



October 30, 2007

Mr. Paul A. Leonard  
Upper Dublin Township  
801 Loch Alsh Avenue  
Fort Washington, PA 19034

RE: Proposed Fire House at Bonsell Tract

Dear Mr. Leonard:

At your request Orth-Rodgers examined the Bonsell Tract as a location for a new Fire House with regard to the safety of the adjacent school zones. Our review concludes that proximity to a school zone does not result in special traffic safety issues. Traffic safety of fire responders is a priority at all times and at all locations. Fire personnel are governed by regulations imposed by the Vehicle Code as well as the Department's policies and procedures. The Bonsell Tract is a suitable location from a traffic perspective. The location would decrease the response time for a fire at one of the schools, and from that perspective would improve school safety.

#### Site Location

The Bonsell Tract is located on the south side of Fort Washington Avenue approximately ½ mile from Highland Avenue and about 200 feet east of Hawthorne Lane. The Upper Dublin High School is located on the opposite side of Fort Washington Avenue just west of the Bonsell Tract. The Fort Washington Elementary School is located west of the high school, at Fort Washington Avenue and Highland Avenue. Most of the length of Fort Washington Avenue from the Bonsell Tract to Highland Avenue is within one of the two school speed limit zones. There are four school crossings with guards in the zone.

#### Review Process

The review examined the possible effect of the fire house on the school, and conversely the possible effect of the school on fire house operation. We also reviewed the provisions of the Vehicle Code affecting emergency responders. Finally, we looked for other examples of fire houses near school zones.

## Safety

Potential concerns with regard to school safety are chiefly related to speed of fire vehicles when students are traveling to/from school, and speed of emergency responders traveling to the fire house.

We searched transportation sources and also performed a general internet search for any information that would indicate this is an issue. We looked for

- literature on general safety of roads in immediate are of fire houses -- any increased crash rate or safety problems
- guidelines for locating fire houses that mention proximity of schools one way or the other
- guidelines for location schools that mention proximity of fire, police or EMS facilities

The search included transportation, education, and fire control agencies including  
Institute of Transportation Engineers - [www.ite.org](http://www.ite.org)  
Federal Highway Administration - [www.fhwa.dot.gov](http://www.fhwa.dot.gov)  
National School Boards Association - [www.nsba.org](http://www.nsba.org)  
US Department of Education - [www.ed.gov](http://www.ed.gov)  
International Association of Fire Chiefs: - [www.iafc.org](http://www.iafc.org)  
U.S. Fire Administration - [www.usfa.dhs.gov](http://www.usfa.dhs.gov)

I also consulted with two senior Orth-Rodgers staff, Norman Deitch who was formerly Chief of the Bureau of Transportation and Safety with New Jersey Department of Transportation, and Richard Romer, formerly Chief Traffic Engineer for Clark County, Nevada. Neither had come across this as an issue in their practice nor was aware of any study that showed traffic safety problems in the vicinity of fire houses or special issues in school zones.

The lack of any information leads to a conclusion that there is no standard or guideline for a fire house based on proximity to a school zone.

We did note on the fire-related websites that safety of emergency responders including traffic safety is emphasized, with numerous resources for information and training.

## Effect of School Zone on Fire Response

If a fire call comes in during the school arrival or departure period, the response time could be affected by

- Traffic congestion around the school
- Reduced speed limit in school zone

The Upper Dublin High School currently experiences a high level of congestion for 15-20 minutes before the start of school due to parent drop offs. However, the new school site plan provides a revised circulation and internal queue storage area that will eliminate this concern.

With regard to increased response time during times when the 15 mph school zone speed limit is in effect, those responders who are traveling to the Bonsell Tract from the west will take about one minute longer traveling at the 15 mph school speed limit than traveling at the 35 mph posted speed limit. However, since some responders may be traveling through a school zone on the way to the existing fire house, we cannot comment on the net effect. Fire vehicles leaving the Bonsell Tract to travel to the emergency may exceed the speed limit with caution. The Fire Administrator and Fire Chief are best qualified to evaluate the Bonsell Tract location for response time.

#### Regulations Affecting Fire Responders

“Emergency Vehicle” is defined in the PA Vehicle Code (Title 75 of Pennsylvania Consolidated Statutes) with respect to fire as ‘A fire department vehicle’. In addition, a fire chief or assistant chief responding to an emergency call in a private vehicle qualifies as an emergency vehicle. Volunteers or department staff (other than the chief and assistant chief) who are traveling to the fire house in personal vehicles are not ‘Emergency Vehicles’ under the code. (sec. 102)

The driver of an emergency vehicle, when responding to an emergency call, may proceed past a red signal after slowing as necessary for safe operation, and may exceed the speed limit, provided the vehicle is using audible and visual signals. At all times the driver has the duty to drive with due regard for the safety of all persons. (sec. 3105)

#### Other Examples of Fire Houses near School Zones

Fire houses are located very near schools in several other Townships in the area. We reached out to two, in Horsham and in Radnor.

In Horsham Township, the Keith Middle School is located one block from the Township’s Meetinghouse Road fire station. We contacted Horsham’s Fire Chief, Tim Flanagan, for his experience. Chief Flanagan stated that regardless of school zones, they expect the volunteer and/or career emergency responders to drive cautiously. No personal vehicles are permitted to deviate from traffic laws. Fire Company vehicles, when responding to emergencies utilizing visual and audible warning devices are permitted to deviate from normal traffic regulations such as proceeding through a traffic light or stop sign after coming to a stop. However no vehicles are permitted to pass a

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school bus with their red lights activated for either loading or unloading students. Specific to active school zones, Fire Company-owned vehicles proceeding to an emergency utilizing both visual and audible warning devices are permitted to exceed the speed limits of an active school zone. The Chief's response is consistent with the Vehicle Code regulations.

Chief Flanagan further stated a general opinion about school zones, that regardless of where you place fire houses, volunteers come from a variety of locations for emergencies and they may need to navigate through a school zone while responding.

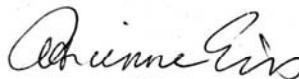
In Radnor Township, the Radnor Middle School in Wayne is located on the same block as a fire house. A new Middle School is currently under construction on the same site. We contacted the Principal, Mr. Anthony Stevenson. He stated that he has never had any problems with having the fire house so close; in fact he stated that he loves having them next door in case of a medical or fire emergency because they would be able to respond so quickly.

#### SUMMARY

Our investigation into the Bonsell Tract as a location for a new fire house concludes that there is no negative impact on school safety. The site is suitable from a traffic perspective.

If you have any questions concerning this review, please do not hesitate to contact me.

Very truly yours,  
ORTH-RODGERS & ASSOCIATES, INC.



ADRIENNE EISS  
Senior Project Manager

cc: Craig Samtmann