

**CITY OF DELAWARE
PARKING AND SAFETY COMMITTEE
CITY COUNCIL CHAMBERS
CITY HALL
1 S. SANDUSKY STREET
6:00 P.M.**

AGENDA

August 20, 2018

1. ROLL CALL
2. APPROVAL of Motion Summary for the meeting held April 16, 2018 as recorded and transcribed.
3. PUBLIC COMMENTS
4. UPDATE and DISCUSSION of West Hull Drive
5. DISCUSSION and CONSIDERATION for the installation of “No Parking” signage on Richardson St., from Hayes St. to the alley between Richardson St. and Cheshire St.
6. DISCUSSION and CONSIDERATION of “No Parking” signage on the south side of Diverston Way on the north and south side of Diverston Way from Houk Road to Blakemore Drive.
7. DISCUSSION of Dynamic Speed Feedback Sign Report
8. DISCUSSION and CONSIDERATION of the recommendations of the Downtown Parking Advocacy Committee – Enforcement Work Group, as listed:
 - a. Extend Days and Hours of parking enforcement
 - b. Expand downtown time limited parking to 3 hours
 - c. Change in fine structure
9. STAFF COMMENTS
10. COMMITTEE COMMENTS
11. ADJOURNMENT

**PARKING AND SAFETY
MOTION SUMMARY
April 16, 2018**

ITEM 1. ROLL CALL

Chairman Shafer called the Parking and Safety Meeting to begin at 7:00 p.m.

Members Present: Councilman Chris Jones, Councilwoman Lisa Keller, and Chairman Kent Shafer Members

Motion to Excuse: Mr. Jones moved to excuse Councilwoman Keller, seconded by Chairman Shafer. Motion approved by 2-0 vote.

Staff Present: Kelsey Scott, Economic Development Specialist, Robert Penrod, Police Captain, Jessica Ormeroid, Project Manager,

ITEM 2. APPROVAL of the Motion Summary of the Parking and Safety Committee meeting held February 19, 2018, as recorded and transcribed.

Motion: Mr. Jones moved to approve the Motion Summary of the Parking and Safety Committee meeting held February 19, 2018, seconded by Chairman Shafer. Motion approved by a 2-0 vote.

ITEM 3. PUBLIC COMMENT

ITEM 4. CONSIDERATION for the installation of “No Parking” signage on Richardson St., from Hayes St. to the alley between Richardson St. and Cheshire St.

Captain Penrod discussed the request to remove parking on one side of the road. He discussed notification efforts to the surrounding neighbors on Richardson Street. He discussed the difficulty maneuvering a vehicle on the street when both sides of the street have parked cars. Captain Penrod also discussed that it was observed that trees were cut down that were located in the right of way and private property on the west side of Richardson Street.

PUBLIC PARTICIPATION:

Vanesh Vazirani
164 Richardson Street
Delaware, Ohio 43015

Mr. Vazirani questioned staff on what started the investigation and survey to

the neighbors. He voiced concerns of the lack of parking and the need to have open parking throughout the east side of Richardson Street for parking. He voiced concerns about the perception of neighbors that you may only park in front of the house.

Larry Bradley
161 Richardson Street
Delaware, Ohio 43015

Mr. Bradley voiced concerns related to the accident history of Cheshire and Vine. He recommended that the street be designated as a one way street.

Chairman Shafer requested that staff provide input from the Fire Chief regarding the recommendation to designate parking on the east side of the street only.

ITEM 5. DISCUSSION and CONSIDERATION of traffic calming measures at the corner of Cobblestone drive and Canal Street.

Staff discussed the option to use traffic calming measures in the area. Ms. Ormeroid discussed the average speed and average amount of vehicles that stop appropriately at the Cobblestone and Carson Farms four way intersection. She stated that 85% of drives have an average speed of 31-32 mph. Captain Penrod discussed enforcement efforts in the area.

PUBLIC PARTICIPATION:

Mary Lou Lovell
661 Cobblestone Drive
Delaware, Ohio 43015

Ms. Lovell voiced concerns over the lack of stop signs and speed in the area.

Toby West
679 Cobblestone Drive
Delaware, Ohio 43015

Ms. West voiced concerns over the high speeds from Houk Rd to Canal Street.

Ms. Ormeroid recommended using the dynamic speed back sign in the area.

ITEM 6. DISCUSSION and CONSIDERATION of parking restrictions on West Fountain Avenue.

Captain Penrod discussed the concern relating to parking on both sides of the street and the difficulty maneuvering vehicles in and out of driveways and on

the street. Captain Penrod informed the Committee that staff observed conditions while the high school students were both on spring break and back in session. He discussed the significant increase of parked cars on both sides of the street when school was in session. Captain Penrod discussed the recommendation of parking restrictions on one side of the road from 7 am to 4 pm, and will send out a survey to surrounding residents for further discussion. Ms. Ormeroid reviewed the accident history in the area.

PUBLIC PARTICIPATION:

Richard Jackson
270 West Fountain Avenue
Delaware, Ohio

Dick Brulotte
292 West Fountain Avenue
Delaware, Ohio

Mr. Brulotte and Mr. Jackson voiced their support for parking restrictions during school hours and voiced difficulty having two traffic when cars are parked on both sides of the street.

The Committee requested that surrounding neighbors be surveyed and notified of the recommendations.

ITEM 7. DISCUSSION and CONSIDERATION of the recommendations of the Downtown Parking Advocacy Committee – Enforcement Work Group, as listed:

- a. Extend Days and Hours of parking enforcement
- b. Expand downtown time limited parking to 3 hours
- c. Change in fine structure

Captain Penrod discussed the recommendations by the Enforcement Work Group to have 2 hour unmetered spaces be extended to 3 hours. He discussed the recommendations for parking fines and recommend parking enforcement be extended to 8 p.m., Monday through Friday.

PUBLIC PARTICIPATION:

Joe Diamond
153 North Washington Street
Delaware, Ohio

Mr. Diamond voiced a concern over the extension of parking enforcement and the need for tenants who lack parking to have a place to park in the evenings. Mr. Diamond voiced the need for continued 10 hour parking and to change the fine structure. Mr. Diamond recommended that the fine be at around \$10 for

the first offense and increase for each violation. He discussed that many businesses are paying the cost of the fine for their customers and that the fine makes it difficult for downtown businesses to compete with businesses that have parking lots.

Mark Smiles
Greater Gouda
193 North Sandusky Street
Delaware, Ohio

Mr. Smiles voiced his support to the concerns and recommendations voiced by Mr. Diamond.

David Kessler
Sandusky Street Antiques
30 North Sandusky Street
Delaware, Ohio

Mr. Kessler voiced a concern over the current fine structure and informed the Committee that he has paid the fine for customers and has lost business in the past due to customers being upset over the high fine.

Chris DeVol
Son of Thurman
5-7 North Sandusky Street
Delaware, Ohio 43015

Mr. DeVol recommended the City provide incentives to private lots for after hour public use.

Don Ranke
52 North Sandusky Street
Delaware, Ohio

Mr. Ranke discussed the concern over the potential loss of 10 hour parking spaces. He discussed his role as the Treasurer for the Delaware County Finance Authority and the ability for the Finance Authority to assist the City in funding a parking structure. He recommended a joint session with the Finance Authority and Council to discuss the option of a parking structure. Mr. Ranke requested information on who was on the Downtown Parking Advocacy Group.

Tracey Peyton
Strand Theatre
28 East Winter Street

Delaware, Ohio

Ms. Peyton voiced the need to increase the 2 hour parking to 3 hour, due to the average movie time is 2 hour and 10 minutes. She felt the extension of parking enforcement would not be beneficial.

Patrick Bailey
Endangered Species
11 West Winter Street
Delaware, Ohio

Mr. Bailey informed the Committee that the recommended extension of parking enforcement was related to restaurants needing parking turnover. He agreed with the need for a parking structure as many of his patrons are from out of town and will also visit nearby restaurant establishments. He recommended that the fine structure be lowered and to also to put meters throughout the downtown area.

Sheila Hiddleson
Delaware General Health District
1-3 West Winter Street
Delaware, Ohio

Ms. Hiddleson voiced the concern that many client visits will take longer than two hours and recommended a voucher system to allow their clients to utilize their parking spots longer.

Todd Daughenbaugh
Fresh Start Café and Bakery
24 North Sandusky Street
Delaware, Ohio

Mr. Daughenbaugh discussed the need to determine the goal of the parking work groups and address the issue.

ITEM 8. STAFF COMMENTS

Kelsey Scott provided information regarding the Downtown Business Survey as the survey regarding branding for city lots.

ITEM 9. COMMITTEE COMMENTS

ITEM 10. ADJOURNMENT

Motion: Chairman Shafer moved to adjourn the meeting.

The Parking and Safety Committee Meeting adjourned at 7:53 p.m.

Kent Shafer, Chairman

Elaine McCloskey, Clerk

CITY OF DELAWARE
PARKING & SAFETY PRE-MEETING
AGENDA

DELAWARE POLICE DEPARTMENT
70 NORTH UNION ST.
10:30 A.M.

PRE - MEETING

July 31, 2018

Staff Present: Bruce Pijanowski, Police Chief, Jessica Ormeroid, Project Engineer, Bill Ferrigno, Public Works Director/City Engineer, Nathan McCoy, Project Manager, Elaine McCloskey, City Council Clerk

1. MINUTES REVIEW

A. Pre-Meeting Minutes for May 31, 2018.

2. DISCUSSION

A. The discussion of the removal of the No Parking signage on North Washington street in the vicinity of the alley north of West Lincoln Avenue.

Staff reviewed the original concerns and discussed the concerns regarding site distance and safety. Staff recommends no changes to current signage and will notify the resident. This item will not be on the agenda.

B. The discussion of No Parking signage on the south side of Diverston Way from Houk Road to Blakemore Drive.

Staff discussed the concern of parked cars on both sides of Diverston Way near the Houk Road intersection. Staff discussed that the model home on the north side of Diverston Way does not allow parking in the driveway. Staff recommends parking restrictions on both sides of Diverston 75 feet from the bike path. This item will remain on the agenda and staff to notify affected residents on Blakemore and Diverston Way.

C. The discussion of the following topics:

1. Ohio Health Roundabout-Striping Changes

Staff discussed the striping changes to the roundabout and that this will have no parking changes. Staff plans to have

Access Delaware assist with public notification and education. Staff to work on an exhibit to present and follow up with Mr. Shulman regarding the legalities of changing lane assignments. This item will not be on the agenda.

2. Stop Sign back plates

Staff discussed if back plates are conforming or not. Staff recommends that back plates be prohibited until they are approved by OMUTCD. This item will not be on the agenda.

3. Flax Street Speeding

Staff reviewed the concern received and speed data received from Flax Street which consist of 85% at 30 miles per hour. Staff discussed that trends show heavier use during peak hours of 7-8 a.m. and 4-6 p.m. Staff to have extra patrol cars during peak hours. This item will not be on the agenda.

4. Cory Hupp-Alley vacation request (revisted)

This item will not be on the agenda. Staff to discuss options with homeowner.

5. Sycamore Street ROW Vacation

This item will not be on the agenda. Staff to discuss options with homeowner.

3. **OLD BUSINESS**

A. West Hull Drive Update

This item will be on the agenda. Staff to notify residents and also invite shopping center representatives. Staff discussed the consideration of a middle island to prevent left turns. Staff to provide cost estimates.

B. Dynamic Speed Feedback Sign

Staff reviewed their initial findings and discussed purchase cost and future maintenance cost. Staff to submit their report and the projected cost/funding for the projects at the August 20th Parking and Safety Meeting.

C. No Parking Signage on Richardson Street from Hayes Street to Alley between Richardson Street and Cheshire Street.

Staff discussed the resident's concerns voiced at the April 16th Parking

and Safety Meeting and including the request for one way traffic on Richardson Street and parking restrictions on Vine and Cheshire related to site distance concerns. Also discussed was staff recommendations for parking restrictions on the west side of Richardson Street. This item will remain on the agenda.

D. Downtown Parking Restrictions

This item will remain on the agenda.

4. **NEW BUSINESS**

5. **ADJOURNMENT**

The meeting adjourned at 12:10 p.m.



PARKING AND SAFETY FACT SHEET

AGENDA ITEM NO: 5

DATE: 08/20/2018

DISCUSSION AND/OR CONSIDERATION:

DISCUSSION AND CONSIDERATION FOR THE INSTALLATION OF “NO PARKING” SIGNAGE ON RICHARDSON ST., FROM HAYES ST. TO THE ALLEY BETWEEN RICHARDSON ST. AND CHESHIRE ST.

BACKGROUND:

The original request was reviewed by staff and it was found during the investigation that trees located in the right of way and private property on the west side of Richardson Street had been removed without permission to allow for off road residential parking. That issue has been address, however, the width of the road still makes it difficult to maneuver vehicles on Richardson Street when cars are parked on both sides of the road.

STAFF RECOMMENDATION:

Staff recommends posting “No Parking” signage on the west side of the street to allow for easier passage on the street. Residents on Richardson Street had notices hand delivered to them regarding the recommendation and information on the meeting.

ATTACHMENT(S)

Map

Letter to Residents

Email in Support



Resident
Richardson St.
Delaware, OH 43015

June 1, 2018

Dear Resident,

The Richardson St. parking restrictions that were on the agenda for the last cancelled Parking and Safety Meeting will be heard at the next meeting which is scheduled for August 20, 2018, at 6 PM.

You are invited to provide comment at the meeting, which will be at City Hall, 1 S. Sandusky St., on August 20, 2018 at 6 PM. If you cannot be at the meeting but would like to comment, please feel free to call me at 740-203-1101, or email me at bpijanowski@delawareohio.net

Please don't hesitate to call if you should have any questions or concerns.

Sincerely,

Bruce Pijanowski
Chief of Police



Resident
Richardson St.
Delaware, OH 43015

April 4, 2018

Dear Resident,

Members of city staff recently met to discuss items of concern for the upcoming Parking and Safety Committee meeting. One issue that was brought to our attention was the parking on the West side of Richardson St. between the curve on the N. End and Hayes St. City staff is prepared to recommend banning parking on the West side of the street to allow for easier passage on the street.

You are invited to provide comment at the meeting, which will be at City Hall, 1 S. Sandusky St., on April 16, 2018 at 6 PM. If you cannot be at the meeting but would like to comment, please feel free to call me at 740-203-1101, or email me at bpijanowski@delawareohio.net

Please don't hesitate to call if you should have any questions or concerns.

Sincerely,

Bruce Pijanowski
Chief of Police

From: [Kristen Suárez](#)
To: [Bruce Pijanowski](#)
Subject: [BULK] Richardson St Parking
Date: Friday, April 06, 2018 10:38:43 PM
Importance: Low

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hi, Bruce

I recently got the letter regarding the parking issue on the west side of Richardson St. I won't be able to attend the meeting, but wanted to share my thoughts.

I'm a resident of 165 Richardson St. The parking there has become an increasingly bigger issue over the 6.5 years that I've lived on Richardson. Many vehicles are what I would consider (and according to the city rules I've looked up) to be junk, commercial, abandoned, wrecked, no registration, etc. At one point, there was even a man living in a small RV on the west side of the street. He would get out every morning and urinate openly.

I've almost hit vehicles numerous times trying to back out of my driveway. Also, one particular resident on that street has cut down a vast number of trees to make room for parking. That was all lush woodland when I moved in in 2011.

Furthermore, two households in that street use that area as a dumping ground...one of whom brought in three large dump truck loads of huge chunks of broken cement and dumped them into the woods. That issue was addressed and he was forced to clean it up and cited.

Not trying to go on, but I'm really happy to see this is possibly finally being taken care of. That wooded area, as it once was, sold me on buying my house on Richardson. I've since sold my house and am moving out very soon to the west side of town. One of the main reasons for this was the excessive junk vehicles and trash bringing down the aesthetics and value of my property. It was no longer worth me spending money on my property.

My dream is that one day the stigma of the east side of town being trashy will finally be broken. But, that will never happen if the same standards that are upheld on the west side of town are not upheld on the east side. Let me know if you have any questions!

Sincerely,
Kristen Suarez

Julie Elke

From: Linda Mathews
Sent: Thursday, December 21, 2017 2:01 PM
To: Bruce Pijanowski
Cc: Julie Elke; Elaine McCloskey
Subject: No Parking Signage on Richardson St
Attachments: 20171221135003008.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Bruce,

Rodney James has requested that no parking signage be installed on Richardson St from Hayes St to the alley between Richardson St and Cheshire St (See on attached-hopefully you are able to see where I marked in pen). I made him aware that this would be discussed internally and if it would move on to a P & S meeting he would most likely be asked to present the request to the committee members.

I figured you could speak with him to get more information to present to staff-let me know if I can assist with this in any way additionally. Thanks.

*Linda Mathews
Customer Service Liaison
Public Works Department
440 E. William St.
Delaware, OH 43015
740-203-1810
740-203-1899 Fax*



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NP Signage

Information contained within this map may be used to generally locate, identify and inventory land parcels within Delaware County. Delaware County cannot warrant or guarantee the information contained herein, including, but not limited to its accuracy or completeness. The map parcel lines shown are approximate and this information cannot be constructed or used as a "legal description" of a parcel. Flood Plain Information is obtained from FEMA and is administered by the Delaware County Building Department (740-833-2201). Please report any errors or omissions to the Delaware County Auditor's office at delcogis@co.delaware.oh.us. Prepared by: Delaware County Auditor's GIS Office



Delaware County Auditor
George Kaltsa



Printed on 12/01/2017



PARKING AND SAFETY FACT SHEET

AGENDA ITEM NO: 6

DATE: 08/20/2018

DISCUSSION AND/OR CONSIDERATION:

DISCUSSION AND CONSIDERATION OF “NO PARKING” SIGNAGE ON THE SOUTH SIDE OF DIVERSTON WAY ON THE NORTH AND SOUTH SIDE OF DIVERSTON WAY FROM HOUK ROAD TO BLAKEMORE DRIVE.

BACKGROUND:

City staff received a complaint about parking on Diverston Way leading up to S. Houk Rd. that was creating a bottleneck and safety concern for vehicles turning in off of Houk Rd. The issue is created by parking on both sides of the road. Parking on the North side is currently limited by the proximity to the corner and a fire hydrant just E. of the corner. Parking is available on the South side beyond the statutory distance to corner restrictions.

STAFF RECOMMENDATION:

City staff is recommending extending parking restrictions to a point that is 75 feet East of the sidewalk on both the North and South side of Diverston Way. This will be a minimal restriction but reduce constriction at the intersection.

Notices were mailed to the first 4 addresses on Diverston Way, and the two corner lots that side on Blakemore at Diverston Way.

ATTACHMENT(S)

Map

Letter to Residents

Email in Support

Map of Diverston Way at S. Houk Rd.





Resident
Diverston Way
Delaware, OH 43015

August 8, 2018

Dear Resident,

Members of city staff recently met to discuss items of concern for the upcoming Parking and Safety Committee meeting. One issue that was brought to our attention was the parking on Diverston Way at Houk Rd. City staff has reviewed this issue, and based on observation made will be recommending extending parking restrictions on the both sides of Diverston Way to a point 75 ft. West of the intersection with Houk Rd .

You are invited to provide comment at the meeting, which will be at City Hall, 1 S. Sandusky St., on August 20, 2018 at 6 PM. If you cannot be at the meeting but would like to comment, please feel free to call me at 740-203-1101, or email me at bpijanowski@delawareohio.net

Please don't hesitate to call if you should have any questions or concerns.

Sincerely,

Bruce Pijanowski
Chief of Police

Julie Elke

From: Bill Ferrigno
Sent: Friday, July 13, 2018 1:29 PM
To: Stewart Clinger
Cc: Jessica Ormeroid; Julie Elke
Subject: RE: Question Regarding A Street Issue.

Stewart –

I will forward the request to the Traffic Division with direction that the request be placed on our next Parking & Safety staff meeting to discuss in more detail. This is the first step in addressing these type of requests.

Bill -

From: Stewart Clinger
Sent: Friday, July 13, 2018 12:08 PM
To: Bill Ferrigno
Subject: Question Regarding A Street Issue.

Bill,

Sorry to bother you but I thought you might be able to lead me in the right direction. I live in the Adalee Park subdivision and the residents are wanting to try to get a "DO NOT PARK" section established on Diverston Way, do to the amount of vehicles parked at the entryway off of Houk Road. Westport Homes has their model there and when cars are parked on both sides of Diverston Way, from Houk to Blakemore Drive, there is a real bottleneck created to where if you're coming northbound on Houk and turn right into the subdivision, you run the risk of being rear ended because of vehicles or people standing on the south side of the street, across from the model.

What they are hoping to be able to do is to eliminate curb parking on that south side from Houk Rd. to Blakemore Dr. Can you advise me how they might be able to go about getting this done? I ask as I, just like Chief Donahue, are residents of the subdivision.

Thank you and hope you have a great weekend.

Stewart Clinger
Collection Manager
City of Delaware Ohio
740-203-1206

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MEMORANDUM

TO: William L. Ferrigno, P.E., Director of Public Works/City Engineer
Matthew B. Weber, P.E., Deputy City Engineer
FROM: Jessica Ormeroid, PE, PTOE
DATE: August 14, 2018
RE: Dynamic Speed Feedback Signs (DSFS) Pilot Study Effectiveness Findings Report

Introduction

Dynamic Speed Feedback Signs (DSFS) are one of the many traffic calming techniques used in the traffic industry today for vehicle speed management. The City of Delaware purchased two (2) of these units in 2017 to implement a pilot program to determine their effectiveness in reducing both the temporary and long term 85th percentile speed and average speed on a given roadway where vehicle speeds in excess of the posted speed limits have been documented. DSFS provide a real-time display of the driver's vehicular speed at a specific location along the roadway. These units were used in conjunction with a regulatory speed limit sign so drivers receive immediate confirmation of their actual speed in comparison to the legal speed limit.



Pre-Qualification for Deployment of DSFS

The City developed criteria that had to be met when considering the streets to deploy these signs (see bullet points below).

- Street with an 85th percentile vehicle speed, determined through data collection, was greater than 5 mph over the posted speed limit.
- Street is classified as a local, or neighborhood collector roadway
- Roadways where crash data can be clearly linked to excessive speed could be considered if the above criteria was not met.

Based upon past speed data collected, an initial list of 12 streets were identified as meeting the established criteria and were the initial locations studied in this pilot program. The specific streets are listed in charts provided on pages 2 and 3 of the memorandum.

Steps for Deploying DSFS

To keep the data collection consistent from street to street, the following steps were taken to temporarily install the DSFS at each of the 12 identified locations.

1. Speed data was collected with the Stealth Stat Speed device for five (5) days prior to installation of DSFS to gather a control data set. The speed data was collected at the predetermined locations identified.
2. DSFS were deployed for 30-days and speed data was collected during the entirety of the deployment.

3. DSFS were removed and speed data was collected again with the Stealth Stat Speed device for five (5) days immediately following the 30-day speed feedback sign deployment.
4. Speed data will be collected again 3 months post deployment for three (3) days.

Pilot Program Findings

The data collected before, during and after the DSFS deployment, was analyzed to determine the effectiveness and benefit of these devices as a temporary and potential permanent traffic calming measure. The findings for both the 85th percentile speed and the average speed (50th percentile speed) are provided in the summaries and charts below.

85th Percentile Speed

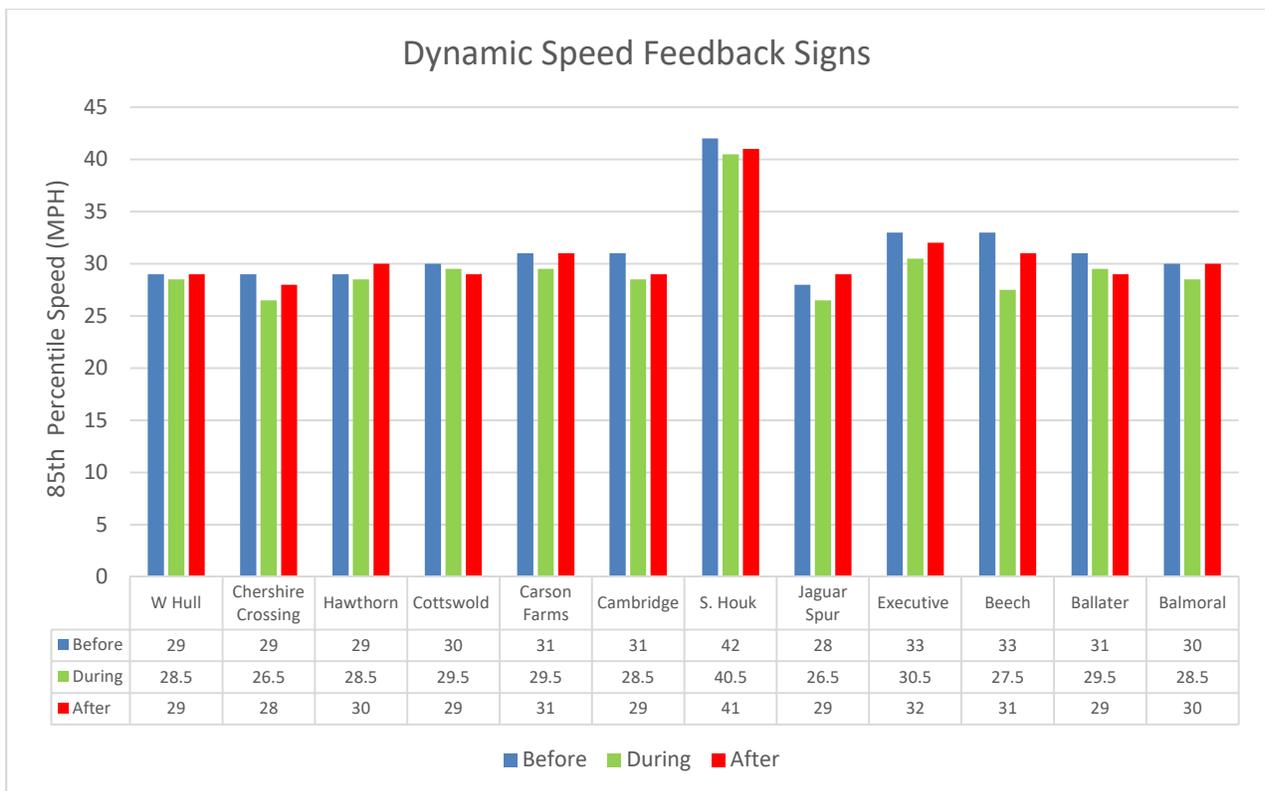
Provided below is a table comparing the 85th percentile speed data collected for each street before and during deployment, and after removal of the DSFS. In summary:

During Deployment: Comparison to the before speed data collected

- Reduction ranging from 0.5 mph to 5.5 mph
- Average overall reduction of 1.8 mph for all streets analyzed

After Removal: Comparison to the before speed data collected

- Ranging from a 2 mph reduction to an 1 mph increase
- Average overall reduction of 0.7 mph for all streets analyzed



Average Speed

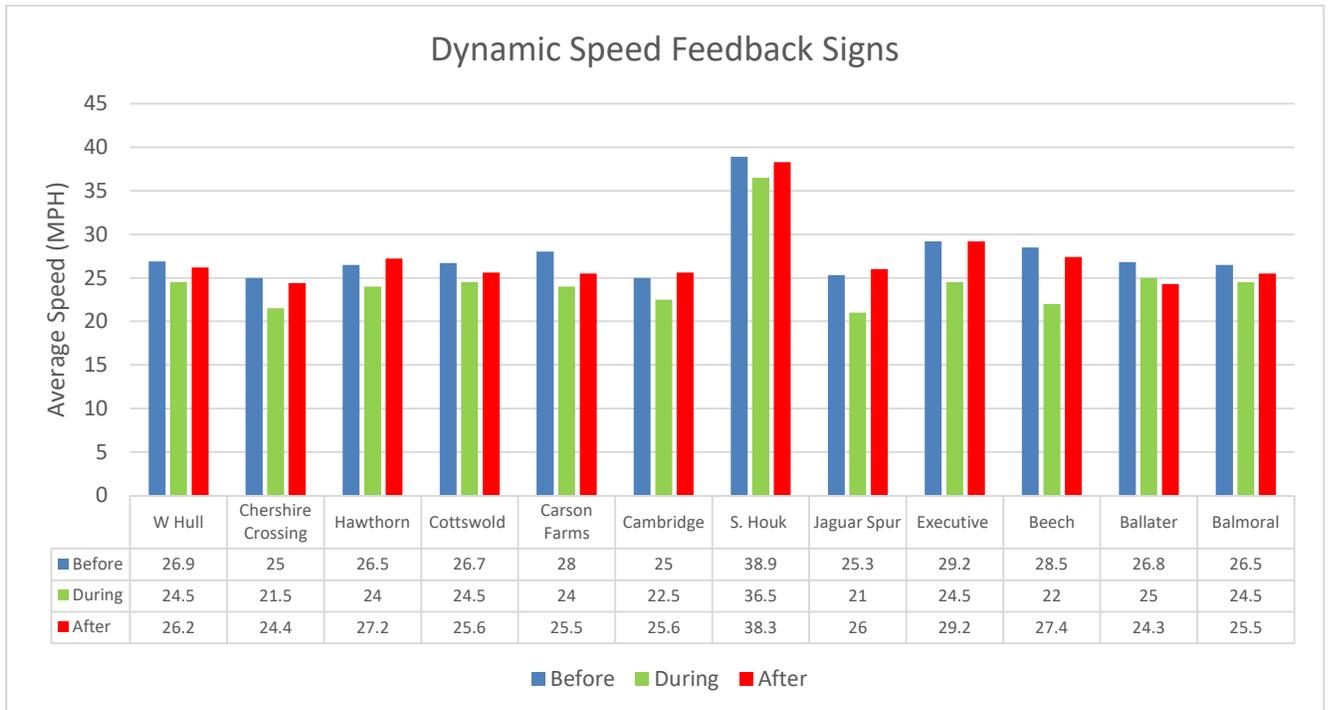
The chart provided below compares the average speed (50th percentile speed) data collected for each street before and during deployment, and after removal of the DSFS deployment. In summary:

During Deployment: Comparison to the before speed data collected

- Reduction ranging from 1.8 mph to 6.5 mph
- Average overall reduction of 3.2 mph for all streets analyzed

After Removal: Comparison to the before speed data collected

- Ranging from a 2.5 mph reduction to an 0.7 mph increase
- Average overall reduction of 0.7 mph for all streets analyzed



Pilot Program Conclusions & Other Research/Studies Findings

Pilot Program

Although there is only a minimal reduction in the 85th percentile speed while the devices were deployed, there was a noticeable reduction in the average speed of vehicles. After the DSFS were removed, both the 85th percentile speed and average speed crept back up close to the “before” speeds and only resulted in an average of 0.7 mph overall reduction. Based on these findings, it has been determined that these devices are most effective while deployed, therefore, the signs would need to be a permanent installation to maximize their efficacy. Even with signs in place, studies have additionally shown that periodic enforcement along the roadways where these signs are permanently installed is beneficial in keeping speeds reduced long term.

Resident Reaction Feedback received from residents residing on the streets, and within developments that were part of the pilot program, was very positive. Many residents seeing value in the presence of the signs, asked if the signs could be installed permanently within their respective neighborhood and even offered to pay for them. It became apparent that regardless of a measurable reduction in vehicle speeds, that the signs did have a sociological value that cannot be quantified, but demonstrates a positive impact on the residents perception of speed management within these neighborhoods. The presence of the signs seem to offer some level of satisfaction to neighborhood residents that unacceptable vehicle speeds are being identified and visually conveyed to passing motorists. Additional research described below finds physiological value that DSFS offer in attaining motorist compliance.

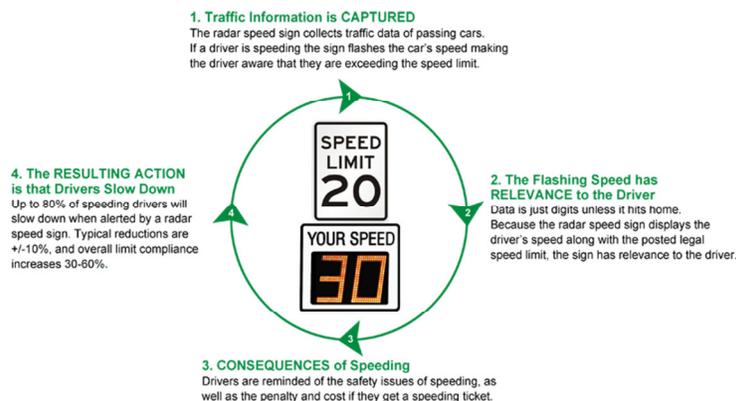
“Why DSFS Work”

DSFS have been found to have an effect on driver behavior. RoadtripAmerica.com describes it as “familiarity breeds inattention”, citing inattentive drivers as the most common source of collisions and speeding. The behavior, described as “driving on autopilot” or “highway hypnosis,” is the focus of a Churchill Insurance study of drivers’ habits, which revealed on average, drivers make eight (8) journeys on familiar routes each week. While traveling on these familiar routes, 46% of drivers say they are most likely to have no recollection of how they got to their destination. The study also identifies the top “autopilot journeys” as the work commute (43%), going shopping (16%) and other routine driving trips (15%) and confirms that autopilot drivers regularly break the speed limit (25%), brake too late and don’t yield at pedestrian crossings because they haven’t seen them until it’s too late. Further, 7% of motorists say they are most likely to switch to autopilot while “doing the school run”, a zone that is especially vulnerable to speeding dangers.

Understanding how the brain works can explain the findings and help identify solutions to improve traffic safety. At its basic level, the human brain is an electrochemical organ that produces three types of brain waves that have an impact on driver behavior, each reflecting specific levels of the awake brain:

- Beta waves reflect a strongly engaged mind, active in conversation or debate.
- Alpha waves reflect a state of rest or relaxation (i.e. a break from work to take a walk, etc.).
- Theta waves reflect a state of functional daydream, the ability to complete repetitious or habitual tasks, such as driving to and from work.

Converting a driver’s brain activity from a Theta “autopilot” state to a Beta “engaged” state requires a trigger, an event or interruption that is identified by the Reticular Activator (RA). The RA is the ignition part of the brain, on alert, searching and categorizing all sensory input into categories such as familiar/connected, unusual/shocking/strange, or dangerous/threatening/problematic. Once the RA, which also controls the transition between different states, is triggered by something unfamiliar, problematic/dangerous, the brain instantly converts from Theta to Beta. Strategically placed DSFS can serve as triggers stimulating the RA to identify a potential “danger” to transition a driver’s brain activity from Theta to Beta. Utilized as part of a comprehensive traffic management plan in areas classified as 1) “familiar routes” with 2) a high risk of pedestrian traffic, DSFS can alert drivers to pay attention.



Costs

Another benefit is that these devices are far less costly than the more intrusive traffic calming measures such as curb bump-outs, median islands, roundabouts, traffic circles, etc.. A pair (two each) of the solar powered DSFS costs approximately \$6,400 or \$3,200 each. The maintenance required would be routine battery replacements every three (3) to five (5) years and miscellaneous component replacements such as LED boards, solar panel, sign housings, etc.. Though not necessarily effective in yielding significant reductions in driver speed, they do offer a mechanism to appease neighborhood concerns over speeding, and for a relatively small cost.

Final Recommendations

Based on the pilot program findings and other research/studies conducted across the USA, DSFS could be recommended as a low cost permanent traffic calming measure if the following conditions are met:

- 1) Street with a 24-hour 85th percentile vehicle speed, determined through data collection over several days, is greater than 5 mph over the posted speed limit.
- 2) Street is classified as a local, or neighborhood collector roadway with posted speed limits of 25 mph or 35 mph.
- 3) Roadways where crash data suggests the frequent and reoccurring accidents can be clearly linked to excessive vehicle speed may be considered.
- 4) Street within a School Zone that contains school flashers and where the 85th percentile speed is greater than 5 mph over the school zone posted speed limit during restricted hours. The signs would only be permitted to be active while the school zone flashers are in operation.
- 5) Limited to one (1) set of DSFS units per street to be installed on 2-inch square posts at locations determined by the City.
- 6) Maximum value displayed on DSFS is limited to 15 mph over the posted speed limit.
- 7) Displayed speed flashed when 5 mph over posted speed.
- 8) City may periodically re-evaluate the vehicle speeds on streets with DSFS to determine if the presence of the units remains effective; and may relocate the unit to an alternate location to improve efficacy.

Resources

<https://www.radarsign.com/why-radar-speed-signs-work/>

<http://www.roadtripamerica.com/>

<http://www.roadtripamerica.com/forum/content.php?7-Driving-Tip-Pay-Attention>

<https://www.radarsign.com/wp-content/uploads/2016/01/TheBasicsofBrainWaves.RS.pdf>

<http://faculty.etsu.edu/currie/ras.htm>

<http://en.academic.ru/dic.nsf/enwiki/706968>

<https://www.merriam-webster.com/medical/reticular%20activating%20system>



PARKING AND SAFETY FACT SHEET

AGENDA ITEM NO: 8

DATE: 08/20/2018

DISCUSSION AND/OR CONSIDERATION:

DISCUSSION AND CONSIDERATION OF RECOMMENDATIONS OF THE DOWNTOWN PARKING ADVOCACY COMMITTEE – ENFORCEMENT WORK GROUP, REGARDING EXTENDING DAYS AND HOURS OF ENFORCEMENT; EXPANDING DOWNTIME TIME LIMITED PARKING TO 3 HOURS; AND CHANGING THE FINE STRUCTURE.

BACKGROUND:

As part of the ongoing review of downtown parking, the Enforcement work group has proposed the attached amendments to the Delaware Codified Ordinance; which are consistent with recommendations made in the Downtown Parking Study.

Recommendations are as follows:

1. Days and Hours of Enforcement - Mon – Fri 8AM – 8 PM; and Sat. from 10 AM to 8 PM
2. Fine Structure
 - a. A tickets \$25 (over time/meters and over limit/non metered) or \$40 for over limit and \$20 for over time.
3. Increasing the time limited parking from 2 hours to 3 hours.

STAFF RECOMMENDATION:

ATTACHMENT(S)

Map