



Complete Streets Policy

February 11th, 2015

Prepared by:
Teska Associates, Inc.



Table of Contents

PART I: Introduction	Page 1
PART II: Complete Streets Policy	Page 3
PART III: Downtown	Page 7
PART IV: Meadow Lane	Page 13

Appendix

- A. *'Complete Streets' improvements (handout)*
- B. *Meadow Lane segments and suggested improvement projects*
- C. *Details for the traffic calming measures*
- D. *Bicycle and pedestrian projects from Plainfield's Transportation Plan*

Part I: Introduction

What is a Complete Streets Policy?

“Complete Streets policies formalize a community’s intent to plan, design, operate and maintain streets so that they are safe for all users of all ages and abilities. Policies direct decision-makers to consistently fund, plan, design and construct community streets to accommodate all anticipated users, including pedestrians, bicyclists, public transit users, motorists and freight vehicles.”

- Smart Growth America and the National Complete Streets Coalition

The 2013 Transportation Plan for the Village recommended adoption of a Complete Streets Policy for the Village of Plainfield. The Village already incorporates many elements of Complete Streets such as pedestrian and bicycle improvements and traffic calming. The downtown streetscape along Lockport Street and portions of Van Dyke Road are two specific examples where the Village has implemented Complete Streets concepts. Our streets, particularly the major arterial routes through the community, are the Village’s front door. These corridors connect the community, and link us to the greater region. They are valuable resources that, if properly designed, can accommodate a variety of users while creating a unique and positive image in the minds of residents and visitors.

Currently, 650 governments in the United States have adopted Complete Streets policies, 80 in 2013 alone. Within the region communities like Tinley Park, Lemont, Hoffman Estates, Blue Island and Oak Park all have policies in place.

To develop Plainfield’s Complete Streets Policy, a three phase process including research, draft policy development, and case studies were conducted. The entire process was informed by community involvement and staff input. The research phase including examination of model complete streets policies from other similar communities and review of the Village’s Transportation Plan. Based on this research, a draft Complete Streets Policy was developed. To apply that policy to specific locations, two case studies were developed: one focused on downtown and the other examined Meadow Lane. While the Village has executed significant improvements in the downtown area to enhance pedestrian safety, a number of additional enhancements are recommended. Along Meadow Lane, a number of traffic calming options were defined to reduce vehicle speeding and enhance pedestrian safety.



COMPLETE STREETS PLANNING PROCESS:



Residents, elected officials and staff were engaged throughout the planning process of developing the Complete Streets Plan. During the research stage, residents were asked for ideas to make streets in Plainfield safer for all modes of transportation at a Cruise Night event in downtown Plainfield. Over the course of the planning process, the consultant met multiple times with the Village's Traffic Committee to review initial ideas, discuss alternatives, and develop specific strategies to address resident's concerns. These ideas were also converted into a community survey to allow residents to help prioritize the suggested improvements (see Meadow Lane discussion on page 10). This inclusive process of public involvement helped build consensus for the implementation of traffic calming measures along Meadow Lane and in the Downtown area.



COMMUNITY MEETING



CRUISE NIGHT

Part II: Complete Streets Policy

Intent of the Complete Streets Policy

The Village of Plainfield is committed to improving all forms of transportation to reduce local traffic congestion on roads and improve access within the community. One of the goals of the Village's Transportation Plan is to develop a safe pedestrian and bicycle network to increase bicycle trips, improve walkability, and meet the transportation and recreational needs of the community. This Complete Streets Policy aims at achieving this goal by ensuring a well-connected, safe and accessible transportation network where all the users of the roadway will have the option of choosing their mode of transportation irrespective of their age or physical ability. This policy aims at improving:

- Access to jobs, dining, shopping and entertainment especially in the downtown area
- Access to schools, community facilities like parks, recreation centers and even neighborhood commercial areas, and
- Access to recreation via multi-use paths and regional trails.

The plan varies from many similar Complete Streets Policies in two key areas:

1. **Transit** - The focus on access to transit is minimized in this policy given the limited amount of public transit currently available and anticipated in the foreseeable future in Plainfield. While the Village does have Pace service via I-55 to downtown, the Village currently does not have any other bus or rail service. Current and anticipated residential densities are generally considered too low to support additional fixed-route transit service. While a new commuter rail line was proposed along the EJ&E line which runs through Plainfield, a lack of funding has put that concept on indefinite hold. If additional transit service is implemented in the future, this Complete Streets policy should be reviewed and updated to better accommodate access to transit.
2. **On-Street bike lanes** – Many Complete Streets plans focus heavily on retrofitting a community with on-street bike lanes. However, Plainfield has long planned and implemented a system of separate multi-use paths throughout the Village. As such, the need for dedicated bike lanes or shared lanes is greatly diminished. While Van Dyke Road currently has a segment between 135th Street and Route 126 with bike lanes, that segment now also has a separate multi-use path which has become the preferred approach within the Village.

Despite the lack of dedicated on-street bike lanes, it is still anticipated that many sport bikers and commuters will choose to ride on-street. These more experienced bikers often prefer to ride on the street and are comfortable co-existing with vehicular traffic provided the roadway is wide enough to accommodate both cars and bikes. Sports bikers are typically traveling longer distances, and prefer to not have to navigate

narrower bike paths which may have slower riders blocking their route. This shared roadway arrangement works particularly well when a wide paved shoulder (4' to 8') is present on roadways without curbs and on curbed roadways when storm drains have grate bars that run perpendicular to the roadway (see page 22 of the Transportation Plan for specific grate recommendations).



Core Commitments of Complete Streets

Provision of facilities for pedestrians, bicyclists and transit users has traditionally been a low priority in roadway design. Roadways have traditionally been designed to accommodate automobiles, emergency vehicles and sometimes trucks. In order to give residents and visitors the option to use alternate modes of transportation to get from one location to another, a safe and well-connected network is essential. This includes features like bike racks to encourage people to ride their bikes, bus shelters for transit users, and sidewalks that are accessible to people of all physical abilities. Such an integrated network encourages healthy and active travel which in turn reduces congestion on roadways and improves the quality of life while enhancing a sense of community.



Benefits of Complete Streets

Complete Streets satisfy the triple bottom line or the three pillars of sustainability: equity, environment and economy. By providing access for people of all ages and walks of life, it makes transportation equitable. By making roadways accessible to all, users will be inclined to use non-auto modes of transportation, especially for shorter trips. In using modes like walking or biking instead of driving, vehicle use decreases, in turn reducing the consumption of fossil fuels, wear on roads and reduces the negative impact on the air quality of the environment. It also encourages a more active lifestyle, improving the health of users. Increased levels of safety decreases pedestrian, vehicular and bicycle collisions. The improved amenities along the roadways make the community more attractive and have the potential of positively impacting property values in the area.



Definition of a Complete Street in the Village of Plainfield

A roadway in the Village of Plainfield shall be complete if it can safely and conveniently accommodate all users of the roadway—including pedestrians, bicyclists, automobile users and where appropriate freight vehicle drivers and public transit users, regardless of their age or physical ability to travel upon, across, or alongside it by their chosen mode of transportation.

A COMPLETE STREET IN PLAINFIELD, IL





Application and Implementation

- ✓ In order to make roadways safer and more convenient for users, the following transportation projects should be viewed as opportunities to achieve complete streets:
 - 1. *New construction*
 - 2. *Reconstruction- bridges and other highway structures*
 - 3. *Resurfacing and grading*
 - 4. *All infrastructure projects within the road right-of-way, including re-striping projects*
 - 5. *Privately built roads intended for public use*
 - 6. *Traffic signal installation/modernization*
- ✓ In order to ensure that this policy is implemented, all projects shall be reviewed by the Planning and Engineering Departments to ensure that the project adequately addresses the Complete Streets Policy. In addition, workshops and other training opportunities should be offered to Village staff, community leaders and the general public to help everyone understand the importance of the Complete Streets vision. The Matrix of Complete Streets Improvements in Appendix A can be used for this purpose.
- ✓ For all projects within the Village of Plainfield, the following process should be followed to advance the goals of the Complete Streets Policy:
 - 1. **Local projects**- The Traffic Committee shall review all projects to ensure the incorporation of complete street elements.
 - 2. **New developments**- All subdivision plats and planned developments to be reviewed by the Plan Commission should also be reviewed by the Traffic Committee to evaluate their incorporation of complete street elements and consistency with the policy.
- ✓ As roads in Plainfield are governed by different jurisdictions, coordination with other agencies like the Illinois Department of Transportation (IDOT), Will County and Kendall County Highway Departments, and affected townships will be needed to ensure incorporation of complete street elements in roadway projects within Village boundaries.
- ✓ Recognizing that all streets are different and that the needs of various users will need to be balanced in a flexible manner, some exceptions will be allowed as described below:
 - 1. *Accommodation of complete streets is not necessary on roadways where specific users are prohibited by law, such as interstate highways.*
 - 2. *Accommodation of complete streets is not necessary when the cost is excessively disproportionate to the need or probable use.*
 - 3. *Transit facilities like bus shelters are not necessary where there is no existing or planned transit service.*

The Traffic Committee shall grant exemptions for Village projects; while for private projects, the owner shall document the exception and seek approval from the Village Board.



Design criteria and standards

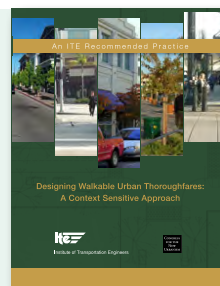
The Village shall follow the design guidelines outlined in:

- American Association of State Highway and Transportation Officials (AASHTO)
 - ▶ Guide for the Planning, Design and Operation of Pedestrian Facilities
 - ▶ Guide for the Development of Bicycle Facilities
- The Federal Highway Administration (FHWA) Manual of Uniform Traffic Control Devices (MUTCD)
- The Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- Village of Plainfield Transportation Plan (2013) and Comprehensive Plan (2013)
- Any 'stop sign' installation should be as per the Village of Plainfield's 'Traffic Control Sign Policy'
- New residential subdivision streets shall promote walkability and interconnection for enhanced public safety, including short blocks and interconnections between subdivisions. The use of cul-de-sacs should be minimized.
- Context sensitive solutions approach as outlined by the FHWA and other sources noted at the Institute of Transportation Engineer's website - <http://www.ite.org/css/>



"Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist."

-- Federal Highway Administration (FHWA)



Performance standards

Success of this policy can be evaluated by using the following performance measures-

- ✓ Eliminate gaps in the pedestrian and shared-use path network, as well as improve intersections as per the list below (Please refer to the 'Plainfield Transportation Plan 2013' for the detailed list of individual projects). The Village is committed in making every effort to complete the noted improvements contingent on the availability of financial resources to complete each project.
 1. **Complete all the 28 'High Priority Bicycle and Pedestrian Projects' (by the year 2019, or as budget allows)**
 2. **Complete all the 11 'Moderate Priority Bicycle and Pedestrian Projects' (by the year 2024, or as budget allows)**
 3. **Complete all the 9 'Long-term Bicycle and Pedestrian Projects' (by the year 2045, or as budget allows)**
- ✓ Total miles of streets that safely accommodate all roadway users compared to the total miles of streets in Plainfield.
- ✓ An annual report should be posted on-line for each of the above measures and presented to the Village Board.

Part III: Downtown

Purpose of selecting this area

The Downtown area was included to identify specific improvements to enhance access and increase safety for pedestrians and bicyclists. In many ways, the downtown is the center of community life, offering opportunities for shopping and dining, the library, Village Hall, both public and private recreational programs, the Plainfield Township Community Center, parks, and many community events. In resident surveys conducted during development of the Village's Transportation Plan, many residents requested enhanced bike and pedestrian access to downtown Plainfield.

Existing Conditions

Streetscape improvements installed by the Village along Lockport Street have already implemented many Complete Streets techniques including raised intersections, curb extensions, crosswalks, and bike parking. In addition, the short walkable blocks and grid street system are pedestrian friendly.

However, challenges exist, particularly on the edges of downtown. The Village recently completed a separate bike/pedestrian bridge over the DuPage River along Lockport Street which significantly enhanced pedestrian safety. The Park District, along with the Village and the Riverfront Foundation are also working cooperatively on the DuPage River Trail which will greatly enhance non-motorized access to downtown Plainfield. The other major challenge from a Complete Streets perspective is Division Street/Route 59. With an average daily traffic count of 33,000 vehicles, this roadway is a major barrier to pedestrians.

The consulting team conducted a walking tour of the downtown and identified a number of areas for future improvement that are needed to build on past improvements and make downtown Plainfield a safe and friendly environment for everyone.

Public engagement



Public outreach for the Downtown area study included an information desk at a Cruise Night event in downtown Plainfield on June 24, 2014. Improvements suggested by residents, along with additional recommendations recommended by Teska Associates, Inc. are shown on the map on the following page.



Downtown Plainfield Complete Streets Project | Village of Plainfield
 Prepared by Teska Associates, Inc. (August 18th, 2014)

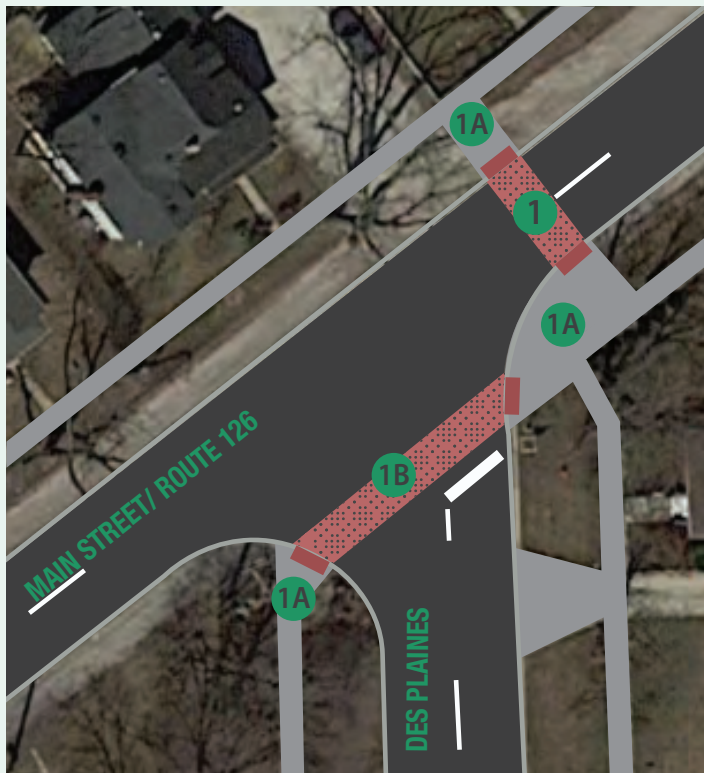


EXHIBIT 1: SUGGESTED IMPROVEMENTS

Recommended Improvement Projects

Based on the feedback received through the public engagement process, and recommendations from the consultant team and Village staff, the following projects were selected for the specific locations noted below:

- 1 Pedestrian crosswalk along with active warning crossings in accordance with MUTCD¹ at Main Street (Route 126) and Des Plaines Street.



- 1A Sidewalk expansion
- 1B Crosswalk enhancement

ILLUSTRATED EXAMPLE OF SHOWING THE PROPOSED CROSSWALK, ENHANCEMENTS AND SIDEWALK EXPANSIONS.



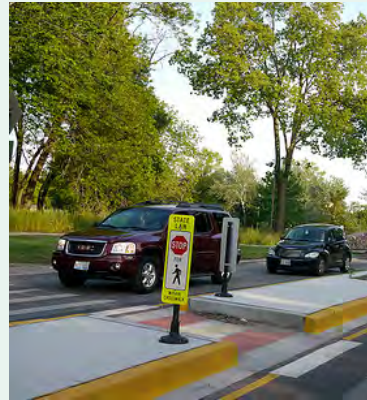
EXAMPLE OF A SMALL MEDIAN AND WARNING INDICATORS THAT COULD BE USED ALONG MAIN STREET TO ENHANCE PEDESTRIAN SAFETY.

1 Manual on Uniform Traffic Control Devices (MUTCD)

2 Curbed island for pedestrians at Main Street and Route 59.



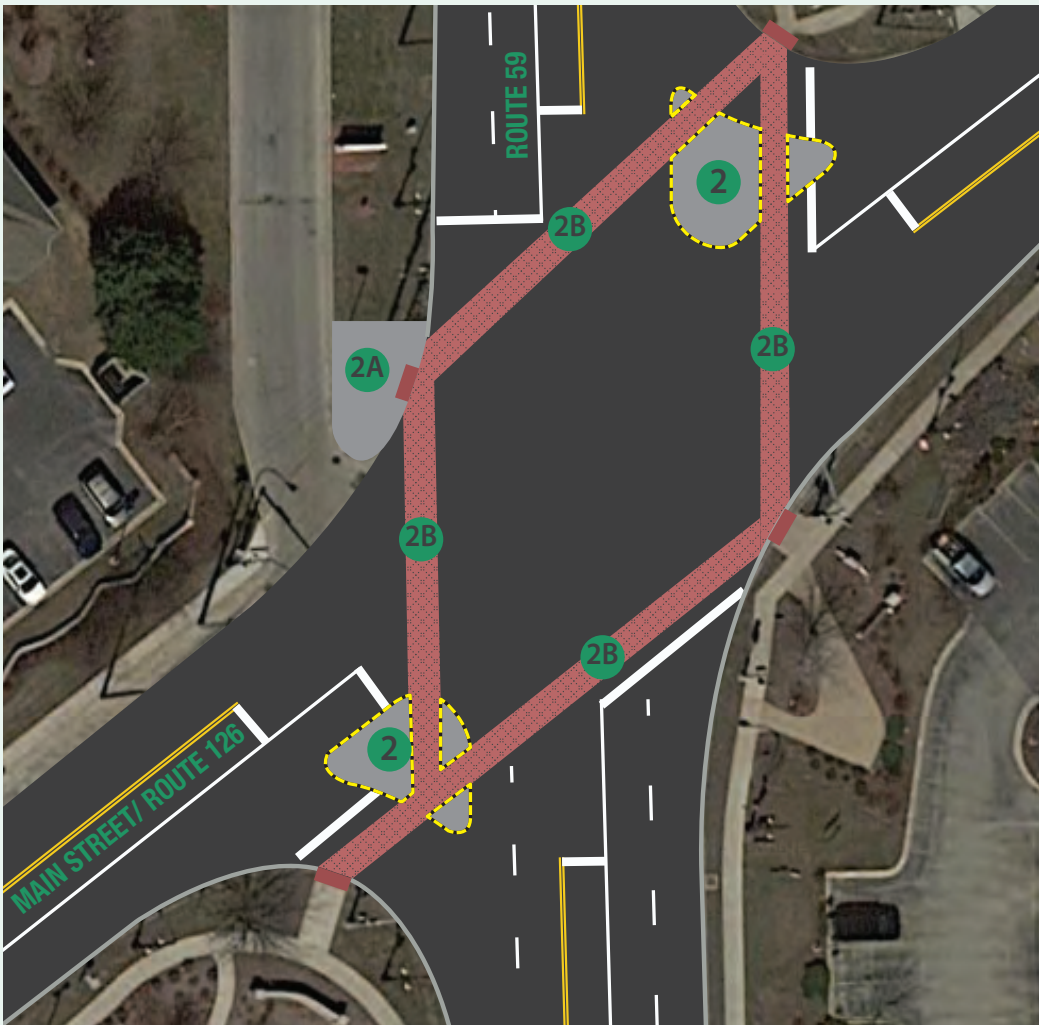
**EXISTING CORNER OF ROUTE 59 AND MAIN STREET/
ROUTE 126**



**EXAMPLE OF A RAISED
CONCRETE MEDIAN**

2A Sidewalk expansion

2B Crosswalk enhancement



**ILLUSTRATED EXAMPLE OF THE INTERSECTION WITH PEDESTRIAN MEDIAN REFUGE ISLANDS
TO ENHANCE PEDESTRIAN SAFETY.**

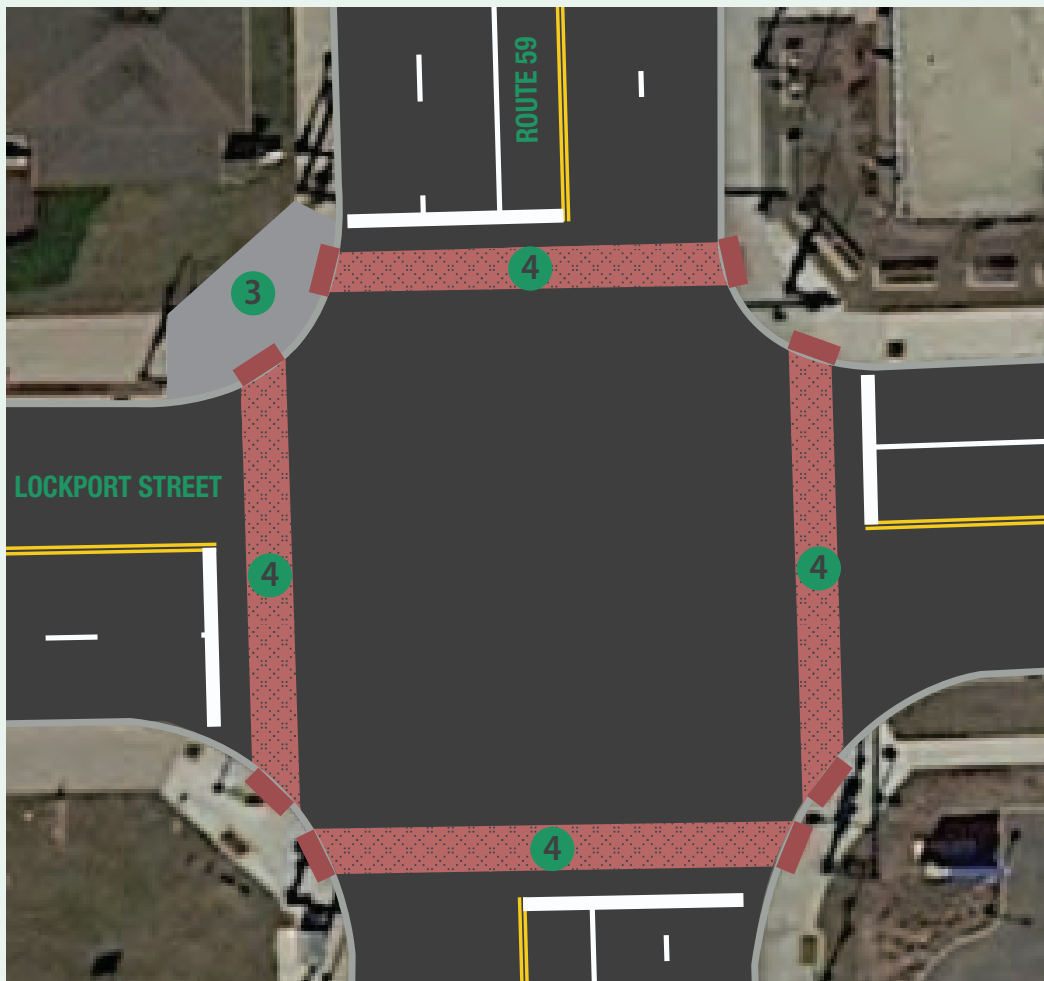


EXISTING NARROW
SIDEWALK AT THE
NORTHWEST CORNER
OF ROUTE 59 AND
LOCKPORT STREET



EXAMPLE OF CROSSWALK
ENHANCEMENT

- 3 Sidewalk expansion at Lockport Street and Route 59 (northwest corner).
- 4 Crosswalk enhancement using a change in paving material at Lockport Street and Route 59.



ILLUSTRATED EXAMPLE OF THE INTERSECTION SHOWING CROSSWALK ENHANCEMENT AND EXPANSION OF SIDEWALK ON THE NORTHWEST CORNER OF THE INTERSECTION.

5 New bike rack locations at the five locations noted on Exhibit 1.



EXISTING BIKE RACKS TO BE REPLICATED

6 Provide pedestrian flags (see photo below) at major downtown intersections with Route 59 to enhance pedestrian visibility and safety. Use of the flags is voluntary. Pedestrians may grab a flag from a holder on one side of the street and deposit in a similar holder when they complete the crossing.



EXAMPLE OF FLAGS USED AT A PEDESTRIAN CROSSING

Implementation

Many of the recommended improvements are within State of Illinois controlled roadways (Route 50 and Route 126) and will require coordination with IDOT. Village staff should meet with IDOT to discuss recommended enhancements in early 2015. Scheduling of specific improvements will be dependent on budgets and funding availability. Suggested bike racks are a relatively low cost item that can be accomplished by the Village. It is recommended that Village staff discuss proposed bike rack locations with adjacent businesses in early 2015. If proposed locations are desired, the Village should install noted bike racks (with a similar style to existing bike racks) by 2016.

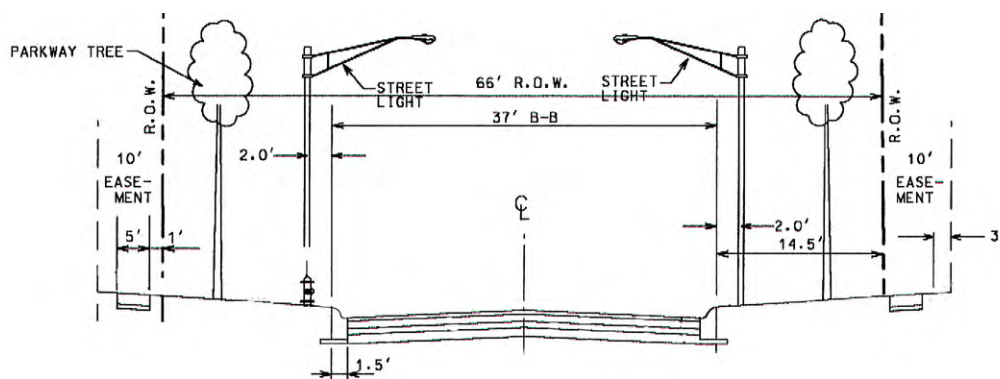
Part IV: Meadow Lane

Purpose of selecting this area

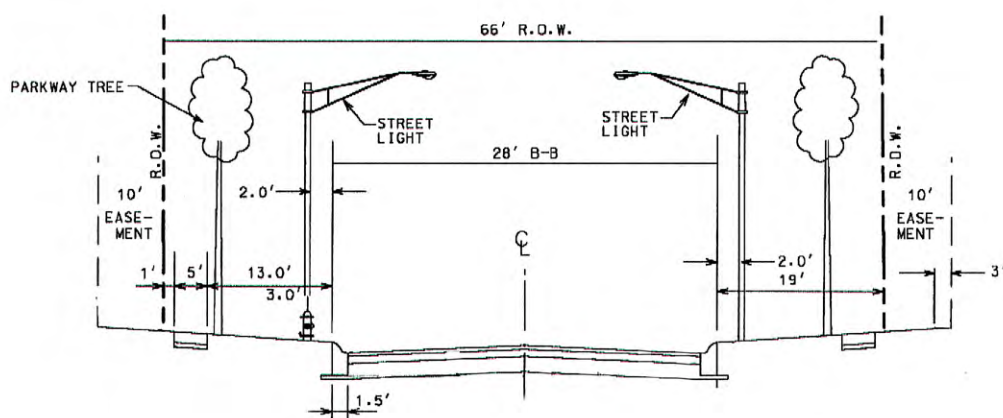
This roadway from 127th Street to Indian Boundary Road was included to identify measures to increase pedestrian and bicyclist safety, and reduce vehicle speeding. Meadow Lane is an important minor collector roadway in the Village's transportation network. It links numerous residential neighborhoods to the surrounding arterial street grid. The roadway extends approximately 3 ½ miles through the Tuttle Estates, Walkers Grove, Prairie Knoll, Dayfield, Walkers Grove, and Whispering Creek.

Existing Conditions

Although Meadow Lane is considered a minor collector road, it also serves as a local street providing direct access to homes along the roadways entire route. The roadway is wide, with approximately 37' of pavement for most of its length. This width is designed to accommodate two-way travel while allowing for parking on both sides of the street.



TYPICAL SECTION OF MEADOW LANE SHOWING ITS ROADWAY WIDTH OF 37'



TYPICAL SECTION OF A RESIDENTIAL STREET SHOWING A ROADWAY WIDTH OF 28'

However, very few cars are typically parked on-street, which along with the fact that the roadway is relatively straight – contributes to drivers speeding along Meadow Lane and is a major concern in the neighborhoods it runs through.

Public engagement

Public outreach for the Meadow Lane study included:



Information booth at a Cruise Night event in Plainfield

At the June 24th 2014 Cruise Night, an information booth was set up and residents were asked about ideas to make streets in Plainfield safer for all modes of transportation. Comments focused on enhancing bike and pedestrian access to downtown Plainfield, traffic calming within neighborhoods (particularly along Meadow Lane), and improving connections between the east and west sides of Route 59 in the downtown area.



RESIDENTS WERE INVITED TO DISCUSS COMPLETE STREETS CONCEPTS AT CRUISE NIGHT



A community meeting

A community meeting was held on July 8th, 2014 to discuss issues along Meadow Lane that are primarily related to pedestrian safety and concerns regarding speeding through the neighborhoods along this collector street. This meeting was well attended and provided general feedback and some consensus on preferred traffic calming measures. Homeowners associations along Meadow Lane, including Tuttle Estates, Walkers Grove, Prairie Knoll, Dayfield and Liberty Grove received specific invitations, as did residents along Meadow Lane within the Whispering Creek subdivision south of Route 126. The image below summarizes the voting exercise where meeting participants were asked to



PICTURE OF THE VOTING BOARD FOR IMPROVEMENTS ALONG MEADOW LANE

vote on preferred traffic calming techniques along Meadow Lane. Traffic circles and chicanes were the clear favorites, with some interest in curb extensions. Input from the meeting was taken back to the Traffic Committee, who, along with the consultant team, developed a proposed strategy to address neighborhood concerns. These ideas were then converted into an online community survey (summary included below) that allowed residents to prioritize suggested improvements.



An online survey

Online survey- The on-line survey included traffic calming measures that were listed individually for four segments of Meadow Lane and the respondents were requested to prioritize them. Figures showing these segments and location of the improvements are included in Appendix A. The survey had 321 responses that included over 250 comments on traffic calming measures along Meadow Lane. The projects that were rated with the highest priority for each of the segments included:

- *Traffic circle at Pastoral Drive*
- *Lane striping between Marigold Road and Trillium Lane*
- *Traffic circle at Independence Drive*
- *Curb extension at Sandbank Drive*

The Village also put out an informal survey asking for residents' ideas on ways to improve safety for all modes of transportation throughout the community, including vehicles, pedestrians, and bicyclists. Many comments reflected concepts previously outlined in the Village's Transportation Plan, including:

- *Completion of gaps in the existing bike path system,*
- *Adding sidewalks along Route 59, including a focus on crossings at major intersections (135th and 127th to the north and Lockport Street in downtown), and*
- *An improved pedestrian connection along Route 126 between Meadow Lane and downtown (a sidewalk link was recently completed between downtown and Wallin Drive).*

Recommended Improvement Projects

As a result of all the feedback received through the public engagement process, and recommendations from the consultant team and Village staff, a series of traffic calming measures were identified along Meadow Lane. These measures included traffic circles, chicanes, lane stripping, and curb extensions. The Village's Traffic committee identified specific locations where each technique may be appropriate. These locations are identified on the maps in Appendix B.

To evaluate the effectiveness and practicality of potential solutions, it was agreed that installation of temporary traffic calming measures would be appropriate to allow for testing and evaluation of their effectiveness in reducing speeding and in their acceptance by residents. The following projects were recommended for initial evaluation:

1 A traffic circle at Pastoral Drive in Tuttle Estates



EXAMPLE OF A TRAFFIC CIRCLE

2 Lane stripping between Marigold Road and Trillium Lane in Prairie Knoll



EXAMPLE OF LANE STRIPING

3 Chicanes between Freedom Way and Liberty Grove Boulevard in Liberty Grove



EXAMPLE OF A CHICANE

4 Curb extensions at Sandbank in Whispering Creek



EXAMPLE OF A CURB EXTENSION

Typical details for the improvements listed above are included in Appendix C.

Implementation

In order to test the effectiveness of the traffic calming measures selected above, temporary installations will be constructed during spring 2015. Given budgetary and staffing capabilities, not all potential traffic calming measures identified above will be tested at the same time. Staff will seek Village Board approval regarding the timing and order of traffic calming measures to be tested. They will be evaluated by fall 2015 and based on their effectiveness, permanent improvements will be recommended to the Village Board for possible installation starting in 2016. To insure good communications and an effective test, the following evaluation methodology is recommended.

1. *Select traffic calming measures from the preceding list for initial installation (Village staff and Village Board)*
2. *Evaluate existing conditions (traffic volumes, speed, etc.)*
3. *Notify Homeowners Associations and residents along Meadow Lane of planned traffic calming test and seek their assistance in evaluation*
4. *Install temporary traffic calming measures*
5. *Monitor performance of traffic calming measures, including direct data collection (speed monitoring, traffic counts) and survey/discussions with residents*
6. *Repeat steps 3 to 6 for additional traffic calming measures, potentially in fall of 2015*
7. *Meet with residents to discuss findings and identify priorities for permanent installation*
8. *Incorporate budget for permanent traffic calming measures into capital improvement plan*
9. *Install permanent traffic calming measures*



TEMPORARY TRAFFIC CIRCLE



TEMPORARY CHICANE



TEMPORARY CURB EXTENSION

APPENDIX

- A. *'Complete Streets' improvements (handout)*_____A1
- B. *Meadow Lane segments and suggested improvement projects*_____A3
- C. *Details for the traffic calming measures*_____A7
- D. *Bicycle and pedestrian projects from Plainfield's Transportation Plan*_____A11



Improvement possibilities for Meadow Lane

Matrix of Improvements to promote Complete Streets

TYPES OF IMPROVEMENTS			IMPACTS					COSTS		
	Reduces vehicle travel speed	Reduces vehicle traffic volumes	Reduces cut-through vehicle traffic	Improves bicyclist navigation	Increases bicyclist visibility	Increases pedestrian visibility	Increases motorist yield behavior	Increases separation between motorist and pedestrian	Increases separation between motorist and bicyclist	
PEDESTRIAN	1. Curb Extension	★	☆	☆	☆	★	★	★	☆	\$13,000 each
	2. Mid-block crosswalks (uncontrolled)	★	☆	☆	☆	★	★	★	☆	\$13,500 each
	3. In-street “Stop for Peds” signs	★	☆	☆	☆	★	★	★	☆	\$300 each
	4. Median refuge islands	★	☆	★	☆	★	★	★	★	\$13,500 each
	5. Raised crosswalks or intersections	★	★	★	☆	★	★	★	★	\$2,500 each
	6. Rectangular rapid flash beacons	★	☆	☆	☆	★	★	★	★	\$22,000 each
	7. Pedestrian hybrid beacons	☆	☆	☆	★	★	★	★	★	\$57,000 each
	8. Pedestrian countdown signals	☆	☆	☆	☆	☆	★	★	☆	\$1,500 each
BICYCLE	1. Marked shared lanes	★	☆	☆	★	★	☆	★	☆	\$180 per sharrow
	2. Shared-use paths	★	☆	☆	★	★	★	★	★	\$485,000/mile
	3. Buffered bike lanes	★	☆	☆	★	★	★	★	★	\$8/linear foot
	4. Protected bike lanes	★	☆	☆	★	★	★	★	★	\$8/linear foot + \$700/bollard
	5. Colored bike lanes	★	☆	☆	★	★	☆	★	★	
	6. Intersection crossing markings	☆	☆	☆	★	★	☆	★	☆	\$1,500/four way intersection
	7. Bike waiting boxes painted on the lane	★	☆	☆	★	★	★	★	★	\$1,000 per box
TRAFFIC CALMING	1. Speed tables/humps	★	★	★	☆	☆	☆	★	☆	\$50,000 each; \$2,500/speed hump
	2. Chicanes	★	★	★	☆	☆	☆	★	☆	\$10,000 each
	3. Pavement treatment	★	☆	★	☆	☆	★	★	☆	\$8,000 each
	4. Traffic calming circles	★	★	★	☆	☆	★	★	☆	\$85,000 each
	5. Road diets	★	★	★	★	★	★	★	★	\$3/linear foot
	6. Reducing lane widths by restriping	★	★	★	☆	★	★	☆	☆	\$3/linear foot
	7. Signage	★	☆	☆	★	★	★	★	☆	\$300 each
	8. Lane dividers	★	☆	☆	★	★	★	☆	☆	\$100/divider

Note- Above are average costs based on 'Costs for Pedestrian and Bicyclist Infrastructure Improvements' prepared by the UNC Highway Safety Research Center in 2013

Prepared by Teska Associates, Inc., June 2014

- ★ - Indicates that the improvement has an impact
- ☆ - Indicates that the improvement does not have an impact



Traffic calming island

Reduces vehicle travel speed, volumes and cut-through traffic, increases pedestrian and bicyclist visibility, and increases motorist yield behavior.



Curb Extension

Reduces vehicle travel speed, increases pedestrian visibility, decreases pedestrian crosswalk distance, increases motorist yield behavior, and increases separation between motorist and bicyclist.



Chicanes

Reduces vehicle travel speed, volumes and cut-through traffic, and increases motorist yield behavior.



Median refuge islands

Reduces vehicle travel speed and cut-through traffic, improves pedestrian visibility and navigation, and provides a safe passage for pedestrians.



Raised crosswalk

Reduces vehicle travel speed, volumes and cut-through traffic, improves pedestrian and bicyclist visibility and navigation, increases motorist yield behavior, and provides a safe passage for pedestrians.



Shared lanes (sharrow markings)

Reduces vehicle travel speed, improves bicyclist navigation and visibility, increases motorist yield behavior, and increases separation between motorist and bicyclist.



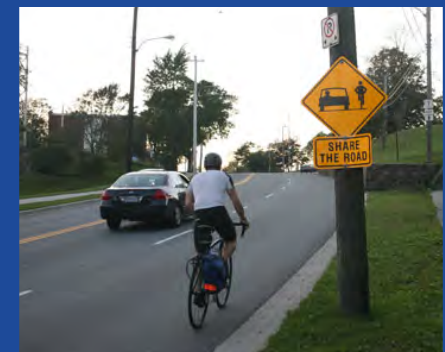
Pedestrian crosswalk

Improves pedestrian visibility and navigation, and provides a safe passage for pedestrians.



Lane striping to reduce lane width

Reduces vehicle travel speed, volumes and cut-through traffic, increases bicyclist visibility, and increases motorist yield behavior.



Signage

Reduces vehicle travel speed, improves bicyclist navigation and visibility, increases pedestrian visibility, and increases motorist yield behavior.

Appendix B: Meadow Lane segments and suggested improvement projects

Segment 1

1. Traffic Circle at Pastoral Drive
2. Traffic Circle at Sunderlin Road
3. Chicanes at Trelliage Avenue



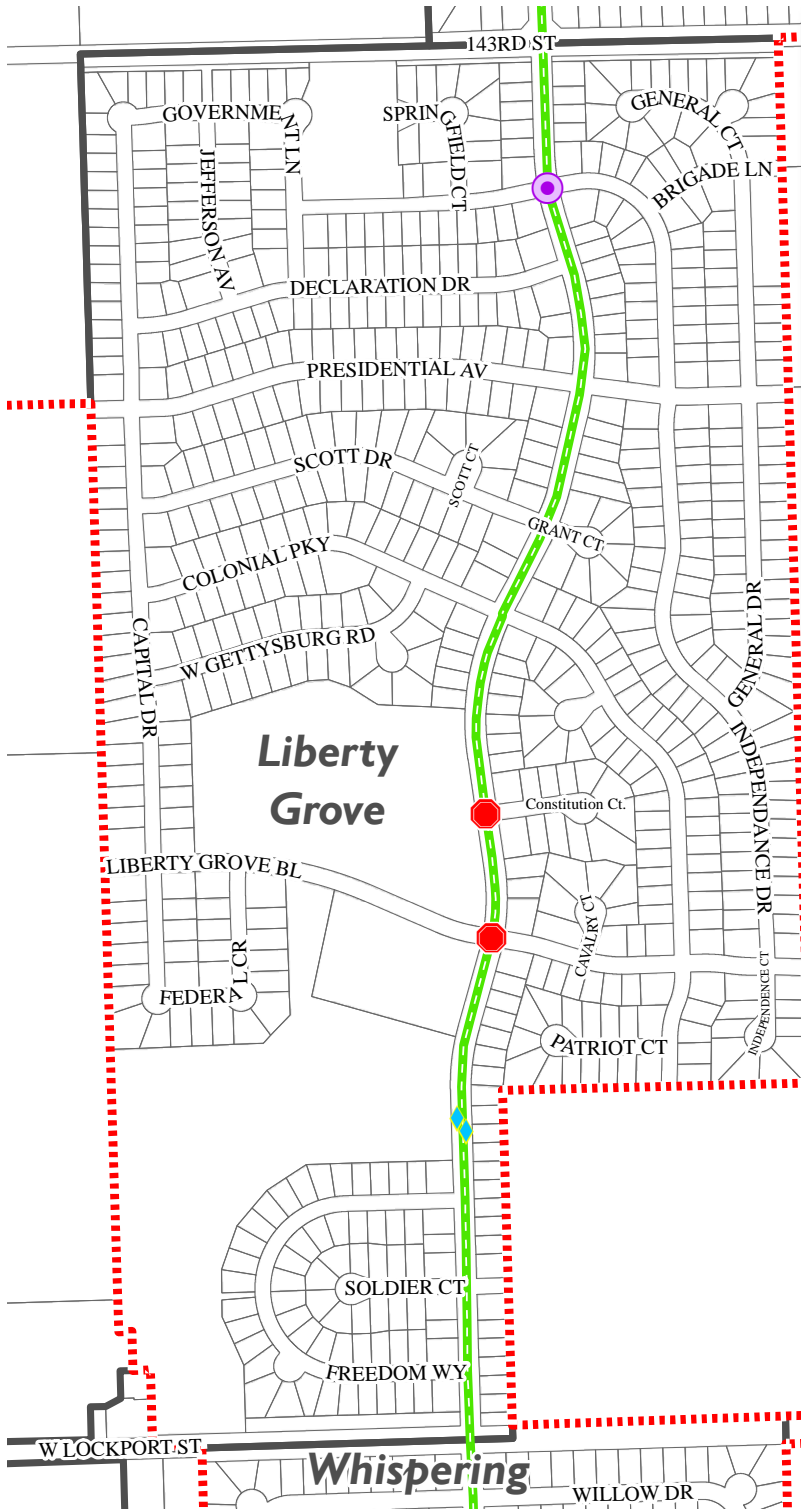
Segment 2

1. Lane Striping between Marigold Road and Trillium Lane
2. 2 Traffic Circle at Madison Street
3. 3 Traffic Circle at Thornberry Drive (north)



Segment 3

1. Traffic Circle at Independence Drive
2. Chicanes between Liberty Grove Blvd and Freedom Way



Village of Plainfield, Illinois Meadow Lane



Meadow Lane Map
GIS Department
September 11th, 2014

Legend

- 4 - Way Stop
- ◆ Chicane
- Curb Extension
- Traffic Circle
- Lane Striping
- Indian Boundary Line
- Meadow Lane
- Railroad
- Parcels
- Subdivisions
- Village Boundary
- Parks

0 500 1,000 2,000 Feet

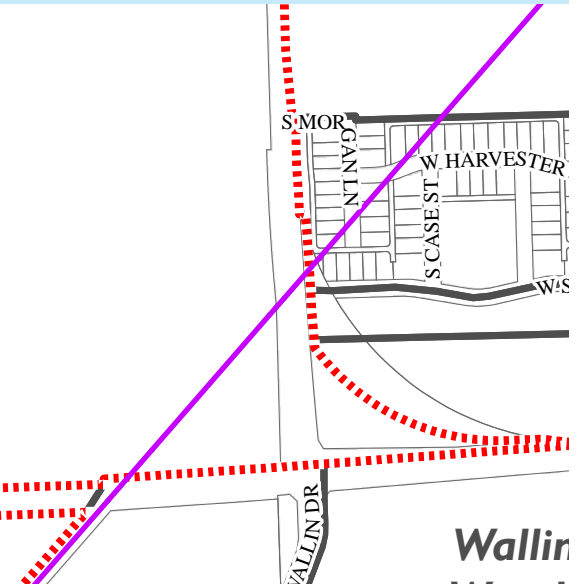
Note: Existing 4-way stop at Meadows Lane & Sandbank Drive will remain and be used in conjunction with curb extensions.



Example of a Chicane



Example of a Traffic Circle



Segment 4

1. Curb Extension at Sandbank Drive
2. Chicanes between Sandbank Drive and Sunshine Court

Village of Plainfield, Illinois Meadow Lane



Meadow Lane Map
GIS Department
September 11th, 2014

Legend

- | | |
|------------------------|--------------------|
| ● 4 - Way Stop | — Meadow Lane |
| ◆ Chicane | — Railroad |
| ◻ Curb Extension | ◻ Parcels |
| ● Traffic Circle | ◻ Subdivisions |
| — Lane Striping | ◻ Village Boundary |
| — Indian Boundary Line | ■ Parks |

0 500 1,000 2,000 Feet

Note: Existing 4-way stop at Meadows Lane & Sandbank Drive will remain and be used in conjunction with curb extensions.



Example of a Chicane

Example of Curb Extensions



Appendix C: Details for the traffic calming measures



EXHIBIT C1: CURB EXTENSION CONCEPTUAL PLANTING PLAN

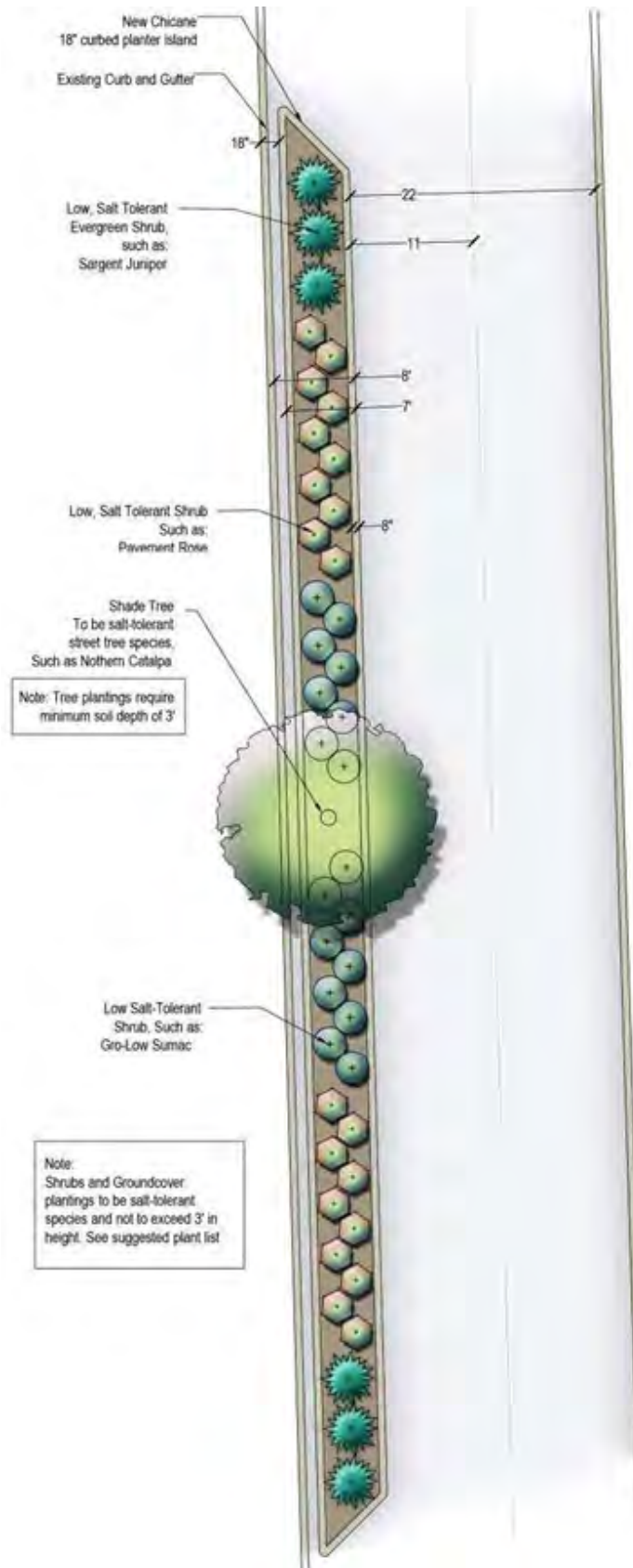


EXHIBIT C2: CONCEPTUAL CHICANE PLANTING PLAN IN LIBERTY GROVE



Roadwidth= 30'

Lane width = 11' with 8' chicane or 19' including 8' parking space

EXHIBIT C3: POTENTIAL MEADOW LANE CHICANE PLACEMENT BETWEEN SANDBANK DRIVE AND SUNSHINE CIRCLE IN WHISPERING CREEK

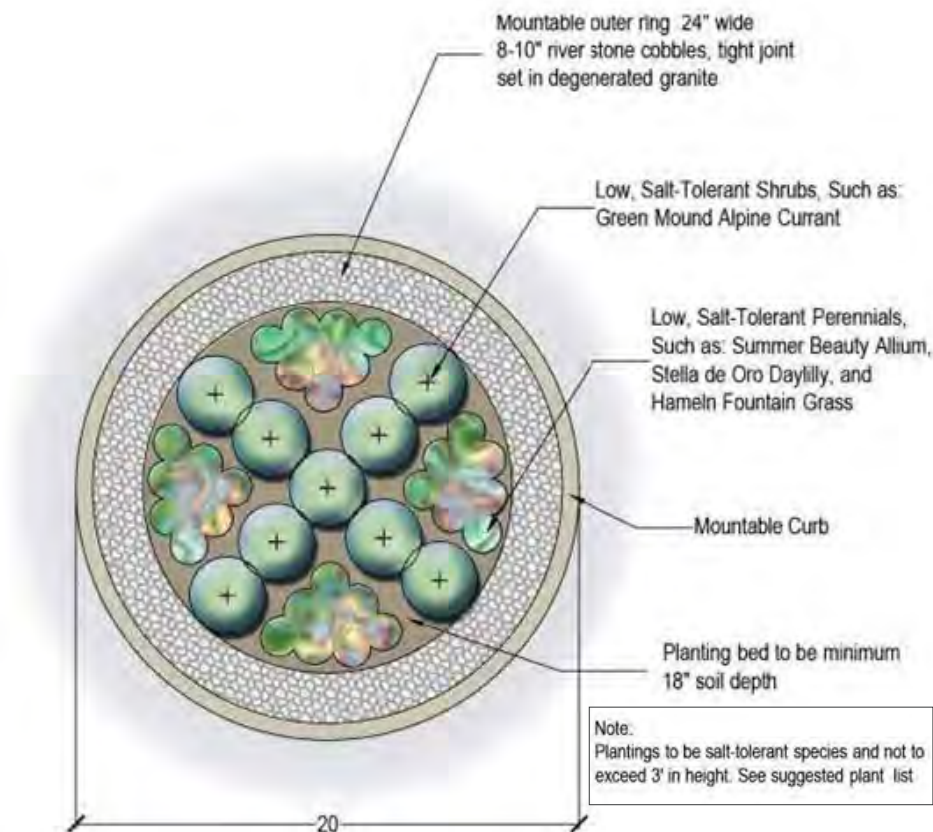


EXHIBIT C4: CONCEPTUAL PLANTING PLAN FOR A TRAFFIC CIRCLE

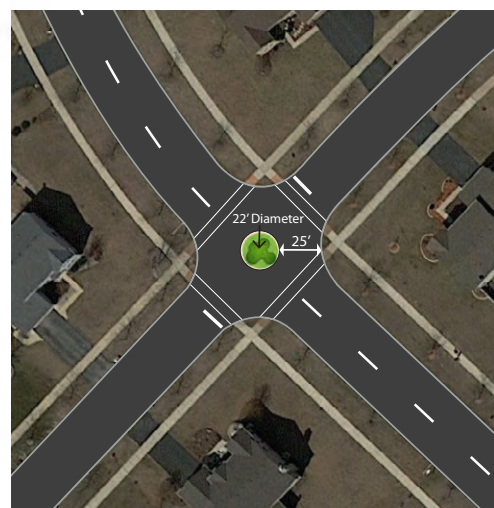


EXHIBIT C5: EXAMPLE OF A 22' DIAMETER TRAFFIC CIRCLE AT PASTORAL LANE AND MEADOW LANE

STREET TREES: Salt Tolerant species suitable for street parkway or raised median

- Acer miyabei 'Morton'/ State Street Miyabe Maple
- Catalpa speciosa/ Northern Catalpa
- Gleditsia triacanthos var. inermis 'Shademaster'/ Shademaster honeylocust
- Robina pseudoacacia 'Chicago Blues'/ Chicago Blues Black Locust
- Taxodium distichum/ Baldcypress
- Ulmus japonica x wilsoniana 'Morton'/ Accolade Elm

SHRUBS: Salt tolerant, maximum height of 3'

- Cotoneaster horizontalis hessei/ Rockspray Cotoneaster
- Rhus aromatica 'Gro-Low'/ Gro-low Fragrant Sumac
- Juniperus horizontalis 'Wiltonii'/ Creeping Juniper
- Juniperus chinensis var. sargentii/ Sargent Juniper

- Hypericum kalmianum / St. John's Wort
- Berberis thunbergii 'Atropurpurea Nana'/ Crimson Pygmy Barberry
- Rosa rugosa species/ Rugosa Rose varieties
- Ribes alpinum 'Green Mound'/ Green Mound Alpine Currant
- Rosa pavement 'Dwarf'/ Dwarf Pavement Rose

PERENNIALS: Salt tolerant, maximum height of 3'

- Perovskia atriplicifolia 'Little Spire'/ Russian Sage
- Echinacea purpurea/ Purple Coneflower
- Salvia species/ Meadow sage
- Hemerocallis species/ Daylily
- Sedum 'Autumn Joy'
- Allium 'Summer Beauty'
- Schizachyrium scoparium/ Little Bluestem
- Pennisetum alopecuroides 'Hameln'/ Hameln Fountain Grass

EXHIBIT C6: SUGGESTED PLANT LIST

Appendix D: Bicycle and pedestrian projects from Plainfield's Transportation Plan



Village of Plainfield Transportation Plan

HIGH PRIORITY BICYCLE AND PEDESTRIAN PROJECTS (0 TO 5 YRS)

TABLE 4.1

Project Number	Action	Purpose	Participants	Preliminary Estimate of Cost	Possible Funding Sources *	Corresponding Roadway Project Number
1	Construct shared use path on 248 th Street from 119 th Street to 127 th Street	Eliminate gaps	Plainfield	\$214,000	MFT, STP, TAP, CMAQ	
2	Construct shared use path on Van Dyke Road from 135 th Street to 119 th Street	Expand bicycle network	Plainfield	\$1,178,000	MFT, STP, TAP, CMAQ	
3	Construct shared use path on Plainfield-Naperville Road from 119 th Street to existing trail south of 127 th Street	Expand bicycle network	Plainfield	\$1,006,000	MFT, STP, TAP, CMAQ	6
4	Construct shared use path on 127 th Street from Van Dyke Road west to 252 nd Street	Eliminate gaps	Plainfield	\$613,000	MFT, STP, TAP, CMAQ	
5	Construct shared use path on 127 th Street from IL 59 east to Essington Road	Expand bicycle network	Plainfield	\$2,146,000	MFT, STP, TAP, CMAQ	6,45
6	Construct shared use path on 135 th Street from Ridge Road to Meadow Lane	Eliminate gaps	Plainfield	\$1,555,000	MFT, STP, TAP, CMAQ	
7	Construct shared use path on 143 rd Street from Meadow Lane to Van Dyke Road	Expand bicycle network	Plainfield	\$664,000	MFT, STP, TAP, CMAQ	43
9	Construct shared use path from Settler's Park to Mather Woods	Eliminate gaps	Plainfield	\$211,000	MFT, TAP	
10	Construct shared use path connection across the DuPage River at old Renwick Road	Expand bicycle network	Plainfield	\$830,000	MFT, TAP	32
11	Construct shared use path continuation along Drauden Road, south of Caton Farm Road (with City of Joliet)	Eliminate gaps	Plainfield Township Plainfield, Joliet	\$1,279,000	MFT, STP, TAP, CMAQ	
12	Construct shared use path continuation along Caton Farm Road from Ridge Road to Caton Ridge Dr/Fresno Lane (City of Joliet)	Eliminate gaps	Joliet	\$1,030,000	MFT, TAP	
15	Improve signage to Riverview Park	Improve ingress/egress to park	Plainfield	\$1,100	MFT, TAP	
18	Construct shared use path connection along 127 th Street between Northwest Community Park and Tuttle Estates Subdivision (Gilmore Rd)	Eliminate gaps	Plainfield	\$1,546,000	MFT, TAP	
19	Install pedestrian signals and crosswalks at Meadow Lane & IL 126	Improve intersection safety for bicyclists and pedestrians	Plainfield, IDOT	\$115,000	MFT, STP, TAP, CMAQ	11
20	Install pedestrian signals and crosswalks at Wallin Drive & IL 126	Improve pedestrian access	Plainfield	\$117,000	MFT, STP, TAP, CMAQ	35,42
21	Install pedestrian signals and crosswalks at Van Dyke Road & IL 126	Improve pedestrian access	Plainfield	\$114,000	MFT, STP, TAP, CMAQ	35
22	Construct new sidewalk, install pedestrian signals and marked crosswalks at IL 59 & 127 th Street	Improve pedestrian access	Plainfield	\$127,700	MFT, TAP	
24	Install pedestrian signals and crosswalks at IL 59 & Fraser Road	Improve pedestrian access	Plainfield	\$224,500	MFT, STP, TAP, CMAQ	

Note: Project Number is for location reference only; it does not indicate priority ranking

*See next page for Legend



Village of Plainfield Transportation Plan

HIGH PRIORITY BICYCLE AND PEDESTRIAN PROJECTS (0 TO 5 YRS) (CONTINUED)
TABLE 4.1 (CONTINUED)

Project Number	Action	Purpose	Participants	Preliminary Estimate of Cost	Possible Funding Sources*	Corresponding Roadway Project Number
25	Install sidewalk, pedestrian signals and marked crosswalks at the intersection of IL 59 & 119 th Street	Eliminate gaps and improve pedestrian access	Plainfield	\$116,200	MFT, STP, TAP, CMAQ	3
26	Add roadway signage at the Fort Beggs Trail & Renwick Road	To increase visibility of crossing	Plainfield	\$1,700	MFT, TAP	32
29	Extend shared use path across the CN railroad on 135 th Street	Increase safety for users crossing the railroad tracks	Plainfield, CN, ICC	\$305,000	MFT, ICC	
38	Install sharrow in select subdivisions (30mph speed limit or less)	Increase safety for bicyclists sharing the road with motorists	Plainfield	\$1,000 to \$133,000	MFT, TAP	
39	Construct sidewalk connecting to Lockport Street Post office	Eliminate gaps	Plainfield	\$80,000	MFT, TAP	
40	Add sidewalk on Center Street near Indian Trail School	Provide connection to Indian Trail school	Plainfield	\$146,000	MFT, TAP	
41	Construct new sidewalk on Renwick Road from Arbor Drive to Howard Street	Provide connection to Central Elementary School	Plainfield	\$54,200	MFT, TAP	47
43	Construct new sidewalk on Fort Beggs Drive from James Street to IL 59.	To eliminate gaps and improve connectivity to Plainfield Central High School	Plainfield	\$149,000	MFT, TAP	
52	Install new sidewalk, pedestrian signals and marked crosswalks at IL 59 & 135 th Street	Eliminate gaps and improve pedestrian access	Plainfield	\$228,700	MFT, TAP	4
53	Construct missing sidewalk on Main Street between IL 59 and Lockport Street	Eliminate gaps and improve pedestrian access	Plainfield, IDOT	\$97,000	MFT, TAP	35

Note: Project Number is for location reference only; it does not indicate priority ranking

*Project Funding Legend

MFT = Motor Fuel Tax (State)
 Surface Transportation Program (Federal)
 TAP= Transportation Alternatives Program (Federal)
 ICC = Illinois Commerce Commission (State)
 CMAQ = Congestion, Mitigation, & Air Quality Improvement Program (Federal)



Village of Plainfield Transportation Plan

MODERATE PRIORITY BICYCLE AND PEDESTRIAN PROJECTS (5 TO 10 YRS)
TABLE 4.2

Project Number	Action	Purpose	Participants	Preliminary Estimate of Cost	Possible Funding Sources*	Corresponding Roadway Project Number
8	Construct shared use path on IL 126 from Meadow Lane to Van Dyke Road	Improve access to downtown core	Plainfield	\$728,000	MFT, CMAQ, TAP, STP	42
14	Construct shared use path to DuPage River	Complete DuPage River Trail Connection	Park District	By Park District, \$798,000		
16	Construct shared use path on IL 59 from IL 126 to Fraser Road	Eliminate gaps	Plainfield	\$1,680,000	MFT, CMAQ, TAP, STP	
17	Construct shared use path on 135 th Street from Meijer store to Eaton Preserve	Provide access to park	Plainfield	\$252,800	MFT, CMAQ, TAP, STP	
28	Extend shared use path across the CN railroad tracks across US 30 on 127 th Street	Increase safety for users crossing the railroad tracks	Plainfield, CN, ICC	\$471,000	MFT, ICC	44
30	Fill-in gaps for shared use path on Van Dyke Road from Lockport Street to north of 143 rd Street	Increase safety for users crossing the railroad tracks	Plainfield	\$305,000	MFT, ICC	12
34	Construct paved shoulders on Plainfield-Naperville Rd from 127 th St to IL 59	Improve bicycle accommodations	Plainfield	\$1,602,000	MFT, CMAQ, TAP, STP	
35	Add bike lanes on Wallin Drive, Van Dyke Road, and Ottawa Street	Connect Lockport Street to the YMCA and Middle School	Plainfield	\$12,500	MFT, CMAQ, TAP, STP	
37	Construct shared use path on Fraser Road/Feeny Drive from Burgundy Drive to Lily Cache Road	Connect to future Park District Bike Path	Plainfield	\$792,400	MFT, CMAQ, TAP, STP	
42	Construct sidewalk on 248 th from 127 th Street to 119 th Street	Eliminate gaps	Plainfield	\$215,700	MFT, TAP	
44	Construct continuous sidewalk on Plainfield-Naperville Road	Improve pedestrian access along corridor	Plainfield	\$1,165,000	MFT, TAP	

Note: Project Number is for location reference only; it does not indicate priority ranking

***Project Funding Legend**

MFT = Motor Fuel Tax (State)

Surface Transportation Program (Federal)

TAP= Transportation Alternatives Program (Federal)

ICC = Illinois Commerce Commission (State)

CMAQ = Congestion, Mitigation, & Air Quality Improvement Program (Federal)



Village of Plainfield Transportation Plan

LONG-TERM BICYCLE AND PEDESTRIAN PROJECTS

TABLE 4.3

Number	Action
13	Construct pedestrian bridge across the river at McKenna Drive along the DuPage River Trail (<i>Joliet/Plainfield Township Park District Lead Agencies</i>)
23	Pedestrian signals and crosswalks at County Line Rd & Caton Farm Rd (<i>City of Joliet</i>)
27	Future shared use path intersection improvements at Renwick Rd & US 30
31	Railroad crossing improvements at Plainfield-Naperville Rd—provide paved shoulders across the railroad tracks
32	Future shared use path extension across the railroad tracks at Main St
33	Future shared use path extension across the railroad tracks at Renwick Rd
36	Add a bike lane along Lockport St from DuPage River Bridge to the trail connection at CN Railroad
45	Add sidewalks in all unincorporated subdivisions
46	Add Pedestrian crossing on south side of intersection at IL 59 at US 30

Note: Project Number is for location reference only; it does not indicate priority ranking

