



July 25, 2017

MEMORANDUM: ROUTE 34 DESIGN PROJECT

To: Mayor Anita Dugatto, Derby
Rick Dunne, Executive Director, NVCOG
Jennifer Sweeney, Project Engineer, CTDOT
Doron Dagan, President/Project Manager, DeCarlo & Doll, Inc.

From: Mark Nielsen, Director of Planning

Subject: **Requested Design Modifications**

The Naugatuck Valley Council of Governments (NVCOG), the Connecticut Department of Transportation (CTDOT) and the City of Derby are working on designing improvements to Route 34 (Main Street) in the city of Derby from the vicinity of Ausonio Drive to Bridge Street, a distance of about 3,300 feet. The NVCOG is administering the design of the project and has contracted with DeCarlo & Doll, Inc. to prepare the design plans and project specifications. It is designated as State Project No. 0036-0184.

Preliminary Design (PD) plans have been prepared and a Public Hearing was held on these plans in August, 2011. The Federal Highway Administration (FHWA) and CTDOT reviewed the PD plans and FHWA authorized Final Design (FD) in October 2014. Because of the time delay between the completion of the PD plans and authorization to proceed to FD, it was decided to hold a new Public Information meeting to present revisions to the original PD plans. This meeting was held on December 4, 2014. DeCarlo & Doll proceeded with Semi-Final design based on the PD plans and requested roadway features to be added to the project.

The City, in 2016, completed a comprehensive planning process focused on the revitalization and redevelopment of the area south of Main Street. The planning process consisted of a robust public engagement effort to build consensus on the preferred redevelopment approach for the area. From this planning effort, the City requested modifications to the roadway plans to better meet the economic development goals for the area south of Main Street.

The NVCOG and the design team reviewed the proposed changes to the design plans and determined that they represented significant modifications necessitating a new public outreach and engagement effort. A public information meeting was held on May 22, 2017 to discuss the current status of the design project and present the proposed design modifications. Comments, opinions and suggestions were solicited from the public at the meeting and during a 30-day review and comment period. A Report of Meeting was prepared that summarized the public information meeting and the oral comments made at the meeting. The ROM also included a summary of the written comments received during the comment period.

The results of the Public Information Meeting indicated general consensus by the public on six of the nine design modifications requested by the City:

- Convert Third Street to one-way with traffic flowing from Olivia Street onto Roosevelt Drive, as presented in the 2014 PD and current plans.
- Relocate the cycle track on the south side of Main Street through the New Revitalization District.
- Construct on-street parking on the south side of Main Street.
- Eliminate the proposed parking lot at Bridge Street from the project.
- Provide two-foot shoulders.
- Provide a minimum eight-foot wide median through the project area with wider sections to accommodate left turn lanes.

Despite general agreement on these items, there was divided opinion on the proposals to remove Elizabeth Street and Minerva Street from the project and maintain two-way operations on these streets, eliminate left turn lanes, and shorten the left turn lane at Water Street. The elimination of left turn lanes generated more discussion because the left turn lanes are viewed as critical for safety. The discussion of eliminating Elizabeth Street and Minerva Street from the project focused mainly on the concern of losing federal and state funding to rehabilitate and improve these roads. Regarding the shorter left turn lane at Water Street, most commenters expressed the concern about whether this modification would remove the refuge median at this location and reduce pedestrian safety.

To resolve the outstanding items, determine the specific design modifications to implement, and discuss required actions and next steps, a preliminary coordination meeting was convened between the NVCOG, City of Derby, DeCarlo & Doll, and the CTDOT. As part of the meeting, the group discussed the implications of each proposed design modification as well as additional actions that would be required before modifications could be formally submitted to CTDOT, accepted and incorporated into the design:

I. Eliminate and Relocate Cycle-Track:

The intent of the cycle-track is to provide a more direct connection to the Derby-Shelton rail station via the Route 34 corridor. While the Derby Greenway provides an alternative, it is a more circuitous and longer route and does not connect to the rail station. The City has requested that the cycle-track be relocated through the development area to allow on-street parking to be provided along the south side of Main Street. The proposal to add on-street parking is compatible with efforts to redevelop the Main Street frontage with retail/commercial buildings. By removing the cycle-track from the project, however, the City becomes obligated to construct a road-separated, multi-use path within the redevelopment district south of Main Street either as part of the redevelopment project, funded by the developer, or a stand-alone project. The new facility will directly connect with the Derby Greenway in the vicinity of Bridge Street and extend to Factory Street. The proposed bicycle path along the Home Depot property remains in the design plans, and the relocated multi-use path will extend to that path to provide the access to the rail station.

Actions: Request modification of the design plans to eliminate the cycle-track from the project.

Next Steps: The NVCOG, in conjunction with the City of Derby, will revise the CTDOT *"Bicycle and Pedestrian Travel Needs Assessment Form."* The NVCOG will reach out to various bicycle groups to ascertain their comments. The City commits to and is obligated to construct a road-separated, multi-use path through the redevelopment district and make a connection to the Derby Greenway on the west end and the planned bicycle path within the Home Depot buffer on the east end.

II. On-Street Parking:

With the elimination and relocation of the cycle-track, on-street parking is being proposed along the south side of Main Street from Bridge Street to Factory Street. The parking spaces would be defined by bump-outs at the intersections. There was consensus among the group to include on-street parking. (Note: Consistent with negotiated maintenance agreements between the state and the city, the City of Derby will be responsible for maintaining these spaces, including snow removal).

Actions: Request modification of the design plans to designate on-street parking on the south side of Main Street between Bridge Street and Factory Street.

Next Steps: None required.

III. Eliminate Left Turn Lane at Minerva Street:

This design modification requested the elimination the exclusive left turn lane at Minerva Street. Through preliminary discussions, it was agreed that, if Minerva Street remained a two-way street, turns into Minerva Street from eastbound Main Street and turns from Minerva Street onto eastbound Main Street would be prohibited. The design modification would include the extension of the median across the opening of intersection to prevent vehicles from making a prohibited maneuver

Actions: Request modification of the design plans to extend the median across the opening at the Minerva Street intersection to physically prevent vehicles from turning into and/or from Minerva Street in the eastbound direction.

Next Steps: None required.

IV. Add Left Turn Lane at Elizabeth Street:

With the design modification to eliminate the exclusive left turn lane at Minerva Street and extension of the median to prevent vehicles from turning into Minerva Street from eastbound Main Street, Elizabeth Street would become the primary and principally the main access point into the downtown area from eastbound Main Street. It is expected

that the demand for left turns at Elizabeth Street would increase and necessitate adding an exclusive left turn lane to physically separate queued vehicles from the through lanes. The City accepted the need for a left turn lane at Elizabeth Street.

Actions: Request modification of the design plans to install a left turn lane at the Elizabeth Street intersection. The installation of the left turn lane will widen the footprint of the road in this area, requiring additional right-of-way. The right-of-way implications are discussed more thoroughly below in item VI.

Next Steps: A traffic operations analysis is needed to determine the operating level of service along Route 34 at Elizabeth Street and Bridge Street. The analyses will determine the optimum signal timing and phasing, the required length of the left turn lane to accommodate the expected queue length, and peak hour levels of service. The build levels of service must demonstrate an improvement in operating conditions over the no build scenario. CTDOT indicated that the decision regarding approval of this design modification will be based and contingent on the demonstration that traffic operations will be acceptable at Bridge Street and Elizabeth Street under this scenario.

V. Two-Foot Shoulders:

The City requested reduction of the width of the outside shoulders from four feet to two within the project area. CTDOT indicated that this would require a design exception that may not be approved; the decision would be contingent on traffic considerations and need to accommodate bicyclists on the road. It was also felt that getting approval of a design exception would be difficult. (Note: A request for a design exception for two foot shoulders was not submitted during the PD phase, because it was unlikely it would have been approved based on a preliminary review of the concept). Through discussion it became clear that four-foot shoulders are being provided only along a few, relatively short sections. On-street parking will be provided on the north side between Water Street and Elizabeth Street and on the south side between Factory Street and Bridge Street; therefore, four foot shoulders are only being provided on sections east of the Water Street / Factory Street intersection, west of Elizabeth Street on the north side and west of Bridge Street on the south side. Based on these limits, the City agreed to accept four foot shoulders along these sections and drop its request for a design exception for two-foot shouldes.

Actions: The City agreed to accept four foot shoulders along the sections outside the core downtown area. No further action required.

Next Steps: None required.

VI. Right-of-Way:

DeCarlo & Doll presented a preliminary layout of the west end of the project area showing a left turn at Elizabeth Street and on-street parking between Bridge Street and Elizabeth Street on the

south side of Main Street. The alignment to accommodate both the left turn lane and on-street parking will shift the back edge of the sidewalk beyond the right-of-way line in the current plans. This will require additional property acquisition. The land required for the wider road alignment is city-owned and was intended to be used for the parking lot to be built at the corner of Main Street and Bridge Street.

Actions: No further action required.

Next Steps: The City of Derby will work with CTDOT in adjusting, as needed, the right-of-way and slope easements required for construction and transferring sufficient city-owned property to the project. If the design modification is approved and accepted by CTDOT, DeCarlo & Doll will prepare revised right-of-way maps of the area based on the revised design showing the additional property needed for the project. This adjustment will need to be presented to and approved by the Board of Aldermen.

VII. Eliminate Elizabeth Street and Minerva Street from the Project:

The City requested that the traffic circulation on Elizabeth Street and Minerva Street remain as two-way flow. The project design includes both streets with circulation converted to one-way. Street enhancements would be implemented and on-street parking designated, including angled-parking along Minerva Street. About half of the comments that addressed this design modification voiced concern that the City would be “losing” federal and state funding to improve these local roads; if these local streets are removed from the project, any future improvements would be funded by the City. Through preliminary discussions, it was agreed that, if Minerva Street remained a two-way street, turns into Minerva Street from eastbound Main Street and turns from Minerva Street onto eastbound Main Street would be prohibited. The design modification would include the extension of the median across the opening of intersection to prevent vehicles from making a prohibited maneuver.

Actions: Request modification of the design plans to remove improvements and changes to Elizabeth Street and Minerva Street from the project, and maintain both streets as two-way traffic circulation. To prevent turns from Minerva Street onto Main Street westbound, the design would be modified to extend the median across the opening at the Minerva Street intersection to physically prevent vehicles from turning into and/or from Minerva Street in the eastbound direction.

Next Steps: The City will coordinate with other departments and agencies, including the Board of Aldermen, Legal Traffic Authority (Police Department and Police Commission) and Planning and Zoning Commission, to obtain consensus on the proposed elimination of these streets from the project and maintaining two-way traffic circulation. Written confirmation will be provided by the City.

VIII. Shorten the Left Turn Lane at Water Street:

The City requested that the left turn lane in the eastbound direction at Water Street be shortened; the concern expressed by the City is that it is longer than necessary to accommodate traffic flows. The original design modification also included narrowing the median in this area and eliminating the median along the left turn lane. The City confirmed that that action was no longer being requested and that an eight-foot median would remain.

Actions: DeCarlo & Doll will conduct a traffic operations analysis at this intersection to determine and verify the required length of the left turn lane; the lane needs to be able to accommodate peak hour queue lengths and ensure no intrusion into the through lane by stopped vehicles. Depending on the results of the traffic analysis, modification of the design plans will be requested to adjust the length of the left turn lane.

Next Steps: DeCarlo & Doll will conduct a traffic operations analysis at Water Street to determine the required length of the left turn lane on Route 34 at Water Street.

The design has been suspended since November 2016. At the time the design was stopped, DeCarlo & Doll had completed about 80% of the Semi-Final design phase. Based on the actions and next steps described above, it is expected that the design could restart at about the 50%-to-60% design completion stage. (Note: The worst case scenario from the initial review of the full complement of design modifications suggested a design reset to the PD phase or 30% design completion). In conclusion, the following actions and next steps are necessary to restart the design:

1. DeCarlo & Doll will perform a traffic operations analysis for Route 34 based on the proposed layout that includes a left turn lane at Elizabeth Street and on-street parking on the south side of Main Street. The traffic analysis is required to determine the impact of including these design modifications into the design and estimating the expected levels of service at Bridge Street, Elizabeth Street and Water Street from the proposed lane configurations. This analysis needs to be completed before requesting the design modifications and is needed by CTDOT in order to consider approval of the design modifications. CTDOT indicated that approval of modifying the design will be based on the expected traffic operations and approval is unlikely if operations at any of the intersections are expected to be worse than exist today without any improvements. If the assessment of traffic operations determines worse levels of service, the proposed design modifications will need to be reevaluated.
2. DeCarlo & Doll will conduct a traffic operations analysis at the Water Street intersection to determine the required length of the left turn lane.
3. CTDOT will review the traffic operations analyses to ensure that the requested design modifications meet and are consistent with state and federal highway design criteria and standards.
4. NVCOG will determine the available funds under the State agreement and the contract with DeCarlo & Doll, and assess the need to request supplemental funds to incorporate the proposed design modifications into the project. NVCOG will negotiate with DeCarlo & Doll on a fee to modify the plans. Any additional funding provided to incorporate the design modifications is subject to

approval by the FHWA and a determination by FHWA that the additional design is warranted; CTDOT may not get authorization from FHWA to allocate additional funds for design. Furthermore, federal regulations stipulate that federal funds expended on design activities after the completion of the PD phase **may** be subject to payback by the project sponsor if the designed elements are not constructed. For example, federal funds have been allocated to the design of the cycle-track and improvements to Elizabeth Street and Minerva Street; two elements that have been partially designed that are being requested by the City to be removed from the project. The City **may be** required to repay the funds expended on these elements.

5. The City of Derby will obtain consensus from project stakeholders and city departments and commissions on the proposed design modifications. The key city departments and commissions include the Planning & Zoning Commission, Legal Traffic Authority (Police Department / Police Commission) and Board of Aldermen. Written confirmation, acknowledgement and acceptance of the design modifications, as described in this memo, by the key departments and commissions will be provided.
6. DeCarlo & Doll will revise the right-of-way maps for the section of the project between Bridge Street and Elizabeth Street to determine and identify the additional property needed to install a left turn lane at Elizabeth Street and on-street parking between Bridge Street and Elizabeth Street. The revised property maps will be prepared only if the proposed design modifications are approved and once the redesign of this section of Route 34 is underway. Based on the revised right-of-way maps, the City of Derby will initiate the transfer of city-owned property to CTDOT for the project.
7. NVCOG will work with the City of Derby on revising the Bicycle and Pedestrian Travel Needs Assessment Form reflecting the elimination of the cycle-track from the project and the City's commitment to construct a road-separated, multi-use path through the redevelopment district.
8. The City of Derby will work with the WPCA to determine the sanitary sewer improvements that will be constructed within the project area. This is a critical path item as the design will not be able to proceed beyond the Semi-Final phase until the specific sanitary sewer improvements are determined and incorporated into the design plans.
9. The City of Derby will work with the Planning & Zoning Commission to modify and revise the easement conditions for the buffer area behind the Home Depot between Water Street and Ausonio Drive, including the planned relocation of the monument to the east end of the area.
10. In addition to the design modifications requested by the City and described above, the concept for the "U" street plan through the redevelopment district was discussed. The preliminary concept shows the "U" street intersecting Main Street opposite Elizabeth Street, creating a four-legged intersection. While the addition of this leg will significantly change the geometry and operation of the intersection (add right-turn lane eastbound, add left turn lane westbound, new signal timing plan), federal regulations do not allow the Route 34 design project to include or consider the design of this potential fourth leg until the City is granted a traffic certification from the Office of State Traffic Administration (OSTA).
11. Based on the PD and Semi-Final design plans, no environmental permits will be required. However, it may be necessary to revisit the need for permits based on the design modifications.