

# 2015 Safe Routes to School Walk Audit Findings Report

*Samuel B. Webb Elementary School  
Wethersfield, CT*

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## INTRODUCTION

A walk audit was performed by CTDOT's "Safe Route to School" (SRTS) consultant, VN Engineers, Inc. and AECOM for Samuel B. Webb Elementary School in Wethersfield on June 12, 2015. Samuel B. Webb Elementary School serves 386 students from pre-kindergarten through 6th grade. The purpose of a SRTS walk audit is to assess the existing conditions of the walking and biking routes to school and to identify the issues that may discourage or prevent walking and bicycling. SRTS audits are performed by transportation professionals experienced in traffic, pedestrian, and bicycle operations and design. These professionals assess and review factors that can promote or obstruct safe walking and bicycling routes to/from school. Some of these factors include social aspects, traffic volumes and speeds, topography or presence/absence of sidewalks and/or bicycle lanes.

This SRTS Walk Audit Report is an objective review intended for the School's Safe Routes Committee use to help assess the existing conditions surrounding the school. This document is an innovative planning tool to help identify bicycle, pedestrian and non-motorized transportation needs that encourage walking and bicycling to the school, as well as assists in developing recommendations to improve existing conditions. The contents of this report are not intended to be legally binding, but rather offer recommendations to improve safety in the vicinity of the school and create a more appealing transportation alternative.

The audit for Samuel B. Webb Elementary School followed standard walk audit protocol. Before the site visit was conducted, the SRTS team analyzed the area topography and the routes surrounding the school. Available on-line imagery was used to study and assess the most prevalent routes, adjacent land use, sight distance issues, sidewalk locations, on-street parking, and other site-specific issues.

Following the initial review, the SRTS team visited the site to observe arrival and dismissal operations. During class sessions, the team walked throughout the surrounding neighborhoods to evaluate pedestrian walking and biking routes. Measurements and photographs were taken of the focus area and school officials were interviewed by the SRTS team to document current perceptions and conditions surrounding school transportation.

The SRTS audit team found that the area around Samuel B. Webb Elementary School and the various walking routes are generally in good condition with some of the appropriate safety amenities in place. The team did find a few infrastructure issues that could be addressed in the short- and long-term scenarios. The main issue is pedestrian safety, which is a function of misaligned and faded crosswalks within the immediate area of the school and parking in areas that are not designated drop-off/pickup areas. The percentage of walking/biking students at Samuel B. Webb Elementary School appears relatively low given the infrastructure provided in the area. The school reported 14% of students walk or bike to school. The remaining means of transportation reported by the school was 44% by school bus, 40% by family vehicle and 2% by carpool. The school utilized a combination of 11 large buses, mini-buses and vans on the day of the assessment. If the district wishes to increase the number of students safely walking and biking to school, they could initiate pedestrian and bicycling educational and encouragement campaigns. The following subjects are discussed below:

- Existing Features and Walking Routes
- School parent drop-off and bus drop-off area
- Assessments of Various Pedestrian and Bike Routes
- Recommendations

**Figure 1** shows an overview of the Samuel B. Webb Elementary School study area.

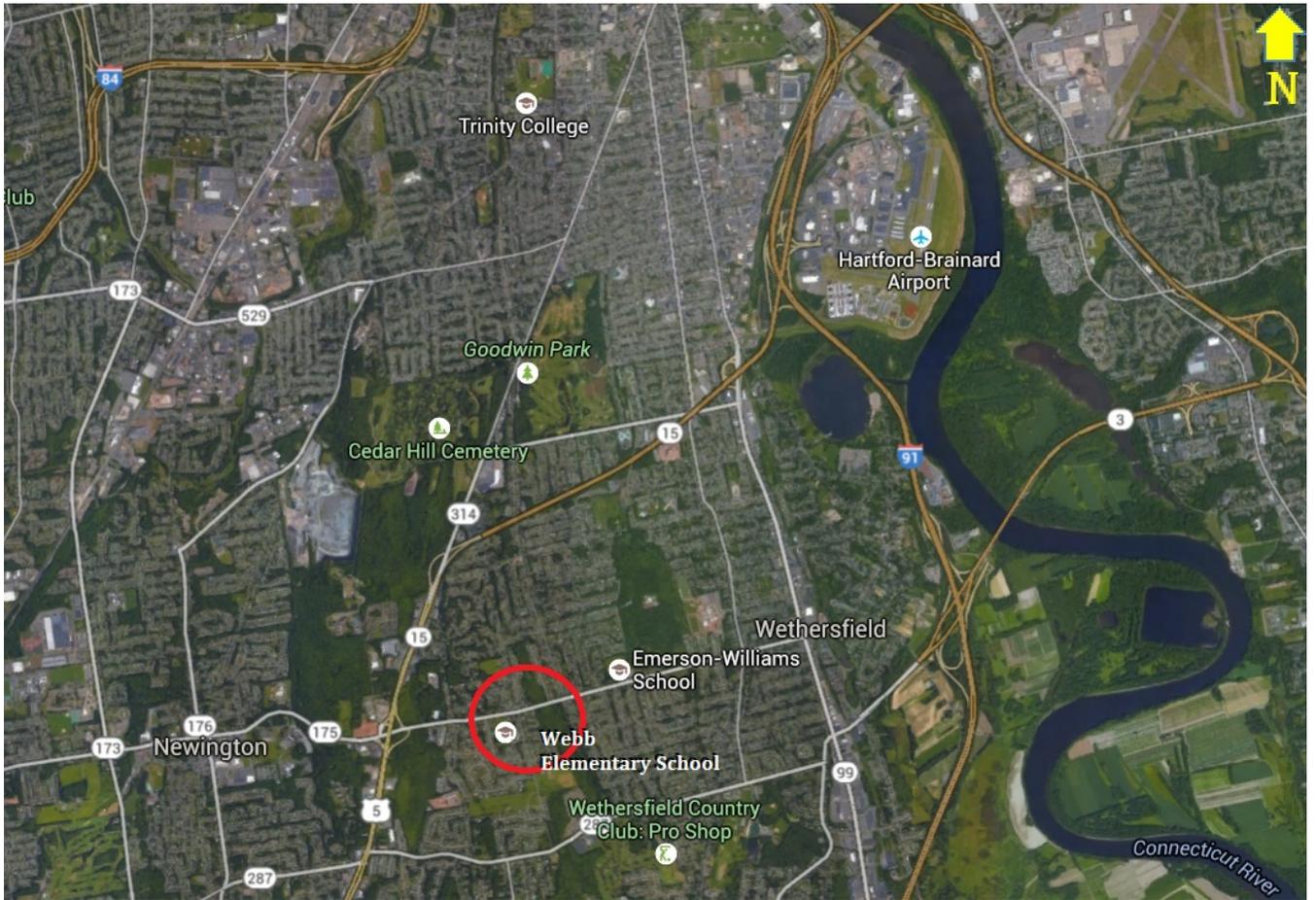


Figure 1: Samuel B. Webb Elementary School

## 1 EXISTING FEATURES AND WALKING ROUTES

The SRTS Committee members identified that the following three routes were used by most of the pedestrian students attending Samuel B. Webb Elementary School:

- **Route 1:** Wells Road and Willow Street north of the school;
- **Route 2:** Glenwood Drive and Willow Street east of the school; and
- **Route 3:** Prospect Street and Willow Street south of the school.

This study examines these routes, along with other potential walking routes within a 0.5 mile radius of Samuel B. Webb Elementary School.

### 1.1 Samuel B. Webb Elementary School Surrounding Area

Samuel B. Webb Elementary School is situated in a suburban Wethersfield neighborhood. The area between the school and Straddle Hill has few trees along Willow Street, with little shade provided in this area. School begins at 8:55 a.m., but students are allowed to enter the building starting at 8:35 a.m. through the front entrance facing Willow Street, the south side entrance, and the north side entrance in the school parking lots. Parents/adults are not allowed to enter through the side entrances, they are only allowed through the front door. Walkers and bikers tend to arrive around 8:35 a.m., while bused students typically arrive around 8:40 a.m. The highest concentration of students arriving was from 8:40-8:55 a.m., as shown in **Figure 2**.



**Figure 2: Drop-off Process at South Lot Side Entrance**

Most parents dropped off their children in the designated drop-off area south of the school, while others dropped their children off along Willow Street and in the north school parking lot. The decision to drop students off along Willow Street creates conflicts with students crossing between Glenwood Drive and the school, and when parents park in the north parking lot there are conflicts with buses. During the morning drop-off, seven full-sized buses, three mini-buses and one van arrived at the school's north parking lot drop-off area. Within the school's north parking lot, buses are directed by signs towards the side entrance while parents are directed into a thru traffic lane to the left of the bus drop-off area; these two areas are divided by a channelized island (**Figure 3**). Teachers park in the north lot.



**Figure 3: Sign to direct Parents Away From Bus Drop-Off Area**

The Town of Wethersfield has assigned two crossing guards dedicated to students walking to and from Samuel B. Webb Elementary School. These two crossing guards are stationed at the following key intersections:

- Wells Road and Willow Street
- Glenwood Drive and Willow Street

In addition to the two crossing guards, there were teachers stationed at the north and south entrances during drop-off and pickup.

In general, the bus drop-off process functions rather well, with buses lining up along the north side entrance and waiting for the first bell to sound to let the students off the buses. Most parents drop off children at the south side entrance, but some were parking in bus drop-off areas which had signs prohibiting parking in these areas. The south side entrance drop-off circulation is shown in **Figure 4**. Some parents were dropping off their children on Willow Street, even in areas with signs prohibiting parking, instead of pulling into the south side entrance.



**Figure 4: Parents South Side Entrance**

The school day at Samuel B. Webb Elementary School ends at 3:10 p.m. The dismissal is staggered by bus route location, with bus dismissal and student pickup beginning at 3:10 p.m. The bus dismissal process uses the north parking lot side entrance to the school, while the parent student pickup occurs in the south parking lot side entrance similar to morning drop-off. Teachers are situated at the school's north side entrance and coordinate with teachers outside located near the buses with handheld transceivers. During dismissals, the two teachers outside notify teachers inside which bus arrived, teachers inside then escort students from the school to the bus pickup area as shown in **Figure 5**. There were fewer parents entering the south side parking lot in the afternoon than the morning, with most parking on Willow Street to pick up students. Some were seen in no parking areas, or making U-turns within the crosswalk area of Glenwood Drive, conflicting with pedestrians. Very few children were observed walking to and from school.



**Figure 5: Student Pickup Dismissal Process**

There are no bicycle racks located at the south side entrance. At this location, bicycles were seen locked on the school's handicap ramp railing as seen in **Figure 6**. There is an existing bicycle rack at the north side entrance, which remained unused throughout the day. Most children who biked from north of the school were seen passing the school and entering from the south side entrance. The north side entrance was observed to only be used by children arriving by bus.



**Figure 6: Students Using South Side Entrance Railing as a Bike Rack**

**Table 1** provides an overview of key characteristics for major streets within the immediate area.

A plan map of the pedestrian routes to Samuel B. Webb Elementary School is shown in **Figure 7**. The walkable areas to Samuel B. Webb Elementary School are shown within the blue line. This area is bounded by Round Hill Road, Goff Road, Wells Road, Glenwood Drive, Willow Street, Colonel Chester Drive and Prospect Street. Since there is a high concentration of homes throughout, this area is assessed by dividing it into three zones: (1) north, (2) east, and (3) south.

Table 1: Samuel B. Webb Elementary School Street Inventory

Street Name	Street Width	Direction of Travel	Existing Sidewalk	Sidewalk Width	Sidewalk Condition	Curb Ramps	Curb	Parking Observed on Sidewalk	Sidewalk Buffer	Crime Area
Wells Rd	32-40 ft	Two-way traffic	YES (all on south side, partial on north side)	3-5 ft	Good	YES, not ADA compliant, one is close to Willow St intersection others go into catch basins	YES	NO	YES	NO
Willow St	28-30 ft	Two-way traffic	YES (all on west side, partial on east side)	4-5 ft	Good (some upheaved pavement near Straddle Hill)	YES, with no detectable warning strips (Misaligned at Nathaniel Dr)	YES	NO	YES	NO
Prospect St	40-43 ft	Two-way traffic	YES (north side)	4 ft	Fair (broken pavement at Willow St)	YES, but broken and no detectable warning strips on north side	YES	NO	YES	NO
Glenwood Dr	36-38 ft	Two-way traffic	YES	4 ft	Good (broken pavement at one driveway)	YES, with no detectable warning strips	YES	NO	YES	NO
Goff Rd	30-40 ft	Two-way traffic	YES	4 ft (on west side, missing some sidewalk on east side)	Good	YES, with detectable warning strips only in northwest corner at Wells Rd	YES	NO	YES	NO
Cedar St	27-36 ft	Two-way traffic	YES	4 ft	Good	YES, with no detectable warning strips	YES	NO	YES	NO
Gooseberry Hill	30 ft	Two-way traffic	YES	4 ft	Good	YES, with no detectable warning strips	YES	NO	YES	NO

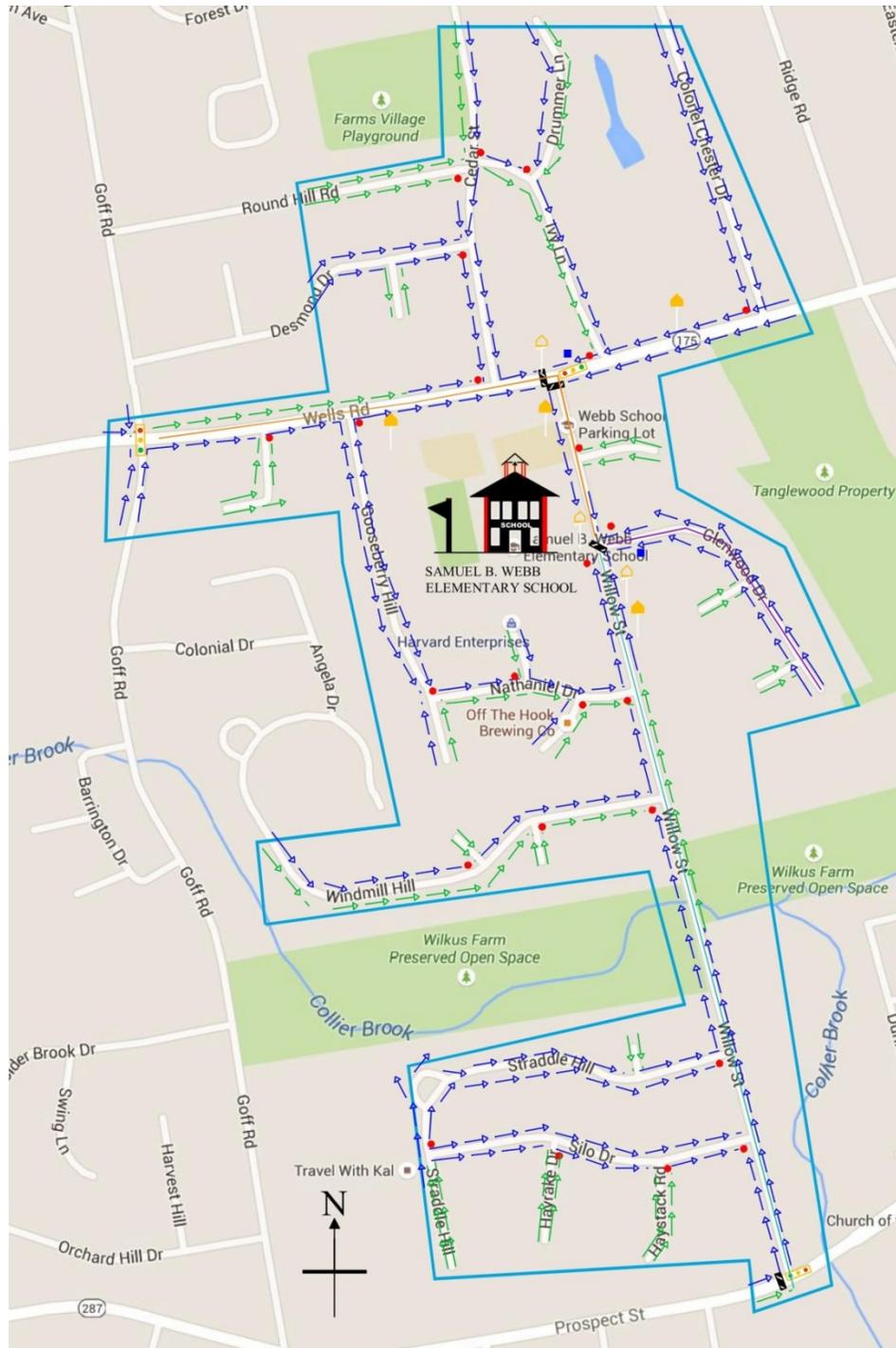
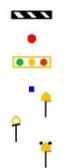


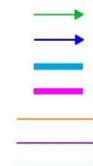
Figure 7: Samuel B. Webb Elementary School Plan Map

**KEY :**

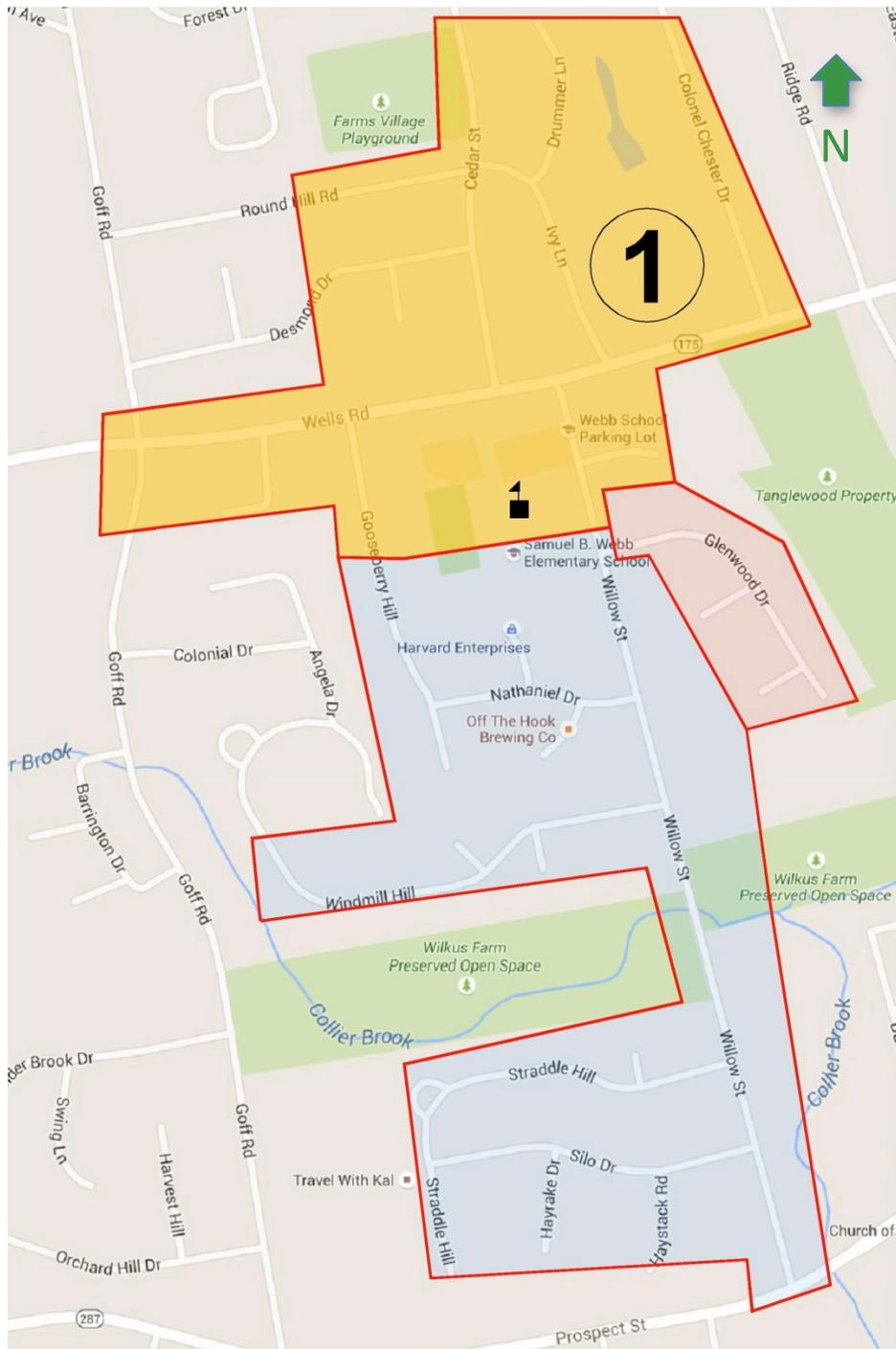
- CROSSWALK
- STOP SIGN
- TRAFFIC SIGNAL
- CROSSING GUARD
- SCHOOL CROSSING
- CROSSWALK SIGN
- FLASHING SCHOOL SIGN



- WALKING DIRECTION
- WALKING DIRECTION WITH SIDEWALK
- SCHOOL ZONE
- TOWN LINE
- ROUTE # 1
- ROUTE # 2
- ROUTE # 3



## 1.2 Pedestrian Zone # 1: North of Samuel B. Webb Elementary School



**Figure 8: Pedestrian Zone #1**

Pedestrian Zone #1 is bounded by Wells Road to the South, Goff Road to the west, Colonel Chester Drive to the east and Round Hill Road and Cedar Street to the north (orange fill). The main roads for pedestrian access to Samuel B. Webb Elementary School in Pedestrian Zone #1 include Willow Street, Wells Road, Goff Road and Cedar Street. From the furthest point at Goff Road, the route is approximately 0.5 miles to the front entrance of Samuel B. Webb Elementary School, as shown in **Figure 8**.

### 1.2.1 Roadway and Pavement Marking Conditions

In general, the sidewalk pavement quality is in good condition. The roadway along Wells Road appears newly paved at the intersection of Willow Street.

Pavement markings along this route are comprised of stop bars and crosswalks with double yellow lines on Wells Road and Willow Street. There are only edge lines along Wells Road within this pedestrian zone. There are no designated "SCHOOL ZONE" pavement markings or "SCHOOL SLOW" pavement markings within the area of the school. The crosswalk on Wells Road at the intersection of Willow Street appears to have been recently paved over; it currently does not extend the width of the roadway as shown in **Figure 9**.



Figure 9: Wells Road at Willow Street Crosswalk

There is one crosswalk location on Wells Road, east of Cedar Street approximately 200 feet west of the intersection with Willow Street, where there are handicap ramps on both the north and south side of Wells Road without a crosswalk between them. On the north side of Wells Road the sidewalk ends abruptly west of Cedar Street, and there are also upheaved sections of sidewalk on the south side as shown in **Figure 10**. Otherwise, the conditions along this route are acceptable for walking in this area. All crosswalks are faded and could be improved throughout all three zones, as listed in Table 2. Of the seven potential improvements for crosswalks and handicap ramps shown in **Table 2**, two apply to Pedestrian Zone # 1.



Figure 10: Upheaved sidewalk on Wells Rd West of Cedar St

Table 2: Unsafe Crosswalk/Handicap Ramp Locations in Pedestrian Zones # 1, 2, and 3

Location	Approach(es)	Issue	Quantity	Zone
Wells Road/Willow Street	W / S	Half painted crosswalk Faded crosswalk	1	1
Wells Road/ Cedar Street	E	Handicap ramps within close proximity to signalized intersection	1	1
Willow Street/ Glenwood Drive	S	Crosswalk is diagonal across intersection	1	2
Willow Street/ Glenwood Drive	E	Steep slope handicap ramp northeast and southeast corner	2	2
Willow Street/ Prospect Street	W	No south handicap ramp to access pedestrian push button Deteriorated north handicap ramp	2	3
TOTALS			7	

### 1.2.2 Signs

The posted speed limit in Pedestrian Zone # 1 for Wells Road is 40 mph. Willow Street has a posted speed limit of 25 mph, as well as all other streets in this zone. Within the immediate area of the school along Willow Street, there are supplemental plaques on the SCHOOL CROSSING signs with a posted speed limit of 25 mph. Vehicles appeared to exceed the speed limit on Wells Road near the intersection with Willow Street. The crossing guard at this intersection noted that drivers commonly run red lights on Wells Road. High speeds for the Wells Road approach is especially problematic because it is a major intersection that children cross to get to Samuel B. Webb Elementary School. There is a SCHOOL CROSSING sign with downward arrow plaque at the crosswalk for both Wells Road approaches. There are advanced SCHOOL CROSSING signs for both approaches; one between Ivy Lane and Colonel Chester Drive, and one east of Gooseberry Hill. These signs are new yellow-green fluorescent as specified by the Manual on Uniform Traffic Control Devices (MUTCD).

There are also a number of NO PARKING signs along Willow Street. Ideally, these signs prevent cars from parking in the vicinity of the school, which should positively impact the visibility and travel space for both walkers and bikers.

### 1.2.3 Sidewalks

With the exception of some minor roads such as Ivy Lane, Round Hill Road, Drummer Lane, and Trivet Lane, all streets surrounding Samuel B. Webb Elementary School have sidewalks on both sides of the road. The majority of these sidewalks also were accompanied by grass buffers that on average were 4' wide or greater which serve as a buffer between the sidewalk and the roadway. The sidewalk pavement at all locations along potential walking and biking routes were good quality, but visibility was obscured by trees/intersection geometry at Wells Road/ Goff Road and some pavement was upheaved on Wells Road west of Cedar Street. There is also sidewalk on both the north and south side of Wells Road that extends towards curb ramps (without crosswalks) approximately 200 feet west of the intersection with Wells Road/ Willow Street (**Figure 11**).

These handicap ramps encourage pedestrians to cross in close proximity to a busy signalized intersection when they should be directed to the crossing guard at the signalized intersection.



**Figure 11: Handicap Ramp in Close Proximity to Wells Road/Willow Street Signalized Intersection**

### 1.2.4 Crime

The school principal stated that crime is not an issue in the area.

### 1.3 Pedestrian Zone # 2: East of Samuel B. Webb Elementary School



Figure 12: Pedestrian Zone # 2

Pedestri

an Zone # 2 is bounded by Willow Street to the west and Glenwood Drive to the east (maroon fill). The main roads for pedestrian access to Samuel B. Webb Elementary School in Pedestrian Zone # 2 include Glenwood Drive and Willow Street. The longest walking route is approximately 0.1 miles long from the easternmost point on Glenwood Drive to the front entrance of Samuel B. Webb Elementary School, as shown in **Figure 12**.

### 1.3.1 Roadway and Pavement Marking Conditions

In general, the sidewalk pavement quality in Pedestrian Zone # 2 is in good condition. Pavement markings along this route are comprised of stop bars and crosswalks with double yellow lines on Willow Street. There are no edge lines along any roadways within this pedestrian zone. There are no designated "SCHOOL ZONE" pavement markings or "SCHOOL SLOW" pavement markings within this pedestrian zone. The crosswalk that crosses Willow Street at the intersection of Glenwood Drive extends diagonally from the south side of Glenwood Drive to the north side of the school's south driveway as shown in **Figure 13**. This creates conflicts with parents exiting the driveway and children crossing the street. Lastly, even though the conditions along this route are acceptable for walking in this area, the crosswalk at Willow Street/Glenwood Drive is faded and could be improved, and the handicap ramps at the northeast and southeast corner of the intersection are both very steep, as listed in



**Figure 13: Willow Street/Glenwood Drive Crosswalk in School's South Driveway**

**Table 2.** The northeast handicap ramp does not extend to a crosswalk on the north or east leg of the intersection nor does it extend to a handicap ramp on the west side of Willow Street.

### 1.3.2 Signs

The posted speed limit for Willow Street in the immediate area of the school within Pedestrian Zone # 2 is 25 mph. There are also SCHOOL CROSSING sign assemblies along this route. The intersection of Willow Street/Glenwood Drive has three advanced SCHOOL CROSSING signs for the northbound direction. Of the three northbound signs, one sign has an AHEAD sub-plate, one with a 25 mph posted speed limit plaque below it and the third sign has a downward arrow sub-plate (consecutively from south to north). There are also two newly installed SCHOOL CROSSING signs for the southbound approach, one with an AHEAD sub-plate and another with a downward arrow sub-plate. South of these SCHOOL CROSSING assemblies is also a pedestrian crossing sign for the southbound direction on Willow Street. All of these signs are new yellow-green fluorescent as specified by the MUTCD, with the exception of the SCHOOL CROSSING sign with the 25 mph plaque for the northbound approach.

### 1.3.3 Sidewalks

There are sidewalks on both sides of the street throughout Pedestrian Zone # 2. The grass strips along Glenwood Drive are approximately 4' wide or more which serves as a buffer between traffic and pedestrians using the sidewalk. Sidewalks are generally in good condition, with the exception of a section of sidewalk that extends across a driveway to the north which shows signs of deterioration as shown in **Figure 14**.

### 1.3.4 Crime

The school principal stated that crime is not an issue in the area.



**Figure 14: Broken Sidewalk through a driveway on Glenwood Drive**

### 1.4 Pedestrian Zone # 3: South of Samuel B. Webb Elementary School

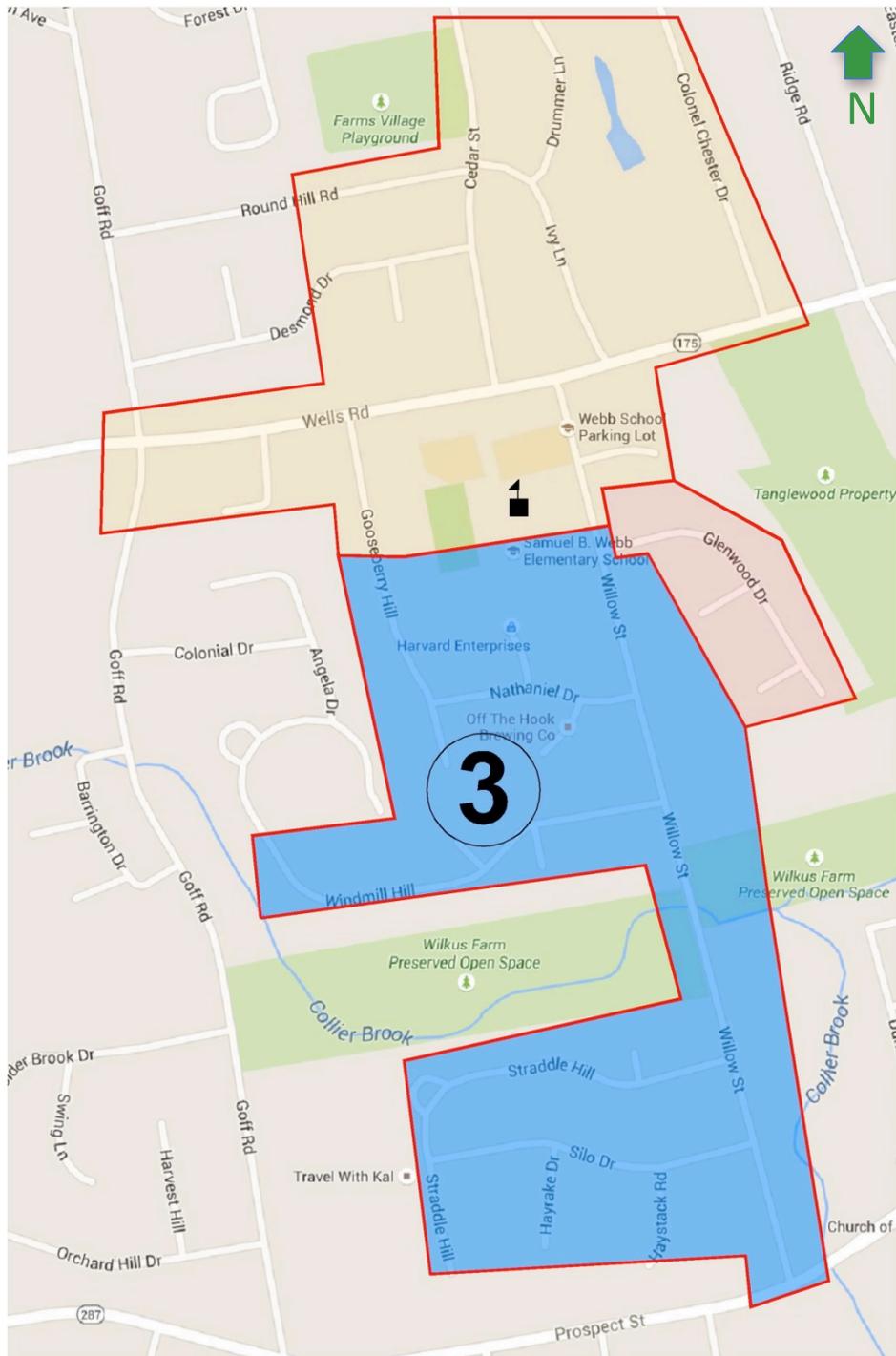


Figure 15: Pedestrian Zone # 3

Pedestrian Zone # 3 is bounded by Nathaniel Drive to the north, Prospect Street to the south, Willow Street to the east, and Gooseberry Hill, Windmill Hill and Straddle Hill to the west (blue fill). The main roads for pedestrian access to Samuel B. Webb Elementary School in Pedestrian Zone # 3 include Willow Street and Prospect Street. The longest walking route is approximately 0.5 miles long from the southernmost point on Willow Street at Prospect Street to the front entrance to enter Samuel B. Webb Elementary School, as shown in **Figure 15**.

### 1.4.1 Roadway and Pavement Marking Conditions

In general, the pavement quality is in good condition in Pedestrian Zone #3, with the exception of Straddle Hill Road which shows signs of patching as shown in **Figure 16**.

Pavement markings along this route are comprised of stop bars and crosswalks with double yellow lines on Willow Street. There are no edge lines along any roadways within this pedestrian zone. There are no designated "SCHOOL ZONE" pavement markings or "SCHOOL SLOW" pavement markings within this pedestrian zone. Lastly, even though the conditions along this route are acceptable for walking in this area, the crosswalk within this zone at Willow Street/Prospect Street on the west leg is faded and could be improved and the handicap ramp north of this crosswalk is deteriorated, as listed in



**Figure 16: Roadway Condition at Willow Street/Straddle Hill Road**

**Table 2.** The south side at this intersection has a pedestrian push button that is outdated and there are no sidewalks or handicap ramps. The push button is located in the grass strip.

### 1.4.2 Signs

The posted speed limit for Willow Street south of the school and Prospect Street within Pedestrian Zone # 3 is 35 mph. The posted speed limit for Willow Street within the area of the school is 25 mph. The school crossing and school advance crossing sign assemblies are located at the school in Pedestrian Zone #2. There are Pedestrian Crossing signs (W11-2) on Willow Street for northbound traffic directly south of Nathaniel Drive and for southbound traffic directly south of the school mentioned previously in the section for Pedestrian Zone #2. Several STOP signs (R1-1) for the side streets off of Willow Street are less than the minimum sign mounting height according to MUTCD (7 feet from the ground to the bottom of the sign).

### 1.4.3 Sidewalks

Within this pedestrian zone, Straddle Hill and Silo Drive have sidewalks on both sides of the roadway, and all other major streets have sidewalk on at least one side of the roadway. Willow Street has continuous sidewalk on the west side of the roadway, with partial sidewalk on the east side. There are no sidewalks south of Nathaniel Drive to the Wilkus Farm Preserve, nor do they exist from 140 feet north of Glenwood Drive to Wells Road. The handicap ramp on the north side of Nathaniel Drive is offset from the south handicap ramp by 14 feet as shown in **Figure 17**. There is also a handicap ramp on the north side of Prospect Street which is in poor condition at the intersection with Willow Street, and none on the south side. No handicap ramp on the south side of Prospect Street makes it difficult for some pedestrians to access the pedestrian push button. All sidewalks are in good condition, with the exception of the handicap ramp on the north side of Prospect Street which shows some signs of deterioration. All sidewalks in Pedestrian Zone #3 have grass strips approximately 4' or wider to serve as a buffer between traffic and pedestrians.



**Figure 17: Offset Handicap Ramps at Nathaniel Drive**

### 1.4.4 Crime

The school principal stated that crime is not an issue in the area.

## 2 ASSESSMENT OF WALKING ROUTES AND SCHOOL GROUNDS

This section summarizes an assessment of the three walking routes in accordance with SRTS practices. Best Practices and Key Issues are discussed below.

### 2.1 Best Practices

The following SRTS best practices were observed during the walk audit:

- Sidewalks are generally in good condition, with the majority of the streets having grass buffers and sidewalks on both sides of the road within all three pedestrian zones.
- Crossing guards were stationed at high density traffic areas and walking zones. These crossing guards wore proper safety vests and used handheld stop signs.
- School buses line up and let students out for arrival in an orderly manner after the bell rings. Several teachers are stationed outside/inside the building helping with arrival and dismissal.



Figure 18: School Buses Lined up Waiting for Dismissal

- The bus dismissal process is also orderly and bused students are dismissed by bus route at the north side exit of the school where the school buses are located (**Figure 18**).
- Most of the walking routes in the immediate area of the school are through residential neighborhoods and have posted 25 mph speed limits, with the exception of Wells Road and Willow Street which have higher posted speeds.
- Most signs within the area are new yellow-green fluorescent as specified by the MUTCD.
- The school has a bike rack on the north side of building to accommodate cyclists.
- There are no apparent crime concerns within any of the pedestrian zones.

### 2.2 Key Issues

Operational issues that were noted and can be improved include:

- Some signs within the area were installed too low, where pedestrians can potentially hit the sign.
- All of the students currently lock their bikes on the handicap railing at the south side entrance. There are currently no bike racks at this location. The SRTS team did not witness use of the bike rack located at the north side entrance during the walk audit.
- Some pavement in the pedestrian zones has deteriorated. Crosswalks in all three zones are faded and the crosswalk in front of the school at Glenwood Drive extends diagonally across the school south driveway and handicap ramps have steep slopes as noted previously in **Table 2**.
- The handicap ramps on the north and south side of Nathaniel Drive are misaligned and are offset by 14 feet. This makes it difficult to cross for pedestrians with handicaps.

- Due to limited through streets in the area, pedestrians are forced to walk longer distances to access the school. There is no direct path to school from nearby residences located directly behind school, such as Nathaniel Drive.
- The intersection of Goff Road and Wells Road lack: pedestrian signal heads (the existing push buttons change the traffic signal heads), sidewalk on the north side of the roadway, crosswalks, and stop bars for all approaches except for the south leg. Also, the northwest apex handicap ramp is angled towards the center of the roadway without a clear crossing pathway as seen in **Figure 19**. There are also overgrown hedges along the north side of Wells Road at this location.



**Figure 19: Lack of Safety Measures at the Intersection of Goff Road/Wells Road**

- There is a lack of proper gear for teachers helping with arrival and dismissal. Teachers were not wearing safety vests (**Figure 20**).
- The SRTS team can come to the school and talk to the PTA and introduce the SRTS program. They will offer pedestrian and bike training, while helping to inform parents about the safest way to pick-up and drop-off their children. The team could also further explain the drop-off and pick-up processes.
- There is no designated school zone around the school to provide an enforceable speed limit during the arrival and dismissal times.
- It was noted that drivers run through red lights at the intersection of Wells Road and Willow Street, which is a major crossing point for children.
- There are currently handicap ramps on both the north and south side of Wells Road approximately 200 feet west of the signalized intersection with Willow Street, which encourages students to cross a busy intersection away from the crossing guards.
- The percentage of pedestrians that walk to Samuel B. Webb Elementary School (14% as reported by the school) is relatively low given the available walking infrastructure.
- It appears that parents are driving students relatively short distances to the school as opposed to walking them to the school.
- Even though most parents drop off their children at the south side entrance, the process is not orderly within this lot, and children cross between parent drop-off vehicles. During the pickup process, many parents do not enter the drop-off area, and instead line up along Willow Street in parking prohibited areas. Some parents were seen making U-turns within the south side driveway within the Glenwood Drive crossing area.



**Figure 20: Teachers Not Wearing Safety Vests During Dismissal Process**

### 3 RECOMMENDATIONS

The CTDOT SRTS team developed a list of improvements to address the issues affecting the various walking routes to Samuel B. Webb Elementary School. They have been separated into two categories: short-term and long-term improvements.

#### 3.1 Short-Term Improvements

The SRTS audit team recommends the following short-term low cost improvements to be considered for Samuel B. Webb Elementary School in the Five E's<sup>1</sup> framework:

##### 3.1.1 Education

- The SRTS Program provides free pedestrian and bike education for students and parents. The SRTS committee could contact the SRTS team to arrange follow up training or check the CTDOT website after September 2016 for more information<sup>2</sup>. These education programs would clarify for parents where to walk their children within the school bus drop-off/pickup area.
- Attend a Driver and Passenger Educational program to clarify drop-off/pickup procedures to new parents at the beginning of the school year, taking into account the arrival of the buses during drop-off. This will reduce issues with parents parking in school bus drop-off areas or in general no parking areas (**Figure 21**). This might also establish a safe means of entering the south side entrance instead of parking along Willow Street.



**Figure 21: No Parking/Student Drop-Off Sign**

##### 3.1.2 Encouragement

- Walking Wednesdays, Walking / Biking contests, and mileage tracking could help continue encouraging walking and biking to school throughout the year.
- Encourage faculty and staff members to assist parents during drop-off and pickup process. If they are directing traffic, ensure they wear safety vests.

##### 3.1.3 Enforcement

- Encourage school staff or if necessary law enforcement to monitor temporary illegal parking and drop-off along Willow Street or in the north side parking lot. Place safety cones in areas along Willow Street where parking is not allowed.

<sup>1</sup> Five E's of Safe Routes to School are Education, Encouragement, Engineering, Enforcement and Evaluation

<http://www.walkitbikeitct.org/The5Es.html>

<sup>2</sup> CT Department's Bicycle and Pedestrian Dashboard

<http://www.ct.gov/dot/cwp/view.asp?a=3531&q=259658&dotPNavCtr=#40030>

- Encourage law enforcement to monitor speeding and/or red light traffic violations at the intersection of Wells Road and Willow Street.
- Encourage law enforcement to provide periodic patrols during school arrival and departure in order to deter parents from making U-turns within the crosswalk at Glenwood Drive.

### 3.1.4 Engineering

- Install SCHOOL ZONE pavement markings and the appropriate corresponding school zone signage with recommended speed for school zones for all approaches on Wells Road and Willow Street to alert motorists that they have entered a school zone per Connecticut Department's School Zone Guidelines shown as an attachment.
- Install a "BEGIN HIGHER FINES ZONE" sign (R2-10) west of Gooseberry Hill for eastbound vehicles and west of Colonel Chester Drive for westbound vehicles with "END SCHOOL ZONE" sign (S5-2) on the opposite side. Install SCHOOL ZONE pavement markings in both directions. Both signs and pavement markings shall comply with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- It is recommended that over time all signage around the school be updated to meet MUTCD current specifications, particularly with regards to size, reflectivity, mounting height (MUTCD Figure 2A-2) and the fluorescent yellow-green color. An example of this MUTCD S1-1 school sign is shown in **Figure 22**. If school zone signs are not implemented, then replace the S1-1 SCHOOL CROSSING assembly with a current S1-1 sign and a School Speed Limit Assembly on the northbound approach south of the school. School Speed Limit Assembly includes a 25mph sign (R2-1) with a SCHOOL plaque mounted above (S4-3P). All S1-1 assemblies are current with the exception of this sign.
- Relocate the existing north side parking lot bike rack, or install a new bicycle rack at the south parking lot entrance where all of the children are currently parking their bikes on the handicap railing.
- Restripe all crosswalks in compliance with MUTCD that are faded or missing within the school area, such as Wells Road/Willow Street and Glenwood Drive/Willow Street.
- Trim vegetation at the intersection of Wells Road and Goff Road and install new crosswalks at the signalized intersection of Wells Road and Goff Road to increase safety and to clarify crossing points for pedestrians and drivers. This intersection is included for signal replacement in State Project 171-402, currently scheduled to be constructed in 2019. The Department will coordinate with the Town regarding the design once the project commences.
- The vehicular traffic volume, pedestrian volume, crash data and signal timing should be reviewed at the intersection of Willow Street and Wells Road to determine if the signal timing is appropriate for this intersection. Currently, there are concerns with vehicles speeding and running the red light, causing potential issues with pedestrians. This signal, along with its pedestrian accommodations, is being completely replaced under State Project 171-377, currently scheduled to be constructed in 2017.



Figure 22: MUTCD S1-1 Sign

### 3.1.5 Evaluation

Evaluating your school's Safe Route to School Committee's progress is an important step in the process. We recommend using the parent and student surveys that can be found on the [walkitbikeitct.org](http://walkitbikeitct.org) website to measure the progress being made by the SRTS Committee on a yearly basis, as a minimum. At the onset of each academic year, walking and biking conditions and opinions on pedestrian and cycling issues can change. One of the best ways to stay abreast of these changes is to have regular committee meetings and utilize the surveys to guide the committee's efforts and to assess new parents' and students' concerns. Measure your progress and make changes to your plan as needed.

## 3.2 Long-Term Improvements

The areas surrounding Samuel B. Webb Elementary School already have several amenities that are conducive to walking and bicycling to school safely. The adjacent land use is largely residential, with sidewalks and crosswalks present along all major walking routes. Employing the Five E's Guidelines, the following improvements are recommended:

### 3.2.1 Education

- The SRTS Program provides free pedestrian and bike education for students and parents. The SRTS committee could contact the SRTS team to arrange regular follow up training when there are new faculty and staff members.
- Attend Driver and Passenger Educational program to clarify drop-off and pickup procedures including the arrival of the buses during drop-off.
- Work with the Town of Wethersfield Public Works Department on a media campaign to both encourage and educate property owners about increased pedestrian safety as a result of better sidewalk maintenance. This media campaign can issue press releases and newspaper columns, among other forms of communication.

### 3.2.2 Encouragement

- Walking Wednesdays, Walking / Biking contests, and mileage tracking could continue the encouragement of walking and biking to school throughout the year (**Figure 23**).
- Encourage faculty and staff directing traffic to wear safety vests.

### 3.2.3 Enforcement

- Request an increase in police presence on Wells Road at Willow Street to enforce speed and traffic control violations.

### 3.2.4 Engineering

- Replace sections of



Figure 23: Biking Students Arriving to School at South Lot Entrance

deteriorated/upheaved sidewalk throughout the school zone areas. Install new sidewalk in areas where sidewalk ends abruptly (1) east side of Willow Street between Nathaniel Drive to the Wilkus Farm Preserve; (2) Glenwood Drive to Wells Road; and (3) north side of Wells Road between Goff Road and Cedar Street. Install new handicap ramp and detectable warning strips where new sidewalk is constructed.

- Install detectable warning strips on all handicap ramps to conform to ADA requirements where none exist along Wells Road and Willow Street within the study area.
- Plant trees along the grass buffer on Willow Street south of the school to provide shade for pedestrians and enjoyment of walking in this area. Ensure trees that are planted do not obstruct sightlines along Willow Street.
- Install pedestrian signal heads with pedestrian push buttons at the intersection of Wells Road and Goff Road to increase awareness of when to cross for pedestrians.
- Install handicap ramps, detectable warning strips, regrade the handicap ramps and/or relocate the crosswalk as noted below:
  - a. Install a new handicap ramp with detectable warning strips on the northwest and southwest corners at the intersection of Wells Road (Route 175) and Goff Road.
  - b. Remove the handicap ramps on both north and south side of Wells Road approximately 200 feet west of Willow Street to eliminate the additional crossing location in close proximity to the signalized intersection.
  - c. The handicap ramps at Nathaniel Drive are currently offset by 14 feet. Replace the handicap ramp located on the north leg with one in line with the south ramp.
  - d. At the intersection of Willow Street/Prospect Street, replace the deteriorated northwest handicap ramp and install a handicap ramp with detectable warning strip on the southwest corner.
  - e. Regrade the handicap ramps on the east side of Willow Street at Glenwood Drive to be ADA compliant and realign the southeast corner to align with the northeast handicap ramp. Install a new handicap ramp on the northwest corner of the intersection that aligns with a second handicap ramp on the northeast corner, remove the diagonal crosswalk and install crosswalks on the north and east leg of the intersection. Consider installing yield lines and corresponding “Yield Here to Pedestrians” sign (R1-5) or a similar sign, at least 20 feet in advance of the crosswalk for both approaches. Install edgelines along Willow Street to provide defined shoulders for bikes to travel along and to provide traffic calming in the immediate school area. This concept can be seen in **Figure 24**.



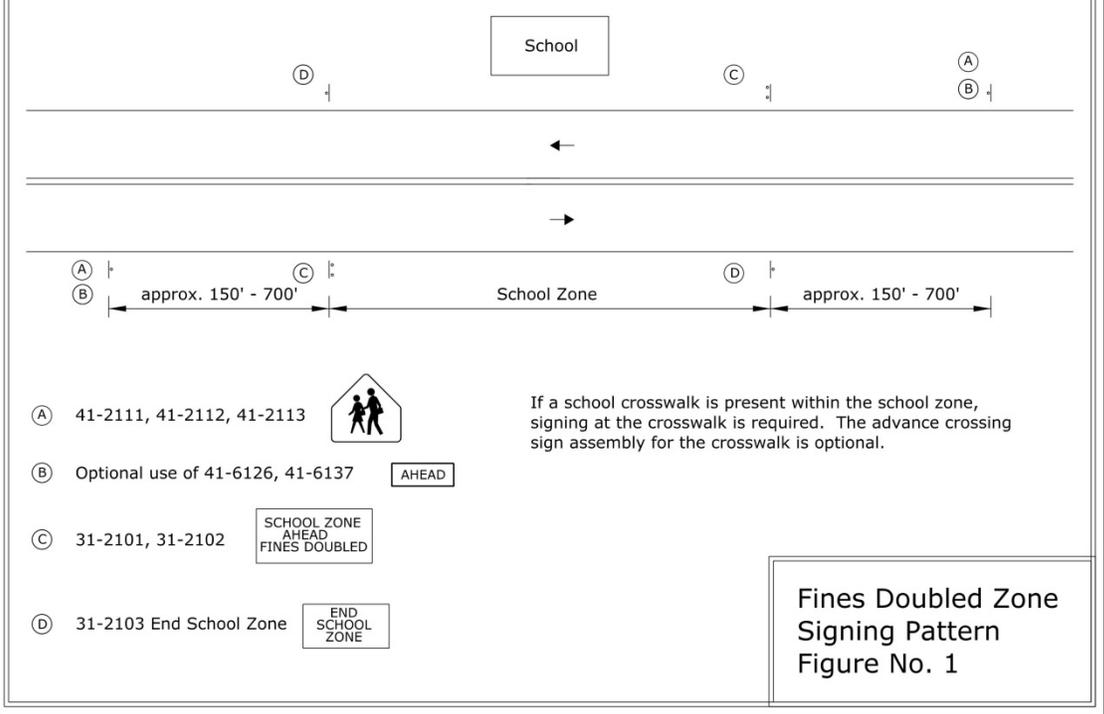
**Figure 24: Glenwood Drive at Willow Street Intersection Concept**

The aforementioned Safe Routes to School Walk Audit Report is an objective review intended for the School’s Safe Routes Committee use to help assess the existing conditions surrounding the school. This document is an innovative planning tool to help identify bicycle, pedestrian and non-motorized transportation needs that encourage walking and bicycling to the school, as well as assists in developing recommendations to improve existing conditions. The contents of this report are not intended to be legally binding, but rather offer recommendations to improve safety in the vicinity of the school and create a more appealing transportation alternative.

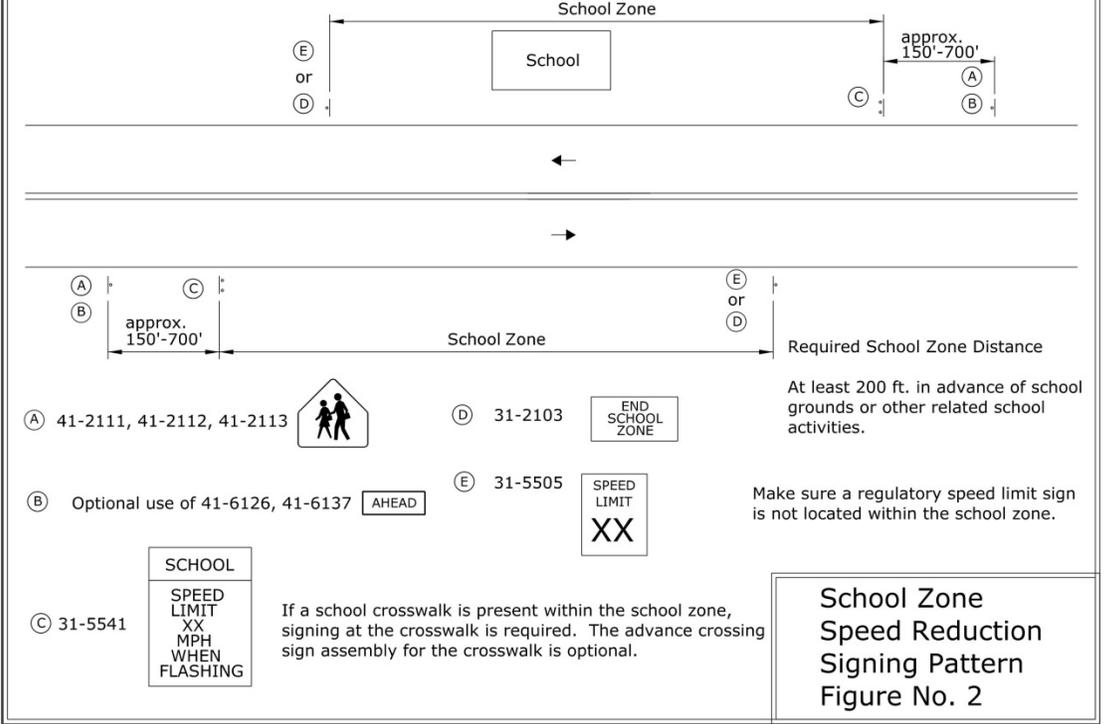
## Appendix A. CT Department's School Zone

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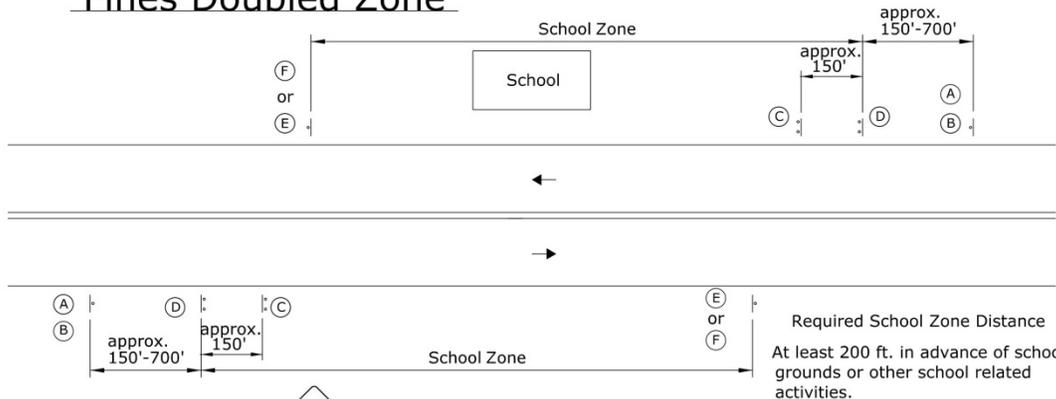
## School Zone Ahead Fines Doubled Zone



## School Speed Limit XX mph When Flashing Zone



## School Speed Limit XX mph When Flashing with a Fines Doubled Zone



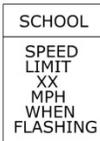
(A) 41-2111, 41-2112, 41-2113



(B) Optional use of 41-6126, 41-6137

If a school crosswalk is present within the school zone, signing at the crosswalk is required. The advance crossing sign assembly for the crosswalk is optional.

(C) 31-5541



(E) 31-2103



Make sure a regulatory speed limit sign is not located within the school zone.

(F) 31-5505



(D) 31-2101, 31-2102



**School Speed Limit XX  
When Flashing with a  
Fines Doubled Zone  
Figure No. 3**

## Non-Regulatory School Area Signing



(A) 41-2111, 41-2112, 41-2113



Suggested School Area Distance

Not less than 150 ft or more than 700 ft.

(B) Optional Use of:

Ahead Subplate 41-6126, 41-6137 

If a school crosswalk is present within the school area, signing at the crosswalk is required. The use of an "AHEAD" or "XXX FT" subplate is now required on Sign A.

**Non-Regulatory  
School Area  
Signing  
Figure No. 4**

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