

**Volusia County  
MPO**

**March 2008**



# **Elementary School "Z"**

## **Bicycle and Pedestrian Safety Review Study**



## **Introduction**

Elementary School "Z" is a planned elementary school on Hazen Road in DeLand, located south of Plymouth Avenue. The anticipated opening date is August 2010. This school will most likely serve students currently attending George Marks Elementary School and Starke Elementary School. George Marks Elementary School is also one of the selected schools for Phase 3A of this Study. Starke is slated for review in 2009.

The school district staff and county engineering staff have coordinated the planning of this school far in advance of the scheduled opening. The school district is planning to construct a sidewalk along Hazen Road on school property and will extend the sidewalk north to the intersection of Hazen Road and Plymouth Avenue, where a crossing guard location is planned.

The adjacent residential developments have constructed a trail connection to the school property. The school district plans to connect their internal sidewalk system to this facility, offering a safe and shorter route for students.

There are two sidewalk projects recommended as priority projects for Elementary School "Z".

Lastly, overall bicycle and pedestrian facilities will become more important in this area with the construction of the planned Spring to Spring Trail (1.15 miles from school site) and the soccer complex on Plymouth Avenue.



*Figure 3.6.1*

## Elementary School "Z" – Summary Sheet

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**School Address:** Hazen Road (just south of Plymouth Avenue)  
DeLand, FL

**City Representative:** Mike Holmes, Planning Director  
Phone: (386) 740-5700  
Email: holmesm@deland.org

**School District Representative:**  
Saralee Morrissey, AICP  
Phone: 386-947-8786, ext. 50772  
Email: smorriss@volusia.k12.fl.us

**Estimated Opening Date:** August 2010

**Planned Student Capacity:** 735

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**School Status:**

A preliminary site plan for school layout was provided in September 2007 and an updated version was provided in December 2007. Opening date is planned for August 2010.

**Estimated Number of Students in Walk Zone:**

For purposes of this Study, the estimated potential walk zone indicated on the Master Plan reflects a potential walk zone bordered by major roadways. A walk zone for this school has not been determined by school district staff at this time. The existing number of students in the estimated potential walk zone is 161. Nearby developments are under construction and this number is expected to increase..

**Number of Bicycle and Pedestrian Crash Events within the estimated potential Walk Zone (2004-2006):** Not applicable, school not open.

**Votran Route in Walk Zone:** No

**Percentage of Title One Students:** unknown, planned school

**Planned Crossing Guard Location:**

- Hazen Road and Plymouth Avenue

**Planned Road, Sidewalk or other Improvements:**

- Volusia County plans to widen Hazen Road from New York Avenue to Minnesota Avenue. No sidewalks are planned with this widening.
- Volusia County plans to widen Minnesota Avenue from Spring Garden Avenue to Hazen Road.
- Volusia County plans to widen Plymouth Avenue from Spring Garden Avenue to US 17-92 (outside of the estimated potential walk zone).

- The school district plans to add a 5' wide sidewalk along the school frontage of Hazen Road and will extend the sidewalk to the intersection of Plymouth Avenue. This intersection is planned for a four-way stop.
- Volusia County plans to construct a section of the Spring to Spring Trail west of the walk zone by October 2008.

**Planned Development:**

The County plans to construct a soccer complex on the north side of Plymouth Avenue west of Ridgewood Avenue.

**Hazardous and Unique Conditions (Source: School District Data February 2008):**

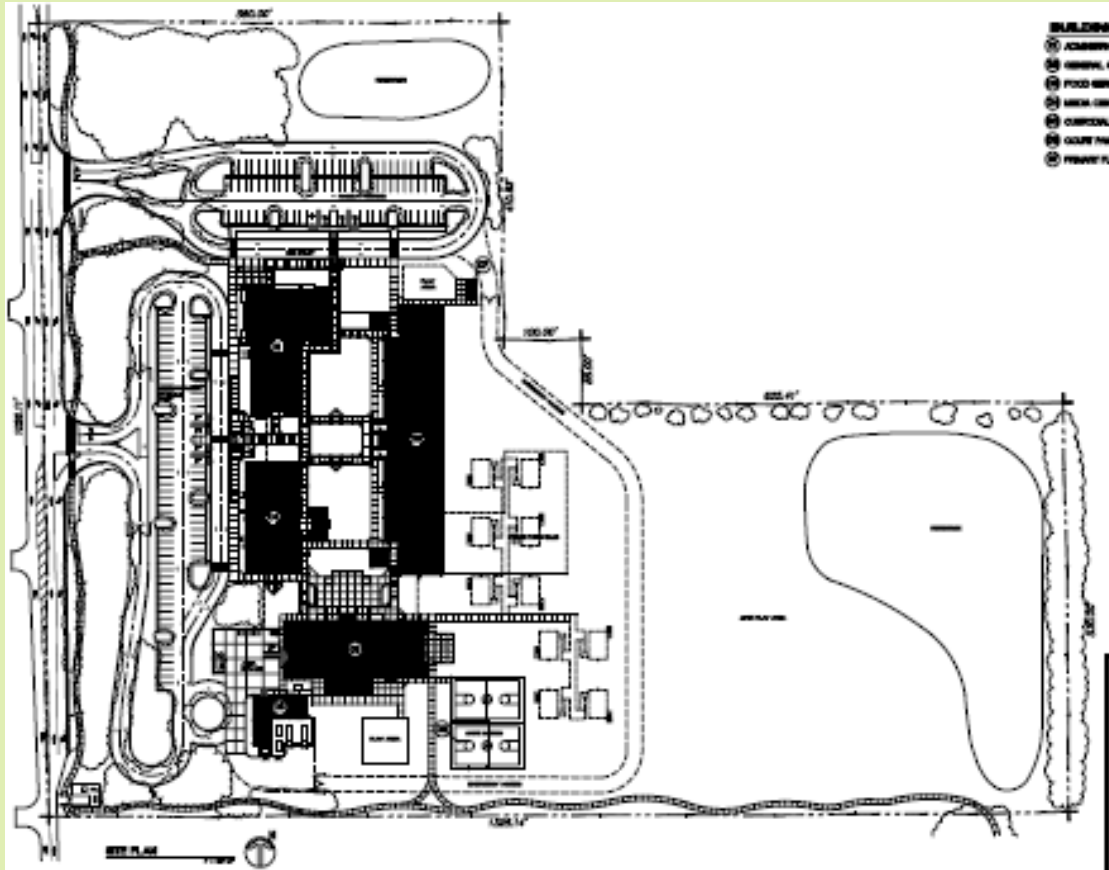
Not applicable, school not open

**Proposed Priority Projects (for BPAC consideration):**

- Hazen Road Avenue Sidewalk (east side)
- Plymouth Avenue Sidewalk (north side)

## Findings and Recommendations

**Finding:** The conceptual plan shows staff parking and a bus loop north of the planned school buildings, with the student drop-off in front of the school with access from Hazen Road. The majority of the students will most likely walk or ride from nearby subdivisions to the north and the south of the school property. The conceptual plan shows an extensive sidewalk system that will provide connectivity to the adjacent sidewalk system. Due to the conceptual level of the plan, there is not enough detail to determine sidewalk ramp locations. The following recommendations for the school site are minor and may already be addressed in the development of construction documents.



Conceptual Site Plan—Elementary School 'Z'

Figure 3.6.2

### Recommendations:

- Depending on the primary destination, the school district may wish to consider a more direct sidewalk route for students arriving from the south. A bicycle rack in this location would increase convenience.
- The northern sidewalk south of the bus loop should be shifted further north along Hazen Road and further south at the connection to the bus loading area to provide a more direct route for pedestrians and bicyclists. If possible, a second bicycle rack should be located in this area.



- The conceptual plan shows several crosswalks that terminate into a curbed sidewalk; no ramps are shown. This may simply be a level of detail that will be addressed in the construction documents. If no ramps are planned, the School District may want to consider ramps to provide access.

**Finding:** During the beginning of this Study, a nearly complete trail connection to the adjacent Forest Trace subdivision was discovered.

**Recommendation (Pending):** Connect the existing trail through the conservation lot to the school district property and connect the school sidewalk system to this access point to provide a shorter route for students.

This recommendation is under review by the developer, the City of DeLand and school district staff.



*Existing trail within Forest Trace Subdivision may provide an ideal connection to Elementary School "Z"*

**Finding:** There is no sidewalk along the east side of Hazen Road from New York Avenue (SR 44) to Minnesota Avenue. Specifically, a new residential development south of Minnesota Avenue (Mallory Square) does not provide a connecting sidewalk from the main entrance road, Little Torch Key Drive, to the sidewalk north of Hazen Road. Sidewalk money was contributed to county sidewalk fund in lieu of construction. The county plans to widen the road way in this area, but not to add sidewalks due to right of way constraints.

**Recommendation:** Construct a minimum 5' wide sidewalk connecting this subdivision to the Minnesota Avenue sidewalk. This sidewalk is recommended as a priority project and is further discussed at the end of this chapter.



*Sidewalk along Hazen Road is missing from Little Torch Key Drive to Minnesota Avenue*

**Finding:** The intersection of Hazen Road and Minnesota Avenue currently has a stop condition for motorists traveling on Hazen Road. The lack of a four-way stop at this intersection may increase the difficulty of crossing Minnesota Avenue for students walking or bicycling to and from school.

**Recommendation:** Review this intersection for a four-way stop to reduce traffic speeds and provide traffic control to allow pedestrians and bicyclists a designated crossing. Provide crosswalks and signage in all directions. Review the need for a crossing guard at this location.



*The intersection of Hazen Road and Minnesota Avenue should be reviewed for a four-way stop*

**Finding:** There are no sidewalks along Hazen Road north of Plymouth Avenue and there are no sidewalks along Greens Dairy Road. A newer development off Greens Dairy Road has internal sidewalks only. The students living along Hazen Road north of Plymouth Avenue and students living off Greens Dairy Road will not have a continuous sidewalk connection to school.

**Recommendation:** Although the west side of Hazen Road (north of Plymouth Avenue) appears to have more right of way, a sidewalk should be constructed along the east side of Hazen in this area if possible. This placement will allow the sidewalk to line up with the planned sidewalk on the east side of the road south of Plymouth Avenue. The planned crosswalk should connect these two sidewalks.



*Sidewalk is planned for the east side of Hazen from the school to Plymouth Avenue*

**Finding:** Existing traffic along Plymouth Avenue appears to exceed the 40 miles per hour posted speed limit. Many trucks are traveling to the landfill located to the west of the school zone. An increase in traffic is expected with the opening of this school, the planned Spring to Spring Trail and the opening of a soccer complex in 2009.

**Recommendation:** The County may wish to consider adding traffic calming devices to make motorists aware that they are entering an area with increased pedestrian and bicyclist



*A crossing guard is planned for the intersection of Hazen Road and Plymouth Avenue.*

activity. Wider sidewalks, landscaping, lower posted speeds, signage and enforcement may work together to increase the safety for sidewalk users in this area. The bicycle and pedestrian master plan for this Study proposes a wide sidewalk along the north side of Plymouth Avenue to connect the planned school to the planned soccer complex, the existing dog park and the planned Spring to Spring Trail.

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**Finding:** There is a sidewalk gap on the north side of Plymouth Avenue from Marjorie Rawlings Drive to just beyond the Liberty Baptist Church. The missing section of sidewalk may encourage students to cross Plymouth Avenue at areas other than the intersection of Hazen Road and Plymouth Avenue where a crossing guard is planned.

**Recommendation:** Construct a sidewalk to fill in the gap in the sidewalk area. Provide a signed crosswalk at the intersection of Hazen Road and Plymouth Avenue address across from Hunters Creek Drive, located on the east side of Hazen Road. This project is recommended as a priority project and is reviewed further at the end of this chapter.



*There is a missing section of sidewalk along the north side of Plymouth Avenue*



## **Master Plan**

The following Bicycle and Pedestrian Master Plan specifies a network of sidewalks and trails that, if implemented, will greatly increase the convenience and safety of travel for pedestrians and bicyclists. A 24"x36" fold-out map is included as a deliverable with this Study.

The Bicycle and Pedestrian Master Plan includes the following information:

### Existing Conditions:

- Existing Trails from County GIS and field review (solid green line)
- Existing Wide Sidewalk 6-8' from field review (solid blue line)
- Existing Sidewalks 3-5' from field review (solid red line)
- Existing Voltran Routes from Volusia County MPO (yellow lines along roadway centerline).

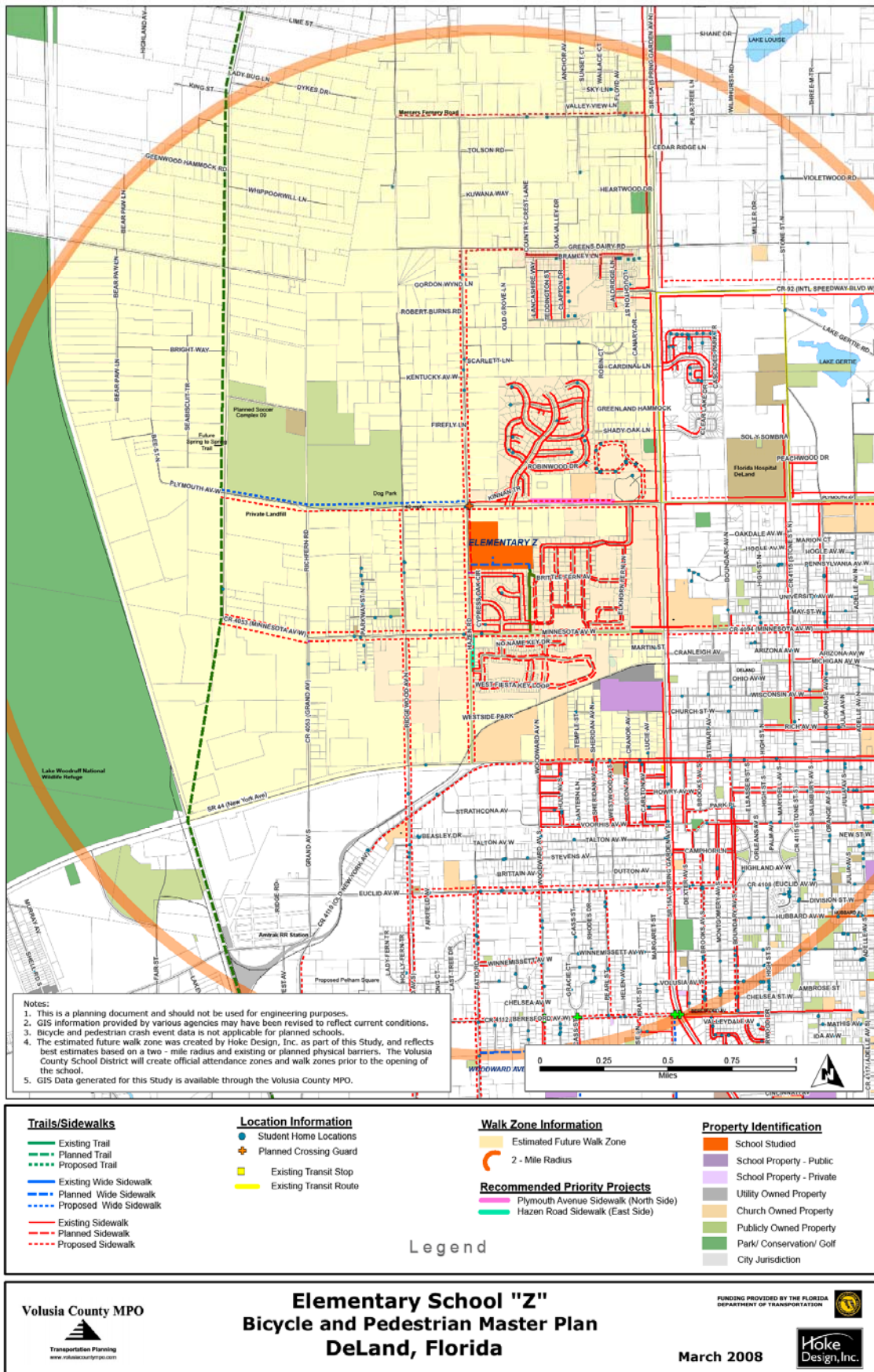
### Planned Conditions:

- Planned Crossing Guard Location (orange cross)
- Planned State of Florida sidewalk and roadway improvements from FDOT website, State or County GIS (medium blue roadway centerline)
- Planned Volusia County sidewalk and roadway improvements from County GIS data (medium green roadway line)
- Planned trail (long dashed dark green line)
- Planned wide sidewalk (long dashed blue line)
- Planned sidewalk (long dashed red line)

### Recommendations of this Study:

- Estimated Potential Walk Zone (light tan)
- Proposed Trails (dashed dark green line)
- Proposed Sidewalks 6-8' wide (dashed blue line)
- Proposed Sidewalks 5' (dashed red line)
- Recommended Priority Projects (highlighted pink and blue)

This Master Plan and supplemental information supplied within the Implementation Report are meant as a guideline for sidewalk and trail planning. The Master Plan is not an engineering document.



## Recommended Priority Projects



### **Plymouth Avenue Sidewalk (north side)**

**Project Location:** Plymouth Avenue

**Project Description:** 5-6' wide concrete sidewalk

**Estimated Cost:** \$190,000 (\$95/LF)

**School Served:** Elementary School "Z"

**Maintaining Agency:** Volusia County

**Finding:** There is a sidewalk gap on the north side of Plymouth Avenue from Marjorie Rawlings Drive to just beyond the Liberty Baptist Church. The missing section of sidewalk may encourage students to cross Plymouth Avenue at areas other than the intersection of Hazen Road and Plymouth Avenue where a crossing guard is planned.

**Recommendation:** Construct a sidewalk to fill in the gap in the sidewalk area. Provide a signed crosswalk at the intersection of Hazen Road and Plymouth Avenue address across from Hunters Creek Drive, located on the east side of Hazen Road.



*Plymouth Avenue looking east to where sidewalk ends*

**Other Information:** Currently, there is a two-way stop at the intersection of Hazen Road and Plymouth Avenue, with through traffic on Plymouth Avenue. This intersection will be improved to include a four-way stop when the school is opened.



*Plymouth Avenue looking west*



*Plymouth Avenue looking east at Liberty Baptist Church*

### **Hazen Road Sidewalk (east side)**

**Project Location:** The east side of Hazen Road from Minnesota Avenue to Little Torch Key Drive

**Project Description:** 5-6' concrete sidewalk, 1000LF

**Estimated Cost:** \$95,000 (\$95/LF)

**School Served:** Elementary School "Z"

**Maintaining Agency:** Volusia County

**Finding:** There is no sidewalk along the east side of Hazen Road from New York Avenue (SR 44) to Minnesota Avenue. Specifically, a new residential development south of Minnesota Avenue (Mallory Square) does not provide a connecting sidewalk from the main entrance road, Little Torch Key Drive, to the sidewalk north of Minnesota Avenue.

**Recommendation:** Construct a minimum 5' wide sidewalk connecting this subdivision to the existing sidewalk that terminates on the east side of Hazen Road, north of Minnesota Avenue. Consider making the intersection of Hazen Road with Minnesota Avenue a four-way stop.



*Hazen Road looking north toward the future school site*



*Two stop signs at Minnesota Avenue emphasize the stop condition for motorists on Hazen Road*