SB → 39% NB 57% SB 4% WB

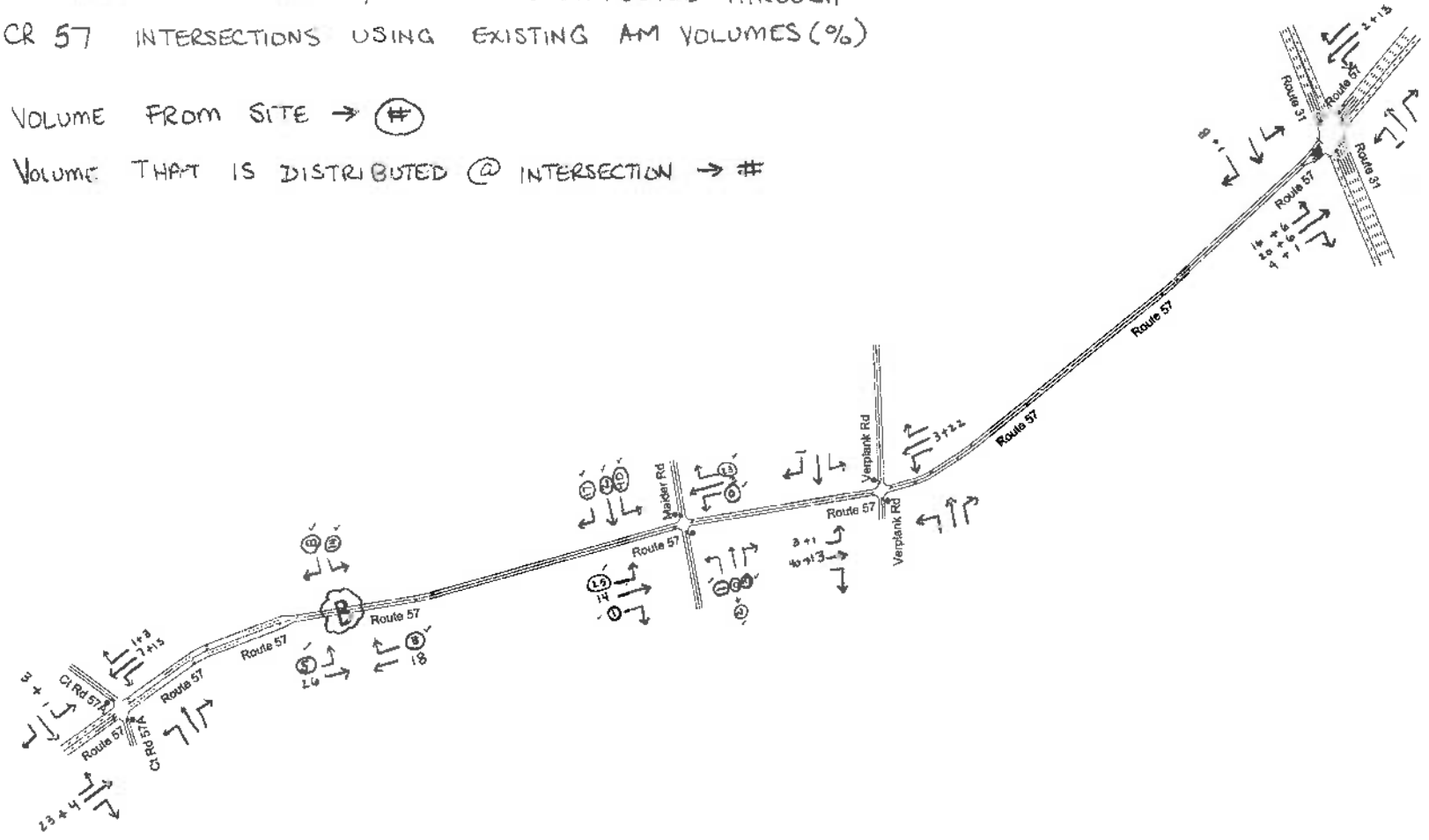
198 ENT = 71 NBR 119 SBL 8 EBT
149 EXIT = 58 WBR 85 WBL 6 WBT

Alternative 2 AM PEAK - SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE - DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING AM VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRIBUTED @ INTERSECTION → #



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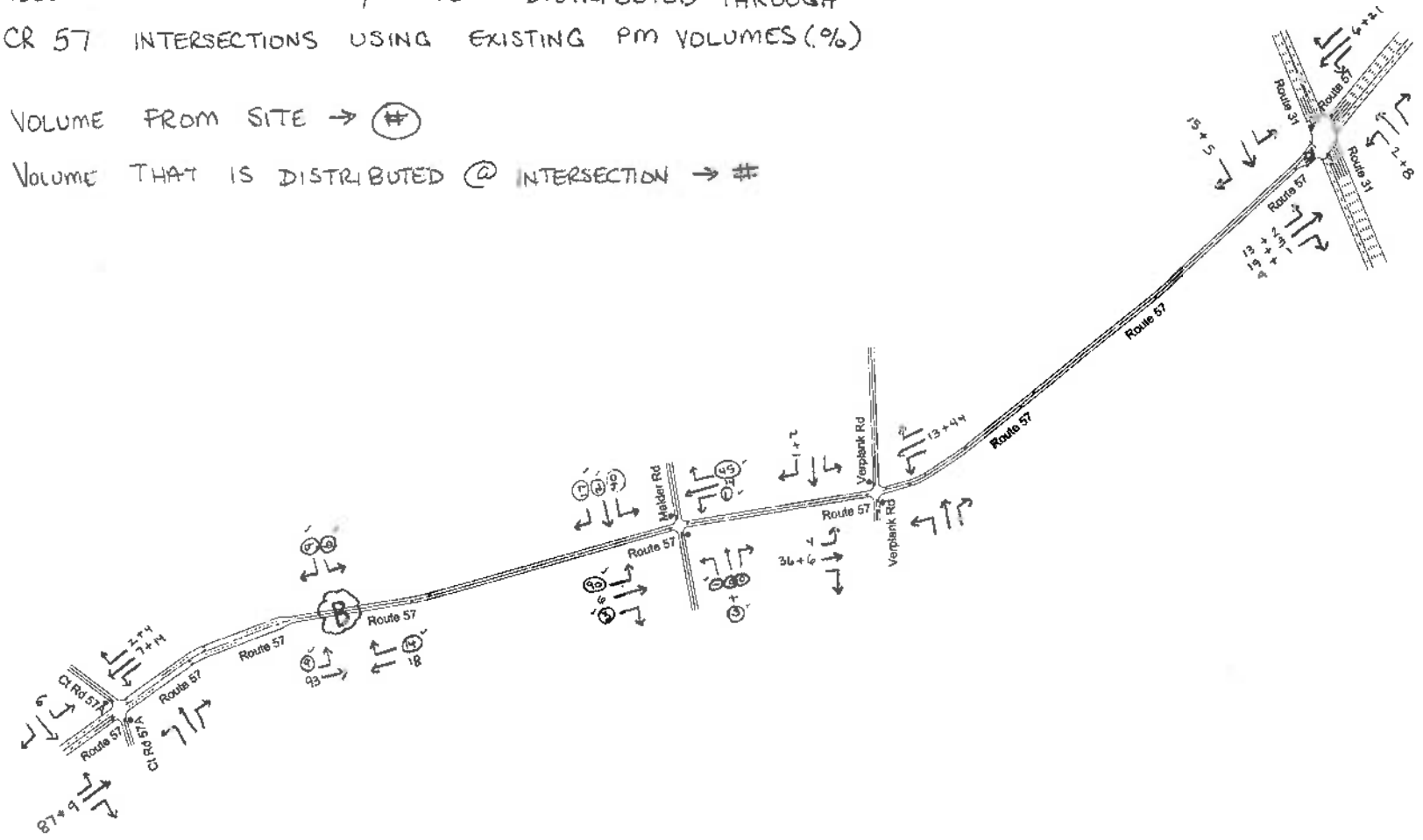
Alternative 2 PM PEAK - SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE - DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING PM VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRIBUTED @ INTERSECTION → #



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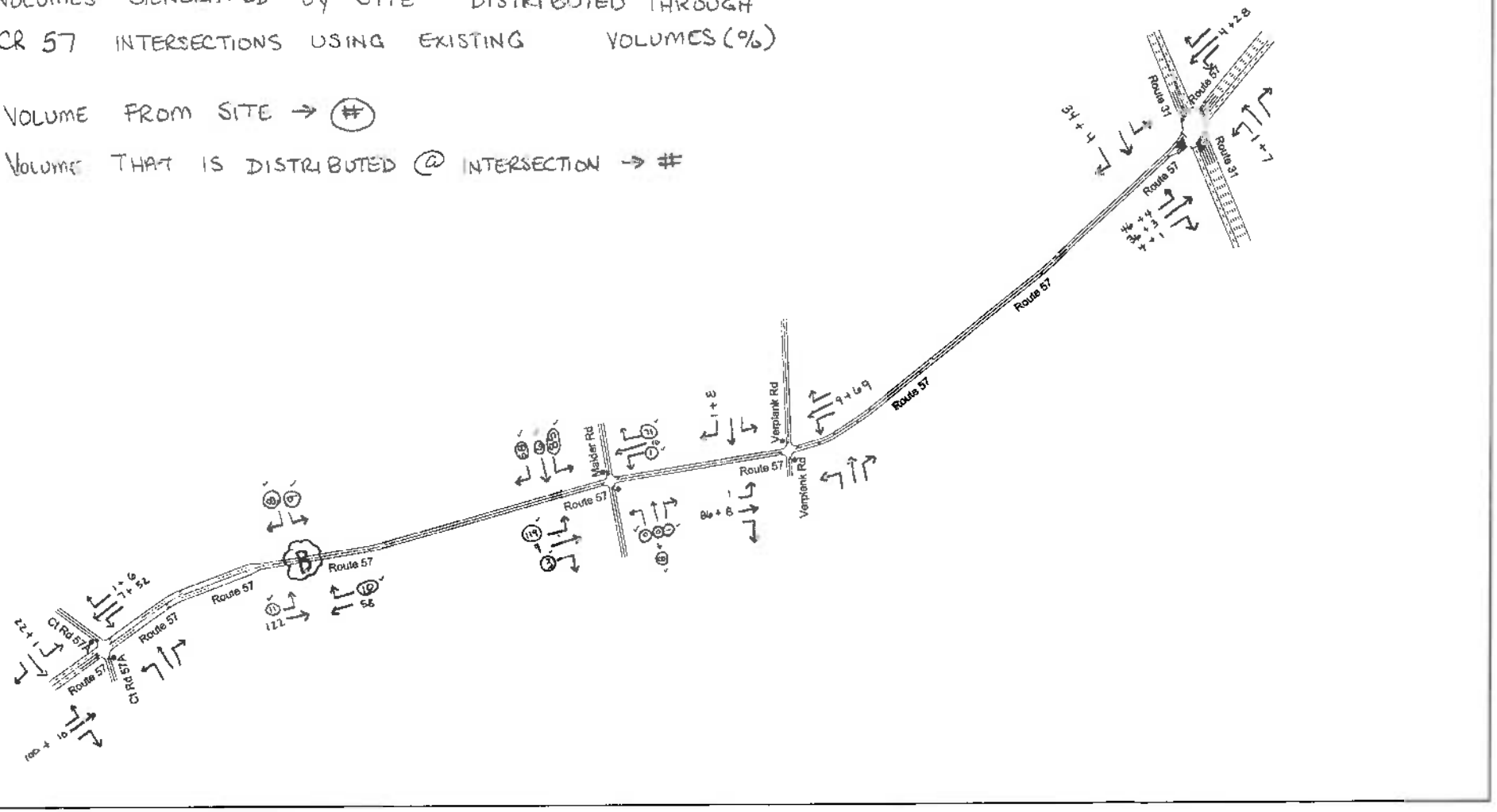
Alternative 2

PEAK - SITE GENERATED TRAFFIC

VOLUMES GENERATED BY SITE - DISTRIBUTED THROUGH CR 57 INTERSECTIONS USING EXISTING VOLUMES (%)

VOLUME FROM SITE → (#)

VOLUME THAT IS DISTRIBUTED @ INTERSECTION → #



Synchro Printouts

Existing

(2010)