Speed Data Information Summary:

Location 1 – Englishmen Drive at Englishmen Court

Eastbound – 85th Percentile Speed 17 mph

Westbound - 85th Percentile Speed 17 mph

Location 2 – Englishmen Drive at Grove Ridge Way

Eastbound – 85th Percentile Speed 23 mph

Westbound - 85th Percentile Speed 24 mph

<u>Location 3 – Englishmen Drive midway between Grove Ridge Way and Nibud Court</u>

Eastbound – 85th Percentile Speed 21 mph

Westbound - 85th Percentile Speed 21 mph

Location 4 – Grove Ridge Way at motorcycle parking close to speed bump

Northbound – 85th Percentile Speed 18 mph

Southbound - 85th Percentile Speed 19 mph

Speeds gathered during the study are reasonable speeds, no additional traffic calming required.

School Bus Stop Operation Review:

Grosvenor Place at Englishman Drive Intersection: Multiple School Buses northbound along Grosvenor Place approaching Englishman Drive provide advance warning by using their YELLOW flashing light operations for all directions, then bus lights turn to Solid RED, stopping all vehicle movements in all directions. Students then access / exit the bus.

Note: Advanced school bus stop ahead signs may be a recommendation for Grosvenor Place as part of the larger overall site study. More field review for additional signage will be conducted to make this determination.

School Bus Stop Observations via Time Lapse Cameras:

Time lapse cameras were used to document how pedestrians use the existing intersection and amenities. The lack of well-defined crosswalks and the random stopping locations of the school buses define the paths used by pedestrians. Below are multiple examples of the random crossings that occur throughout the day.

Grosvenor Place at Englishman Drive Recommendations:

A new marked crosswalk containing white lines is recommended to be installed crossing Grosvenor Place. Crosswalks are required to have white lines. The existing yellow lines do not establish a proper crosswalk. A new ADA compliant pedestrian ramp should be installed on the east side of Grosvenor Place to provide a proper transition to the existing east side sidewalk from the street level. The existing curb line condition is just a roll type gutter that doesn't meet ADA requirements.

The new properly marked crosswalk with a new pedestrian ramp will help establish a better stopping location for buses to stop and in turn pedestrians will have more opportunity to use the new crosswalk and ADA compliant ramps.

Crossing example observations using time lapse cameras:



May 19 at 3:38pm Northbound drop-off

May 19 at 4:00pm Northbound drop-off



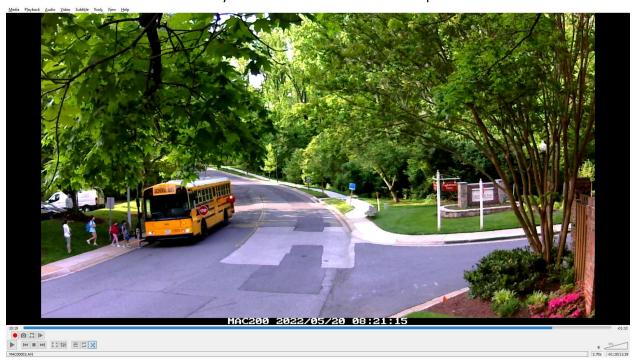
May 20 at 7:10am Northbound Pick-up



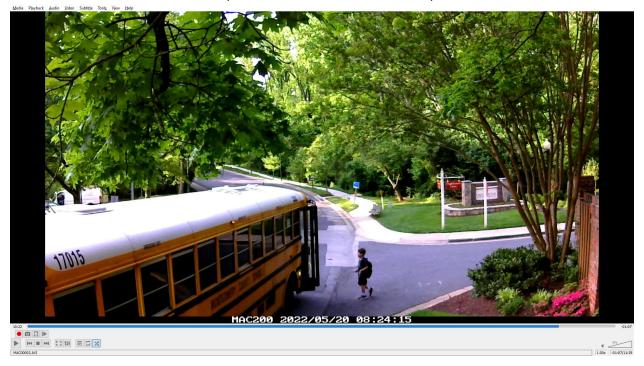
May 20 at 7:47am Northbound Pick-up



May 20 at 8:21am Northbound Pick-up



May 20 at 8:24am Southbound Pick-up



May 20 at 8:33am Trash Truck Exit Englishman Drive



May 23 at 7:14am Northbound Pick-up



May 23 at 7:48am Northbound Pick-up



MAC280 2022/05/23 08:20:41

May 23 at 8:21am Northbound Pick-up.

<u>Grosvenor Place at Grove Ridge Way Intersection Recommendations:</u>

A new marked crosswalk containing white lines should be installed crossing Grosvenor Place. Crosswalks are required to have white lines. The existing yellow lines do not establish a proper crosswalk. A new ADA compliant pedestrian ramp should be installed on the east side of Grosvenor Place to provide a proper transition to the existing east side sidewalk area. The existing curb line condition is just a role type gutter that doesn't meet ADA requirements.

The new properly marked crosswalk will establish a better stopping location for buses to stop and in turn pedestrians will have more opportunity to use the new crosswalk and ADA compliant ramps.

Crossing example observations using time lapse cameras:

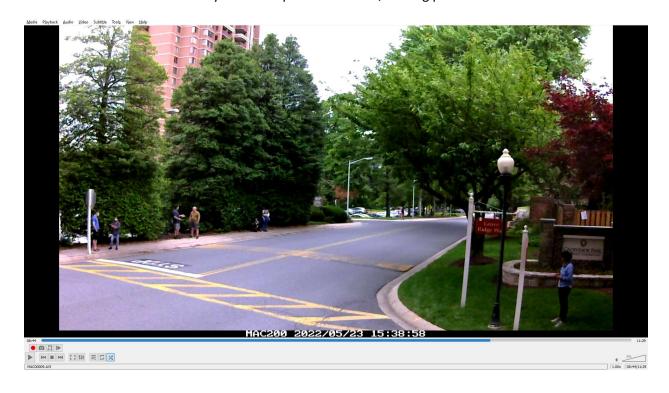
May 23 at 3:38pm Northbound – Parents waiting along sidewalk, other students crossing Grosvenor Place that walked north from the Englishman Intersection Bus Stop.



May 23 at 3:38pm Northbound – Parents waiting along sidewalk, students not using crosswalk.



May 23 at 3:39pm Northbound, waiting parents



May 23 at 3:40pm Northbound drop-off, younger students not using crosswalk.



MAC209 2022/05/23 15:49:43

May 23 at 3:41pm Northbound drop-off, Bus moving while child still in the roadway with lights off.

Grove Ridge Way Access at Grosvenor Place Intersection:

On multiple occasions pedestrians were observed walking within the street on the southern side of the access (Grove Ridge Way). On multiple occasions pedestrians that used the street area to walk in /out of the community also interacted with multiple vehicles in and out of the community creating a very unsafe condition. Few pedestrians were observed using the existing walkway path on the northern side. The existing walkway path along the north side of Grove Ridge Way is made up of large "railroad ties" retaining wall type materials, consisting of wood, concrete, and slate squares. This path climbs up and over an elevated landscaped area and unfortunately touches down along Grosvenor Place roadway approximately 35 Feet north before the intersection of Grove Ridge Way. Pedestrians that use the north side pedestrian path connection to access Grosvenor Place find themselves at the existing curb edge about 2 vehicle lengths too far north and end up crossing the street in between stopped vehicles and other vehicles slowing down to stop. Pedestrian crossings should only occur directly from the intersection corner in front of a stopped vehicle and not set back from the intersection.

Recommendation: Install a new 5 ft. wide sidewalk along the southern curb line of Grove Ridge Way connecting to the Grove Ridge Court sidewalk on the west and the southwest corner of Grosvenor Place on the east. The existing northern sidewalk connection should be maintained to provide the residence (6

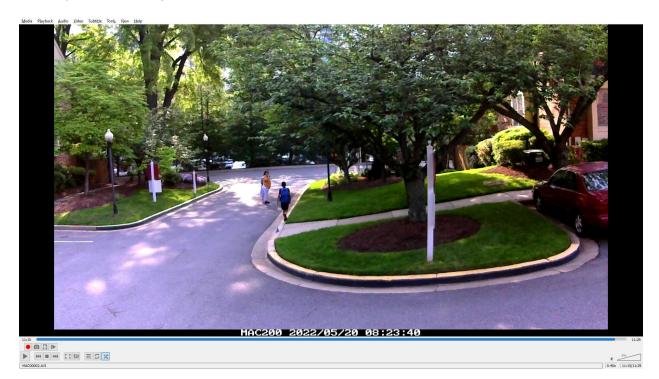
homes in the northeast site closest to Grosvenor Place) accessibility to/from their rear yards. The new sidewalk to be constructed along the southern side of Grove Ridge Way will reduce even more the few pedestrians that use the existing northern sidewalk.

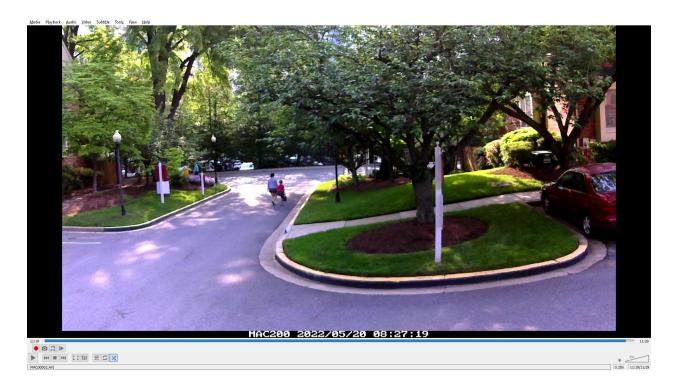
A new Raised Crosswalk is recommended to cross pedestrians to/from the north side of Grove Ridge Court to the southern side to access Grosvenor Place frontage.

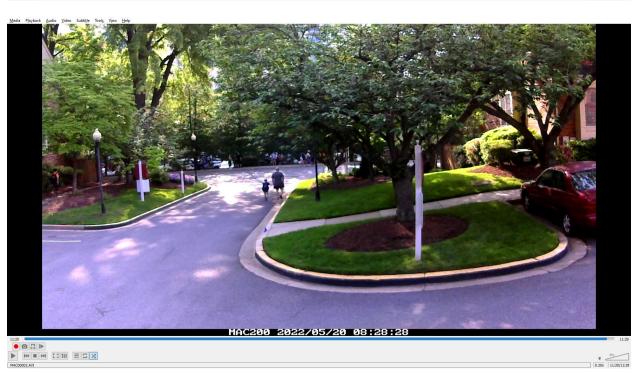
The new sidewalk should include an ADA compliant pedestrian ramp at the corner of Grove Ridge Way and Grosvenor Place (southeast corner).

NOTE: Grosvenor Place roadway improvements are not part of this study. The following notes about relocating the existing crosswalk across Grosvenor Place roadway at the intersections will be part of the overall campus study recommendations. The crosswalk needs to be re-aligned with the new sidewalk and ramp if town home community installs the new path.

A new marked crosswalk containing white lines should be installed crossing Grosvenor Place as part of the overall campus improvements. Crosswalks are required to have white lines. The existing yellow lines do not establish a proper crosswalk. A new ADA compliant pedestrian ramp should also be installed on the east side of Grosvenor Place to provide a proper transition to the existing sidewalk area. The existing condition is just a roll type gutter that doesn't meet ADA requirements. Grosvenor Place improvements are not part of this study.

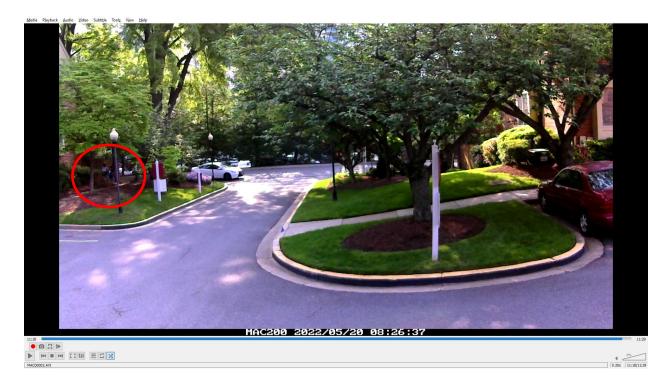






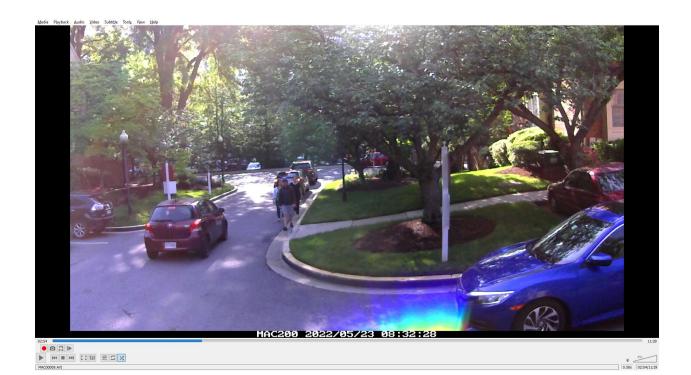


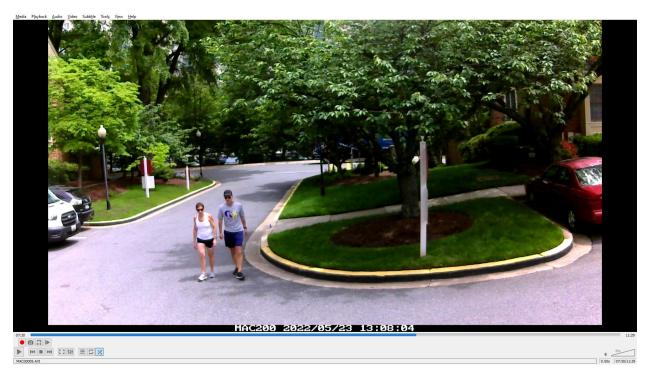


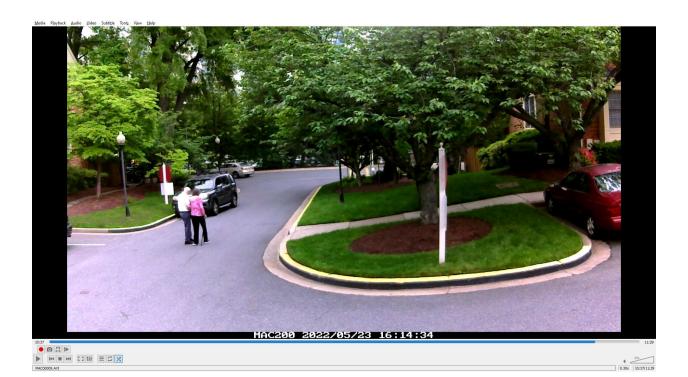


<u>Note:</u> Red circle highlights that some pedestrians do use the existing sidewalk.











End of Englishman Drive

Children play within the circle area, riding bikes around the island and gathering at the southeast end of the island. While there appears to be children playing in the street, speeds in the general area were observed at reasonable speeds. Safe stopping sight distance to this area at the recorded speeds provides enough area to avoid conflicts. Children should be warned to stay as alert as possible for approaching vehicles and to take a safe position along the curb line and if possible, out of the paved area to avoid injury.







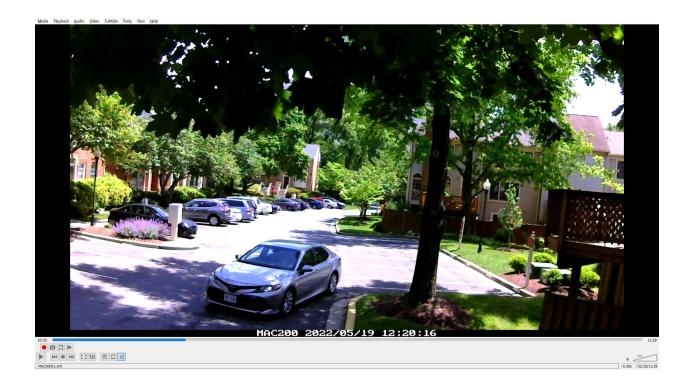
<u>Existing Speed Bump adjacent to the existing Motorcycle Spaces:</u> When the parking spaces are empty adjacent to this speed bump, vehicles were observed on multiple occasions driving around the bump to avoid it all together. Vehicles were observed avoiding the speed bump even in the opposite direction.

Recommendation: Remove the existing bump and install 1 new bump one parking space to the west (1 space closer to the tree within the photograph). This shift of the speed bump 1 space to the west will make it difficult to maneuver around the bump at a higher speed in either direction. The shift will create a parking space area along the north side of Grove Ridge Way but the space of one missing parked vehicle will not allow vehicles to drive around the bump at a higher speed.





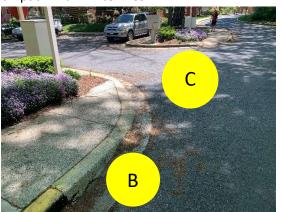




<u>Internal pavement markings including the marking of visitor and reserved parking spaces:</u>

- A. Pavement markings were observed faded and sometimes unreadable. Should be repainted.
- B. Yellow curb areas were observed faded in some areas. Should be repainted.
- C. Crosswalk should provide clear marked pedestrian path with white lines.





Sidewalk Path Deficiencies:

Pedestrian paths should be free of obstructions including steps when possible.

Grove Ridge Way Pedestrian Path / Sidewalk

The existing property terrane along the south side of Grove Ridge Way makes it almost impossible to provide a pedestrian path connection from Grove Ridge Place to Grosvenor Place. There are 2 existing steps, an existing swale (grading drop on the side of the home just west of the existing dedicated motor-cycle parking spaces along with a large root structure tree directly adjacent to the motorcycle spaces. Just beyond the curb line in front of the motorcycle spaces there are 2 transformers that are slightly elevated above grade.

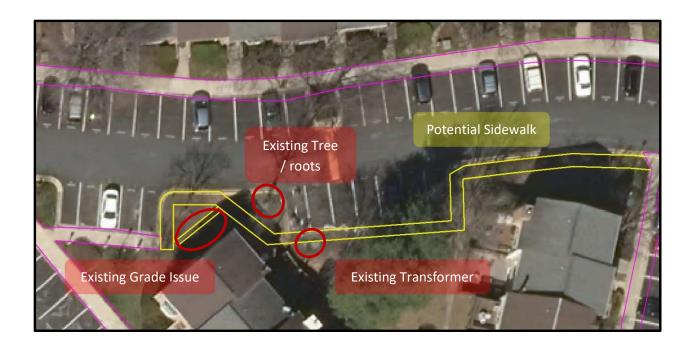
<u>Recommendation:</u> All pedestrians to/from the southeast corner of Grove Ridge Place at Grove Ridge Way should cross to the north side of Grove Ridge Way. The plan details a new raised crosswalk to facilitate crossing at this point. The Raised crosswalk will reduce speeds along this road link even more.

The existing landscaped Island 4 parking spaces to the west of the new Island can be removed to maintain the same number of parking spaces.





Preliminary Cost Estimate are attached. Preliminary Estimate 1 is for guiding pedestrians to the north side sidewalk area. Preliminary Estimate 2 is for the southern side sidewalk connection with retaining wall and includes 320 FT of additional sidewalk if in fact the sidewalk can be placed in front of the transformer area. This alternate would still require pedestrians to traverse the existing steps to the west. This estimate would also eliminate the need to remove an Island to replace the parking space lost to the pedestrian sidewalk connection on the north side adjacent to the Raised Crosswalk. Would also remove the raised crosswalk across to the north side of Grove Ridge Way.



2. Englishman Court at Englishman Drive

The left side of the access to Englishman Court, adjacent to the existing mailbox and the fire hydrant contains a step between the two abutting sidewalks.

<u>Recommendation:</u> See Plan - The sidewalk area in front of the home should be removed and replaced to tie into the existing higher sidewalk. The Slate tiles should be removed and replaced to tie into the higher sidewalk area to provide a continuous accessible path to the street. Lowering the top portion of the existing sidewalk closest to the vehicle would result in a more severe sidewalk grade approaching the grass area. A new ADA compliant ramp should be installed so pedestrians can access the street level without stepping down. A new crosswalk with white lines should be installed.



Signage Recommendations:

The existing stop signs and the existing speed signs are all decorative in nature but do not meet the Manual on Uniform Traffic Control Devices (MUTCD). These signs should be the proper color, size and contain reflective sheeting that makes them more visible during nighttime. Additionally, signage within residential communities that matches those more commonly seen on government roadways and within traffic rule guidelines are more likely to be obeyed.

Recommendation: Replace the stop signs and speed signs to match the specification sheets attached to this report and as shown on the site drawing. The Traffic Calming ahead signage should also be added to warn visitors / guest that traffic calming devices are present. See plan for size info.



