

Traffic Engineering Report

Location: West Main Street from Oak Street to the south intersection of Caldwell Drive.

Reason for Study:

City of Hampton is preparing for a project to reconstruct the roadway to one way operation with sidewalk and bicycle lane. The request was to determine the proper direction for one way traffic to travel.

Topography:

This roadway is oriented in the north south direction with Railroad tracks to the east of the alignment. There are three intersections within the project limits. Starting at the South; Oak Street, Central Avenue, and Caldwell Drive. To the North, West Main Street exits the City and ends at



the intersection with Amah Lee Road. To the south, West Main Street becomes Woolsey Road south of Woodlawn Avenue. The project is bounded on the East by the Railroad tracks. Central Avenue is one way Westbound, away from the intersection with W. Main St., between 7:00 AM and 8:00 AM as well as from 1:30 PM to 3:00. Hampton Elementary School is located to the west of the project on Central Avenue. There are other businesses that use Central Avenue for their primary access. The one way restriction is presumably for student drop off and pick up since



this one way restriction ends just to the west of the school at the teacher and staff parking lot.

See Location Map attached.

Findings:

From the daily traffic counts it appears that the flow is near balanced; 293 Northbound and 311 Southbound. With the low volume, there is not a capacity issue even with the narrow lanes. Morning turn movement counts were taken on an average school day. Morning peak hour occurs from 7:15 to 8:15. Majority of the traffic experienced in this hour is Southbound, see count results below. It should be noted that the one way restriction mentioned above was not violated during these counts. During turn movement count observations, it was noted that there were more people using College Street to access the school for drop off and pick up. While there were no counts taken at that intersection, observations gave the impression there were three to four times more traffic using College Street.

A discussion with the Principle of the school on Central Avenue was accomplished in order to determine what their impression and desires would be. He indicated that they would like to see the roadway be one way Northbound. It was noted on the day of the turn movement counts that there were only two busses that entered the school traveling north on W. Main Street.

In anticipation of signing and striping the roadway for one way traffic, both northbound and southbound scenarios were considered. In signing and striping for northbound one way, it would create a right turn only trap at the intersection of Caldwell Drive. With this being a residential street, it would create an undesirable increase in traffic on this small subdivision street.

Turn Movement Counts

Location: West Main Street at Central Ave., City of Hampton


	NORTHBOUND			SOUTHBOUND			EASTBOUND		
	Left	Straight	Approach Total	Straight	Right	Approach Total	Left	Right	Approach Total
7:15 AM	1	5	6	4	15	19	0	0	0
7:30 AM	2	7	9	7	17	24	0	0	0
7:45 AM	3	3	6	10	3	13	0	0	0
8:00 AM	1	7	8	9	1	10	1	2	3
TOTAL	7	22	29	30	36	66	1	2	3

Conclusion:

It is the finding of this report that the dominant traffic movement along this section of the roadway is Southbound. Therefore with all factors considered, it is concluded that this section of roadway if made one way would better function in the southbound direction. While this may not be the desires of the school system, it will be the best operation overall.

Recommendation:

It is the recommendation that the roadway be signed and striped for travel Southbound on this section of West Main Street.


 Keith B. Rohling, P.E., P.T.O.E.



Location Map

