

Transportation Planning

Plain Township has 170 miles of Township roads. The Township attempts to re-pave on a 10-year cycle with approximately 17 miles of road paved per year. The Township has fourteen full-time street department personnel—eleven assigned to road maintenance and three mechanics. The Township’s annual budget includes contracts for striping, curbing, gutter repair and asphalt, leaf drop off, sweeping, stormwater/sewer projects, as well as salaries. The Township has a sidewalk resolution (No. 02-261) whereby “property owners and/or developers having the desire to install sidewalks in front or adjacent to their premises and where these sidewalks are located in the Township’s right-of-way that the Township will have no responsibility to maintain any such sidewalk so constructed or to keep same free from ice, snow or other nuisances.” Plain Township’s cost per Township road mile is consistent with the average range of \$11,000 - \$16,000.

Cost per Township Road Mile

	<i>Annual Roads Budget</i>	<i>Cost per Township Road Mile</i>
1998	\$1,831,562	\$10,774
1999	\$1,093,509	\$16,432
2000	\$1,703,124	\$10,018
2001	\$1,673,672	\$9,845

Source: Plain Township: 2001, Budget Worksheet: 2002

The Stark County Engineer’s office suggested that Plain Township would be better served by a joint agreement with the County for intersection projects, many of which the Township cannot afford. With a joint agreement, road projects in the Township would get additional points in the scoring for Issue 2 funds (approximately \$5 ½ million/year). The County is responsible for maintaining 25.44 miles of county roads in Plain Township. The following table summarizes road projects currently planned in Plain Township.

Stark County Engineer’s Priority Projects in Plain Township

<i>Type</i>	<i>Road/Location/Project</i>	<i>From</i>	<i>To</i>
Roadway Widening	Applegrove St (4 lane widening) Pittsburg Rd (alignment & profile)	Main St Applegrove St	Market Ave Shuffel Dr
Intersections	Columbus Rd/Harmont Ave* Easton St/Middlebranch Ave* Maple Ave/Wise Ave Market Ave/Mt. Pleasant St* 20 th St/Lakeside Ave*	-- -- -- -- --	-- -- -- -- --
Paving	Diamond St 38 th St Harrisburg Rd Whipple Ave	Market Ave Whipple Ave Canton CL	Middlebranch Ave I-77 SR 62
TID Projects	Market Ave (SR 43) Fulton Dr Widening	55 th St Everhard Rd	Applegrove St Hills & Dales Rd

Source: Stark County Engineer, 2000

*On list of County's 25 worst intersections based on the number of accidents. The County is pursuing federal grants for safety upgrades at these intersections.

The following are projects identified in the Stark County Area Transportation Study (SCATS) 2020 Transportation Plan.

SCATS 2020 Transportation Plan: Plain Township Projects

<i>Street</i>	<i>From</i>	<i>To</i>	<i>Description</i>
Market Ave	55 th St	Mt. Pleasant	Widen to 4 lanes
Whipple Ave	Portage St	Applegrove St	Widen to 5 lanes

Source: SCATS, 2000

Road Miles

<i>Township Roads</i>	<i>County Roads</i>
170	25.44

Source: Stark County Engineer, Plain Township, 2000

The following are projects proposed in the Plain Township Year 2010 Highway Improvement Plan.

Existing TID Projects

<i>Project</i>	<i>Year</i>
Fulton Road East	2006
Market Avenue–S.R. 43	2007
Pittsburgh Avenue	2007

Proposed Major Road Improvements

<i>Project</i>	<i>Year</i>	<i>Sponsors</i>
Applegrove Road East Phase I	2004	City of North Canton Plain Township SCEO
Applegrove Road East Phase II	2005	City of North Canton Plain Township SCEO
55 th Street West	2007	City of Canton and Plain Township
Applegrove Road East Phase III	2008	Plain Township
Mt. Pleasant Road	2009	Plain Township Lake Township

Proposed Drainage Projects

<i>Project</i>	<i>Year</i>
32 nd Street–Beverly Storm Sewer	2002
Chesham Drive Storm Sewer	NA
Bentler–East Center Storm Sewer	NA
Burkey Avenue Storm Sewer	NA
Zimber Ditch	NA
Steiner Heights Storm Sewer	NA
Lindford Avenue Storm Sewer	NA

Proposed Intersection Improvements

<i>Project</i>	<i>Year</i>	<i>Sponsors</i>
Easton–Middlebranch	2002	Plain Township SCEO
Harmont–Columbus	2004	SCEO City of Canton Plain Township
20 th Street–Lakeside	2004	SCEO Plain Township
Easton–Firestone	2005	SCEO Plain Township
55 th –Harmont–East Center	2005	SCEO Plain Township
Market–Mount Pleasant–SR 43	2006	SCEO Plain Township Jackson Township
Everhard–Whipple	2007	SCEO Plain Township Jackson Township
30 th Street–Harrisburg	2008	SCEO Plain Township

ODOT has plans for a signal project along SR 62 with design to be completed in early 2002 and construction to begin thereafter. The proposed project would include signal upgrades, a closed loop system, additional turn lanes and repaving at the following intersections:

- Rowland;
- Maple;
- 30th (ramp);
- Middlebranch;
- Regent;
- Harmont;
- Broadway; and
- California.

Transportation Analysis

PKG conducted a field survey of Plain Township’s roadway system and has the following observations. Currently there are no severe operational deficiencies in Plain Township. There are selected locations with problems, as discussed above, but overall the Township roadway system functions adequately. The original rural nature of the Township is slowly becoming more urbanized and as this continues to occur, steps will have to be taken to provide adequate, safe roadways for residents. Many of the problem areas border other jurisdictions; so joint projects may be required to make improvements.

Intersection of Middlebranch/Easton

There are left turn lanes on all 4 approaches, but they are very short and need to be lengthened to provide adequate storage. On the eastern leg of Easton a left turn lane for the commercial/retail parcels may be warranted. There also appear to be too many access points onto Easton in this area. Rite Aid, the Township Hall, McDonald's, Oakwood Square shopping center and Pizza Hut all have separate driveways onto Easton. This provides for confusion and sight distance problems.

A fairly straightforward access management project could correct some of these problems. McDonald's, Oakwood Square and Pizza Hut already have access between their parking lots. If openings were provided from Rite Aid behind the Township Hall to connect all of the lots and eliminate some of the driveways (or at least make them enter only) it would greatly improve operations. McDonald's is configured so that it would be difficult to eliminate their drive, but maybe it could be combined with the Oakwood Square driveway.

Better signage and striping is needed through the shopping center parking lot, to direct traffic entering from Middlebranch toward McDonald's and Pizza Hut without cutting across parking aisles. There is a lot of empty space in the plaza currently, but improved access may help attract retailers and shoppers.

US 62

From Regent to Harmont there is already good access management in place, with Maret and Lesh fronting the restaurant, shopping plaza and Kmart. Although not part of Plain Township, a similar situation occurs on the south side of 62 with Atlantic Boulevard serving as a frontage road for Ames, Burger King, Eastbury Lanes, etc. Extending these frontage roads west to Middlebranch/Harrisburg may be a feasible option, although the alignment may have to run behind some buildings.

Currently, 31st Street runs from Root to Harrisburg behind several commercial buildings on the south side of US 62, which could possibly be improved and connected with Atlantic Boulevard at Regent. If this were pursued, several access points onto US62 could be eliminated.

On the north side the intersection of Columbus Road and US 62 is awkward and sometimes difficult to negotiate. If Maret were extended, Columbus Road could terminate at Maret, and then a safer intersection provided at or near Middlebranch. West of Middlebranch, US 62 functions as a four-lane arterial, with multiple intersections and driveways. Since this area is a mix of residential and commercial, there doesn't appear to be any easy way to implement access management.

Cleveland Avenue

The largely commercial area from 38th Street to 47th Street has multiple access points, with two drives for one parcel at many locations (service stations, Fishers grocery store, etc.). Since there are currently left turn lanes at many of the intersections, there would probably not be much widening required to provide a two way left turn lane throughout this section. Access to/from many of these businesses is not a problem, because many of the drives are wide enough to separate left and right turns and the multiple signalized intersections often provide adequate gaps in traffic to exit safely.

Everhard Road

Access management on the north side seems to function adequately, with Burger King, the Ames plaza and Fazoli's parking lots all connected. Burger King has separate entrance and exit points for the drive-through, but dining room traffic uses the main plaza driveway. The driveway at Fazoli's also connects through to the Ames parking lot. The only parcel on the north side that doesn't connect to the others is the Citgo station at the corner of Everhard and Whipple.

On the south side, the service station, La-Z-Boy, Denny's and McDonald's all have separate driveways. Some access between La-Z-Boy and SuperAmerica is available. A center concrete median near the intersection with Whipple prevents left turns to or from both gas stations. The only access problem in this area is exiting the various lots. Turning left is often difficult or impossible due to the volume of traffic on Everhard and the backups from the signal at Whipple. A new signal at Stratmoor may ease this if it is timed to provide gaps in the traffic. There is not adequate storage for the left turn lanes at the intersection of Everhard and Whipple, in any direction.

Whipple Avenue

The entire stretch from 38th Street to Everhard is hard to access if a left turn to or from Whipple Avenue is required. Consideration should be given to providing a two way left turn lane throughout this section. Since Whipple is the dividing line between Plain Township and Jackson Township (or Perry Township further south), this would have to be a Stark County or joint plan between the county and Townships. There are not an excessive number of driveways on the east side of Whipple Avenue, and many of the buildings are spaced too far apart to consider combined access points.

Fulton Road

In the commercial area east of Broad it should be possible to combine many of the driveways and eliminate some access points onto Fulton. Currently, with so many closely spaced driveways it is often difficult to determine which driveway you need for where you are going. It is fairly easy to turn into the wrong drive, only to find there is no access

to the correct parking lot. Drivers are forced to go back onto the roadway for a short distance to then turn into the proper driveway. Opening up some of the parking lots to provide access between buildings would prevent this and increase both safety and operations.

Intersections along Market Avenue

At Schneider Road there are no left turn lanes in the east-west direction. One through lane in each direction exists, with left turn lanes provided on Market in both the north and south directions. At Easton Road there are left turn lanes on all four approaches, with protected phases for northbound and westbound traffic. The intersection of Market with Applegate is similar to the one at Schneider, with left turn lanes on Market but not on the side street. There are no protected phases and the storage length of the left turn lanes may not be adequate. Finally, at Diamond there are no exclusive turn lanes and no protected phases. To the west, Ivy Street is very narrow. Throughout the section from 55th Street to Mt. Pleasant there is one through lane each direction on Market. This is on SCATS plan to be widened to 4 lanes, and also appears on the Stark County Engineer's TID. This will probably ease most of the problems in the area, particularly if left turn lanes are added/upgraded throughout, and signals upgraded to provide actuation and left turn protection.

Intersection of Fulton/Lakeside/Northmoreland

This intersection has very poor sight distance for vehicles on Lakeside and Northmoreland due to the profile through the intersection in all directions. There is also a very short green phase for Lakeside/Northmoreland (often only 2-3 cars get through each cycle). While traffic on these side streets is substantially lower than that on Fulton, longer green times should be provided and intersection improvements should be considered.

General Sight Distance Problems

As indicated by the Township, there are many roads with sight distance problems. These include Easton, Middlebranch, 55th Street, Columbus Road and Schneider Road, and also the intersection of Plain Center and Martindale. Most of the problems are related to road profiles. Drivers at side streets or driveways do not have adequate sight distance along the main road to exit safely. Since most of these problem roadways follow alignments from the past when the Township was primarily rural, it would be very expensive to correct the problems in a substantial manner. Signage about upcoming intersections or "hidden drives" may help. A speed study could be warranted in some areas, since there are 45 mph speed zones in many locations. However, with few access points and largely residential buildup, it's hard to tell if a lower speed would be warranted. There are some problems caused by vegetation, which could be solved by trimming trees and shrubs or a setback requirement or height limit for vegetation near intersections and driveways.

High Accident Intersections

There are several intersections in Plain Township, which are among the most dangerous in Stark County. These are: 20th/Lakeside, 30th/Harrisburg, Columbus/Harmont, Easton/Middlebranch, Everhard/Whipple, Market/Mt. Pleasant, Portage/Whipple and Whipple/Wise. They are part of the intersection safety study, which we are conducting for the Stark County Engineer's office. That project is looking only at the 25 intersections with the highest accidents, which are not on the books to be improved in the near future. There are several others in Plain Township, which are dangerous but either do not make the top 25 or are to be improved soon.

Recommendations

There is an interlocking relationship between land use and the system of roadways serving the activities on the land. There is also an important partnership between the public sector, responsible for maintaining and improving the roadways, and the private sector's development of the land. Plain Township should recognize this implicit partnership and take steps to implement programs, which will help achieve the quality of life goals of this Comprehensive Plan.

This increase in trip volumes will impact the ability of key road corridors to effectively carry traffic. In order to ensure acceptable traffic conditions, existing transportation policies should be reviewed and revised as necessary. Also, these roads should be monitored and measures should be taken at appropriate times to maintain acceptable future traffic flow throughout the City.

In order to meet the demands of future traffic, Plain Township must take steps today to improve the transportation system. Some steps will be physical improvements. These could include road widening, new or improved traffic signals, intersection improvements, or new street construction. Just as important—or maybe even more important—are policies the Township can adopt to maximize the efficiency of the existing street system and protect public investment in future road improvements.

Land use and transportation planning are inextricably intertwined. Land use determines the traffic that will be generated along a roadway. Likewise, how efficiently a road carries traffic will in part determine the attractiveness of that corridor for development. It follows that for the most efficient land use pattern and roadway function, land use and transportation planning should be closely coordinated. There are several specific transportation policies that the Township should pursue.

The following policies are recommended throughout the Township:

- Access Management Standards;
- Corridor Planning and Design;
- Public/Private Funding Policies; and

Access Management Standards

Achieving and maintaining an efficient transportation network will be a significant investment by Plain Township. Implementing an access management program can maximize the community's investment in road improvements. Access management is the regulation of the design, location, alignment, and number of entrances from private property onto a public road. The purpose is to minimize conflicts between traffic driving on a road and cars entering and exiting properties along that road. Reducing these conflicts can greatly improve traffic flow along a road.

Access management seeks to consolidate existing poorly designed entrances into fewer well-designed and planned entrances. Access management policies also reduce or eliminate entrance conflicts for future developments. Location and design of these entrances can be coordinated with public road improvements such as road widening, median construction, and traffic signal installation.

Benefits Plain Township can realize through access management include:

- Maintaining the level of service of roads;
- Minimizing traffic congestion and travel delay;
- Improving safety for vehicles and pedestrians;
- Providing safer access to roads from private property;
- Reducing the need for major road reconstruction or improvements; and
- Improving land use patterns.

The most straightforward element of access management is regulating the design and location of driveway curb cuts off a roadway. This is achieved through a review and permitting system for all new driveways off public roads. The ODOT Access Management Manual provides an administrative model that Plain Township should consider. This manual establishes guidelines, a permit and review system, and enforcement provisions for all new entrances onto state highways. A parallel approach for local roads should be implemented in Plain Township.

Corridor Planning and Design

Improving the transportation system should also be considered an opportunity to visually enhance road corridors through landscaping, sign controls, and urban design standards. Plain Township's community image should be considered when making improvements to the transportation system. Accommodating increasing volumes of traffic without considering visual impacts of roadway improvements can destroy the character of a neighborhood. Road improvements can add to the visual clutter along a road, or eliminate the character of an attractive corridor by not considering visual impacts of the improvements.

A coordinated streetscape within a corridor design can visually and physically link different parts of a community together. In Plain Township, opportunities exist to better link neighborhoods, which are separated by Canton and North Canton and to highlight entry corridors into the Township. An attractive streetscape can also build identity, and be an integral part of creating a focal point or identity district for Plain Township

There is a hierarchy to the function of the various roads in Plain Township. It follows that there should be a hierarchy to the level of future corridor design improvements. Physical design improvements to the various roads in Plain Township should address the following:

- Gateway statements;
- Design themes along corridors to define Plain Township's identity;
- Pedestrian and bicycle networks; and
- The appropriate mixture of public and private investment in improvements for corridor design plans.

Public/Private Funding Policies

Plain Township must continue to pursue traditional funding sources for road building through the State of Ohio. This especially includes working with Stark County to incorporate the Township's future road needs on regional transportation improvement plans.

Plain Township should work on partnerships with developers for local road improvements. A key element of this partnership should be Traffic Impact Study requirements. A study provided by the developer should be required for any proposed project, which will generate enough traffic to impact significantly on the road system.

The objective of a Traffic Impact Study is to:

- Determine whether or not the access request can meet the design standards and requirements of the applicable government agencies;
- Determine the appropriate location, spacing, and design of access connections necessary to mitigate the traffic and operational impacts on the highway system, as well as coordinate with any access management plan adopted by the Township;
- Determine the need for any improvements to the adjacent roadway system to maintain a satisfactory level of service and safety, and to protect the function of the highway system while providing appropriate and necessary access to the proposed development;
- Assure the internal traffic circulation of the proposed development is designed to provide safe and efficient access to and from the adjacent and nearby roadway system.

Recommendations from a Traffic Study can then be used to allocate costs for road improvements fairly between public funds and private developers.