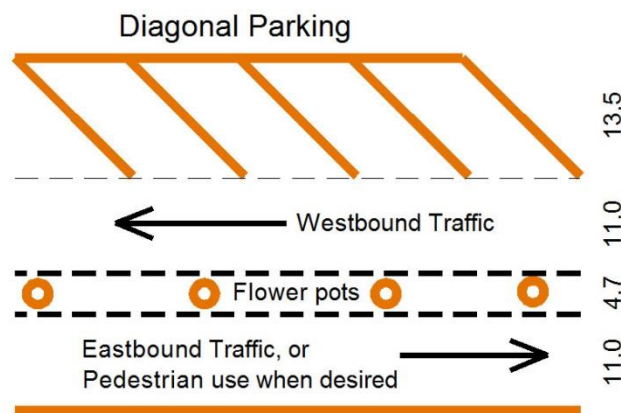


The Pulaski Pedestrian Zone

West Main, The Downtown Pedestrian Destination Mecca

[Pulaski Community U](#) asks for “a fresh look at Downtown Pulaski.” This discussion seeks to meet that standard. Socially and economically the Zone is designed to breathe new life into downtown Pulaski. At its core, it is a **method for street control**. Street lines are painted differently to allow diagonal parking and westward flow of traffic. Railroad-like barrier gates exist at either end to close off traffic to convert a lane for use by pedestrians instead of cars. There are two flashing speed limit signs to lower speeds when lanes are used for pedestrians. *That’s about it*. The Zone can be active or inactive whenever desired. No need to hold to the 10:00 AM - 1:00 AM schedule used as an example here. No need for pedestrian use in cold winter months. It all can be handled by different pilot program schedules.

How to divide the street:



	Proposed	Currently
Parking (New Diagonal Parking instead of Parallel, ft.)	13.50	16.00
Westbound (Main direction of traffic flow, ft.)	11.00	0.00
Eastbound (Cars, or Pedestrian use when activated, ft.)	15.67	24.17
Total Street Width	40.17	40.17
Total W. Main Parking Spaces	40	43

During most of the day the eastbound lane is closed so that it can be used for pedestrians instead of vehicles. The rest of the street is left for normal use in the shown traffic pattern 24 hours a day.

The Zone closes off one lane but allows, with some stipulations, for cars to pass through it. Those stipulations are: a much reduced speed and *yielding to pedestrians and stopping for backing cars* during most of the day. This contrasts with the majority of pedestrian zones which simply close off the entire

street and allow no vehicular traffic whatsoever. For Pulaski, it would be wrong to permanently close off West Main in this manner.

Instead, in the Zone vehicles and pedestrians coexist by making acceptably [modest concessions](#) to each other (as in a shopping center parking lot – here a parking lot with a public purpose). Success in doing this may come to be viewed as a model for other towns and cities – perhaps drawing favorable attention to the town’s distinctiveness. Here we are effectively building a park for people, a pedestrian street park – not a highway. Cars have adequate space but pedestrians are prioritized. Like parks where slow vehicle speeds are mandated for the protection of animals, here low speeds are for the protection of people.

Street design is often [counterintuitive](#). More than speed limit signs, road width influences speeds motorists actually travel. On wide open lanes people speed and seldom shop. Even though you could use a 13.33 ft wide westbound lane, a 10 or 11 foot lane seems appropriate. The National Association of City Transportation Officials’ [report](#) points out: “Lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street’s safety [without impacting traffic operations](#). For designated truck or transit routes, one travel lane of 11 feet may be used in each direction. In select cases, narrower travel lanes (9–9.5 feet) can be effective as through lanes in conjunction with a turn lane.”

There is no need to alter the size of the street. Pulaski is already using diagonal parking across from the Jackson Park Inn on 1st Street NW with the identical parking dimensions as proposed here. You will also find similar diagonal parking widely used in Wytheville’s downtown area along Rt 11 (Latitude, Longitude. See in Google Earth or Google Maps search 36.9492583°, -081.0840250°. Also try looking at it and other soon-to-come latitude longitude references using the “Street View” icon).

In addition to the downtown area, the Zone is designed to be sensitive to needs of west side of town. It uses common two-way traffic in the morning hours before 10:00 AM so that residents traveling on Jefferson, Magazine, Magnox, Altoona, Henry, and Randolph can get to work in the morning without being significantly impeded. And in evening hours they can return from work in the westbound lane which is presently blocked by virtue of West Main being one-way eastbound. During the morning hours before 10:00 AM the speed limit on West Main would be a standard 25 MPH, which is to say it would not be a Pedestrian Zone until after 10:00 AM.

The complete West Main is a third of a mile long. It is presently divided into two sections. Its western section has two-way traffic. Here we are talking about its downtown eastern section, which is roughly a tenth of a mile long. Unlike its western section, this section has been restricted to one-way running eastward for the past 60 years.

On West Main, why do we deny access to the 4,500 vehicles a day traveling on Washington?

The number of vehicles on Washington are in plain sight and well documented ([excel traffic data file](#), code name AAWDT). Their numbers are huge compared to those on Jefferson.

There are only two potential direct street accesses to West Main’s downtown business section: Washington and Jefferson. Washington (US11) is a main route. Jefferson is a minor artery – only about

1.2 miles long. Magazine, Altoona, Henry, Randolph, and the two-way section of W. Main feed the Jefferson intersection. For more detailed analysis, we will need traffic data on these local streets.

Even in the absence of that data, it seems fair to use the human circulatory system as a metaphor. Jefferson is a minor artery. Washington is a major one. Don't cut off flow. Rely on the major artery.

What does the Pulaski change look like?

	Proposed	Currently
South-side sidewalk width	9.75	9.75
South-side Pedestrian Zone width	25.42	0
Street length	640	640
South-side square footage available for pedestrian use	16,267	6,240
% Larger than before	261%	0
Existing buildings South-side ground floor sq ft	50,757	50,757
Size of pedestrian space relative to South-side buildings	32%	12%

Note that the Pedestrian Zone including the sidewalk is 25 feet wide. This is about the same width as many West Main stores. So in this case we have the equivalent of a store area 640 ft long and 25 ft wide to work with. The amount of space available for pedestrian activities on the south side of W. Main would more than double (261% larger). The area is equal to nearly a third of the ground floor of existing buildings on the south side of W. Main (32%). This is a substantial amount of space that folk here can benefit from, as vendors or for wide ranging activities regardless of where they live in Pulaski. More significantly, the increase is a game changer. By way of comparative size, it is an area about one and a half times larger than the ground floor of the new Jackson Park Inn. Now the street can be used for a wide variety of purposes by people throughout the town. You could never do that with a sidewalk alone.

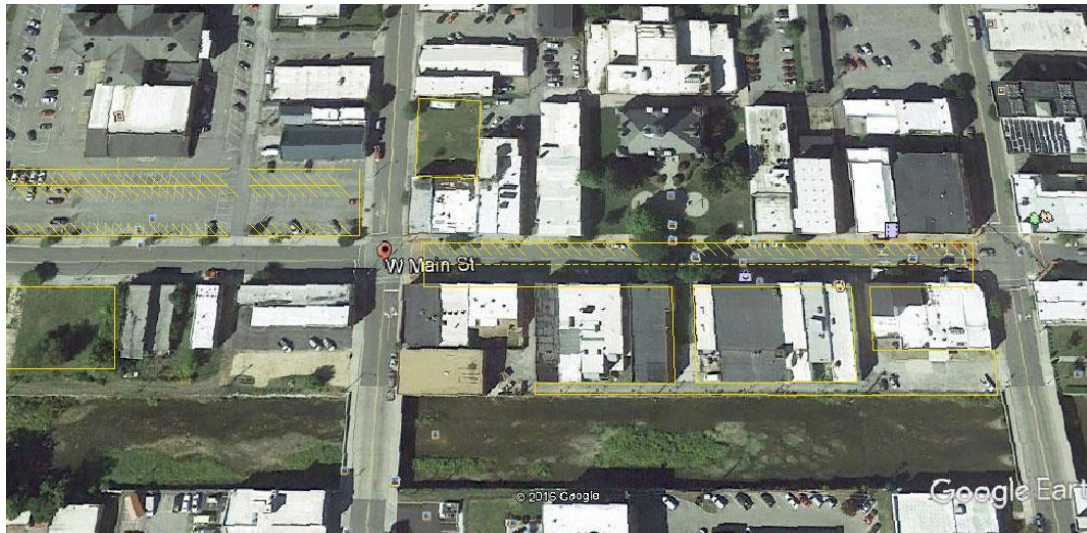
The intent is for businesses and pedestrians to thrive by way of having an active and interesting downtown. Businesses on all sides of the street benefit. On the North there is direct access to diagonally parked cars (which many shoppers prefer to difficult parallel parking). And on the South there is the pedestrian mall which everyone can use and which provides temporary truck loading areas for businesses that need it. Even after all of this, the division still retains a dominant position for cars: 60% of the street for cars, 40% for pedestrians. The change can be accomplished at modest cost.

This [YouTube video](#) is important!!! Please see it. The **cheap and effective** use of temporary materials and paint produced transformative results.



The crude math is that West Main's 40 parking spaces are and always will be inadequate. A shopping center of equal size (95,000 sq ft ground level area of businesses and buildings) would require roughly [380 parking spaces](#). West Main is ideally suited for pedestrians, not so well suited for cars.

Ped Zone, Pulaski, VA



Pedestrian plazas, which is to say all (or a portion) of a business street being designated for pedestrian use, have been [widely used](#) in [US](#), Canadian, South American, and European cities. The Pulaski Ped Zone is a variation on this which has the westbound traffic lane active 24 hrs a day and employing diagonal parking as indicated by yellow lines. The eastbound lane is normally dedicated to pedestrian use and closed to traffic (except during early morning get-to-work hours).



For example, at 10:00 AM [a railroad-like crossing bar](#) across the south side lane of West Main at the Jefferson Ave intersection would [drop](#), as in [the above video](#). At 1:00 AM it would rise and there would be two-way traffic and a 25 MPH speed limit. These actions would separate pedestrian use from predominantly vehicular use. The nice solution would be to find an authentic [railroad crossing barrier gate](#). Along with the Zone it will draw attention to Pulaski.

The Ped Zone lane is tiny – a mere [0.06%](#) of all Town streets (a 1:1,750 ratio). Yet its benefits can be expected to be disproportionately large. Theatre and Art Center users, [outdoor cafes](#), street vendors,

public events, and the like are expected Zone users. For special events requiring large amounts of space, the [Peak Creek walkway](#) and other areas delineated by the yellow lines in the aerial photo of Pulaski might also be employed. For example, outside Music events and Pulaski Art shows might become larger than initially expected. On some occasions closing off the complete street with [railroad barrier gates](#) at both ends may be worthwhile.

To the benefit of the Town, the dominant westward traffic flow from Washington will no longer be obstructed. Business on Jefferson and other locations on the west side of town will benefit from the increased traffic flow coming from Washington directly to their businesses and homes.

An often overlooked value is that nearby second story apartments and residences are apt to become increasingly attractive places to live, because the area itself will become more interesting. Thus, businesses, residents, Pulaski citizens, and the public in general stand to benefit – a pedestrian park on your doorstep so to speak.

The Railroad Crossing Gate and Variable Speed Sign Connection.

For the Ped Zone, flashing School Zone speed limit signs of the kind used at Pulaski high School (with radar indicated speed) or the one on Bob White Blvd. with flashing lights only are effective.



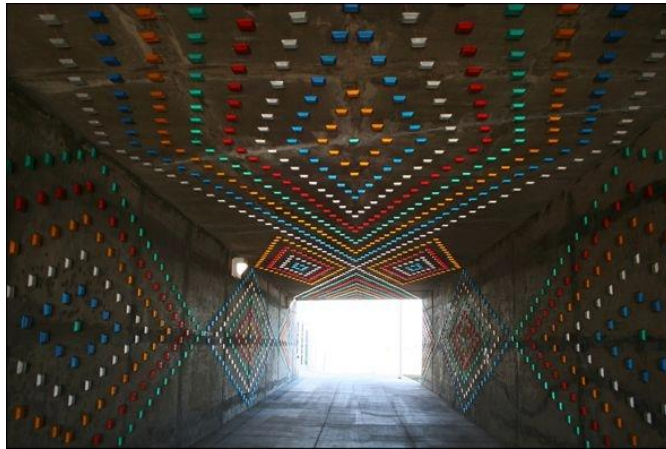
From a technical standpoint, the mechanics of implementing lane closure and controlling variable speed limit signs is relatively straight forward in this modern age of electronics. An electrical circuit (not much larger than a credit card) can simultaneously control barrier gates and [variable speed limit](#) signs. It also can be easily implemented at very low cost by having the barrier gates manually raised or lowered and by switching speed limit signs on or off. The railroad gate/variable speed limit combination provides vast flexibility. Such a system can be a signature piece and news worthy.

In addition to mere speed limit signs, we need to think of natural means to slow traffic and make it safe for people. Some options might include: lane control mechanisms, [pavement reflectors](#), [rumble strips](#) (bump grids as on the border of interstate highways), speed bumps, or combinations of these.

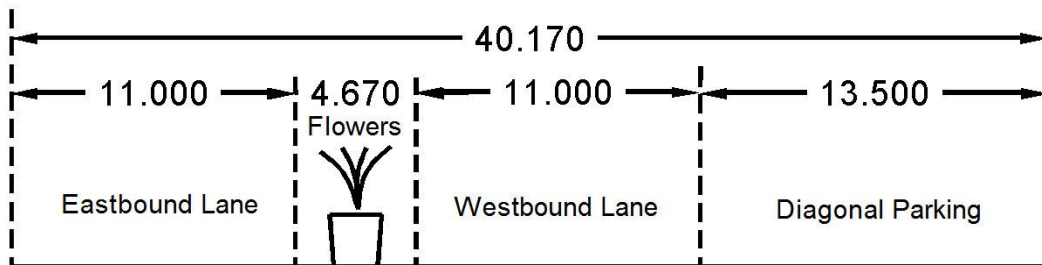


The objective is to retain an attractive pedestrian atmosphere that does not have highway-like painted line markers. This can be accomplished by a variety of methods. For example red, green, orange and white reflective pavement markers can be alternately placed where painted lines would normally appear. This would plainly get the message across as to where lanes occur and would retain a slightly whimsical artistic appeal. The above photo illustrates colors available.

This [photo](#) gives you an idea of how colored pavement markers have been used artistically:



Another method of lane demarcation is to periodically place large movable flower pots just south of the north lane border. There is plenty of space to do this and still allow 11 ft traffic lanes on both the North and South.



Sizes of flower pots similar to those used in the Charlottesville, VA pedestrian mall shown above would be more than adequate to separate lanes and to separate pedestrians from traffic (Google Earth 38.0300361°, -078.4791194°). And [bollards](#) (posts) as shown below [can provide a nice touch](#). Flower pots and bollards together provide separation from traffic at Los Angeles' Grand Central Market.



Stop signs, not traffic lights on Jefferson.

Two-way stop signs on Jefferson provide good traffic flow. On all of Jefferson Ave there are only two traffic lights, those at the two one-way crossing streets (West Main and 3rd St NW). At all other crossing streets, stop signs are used. The traffic coming into and leaving the pedestrian zone needs to be moving at slow speeds. Stop signs are ideal for accomplishing this. In spite of simplicity and low cost, a two-way stop sign at the West Main and Jefferson intersection may prove to be the best solution. Traffic is not intense here, and there is a need to slow traffic down to handle increased pedestrian use.

Additionally, if 3rd St NW between Washington and Jefferson were also made two-way, this would eliminate all traffic lights on Jefferson, improve traffic flow, and increase downtown business and social activity. This might fit nicely into an overall uniform plan. Why should a one-way section of 3rd Street feed into and terminate at a minor artery (Jefferson) instead of Washington (a major artery)?

What would it look like?

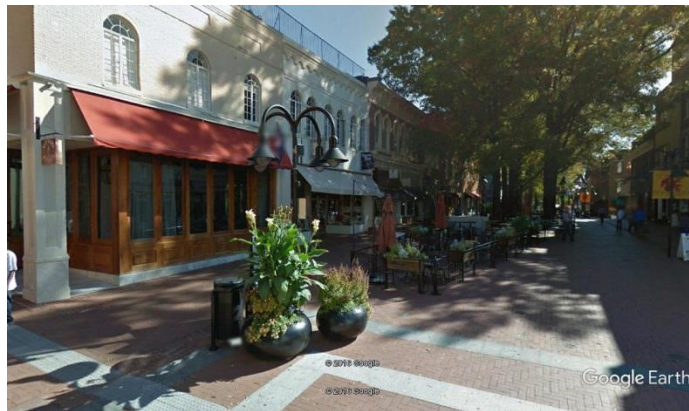
First, West Main is already a very nice looking street. It has trees, gardens, and storefronts that are absolutely ideal for building street activities around. We can do much better job than [New York City plazas](#) and many other big name pedestrian zones because our setting is infinitely more attractive.

First again, Pulaski citizens want to make the place work. They turn out for major events, marketplace activities, and other opportunities. On top of it all, the town is jammed packed with good people at all income levels. You walk into the Post Office and you are apt to be greeted with a hello and someone opening the door for you. You are apt to do the same.

If it is nice, we are no fools. We take advantage of it. In short, a pedestrian zone should reflect the character of its people. **It should not be forced gentrification.** Authenticity and delivering an atmosphere that makes the place lively enough to be worthwhile for businesses and the public alike are

the guiding principles. Imposing a scheme that worked elsewhere is not the message to send out. Like normal variability in life, the pedestrian zone should always have a tide-like ebb and flow of ideas and events to feed it.

The Charlottesville, VA Pedestrian Mall, for example, is **too gentrified** and would not reflect Pulaski character (Google Earth location 38.0301694°, -078.4781028°). **We need a good mix, so that people either with substantial or modest incomes can be comfortable:**



Here are [shared street](#) photos where pedestrians pass among the cars (click on images to go their source):

Victoria Canada

(You can see all of Broad Street with Google Earth Street View at 48.4266806°, -123.3660250°)



New Road, Brighton, England





You can't get there from here.

Because of one-way restrictions: In spirit (but not fact), that comic expression would seem to apply to anyone attempting to reach the Pulaski Theatre or one of its nearby West-Main businesses.

If you should be in a car at the corner of Washington and West Main and have the good fortune to already know the street layout, prepare yourself for a trip of about four tenths of a mile to get there. If you averaged 25 MPH, if you glided around all turns at this speed without a conversation with the police, and if no traffic light interrupted your jaunt, you would arrive there about 54.8 seconds later—perhaps a minute or more for those of you who are reluctant to leave skid marks at every turn.

If on some glorious day, you should have a thousand dollars burning a hole in your pocket and you passed through the quaint town of Pulaski, you can bet that no serendipitous whim will cause you to drop any of it at a West Main business. No. We require more deliberate and knowledgeable folk to spend money on our street.

In testament to our dedication to this principle, 14 of 35 business locations on West Main (40%) appear to be closed up and show no sign of anyone improving or occupying them. Many of these are nice buildings, suitable for a wide variety of uses. While the town is showing some economic improvement elsewhere, it is failing at its center.

Two-way vs. one-way.

Mainly beginning in the 1950s, one-way streets were the darlings of city planners. For downtown areas, a good solid rethink has been going on which comes to precisely opposite conclusions. For short trips, two-way streets [perform about as well or better than one-way](#) streets. For businesses, the conversion back to two-way was hugely successful on Campbell Ave in Roanoke. Similarly, [The Return of the Two-Way Street](#) reports on [reverting back to two-way streets](#):

Within a few weeks, the entire business community was celebrating. "We have twice as many people going by as they did before," one of the employees at an antique store told a local reporter. The chairman of the Vancouver Downtown Association, Lee Coulthard, sounded more excited than almost anyone else. "It's like, wow," he exclaimed, "why did it take us so long to figure this out?"

Explicitly, the section of West Main between Jefferson and Washington is only about a tenth of a mile long. What conceivable one-way advantage might exist which could outweigh all the considerable advantages for having this tiny section of the street lined with beautiful buildings being two-way?

Currently downtown West Main Pulaski suffers from an unbeatable devil’s brew of: 1) One-Way traffic, 2) Traffic fed from a minor artery (Jefferson) rather than a major artery (Washington), 3) Parallel instead of more convenient and space-efficient diagonal parking.

Share the Road, Pedestrian Plaza, Yield to Pedestrians and Backing Cars, Speed Limit 15 MPH.

One of the best long-term examples is Virginia Tech. Look at its drillfield. At a 15 MPH speed limit for autos, tens of thousands of students cross the drillfield daily. They regularly meander through diagonal parking and traffic. The street there varies between 34 to 41.5 feet wide. West Main in Pulaski is about the same width (40 feet) and capable of absorbing a high degree of pedestrians meandering.

In fairness the example is not precisely exact. The Pulaski Ped Zone is small compared to the drillfield – only a fraction longer than a tenth of a mile. Within that short distance explicit signs to **Yield to Pedestrians and Stop for Backing Cars** will be necessary because pedestrian zones tend to have greater wandering than even thousands of Tech students. The obligation to stop for backing cars will tend to encourage slow speeds. All speed lowering strategies increase pedestrian safety.

The following is a portion of the drillfield (it can be found by searching Google Earth location 37.2264444°, -080.4219167°). It can be viewed from the air or seen with “Street View”:



By way of reference to Virginia Tech, the time it takes to traverse the section of West Main we are focusing on would require about 12.5 seconds more if one were travelling at 15 rather than 25 MPH.

MPH:	25	15		
Seconds	18.72	31.2	12.48	seconds more

Slow Speeds.

The Virginia Tech experience with a 15 MPH speed limit is a proven case. We need to contact Campus Police and others for detailed conversations. An [Accidents at Virginia Tech](#) report suggests that there is adequate data. Further, the mingling of cars and pedestrians in Pulaski alleys, shopping center parking lot practices, vehicle/pedestrian interaction at large sports events and concerts tell us a great deal about [appropriate](#) pedestrian and vehicle behavior and car speeds.

In looking for speed limit signs I came across a 10½ MPH Copake, NY sign about which the [website](#) wrote: "Sometimes you see these 10½ MPH signs. We have to say, while ridiculous, it's also brilliant. If people see a sign that says 10.5, they'll have a laugh and actually consider the speed limit for a second. Unlike when they see a 15 MPH sign and just go 40 instead.

Clever move, Copake. Clever move." [It's worth seeing this one.](#)

[Copake, NY, 42.1395000°, -073.5984833°](#)



For the sake of memorability and safety, a 9½ MPH or 10½ MPH speed limit comes to mind. At 10½ MPH going westward you would still get to the other end of W. Main more quickly than you currently can. With present W. Main being one-way eastward, you can't even go west. Instead the quickest alternative street route to the other end of West Main would result in a four tenths of a mile trip that would take you considerably longer than 54.8 seconds given a 25 MPH speed limit and intervening stop lights. By contrast it would take 44.6 seconds at 10½ MPH – minimally 10.2 seconds quicker than with the currently traffic pattern. In this case, *the Ped Zone configuration delivers quicker arrival at destination than does the present arrangement, notwithstanding that a slower speed was employed.*

We have unrealistic expectations of our ability to stop a car quickly. At speeds less than 15 mph human reaction time causes a far greater delay in stopping speed than does the mechanical ability of the car to stop. At this speed reaction time is three times slower than mechanical braking time.

Because of the distance travelled during reaction and brake engagement time at 10 MPH, stopping distance is about 26.8 feet – 17 feet less than at 15 MPH. To go down West Main at 10 MPH would take 15.6 seconds more than at 15 MPH. The additional 17 foot margin of safety is bought by a 15.6 second increase in travel time. In some pedestrian zones speeds are [6 MPH](#) or [10-13](#) MPH. Let's look at the consequences of a wide variety of speeds, braking distances, and reaction times.

MPH	Total distance traveled during reaction time and during brake activation	Feet travelled during braking on dry asphalt	Feet traveled during 1.5 second reaction time response	Seconds to go down West Main Street	Time relative to when travelling 15 MPH
1	2.2	0.0	2.2	468.0	436.8
2	4.6	0.2	4.4	234.0	202.8
3	7.0	0.4	6.6	156.0	124.8
4	9.6	0.8	8.8	117.0	85.8
5	12.2	1.2	11.0	93.6	62.4
<u>6</u>	14.9	1.7	13.2	<u>78.0</u>	46.8
7	17.7	2.3	15.4	66.9	35.7
8	20.7	3.1	17.6	58.5	27.3
9	23.7	3.9	19.8	52.0	20.8
10	26.8	4.8	22.0	46.8	15.6
11	30.0	5.8	24.2	42.5	11.3
12	33.3	6.9	26.4	39.0	7.8
13	36.7	8.1	28.6	36.0	4.8
14	40.2	9.4	30.8	33.4	2.2
15	43.8	10.8	33.0	31.2	0.0
16	47.4	12.2	35.2	29.3	-2.0
17	51.2	13.8	37.4	27.5	-3.7
18	55.1	15.5	39.6	26.0	-5.2
19	59.1	17.3	41.8	24.6	-6.6
20	63.1	19.1	44.0	23.4	-7.8
21	67.3	21.1	46.2	22.3	-8.9
22	71.5	23.1	48.4	21.3	-9.9
23	75.9	25.3	50.6	20.3	-10.9
24	80.3	27.5	52.8	19.5	-11.7
25	84.9	29.9	55.0	18.7	-12.5
26	89.5	32.3	57.2	18.0	-13.2
27	94.2	34.8	59.4	17.3	-13.9
28	99.1	37.5	61.6	16.7	-14.5
29	104.0	40.2	63.8	16.1	-15.1
30	109.0	43.0	66.0	15.6	-15.6
31	114.1	45.9	68.2	15.1	-16.1
32	119.3	48.9	70.4	14.6	-16.6
33	124.6	52.0	72.6	14.2	-17.0
34	130.0	55.2	74.8	13.8	-17.4
35	135.5	58.5	77.0	13.4	-17.8

Slow speeds are essential. Even at 10 MPH, if a pet or a pedestrian 26 feet away darted into a vehicle path, braking would be insufficient to avoid an accident. Just as there are obligations for motorists, [law](#) makes it plain that “no pedestrians shall enter or cross an intersection in disregard of approaching traffic. ... [Pedestrians shall not](#) carelessly or maliciously interfere with the orderly passage of vehicles.” The 15 MPH speed limit has worked on the Virginia Tech drillfield, but we will need to take a conjunction of actions to make the Zone safe. Even the name of the Zone needs to connote safe speed, for example: The Crosswalk, Ped Park, Ped Alley, People Park, Pep Zone, Pulaski StreetWalk, ____ (you fill in the blank).

Collision avoidance is not only braking but steering out of the path of a potential accident. An alert driver is a cure for many ills. It is the inattentive driver that poses greatest risk.

A Walk Through History & A Few Chuckles – one-way, any way, a contentious 4 years.

If you are in need of a chuckle, you may find a few when you browse the history of the ever-going West-Main one-way argument. The first salvo that I am aware of appears in the Southwest Times, Dec 18, 1952 (Day #1). Before then on Main Street, two-way traffic ruled.

In this article you will see that the initial argument had Washington Ave as a feeder and **proposed westward travel** on West Main just as I have throughout this discussion. In this instance, the one-way travel was to be temporary and to alleviate traffic congestion in Pulaski during the Christmas shopping season. To enact even this short-lived, modest measure required a tie-breaking vote by the mayor. You can zoom into the images to read the content.

The next time a return to this one-way plan came up was April 8, 1953 (Day #111). The Town Manager proposed to Council that the one-way scheme used during the Christmas season be implemented on Saturdays to alleviate congestion. Council felt more study should be given to the matter and evidently the matter died there.

As reported Jan 3, 1954 (Day #381), a one-way plan existed during the 1953-4 Christmas season and was sufficiently successful that a 30 day extension of it was proposed. The article reported, "The one-way plan has been used to handle the heavy flow of traffic during December for the past two years. The merits of the system have been discussed pro and con, but it was understood some merchants on the two streets feel it would be highly successful during normal months."

Within a few days the wind shifted. Jan 12, 1954 (Day #390) the Southwest Times reported on its survey: "The survey was started last week after a petition signed by some 68 merchants and businessmen bitterly opposing one-way traffic at any time during the year was presented to town council. ... a protest was led by most of the leading businessmen ..." When citizens were asked about a December one-way it was about evenly divided 200 to 200. Forty wanted it year around; 35 were opposed. An unsigned letter said, "If some of our merchants who oppose one-way traffic long enough to drive to Harrisonburg, [sic] Pa and observe the towns with one-way traffic, they could see we are outdated."

A putdown like this implying Pulaski provincialism is a common technique but wrong. In that era one-way streets were viewed as modern and correct from an engineering standpoint. For example, a Sept 24, 1947, Southwest Times headline read: "**Experts Wrestling With Traffic Congestion Find It's a Matter of Psychology In Virginia.**" It states: "Another oft-considered solution to downtown traffic ills is the establishment of one-way streets. ... Downtown merchants, in general oppose one-way streets on the grounds that they are harmful to business." The traffic engineers in this article asserted that "after a month or 60 days, business will level off and may even increase." That assertion was not supported.

Now many years later it is clear that the 1947 traffic engineers got it wrong. Their statements were bluster. One-way streets may be useful for moving traffic quickly, but in downtowns it is slower traffic speeds that help communities and businesses to be desirable and thrive. The converse of this can be seen where freeways cut through cities. More often than not these are areas of blight, not prosperity.



The above Nov 24, 1954 article (Day #706) represents a new phase. Now a one-way West Main was to be permanent. It was passed on a 4 to 3 vote with heated discussion. As in the Pedestrian Zone

proposed westward traffic, “The Plan calls for traffic **to move West** on Main St. between South Madison and Jefferson Avenues.” A petition signed by 31 businessmen favored the one-way plan.

The Southwest Times was hardly a passive bystander in the one-way conflict. In early January 1955 on its front pages you were likely to see a three-question survey asking in various ways whether people wanted one- or two-way traffic.

It is well to view this debate in context. At the precise time that Pulaski was embroiled in its argument about one-way traffic, we see in the Jan 11, 1955 issue (Day #754) the headline: “Big Highway Program Ready for Eisenhower.” This was the legislation for “modernizing the nation’s highways ... The object to: develop maximum use of highways for a possible national emergency [i.e., a Cold War concern suggesting being prepared for a Russian atomic attack and [evacuation](#)].” As the Southwest Times stated, this was: “the ‘strategic network’ of interstate highways,” what we now know as the Interstate highway system. At that time failure to take a “modern” stand toward new highway plans was to be a spoiler, even to be viewed by some as downright unpatriotic.

The Southwest Times headline Jan 16, 1955 (two years into the debate, Day #759) reads: “Citizens Vote Against One-Way Traffic Plan.” As the article states, “Pulaski County citizens have voted overwhelmingly against a one-way traffic system in any form in a survey conducted by the Times.”

Total Survey Votes	508	
Against	381	75%
In favor	104	20%
Retain present one-way plan	23	5%

On Jan 21, 1955 (Day #764) front page we see that, “A flood of protest prompted Council to revert back to the two-way policy.”

Oct 14, 1956 (approaching the 4th year anniversary, Day #1396) the proponents become more focused, “Police Chief Bouldin has recommended that after Nov 1 traffic be required to move **westward** only on Main Street and eastward only on Third Street between Jefferson and Madison Avenues. The plan was tried twice in previous years and proved controversial.”

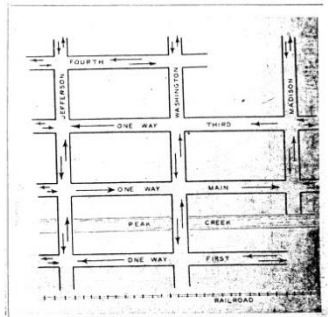
Oct 17, 1956 (Day #1399) Headline “One-Way Traffic Deferred By Council During Lively Meet.” In this article we see that Obel Radcliff presented Council with a petition with **900 signatures** saying they wanted more talks about the system before it was adopted.

Nov 18, 1956 (Day #1431) we find that efforts for adoption are ratcheting up. “... reopening the controversial subject is the result of a report from a state Department of Highway Traffic Engineer favoring the initiation of a one-way traffic system.”

Nine days to flip. Go east, not west. ... A few days later Nov 21, 1956 (Day #1434) we have the following diagram which proposes substantially the same traffic pattern we have today, with one minor and silly

exception: for one block 1st Street NW is shown being one-way westward. Is this a typo? Or did they really do this? Yes it was intentional. A Nov. 25 article in the Southwest Times confirmed it.

Note that the following diagram shows **eastward** traffic on West Main. **Only one month earlier**, Police Chief Bouldin was calling for **westward** movement. A directionless argument? [pun intended.] A bit confusing, but it registered a few giggles as pen went to paper.



Public Meeting Set
Permanent One-Way Plan Considered By Council

That Council voted yesterday to postpone action on a one-way plan for the city until after a public hearing is held in the municipal office.

Although most of the councilmen favor the plan as a way to relieve congestion in the downtown area, they do not plan to submit the plan to the public meeting.

Throughout the preceding week, the council has been discussing the merits of a one-way traffic plan to improve the downtown area.

These favoring the plan are said to be in agreement with members of Council before the meeting.

Last month, the council proposed to set up a one-way system on Main Street between Madison and Jefferson Ave.

At the same time, the traffic engineer recommended the local business area at First and Third streets.

Commissioner Wright also suggested the plan to the council at a public meeting.

Head Metropolitan Police Officer Gordon said that a one-way system will be needed soon for the downtown area.

Continued on Page 4, Column 1.

As the Southwest Times states, "In his report, Gordon [the traffic engineer] recommended the adoption of a one-way street plan to relieve the congestion in the downtown area. ...In addition, Gordon said full benefit of a one-way system will not be realized until the existing traffic system here has been modernized, allowing a progressive flow of traffic not possible under the present set up [at least with respect to West Main, a convenient and dubious leap of logic in my view]. ... The one-way plan proposed at yesterday's meeting **differs from plans tried here before. It reverses the flow of one-way traffic on Main and Third St. between Madison and Jefferson Ave.**"

Nov 27, 1956

Town Council Unanimously Endorses Permanent One-Way Traffic Program

Less than **two years earlier** 75% of survey respondents were **against it**. Forty-one days earlier a petition with 900 signatures **asked for a delay**. Day #1440, just a few days short of four years of debate, the Southwest Times wrote, “Pulaski's highly controversial permanent one-way traffic proposal was unanimously voted into existence yesterday with an enthusiastic endorsement from Town Council.... After an hour and 20 minute discussion a vote was taken and council gave the plan a loud and enthusiastic approval thus ending one of the town's most controversial problems.”

Only 9 days earlier, eastbound one-way traffic on West Main was publically proposed for the first time. For the past 60 years we have lived with the consequences of this 9-day decision.

Perspective.

The above is not the complete story. It is only a summary of Southwest Times front page articles appearing over a four year period. A well-researched story, if available, would probably fill a book.

There are many lessons we can take from this. One is that there was a dogged persistence, aided by traffic engineers, to convert streets to one-way to better move traffic. In some instances it made little difference about the size of the street or whether traffic moved west or east on a particular street, or where it terminated, so long as it was one-way. In downtown Pulaski [car traffic has dropped 40% in the past 15 years](#), making a one-way West Main all the more pointless. True enough there are benefits of one-way streets, but they apply when long distance trips of a fixed direction dominate. In sections of towns and cities where destinations are random and over short distances, one-way traffic impedes vehicle movement. As we have seen with one-way on West Main Street, a trip which might be only a few yards long can become a trip of more than a third of a mile. Further, when one-way traffic speeds up, cars are less likely to stop at small businesses or to produce congenial neighborhoods, safe for children and pedestrians of any age.

One day in the future people will look at the history we now build for Pulaski. Before icons are iconic they are risks. Their opportunities are uncertain, unproven, theoretical. [This was the case](#) with the Lincoln Memorial and the [Eiffel Tower](#). To a lesser extent it is the case here. We are at a point where with only modest effort and expense, we can breathe new life into West Main – a Pedestrian Zone in an authentic American town with a population less than ten thousand. That would be a first. A cause for national distinction and publicity you could not buy at any price.

No different from the past, there will be animated debate. Wherever this ends I hope we do a good job of transforming West Main so that it increases prosperity and contentment to the greatest degree reasonably possible. We will never do a perfect job, but I hope at least that: we do a good one, we have some fun doing so, and in the end we do a job we are proud of.

Cars don't shop. Pedestrians do.

You leave a car at the curb or in the parking lot. From that moment until you enter a store you are a pedestrian. In shopping center parking lots, cars normally move slowly in deference to you. Every day these practices and informal rules make shopping possible and safe for millions of people.

Businesses need not wait for the blessed moment when people exit a car and become a pedestrian. Focus on the pedestrian. By starting with the pedestrian, businesses are ready from the get go.

At 3 MPH, it is a 3 minute walk from the Train Station to West Main. Very close indeed. The goings on at nearby residences, parks, trails, parking lots, organized activities here in Pulaski, and daily stops at the nearby Post Office suggest that many folk will be inclined to walk over to West Main once the destination proves popular.

West Main traffic lanes and sidewalks inform us about what is possible. [Comfortable pedestrian movement at its upper limit is about 12 people per minute per yard of sidewalk width.](#) – equivalent to 38 people per minute on a West Main sidewalk. Sidewalks here are about 3.23 yards wide and 0.24 miles long counting both sides of the street.

With the aid of a little math, we see that the maximum number of pedestrians comfortable moving at one time on West Main would be in the neighborhood of 225 people (assuming a walking speed of 2.5 MPH, effectively resulting in a square area with 7½ ft long sides for each person). If they window shopped and moved at a slower 1 MPH it might be at a maximum of 550 people on the sidewalk at any one time (a square with 4¾ ft long sides). I stress that this is not a projection. Instead it is an effort to estimate normal upper limit pedestrian carrying capacity for West Main sidewalks. A fewer number of pedestrians, enough to support 35 locations without being excessively crowded, would be sufficient. Aside from the sidewalk walking area, the Ped Zone provides 10,000 sq ft (15½ ft wide, 640 ft long) for leisurely pedestrian activities, such as outdoor café dining, et cetera.

As previously suggested, if the 95,000 sq ft ground level area of businesses and buildings on West Main were a shopping center, they would need about [380 parking spaces](#). With a mere 40 parking spaces, the upper limit of customers coming from automobiles parked on W. Main is about 80 at any one time. West Main can accommodate large numbers of pedestrians, but very few cars.

The consequences are plainly in evidence: 14 of 35 locations (40%) are inactive. Current car traffic is barely able to support 60% of the existing locations, much less adequately support all 35 locations on West Main.

The central point: the automobile is the bottleneck forever preventing West Main from becoming socially or economically vibrant. The most attractive alternative is to maximize pedestrian opportunities. The [Eiffel Tower](#) in Paris does it. Our own iconic use of West Main can shine a light on us also.

The future of West Main is the pedestrian, not necessarily by choice, but by inevitability.

Video Summary.

The following videos (in the main linked to earlier) give a view of [Shared Pedestrian Spaces](#) and Pedestrian Zones. (Note that occasionally they unavoidably begin with YouTube advertisements that you should ignore, or when possible exit from.)

Important Major Pedestrian Zone Ideas. See this one. Use of temporary materials and paint produced transformative results: <https://www.youtube.com/watch?v=LujWrkYsl64&t=3m44s>

European shared space example with focus on pedestrian and business advantages: <https://www.youtube.com/watch?v=59-roEQZWOY&t=3m8s>

A slow-paced video showing vehicles and pedestrians coexisting by making modest concessions to each other in a European pedestrian zone: <https://www.youtube.com/watch?v=qjns-jzuzoE&t=0m32s>

This is an example of Pedestrian Zone in a Vermont town with a 42,452 population (Town of Pulaski: 9,086 population): <https://vimeo.com/180547448>

Pedestrian Zone in Winchester, VA (population 26,203): <http://www.youtube.com/watch?v=D2SZ7jsbVAs&t=0m18s>

Superblock pedestrian zone concept with 6 MPH speed limit: http://www.youtube.com/watch?v=ZORzsubQA_M&t=1m45s

Realistic Shared Space. Slow-paced Netherlands example (population 18,832), appropriate pedestrian and vehicle behavior & speeds: <https://www.youtube.com/watch?v=J8nAUGzx0A8&t=0m18s>

In Tokyo bicycling accounts for 14 percent of all trips. The majority of these occur without bike lanes or any particular infrastructure supporting bicycles. This usage rate exceeds most American cities that have a great deal of bicycle-friendly infrastructure: <https://vimeo.com/157120644>

Before icons are iconic they are risks. Their opportunities are uncertain, unproven, theoretical: <https://www.youtube.com/watch?v=Penbo2MtTw8&t=5m11s>

Sharrow bike lane with advisory marking: <http://www.youtube.com/watch?v=l0GA901oGe4&t=5m7s>

Railroad crossing: <http://www.youtube.com/watch?v=TSMUcpOmm10&t=0m52s>

Another railroad crossing: https://www.youtube.com/watch?v=KS9Om_-UqRs&t=1m55s

A few remarks.

If the history of Southwest Times one-way articles interested you, you can thank Graham Claytor, at the Preservation Services Antique shop on West Main for it. He strongly suggested that I go to the Pulaski Public Library and ask to see their Southwest Times archive. It turned out that not only did they have the archive, but it was [digitally searchable](#). All of the Southwest Times references here came from it.

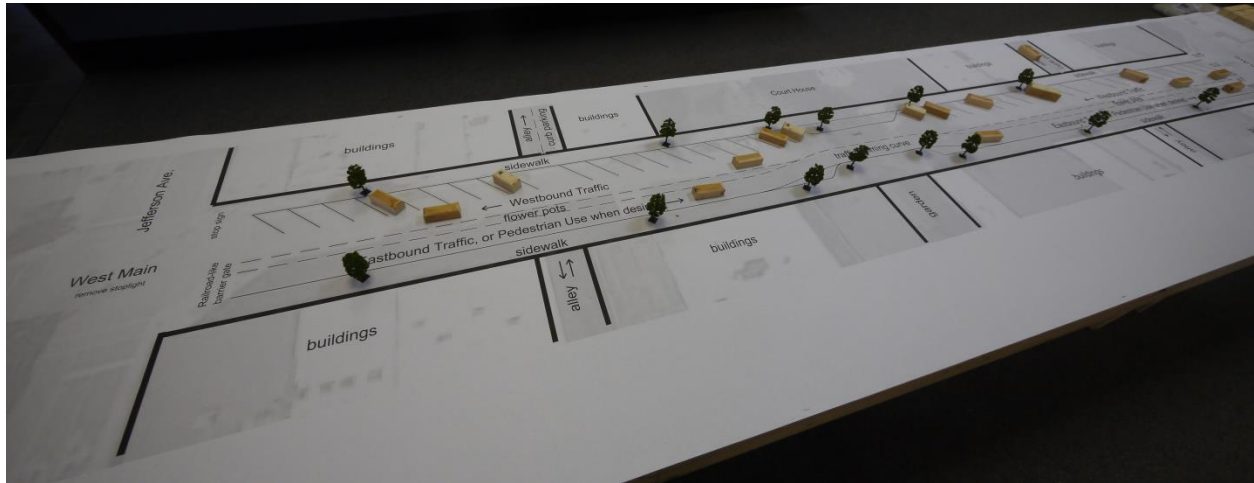
I should also point out that Jason Greene at Coltrane Welding and I somehow stumbled into a conversation about revitalizing downtown Pulaski. He pointed out pedestrian mall successes elsewhere in Virginia. That they were already being used in Virginia suggested: Why not here?

Julie Burkhart at the Wings Tails & Fins Pet Shop on West Main inadvertently is responsible for all of this. She mentioned to me that she wanted diagonal parking on West Main. Well, I said nothing, but remarked to myself that the idea was nuts. Then I started taking measurements and did a bit of research. A minimum travel lane width of 11 feet (which we have space for) is [required where angled parking is provided](#) so vehicles have room to back out of the parking spaces. Eventually it came together as the item now in front of you. Now I eat humble pie.

Addendum

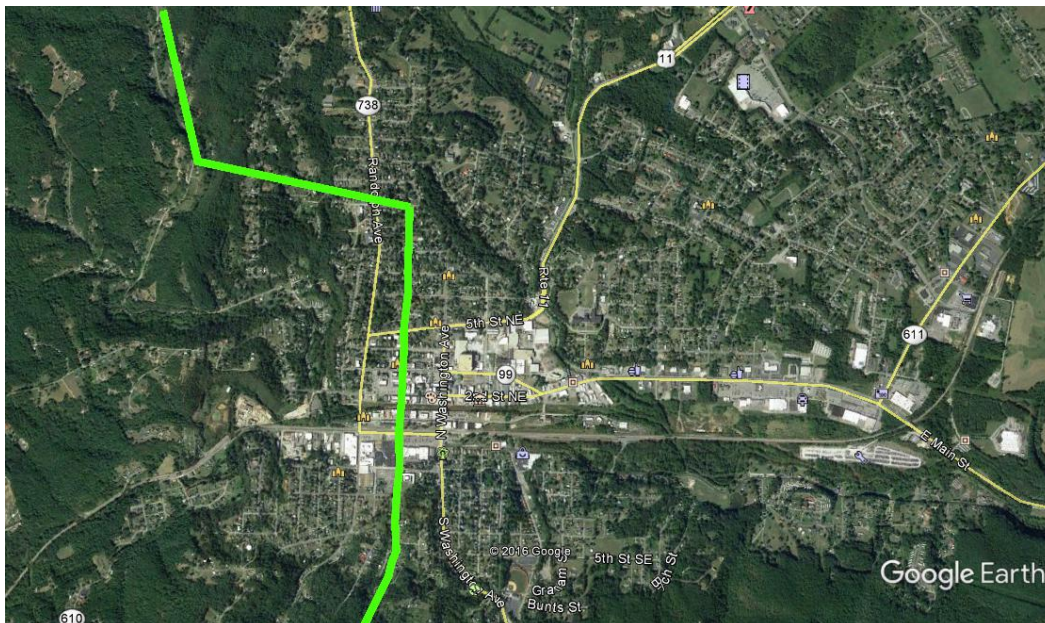
Working Model.

We built the following 14' x 3' working model of West Main and its Pedestrian Zone primarily to test various sized car and pickup trucks built to scale:



Only a minor artery feeds West Main – The Jefferson Ave side of town.

The Jefferson Avenue intersection is the only direct access to West Main's current one-way eastbound traffic. From this it is clear that the low density residential area on the west-side of town shown in green has direct access to West Main. By contrast, Pulaski's vastly larger and high density residential area east of Jefferson is blocked from direct access to West Main by the current one-way restriction. Those residents and the predominant traffic flow on Rt 11 can reach West Main only by convoluted jaunts. Economically and socially, West Main will forever fail when fed by Jefferson alone:



Calibrating the danger of speed – sidewalk speeds vs. speedy vehicles.

At a human scale, people on a sidewalk are remarkably good at avoiding collisions with each other. On a sidewalk, it is vanishingly rare that a person bumps into someone else: either head-on, from the side, or from the rear. This seemingly obvious observation tells us a great deal about appropriate speeds in a Pedestrian Zone.

On a sidewalk, we usually gauge others exceptionally well. Although we may come very close to them on occasion, we do not to actually bump into them. This is mainly due to closing speeds. When people are walking at 3.5 MPH in opposite directions, the worst possible case would be that they would collide head-on at a closing speed of 7 MPH. This seems not to happen because people are wired sufficiently well to reliably avoid collision at this speed.

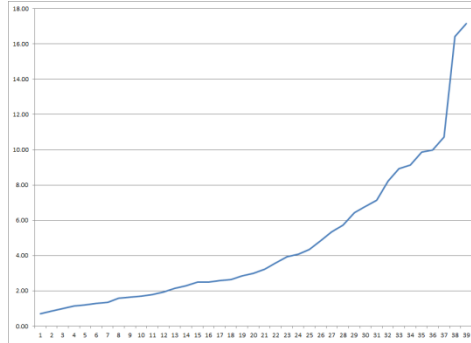
However, [higher speeds increase complexity](#) to a point that it impossible to respond appropriately. To make it worse, severity of accident increases with speed, making it ever-more devastating.

Though accidents are obviously attributable to many components other than closing speed, the following table is intended to illustrate the difficulty of avoiding collisions relative to the apparently safe 7 MPH sidewalk closing speed that all of us seem to be able to handle. At a first look, indexes of 2.00 or less would appear to be acceptably safe. Yet, many of us seem to accept more dangerous levels in other scenarios.

		Relative danger of hitting each other based on closing speed			
		Index of 1.00 equals extremely safe			
Person #1	vs.	Person #2	Behind	Side	Head-On
Walk 2.5 MPH		Walk 2.5 MPH	0.00	0.36	0.71
Walk 3.5 MPH		Walk 2.5 MPH	0.14	0.50	0.86
Walk 3.5 MPH		Walk 3.5 MPH	0.00	0.50	1.00
Jog 5.5 MPH		Walk 2.5 MPH	0.43	0.79	1.14
Safe Car 6 MPH		Walk 2.5 MPH	0.50	0.86	1.21
Jog 5.5 MPH		Walk 3.5 MPH	0.29	0.79	1.29
Safe Car 6 MPH		Walk 3.5 MPH	0.36	0.86	1.36
Jog 5.5 MPH		Jog 5.5 MPH	0.00	0.79	1.57
Tranquil Bike 9 MPH		Walk 2.5 MPH	0.93	1.29	1.64
Safe Car 6 MPH		Safe Car 6 MPH	0.00	0.86	1.71
Cautious Car 10 MPH		Walk 2.5 MPH	1.07	1.43	1.79
Cautious Car 10 MPH		Walk 3.5 MPH	0.93	1.43	1.93
Tranquil Bike 9 MPH		Safe Car 6 MPH	0.43	1.29	2.14
Cautious Car 10 MPH		Safe Car 6 MPH	0.57	1.43	2.29
Bike 15 MPH		Walk 2.5 MPH	1.79	2.14	2.50
Slow Car 15 MPH		Walk 2.5 MPH	1.79	2.14	2.50
Tranquil Bike 9 MPH		Tranquil Bike 9 MPH	0.00	1.29	2.57
Slow Car 15 MPH		Walk 3.5 MPH	1.64	2.14	2.64
Cautious Car 10 MPH		Cautious Car 10 MPH	0.00	1.43	2.86
Bike 15 MPH		Safe Car 6 MPH	1.29	2.14	3.00
Fast Bike 20 MPH		Walk 2.5 MPH	2.50	2.86	3.21
Cautious Car 10 MPH		Slow Car 15 MPH	0.71	2.14	3.57
City Car 25 MPH		Walk 2.5 MPH	3.21	3.57	3.93
City Car 25 MPH		Walk 3.5 MPH	3.07	3.57	4.07
City Car 25 MPH		Jog 5.5 MPH	2.79	3.57	4.36
City Car 25 MPH		Tranquil Bike 9 MPH	2.29	3.57	4.86
City Fast Car 35 MPH		Walk 2.5 MPH	4.64	5.00	5.36
City Car 25 MPH		Bike 15 MPH	1.43	3.57	5.71
City Car 25 MPH		Fast Bike 20 MPH	0.71	3.57	6.43
Rural Cautious Car 45 MPH		Walk 2.5 MPH	6.07	6.43	6.79
City Car 25 MPH		City Car 25 MPH	0.00	3.57	7.14
Rural Car 55 MPH		Walk 2.5 MPH	7.50	7.86	8.21
Fast Car 60 MPH		Walk 2.5 MPH	8.21	8.57	8.93
Rural Car 55 MPH		Tranquil Bike 9 MPH	6.57	7.86	9.14
Fast Car 60 MPH		Tranquil Bike 9 MPH	7.29	8.57	9.86
Rural Car 55 MPH		Bike 15 MPH	5.71	7.86	10.00
Fast Car 60 MPH		Bike 15 MPH	6.43	8.57	10.71
Fast Car 60 MPH		Rural Car 55 MPH	0.71	8.57	16.43
Fast Car 60 MPH		Fast Car 60 MPH	0.00	8.57	17.14

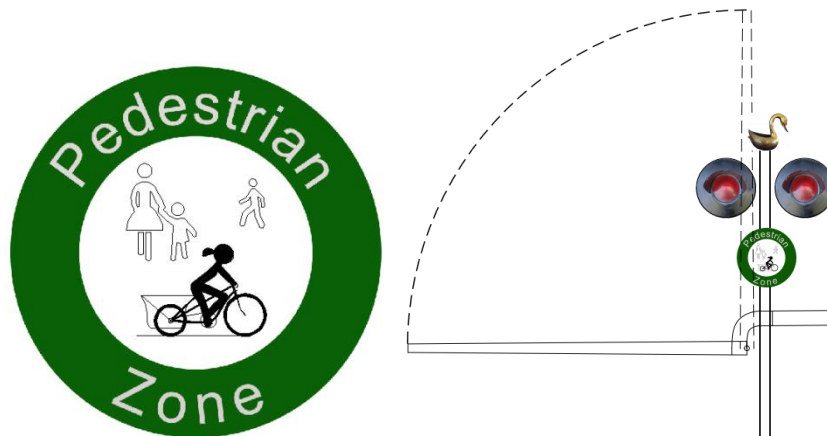
The time available to react is reduced by the index factor. The index in the above table equals in each case the closing speed divided by the seemingly safe sidewalk closing speed of 7 MPH.

In addition to pedestrian walking and vehicle interaction that might be expected in the proposed Pedestrian Zone, the above table shows bike and vehicle interactions which are intended to help calibrate danger in a wide variety of conditions. As the index number increases, so to increases the difficulty of avoiding collision in a shared space context. This is the graph of the increasing difficulty in these cases:



When the index is very low mingling is possible but as the index increases, so too must protective measures such as: barriers, rules, and separation. It's a bit of a balancing act. In a Ped Zone, low indexes coupled with appropriate dosages of barriers and a few rules would seem sufficient.

The Pedjo Ped Zone barrier gate.



We developed this logo for the barrier gate that we will erect in our parking lot. Our lot is 6,000 sq ft. It can provide a substantial boost to the 10,000 sq ft available on the eastbound lane of a West Main Pedestrian Zone. We want our lot from time to time to be available for public purposes. We hope this use of it will help bring a little spark to the downtown. The major components have already been purchased.

Historical preservation.

Although hidden in plain sight, historical preservation involves far more than expressions of goodwill, academia, or even philanthropy. If buildings do not generate good incomes, they eventually fall or are torn down. Disuse, abandonment, or disrepair are first signs of this process. Albeit slow, the process is inevitable.

For this reason it is necessary to brush aside fine talk and get down to the nitty gritty of making West Main economically thrive. Far too many platitudes have buried this urgency. It is serious business. As surely as the sun will shine, to be ineffective or to waste time in this effort is to participate in the destruction of these buildings.

Please Do not Rush to Judgment.

Please do Not Vote Nov. 15, 2016

on the STBG grant proposals.

The proposed traffic changes are huge. They are complex. They transform major Pulaski thoroughfares. This is something that will forever influence voters every day of their lives. The public needs to see the proposals and have adequate opportunity to comment in a format that allows for a free exchange of ideas.

Only on Nov. 14, 2016 (a day before the meeting) did I see the proposals for the first time. It is plainly clear that the issues are so vital and so transformative that they require the public being fully informed as to the content of the proposals and having adequate opportunity to comment. This Nov. 15 meeting is insufficient for that purpose.

If the proposals are approved now and subsequently rejected by the Town, it will require the Town to reimburse the Virginia Department of Transportation for the total amount of costs expended by it. Unfortunately in their present form, I believe that would be the outcome once the public has the opportunity to see the proposals. As wasteful as that might be, it would (in my opinion) be preferable to approving them in their present form.

A two-way West Main is less complex and far more beneficial than extensive two-way plans.

As I understand it, prior rejected proposals have at times been for all of Main and Third Street from the Duncan intersection to Jefferson to be converted to two-way. I too would have been skeptical about advantages of doing this. I similarly am skeptical about the present STBG proposals.

On the east side of Third Street the benefit from conversion to two-way would seem to be slight or nonexistent. Third Street NE from Duncan to Washington is primarily industrial or an area where businesses have their own parking lots. This stretch is ideal for being one-way. To the benefit to the public, cars can drive through this section quickly. Local businesses have their own parking lots and are not disadvantaged by one-way traffic. To their great advantage, traffic from Rt 99 nicely flows to them. There are few pedestrians here and there are no retail storefronts or historically attractive buildings abutting this section of 3rd NE. In short, perfect reasons for continuing with one-way traffic on the eastern section of 3rd Street.

From Washington to Duncan, the eastern section of Main Street is a mixed section, with no historically significant buildings once you pass those which are within striking distance of Washington. East Main also has good traffic flow fed primarily from Washington. It shares many characteristics of 3rd St NE: parking lots, good access cross streets and good feed streets, et cetera. Unlike 3rd it does have offices and some closed businesses that abut the street. It also has some wide open spaces that could be used for development. But I don't see how development there would depend on, or benefit from, East Main being two-way.

The Duncan to Jefferson proposal for Third and Main seems to be resurrected on page 6a in the current proposal. Please study the map on the reverse side of that page. It generally supports the above observations but also draws attention to the roundabout at the current "Y" at Duncan. That roundabout provides unwanted confusion and disturbance at a point where traffic now flows perfectly.

In short, to convert East 3rd and East Main, would be complex, expensive, and with few evident benefits. To the contrary, the present one-way flows in this area seem to be advantageous both for vehicle flow and for business success in that region. To lose that good traffic flow without offsetting benefits would seem unwise.

These are main thoroughfares. Such a conversion would be in your face every day. I believe you will find voters scratching their heads and daily questioning the reasoning that resulted in such an unproductive change.

If, in the future, it does become patently evident that this region would benefit from being two-way, it would seem appropriate to then address the issue, but in the meantime to lay it aside until there is adequate justification for making the conversion. The risks are too great and the benefits (if any) are too small. The Nov. 18, 2016 Southwest Times reported that the town [nixed this two-way STBG proposal](#).

Instead of all of this, the focus needs to be on inexpensive changes on the west side of Washington, where obviously huge two-way advantages exist. By contrast, it would seem unfortunate to invest time and effort in speculative ventures on the East side where it is hard to find any two-way advantages. That is why the matter appears to have been correctly set aside in the past.

The 2009-2010 two-way rejection.

A Town document dated 12/10/09 indicates that a two-way conversion of West Main between Jefferson and Washington was then estimated to cost \$60,000 for two control boxes and signals. By contrast, the proposal put forth here calls for the elimination of the stop light at the Jefferson-Main intersection and replacing it with two-way stop signs on the cross streets. This would lower cost, improve traffic flow on Jefferson, make the conversion to two-way less expensive, and provide necessary traffic calming on entering West Main's eastbound lane. Further, the control box modification on Washington I believe can be accomplished at lower than the estimated cost and would like to see the schematics and supporting data for those costs.

Main Street/Route 99 Enhancements

In Shawn's Nov 10 email to Mayor and Council, subject: Packet Summary – November 15, 2016 Council Work Session, Section 6a:

Here the email states beginning at Duncan Ave and running east to Bob White this project provides 1) bike lanes in each direction, 2) removal of medians, and 3) a conversion from two lanes in each direction to single lanes in each direction. I do not see any visual presentation of a converted Rt 99 to evaluate these three proposals. Now to address each of these in turn as best I can under the circumstances:

- 1) **Bike lanes.** The section of Rt. 99 from Duncan to Bob White is one of the least advantageous places for bike lanes imaginable. It would be frankly dangerous to put bike lanes here. Picture this: Assume you are cycling in the proposed bike lane and you need to make a left hand turn. You then would be compelled to move left into the only available lane for cars. This is not only dangerous, it will incur the wrath of drivers who now already are limited to a single lane. The presumption is that once bike lanes are established cyclists must stay in the lane notwithstanding that exiting the bike lane is required when making a left-hand turn. Indeed a cyclist can receive a ticket for not riding in a bike lane in cities like New York as this [viral video](#) shows. Now take another case: You are riding your bike in a proposed bike lane. Numerous cars must cross into the bike lane in front of you in order to make right hand turns into the many businesses and shopping centers. This is annoying for cars and deathly dangerous for cyclists. By contrast, in the two lane traffic, which we now have, cars can easily pass bikes often moving to the left hand lane.

When they are in front of you in the same right-hand lane as you are, they will usually signal when making a right hand turn. And even if they don't signal you can easily see what they are doing. For this reason cars and bikes are both best served by the present configuration. A right hand car turn kills many cyclists. If you have any doubt about this, please research the matter. The proposal would make travel for cyclists and cars unacceptably dangerous.

- 2) **Medians** exist from the Duncan car lot to Bob White. I personally like them. When I ride a bike and make a left hand turn at Bob White I can put my toe on them at the stop light and am ready to go when the light changes. They also provide a nice separation from oncoming traffic that makes me feel comfortable when making left hand turns on a bike. However, they are no big issue with or without them.
- 3) **Conversion from two lanes in each direction to single lanes in each direction:** Road diets are important, but only when they achieve advantages. In this instance they would justifiably produce fury. Rt 99 is a major thoroughfare servicing shopping centers and important businesses. Currently traffic has good access to all of them. To reduce this road to one lane in each direction to purportedly benefit bikes would be counterproductive. There is not enough bike traffic to justify such a radical conversion. When public wrath regarding the conversion reaches its peak, it will be directed toward Town Government and cyclists. As a cyclist and person who is building an important bicycle business, I want to be clear that I strongly oppose the conversion. It is possible for cars and cyclists to coexist amicably. I favor striving for this, not the converse. The conversion would forever poison cyclist in the mind of Pulaski citizens. That ill will is unnecessary and harmful to us all. The Nov. 18, 2016 Southwest Times reported that Town Council [approved this STBG proposal for Route 99](#).

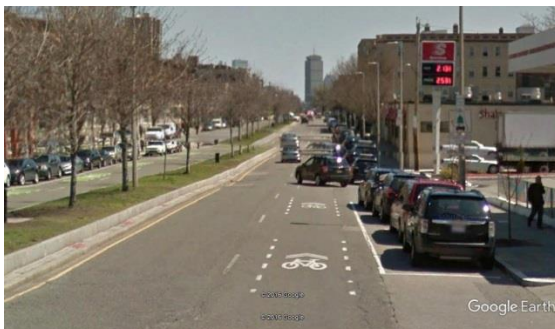
The inexpensive and unobtrusive sharrow alternative to Rt 99 bike lanes. (a Dec 12, 2016 addendum)

Please bear with me for a second. There is an important distinction to make.

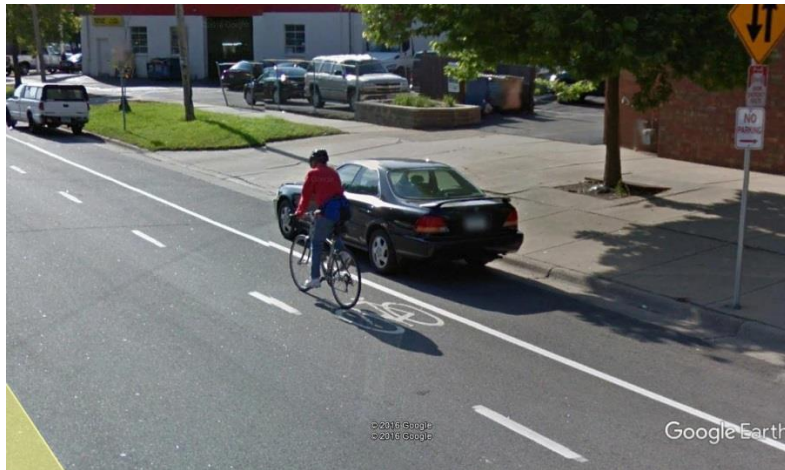
- 1) Bike lanes are for the exclusive use of bicycles.
- 2) Sharrows are sections of a shared road (bicycles & cars) where bicycles should travel. Typically in the United States, a sharrow is designated by a stencil mark on the road like this one:



- 3) [Sharrows with advisory markings](#) go one step further and show explicit markings for the space to be used by bikes. When no bikes are present, cars travel there. On the left we see a sharrow with advisory markings on Brighton Avenue in the Allston section of Boston. Since bikes aren't in this photo, cars are using it. On the right we see one in Brookline, MA with a cyclist using it.



The following is another style sharrow with advisory markings on E 14th St in the Elliot Park section of Minneapolis. The Boston and Brookline sharrow styles above are preferable because the dotted line advisory markings are easily distinguishable from conventional traffic lane markings.



Rt 99 in Pulaski is a better place for sharrows than any of these examples because Rt 99 does not have parked cars. Thus, its sharrows can be to the extreme right of the road. By contrast, Boston, Brookline, and Minneapolis needed to place their sharrows near the middle of the road to avoid the possibility of an open car door striking a cyclist.

Why sharrows with advisory markings are better for Pulaski than bike lanes.

As reported in the Southwest Times, the renovation of Pulaski's Rt 99 is estimated to be a [\\$2 million project](#). By contrast for the cost of paint and labor, sharrows with advisory markings can be easily be put in place on Rt 99 without any major modifications of the road. The price difference is blindingly obvious: thousands rather than millions of dollars.

It is doubtful that there are a sufficient number cyclists on Rt 99 to justify bike lanes. Sharrows provide a means assist cyclists when they are present. When they are not there, traffic can proceed normally. This is the most efficient use of the road. It is a flexible solution to adjust to sporadic cycling needs.

Sharrows will not impede traffic flow. Bike lanes will. Rt. 99 is the only direct artery between downtown Pulaski and Interstate 81. Shopping centers and businesses depend on it, as do citizens of Pulaski. Excluding a small portion of Route 11 east of Alum Spring Rd which has marginally more traffic, this part of Rt 99 is the most travelled road in all of Pulaski. Its annual average weekday traffic is 10,000 vehicles per day. Bike lanes would reduce the number of lanes available to traffic or alternatively they would reduce width of current lanes. Sharrows would do neither. Traffic would move at its current pace. This will satisfy the primary objective of moving traffic smoothly, which is crucial to Pulaski business success.

For the reasons I stated on page 24, bike lanes in this section of Rt 99 would be dangerous for cyclists. On the other hand, sharrows on this road are safer because a car making a right hand turn can pull in ahead of you (the cyclist) and travel in the same lane that you are. In this position you can see what the car is doing and the danger of deathly sudden right hand car turns is reduced.

On Rt 99, additional safety for cyclists can be achieved by adding "Share the Road" signs and signs stating: "Yield to Bicycles in Sharrow".

College Ave Blacksburg, the 2013 renovation.

Before (7/2012)



After the conversion: A fine application of street dining, bollards, nice scenery, shared street space, and 15 MPH speed limit.



Before (7/2012)



After the conversion: A shared street space where pedestrians and vehicles mingle with a nice open vista in the background.

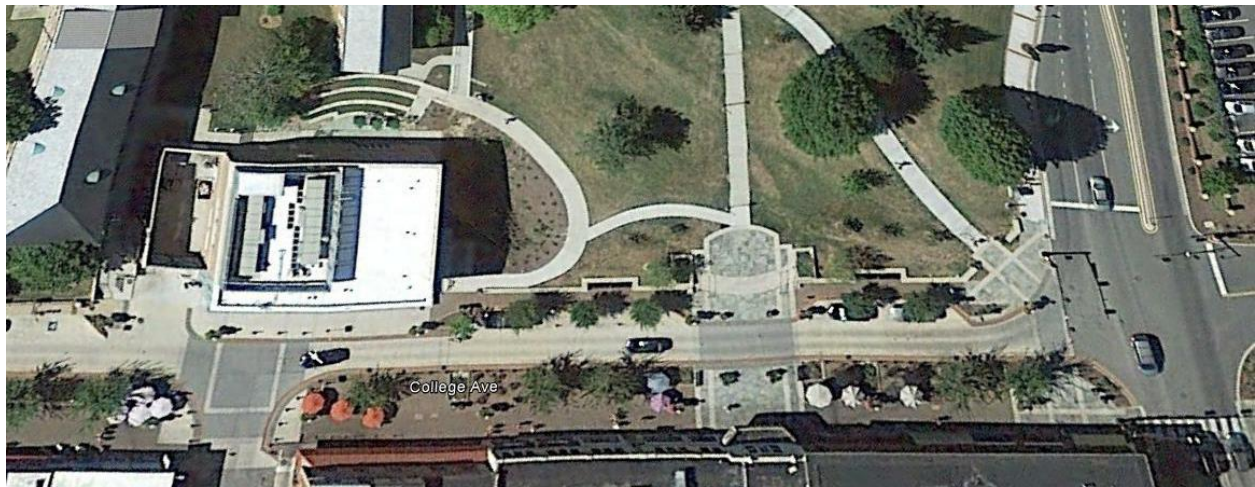


The conversion of College Ave in Blacksburg, VA offers points of comparison with the proposed Pulaski Pedestrian Zone. The pictures of it were taken on a cold blustery fall day. Although the area is indeed architecturally very

attractive and makes a good use of shared street space (pedestrians and vehicles), it is primarily designed for street dining and pedestrian activities – both of which are absent on this cold day.

By contrast the Pulaski proposal is for a convertible West Main. With this adaptability, best use of the street can occur according to circumstance. On a cold day such as the pictured one, the barrier gate presumably would be up on West Main Pulaski to optimize car traffic. In short, Pulaski's West Main would be a smart street that optimizes pedestrian use only when appropriate. The balance of the time it is used primarily for automobiles.

You can see in this aerial photo that Blacksburg commits a huge area to a single objective. All of its space can carry no more than a single lane of traffic regardless of weather or circumstance. In contrast, Pulaski convertibility shines regardless of weather:

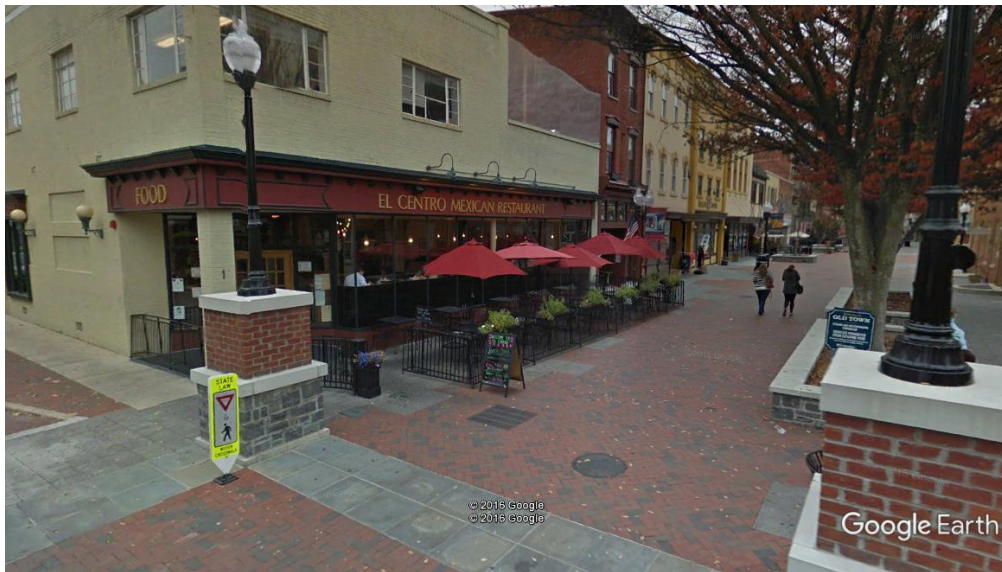


For Pulaski, it seems best to combine many of the very nice features of the Blacksburg plan with the convertibility of the Ped Zone plan. This will give a balance between aesthetics, pedestrian, and vehicular objectives. As to cost, there is a huge yawning gap between the two. The Pulaski plan can be put in place at trivially low cost. The College Avenue Promenade was a [\\$4 million makeover](#). I trust you appreciate the difference.



Where the Pulaski Ped Zone diagrams now show flower pots, using predominantly bollards and two flower-equipped lamps (as in the above) between lanes would provide excellent traffic calming, superb lane separation, and a nice aesthetic touch.

Pedestrian Zone, Old Town Winchester, VA.



[And its video:](#)

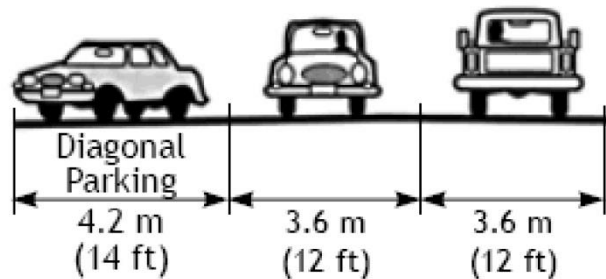


Back-in diagonal parking – safe, space efficient, good for pickup trucks – a Ped Zone on steroids.

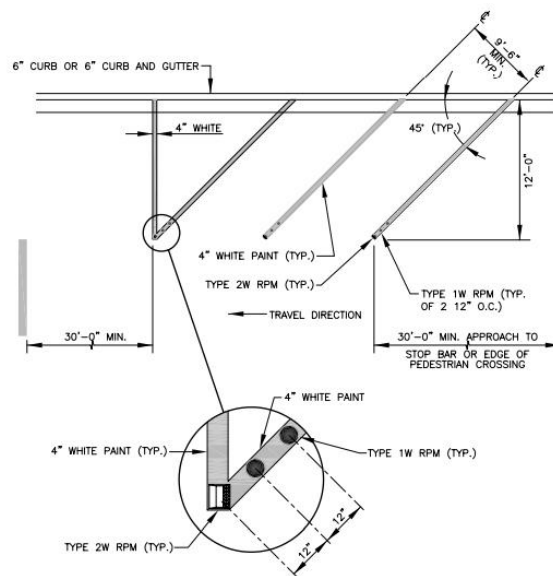
With diagonal back-in parking, you can unload from the back of your pickup truck or from the trunk of your car while you are standing on the sidewalk. This obviously is preferable to struggling in the middle of the street while trying to unload a vehicle (which would have occurred if the space had been entered from the opposite direction).

Back-in diagonal parking is far, far better for a pedestrian zone in a town like Pulaski because vendors can sell directly from the rear of pickup trucks and the like on the north side of West Main. When the Zone is active, both sides of the street can be used for vendors. The south side would have a lane closed for pedestrian use. The north side would have some pickup truck vendors.

We are a nice little redneck town with plenty of pickup trucks and good people. They can make the Zone doubly potent for breathing new life into West Main and provide a good mix that can insure that West Main does not become unwholesomely gentrified. Both sides of the street can be marketplaces used by people with substantial or modest incomes.

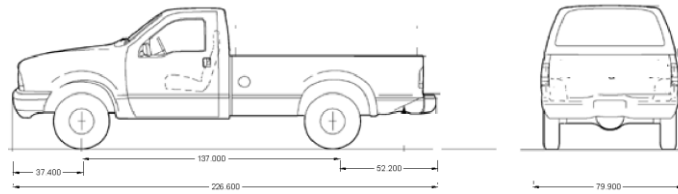


Though it is possible to find diagonal parking with two lanes of traffic using 38 ft wide street (2 ft narrower than West Main), [some will object to it](#) on the basis of safety for pedestrians, cyclists, and normal traffic. The initial Ped Zone proposal attempted to reduce danger by the “stop for backing cars” and slow speed limit rules.



49 ANGLE BACK IN PARKING STRIPING AND MARKINGS

For those who feel diagonal parking is excessively hazardous because drivers backing out cannot see oncoming traffic, back-in diagonal parking overcomes that difficulty. Moreover it makes effective use of available space. For example, the initial Ped Zone diagrams allowed 13.5 feet for parking. The back-in diagram above shows [12 feet](#).



This is particularly useful for accommodating pickup trucks because much of their length can overhang the curb, not the street. Large pickup trucks hang out so far into the street that it would be necessary to greatly modify the 13.5 ft allocation in the initial plan. As can be computed from the above dimensions, the shown F-250/350 Ford Pickup Truck requires 14.8” less street width when backed in. Back-in diagonal parking makes the program easy to deliver within West Main’s 40 foot street width. And, it carries with it substantial safety advantages.



Pottstown, Pa. (above) used [back-in parking to help revitalize and reinvigorate its downtown core](#). Wilmington Delaware, Seattle Washington, Washington DC, Indianapolis Indiana, Sacramento California, and Vancouver Washington are a few examples of cities using back-in diagonal parking. This is approximately what it would look like on West Main in Pulaski.

