AGENDA
ANC 6A Transportation & Public Space (TPS) Committee Meeting
September 20, 2021 at 7:00 pm
Virtual Meeting via Zoom
Call-in Number: 1 301 715 8592
Webinar ID (access code): 857 1331 2187
For those attending via Zoom: https://us06web.zoom.us/j/85713312187
One tap mobile: +13017158592,,85713312187#
Public Meeting – All are welcome

Community comment welcome; may be limited to 2 minutes to provide a chance for everyone to speak.

I. Call meeting to order.

II. Introductions & Announcements (5 minutes)

III. Community Comment (5 minutes)

IV. Old Business
   A. 1300 block of North Carolina Avenue NE bike lane installation options. The District Department of Transportation (DDOT) is currently considering what type of bicycle facility to add to the 1300 block of North Carolina Avenue as part of its high priority bicycle network, and to ensure continuity between the C Street project (under construction) and the rest of the city’s bicycle network. This includes consideration of different options for directions of placement of car traffic and bicycle traffic lanes, including conversion to one-way vehicle traffic, as well as consideration of car parking and traffic calming measures. Will Handsfield, DDOT Bicycle Program Specialist, will follow up on questions raised at the July 2021 TPS meeting. DDOT is seeking the recommendation of the ANC as to which of the proposed designs (A through E) the Commission would prefer. In addition, DDOT is seeking input on proposed design adjustments to the intersection at 14th Street and North Carolina Avenue NE. See presentation for details.
   B. Discussion about the ANC 6C letter to DDOT requesting permanent bike lanes around the Capitol Building on Independence and East Capitol Avenues; discussion of temporary fencing.

V. New Business
   A. Update on DDOT walkthrough of 17th Street and 19th Street from C Street NE to Potomac Avenue SE.
   B. Traffic Safety Assessment (TSA) request for all-way stop at local-local intersection of 16th Street and Constitution Avenue NE. Requesting raised crosswalks if DDOT does not grant request for all-way stop control.
   C. Rock ‘n Roll Marathon Route. Diane Romo Thomas will discuss planned street closures along H Street NE eastbound from 4th to 13th Street to Constitution Avenue to North Carolina Avenue to C Street to the finish line at RFK for the race taking place on November 13, 2021.

VI. Community Comment (time permitting)
VII. Adjourn meeting
North Carolina Ave NE – 1300 Block
Bike Lane Gap & Pedestrian Safety

Monday, July 19th, 2021

Agenda

• Background – DDOT Roles & Process

• Pedestrian & Bicycle Safety

• North Carolina Ave NE - Project Vehicle Circulation Overview

• Consideration of Alternatives

• Discussion
North Carolina Ave NE Schedule

- Concept Planning
  - MoveDC (2013)
  - MoveDC Update (2021)
- ANC 6A TPS Meetings (Jan, June, July 2021)
- Circulation Study (2020/21)
- Community Consultation on Design and Engineering
  - Winter - Spring 2021
  - Winter - Fall 2021
- Design
- Public Comment Period - 30 business days from NOI
  - March 2021 - Fall 2021
- Construction
  - Summer 2021 - Spring 2022
- C St Project - related
  - Construction start in March 2021 - 1.5 yr construction timeline
  - Opens Fall 2022

Why is DC Installing Bicycle Lanes?

2005 Bicycle Master Plan Goals
- 2000: 1% of commute trips by bike
- 2010: 3% of commute trips by bike
- 2015: 5% of commute trips by bike

Sustainable DC goals
- 75% of all trips by walk, bike, transit by 2032
- 150 more bike share stations
- Carbon Neutrality by 2050

Vision Zero Goals
- Zero Traffic Fatalities
- Few serious injuries
- Create safe conditions through design
- Safe & accessible streets for all users

Safe Routes to School
- Building Safe Routes
C Street NE Project –
High level of protection/quality

DDOT Active Transportation Branch Equipment options

18" wide Concrete Delineators

Flex Posts

Planters
Concerns DDOT Has Heard To Date

• Speeding & Traffic Safety
• Pedestrian Safety
• Desire for continuous connection between RFK Fields, Eliott Hine, and larger Hill community
• Importance of Parking
• Importance of Two-Way Vehicular Travel
• Safety Issues at Intersection of 14th/NC/Constitution + TSA for this location
• Aggressive Drivers
• Will One-Way Traffic Increase Speeding?
• Missing block in the larger C Street Project (under construction)

Buffered Bike Lane Example: Kentucky Ave SE
Protected Bike Lane Example: New Jersey Ave SE

Existing Conditions

North Carolina Ave NE

Existing Conditions Summary:
- Missing block on high-volume bike corridor
- Route to/from RFK Fields, Elot-Hine Middle School, Eastern High School
- Wider-than-recommended travel lanes – lead to speeding
Two Way Concept 1300 blk NC Ave NE

- Retains 2-way Traffic
- Allows for protected or buffered bike lanes

Alternative A2

Alternative A1 – Two-Way + PBL / BL

North Carolina Ave Parking Removal + ...

Alternative A1 Summary:
- Retains 2-way traffic
- South side parking eliminated – 25 spots
- Protected bike lane on North side, regular bike lane on South side
Alternative A2 – Two-Way + PBL / BL

North Carolina Ave Parking Removal +…

Alternative A2 Summary:
• Retains 2-way traffic
• South side parking eliminated – 25 spots
• Protected bike lane on South side, regular bike lane on North side

One Way Concept 1300 blk NC Ave NE

• Maximizes Parking
• Allows for protected or buffered bike lanes
• Bike lane physically narrows vehicle lanes to reduce speeding
• Additional complexity and time for neighborhood vehicular circulation
• Eliminates lower volume direction (600 vehicles daily, or 20%, rerouted)
• Eliminated direction fed by NB 13th St NE and WB A St NE
• Recovers Large SE corner at NC & 14th for bumpout/ ped area
Reroute Assumptions

Alternative B – One-Way + WB PBL + EB PBL

North Carolina Ave Two-way Protecte...

Alternative B Summary:
- Retains parking throughout – needs parking setback at driveway/intersection
- Provides EB & WB protected bike lane
- Matches inbound/outbound bike facilities from C St Project
**Alternative C – One-Way + Buffered Bike Lane**

Alternative C Summary:

- Retains curbside parking throughout
- Provides buffered bike lanes – safer than typical bike lanes
- Retains wider unobstructed cross section – important for events like marathons/parades/marching bands

**Alternative D – One-Way BL+ EB PBL**

Alternative D Summary:

- Retains parking throughout
- Provides EB protected bike lane, WB bike lane
- Matches inbound/outbound bike facilities from C St Project
Alternative E – One-Way + WB PBL + EB Buffered BL

North Carolina Ave WB Protected Bike...

Alternative E Summary:
- Retains parking throughout
- Provides WB protected bike lane, EB buffered bike lane
- Matches inbound/outbound bike facilities from C St Project

NC Corridor sketch marking plan

Raised mid-block crossing
13th / NC Intersection
- Curbside options along 13th
- No Right Turn at NC Ave

North Carolina/14th/Constitution Intersection Concept 1
Alternatives A, B, C, D, E Trade-Offs to Consider

**Neighborhood Considerations**
- Relative need for parking
- Micro-area circulation
- Comfort level with vehicle setbacks
- Speeding

**Big Picture**
- Contribution to Sustainable DC / MoveDC / Climate Adaptation plans
- Contribution to Vision Zero (eliminating traffic injuries/fatalities citywide)
- Macro-area traffic circulation

**Did We Miss Anything?**
- What else is important to consider here?
- What is the right balance of tradeoffs between the goals the city is committed to achieving and issues on the ground?

Wrap-Up

What next?

DDOT is committed to completing this missing section of the bike network, improving pedestrian safety, and reducing vehicular speeds.

Please help by providing feedback on which option to fully design and install.
Please reach out with any comments or questions:

Will Handsfield, AICP  
DDOT Bicycle Program Specialist  
Will.Handsfield@dc.gov

George Branyan  
Manager – Active Transportation  
George.Branyan@dc.gov
TECHNICAL MEMORANDUM

To:       Daniel Lovas, PE
          Bethany Turner, PE
From:     Brandon Zhang, PhD, PE
          Katie Wagner, PE, PTOE
          Erwin Andres, PE
Date:     July 2, 2021
Subject:  North Carolina Avenue NE One-Way Conversion Evaluation

Introduction

This memorandum presents findings of a one-way conversion analysis performed along North Carolina Avenue NE between 13th Street NE and 14th Street NE in Washington, DC. The analysis studied the effects of converting North Carolina Avenue NE to a one-way westbound roadway between 13th Street NE and 14th Street NE to accommodate proposed separate bike lanes on both sides of North Carolina Avenue NE. The impact of diverting existing eastbound vehicles on North Carolina Avenue NE was also analyzed in this memo.

Based on the vehicular analysis, the following conclusions were made:

- Approximately 55 AM and 125 PM vehicular trips are to be rerouted as a result of the proposed North Carolina Avenue NE protected bicycle facility.
- Roadways identified as reroute options included 13th Street NE, 14th Street NE, 15th Street NE, Constitution Avenue NE, and East Capital Street NE.
- Capacity analysis indicates that proposed reroutes will not create significant delays on area roadways during the morning and afternoon peak hours.
Background

DDOT continues to analyze the crosstown connectivity gaps in the 2010 Crosstown Multimodal Transportation Study and many different multimodal connections have been advanced as a result. The proposed bicycle facility on North Carolina Avenue NE provides additional connectivity and further improves crosstown multimodal connections. Separated bike lanes are proposed on North Carolina Avenue NE between 13th Street NE and 14th Street NE. This segment of North Carolina Avenue NE will be converted to a one-way westbound road to accommodate the proposed bicycle facility. As such, the existing vehicular trips traveling eastbound on North Carolina Avenue NE need to be diverted onto other streets in the network. The objective of this study is to evaluate the impact of diverted trips at intersections in the network.

Study Area

Figure 1 illustrates the study area under which the North Carolina Avenue NE bicycle facility will be evaluated. The North Carolina Avenue NE study corridor stretches from the intersection with 13th Street NE to the intersection of 14th Street NE. Under existing conditions, this portion of North Carolina Avenue NE generally consists of one (1) travel lane in each direction, with time-restricted on-street parking on both sides of the road. The study area is well served by several Metrorail routes. Figure 2 shows the map of study intersections. Seven (7) signalized intersections in the vicinity of the study corridor were identified as the potential intersections to be impacted by the proposed project.

Figure 3 shows the existing bicycle facilities, including bike lanes along 13th Street NE, 14th Street NE, 15th Street NE, East Capitol Street NE, portion of Constitution Avenue NE, and North Carolina Avenue NE east of the study corridor, and signed bike lanes along 12th Street NE. Two (2) Capital Bikeshare stations are located near the intersection of North Carolina Avenue NE and 13th Street NE and the intersection of East Capitol Street NE and 15th Street NE, respectively.

Planned Projects

A bicycle facility project along C Street NE was reviewed and treated as a background project for the current North Carolina Avenue NE project. Cycle tracks are planned to replace the existing bike lanes along C Street NE between 15th Street NE and 21st Street NE, and along North Carolina Avenue between 14th Street NE and 15th Street NE. The traffic patterns under the C Street NE bicycle facility build-scenario were incorporated into the baseline conditions for the current analysis.

One-Way Conversion and Reroutes Evaluation

Directionality Assessment

A brief qualitative assessment was conducted with respect to the directionality of the one-way conversion. i.e., whether converting the North Carolina Avenue NE study corridor to one-way westbound or one-way eastbound. The traffic volumes under the C Street NE bicycle facility build-scenario, which serves as the baseline conditions of this project, show that approximately 90% and 90% of the traffic is heading westbound during the morning and afternoon peak hours, respectively. It makes more sense to eliminate the direction with lower peak hour volumes in order to reduce the amount of rerouted traffic. Therefore, the study corridor is proposed to be converted to one-way westbound operation.

Reroute Alternatives Evaluation

Under baseline conditions, the vehicular trips traveling eastbound on the North Carolina Avenue NE study corridor consist of the right-turn volumes from the North Carolina Avenue NE and 13th Street NE intersection. This is due to the fact that 13th Street NE is one-way northbound and that the west leg of the North Carolina Avenue NE and 13th Street NE intersection is one-way westbound. A Street NE, which intersects with the study corridor in the middle, is a two-way road that allows westbound right-turn volume to North Carolina Avenue NE. However, available traffic volume data shows a zero (0) westbound right-turn volume from A Street NE during both the morning and afternoon peak hours. Therefore, it is assumed that A Street NE is a negligible

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source of eastbound traffic on North Carolina Avenue NE and thus the existing eastbound trips are assumed to be only originating from the right turns at the North Carolina Avenue NE and 13th Street NE intersection.

Under proposed conditions, the segment of North Carolina Avenue NE between 13th Street NE and 14th Street NE will convert into a one-way westbound street to accommodate the proposed bicycle facility. The existing vehicular trips entering eastbound North Carolina Avenue NE from northbound right-turn lane on 13th Street NE will be diverted to other roads in the study area. Based on C Street NE build-scenario baseline traffic volumes, 55 vehicular trips need to be diverted during the morning peak hour and 125 vehicular trips need to be diverted during the afternoon peak hour.

In addition, based on C Street NE build-scenario baseline traffic volumes, there are eastbound right turn volumes from North Carolina Avenue NE onto A Street NE, which are 5 and 20 vehicular trips during the morning and afternoon peak hours, respectively. There are also eastbound right turn volumes from North Carolina Avenue NE onto 14th Street NE, which are 5 and 40 vehicular trips during the morning and afternoon peak hours, respectively. These existing eastbound right turn volumes will also need to be diverted to other roads in the study area.

Based on a review of the study area, two (2) routes have been identified as the most likely routes for trip diversion. They are:

- Reroute #1: Northbound 13th Street NE followed by eastbound Constitution Avenue NE, and
- Reroute #2: Eastbound East Capitol Street NE followed by northbound 15th Street NE.

On Reroute #1, the intersection of 13th Street NE and North Carolina Avenue NE is signalized. The north segment of 13th Street NE operates as a one-way northbound. The intersection of 13th Street NE and Constitution Avenue NE is signalized as well. Constitution Avenue NE operates as a two-way street. Capacity exists at this intersection for additional northbound vehicles to turn right at Constitution Avenue NE. The signalized intersection at Constitution Avenue NE and North Carolina Avenue NE is expected to accommodate the rerouted trips before they travel back onto eastbound North Carolina Avenue NE or southbound 14th Street NE through this intersection.

On Reroute #2, the intersection of 13th Street NE and East Capitol Street NE is signalized. The dedicated northbound right turn lane is likely to accommodate the additional northbound right turns. East Capitol Street NE operates as a two-way street. The intersection of East Capitol Street NE and 15th Street NE is signalized with permissive eastbound left-turn phase. 15th Street NE operates as one-way northbound and crosses A Street NE, Ames Place NE, and Constitution Avenue NE with east-west minor streets being stop controlled. The North Carolina Avenue NE and 15th Street NE intersection is signalized. Capacity exists at this intersection for additional northbound vehicles to turn right at North Carolina Avenue NE.

Reroute Assumptions

The reroute assumptions are primarily based on travel time estimates, travel distances, signal phasing, and available capacity. Figure 4 presents the travel time estimate comparisons between the two (2) primary reroutes. The travel time on each roadway segment was calculated based on the travel distance and posted speed limit. The turning movement delay at each signalized intersection was from the intersection capacity analysis results for the baseline scenario.

Based on Figure 4, the estimated travel time difference is minimal (approximately 13 to 15 seconds) between the two candidate routes in terms of both the morning and the afternoon peak hours. Therefore, this study assumed that the diverted trips are evenly distributed through the two candidate routes, as described below and shown in Figure 5.

Existing northbound right turning movements from 13th Street NE onto North Carolina Avenue NE:

- 50% of vehicles will travel further north along 13th Street NE to make a right turn onto Constitution Avenue NE, and
- 50% of vehicles will make a right turn earlier at the intersection 13th Street NE and East Capitol Street NE and turn left onto 15th Street NE.
Existing eastbound right-turning movements from North Carolina Avenue NE onto A Street NE:

- 50% of vehicles will travel further north along 13th Street NE to make a right turn onto Constitution Avenue NE, and then turn right and travel southbound at 14th Street NE to reach the A Street NE neighborhood; and
- 50% of vehicles will make a right turn earlier at the intersection 13th Street NE and East Capitol Street NE and turn left onto 15th Street NE to reach the A Street NE neighborhood.

Existing eastbound right-turning movements from North Carolina Avenue NE onto 14th Street NE:

- 50% of vehicles will travel further north along 13th Street NE to make a right turn onto Constitution Avenue NE, and then turn right and travel southbound at 14th Street NE to reach the A Street NE neighborhood; and
- 50% of vehicles will make a right turn earlier at the intersection 13th Street NE and East Capitol Street NE and turn left onto 15th Street NE to reach the A Street NE neighborhood.
Vehicular Analysis

This section summarizes the analysis of existing and future roadway capacity surrounding the proposed North Carolina Avenue NE bicycle facility. The purpose of the capacity analysis is to:

- Determine the capacity of the study area roadways under the baseline conditions;
- Determine the overall impact of the project on the study area roadways; and
- Discuss any potential improvements and mitigation measures to accommodate the rerouted vehicular trips.

Scope of Analysis

The vehicular capacity analyses were performed to determine whether the project will lead to adverse impacts on traffic operations. This is accomplished by comparing two scenarios: (1) Baseline Conditions and (2) Future Conditions with Rerouted Vehicular Trips.

The study area of the analysis is a set of intersections where detailed capacity analyses were performed for the scenarios listed above. The intersections included are most likely to have potential impacts or require changes to traffic operations to accommodate the project. Based on the reroute assumptions, the following intersections were chosen and agreed upon by DDOT for analysis:

1. North Carolina Avenue & 15th Street, NE
2. Tennessee Avenue & Constitution Avenue & 13th Street, NE
3. North Carolina Avenue & Constitution Avenue, NE
4. North Carolina Avenue & 14th Street, NE
5. North Carolina Avenue & 13th Street, NE
6. East Capitol Street & 14th Street, NE
7. East Capitol Street & 15th Street, NE

Figure 2 shows a map of the study area intersections.

Traffic Volume Assumptions

Baseline Conditions

The traffic volume data used to establish the baseline conditions was acquired from DDOT's Traffic Engineering and Signals Division (TESD). The baseline conditions incorporated the bicycle facility project along C Street NE and part of North Carolina Avenue NE as a background project. The projected traffic volumes under the C Street NE project were used to establish the baseline conditions traffic volumes in this study.

The lane configurations and traffic controls for the Baseline Conditions are shown on Figure 6. The baseline peak hour traffic volumes are shown on Figure 7.

Future Conditions (Rerouted Trips)

The traffic volumes for the Future Conditions consist of the baseline traffic volumes with the adjustment of rerouted trips. The volumes of the rerouted trips were calculated based on the reroute assumptions discussed in the previous section. The rerouted trip assignment results are shown on Figure 9.

The future peak hour traffic volumes with the rerouted trips at each of the study intersections are presented on Figure 10.
Figure 6: Baseline Lane Configuration and Traffic Control

- Signalized Intersection
- Stop Control
- All-Way Stop Control
- Travel Lane
Figure 7: Baseline Peak Hour Traffic Volumes
Figure 8: Future Lane Configuration and Traffic Control
Figure 10: Future Peak Hour Traffic Volumes
Analysis Results

Intersection capacity analyses were performed for the two (2) scenarios outlined previously at the intersections contained within the study area during the morning and afternoon peak hours. Synchro, Version 10 was used to analyze the study intersections based on the Highway Capacity Manual (HCM) 2000 methodology and SimTraffic, Version 10 was used to conduct the queueing analysis.

The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through an intersection. LOS results range from "A" being the best to "F" being the worst. LOS D is typically used as the acceptable LOS threshold in the District, although LESE or F is sometimes accepted in urbanized areas if vehicular improvements would be a detriment to safety or non-auto modes of transportation.

The LOS capacity analyses were based on: (1) the intersection peak hour traffic volumes; (2) the lane use and traffic controls; and (3) the HCM methodologies (using Synchro software). The average delay of each approach and LOS is shown for the signalized intersections in addition to the overall average delay and intersection LOS grade.

Signal timing was based on the existing conditions Synchro files acquired from DDOT’s Traffic Engineering and Signals Division (TESD). The cycle lengths for all the study area intersections are 120 seconds during both the morning and afternoon peak hours, with exceptions at East Capitol Street & 14th Street NE and East Capitol Street & 15th Street NE, which will operate with half cycle (60 seconds) during the afternoon peak hour. Optimization in terms of splits and offsets was performed for both Baseline Conditions and Future Conditions.

Table 1 shows the results of the intersection capacity analyses, including LOS and average delay per vehicle (in seconds) for the Baseline and Future scenarios. Table 2 shows the queueing analysis results reported by SimTraffic microsimulation.

As shown in Table 1, all the study intersections operate at acceptable conditions under the Baseline Conditions. The introduction of the rerouted trips results in one (1) study intersection that operates at unacceptable conditions or has one or more approaches operating at unacceptable levels under the Future Conditions:

- East Capitol Street & 15th Street, NE
  - Eastbound (PM)

Project Impact and Recommendations

Based on DDOT standards, the project may be considered to have a notable impact at an intersection within the study area if any of the following conditions are met:

- The capacity analyses show a LOS E or F at an intersection or along an approach in the future with conditions with the project where none does not exist in the existing conditions; or
- There is an increase in delay at any approach or overall intersection operating under LOS E or F of greater than 5 percent when compared to the existing conditions.

Based on these criteria, the following intersection is impacted by the proposed project:

- East Capitol Street & 15th Street, NE
  - Eastbound (PM)

For the intersection of East Capitol Street and 15th Street NE, the eastbound approach operates as one lane with permissive left turns. It operates at LOS B under the Baseline Conditions while deteriorates to LOS E under the Future Conditions due to the diverted trips making eastbound left turns at this intersection.
Mitigation was attempted by adding a protected/permissive eastbound left turn phase. However, due to the limitation of number of eastbound and westbound lanes, such mitigation did not achieve to improve all three approaches to operate within acceptable LOS. Therefore, mitigation in terms of signal phasing is not being recommended at this intersection. Although the eastbound approach operates at an unacceptable LOS E, the overall intersection operates at an acceptable LOS D.

It should be noted that the analysis results were based on the assumption of 50%/50% diversion trip split on the two (2) routes. It is likely that more drivers would choose the 13th Street NE – Constitutional Avenue NE option instead of the East Capitol Street NE – 15th Street NE option, if they experience significant delay at the East Capitol Street and 15th Street NE intersection. A dynamic equilibrium is likely to be eventually achieved under which the travel time on the two (2) routes are similar, and the delay for the eastbound approach at the East Capitol Street and 15th Street NE intersection is alleviated.

Summary and Conclusions

This memorandum presents findings of a one-way conversion analysis performed along North Carolina Avenue NE between 13th Street NE and 14th Street NE in Washington, DC. The analysis studied the effects of converting North Carolina Avenue NE to a one-way westbound roadway between 13th Street NE and 14th Street NE to accommodate proposed separate bike lanes on both sides of North Carolina Avenue NE. The impact of diverting existing eastbound vehicles on North Carolina Avenue NE was analyzed.

Based on the vehicular analysis, the following conclusions were made:

- Approximately 55 AM and 125 PM vehicular trips are to be rerouted as a result of the proposed North Carolina Avenue NE protected bicycle facility.
- Roadways identified as reroute options included 13th Street NE, 14th Street NE, 15th Street NE, Constitution Avenue NE, and East Capitol Street NE.
- Capacity analysis indicates that proposed reroutes will not create significant delays on area roadways during the morning and afternoon peak hours.
Table 1: Intersection Delay and Level of Service

<table>
<thead>
<tr>
<th>Intersection and Approach</th>
<th>2040 Baseline Conditions</th>
<th>2040 Proposed Conditions</th>
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<td>Southbound L</td>
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Table 2: SimTraffic Queueing Analysis Results

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</table>
September 20, 2021

ANC 6A
C/O
Dr. Amber Gove
Chair, ANC 6A
1349 A St. NE
Washington, DC 20002
amberanc6a@gmail.com

Memorandum on Bicycle Facility Selection Criteria and Related Issues for 1300 North Carolina Ave NE

Dear Commissioner Gove and fellow commissioners,

As part of our work on the North Carolina Ave corridor, we were asked by commissioners or the community to explore some additional areas of interest following our July 19th meeting with the Transportation and Public Space Committee. What follows is a summary of those issues, collected through requests by commissioners, emailed comments or other communications with the community.

Bicycle Facility Selection Criteria:
DDOT uses two primary criteria to determine facility type on District roadways; the NACTO Bicycle Facility Selection Guide (https://nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/choosing-ages-abilities-bicycle-facility/), and the FHWA Bikeway Selection Guide (https://safety.fhwa.dot.gov/ped_bike/tools_sOLVE/docs/fhwasa18077.pdf). I’ve taken the most relevant chart (Charts 1 & 2) from each to show how DDOT interprets this guidance and applied the characteristics of this block of North Carolina Ave. In both the guides we use, the street characteristics would indicate using bike lanes, preferably buffered bike lanes, or protected bike lanes. With the additional context from the C Street project and the “all ages & abilities” features of that facility, it suggests tilting towards the higher orders of protection for a bike.
facility on 1300 North Carolina.

Inquiry into Advisory Bike Lanes:
DDOT was asked to explore the applicability of advisory bike lanes (ABLs) for this segment. While DDOT is currently participating in a federally-supervised study on this roadway pattern, and even went so far as to request additional segments be eligible for this study, FHWA declined to expand the study beyond the initial five segments from our initial application in 2019. Even if using the pattern were possible at this time, the 1300 block of North Carolina is not a good candidate for that pattern. While its total volume is at the threshold for ABLs (3,000 AADT—annualized average daily traffic) it is highly imbalanced, with 80% of vehicles going westbound. The dynamics of this condition would not create safe, predictable space for cyclists to use. For comparison, the roadways in the current ABL study top out around 1,500 AADT.

Historical Record on this Project:
DDOT was asked to explore the historical record on why this block was not included in the C Street project planning. What we learned is that in 2007, DDOT produced a striping plan for NC Ave that included sharrows for this block, while the rest of the plan was installed, the sharrows on this block were not installed - we don't have a record for why. In 2010, the C Street project concept plan (pg 62) included sharrows in one direction, and a bike lane in the other direction, but by the 30% drawings for the project (and on to 100%), this block had been dropped out of them. Soumya Dey (retired) was the project manager at the time, and may know more about that decision if we can reach him. DDOT is now proposing lanes here for what appears to be the 3rd time. To match the level of protection and safety expected of a principal bike route in 2021, our bicycle facility selection criteria indicates, at minimum, a regular or buffered bike lane in each direction is the minimum facility type that would be acceptable on this segment. However, regular bike lanes will not fit geometrically with two-way traffic and parking on both sides.

This is how we arrived at the various proposals we have shared with the community, the geometric limits within the curb, paired with the considerable need for a bicycle facility in this corridor to connect to Lincoln Park results in two principal options, removing parking from one side to create space for the bike lanes, or changing the street to a one-way pattern and using the space from the 2nd lane to create the bike facilities.

Additional Traffic Study:
Some community members expressed an interest in an additional traffic study, to follow the installation of the C Street project, before DDOT should move forward on this project. To recount, the initial C Street project completed an extensive traffic study and diversion analysis which we reviewed as we planned the concepts for 1300 North Carolina. Following our January 25th ANC 6A TPS meeting, DDOT took the extra step of commissioning a subsequent study looking narrowly at the question of eastbound traffic diversions, where they would go, and how much extra time that might impose on residents of the block and the surrounding area. The full analysis with those answers has been shared with the ANC and community. At this time, DDOT believes we have a reasonable and accurate expectation of what will occur under the different options presented, and we are comfortable moving forward with any of the options from a traffic network standpoint. We do not plan to commission further traffic studies prior to implementing this project.
One Way Traffic Effects:
An anticipated effect of a one-way option is diversion of up to 600 vehicles per day onto East Capitol and Constitution - 300 vehicles to each, or about 5% of their known 2018 AADT volume, (anticipated diversion of 55 vehicles in AM peak hour, 125 vehicles in PM peak hour). DDOT believes these diversions are de-minimus changes to the function of either roadway compared to existing conditions, and will not produce significant effects for the community (example: there are turn lanes DC that process 300 turns per hour for comparison, this is 300 spread throughout the day). Another area of community interest was a New York Times article by Emily Badger about speeding on one way arterial streets. The article was describing multi-lane arterial streets (example, 18th St NW in Foggy Bottom), and is a good representation on some of the effects of multi-lane one-way streets. However, the proposed context here would be a single lane one-way in a neighborhood setting. The dynamics of such a street are significantly different than the subject of the article, and we would expect less speeding and better overall safety than the current conditions.

Other Traffic Calming:
The community has expressed interest in several other traffic calming and roadway configuration changes that can be incorporated into this project, among them, a mid-block raised crossing on the 1300 block of North Carolina, alterations to the 14th North Carolina/Constitution intersection to eliminate certain dangerous traffic behaviors, and adjustments to turn geometry at A Street. Some of these have been the subject of TSAs which can be satisfied through this project.

Areas of Community Interest:
Rounding out some related topics that have come from community comment, DDOT has a strong interest in creating a network of protected, all ages and abilities bike routes. These routes should be simple to use, and reduce complex routing whenever possible. Creating a straight facility for the entire C St / North Carolina corridor serves this interest. The need for this project also derives from the new Fields at RFK youth sports facilities, Elliot Hine MS, Kingman Island, and the Anacostia River Trail. Several elementary schools are also reachable by using the bike lane network that connects to Lincoln Park (Payne, Maury, Watkins, Miner, Tyler, Peabody). Additionally, future work with the two churches in the corridor will be conducted to ensure their operational needs are met, particularly with regard to weddings and funerals.

Construction Timeline:
DDOT does not yet have a preferred concept, which is why we are soliciting the views of the community at this moment, so it is difficult to estimate a construction date. We have several engineering and community notice steps yet to go, however, we would seek to pair the opening of this facility to align with, or precede the completion of the C Street project, currently on track for a fall 2022 completion. Depending on the alternative selected, DDOT would likely modify the intersection geometry at 14th North Carolina/Constitution, and have those modifications built as part of the C Street project.

We hope this answers in full the requests we have received from the ANC and community, but if not, please send any further requests our way, and we will endeavor to respond to them.
Sincerely,

[Signature]

William Handsfield, AICP
Bicycle Program Specialist
District Department of Transportation - Planning & Sustainability Division
william.handsfield2@dc.gov
202-671-3378

CC: Councilmember Charles Allen
Ellen Jones, Chief, Project Delivery Administration, DDOT
George Branyan, Manager, Active Transportation Branch, DDOT
**Chart 1**

**Contextual Guidance for Selecting All Ages & Abilities Bikeways**

<table>
<thead>
<tr>
<th>Roadway Context</th>
<th>Target Motor Vehicle Speed*</th>
<th>Target Motor Vehicle Volume (ADT)</th>
<th>Motor Vehicle Lanes</th>
<th>Key Operational Considerations</th>
<th>All Ages &amp; Abilities Bicycle Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>Any</td>
<td>Any</td>
<td>Any</td>
<td>Any of the following: high carbide activity, frequent buses, motor vehicle congestion, or turning conflicts</td>
<td>Protected Bicycle Lane</td>
</tr>
<tr>
<td>&lt; 10 mph</td>
<td>Less relevant</td>
<td>No centerline, or single lane one-way</td>
<td>Pedestrians share the roadway</td>
<td>Bicycle Boulevard</td>
<td>Shared Street</td>
</tr>
<tr>
<td>&lt; 20 mph</td>
<td>≤ 1,000 – 2,000</td>
<td>≤ 500 – 1,500</td>
<td>&lt; 30 motor vehicles per hour in the peak direction at peak hour</td>
<td>Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane</td>
<td>Bicycle Boulevard</td>
</tr>
<tr>
<td></td>
<td>≤ 1,500 – 3,000</td>
<td>≤ 1,500 – 3,000</td>
<td></td>
<td>Protected Bicycle Lane, or Reduce Speed</td>
<td>Protected Bicycle Lane</td>
</tr>
<tr>
<td>≤ 25 mph</td>
<td>≤ 3,000 – 6,000</td>
<td>Single lane each direction, or single lane one-way</td>
<td>Low carbide activity, or low congestion pressure</td>
<td>Protected Bicycle Lane, or Reduce Speed</td>
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<tr>
<td>Greater than 26 mph*</td>
<td>≥ 6,000</td>
<td>Multiple lanes per direction</td>
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</tr>
<tr>
<td>Greater than 6,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shared-Use Path or Protected Bicycle Lane</td>
</tr>
</tbody>
</table>

High-speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts

| Any             | High pedestrian volume     | Low pedestrian volume             | Bike Path with Separate Wayfinding or Protected Bicycle Lane | Protected Bicycle Lane |

---

*While posted or 85th percentile motor vehicle speed are commonly used design speed targets, 15th percentile speed captures high-end speed, which causes greater stress to bicyclists and more frequent passing events. Setting target speed based on this threshold results in a higher level of bicycling comfort for the full range of riders.
Notes
1. Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
2. Advisory bike lanes may be an option when traffic volume is <3K ADT.
3. See page 52 for a discussion of alternatives if the preferred bikeway type is not feasible.
Saturday, November 13, 2021
Event Time: 7am-1:30pm
United Airlines Rock ‘N’ Roll Running Series
Washington, D.C.

1. Name/title of the proposed event:
   Rock ‘n’ Roll DC™ Half Marathon and 5k

2. Organizer/sponsor of the proposed event:
   Ironman (event owner)/United Airlines (event title sponsor)

3. Purpose/intent of the proposed event: Run/walk/fitness/fun

4. Proposed date of the event: Saturday, November 13, 2021

5. Beginning and ending times of the proposed event:
   8:00am – 9:00am 5k
   8:30am – 1:30pm Half Marathon

6. Event organization telephone number and website for public notice:
   https://www.runrocknroll.com/washington-dc

7. Expected attendance: 20,000 participants
Safe Return to Running Guidelines

The Ready to Rock: Safe Return to Running Guidelines will empower everyone involved to focus on a safe return to running. These guidelines outline measures we will be taking to reduce risk for participants, volunteers, our team and communities. With attention to density reduction, touchpoint minimization, enhanced hygiene, screening and education, as well as self-awareness, we will continue to deliver to you a rockin’ participant experience with necessary adjustments so that participants can race safely, race smart, race their best.

- Enhanced Hygiene
  - Hand sanitizer, hand washing stations and disinfectant wipes will be readily available around our event venues. Cleaning of common venue areas will be enhanced.
  - Staff and volunteers will be provided with face coverings, and are required to wear the face covering properly at all times around the event venue. Disposable gloves will be used in applicable areas.
  - Participants will be provided with face coverings at packet pick-up, and participants are required to wear a face covering properly around our event venues, including the start corrals and finish line areas. Find the World Health Organization (WHO) instructional video on how to properly wear a mask.

- Screening & Education
  - We are providing training for staff and volunteers in appropriate personal health, personal hygiene, and safe support in necessary functional areas.
  - We will provide Volunteer Smart™ guidelines for event volunteers.
  - Participants, staff, and volunteers will be required to respond to a pre-event health questionnaire.
  - We will in many venues institute no-touch body temperature screening; individuals with a body temperature greater than 100.4°F Fahrenheit, or 38°C Celsius will not be allowed to participate, volunteer or work.

- Touchpoint Minimization
  - We will be reducing or removing touchpoints and points of interaction between staff, participants, and volunteers without compromising event safety and security.
  - We have redesigned and reimagined areas such as packet pick-up, expo, merchandising, and finish line to minimize person-to-person contact.
  - Aid stations will be reconfigured with more space to minimize both participant-to-volunteer and participant-to-participant touchpoints.

- Density Reduction
  - We will institute measures to increase space for participants and supporting personnel in areas such as expo, packet pickup and finish line.
  - Alternative start configurations may be implemented to reduce the number of participants waiting in an enclosed area and to optimize distancing opportunities.
  - Modification or elimination of non-essential race services and functions, such as expo and merchandise may also occur.
  - The most significant element in course density reduction is being able to extend the duration of the start line program.
<table>
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<tr>
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<th>COURSE(S)</th>
<th>SIDE OF ROAD</th>
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<td>Bryant Street NW</td>
<td>K Street NE</td>
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<td>19th Street NE</td>
<td>7:30 AM</td>
<td>3:00 PM</td>
</tr>
<tr>
<td>East Capitol Street SE</td>
<td>Runner's Village</td>
<td>Eastbound</td>
<td>19th Street SE</td>
<td>22nd Street SE</td>
<td>5:30 AM</td>
<td>3:30 PM</td>
</tr>
</tbody>
</table>

Road closures and times are subject to change.
### Water Stations

<table>
<thead>
<tr>
<th>Station</th>
<th>Mileage</th>
<th>Separation</th>
<th>Location</th>
<th>Page</th>
<th>Service Times</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>1.4</td>
<td></td>
<td>23rd St NW between Constitution Ave NW &amp; Lincoln Memorial Circle</td>
<td>16</td>
<td>8:35am - 9:35pm</td>
<td></td>
</tr>
<tr>
<td>W2</td>
<td>2.8</td>
<td>1.5</td>
<td>Southbound Potomac River Freeway at 23rd St NW Exit Ramp</td>
<td>19</td>
<td>8:40am - 10:25am</td>
<td></td>
</tr>
<tr>
<td>W3</td>
<td>4.6</td>
<td>1.6</td>
<td>Rock Creek &amp; Potomac Play Pl NE Water Tower on Northbound ramp on east side of intersection</td>
<td>26</td>
<td>8:30am - 10:15am</td>
<td></td>
</tr>
<tr>
<td>W4</td>
<td>7.1</td>
<td>2.2</td>
<td>Columbia Rd NW between Missouri Ave &amp; 18th St NW</td>
<td>30</td>
<td>9:00am - 11:30pm</td>
<td></td>
</tr>
<tr>
<td>W5 &amp; W6</td>
<td>9.1</td>
<td>2.0</td>
<td>N Capitol St NW South of Bryant St NW on Westside only</td>
<td>34</td>
<td>9:10am - 12:05pm</td>
<td></td>
</tr>
<tr>
<td>W7</td>
<td>11.1</td>
<td>2.0</td>
<td>M St NE between 6th St NE &amp; 15th St NE</td>
<td>44</td>
<td>9:20am - 12:40pm</td>
<td></td>
</tr>
<tr>
<td>W7 (K)</td>
<td>11.1</td>
<td></td>
<td>17th St S &amp; P St NE on East side of marketway</td>
<td>47</td>
<td>9:00am - 9:20am</td>
<td>6K Only</td>
</tr>
</tbody>
</table>

### Medical Stations

<table>
<thead>
<tr>
<th>Station</th>
<th>Mileage</th>
<th>Separation</th>
<th>Location</th>
<th>Page</th>
<th>Service Times</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>2.0</td>
<td>0.8</td>
<td>Potomac River Freeway just South of Virginia Ave Underpass on center median</td>
<td>19 &amp; 21</td>
<td>8:40am - 10:15am</td>
<td>Double Pass</td>
</tr>
<tr>
<td>M2</td>
<td>6.7</td>
<td>2.0</td>
<td>Rock Creek &amp; Potomac Play Pl NE &amp; Columbia Ave NW on grass strip on grass</td>
<td>26</td>
<td>9:00am - 11:30pm</td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td>8.6</td>
<td>1.9</td>
<td>M Street St NW &amp; 14th St NW on North West corner</td>
<td>32</td>
<td>9:00am - 11:15pm</td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td>10.2</td>
<td>2.2</td>
<td>N Capitol St NW &amp; M St on North West side of intersection</td>
<td>39</td>
<td>9:15am - 12:20pm</td>
<td></td>
</tr>
<tr>
<td>M6</td>
<td>12.1</td>
<td>2.2</td>
<td>13th St NE &amp; Tennessee Ave NE on grass triangle</td>
<td>48</td>
<td>9:15am - 12:55pm</td>
<td>Service Times: 9:00am - 9:30am in 6K</td>
</tr>
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</table>

### Entertainment Sites

<table>
<thead>
<tr>
<th>E Sites</th>
<th>Mileage</th>
<th>Separation</th>
<th>Location</th>
<th>Page</th>
<th>Service Times</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>1.1</td>
<td></td>
<td>17th St NW &amp; Constitution Ave NW on North East corner</td>
<td>15</td>
<td>8:45am - 9:30am</td>
<td>No Stage</td>
</tr>
<tr>
<td>E2</td>
<td>1.6</td>
<td>0.6</td>
<td>Lincoln Memorial Circle &amp; Rock Creek &amp; Potomac Play Pl NW on grass triangle</td>
<td>17</td>
<td>8:15am - 9:45am</td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>2.2</td>
<td>1.6</td>
<td>Potomac River Freeway near Rock Creek Play at honeycomb mushroom</td>
<td>20</td>
<td>8:15am - 10:15am</td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>4.4</td>
<td>1.2</td>
<td>Rock Creek &amp; Potomac Play Pl NW just North of K St NW Overpass on East side of grass</td>
<td>23</td>
<td>9:00am - 10:35am</td>
<td></td>
</tr>
<tr>
<td>E5</td>
<td>4.6</td>
<td>0.4</td>
<td>Rock Creek &amp; Potomac Play Pl NW Southbound on off ramps on West side</td>
<td>24</td>
<td>9:00am - 10:45am</td>
<td></td>
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<tr>
<td>E6</td>
<td>3.2</td>
<td>1.5</td>
<td>Carroll St NW &amp; Woodward Ave NW at stop sign on South side</td>
<td>29</td>
<td>9:00am - 11:15am</td>
<td></td>
</tr>
<tr>
<td>E7</td>
<td>8.1</td>
<td>1.8</td>
<td>5th St NW &amp; Massachusetts Pl NW on West side of intersection</td>
<td>32</td>
<td>9:00am - 11:25am</td>
<td></td>
</tr>
<tr>
<td>E8</td>
<td>9.6</td>
<td>1.5</td>
<td>N Capitol St NW &amp; G St NW</td>
<td>38</td>
<td>9:10am - 12:10pm</td>
<td></td>
</tr>
<tr>
<td>E9</td>
<td>10.2</td>
<td>0.9</td>
<td>K St NE, 1st St NE on South East corner</td>
<td>41</td>
<td>9:20am - 12:25pm</td>
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<tr>
<td>E10</td>
<td>11.1</td>
<td>0.9</td>
<td>K St NE, 12th St NE on Auto Zone &amp; SE corner</td>
<td>45</td>
<td>9:15am - 11:30pm</td>
<td>Service Times: 9:00am - 9:30am in 6K</td>
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<tr>
<td>E11</td>
<td>12.3</td>
<td>1.5</td>
<td>22nd St NE &amp; 23rd St NE on grass divider</td>
<td>52</td>
<td>9:30am - 11:00pm</td>
<td>Service Times: 9:10am - 9:30am in 6K</td>
</tr>
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### Activation Sites

<table>
<thead>
<tr>
<th>A Sites</th>
<th>Mileage</th>
<th>Separation</th>
<th>Location</th>
<th>Page</th>
<th>Service Times</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>11.1</td>
<td></td>
<td>Potomos UTA - 4 SYNE &amp; 2nd St NE</td>
<td>43</td>
<td>9:00am - 12:35pm</td>
<td></td>
</tr>
</tbody>
</table>