



**TOWN OF NEWBURGH  
PLANNING BOARD  
TECHNICAL REVIEW COMMENTS**

**PROJECT NAME:** SPARK CAR WASH  
**PROJECT NO.:** 23-23  
**PROJECT LOCATION:** SECTION 96, BLOCK 1, LOT 4 & 5  
**REVIEW DATE:** 28 MARCH 2025  
**MEETING DATE:** 3 APRIL 2025  
**PROJECT REPRESENTATIVE:** STONEFIELD ENGINEERING

1. Stormwater Report is under review by this office will be in a separate memo to be provided.
2. The project site is identified as containing federal jurisdictional wetlands. These wetlands are located in an “urban area”. Recent changes to NYSDEC Regulations could result in NYSDEC taking jurisdiction over the wetlands and requiring an associated regulated buffer. Plans should be submitted to the DEC to determine if NYSDEC will exert jurisdiction over the wetlands.
3. Compliance with the Towns design guidelines for front yard landscaping is required. The applicants have identified a 12-foot buffer is proposed along the Union Avenue with a pedestrian walkway, lawn area and shrubs. The Planning Board should be determined if this addresses landscaping concerns.
4. This office has submitted the hydraulic loading calculations from the site to the City of Newburgh for the required flow acceptance letter.
5. Securities for stormwater and landscaping are required. Cost estimates should be provided prior to final approval as such Town Board approval for the required securities can be determined.
6. The applicants have identified they are working with NYSDOT in the Stage II Highway Work Permit process. It is requested the applicant update the Planning Board on any NYSDOT input.
7. Any comments from the jurisdictional Fire Department should be addressed. Code Compliance Department typically coordinates with jurisdictional Fire Department.
8. A work session was held with the applicant’s representative. A technical work session memo was circulated to the Planning Board dated on 6 March 2025.
9. Compliance with the Tree Preservation Ordinance has been documented on Sheet C-3. Six trees are identified to be removed. Each tree has been identified as disease/dying/dead. One along the rear property line is proposed to be preserved. The tree should be protected with tree protection fencing per the Town Code.

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10. The Orange County Department of Planning submitted a lead agency response which identifies they have reviewed the concept site plan and application in accordance with Section 239 Paragraphs L & M. The letter states “we are not offering a decision at this time however, we would like to offer the following advisory comments”. Resubmission of the project to County Planning for a final 239 review is required.

Respectfully submitted,

**MHE Engineering, D.P.C.**



Patrick J. Hines  
Principal

PJH/kmm



Michael W. Weeks, P.E.  
Principal

# STONEFIELD

January 23, 2025

Newburgh Town Planning Board  
1496 NY-300  
Newburgh, NY 12550

**RE: Traffic & Parking Assessment Report  
Proposed Spark Car Wash  
1229 NYS Route 300  
Section 96, Block 1, Lots 4 & 5  
Town of Newburgh, Orange County, New York  
SE&D Job No. NYC-220349**

Dear Board Members:

Stonefield Engineering and Design, LLC ("Stonefield") has prepared this assessment to identify the potential traffic and parking characteristics of the proposed Spark Car Wash. The subject property is located along the west side of Union Avenue (New York State (NYS) Route 300) to the south of its intersection with NYS Route 17K in the Town of Newburgh, Orange County, New York. The subject property is designated as Section 96, Block 1, Lots 4 and 5, as depicted on the Town of Newburgh Tax Map. The site has approximately 250 feet of frontage along NYS Route 300. Lot 4 is currently occupied by a one (1) story building that houses a general contracting business and Lot 5 is currently occupied by a one (1) story building that houses a wellness center and a hair salon. Existing access to Lot 4 is provided via one (1) full-movement driveway along NYS Route 300 and existing access to Lot 5 is provided via one (1) full-movement ingress-only driveway and one (1) full-movement egress-only driveway along NYS Route 300 at the northern and southern ends of the lot, respectively.

Under the proposed development program, the existing structures on Lots 4 and 5 would be razed and a 4,841-square-foot Spark Car Wash with one (1) wash tunnel would be constructed. Vehicular access is proposed via reconstruction of the existing full-movement egress-only driveway on Lot 5 to provide a new full-movement ingress and right-turn-only egress driveway along NYS Route 300 at the southern end of the project site. The existing full-movement driveway on Lot 4 and full-movement ingress-only driveway on Lot 5 would be removed.

## **Existing Conditions**

The subject property is located along the westerly side of NYS Route 300 to the south of its intersection with NYS Route 17K in the Town of Newburgh, Orange County, New York. The subject property is designated as Section 96, Block 1, Lots 4 and 5, as depicted on the Town of Newburgh Tax Map. Land uses in the area are predominantly commercial uses.

Union Avenue (NYS Route 300) is classified as an urban minor arterial roadway with a general north-south orientation and is under the jurisdiction of the New York State Department of Transportation (NYSDOT). Along the site frontage, the roadway provides two (2) travel lanes in each direction with a two (2)-way center left-turn lane and additional exclusive turning lanes at key intersections. Proximate to the site, the roadway has a posted speed limit of 45 mph. Along the site frontage, curbs are provided along both sides of the roadway, sidewalks and shoulders are not provided, and on-street parking is not permitted. NYS Route 300 provides north-south mobility within New York State for a mix of commercial and residential uses along its length.

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## Trip Generation

Trip generation projections for the proposed car wash were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11<sup>th</sup> Edition. Trip generation rates associated with Land Use 948 "Automated Car Wash" were cited for the one (1)-tunnel automated car wash. **Table 1** provides the weekday evening and Saturday midday peak hour trip generation volumes associated with the proposed development. Please note that ITE does not publish trip generation data for Land Use 948 "Automated Car Wash" for the weekday morning peak hour; however, due to the nature of the use, minimal trips are anticipated to be generated during the typical weekday morning peak hour.

**TABLE 1 – PROPOSED TRIP GENERATION**

| Land Use   | Weekday Evening Peak Hour |      |       | Saturday Midday Peak Hour |      |       |
|--|---------------------------|------|-------|---------------------------|------|-------|
|  | Enter                     | Exit | Total | Enter                     | Exit | Total |
| 1 Wash Tunnel<br>Automated Car Wash<br><i>ITE Land Use 948</i> | 39                        | 39   | 78    | 19                        | 22   | 41    |

**Table 2** provides a comparison of Annual Average Daily Traffic (AADT) volumes obtained from NYSDOT's Traffic Data Viewer Portal and the trip generation of the proposed development.

**TABLE 2 – BACKGROUND AADT VOLUMES & TRIP GENERATION**

| Station Number  | AADT (Year)      | Weekday Evening Peak Hour |      |       | Saturday Midday Peak Hour |      |       |
|---|------------------|---------------------------|------|-------|---------------------------|------|-------|
|   |                  | Enter                     | Exit | Total | Enter                     | Exit | Total |
| <b>Station # 830078</b><br>NYS Route 300<br><i>From JCT NY17K to Start 207/300 OLAP</i> | 24,371<br>(2023) | 39                        | 39   | 78    | 19                        | 22   | 41    |

Based on a review of historical roadway data published by the NYSDOT during 2023, the critical weekday evening peak hour of the adjacent roadway network occurred from 5:00 p.m. to 6:00 p.m. The technical appendix contains a summary of the 2023 NYSDOT volume counts. A comparison of the trip generation projections and the NYSDOT volume counts show that the 78 site-generated trips during the critical weekday evening peak hour would represent between approximately 3% and 4% of total peak hour traffic traversing past the site along NYS Route 300. As such, the proposed development is not expected to result in a perceptible impact to traffic operations on the adjacent roadway network.

Furthermore, based on the Multimodal Transportation Impact Analysis for Site Development published by ITE, a peak hour trip increase of less than 50 vehicle trips on a single roadway segment or intersection approach would likely not change the level of service of an adjacent roadway segment or appreciably increase the volume-to-capacity ratio of an intersection approach. Considering that the 78 site-generated trips during the critical weekday evening peak hour would be split directionally both entering and exiting the site and to the north and south along NYS Route 300, no single roadway segment or intersection approach is expected to experience a peak hour trip increase of 50 or more vehicle trips resulting from development of the proposed project. As such, based on typical traffic impact thresholds published by ITE, the proposed development is not expected to significantly or adversely impact traffic operations on the adjacent roadway network.

**Site Access, Circulation & Parking Supply**

A review was conducted of the proposed car wash using the Site Plan prepared by our office, dated January 23, 2025. In completing this review, particular attention was focused on site access, circulation, and parking supply.

Access is proposed via one (1) full-movement ingress and right-turn-only egress driveway along NYS Route 300 at the south end of the project site. It is important to note that there is an existing Two-Way Left-Turn Lane (TWLTL) on NYS Route 300 along the site frontage that would facilitate northbound left-turns from NYS Route 300 into the site. Considering that the 78 site-generated trips during the critical weekday evening peak hour would be split directionally both entering and exiting the site and to the north and south along NYS Route 300, between 19 and 20 (approx.) vehicles are expected to make the northbound left-turn into the project site during this weekday evening peak hour, or approximately one (1) northbound left-turning vehicle every three (3) minutes. As such, the existing TWLTL is expected to accommodate the projected site-generated demand and facilitate safe and efficient northbound left-turns into the project site from NYS Route 300. Furthermore, based on the spacing between the proposed site access and the existing Home Depot shopping center driveway to the south on NYS Route 300, the existing TWLTL is expected to accommodate the projected site-generated northbound left-turn demand with sufficient space remaining for the TWLTL to continue accommodating southbound left-turns into the Home Depot shopping center driveway from NYS Route 300.

The proposed 4,841-square-foot car wash with one (1) wash tunnel will be located on the western portion of the site. The car wash tunnel will be fed by three (3) queueing lanes at the pay station gates, one (1) of which would be dedicated for "Members Only," one (1) that would be designated for non-members, and the third (center lane) that would be available to all users. The wash tunnel and queue lanes would operate in a counterclockwise circulation pattern. Off-street parking and self-service vacuum parking spaces would be provided in the center portion of the site and along the easterly façade of the building, which would be facilitated via a 24-foot-wide two (2)-way drive aisle.

Based on information provided by the operator, a significant portion of Spark customers are expected to be members. Member vehicles are automatically processed through the screening gates of the "Members Only" lane using license plate readers. Average transaction times through the "Members Only" gate are approximately 10-15 seconds. For non-members, customers would purchase a car wash at the gate with the help of a dedicated customer service attendant. Non-member transaction times are typically 35-50 seconds. The typical time through the tunnel, including drying, is approximately 2-2.5 minutes. Although it is not expected to be required, during peak periods, the operator can increase the speed of the wash tunnel to decrease the wash time to under 2 minutes if it were every observed to be necessary. The 135-foot wash tunnel can accommodate up to 4 vehicles simultaneously. Based on a 2.5-minute wash time and assuming only 2 vehicles in the tunnel at any moment, the tunnel can process at least 48 vehicles in an hour. Based on a 2-minute wash time and assuming 4 vehicles in the tunnel simultaneously, the tunnel can process up to 120 vehicles in an hour. Accordingly, the wash tunnel can accommodate between 48-120 vehicles in an hour, depending on vehicle arrival rates and the set speed of the wash tunnel. Therefore, the capacity of the wash tunnel is expected to adequately support the peak hour car wash demand.

At least seven (7) vehicles can be queued between the tunnel entrance and the pay stations, at least six (6) vehicles can be accommodated in the dedicated queue for each of the non-member pay stations, and at least four (4) vehicles can be accommodated in the dedicated queue for the "Member-only" pay station. Based on the anticipated 39 entering vehicles during the critical weekday evening peak hour, the site would experience approximately one (1) entering vehicle every 1.5 minutes, on average. Based on the aforementioned wash times and payment processing times, the 23 total on-site stacking spaces upstream of the wash tunnel entrance are expected to sufficiently accommodate the peak inbound queues that could occur without the queue extending back to the proposed site access driveway and impacting on-site traffic flow or traffic operations on the adjacent segment of NYS Route 300.

Furthermore, observations were conducted at an existing Spark Car Wash facility located at 586 Berline-Cross Keys Road in Sicklerville, New Jersey, to verify the adequacy of proposed on-site stacking space to accommodate potential vehicle queues entering the automated wash tunnel without the potential for those queues to extend back to the proposed site access driveway and impact on-site traffic flow or traffic operations on the adjacent segment of NYS Route 300. Screening gate (i.e., pay station) vehicle queueing observations were conducted on Friday, April 26, 2024, from 2:00 p.m. to 5:00 p.m.; and on Saturday, April 27, 2024, from 11:00 a.m. to 2:00 p.m. The study time periods were selected as they are the typical peak operating periods of the study location. The peak hours were observed to be 2:15 p.m. to 3:15 p.m. on Friday and 1:00 p.m. to 2:00 p.m. on Saturday. Please refer to the appended **Figures 1, 2, and 3** which provide imagery of the maximum queues observed at the study location. **Figure 1** shows the location of the existing Spark Sicklerville site. **Figure 2** shows that the observed maximum pay station queue occurred on Friday afternoon at 4:27 p.m., when five (5) total vehicles were queued in the non-member's ingress line. Subsequently, the following photo illustrates that this queue receded to just two (2) vehicles by 4:30 p.m. Furthermore, vehicle queues of approximately two (2) vehicles or less were generally observed in the member's-only ingress lane throughout the study periods, and approximately three (3) vehicles or less were generally observed in the non-members ingress lane. A summary of the observed maximum pay station vehicle queues in five (5) minute increments during the identified peak hours and throughout the critical Friday study period is appended on **Tables A1, A2, and A3**. Based on the observed operations of the existing Spark Sicklerville facility, the proposed on-site stacking space would more than accommodate the anticipated peak pay station queues without the queue extending back to the proposed site access driveway and impacting on-site traffic flow or traffic operations on the adjacent segment of NYS Route 300.

Regarding the parking requirements for the proposed development, the Town of Newburgh requires one (1) parking space for every vehicle stored or in service at any period plus an additional five (5) parking spaces for car washes. For the proposed car wash with a 135-foot-long tunnel that can service four (4) vehicles simultaneously, this equates to nine (9) required spaces. The site would provide 20 total parking spaces, inclusive of 17 vacuum parking spaces (one (1) of which is ADA accessible) and three (3) employee parking spaces, which meets the requirement and would be sufficient to meet the anticipated parking demand. The standard vacuum spaces would be 13 feet wide by 19 feet deep in accordance with industry standards and the employee spaces would be 10 feet wide by 19 feet deep.

The Spark Operations Team provided information regarding the vacuum space demand and average customer vacuum time. Based on the aforementioned operational information, it is expected that approximately 50% of customers will use the wash tunnel only and forgo vacuuming their vehicles. Customers who choose to vacuum their vehicles spend seven (7) minutes utilizing the vacuum spaces, on average. Assuming a 7-minute (average) vacuum time, the 16 vacuum spaces (excluding the employee-only spaces and the ADA vacuum station) can accommodate approximately 137 vehicles. Assuming a 10-minute vacuum time on average, the 16 vacuum spaces can accommodate 96 vehicles. Accordingly, it is expected that the 16 dedicated vacuum spaces can accommodate 96-137 vehicles in an hour, depending on customer demand for vacuum spaces and average vacuum time. The capacity of the vacuum spaces is expected to adequately support the peak hour vacuum space demand even in the case that 100% of customers choose to vacuum their vehicles.

## **Conclusions**

This report was prepared to identify the traffic and parking characteristics of the proposed Spark Car Wash. The analysis findings, which have been based on industry standard guidelines, indicate that the proposed development would not significantly or adversely impact traffic operations on the adjacent roadway network. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on the operations described in this report, the proposed wash tunnel queue lengths and vacuum space supply would be sufficient to support peak-condition operations for the proposed development.

Please do not hesitate to contact our office if there are any questions.

Best regards,



Nicholas Tortorella, PE  
**Stonefield Engineering and Design, LLC**



Matthew Seckler, PE, PP, PTOE  
**Stonefield Engineering and Design, LLC**

## **TECHNICAL APPENDIX**



## **NYSDOT TRAFFIC DATA**

STATION: 830078

# New York State Department of Transportation

## Traffic Count Hourly Report

ROUTE #: 300 ROAD NAME: **UNION AVENUE (NYS 300)** FROM : **JCT NY17K** TO: **Start 207/300 OLAP**  
DIRECTION: Combined PLACEMENT: COUNTY: **Orange** TOWN: **Newburgh**  
DATE OF COUNT **Oct-2023** REF MARKER: Proximate to 300 83021088 JURISDICTION: **NYSDOT**

| Interval Start Time | NORTHBOUND   | SOUTHBOUND   | TOTAL        |
|---------------------|--------------|--------------|--------------|
| 12:00 AM            | 57           | 107          | 164          |
| 1:00 AM             | 19           | 32           | 51           |
| 2:00 AM             | 33           | 34           | 67           |
| 3:00 AM             | 69           | 71           | 140          |
| 4:00 AM             | 110          | 126          | 236          |
| 5:00 AM             | 266          | 161          | 427          |
| 6:00 AM             | 510          | 431          | 941          |
| 7:00 AM             | 746          | 693          | 1439         |
| 8:00 AM             | 785          | 743          | 1528         |
| 9:00 AM             | 829          | 778          | 1607         |
| 10:00 AM            | 923          | 842          | 1765         |
| 11:00 AM            | 881          | 803          | 1684         |
| 12:00 PM            | 955          | 911          | 1866         |
| 1:00 PM             | 870          | 938          | 1808         |
| 2:00 PM             | 833          | 990          | 1823         |
| 3:00 PM             | 920          | 1010         | 1930         |
| 4:00 PM             | 909          | 1072         | 1981         |
| 5:00 PM             | 852          | 1189         | 2041         |
| 6:00 PM             | 787          | 982          | 1769         |
| 7:00 PM             | 529          | 760          | 1289         |
| 8:00 PM             | 396          | 558          | 954          |
| 9:00 PM             | 251          | 352          | 603          |
| 10:00 PM            | 157          | 248          | 405          |
| 11:00 PM            | 105          | 160          | 265          |
| <b>TOTAL</b>        | <b>12792</b> | <b>13991</b> | <b>26783</b> |

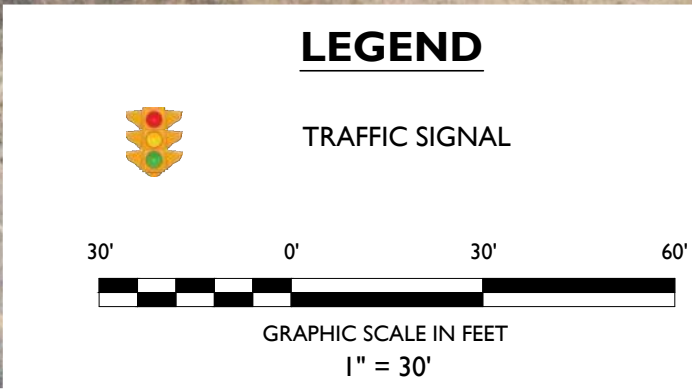
## **DRONE EXHIBIT**



Z:\NYC\230031\SPARK CAR WASH - 826 DUTCHES TURNPIKE, POUGHKEEPSIE, NY\CAD\DWG\H1702445-11.DWG  
DATE: 05/17/2024  
BY: AL  
FOR HEARING PRESENTATION



| ADJACENT ROADWAY TRAFFIC VOLUME COMPARISON |                              |                                 |
|--|------------------------------|---------------------------------|
| LOCATION                                   | STUDY SITE: SICKLERVILLE, NJ | PROPOSED SITE: POUGHKEEPSIE, NY |
| PM PEAK HOUR                               | 3,518 VEHICLES               | 2,009 VEHICLES                  |
| AADT                                       | 38,861 VEHICLES              | 27,125 VEHICLES                 |



| DATE       | BY | DESCRIPTION              |
|------------|----|--------------------------|
| 05/17/2024 | AL | FOR HEARING PRESENTATION |
| 0          |    | ISSUE                    |

NOT APPROVED FOR CONSTRUCTION

**STONEFIELD**  
engineering & design

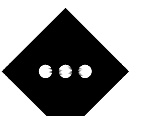
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Princeton, NJ · Tampa, FL · Detroit, MI  
[www.stonefieldeng.com](http://www.stonefieldeng.com)

584 Broadway, Suite 310, New York, NY 10012  
Phone 718.606.8305

AERIAL EXHIBIT

**SPARK CAR WASH**  
PROPOSED CAR WASH

SECTION 6262, BLOCK 4, LOT 615055  
826 DUTCHES TURNPIKE  
TOWN OF POUGHKEEPSIE  
DUTCHESS COUNTY, NEW YORK

**STONEFIELD**  
engineering & design

SCALE: 1" = 30' PROJECT ID: NYC-230031

TITLE:  
**AERIAL EXHIBIT -  
STUDY SITE**

DRAWING:  
**1 OF 3**











## **VEHICLE QUEUEING SUMMARY**

# STONEFIELD

Table A1: Queuing Summary  
586 Cross Keys Road, Sicklerville, NJ  
Friday, April 26, 2024  
SE&D #: RUT-240106



| Time          | Lane A (Members-Only) | Lane B (Non-Member) | Total |
|---------------|-----------------------|---------------------|-------|
| 2:15 PM       | 1                     | 3                   | 4     |
| 2:20 PM       | 1                     | 3                   | 4     |
| 2:25 PM       | 2                     | 1                   | 3     |
| 2:30 PM       | 1                     | 1                   | 2     |
| 2:35 PM       | 2                     | 1                   | 3     |
| 2:40 PM       | 2                     | 2                   | 4     |
| 2:45 PM       | 1                     | 3                   | 4     |
| 2:50 PM       | 2                     | 1                   | 3     |
| 2:55 PM       | 1                     | 2                   | 3     |
| 3:00 PM       | 2                     | 1                   | 3     |
| 3:05 PM       | 2                     | 3                   | 5     |
| 3:10 PM       | 1                     | 3                   | 4     |
| Average Queue | 1.50                  | 2.00                | 3.50  |
| Maximum Queue | 2                     | 3                   |       |



# STONEFIELD

Table A2: Queuing Summary  
586 Cross Keys Road, Sicklerville, NJ  
Saturday, April 27, 2024  
SE&D #: RUT-240106



| Time          | Lane A (Members-Only) | Lane B (Non-Member) | Total |
|---------------|-----------------------|---------------------|-------|
| 1:00 PM       | 0                     | 0                   | 0     |
| 1:05 PM       | 2                     | 1                   | 3     |
| 1:10 PM       | 2                     | 0                   | 2     |
| 1:15 PM       | 1                     | 1                   | 2     |
| 1:20 PM       | 1                     | 0                   | 1     |
| 1:25 PM       | 0                     | 0                   | 0     |
| 1:30 PM       | 1                     | 2                   | 3     |
| 1:35 PM       | 2                     | 2                   | 4     |
| 1:40 PM       | 1                     | 0                   | 1     |
| 1:45 PM       | 1                     | 1                   | 2     |
| 1:50 PM       | 1                     | 1                   | 2     |
| 1:55 PM       | 1                     | 1                   | 2     |
| Average Queue | 1.08                  | 0.75                | 1.83  |
| Maximum Queue | 2                     | 3                   |       |

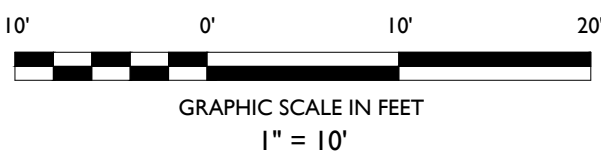
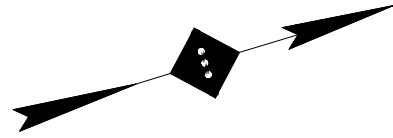
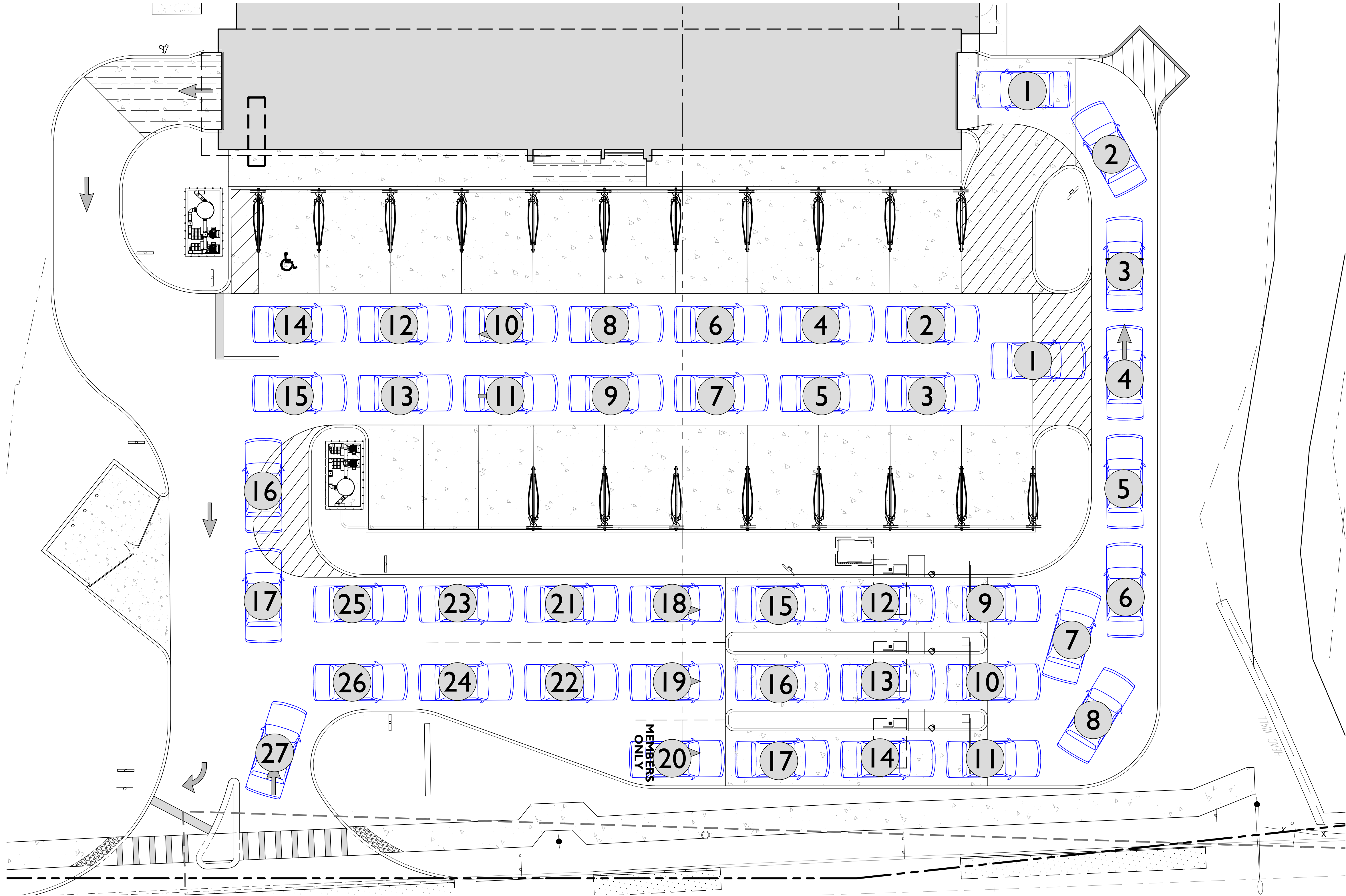
# STONEFIELD

Table A3: Queuing Summary  
586 Cross Keys Road, Sicklerville, NJ  
Friday, April 26, 2024  
SE&D #: NYC-230031

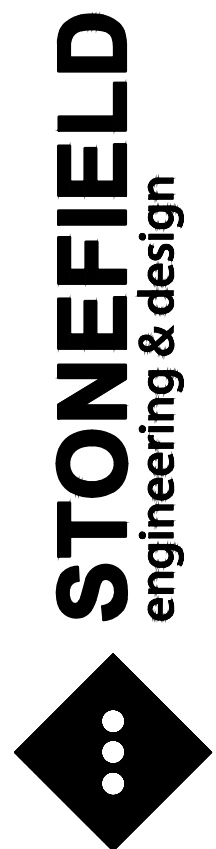


| Time                 | Lane A (Members-Only) | Lane B (Non-Member) | Total       |
|----------------------|-----------------------|---------------------|-------------|
| 2:00 PM              | 1                     | 3                   | 4           |
| 2:05 PM              | 1                     | 2                   | 3           |
| 2:10 PM              | 1                     | 1                   | 2           |
| 2:15 PM              | 1                     | 3                   | 4           |
| 2:20 PM              | 1                     | 3                   | 4           |
| 2:25 PM              | 2                     | 1                   | 3           |
| 2:30 PM              | 1                     | 1                   | 2           |
| 2:35 PM              | 2                     | 1                   | 3           |
| 2:40 PM              | 2                     | 2                   | 4           |
| 2:45 PM              | 1                     | 3                   | 4           |
| 2:50 PM              | 2                     | 1                   | 3           |
| 2:55 PM              | 1                     | 2                   | 3           |
| 3:00 PM              | 2                     | 1                   | 3           |
| 3:05 PM              | 2                     | 3                   | 5           |
| 3:10 PM              | 1                     | 3                   | 4           |
| 3:15 PM              | 1                     | 2                   | 3           |
| 3:20 PM              | 1                     | 2                   | 3           |
| 3:25 PM              | 1                     | 1                   | 2           |
| 3:30 PM              | 1                     | 1                   | 2           |
| 3:35 PM              | 3                     | 1                   | 4           |
| 3:40 PM              | 2                     | 1                   | 3           |
| 3:45 PM              | 1                     | 1                   | 2           |
| 3:50 PM              | 1                     | 1                   | 2           |
| 3:55 PM              | 1                     | 1                   | 2           |
| 4:00 PM              | 1                     | 1                   | 2           |
| 4:05 PM              | 2                     | 1                   | 3           |
| 4:10 PM              | 1                     | 3                   | 4           |
| 4:15 PM              | 0                     | 0                   | 0           |
| 4:20 PM              | 1                     | 1                   | 2           |
| 4:25 PM              | 1                     | 5                   | 6           |
| 4:30 PM              | 0                     | 2                   | 2           |
| 4:35 PM              | 2                     | 2                   | 4           |
| 4:40 PM              | 1                     | 2                   | 3           |
| 4:45 PM              | 1                     | 0                   | 1           |
| 4:50 PM              | 1                     | 1                   | 2           |
| 4:55 PM              | 1                     | 0                   | 1           |
| <b>Average Queue</b> | <b>1.24</b>           | <b>1.59</b>         | <b>2.84</b> |
| <b>Maximum Queue</b> | <b>3</b>              | <b>5</b>            | <b>6</b>    |

\\US-STONEFIELD\ENR\COMP\HAMILTON\CONTINGENCY\2023\NYC-220349 SPARK CAR WASH - 1229 NY-300, TOWN OF NEWBURGH, NY\CAD\DWG\HMBT\305-63-24-NETAL.DWG\173055-63-27-QUEUING EXHIBIT - JACQUELYN.DWG



NOT APPROVED FOR CONSTRUCTION



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15 Spring Street, Princeton, NJ 08542  
Phone 609.362.6900

CONTINGENCY QUEUING EXHIBIT

**SPARK CAR WASH LLC**

**PROPOSED CAR WASH**



SECTION 9A, BLOCK 1, LOTS 4 & 5  
1229 NY-300  
TOWN OF NEWBURGH  
ORANGE COUNTY, NY

JEFFREY A. MARTELL, P.E.  
NEW YORK LICENSE No. 86502  
LICENSED PROFESSIONAL ENGINEER



SCALE: 1" = 10' PROJECT ID: NYC-220349

TITLE:  
**CONTINGENCY  
QUEUING EXHIBIT**

DRAWING:

**I OF I**

| FOR MUNICIPAL HEARING | DATE       | BY | DESCRIPTION |
|-----------------------|------------|----|-------------|
| 1                     | 03/27/2025 |    |             |







CLUBBIESCHWABERDOTNYC-220349 PARK NEWBURGH, NY CAD/EXHIBIT/2023/03/27/05 AERIAL EXHIBIT OPTION - NEWBURGH, NY DWG



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**SPARK CAR WASH LLC**  
**PROPOSED CAR WASH**



BLOCK 96, LOTS 4 & 5  
1229 NY-300  
TOWN OF NEWBURGH  
ORANGE COUNTY, NY

**EXHIBIT**  
NICHOLAS TORTORELLA, P.E.  
NEW YORK LICENSE No. 110507  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

SCALE: 1" = 20' PROJECT ID: NYC-220349

TITLE:  
**VEHICLE MANEUVERING EXHIBIT**

DRAWING:  
**2 OF 2**

| FOR HEARING PRESENTATION      |            | DATE | BY | DESCRIPTION |
|-------------------------------|------------|------|----|-------------|
| 1                             | 03/27/2025 | AL   |    |             |
| NOT APPROVED FOR CONSTRUCTION |            |      |    |             |

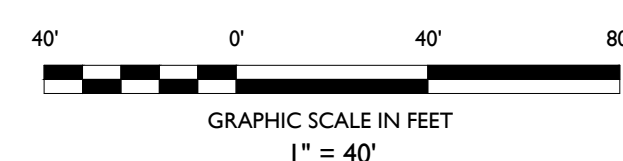


| TAPER LENGTH REQUIREMENTS PER AASHTO |           |
|--------------------------------------|-----------|
| POSTED SPEED LIMIT                   | 45 MPH    |
| DESIGN SPEED                         | 50 MPH    |
| OFFSET                               | 12 FT     |
| REQUIRED                             | AVAILABLE |
| 600 FT                               | 348 FT    |

WITH EXTENSION OF THE 3-LANE SECTION, REQUIRED 3-TO-2 LANE TRANSITION TAPER WOULD EXTEND BEYOND OLD LITTLE BRITAIN ROAD INTERSECTION, AS SHOWN. SUBSTANDARD MERGING TAPERS MAY INCREASE TRAFFIC CONGESTION AND NEGATIVELY IMPACT SAFETY CONDITIONS.

—600' REQUIRED MERGING DISTANCE

348' SUBSTANDARD MERGING DISTANCE



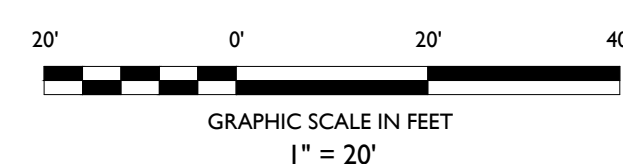
ADJACENT DRIVEWAY LAYOUT WOULD REQUIRE MODIFICATION TO MATCH PROPOSED EDGE OF CURB. NEITHER THE APPLICANT NOR NYSDOT HAS JURISDICTION TO MODIFY DRIVEWAY ON ADJACENT PRIVATE PROPERTY.

PROPOSED EDGE OF CURB CONFLICTS WITH  
PORTION OF ADJACENT PRIVATE PROPERTY  
OUTSIDE APPLICANT AND NYSDOT JURISDICTION

SITE FRONTAGE SIDEWALK IS NOT  
FEASIBLE DUE TO IMPLEMENTATION OF  
NEW RIGHT-TURN LANE, AS SHOWN

PAY STATION MUST BE REMOVED TO ACCOMMODATE  
NEW RIGHT-TURN LANE, RESULTING IN REDUCED  
QUEUE PROCESSING CAPACITY FOR PROJECT

PROPOSED EDGE OF CURB IS DIRECTLY ADJACENT TO  
AND CONFLICTS WITH EXISTING CULVERT TO REMAIN

[illegible]

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
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utherford, NJ • New York, NY • Boston, MA  
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www.stonefieldeng.com

584 Broadway, Suite 310, New York, NY 10012

Phone 718.606.8305

**AERIAL EXHIBIT**

**SPARK CAR WASH LLC**

## PROPOSED CAR WASH



**BLOCK 96, LOTS 4 & 5  
1229 NY-300  
TOWN OF NEWBURGH  
ORANGE COUNTY, NY**

# EXHIBIT

**NICHOLAS TORTORELLA, P.E.**  
NEW YORK LICENSE No. 110507  
LICENSED PROFESSIONAL ENGINEER



**STONEFIELD**  
engineering & design

|        |          |                        |
|--------|----------|------------------------|
| SCALE: | AS SHOWN | PROJECT ID: NYC-220349 |
|--------|----------|------------------------|

**TITLE:**  
**EXTENSION OF 3-LANE  
SECTION WITH NEW  
RIGHT-TURN LANE**

**DRAWING:**

**1 OF 1**



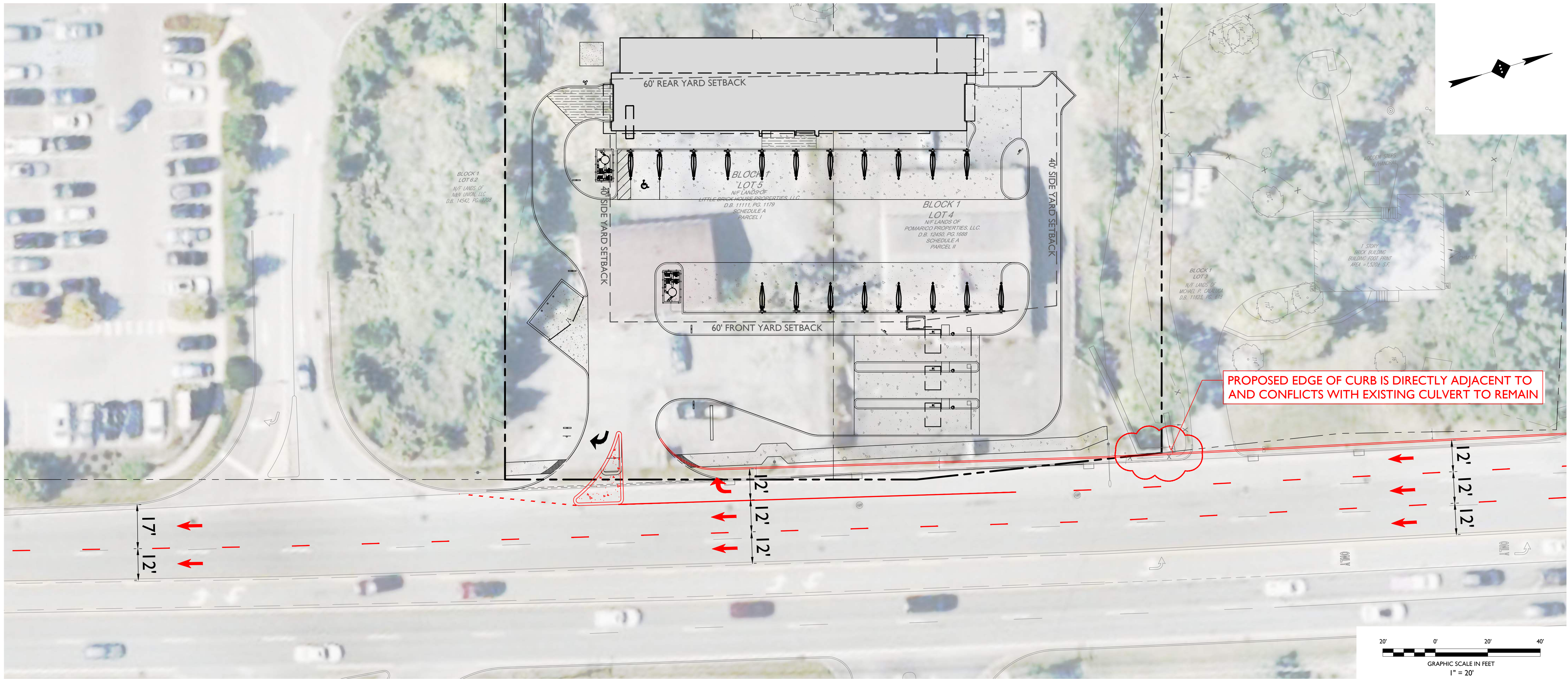
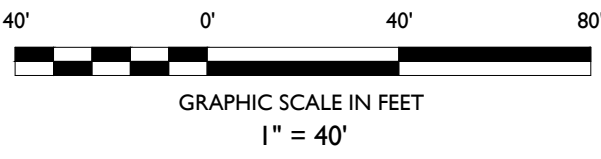
CLUBBIESCHWABERDOTNYC-220349 PARK NEWBURGH, NY CAD/EXHIBIT/2023-03-27/05 AERIAL EXHIBIT OPTION 1 NEWBURGH, NY DWG

| TAPER LENGTH REQUIREMENTS PER AASHTO |           |
|--------------------------------------|-----------|
| POSTED SPEED LIMIT                   | 45 MPH    |
| DESIGN SPEED                         | 50 MPH    |
| OFFSET                               | 12 FT     |
| REQUIRED                             | AVAILABLE |
| 600 FT                               | 213 FT    |

WITH THIRD LANE TRANSITIONING DIRECTLY INTO RIGHT-TURN LANE, RESULTING 3-TO-2 LANE TRANSITION TAPER LENGTH WOULD BE SIGNIFICANTLY SUBSTANDARD. INSUFFICIENT TAPER LENGTH MAY INCREASE TRAFFIC CONGESTION AND NEGATIVELY IMPACT SAFETY CONDITIONS.

600' REQUIRED MERGING DISTANCE

213' SUBSTANDARD MERGING DISTANCE



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**EXHIBIT**

NICHOLAS TORTORELLA, P.E.  
NEW YORK LICENSE No. 110507  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

SCALE: AS SHOWN PROJECT ID: NYC-220349

TITLE:  
**THIRD LANE  
TRANSITIONS INTO  
NEW RIGHT-TURN LANE**

DRAWING:

**I OF I**

FOR HEARING PRESENTATION

AL

BY

ISSUE

DATE

NOT APPROVED FOR CONSTRUCTION