

January 23, 2025

NEX-2400043.00

Ms. Elizabeth Hughes, AICP, Town Planner
Town of Concord
Planning Division
141 Keyes Road
Concord, MA 01742

SUBJECT: 275 Forest Ridge Road, Concord, MA
Traffic Peer Review Letter #3

Dear Ms. Hughes and Members of the Zoning Board of Appeals:

Greenman-Pedersen, Inc. (GPI) previously performed a traffic peer review of the following materials submitted to the Concord Zoning Board of Appeals for the Proposed Residences at Thoreau Comprehensive Permit Application at 275 Forest Ridge Road:

- *Comprehensive Permit Application*, prepared for Thoreau Residences LLC by The Pinebrook Group, dated December 21, 2023.
- *Multi-Family Site Development, Residences at Thoreau, 275 Forest Ridge Road, Concord, MA*; prepared by Allen & Major Associates, Inc.; dated December 20, 2023.
- *Traffic Impact and Access Study, Proposed Residential Development, 275 Forest Ridge Road, Concord, Massachusetts*; prepared by MDM Transportation Consultants, Inc. (MDM); dated December 2023.

Our comments related to traffic impacts, site circulation and access, and parking elements of the project were summarized in a letter dated April 3, 2024. Subsequent to our initial review, the Applicant completed a redesign of the site plan to address numerous comments from Town staff and the public. Accordingly, the Applicant's team provided the following updated documents for review as part of this Comprehensive Permit Application:

- *Multi-Family Site Development, Residences at Thoreau, 275 Forest Ridge Road, Concord, MA*; prepared by Allen & Major Associates, Inc.; revised October 18, 2024.
- *Traffic Impact and Access Study, Proposed Residential Development, 275 Forest Ridge Road, Concord, Massachusetts*; prepared by MDM Transportation Consultants, Inc. (MDM); dated October 2024.

GPI reviewed the above materials and submitted *Traffic Peer Review Letter #2* to the Town on December 19, 2024. Subsequently, the Applicant has provided the following additional documents to respond to comments contained in GPI's December 19, 2024 comment letter:

- *Response to Comments – GPI, 275 Forest Ridge Road, Concord, Massachusetts*; prepared by MDM Transportation Consultants, Inc. (MDM); dated January 16, 2025.

As requested, GPI has reviewed the above materials for compliance with the applicable sections of the Town of Concord Zoning Bylaws, Massachusetts Department of Transportation (MassDOT) guidelines for traffic analysis, and general engineering practice. GPI generally finds that the Applicant's responses to GPI's comments adequately address our comments, with the exception of the items discussed below. The original comment numbers have been retained for ease in reviewing the comments.

Site Circulation, Access, and Egress

2. The Applicant has agreed to modify the design of the entry boulevard to provide an 18-foot entering lane and a 14-foot exiting lane separated by a 6-foot median island to allow adequate bypass for emergency vehicles on the inbound lane. In addition, the Applicant will provide breaks in the median every 150 feet to allow an emergency apparatus to bypass a disabled vehicle by crossing over to the other side of the boulevard. **In order to maintain adequate sight lines, GPI recommends that the median island be kept free from snow storage and that snow be cleared promptly from the median immediately following snow events over 6-inches in height. In addition, no vegetation higher than 3 feet above the paved roadway surface should be planted within the median. Trees may be planted within the median so long as the tree canopy does not fall below 6.5 feet in height. The Applicant has agreed to review the proposed design with the Fire Department and should provide a letter of acceptance from the Fire Department prior to the start of construction.**
3. GPI previously requested that the Applicant provide a vehicle turning path analysis for the trash removal vehicle to ensure the site provides sufficient circulation for trash removal vehicles. The Applicant has stated that trash will be stored inside the buildings and the Applicant will use roll out totes for curbside trash pick-up. **The Applicant should explain how and where the trash pick-up will occur when the entirety of both buildings is surrounded by parking.**
4. The Applicant previously designated snow storage areas within the islands at the internal intersections on the site, which may create sight line obstructions for vehicles attempting to exit the parking area between Buildings A and B. GPI recommended eliminating the snow storage areas on the inside of the parking loop around the buildings. The Applicant has agreed to revise the snow storage areas to eliminate snow storage areas that would restrict internal sight lines; however, revised site plans have not yet been provided. GPI will review the final site plans for compliance with this comment upon receipt.
5. The Applicant has agreed to implement a pavement overlay at the intersection of Forest Ridge Road and the site driveway, as well as install a new crosswalk with ADA-accessible curb ramps on both sides of the roadway, and MUTCD-compliant pavement markings and warning signage on Forest Ridge Road at the site driveway. No plans have been provided depicting the proposed improvements. **GPI recommends that the Town require the reconstruction of this crosswalk and the pavement overlay as a condition of approval of the proposed development. The proposed improvements should be demonstrated on the final site plan set.**

Traffic Impact and Access Study (TIAS)

8. **GPI recommends the Applicant install a STOP sign (R1-1) on the Sweet Birch Lane approach to the traffic circle at Forest Ridge Road / Sweet Birch Lane / Black Birch Lane as a condition of approval.**
10. The Applicant has performed a sensitivity analysis of the traffic operations under 2031 No-Build and Build conditions using an annual growth rate of 1.0 percent per year at GPI's request. However, this analysis was performed utilizing the existing Peak Hour Factors (PHF) for the 2031 conditions. As described in Comment #17, MassDOT guidelines for traffic analysis require that all future year conditions utilize a default PHF of 0.92. GPI performed a sensitivity analysis of the Main Street (Route 62) / Forest Ridge Road intersection under 2031 Build conditions using MassDOT's recommended PHF of 0.92, and the detailed analysis worksheets are attached. The results of the analysis indicate that traffic exiting Forest Ridge Road is expected to operate at LOS F during the weekday AM and PM peak hours under 2031 Build conditions. However, the volume-to-capacity ratio (V/C) ratio will be below 1.00, indicating there will be adequate capacity to accommodate the anticipated traffic volumes, and the queue is not expected to exceed four vehicles. **As Forest Ridge Road already contains separate left- and right-turn lanes and warranting conditions for installation of a traffic signal will not be met at this intersection, the Applicant should consider implementation of safety enhancements at this location to mitigate the project's impacts in lieu of capacity enhancements. The proposed**

development will be generating pedestrian traffic crossing Main Street at Forest Ridge Road to travel between the site and Powder Mill Plaza, as well as other surrounding destinations. Given the high volume of approximately 1,200 vehicles per hour traveling along Main Street during the peak periods, CPW Engineering requests that the crosswalk safety be enhanced by installing pedestrian-activated rectangular rapid flashing beacons (RRFBs) in both directions at the crosswalk.

12. Based on the updated sight line analysis performed by the Applicant, it appears that the available sight lines at the site driveway intersection with Forest Ridge Road will meet AASHTO recommendations for minimum sight distance. The Applicant has agreed to provide sight line diagrams as part of the final plan set. **GPI recommends the Applicant prepare a sight line plan that depicts the available sight lines and required clear zones to meet AASHTO recommendations for minimum stopping sight distance (SSD) and desirable intersection sight distance (ISD) at the proposed site driveway intersection with Forest Ridge Road based on a posted speed of 25 MPH and a decision point 14.5 feet from the edge of travelway, and ensure that no signage, vegetation, structures, or snow storage that would impede sight lines are located within the required clear zones.**
17. The Applicant has prepared a sensitivity analysis of the traffic operations under 2031 No-Build and Build conditions using MassDOT's recommended PHF of 0.92; however, the sensitivity analysis was performed using a 0.5 percent per year annual growth rate rather than the 1.0 percent growth rate recommended in Comment #10. As described in Comment #10, GPI has performed a sensitivity analysis that incorporates both the recommended 1.0 percent annual growth rate and the 0.92 PHF under 2031 Build conditions at the Main Street / Forest Ridge Road intersection. The results of the analysis indicate that traffic exiting Forest Ridge Road is expected to operate at LOS F during the weekday AM and PM peak hours under 2031 Build conditions. However, the volume-to-capacity ratio (V/C) ratio will be below 1.00, indicating there will be adequate capacity to accommodate the anticipated traffic volumes, and the queue is not expected to exceed four vehicles.
20. The Applicant has agreed to implement the following additional Transportation Demand Management (TDM) measures to reduce single-occupant vehicle trips, which should be included in the conditions of approval for the proposed development:
 - a. An on-site Transportation Coordinator (TC) will be established to distribute information to residents on available transportation options in the area and provide incentives for utilizing alternatives means of travel;
 - b. The TC will provide all new residents with information on registering with NuRIDE upon move-in. Nu-RIDE offers incentives for making green trips (walking, biking, using public transit, carpooling, or ridesharing) and provides assistance to commuters in identifying appropriate ride-share matches in their area. In addition, Nu-RIDE offers a guaranteed ride home for any commuters making green trips that need to leave work in an emergency or inclement weather.
 - c. Provide at least one ride-share parking space near the entrances to each building.
23. The Applicant has agreed "to work with the neighborhood to" install ADA compliant ramps and MUTCD-compliant pavement markings at crosswalks along Forest Ridge Road. **The Applicant should clarify what is meant by "work with the neighborhood". GPI recommends that the Applicant construct the recommended curb ramps and crosswalk pavement markings as a condition of approval of the proposed development to ensure walkability of the major roadways that residents of the development may travel to access Main Street.**
24. Similarly, the Applicant has agreed to "work with the neighborhood" to implement the following improvements at the intersection of Main Street (Route 62) / Forest Ridge Road:
 - a. **Install a new STOP sign and STOP line on the Forest Ridge Road approach to Main Street (Route 62), compliant with Manual on Uniform Traffic Control Devices (MUTCD) standards.**

- b. **Install STOP AHEAD warning signage in advance of the intersection to further alert drivers to the approaching stop condition.**
- c. **Install new lane markings, including lane lines, turn arrows, and a centerline within 100 feet of the STOP line on Forest Ridge Road approaching Main Street (Route 62).**

The Applicant should clarify what is meant by “work with the neighborhood”. In addition, GPI recommends that the Applicant complete the improvements described above prior to the issuance of a Certificate of Occupancy as a condition of approval for the proposed development.

GPI previously noted that Forest Ridge Road northbound approaches Main Street (Route 62) on a downhill grade. When Main Street (Route 62) was last resurfaced, the first 50 feet of Forest Ridge Road were also resurfaced. However, the roadway was regraded at that time so that the last 50 feet of Forest Ridge Road slopes upward toward Main Street (Route 62) to match the finished elevation of Main Street (Route 62). As a result, a low point has been created on Forest Ridge Road just south of the intersection where water ponds and freezes during the winter months, causing vehicles to slide into the intersection. GPI recommended the Applicant consider regrading Forest Ridge Road as it approaches Main Street to eliminate the low point and/or properly direct water toward the existing catch basins on Forest Ridge Road. The Applicant has not committed to such regrading of the roadway; however, the Applicant has noted that they are in discussions with the Home Owners Association (HOA) to provide a mill and overlay of Forest Ridge Road. **If a mill and overlay is completed, the roadway surface should be graded to eliminate the low point and ensure proper drainage on Forest Ridge Road. Independent of discussions with the HOA, CPW Engineering recommends that the Forest Ridge Road approach to Main Street be regraded as part of the project to remove the low point, eliminate the ponding and icing hazard, and improve the safety of the approach given that the project’s traffic will result in the approach operating at Level-of-Service (LOS) F with queues of four vehicles.**

New Comments [From December 19, 2024 Letter]

The following represent new comments related to the proposed site plans and traffic study.

- 25. Sheet C-106A of the site plan package depicts snow storage areas along both sides and within the median on the proposed site driveway. This snow has the potential to obstruct sight lines for vehicles entering and exiting the site driveway. In addition, the fire truck turning path diagram on Sheet C-107A indicates that the truck chassis will extend over the snow storage area when making a left turn into the site driveway. GPI recommended that all snow storage areas within 25 feet of an intersection be eliminated to avoid sight line obstructions, avoid icing of intersections due to snow melt, and ensure adequate turning movements for fire apparatus. The Applicant has agreed to revise the snow storage areas as part of the final site plan set. GPI will review the site plan set for compliance with this comment upon receipt of the plans.
- 26. Although the Applicant has proposed sidewalks along the perimeter of Buildings A and B, the Applicant has not provided any connections between these two sidewalk systems. GPI recommended the Applicant extend the sidewalk at either end of Buildings A and B out to the internal roadway and provide curb ramps and a crosswalk across both ends of the parking aisle separating Buildings A and B. The Applicant has agreed to extend the sidewalks accordingly as part of the final plan set. GPI will review the site plan set for compliance with this comment upon receipt of the plans.
- 29. The Applicant has agreed to appropriately located the speed table proposed along the site driveway on the final plan set. GPI will review the site plan set for the appropriateness of the speed table’s location upon receipt of the plans.
- 30. While a STOP sign and STOP line are provided on the northbound approach to the parking aisle that separates Buildings A and B, there is not STOP line or STOP sign proposed on the opposing approach

exiting the northerly parking aisle. The Applicant has agreed to install a STOP line and STOP sign on this approach and will incorporate in the final plan set. GPI will review the site plan set for compliance with this comment upon receipt of the plans.

31. GPI previously recommended that the Applicant consider a pedestrian connection between the pool area and the perimeter sidewalk around Building A to provide a direct pedestrian connection between the parking along the north side of Building A and the pool area. The Applicant has noted that the sidewalk system will be revised on the final plan set. GPI will review the site plan set for adequacy of the proposed sidewalk network upon receipt of the plans.
33. The Applicant has provided a signal warrant analysis for the intersection of Main Street / Forest Ridge Road that addresses the comments contained in GPI's December 19, 2024 review letter. GPI has reviewed the additional traffic count data, traffic volume projections, and signal warrant analysis performed by the Applicant. Many of the 2024 existing conditions volumes utilized in the signal warrant analysis were lower than the raw count data from the October 10, 2024 traffic counts. Otherwise, GPI concurred with the methodology used to perform the signal warrant analysis. GPI performed an updated signal warrant analysis with the corrected traffic volumes, which is included as an Attachment to this letter. The results of the updated analysis indicate that none of the volume-related warrants (Warrants 1, 2, and 3) for installation of a traffic signal are anticipated to be met at the Main Street / Forest Ridge Road intersection upon opening condition.
36. Concord Public Works (CPW) Engineering has reviewed these comments and is in agreement. CPW Engineering reserves the right to comment on future submittals related to any new or previously submitted information provided to the Town for review.

Should you have any questions or require additional information, please contact me directly at (603) 766-5223 or by email to rebeccabrown@gpinet.com.

Sincerely,

GREENMAN-PEDERSEN, INC.



Rebecca L. Brown, P.E.
Senior Project Manager

Attachments:

- Signal Warrant Analysis
- Capacity Analysis Worksheets

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2024 Baseline Volumes (without site-generated Trips)

Time	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00	0	359			128							
7:00	0	617	44	19	212	0	28	0	0	0	0	0
8:00	0	650	93	55	273	0	39	0	0	0	0	0
9:00	0	486	72	45	336	0	53	0	0	0	0	0
10:00	0	386	48	33	326	0	65	0	0	0	0	0
11:00	0	366	39	21	363	0	63	0	0	0	0	0
12:00	0	381	44	23	401	0	52	0	0	0	0	0
13:00	0	381	29	23	408	0	30	0	0	0	0	0
14:00	0	389	32	30	407	0	31	0	0	0	0	0
15:00	0	351	58	31	493	0	41	0	0	0	0	0
16:00	0	386	63	41	555	0	67	0	0	0	0	0
17:00	0	401	32	33	540	0	47	0	0	0	0	0
18:00	0	346	0	0	477	0	0	0	0	0	0	0

Site-Generated Trips

Time	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00	0	0	1	4	0	0	11	0	0	0	0	0
7:00	0	0	4	11	0	0	20	0	0	0	0	0
8:00	0	0	4	12	0	0	17	0	0	0	0	0
9:00	0	0	3	9	0	0	9	0	0	0	0	0
10:00	0	0	4	11	0	0	6	0	0	0	0	0
11:00	0	0	5	14	0	0	6	0	0	0	0	0
12:00	0	0	6	17	0	0	7	0	0	0	0	0
13:00	0	0	6	17	0	0	6	0	0	0	0	0
14:00	0	0	6	17	0	0	5	0	0	0	0	0
15:00	0	0	8	24	0	0	5	0	0	0	0	0
16:00	0	0	13	38	0	0	7	0	0	0	0	0
17:00	0	0	18	53	0	0	8	0	0	0	0	0
18:00	0	0	16	49	0	0	8	0	0	0	0	0

2024 Build Trips

Time	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00	0	359	1	4	128	0	11	0	0	0	0	0
7:00	0	617	48	30	212	0	48	0	0	0	0	0
8:00	0	650	97	67	273	0	56	0	0	0	0	0
9:00	0	486	75	54	336	0	62	0	0	0	0	0
10:00	0	386	52	44	326	0	71	0	0	0	0	0
11:00	0	366	44	35	363	0	69	0	0	0	0	0
12:00	0	381	50	40	401	0	59	0	0	0	0	0
13:00	0	381	35	40	408	0	36	0	0	0	0	0
14:00	0	389	38	47	407	0	36	0	0	0	0	0
15:00	0	351	66	55	493	0	46	0	0	0	0	0
16:00	0	386	76	79	555	0	74	0	0	0	0	0
17:00	0	401	50	86	540	0	55	0	0	0	0	0
18:00	0	346	16	49	477	0	8	0	0	0	0	0

Traffic Control Signal Warrant Analyses

(Based on MUTCD-2009 Edition)

Intersection: **Main Street at Forest Ridge Road**

Pop. <10,000? (Y/N) **N** Count Date: **10/10/2024** Analysis Date: **01/21/25**

Speed (in mph): **35 mph** Analysis Year: **2024** Analyst: **RLB**

Is Major?* #Lanes* Adjustment Factor: **1** Raw counts

(Y/N) (one way)

EB	Y	1	Major Lanes: 1 Enter the higher number of lanes for the major street approach
WB	Y	1	Minor Lanes: 1 Enter the number of lanes for the minor street approach you want to analyze
NB	N	1	
SB			

*Note: If intersection is a "T" intersection, leave cells blank for the non-existent approach

Time	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
6:00	0	359	1	4	128	0	11	0	0	0	0	0
7:00	0	617	48	30	212	0	48	0	0	0	0	0
8:00	0	650	97	67	273	0	56	0	0	0	0	0
9:00	0	486	75	54	336	0	62	0	0	0	0	0
10:00	0	386	52	44	326	0	71	0	0	0	0	0
11:00	0	366	44	35	363	0	69	0	0	0	0	0
12:00	0	381	50	40	401	0	59	0	0	0	0	0
13:00	0	381	35	40	408	0	36	0	0	0	0	0
14:00	0	389	38	47	407	0	36	0	0	0	0	0
15:00	0	351	66	55	493	0	46	0	0	0	0	0
16:00	0	386	76	79	555	0	74	0	0	0	0	0
17:00	0	401	50	86	540	0	55	0	0	0	0	0
18:00	0	346	16	49	477	0	8	0	0	0	0	0

Time	Σ EB	Σ WB	Σ NB	Σ SB	Σ Major	Σ Minor	Σ Max Minor	W1 A	W1 B	W1combo	W2	W3
6:00	360	132	11	0	492	11	11	N	N	N	N	N
7:00	665	242	48	0	907	48	48	N	N	N	N	N
8:00	747	340	56	0	1087	56	56	N	N	N	N	N
9:00	561	390	62	0	951	62	62	N	N	N	N	N
10:00	438	370	71	0	808	71	71	N	N	N	N	N
11:00	410	398	69	0	808	69	69	N	N	N	N	N
12:00	431	441	59	0	872	59	59	N	N	N	N	N
13:00	416	448	36	0	864	36	36	N	N	N	N	N
14:00	427	454	36	0	881	36	36	N	N	N	N	N
15:00	417	548	46	0	965	46	46	N	N	N	N	N
16:00	462	634	74	0	1096	74	74	N	N	N	N	N
17:00	451	626	55	0	1077	55	55	N	N	N	N	N
18:00	362	526	8	0	888	8	8	N	N	N	N	N

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Warrant Analyses
Warrant 1: Condition A Minimum Vehicular Volume Warrant is Not Met
Warrant 1: Condition B Interruption of Continuous Traffic Warrant is Not Met
Warrant 1: Combination of Warrants 1A and 1B is Not Met
Warrant 2: Four-Hour Warrant is Not Met
Warrant 3: One-Hour Warrant is Not Met

HCM 6th TWSC
3: Forest Ridge Road & Main Street

2031 Build - 1% Sensitivity
Timing Plan: Weekday AM

Intersection

Int Delay, s/veh 3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	749	105	74	309	59	72
Future Vol, veh/h	749	105	74	309	59	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	1	9	6	3	10
Mvmt Flow	814	114	80	336	64	78

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	928
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.19
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.281
Pot Cap-1 Maneuver	-	-	709
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	709
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	33.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	139	339	-	-	709	-
HCM Lane V/C Ratio	0.461	0.231	-	-	0.113	-
HCM Control Delay (s)	51.4	18.8	-	-	10.7	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile Q(veh)	2.1	0.9	-	-	0.4	-

HCM 6th TWSC
3: Forest Ridge Road & Main Street

2031 Build - 1% Sensitivity
Timing Plan: Weekday PM

Intersection

Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	440	82	86	636	81	58
Future Vol, veh/h	440	82	86	636	81	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	2	2	4	3	0
Mvmt Flow	478	89	93	691	88	63

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	567	0	1400 523
Stage 1	-	-	-	-	523 -
Stage 2	-	-	-	-	877 -
Critical Hdwy	-	-	4.12	-	6.43 6.2
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.218	-	3.527 3.3
Pot Cap-1 Maneuver	-	-	1005	-	154 558
Stage 1	-	-	-	-	593 -
Stage 2	-	-	-	-	405 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1005	-	131 558
Mov Cap-2 Maneuver	-	-	-	-	131 -
Stage 1	-	-	-	-	593 -
Stage 2	-	-	-	-	344 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	49.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	131	558	-	-	1005	-
HCM Lane V/C Ratio	0.672	0.113	-	-	0.093	-
HCM Control Delay (s)	76	12.3	-	-	8.9	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	3.7	0.4	-	-	0.3	-