

CITY OF STAMFORD

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CITY ENGINEER
LOUIS CASOLO, JR., P.E.
Email: LCasolo@StamfordCT.gov

INTEROFFICE MEMORANDUM

March 8, 2022

To: Vineeta Mathur Associate Planner

From: Susan Kisken P.E. - Coordinator of Site Plan Reviews and Inspections

Subject:

**- Map Change
Zoning Application No. 222-11 - 222-14**

The Engineering Bureau has received and reviewed the following applications for Map Changes:

222-11 - Rezoning of properties surrounding the Mill River Park.

The Engineering Bureau offers no objection to the proposed Map Change and suggest that parcels of the Park be consolidated.

222-12 - Rezoning properties located in Subarea A between the Mill River to the west and Atlantic Street to the east to the TCD-D (Transportation Center Design District).

The Engineering Bureau offers no objection to the proposed Map Change.

222-13 - Rezoning properties located in Subarea B between Atlantic Street and Pacific Street to the TCD-D (Transportation Center Design District).

The Engineering Bureau offers no objection to the proposed Map Change.

222-14 - Rezoning properties located in Subarea C east of Pacific Street to the TCD-D (Transportation Center Design District).

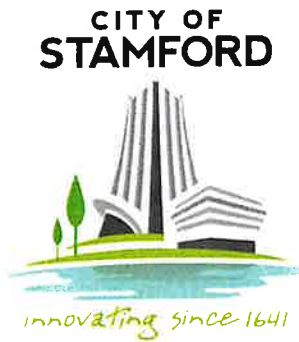
The Engineering Bureau offers no objection to the proposed Map Change.

Should you have any questions, please call me at 977-6165.

Reg. No. 80

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INTEROFFICE MEMORANDIUM

TO: Zoning Board Office

FROM: Frank W. Petise, P.E.
Transportation Bureau Chief

DATE: May 20, 2022

RE: Zoning Board Application 222-12-13-14

A handwritten signature in blue ink, appearing to read "Frank W. Petise", is written over the "FROM:" field of the memorandum.

A handwritten signature in blue ink, appearing to read "Luke Bittenwieser", is written to the right of the "FROM:" field.

Luke Bittenwieser
Transportation Bureau Staff

Application #222-12-13-14

888 Washington Blvd
City of Stamford

The Transportation, Traffic & Parking Department (TTP) has reviewed the following documents:

- Zoning Board application received January 9, 2022;
- Project narrative;

The Transportation, Traffic, and Parking Department has thoroughly reviewed this map change application. As part of this review, the department has analyzed other transit oriented development sites and their impact on the local mobility network. In this review, the department has estimated what the potential trip generation rates from this map change may result in.

Executive Summary

Transit Oriented Development (TOD), which these map changes will allow, is widely understood to be the most efficient form of land development from a mobility perspective. The location of these map changes, with all sites less than a quarter mile away from the Stamford Transportation Center (STC), gives this application prime transit oriented development potential. The extremely close proximity to the STC as well as downtown means walking and biking are highly viable and attractive modes of transportation, reducing the overall vehicular impact of any future developments resulting from this map change.

Using the maximum development potential from this map change, the department estimated the total number of new trips generated which is found on the table below:

	Residential (ITE 222)	20% CTDOT Reduction	University of Utah	Commercial (ITE 710)	20% CTDOT Reduction	University of Utah
Morning Peak	297 trips	238 trips	140 trips	2,128	1,702	1,001
Afternoon Peak	352 trips	282 trips	166 trips	2,016	1,613	948
Saturday	396 trips	317 trips	186 trips			

The City and State have invested significantly and continue to do so in upgrading the mobility infrastructure in the area to prepare the roadway network to handle increased development. The multi-modal nature of the roads means they have higher levels of capacity and can accommodate pedestrians, bicycles, and drivers.

The Department is very supportive of this application. The rest of this memorandum outlines other cases of TOD, an estimation of the potential trip generation from this map change, and how Stamford's transportation network is equipped to handle the potential development resulting from the proposed map change.

Background and Literature Review

According to the Federal Transit Administration (FTA), "Transit Oriented Development, includes a mix of commercial, residential, office, and entertainment centered around or located near a transit station" (1). Stamford with its three Metro-North Train Stations has successfully been developing TOD sites throughout the City. As detailed in the map change narrative, TOD in this area has been identified by the South End Neighborhood Study and the City Master Plan. There are many benefits of TOD that this map change will allow for Stamford. The FTA identifies the following transportation related benefits of TOD: increased ridership and associated revenue gains for transit systems, congestion relief and associated environmental benefits, and improved safety for pedestrians and cyclists through non-motorized infrastructure and proximity to transit (ibid). The success of public transit systems lies in the amount of density that surrounds the lines and stations. Increasing density around transit hubs like the STC will not only increase ridership on Metro-North, but could also lead to improvements in service on the line as a result of the increased demand.

In terms of roadway infrastructure, TOD has some of the lowest impacts on roadways when compared to other development models. Generally, low density housing and development located away from amenities and services tends to have greater negative impacts on roadway networks as transit is not well supported, walking and biking are not attractive mobility options, and the distance between origin and destination is higher thus resulting in longer driving distances and more vehicle miles traveled (VMT). TOD however locates housing and commercial uses close together in a mixed-use environment and in close proximity to transit, thus reducing the need to drive, lowering VMT, and the overall negative impact on the

roadway system. Research done by the New Jersey Department of Transportation (NJDOT) supports these claims and the positive impact TOD has, specifically finding that "residents living within a 1/2 mile of a station are more likely to walk and take public transit more frequently than those who live from 1/2 to two miles from a station, while also driving less. This finding holds when controlling for various attitudes towards one's neighborhood, demographic factors such as income and age, vehicle ownership, how long one has lived in one's current residence, and features of the built environment (2). Additionally, from a safety perspective, NJDOT found that "casualties from traffic crashes are less frequent near rail stations," due to less driving and less auto-centric roadway designs. From a congestion and modal split perspective, NJDOT found that "if more people lived near transit stations, regional congestion would be reduced, and more people would take transit" (ibid).

The congestion reducing aspects and shift away from cars to walking, biking, and transit usage is the greatest benefit of TOD. The reduction of congestion and the shifting of the modal split has environmental benefits as well. Transportation is the most polluting industry in the United States and the Department and City are dedicated to reducing pollution and greenhouse gas emissions. The Intergovernmental Panel on Climate Change (IPCC) recent report about how to mitigate climate change recommends that "cities can reduce their transport-related fuel consumption by around 25% through combinations of more compact land use and the provision of less car-dependent transport infrastructure" like TOD (3).

Modal split is defined as the percentage of trips taken from a site by mode of transportation. For most developments, single occupancy car trips represent the greatest share of trips from a site. The number of predicted trips by car is calculated by the Institute of

Transportation Engineers (ITE) and is widely regarded as the industry standard for trip generation calculations. However, ITE trip generation rates are generally conservative and based on more suburban areas not next to high frequency transit services. Furthermore, several studies have been conducted into the modal split resulting from TOD sites with the results generally showing a more balanced modal split and reduction in car trips. In-depth research conducted by the University of Utah analyzed the modal split at various transit oriented sites across the country (4). The study analyzed five locations of similar development size located around transit stations in the Seattle, Washington D.C, San Francisco, Denver, and Los Angeles Metropolitan Areas. The average modal split from this study are shown in Table 1:

Table 1: Average mode shares for Metro-Area TOD

Metro-area	Modal Split					
	Walk	Bike	Bus	Rail	Auto	Other
Seattle	18.9%	1.7%	13%	N/A	64.9%	1.5%
Washington DC	16.6%	0.3%	9.3%	27.2%	42.5%	4.0%
San Francisco	28.3%	4.3%	15.2%	26.1%	23.0%	3.1%
Denver	19.2%	3.8%	3.3%	13.6%	59.7%	0.2%
Los Angeles	27.4%	2.2%	21.1%	20.1%	25.9%	3.4%
Averages	22.1%	2.5%	12.4%	21.8%	43.2%	2.4%

As mentioned previously, ITE trip generation rates are generally conservative and based on data collected in more suburban areas. As a result, trip generation rates for cars are reduced as part of TOD sites. Table 1 shows the modal split from the TOD sites in the metropolitan areas

of these cities. It is important to note that the cities are not the locations where the TOD sites were constructed, but rather they were built around high quality transit locations away from the central city. Table 2 shows how the actual vehicular trip generation rates were lower than predicted by ITE for each TOD site in the respective metro-area. This significant decrease in vehicular trips quantitatively demonstrates how effective TOD is at reducing car trips.

Table 2: Average trip reductions relative to ITE rates per Metro-area TOD

Metro Area	ITE Vehicle Trips	Actual Vehicle Trips	% of ITE Trips	% Reduction
Seattle	1,767	661	37.4%	62.6%
Washington DC	5,808	2,017	34.7%	65.3%
San Francisco	5,899	3,056	51.88%	48.2%
Denver	13,544	9,460	69.8%	30.2%
Los Angeles	5,180	2,228	43.0%	57.0%
Average				52.7%

Potential Trip Generation Analysis

Based on the application, the proposed map change can provide up to 1.4 Million square feet of commercial floor area or 1,100 units of housing. Based on ITE trip generation rates, the proposed map change may generate the following volume of vehicular trips as shown in Table 3. Additionally, the Connecticut Department of Transportation (CTDOT) allows for a 20% reduction in vehicle trips when determining total trip generation when sites are considered to be TOD. In addition to taking the modal split from the University of Utah study, three

potential trip generation rates from this map change have been calculated. The potential number of vehicular trips generated from this map change may most likely fall in the range of the CTDOT and University of Utah prediction scheme as these numbers more accurately reflect TOD based vehicular trip generation rates. It is worth noting that due to market trends, residential uses are more likely to be developed, resulting in lower trip generation rates.

Table 3: Estimated predicted trip generations from proposed map change

	Residential (ITE 222)	20% CTDOT Reduction	University of Utah	Commercial (ITE 710)	20% CTDOT Reduction	University of Utah
Morning Peak	297 trips	238 trips	140 trips	2,128	1,702	1,001
Afternoon Peak	352 trips	282 trips	166 trips	2,016	1,613	948
Saturday	396 trips	317 trips	186 trips			

The data collected by the University of Utah was at five locations; however, not every location has a rail stop, and for the locations that did have rail, the rail service is not at the same level of Stamford’s. Stamford’s level of rail service is of a very high frequency compared to other rail lines as well as the breadth of locations available from the STC is not surpassed in the State of Connecticut. The STC is the second busiest rail station on the New Haven Line after Grand Central and offers direct, 50 minute rides into Manhattan as well as various other locations in Connecticut and with the connection to Amtrak, the rest of the Northeast Corridor. The high level of transit service around the proposed map change development sites versus the transit service studied by the University of Utah points to how vehicular trip generation rates may in fact be lower than the study’s results, reducing the overall impact on the roadway network.

Stamford's Transportation Network

The City of Stamford has made great strides in improving the roadway network around the STC including building vehicular as well as pedestrian and bicycle capacity. Several projects around the STC have either been completed or are in the design stages to improve multi-modal access to the station from the surrounding areas. All of these projects are meant to reduce congestion and improve the traveling experience to the STC for all users. CTDOT recently widened the Atlantic Street Bridge, shifted the exit 8 off-ramp, and updated traffic signals in the area. These State projects have improved capacity in the area around Interstate 95 and between the Downtown and South End. Additionally, the Stamford Urban Transitway (SUT), a 4-lane urban boulevard with bi-directional bike lanes directly connects these sites to the STC and points east offering higher levels of vehicular, bicycle, and pedestrian capacity. In addition, the City has recently completed widening the intersection of Washington Boulevard and Pulaski Streets to improve capacity and bike infrastructure, rebuilt a portion of North State Street to improve pedestrian access to the STC, and is currently in the design process to rebuilt Atlantic Street between Dock Street and Washington Boulevard into a safer and more multi-modal roadway to continue to absorb the growth of the South End. Additionally, the City is in the planning process for rebuilding North State Street and Garden Street to improve multi-mobility and capacity. Furthermore, CTDOT is actively undertaking a Master Plan Study of the STC with a particular focus on multi-modal access to the STC from the surrounding area. Overall, the City and State has invested hundreds of millions of dollars into improving the roadway network around the STC and these sites. With the previous projects completed and the projects currently in design and development, the roadway network around the STC and the sites in the

proposed Map Change are well suited to accept and handle the anticipated future development.

Conclusion

The proposed map change seeks to change various C-L, C-G, and M-G areas to TCD-D and R-HD districts in the South End. This map change allows for contextual and appropriate Transit Oriented Development to take place and still have capacity for further growth. Transit Oriented Development is widely regarded as one of the most sustainable methods of development in cities by offering improved environmental quality, increased health, lower municipal service costs, and significantly lower vehicular impacts on roadways. The roadway network in the map change areas have been reconstructed or are slated to be reconstructed to handle this growth and more while improving the safety and efficiency of Stamford's Roads. The proximity to the Stamford Transportation Center, Downtown, and the rest of the South End allows walking and biking to be safe, convenient, and attractive modes of transportation thus reducing car trips and congestion. As with all developments, the Department works closely with developers and their traffic teams on developing specific, targeted transportation demand strategies and off-site improvements to mitigate any anticipated increases in traffic volumes, and the department will work closely with any future developers as a result of this map change.

Overall, the current and future state of the surrounding roadway network, the high level of train service offered at the Stamford Transportation Center, and the close proximity to the STC, Downtown, and the South End make this map change an overall lower impact map change that does not appear to have significant impact on the City's roadway network.

Works Cited

- (1) <https://www.transit.dot.gov/TOD>
- (2) <https://vtc.rutgers.edu/wp-content/uploads/2015/05/FHWA-NJ-2014-014-Technical-Brief-Measuring-Benefits-of-Transit-Oriented-Development.pdf>
- (3) <https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>
- (4) <https://reader.elsevier.com/reader/sd/pii/S0169204616302687?token=20D09943B7FA1EA53CAEDDFC95FDC24C4021E38937274D16ECEEDB95FABD0B27A036DA805F56019071D8FF8D67F0A47&originRegion=us-east-1&originCreation=20220408134300>

MAYOR
Caroline Simmons



**CITY OF STAMFORD
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April 20, 2022

Mr. David Stein, Chair
City of Stamford
Zoning Board
888 Washington Boulevard
Stamford, CT 06902

RE: ZB APPLICATION #222-13 - CITY OF STAMFORD ZONING BOARD - Map Change

Dear Mr. Stein & Members of the Zoning Board:

During its regularly scheduled meeting held on Tuesday, April 12, 2022, the Planning Board reviewed the above captioned application referred in accordance with the requirements of the Stamford Charter.

The City of Stamford Zoning Board is proposing a rezoning for properties currently located in the M-L & M-G Districts to the R-HD (Residential High Density District). This rezoning will affect properties in Subarea C located east of Pacific Street.

After a brief discussion, the Planning Board unanimously voted to recommended *approval* of **ZB Application #222-13** with the recommendation that when Zoning text is amended in the future, the Zoning Board consider allowing hotels by Special Permit in the TCD-D district and increasing the BMR requirement to 15% in Master Plan Category #16. This request is compatible with the neighborhood and consistent with Master Plan Category #16 (Transit-Oriented Development District).

Sincerely,

STAMFORD PLANNING BOARD

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Theresa Dell, Chair

TD/lac

RECEIVED

APR 20 2022

ZONING BOARD