ADMINISTRATIVE ACTION

I-26 ASHEVILLE CONNECTOR
Buncombe County, North Carolina
Federal Aid Project No. NHF-26-1(53)
WBS Element 34165.1.2
STIP I-2513

FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME 2 OF 2

U.S. Department of Transportation
Federal Highway Administration
and
North Carolina Department of Transportation

Submitted Pursuant to the National Environmental Policy Act 42 U.S.C. 4332(2)(c)

1/9/2020 DERRICK WEAVER
Date of Approval

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Environmental Policy Unit -Unit Head
North Carolina Department of Transportation

1/9/2020 for Clarence W. Coleman, Jr.
Date of Approval

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The documented needs for the transportation project in Buncombe County are presented in the report. The existing conditions of the study area are described and the alternatives are assessed in terms of environmental impacts, compatibility with local planning goals, relative cost-effectiveness and public opinion.

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VOLUME 2 OF 2

January 2020

Prepared by:

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For the:

North Carolina Department of Transportation

January 9, 2020 Kevin E. Moore
Date — Kevin E. Moore, P.E.
Project Management Unit

APPENDIX A

TUNNEL FEASIBILITY EVALUATION MEMORANDUM

MEMORANDUM TO FILE

To: Project File

From: Tom Hepler
AECOM

Date: September 6, 2017

RE: Tunnel Feasibility Evaluation
NCDOT STIP Project I-2513 (I-26 Connector)

Tunneling Concept for I-26 in Asheville

This memorandum considers the feasibility and practicality of a subsurface passage of the French Broad River by I-26 and the I-240 connection ramps in Asheville, NC. The location of the crossing is north of the existing Patton Avenue crossing of the river. The alignment of I-26 is controlled by the design speed, (60 mph), the corresponding maximum grade (4 percent for rolling terrain), and the minimum horizontal curve radius (1,200 feet). However, for special conditions in mountainous areas, up to 6 percent grade could be employed. The connecting ramps of I-240 to I-26 cross the river and have a design speed of 50 mph with maximum grade of 5 percent and minimum horizontal curve radius of 833 feet. AASHTO recommends holding upgrades on ramps between 2 percent and 5 percent and downgrades the same, with special cases where the downgrade could be up to 7 percent. The DEIS alignment of I-26 passes under Patton Avenue and elevates to provide vertical clearance over two railroads, the river and US 19/23/70. Both I-240 ramps must clear these vertical obstacles and the westbound ramp must cross over I-26. Other vertical controls include the on-ramp from Patton Avenue west of the river and the crossing of Hill Street on the east side of the river. The proposed structures are slightly higher in elevation (approximately 10 to 15 feet) than the Captain Jeff Bowen bridges.

Tunnel construction can be classified in two major categories: 1) tunnels constructed by mining methods, and 2) tunnels constructed by cut and cover methods. The first category (mining) can be subdivided into two groups based upon the specific construction method: a) tunnel boring machine and b) drill and blast. Drill and blast is less expensive and can be employed to tunnel through stable homogeneous rock. Tunnel boring machine methods are used in unstable conditions, especially through softer soils and unstable rock material. This latter method is becoming more common method due to environmental issues, geologic conditions and technology advancements.

The second category (cut and cover) is suitable for shallow tunnels where disturbance of the surface above the tunnel during construction is acceptable. Two methods of construction can be employed under this category: a) trenching and b) cut and cover. Trenching methods are normally used for long expansive subaqueous tunnels where pre-cast tunnel sections are hauled to an excavated trench and

connected and upon completion, dewatered. This method may be used where environmental, stream flow, sedimentation issues are of little concern and accessibility and staging areas are available.

Site conditions, environmental issues, accessibility and subsurface geology must be evaluated in determining what type of tunnel construction is appropriate.

Geology: The geology of the area was reviewed based upon information provided by the NC Geological Survey (see attachment). Generally it can be expected to encounter a metamorphic suite of material referred to as Schistose Metagraywacke, which is a non-foliated to weakly foliated; fine to medium grained; granoblastic to lpidoblastic.(35-58% quartz, 20-41% plagioclase, 2-15% K-feldspar, 10-20% biotite, 0-10% muscovite, 0-5% almandine). In general this material lends itself to both 1) drill and blast: and 2) tunnel boring machine. The preferred method to be used will be based upon more detailed geology data, tunnel size, local concerns and conditions, and contractor preference.

Site Conditions: The area is urban with extensive development and infrastructure in place. Cut and cover methods would impact and/or displace all within the corridor. The river front contains a lot of development, utilities, roadways, trails and railroad corridors on both sides of the river. Staging for trenching would be difficult due to the surrounding urban development. Although the river is not used for commercial navigation it is used extensively for sports recreation and it is a FEMA regulated narrow floodplain. Outside of the floodplain the terrain becomes rolling to mountainous. Temporary impacts to the flow and floodplain would need to be considered. Cut and cover and trenching methods are not practical for the most part of this alignment nor would they be acceptable from an impact standpoint.

Environmental Issues: In addition to the accessibility and economic issues, the river environment is protected via wildlife resources and pollution control. The French Broad River is classified as a trout stream and trenching would be prohibited due to the negative impact it would have. Trenching would also create downstream sediment pollution.

Recommended Method:

Based upon information available, if a tunnel is deemed an option to carry forward, the tunnel method recommended would be "mining", consisting of either drilling and blasting or tunnel boring machine. Further geologic exploration is needed to verify which method would be most appropriate. The following considerations would apply to both methods.

Depth and clearances: The primary obstacle which must be cleared is the riverbed. For mining operations the depth below the bed of the river will depend upon the stability of the riverbed material. Based upon the information available, a conservative depth would be a distance equal to the actual width of the tunnel. If adequately stable material exists this depth can be reduced to as little as one-half the width. This study assumed the material below the riverbed as reasonably stable and therefore a cover of two-thirds the width of the tunnel has been assumed.

Number of I-26 Tunnels and geometry: The number of tunnels required is based upon the number of lanes to be carried and the requirement for redundancy to assure safe escape and alternative routing of

traffic when necessary. Due to the required arch of the tunnel, the wider the tunnel the higher the ceiling. A three-lane roadway width tunnel is the practical maximum. For a multilane divided facility it is most practical to employ two tunnels, one in each direction. For more than three lanes in one direction additional tunnels may be necessary or stacking the traffic (2 x 2) in a single large tunnel. The latter requires vertical transitions at entrances and exits to the tunnel. I-26 is a six-lane divided freeway therefore two tunnels (3 lanes each) constructed parallel with connecting passages between the two would be the most practical. AASHTO recommends that left and right shoulder widths, adequate to store a disabled vehicle, be carried through the tunnel. In curved tunnels stopping sight distance requires shoulders so that adequate stopping sight distance is provided. Taking this into consideration, a clear width of 58 feet under the following conditions will provide adequate stopping sight distance: 3 12-foot lanes, a 5-foot inside shoulder plus a 5-foot walkway, and a 10-foot outside shoulder along with a 758-foot minimum horizontal curve. A minimum vertical clearance of 17.5 feet must also be provided (see attached typical section). A minimum 60-foot diameter tunnel would be needed for a tunnel bore and a 60-foot width for a drill and blast. The grade point of the roadway to the structural ceiling of the tunnel would be approximately 39 feet and would not differ greatly due to the method of mining. Assuming two-thirds diameter or width of the tunnel for cover under the river bed and the 39 feet from ceiling to grade point, the grade point would be 79 feet below the riverbed at a minimum.

Grades and I-26 Tunnel Geometry: The minimum radius for a Tunnel Boring Machine is 1,500 feet; however, as concluded in the foregoing discussion in order to provide adequate stopping sight distance, the minimum radius is 2,750 feet. The existing alignment of I-26 would need adjusting to flatten the reverse curves west and east of the river crossing. Assuming a maximum grade of 6 percent and a 79-foot elevation below the river bed, entry points for the excavation would potentially be located just north of Patton Avenue and north of the Montford Area Historic District.

I-240 Tunnel: It is impractical to tunnel I-240 in conjunction with I-26 due to the fact that it is not safe to have entrances and exits within a tunnel and crossing I-240 over I-26 is vertically impractical. For this reason I-240 connector ramps would cross the French Broad River and other obstacles with aerial grade separations similar to the designs presented in the Public Hearing Map.

Conclusions and Challenges: The following is a summary of findings resulting from a conceptual alignment study for tunneling of I-26. This is not a comprehensive list and many others will arise once preliminary design is entered.

1. The grade of I-26 at Patton Avenue drops approximately 20 feet to an elevation of at least 45 feet or more below the Patton Avenue bridge on the north side. This would present major challenges in making ramp ties as discussed later.
2. The alignment would require curves within the tunnel with both entrances and exits on curves. This would require greater shoulder widths to provide adequate sight distance. The resulting width of 60 feet is pushing the maximum limit for a tunnel boring machine. The horizontal curves must be flattened, which changes the alignment from that shown on the 2015 Public Hearing Map. This means the bank to bank river crossing would increase from 400 feet to 700 feet.

3. Smith Mill Creek would require significant relocation at the southern entrance to the tunnel. The alignment assumes the vertical clearance under the relocated Smith Mill Creek could be less than 40 feet.
4. The northbound entrance ramp from Patton Avenue to I-26 would place the gore at the tunnel entrance which is prohibited under AASHTO guidelines, and is not possible with the entrance to the tunnel being so close to Patton Ave. The grade differential from Patton to I-26 discussed in item 1 would result in a ramp grade greater than 10 percent, making the ramp tie impractical. This is a 3-lane ramp and could not be reconfigured into a loop, and even if it was possible it would create a weaving problem. Diverting this traffic east across the existing Patton Avenue bridges would create a major traffic issue that would not be addressed with improvements.
5. The I-240 eastbound ramp exit would need to be shifted south prior to Patton Avenue. This would force the Patton Avenue exit ramp farther south, both of which would increase impacts to the C.F. Worley House, which has been determined eligible for listing on the National Register of Historic Properties.
6. The I-240 eastbound ramp would remain aerial and follow the grade of the I-26 aerial alignment, thereby slightly lowering it.
7. The I-240 westbound ramp entrance would be shifted south, which would create a weaving issue between the entrance and the Patton Avenue exit loop. The grade differential discussed in item 1 forces the loop grade beyond the maximum loop grade. Elimination of the loop forces the traffic to I-240 eastbound and exiting onto Patton Avenue east of the existing bridge
8. The I-240 westbound ramp would remain aerial. The alignment should be evaluated to determine if it can be shifted such that bridge piers can be strategically placed between the tunnel and the river as not to impact either. Long spans would be required, potentially incorporating special bents or structures.
9. The US 19/23/70 northbound connection to I-26 could be lowered to reduce the retaining wall height adjacent to the Riverside Cemetery. However, US 19/23/70 northbound must follow to east of I-26 until north of the tunnel entrance. Although the grade would be lowered significantly, the alignment would be forced to the east, impacting the Montford Area historic property.
10. The capacity of the tunnel is fixed and cannot under the current design criteria, be increased by widening. Addition of lanes via additional tunnels or surface facilities would be possible but presents spatial problems of tying to other facilities outside the tunnel.
11. Construction costs of a tunnel would be at least double that of the bridge structure and maintenance costs would also be greatly elevated with the inclusion of storm water pumps, lighting, ventilation, and constant monitoring for accidents and disabled vehicles.

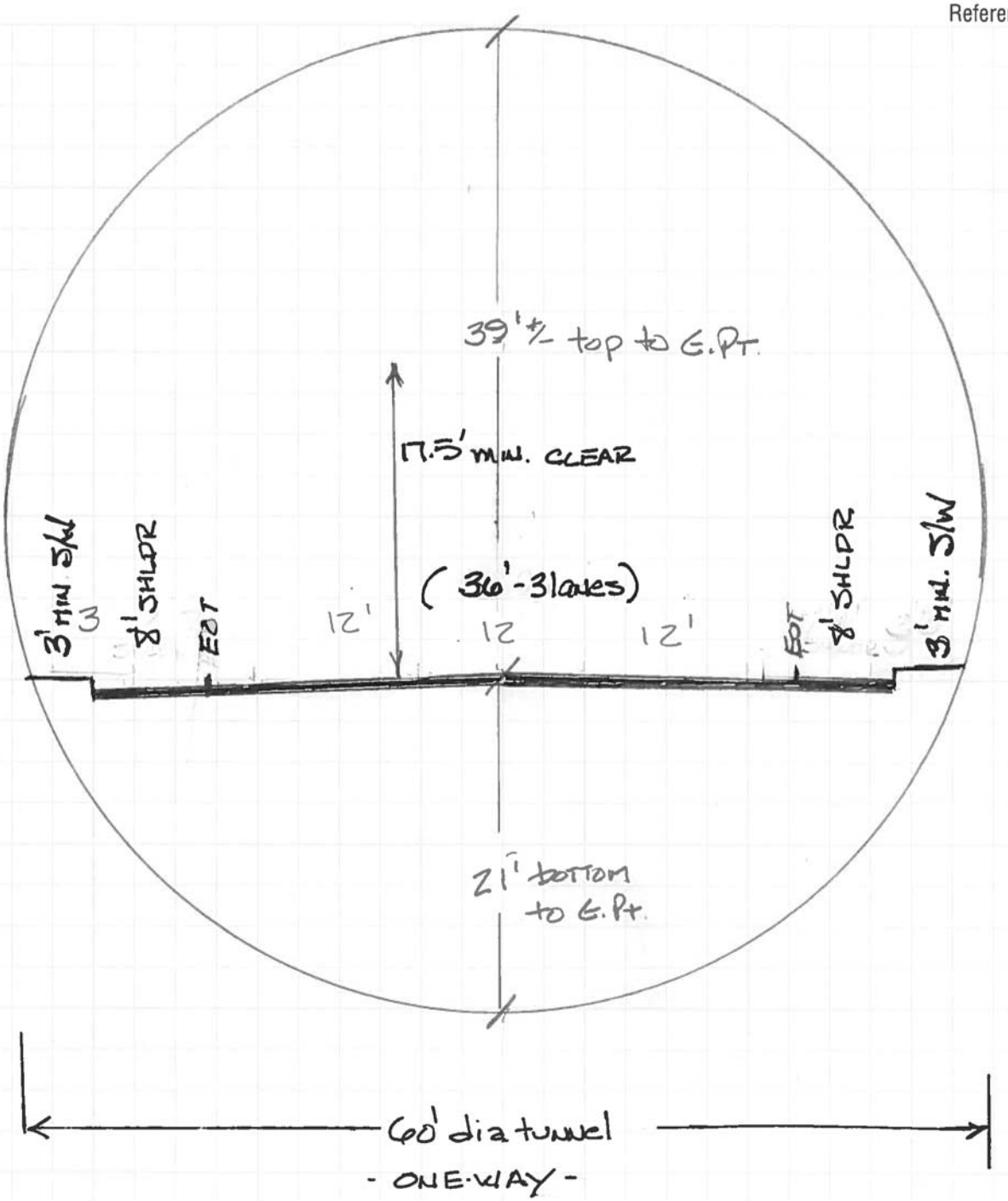
URS

Job I-2513 (I-26 CONNECTOR) Project No. _____ Page _____ of _____

Description TUNNEL CONCEPT ASHEVILLE NC Computed by TRH Sheet _____ of _____

Checked by _____ Date 9/1/17

Reference



BEDROCK GEOLOGIC MAP OF THE ASHEVILLE 7.5-MINUTE QUADRANGLE, NORTH CAROLINA

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF LAND RESOURCES
James D. Simons, Director and State Geologist

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program

NORTH CAROLINA GEOLOGICAL SURVEY
Geologic Map Series - 14

BY
J. WILLIAM MILLER
AND KAREN H. FRYER
2008

Research supported by the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number 00HQPA0002. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either express or implied, of the U.S. Government.

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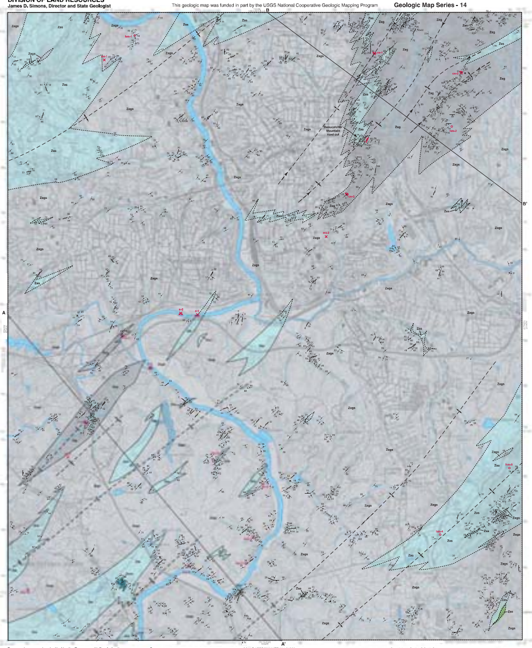
*Currently with Virginia Department of Mineral Resources
**Currently Environmental Consultant, Decatur, AL.

Field reviews by: Carl Merschat, Mark Carter, Tyler Clark, Richard Wooten, Phil Bradley, and Leonard Wiener.

Map preparation and editing by William Miller, Nick Bozdog, Bart Cattanach, Carl Merschat, and Ken Taylor.



Topography mapped and edited by the Tennessee Valley Authority
Published by the Geological Survey

Control by NOS/NOAA, USGS, and TVA
Revised by TVA in 1961 by photogrammetric methods using aerial photographs taken in 1960 and by reference to TVA-USGS quadrangle dated 1943. Map field checked by TVA, 1961

Polyconic projection. 10,000-foot grid ticks based on North Carolina coordinate system
1,000-meter Universal Transverse Mercator grid ticks, zone 17

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are given in USGS Bulletin 1875.

SCALE APPROXIMATELY 1:24000

CONTOUR INTERVAL 20 FEET
DASHED LINES REPRESENT HALF-INTERVAL CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

ASHEVILLE, N.C.
1961
PHOTOREVISED 1991

MAP UNITS

ASHE METAMORPHIC SUITE

Late Proterozoic
Stratigraphic relations uncertain

- **Zags** — Schistose Metagraywacke
- **Zag** — Metagraywacke
- **Zas** — Sillimanite-Garnet-Chlorite-Mica Schist
- **Zaa** — Amphibolite
- **Zasc** — Chloritoid-Garnet-Chlorite-Quartz-Muscovite Schist

STRUCTURAL FEATURES

CONTACT

Stratigraphic Contact (inferred)

STRIKE AND DIP OF PLANAR FEATURES

Observation sites are centered on the strike bar, or one of the intersection point of multiple symbols.

Foliation — Shear zone — Joint — Vertical foliation — Vertical joint

BEARING AND PLUNGE OF LINEAR FEATURES

Fold axis — Vertical fold axis — Horizontal fold axis — Mineral lineation

MAP SCALE STRUCTURAL FEATURES

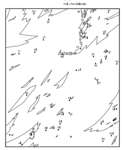
Axis of map-scale synform inferred — Axis of map-scale antiform inferred

ELEMENTS OF METAMORPHIC CONDITIONS

Prograde metamorphic minerals observed in stream sediment heavy mineral samples and thin sections shown. Stream sediment heavy mineral sample site localities shown on geologic map.

o Stream sediment heavy mineral sample site
▲ Thin section sample site

bt - biotite; cld - chloritoid; gt - garnet; hbl - hornblende; ky - kyanite; sil - sillimanite; st - staurolite



TRAVERSE MAP

Green lines show paths of field traverses made to collect geologic control.

DESCRIPTION OF MAP UNITS

ASHE METAMORPHIC SUITE — The Ashe Metamorphic Suite is predominantly schistose metagraywacke (Zags), less abundant metagraywacke (Zag) and garnet-mica schist (Zas), and minor amphibolite (Zaa) and chloritoid-garnet-chlorite-quartz-muscovite schist (Zasc). Garnet granofels, garnet-biotite schist, actinolite schist, and amphibole-biotite granofels are widely scattered in non-mappable amounts. The protolith of the amphibolite is a mafic rock or a sedimentary derivative of a mafic igneous rock, and the calc-silicate rocks (garnet granofels, garnet-biotite schist, actinolite schist, and amphibole-biotite granofels) originated from sedimentary derivatives of mafic rocks. The sequence in the Asheville 7.5 minute quadrangle is composed dominantly of continentally derived clastic sediments with minor amounts of interlayered volcanics. Deposition occurred in a marine basin. The Ashe Metamorphic Suite has been metamorphosed to sillimanite grade, amphibolite facies. Muscovite porphyroblasts (≤1 cm) are abundant regardless of rock type in varying amounts throughout the quadrangle.

Schistose Metagraywacke (Zags) — Light to medium gray; nonfoliated to weakly foliated; fine to medium grained; granoblastic to lepidoblastic; layering ranges from centimeters to several meters. Consists of 35-68% quartz, 20-41% plagioclase, 2-15% K-feldspar, 10-20% biotite, 0-10% muscovite, 0-5% almandine, widespread traces of zircon, and occasional traces of apatite, calcite, rutile, ilmenite, pyrrhotite, pyrite, and chalcopyrite.

Metagraywacke (Zag) — Light to dark gray; nonfoliated to strongly foliated; fine to medium grained; granoblastic to lepidoblastic; layering ranges from centimeters to several meters. Consists of 20-70% quartz, 10-60% plagioclase, 0-30% K-feldspar, 10-20% biotite, 0-7% almandine, 0-5% muscovite; traces to locally minor epidote, clinozoisite, kyanite, sillimanite, staurolite; and traces of cummingtonite, zircon, apatite, calcite, rutile, ilmenite, magnetite, hematite, pyrrhotite, pyrite, and chalcopyrite.

Garnet-Mica Schist[1] (Zas) — Dark, silvery bluish to greenish gray, strongly foliated, fine to medium grained, lepidoblastic; layering in meters. Consists of varying amounts of micas, with 5-60% muscovite, variable but persistent (1-30%) chlorite and (0-30%) biotite; highly variable (0-65%) quartz, (tr-65%) plagioclase, and (0-33%) almandine; widespread traces of sillimanite; and rare traces of clinozoisite, zircon, ilmenite, magnetite, pyrrhotite, pyrite, and chalcopyrite.

Amphibolite (Zaa) — Black to mottled black and white, weakly foliated, fine- to coarse-grained, hypidioblastic; some fine-grained amphibolites contain hornblende in the main rock matrix as well as porphyroblasts (≤ 2 mm); decimeter to meter-scale layering. Consists of 50-70% hornblende and 25-50% plagioclase, 0-5% biotite, and traces of chlorite, zircon, apatite, calcite, rutile, ilmenite, magnetite, hematite, pyrrhotite, chalcopyrite, and pentlandite (always as inclusions in pyrrhotite). Occurs most often as small tectonized fragments a few meters in outcrop dimension. One 30-meter-thick conformable layer occurs in the central-east end of the Beaucatcher Mountain road cut. Protolith is mafic rock or sedimentary derivative of a mafic rock.

Chloritoid-Garnet-Chlorite-Quartz-Muscovite Schist (Zasc) — Mottled silvery white to silvery medium gray, strongly foliated, fine to medium grained; in meters-thick layers. Consists of 40-70% muscovite, 5-50% quartz, 10-15% chlorite, 10-15% almandine as porphyroblasts (≤1 mm), and 2-10% chloritoid as porphyroblasts (≤ 10 mm), and traces of pyrrhotite and magnetite.

DESCRIPTION OF OTHER ROCK TYPES

The following rock types also occur on the Asheville 7.5-minute quadrangle, but individual bodies are too small and discontinuous to be shown at this scale.

PALEOZOIC INTRUSIVES

Pegmatite — Mottled white to very light gray, nonfoliated, very coarse grained, and lenticular to tabular; thickness ranges from centimeters to meters. Consists primarily of plagioclase and quartz with minor microcline, muscovite, biotite, and garnet. Pegmatites typically cross-cut foliation of other rock units. Not found in mappable units.

Trondhjemite — Very light gray to nearly white; fine to medium grained; granoblastic. Thickness ranges from centimeters to meters. Consists of 50-70% plagioclase, 25-45% quartz, 2% biotite, 5-10% muscovite, and traces of K-feldspar, chlorite, and zircon. Trondhjemites typically cross-cut foliation of other rock units. Not found in mappable units.

MINOR ASHE METAMORPHIC SUITE ROCKS

Garnet Granofels — Mottled pink and white and non-foliated; fine- to coarse-grained garnet-biotite schist is mottled pink and brown and strongly foliated. These two rock types are end-members of the same unit that are distinguished by increasing amounts of biotite from granofels to schist. They may be interlayered or graded between the two end members. Thickness of layering is in decimeters to meters. Consist of 30-40% plagioclase, 30-60% almandine, 2-10% sillimanite, 2-5% biotite, 0-10% K-feldspar; 0-1% each kyanite, muscovite, titanite, and pyrrhotite; and traces of zircon, apatite, calcite, rutile, ilmenite, chalcopyrite, and pentlandite. The largest layer in outcrop reaches 30 meters thick at the northwest end of the Beaucatcher Mountain road cut.

Actinolite Schist — Mottled dark green and white, moderately to strongly foliated, fine- to medium-grained, xenoblastic to hypidioblastic; layering ≤ 4 meters. Consists primarily of actinolite-rich (90%) and actinolite-poor quartzofeldspathic sub-layers < 1 centimeter thick, with 0-90% actinolite, 2-60% quartz, 0-30% K-feldspar (microcline), 3-10% plagioclase, 2-5% biotite, 0-1% titanite, and traces of apatite, calcite, and pyrite. Not exposed in mappable units. One 4-meter-thick layer occurs at the west end of the Beaucatcher Mountain road cut on I-240.

Amphibole-Biotite Granofels — Mottled medium-dark gray, granoblastic to weakly foliated, medium-grained, xenoblastic to hypidioblastic; layer is in meters. One sample from the Beaucatcher Mountain road cut contained 74% plagioclase, 10% chlorite, 5% biotite, 5% hornblende, 5% cummingtonite, and traces of apatite, calcite, ilmenite, hematite, goethite, pyrrhotite, chalcopyrite, and pentlandite.

[1] Mineral adjectives are arranged in order of increasing abundance.

MINERAL RESOURCES

PROSPECTS, QUARRIES, AND SAND RESOURCES

Map Number	Description	Latitude; Longitude (decimal degrees)	NC COORDINATES (State Plane, NAD 83 meters)
mi-1	Ethel Rice Heirs mica prospect	35.61565 N; 82.60157 W	212,888N; 283,423E
mi-2	H.D. McDowell mica prospect	35.58047 N; 82.54747 W	208,811N; 288,181E
mi-3	Lora Lee Mathews mica prospect	35.53867 N; 82.61023 W	204,160N; 282,320E
cs-1	Unnamed stone quarry	35.61663 N; 82.53543 W	212,781N; 289,414E
cs-2	Unnamed stone quarry	35.61335 N; 82.51448 W	212,350N; 291,298E
cs-3	Unnamed stone quarry	35.58872 N; 82.54250 W	209,710N; 288,664E
cs-4	Unnamed stone quarry	35.56097 N; 82.59702 W	206,811N; 283,615E
cs-5	Pond Road crushed stone quarry	35.54322 N; 82.60663 W	204,871N; 282,763E
s-1	Harrin's Sand Company dredge	35.56487 N; 82.57882 W	207,183N; 285,279E
s-2	Harrin's Sand Company dredge	35.56497 N; 82.58247 W	207,207N; 284,949E
s-3	Harrin's Sand Company dredge	35.55407 N; 82.59002 W	206,023N; 284,221E

o hm-9: Stream sediment heavy mineral sample site. Sample numbers correspond to stream sediment heavy mineral analyses listed in table below.

mi-2: Mineral resource number referred to in accompanying Mineral Resource Summary. Commodity indicated by letter symbol.

- Sand dredging operation
- Abandoned sand dredge
- Abandoned quarry
- × Prospect

COMMODITY LETTER SYMBOLS:

- cs Crushed stone
- mi Mica
- s Sand

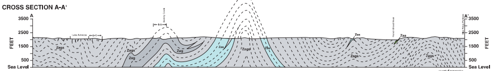
STREAM SEDIMENT HEAVY MINERAL ANALYSIS

Approximately 14 kg of stream sediment was panned to approximately 300 g of heavy mineral concentrate, which was further separated with tetrabromoethane. At least 200 grains were identified with a petrographic microscope and refraction oil of n=1.47.

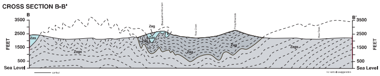
SAMPLE[1]	LATITUDE; LONGITUDE (decimal degrees)	NC COORDINATES (State Plane, NAD 83 meters)	MAP UNITS DRAINED[2]	% hm IN SAMPLE[3]	PERCENT HEAVY MINERALS IN SAMPLE[4] Mag	Op	Gt	Hbl	Zr	Ep	Sil	Rt	Ky	St	Tt
hm-1	35.62073 N; 82.59408 W	213,427N; 284,121E	Zag, Zas	tr	9.4	26.3	3.3	14.1	10.3	12.2	0.0	2.3	4.7	17.4	0.0
hm-2	35.60247 N; 82.51682 W	211,152N; 291,044E	Zag	tr	7.0	22.2	26.4	21.7	5.2	3.8	1.4	0.0	3.3	9.0	0.0
hm-3	35.51542 N; 82.56662 W	201,662N; 286,188E	Zag	tr	33.0	15.4	14.4	6.5	18.1	0.6	8.0	0.9	0.6	2.5	0.0
hm-4	35.52108 N; 82.51963 W	202,137N; 290,469E	Zas	0.04	21.9	30.6	20.3	13.8	7.9	2.1	1.4	0.0	1.0	1.0	0.0
hm-5	35.53452 N; 82.50300 W	203,574N; 292,029E	Zas	tr	70.6	1.6	14.3	3.1	5.2	1.6	0.4	0.0	0.1	2.8	0.3
hm-6	35.53120 N; 82.56302 W	203,399N; 286,577E	Zag, Zas	0.04	18.4	20.9	17.3	7.2	19.3	5.6	5.6	0.4	1.6	3.6	0.0
hm-7	35.52078 N; 82.56493 W	202,250N; 286,362E	Zag	0.08	9.5	33.9	18.7	3.9	11.3	11.7	9.1	0.0	0.0	1.7	0.0
hm-8	35.53613 N; 82.57493 W	203,985N; 285,517E	Zag	0.05	16.8	30.3	16.1	8.1	20.6	2.0	4.0	0.0	0.0	1.6	0.4
hm-9	35.51487 N; 82.58080 W	201,647N; 284,900E	Zag	0.61	3.1	34.3	21.2	15.1	11.6	6.1	3.5	0.0	1.0	3.0	1.0
hm-10	35.51043 N; 82.62042 W	201,285N; 281,291E	Zag, Zas	0.01	29.3	20.5	39.9	0.0	2.3	2.7	0.0	0.0	0.0	5.3	0.0

[1] Sample numbers correspond to heavy mineral sample localities shown on geologic map
[2] Map units contributing to the drainage basin, listed in descending order of map area
[3] Weight percent heavy minerals in stream sediment sample
[4] Weight percent of heavy minerals: Mag=magnetite, Op=opaques other than magnetite in heavy minerals, Gt=garnet, Hbl=hornblende, Zr=zircon, Ep=epidote minerals (epidote, clinozoisite), Sil=sillimanite, Rt=rutile, Ky=kyanite, St=staurolite, Tt=titanite. Monazite was not observed but is expected to occur in Ashe heavy mineral samples.

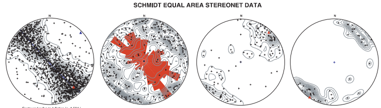
CROSS SECTION A-A'



CROSS SECTION B-B'



SCHMIDT EQUAL AREA STEREONET DATA



Contoured poles to foliation (n=1,504) — Mean Vector; Calculated fold axis; Best fit great circle

Contoured poles to joints (n=290) — Unidirectional Rose Diagram inset

Contoured trend and plunge of fold axes (n=127) — Mean Vector

Contoured mineral lineation orientations (n=43) — Mean Vector

Grade Change extends to this area.

tunnel staging area

End of Tunnel stage NB tunnel first along with US 23NB tie.

clearance under railroad, Riverside and US 19-23

Grade on US 23NB will drop to tie with tunnel but the tie cannot be made until north of the tunnel. US 23NB must be spaced adequate distance from I-26 until north of the tunnel entrance. A significant cut is requiring retaining walls and combined with the alignment change will impact historic area.

investigate realignment of ramp to cross river and tunnel simultaneous

Grade on 240WB Ramp is controlled by clearance over US23SB but can be lowered with Tunnel of I-26.
US 23NB must follow the grade on 240WB until it diverges causing it to be high above existing ground. Retaining wall height can be reduced.

YWB

special bents required

Hill Street controls. With I-240 and US 19-23-70 going over. Hill St. is at max. grade to tie with Atkinson St. Hill St. and Atkinson are new connections across freeway.

The horizontal curves for I-240 are both at minimum radius for the design speed and cannot be squeezed together. The Patton Ave. ramp is as compressed as it can be in order to vertically clear I-240. Moving this closer to I-240 increases the bridge length which will in turn increase the bridge depth with the result of moving the I-240 merge point to the north and thereby shorting the weave distance below the minimum.

I240 EB is controlled by clearance over Railroad and US23SB

Begin Tunnel

tunnel staging area

Stream relocation required with tunnel

Entrance of I-240 WBRamp would be near the Patton Ave underpass which creates unacceptably short weave between ramp and loop.

I-26 passing ~45 feet under Patton Ave in a cut.

I-240 EB Ramp would exit in this area which along with grade change moves Patton Exit Ramp south and into Worley Historic property.

Grade change begins here

CORRIDOR PRELIMINARY PROFILES

WBS 34165.1.2 (I-2513B)

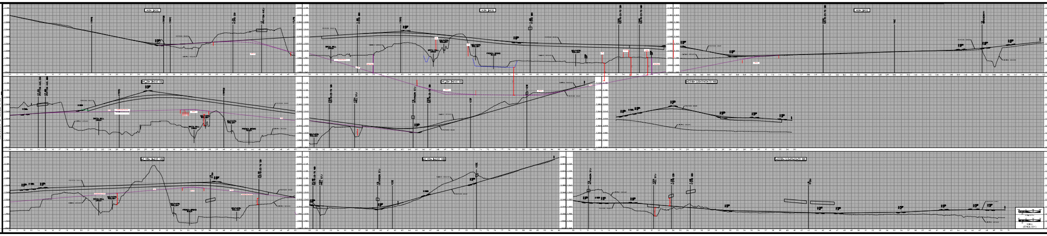
F. A. PROJECT MANHF 26-1(53)

BUNCOMBE COUNTY

I-26 CONNECTOR

I-40 TO US-19-23-70 NORTH OF ASHEVILLE

SECTION B ROLL 1 OF



PRELIMINARY PLANS

DO NOT USE FOR CONSTRUCTION

MEMORANDUM TO FILE

To: Project File

From: AECOM

Date: June 17, 2019

RE: Tunnel Feasibility Evaluation
NCDOT STIP Project I-2513 (I-26 Connector)

Tunneling Concept for I-26 in Asheville

This memorandum serves as an addendum of the Tunnel Feasibility Memorandum, dated September 5, 2017. That memo considers the feasibility and practicality of constructing a tunnel for either I-240 or I-26 traffic in Asheville, NC. Discussions include the potential location of tunnels, right-of-way considerations, and comparisons to other tunnels of similar nature for a high-level cost analysis.

Preliminary Design of the Preferred Alternative

As studied in the I-2513 Final Environmental Impact Statement, the preferred alternative completes I-26 across the French Broad River and re-connects the existing highway network. The proposed configuration includes three bridges over the French Broad River; the northernmost bridge carries I-240 westbound, the middle bridge carries I-26, and the southernmost bridge carries I-240 eastbound (See Figure 1). Additionally, to provide connectivity between Patton Avenue and I-26/I-240, a tight diamond interchange is shown west of the Jeff Bowen Bridges. To provide connectivity with US 19/23, the designs include one entrance ramp and one exit ramp to Patton Avenue east of the Jeff Bowen Bridge. The design criteria for this project is derived from AASHTO's *A Policy on Geometric Design of Highways and Streets,* (2011, 6th Edition).

Potential I-240 Tunnel Option

A tunnel option was explored which would eliminate the I-240 eastbound and westbound flyover bridges (See Figure 2). In this scenario, the new bridge proposed to carry I-26 over the French Broad River would still be constructed. The I-240 eastbound and westbound tunnels would proceed along a new route and follow parallel alignments. These alignments begin southwest of the Jeff Bowen Bridges, would begin south of Dellwood Street, proceed under the French Broad River south of the Jeff Bowen Bridges, cross under Patton Avenue, and then surface just before Montford Avenue to tie into existing I-240. Due to the proximity of the tunnel entrances to the north of the Haywood Road ramps, the northern ramps at Haywood Road would likely be eliminated. The I-240 connections to Patton Avenue would also be eliminated in this scenario. Additionally, US-23 southbound traffic would lose the proposed connection to I-240 eastbound and I-240 westbound traffic would lose the proposed connection to US 23 northbound.

Figure 1: I-26/I-240 Flyover Vicinity

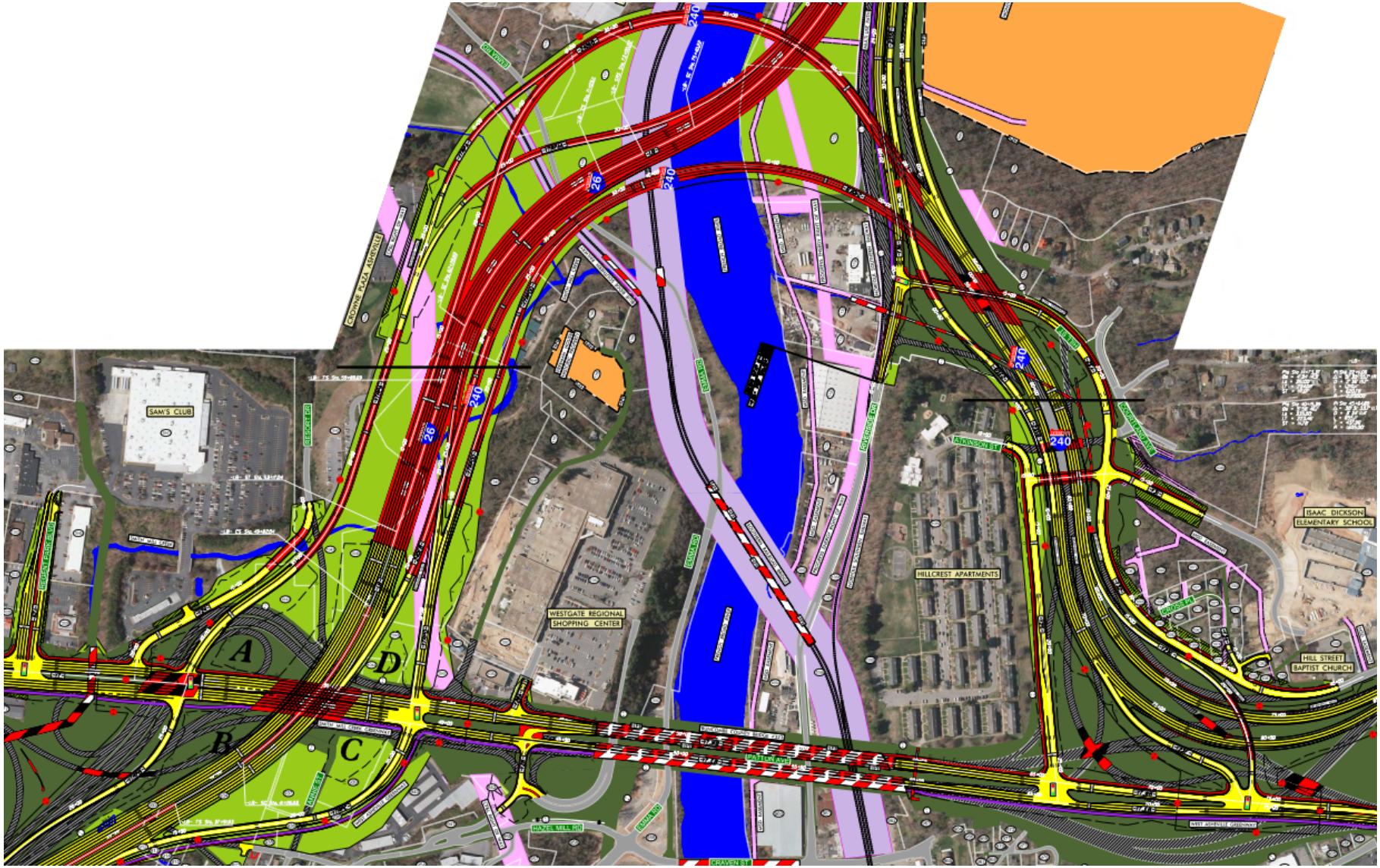
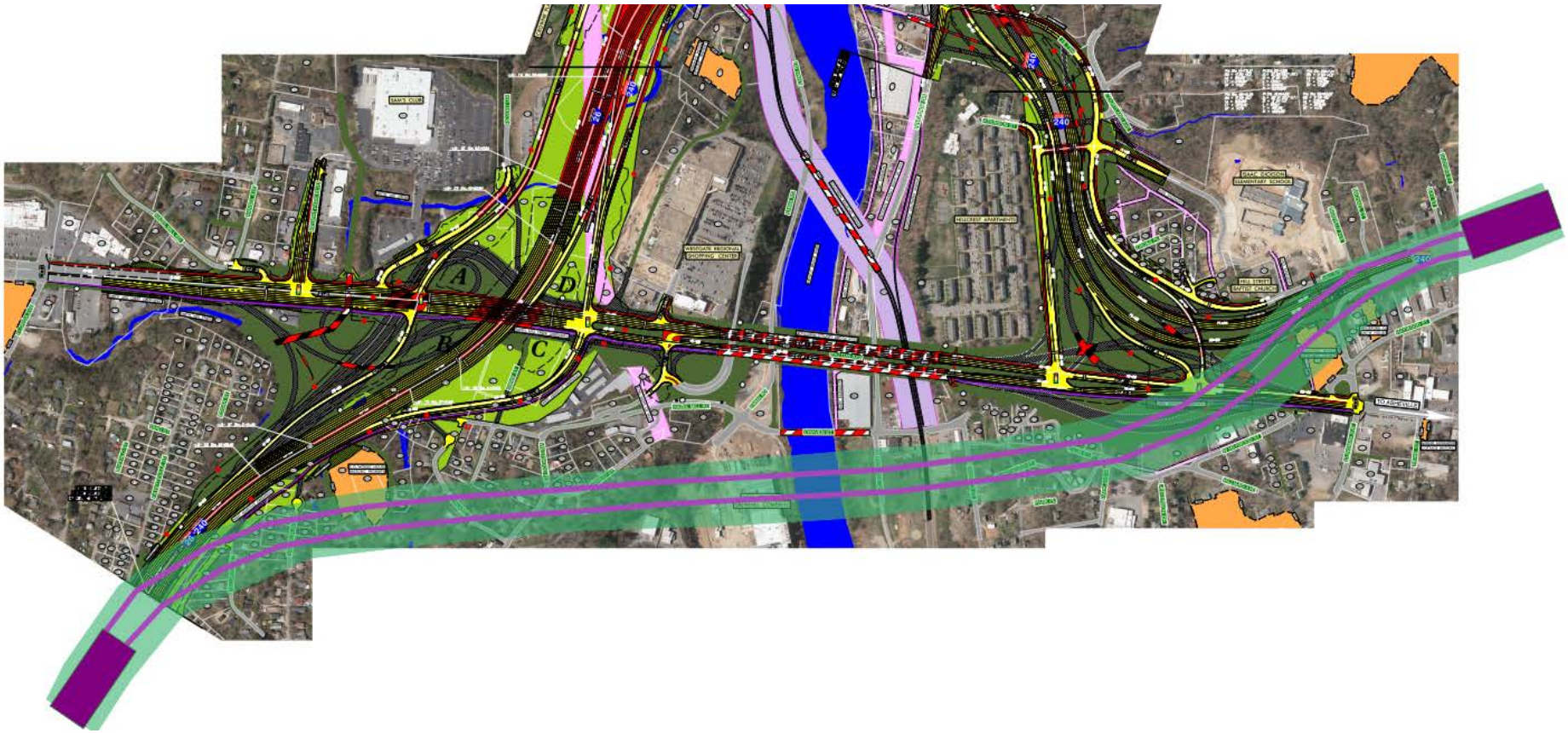


Figure 2:



The I-240 eastbound and westbound tunnels would each be approximately 48 feet wide, carrying two travel lanes in each direction. It is assumed the distance between the tunnels should at minimum one tunnel width, 48 feet. Approach plazas would be constructed on either end of the tunnels. This includes the entrance/exit ramps, retaining walls, and necessary structures housing support facilities such as mechanical rooms, HVAC infrastructure, lighting controls, and tunnel management facilities. It is assumed the approach plazas would each be approximately 1,575 linear feet. Building upon the design assumptions discussed in the 2017 Tunnel Feasibility memo, the minimum turning radius would be approximately 2,750 feet. An I-240 tunnel could adhere to this design criteria for horizontal curvature as the alignment would be fairly linear as shown in Figure 2. From the approach plazas, the tunnel would descend approximately 200 feet vertically to provide the necessary clearance of the French Broad River. It is assumed the top of the tunnel would be approximately 40 feet below the riverbed. The design criteria used for the preliminary plans identifies utilizing maximum 4 percent grades. To minimize the footprint of the tunnel, 5 percent grades or steeper would be needed, triggering design exceptions. Based upon these assumptions, the full length of the tunnel would be approximately 11,650 linear feet (8,500 linear feet of underground tunnel).

In North Carolina, NCDOT owns right-of-way over tunnels. The required limits of right-of-way would extend approximately 100 feet beyond the outer limits of the tunnels. Based on the alignment described above, additional right-of-way impacts would occur in the Burton Street Community, East West Asheville, the River Arts District, and the residential area north of Clingman Avenue. Furthermore, the Burton Street Community Baptist Church and New Belgium Brewing Company, along with businesses along Haywood Street from Patton Avenue to Montford Avenue would be directly impacted. These impacts are in addition to those described in the Final Environmental Impact Statement, thereby increasing right-of-way costs and impacts to the human and natural environments. Right-of-way costs have not been determined for this level of analysis.

Potential I-26 Tunnel Option

The 2017 Tunnel Feasibility Memorandum studied a tunnel route which follows the I-26 alignment for the Preferred Alternative. Because of the required depth and the minimum practicable radius for boring the tunnel, this alignment was found to be infeasible. For the purposes of this memo, a second alignment was developed which follows a straighter path as shown in Figure 3. This tunnel would begin at the proposed Patton Avenue interchange, west of the Jeff Bowen Bridges, and extend north under the French Broad River, terminating at Broadway. The proposed I-240 flyover bridges would remain to allow for a connection to downtown Asheville. However, all proposed connections between US 23 and I-26 would be eliminated.

Figure 3: Potential I-26 Tunnel Option

The I-26 northbound and southbound tunnels would each be approximately 60 feet wide, carrying three travel lanes in each direction. As noted above, it is assumed the distance between the tunnels should be at minimum one tunnel width, 60 feet. Approach plazas would be constructed on either end of the tunnels. It is assumed the approach plazas would each be approximately 1,575 linear feet. From the approach plazas, the tunnel would descend approximately 200 feet vertically to provide the necessary clearance of the French Broad River. It is assumed the top of the tunnel would be approximately 40 feet below the riverbed. To minimize the footprint of the tunnel, a 5 percent grade would also be needed for the I-26 tunnels, triggering design exceptions. Based upon this information, the full length of the tunnel would be approximately 11,650 linear feet (8,500 linear feet of underground tunnel).

As discussed above, right-of-way above the tunnels would be acquired by NCDOT. Based on the alignment described, it is likely that additional right-of-way impacts would occur in the Montford Hills and Hibritten historic districts. Additionally, the Freeman House Historic property would potentially be adversely affected. Businesses along Riverside Drive would likely be directly impacted. Division of Highways and the Rail Division would need to coordinate regarding potential impacts to the Norfolk Southern Railway, which runs along Riverside Drive and the French Broad River. These impacts would be additional to the impacts currently reported in the Final Environmental Impact Statement, thereby requiring avoidance and minimization efforts to address impacts to historic resources and increasing right-of-way costs. Right-of-way costs have not been determined for this level of analysis.

Cost Considerations

It should be noted that tunnel construction methods and costs vary wildly between projects. Many considerations must be evaluated, including land constraints, elevation, construction method, soil type, and others. Six roadway tunnels in North America were referenced in order to prepare an assumed cost range for the I-26 Connector project. These tunnels traverse under marine environments, undeveloped mountainous regions, and developed mountainous regions. Table 1 includes a cost comparison of the tunnels and known design features. The costs shown below have been adjusted for inflation.

Table 1: Representative Tunnel Construction Cost Estimates

Tunnel	Tunnel Construction Cost	Number of Tunnels	Number of lanes in each tunnel	Tunnel Length (linear feet)[a]	Cost per foot	Single Tunnel Diameter	Features
John H. Bankhead Tunnel (1941)[b]	$73,000,000	1	2	3,389	$21,500	21 ft	• Marine Environment • Travel lanes are narrow, no large trucks permitted • Travels under Mobile River • Western terminus in downtown Mobile, Alabama
George Wallace Tunnel (1973)[c]	$287,000,000	2	2	3,000	$47,800	~30 ft	• Marine Environment • Travels under Mobile River • Located south of John H. Bankhead Tunnel in Mobile, Alabama
Eisenhower-Johnson Tunnel (1973)[d]	$965,000,000	2	2	8,976	$53,700	40 ft	• Mountainous undeveloped terrain • 1.64 percent grade • Additional $50 million cost in non-boring expenses during construction
Hamptons Roads Bridge Tunnel (1957 & 1976)[e]	$826,800,000	2	2	7,479	$55,000	~30 ft	• Marine environment • Travels under shipping lanes in Chesapeake Bay
Monitor Merrimac Memorial Bridge-Tunnel (1992)[f]	$728,500,000	2	2	4,800	$75,000	~30 ft	• Marine environment • 4 percent max grades • 60 mph design speed
Proposed I-240 & I-26 Tunnels							
I-240 Tunnels	-	2	2	8,500	-	48 ft[g]	• Developed mountainous terrain • Travels under French Broad River • Estimated 5 percent grade
I-26 Tunnels	-	2	3	8,500	-	60 ft[g]	• Developed mountainous terrain • Travels under French Broad River • Estimated 5 percent grade

[a] Note: Linear feet is per tunnel. When determining the cost per linear foot, the total length of both tunnels was divided by the total cost.

[b] Source: https://www.aaroads.com/alabama/mobile-city-guide-1/ , https://southalabama.edu/libraries/mccallarchives/bankhead.html

[c] Source: https://alletting.dot.state.al.us/OfficeEngineer/Docs/GeorgeCWallaceTunnelPublicationeditedforweb.pdf

[d] Source: https://www.codot.gov/travel/eisenhower-tunnel/description.html

[e] Source: http://www.roadstothefuture.com/I64_VA_HRBT.html

[f] Source: http://www.roadstothefuture.com/I664_VA_MMMBT.html

[g] Note: It is assumed the distance between the tunnels should be at minimum one tunnel width.

Using the number of tunnels for each example, the total length of tunneling, and the diameter of a single tunnel for each, the total tunnel volume in cubic yards (CY) was calculated for each tunnel, which was in turn used to calculate the cost per CY of tunnel (see Table 2).

Table 2

	Tunnel Construction Cost	Number of Tunnels	Total Length of Tunneling (linear feet)[a]	Bore/Tunnel Diameter (ft)	Total Tunnel Volume (CY)	Cost per CY of Tunnel
John H. Bankhead Tunnel (1941)[b]	$ 73,000,000	1	3,389	21	43,453	$ 1,680
George Wallace Tunnel (1973)[c]	$ 287,000,000	2	6,000	30	157,000	$ 1,830
Eisenhower-Johnson Tunnel (1973)[d]	$ 965,000,000	2	17,952	40	835,100	$ 1,160
Hamptons Roads Bridge Tunnel (1957 & 1976)[e]	$ 826,800,000	2	14,958	30	391,401	$ 2,210
Monitor Merrimac Memorial Bridge-Tunnel (1992)[f]	$ 728,500,000	2	9,600	30	251,200	$ 2,900

The minimum ($1,160) and maximum ($2,900) cost per CY calculated in Table 2 was used to estimate a potential range of costs for constructing a tunnel alternative for the I-26 Connector project using the assumed amount of total tunnel volume needed (Table 3).

Table 3

	Number of Tunnels	Total Length of Tunneling (linear feet)[a]	Bore/Tunnel Diameter (ft)	Total Tunnel Volume (CY)	Minimum Cost of Tunnel	Maximum Cost of Tunnel
I-240 Tunnels	2	17,000	48	1,138,773	$ 1,321,000,000	$ 3,302,400,000
I-26 Tunnels	2	17,000	60	1,779,333	$ 2,064,000,000	$ 5,160,100,000

Based on the comparison of tunnels constructed in the United States and by using the estimated number of CY needed, it can be assumed the construction costs of tunneling I-240 would range from $1,321,000,000 to $3,302,400,000 in current dollars. The estimated construction cost of tunneling I-26 is assumed to range from $2,064,000,000 to $5,160,100,000. This is based only on the cost per CY of tunnel. In comparison, construction cost estimates of bridges for the I-26 Connector project have been estimated to cost approximately $65 million to construct based on the current design. The I-26 mainline bridge is estimated to cost approximately $91 million to construct.

Maintenance costs of a bridge and tunnel must also be considered and compared. Generally, the annual maintenance cost of tunnels is significantly higher than that of bridges. Maintenance of tunnels includes traffic supervision for possible wrecks or other safety issues, management and operation costs, stormwater pumping, electricity for lighting and other needs, fire suppression maintenance, ventilation, and roadway maintenance. Some estimates note the operation and maintenance of tunnels is approximately 20 percent to 30 percent of the construction cost. For maintenance comparison purposes, the Lower Thames Crossing Capacity Options Report on Design and Costs[1] was referenced. This report analyzed the maintenance and operating costs for the three alternatives analyzed in the Dartford River Crossing Study (2009). Maintenance costs for an immersed tunnel for Option A, which resembles the potential length of a tunnel for I-26, were estimated to be approximately $4,850,000 per year for the 60-year lifespan. Maintenance costs for a bridge at the same location were estimated at approximately $537,000 per year for the same 60-year lifespan.

Bridge maintenance costs for the I-26 Connector Project have not yet been determined. It is anticipated maintenance costs will include roadway patching and resurfacing, bridge joint maintenance, deicing, lighting, and general upkeep due to damage from vehicle collisions.

Summary

Based upon the preliminary assumptions developed in this memorandum, constructing a tunnel for either I-240 or I-26 in Section B for the I-26 Connector Project would increase residential and business impacts, construction costs, and maintenance costs. Due to the proximity of the tunnel entrances to the north of the Haywood Road ramps for the I-240 tunnel scenario, the northern ramps at Haywood Road would likely be eliminated as well as the I-240 connections to Patton Avenue. Additionally, US-23 southbound traffic would lose the proposed connection to I-240 eastbound and I-240 westbound traffic would lose the proposed connection to US 23 northbound. For the proposed I-26 tunnel options, the I-240 flyover bridges would remain to allow for a connection to downtown Asheville; however, all proposed connections between US 23 and I 26 would be eliminated.

Due to the length of tunneling needed and the assumed tunnel diameters needed for either scenario, costs are assumed to range from $1,321,000,000 to $5,160,100,000 for construction cost only.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/199853/operating-costs-and-revenues-report.pdf

APPENDIX B

MEMORANDUM TO CITY OF ASHEVILLE FROM SAM SCHWARTZ CONSULTING, LLC

Sam Schwartz Consulting, LLC
322 Eighth Avenue, 5th Floor
New York, NY 10001
phone: (212) 598-9010
samschwartz.com

Sam Schwartz
Transportation Consultants

Memorandum

To:	Ken Putnam, City of Asheville
From:	Sam Schwartz Consulting, LLC
Date:	September 19, 2018
Re:	I-26 Connector Project, Final FEIS Technical Memorandum
STIP:	I-2513

Introduction

This technical memo is intended as an addendum to the North Carolina Department of Transportation (NCDOT) I-26 Connector Project's (STIP Number I-2513) Final Environmental Impact Statement (FEIS), as a means of officially recording the City's preferred vision for the I-26 project. That vision is for a project that separates the highway completely from the Captain Jeff Bowen Bridges and Patton Avenue, creating the conditions for a truly multi-modal, urban complete street on Patton Avenue that extends Downtown Asheville westward, filling a gap in the City's urban fabric. This includes:

- ➔ Creating a multi-modal corridor that is walkable, bikeable, and encourages the use of transit, and which has an adjacent greenway landscape;
- ➔ Creating property parcels that can be developed into downtown-type, mixed-use buildings that front onto Patton Avenue;
- ➔ Connecting the Hillcrest community to the adjacent neighborhoods and streets;
- ➔ Creating a new connection to the French Broad River from Patton Avenue and Burton Street;
- ➔ Supporting the creation of an integrated network of greenways (or at a minimum does not preclude one), and;
- ➔ Encouraging urban design that reflects these goals and enhances Asheville's unique downtown overall character.

This vision, which is detailed in the following sections, is based on decades of community planning and plans, culminating in a comprehensive vision for the future of Downtown Asheville, the Patton Avenue corridor, and the I-26 Connector Project.

The City of Asheville has been working with its consultant team, local elected officials, and community groups to develop its own vision for the I-26 Connector Project. This process has included close collaboration with NCDOT and their consultant. Since the winter of 2017, the City and NCDOT have had several correspondences and meetings to help the City understand the technical analysis and options being considered by the State for this project. This has included videoconference and in-person meetings in October 2017 and April 2018. This dialogue has helped the City to conduct its own analysis and develop its own preferred vision. It was also during

the course of these meetings that NCDOT asked the City to produce this memo as an addendum to the FEIS.

Previous Visions

Asheville has a rich history of citizen engagement and planning for the future. The City's vision for the I-26 Connector Project draws on previous community plans and official City plans to create a holistic vision for an urban corridor that extends the dense, mixed-use development patterns of downtown to the west.

WECAN Citizens Master Plan, 2000

The WECAN Citizens Master Plan, developed in 2000 and adopted by City Council on January 22, 2008, lays out clear vision that emphasizes quality urban design and an interconnected neighborhood. The plan includes new roadway connections from Patton Avenue to WECAN and to the Hillcrest community. The plan shows mixed-use development along Patton Avenue, and does not include an interchange with I-240 between Clingman Avenue and the Captain Jeff Bowen Bridges.

Figure 1: Excerpt from the WECAN Citizens Master Plan showing Patton Avenue as an urban boulevard

Michael McDonough, 2006

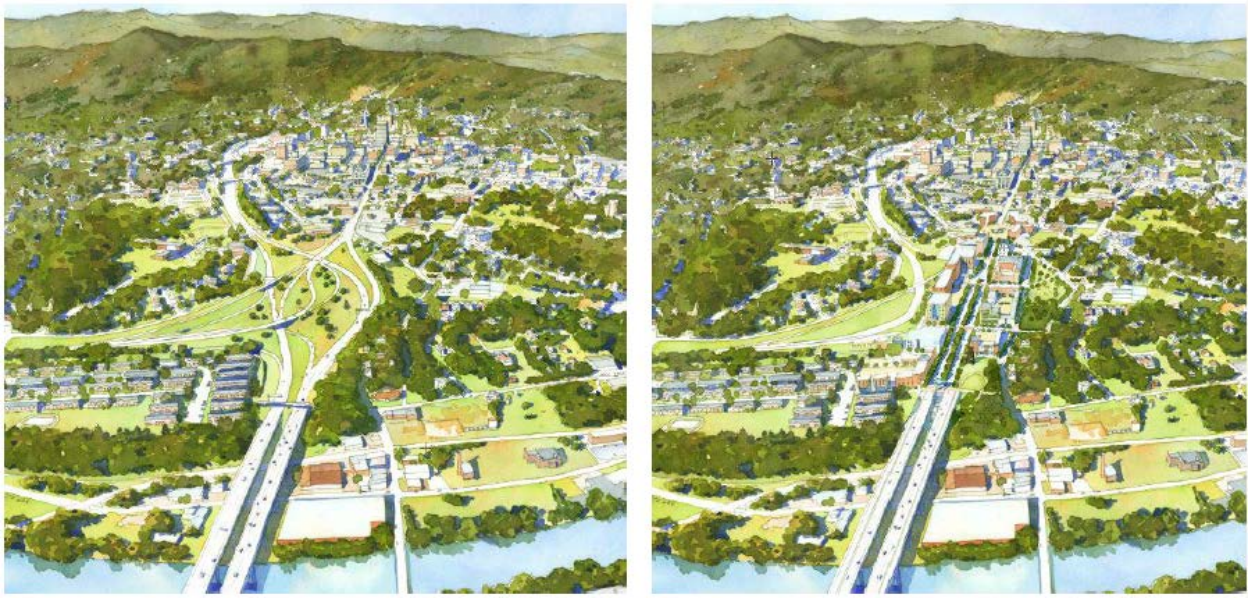
Michael McDonough, an architect with a practice based in Asheville, created a plan for the I-26 Connector Project that has new roadways that connect WECAN and Hillcrest to Patton Avenue, creates development lots along Patton Avenue, and has a ramp connection from Patton Avenue to I-240 between Clingman Avenue and Hillcrest.

Figure 2: The Michael McDonough vision for the I-26 Connector Project incorporates many of the elements from the WECAN Citizens Master Plan

Asheville Design Center, 2008

The Asheville Design Center created a community vision for the I-26 Connector Project that emphasizes Patton Avenue as a mixed-used, urban boulevard that support and connects local housing and retail. Similar to the previous plans, it also includes new roadway connections from Patton Avenue to Hillcrest and WECAN.

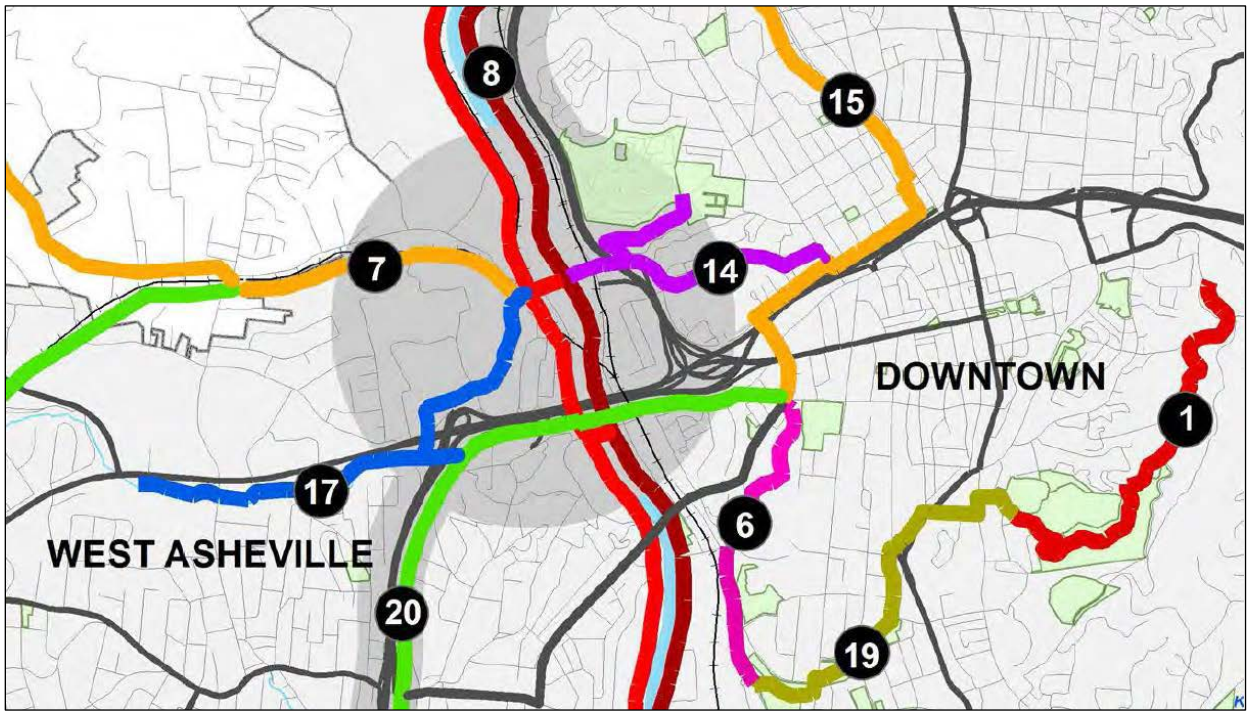
Figure 3: The Asheville Design Center compared the existing Patton Avenue with a vision for a mixed-use corridor that fills a large gap in the area's urban fabric.



Greenways Master Plan, 2013

The City's official Greenway Master Plan lays out a network plan for a series of interconnected, mostly off-street multi-use paths on both sides of and across the French Broad River. This includes a greenway along Patton Avenue, crossing the river on the Captain Jeff Bowen Bridges, and connecting West Asheville to Downtown. The plan specifically refers to the I-26 Connector Project by saying that the project should "enhance connectivity and not create barriers to the pedestrian[s] and cyclist[s]" or between the community and the river.

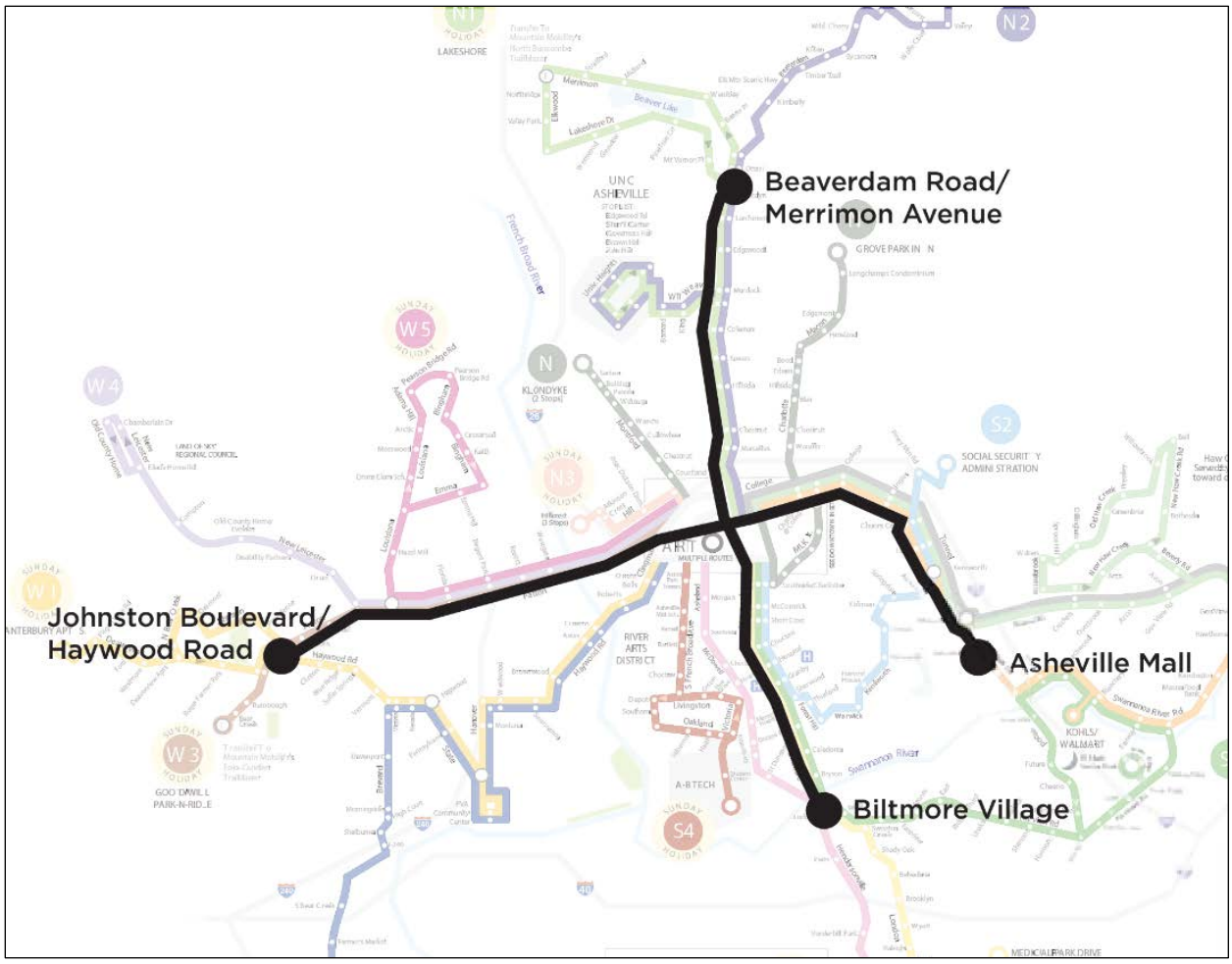
Figure 4: An excerpt from the City's Greenways Master Plan



Asheville in Motion, 2016

Asheville in Motion is a consolidation of a variety of modal plans into a cohesive strategy for Asheville and has a method for prioritizing projects and transportation investments. The plan includes the development of a core system of premium bus rapid transit on Patton Avenue for east-west travel and a network of connected bicycle facilities (see Greenways Master Plan).

Figure 5: Figure of the core system of premium bus rapid transit from Asheville in Motion



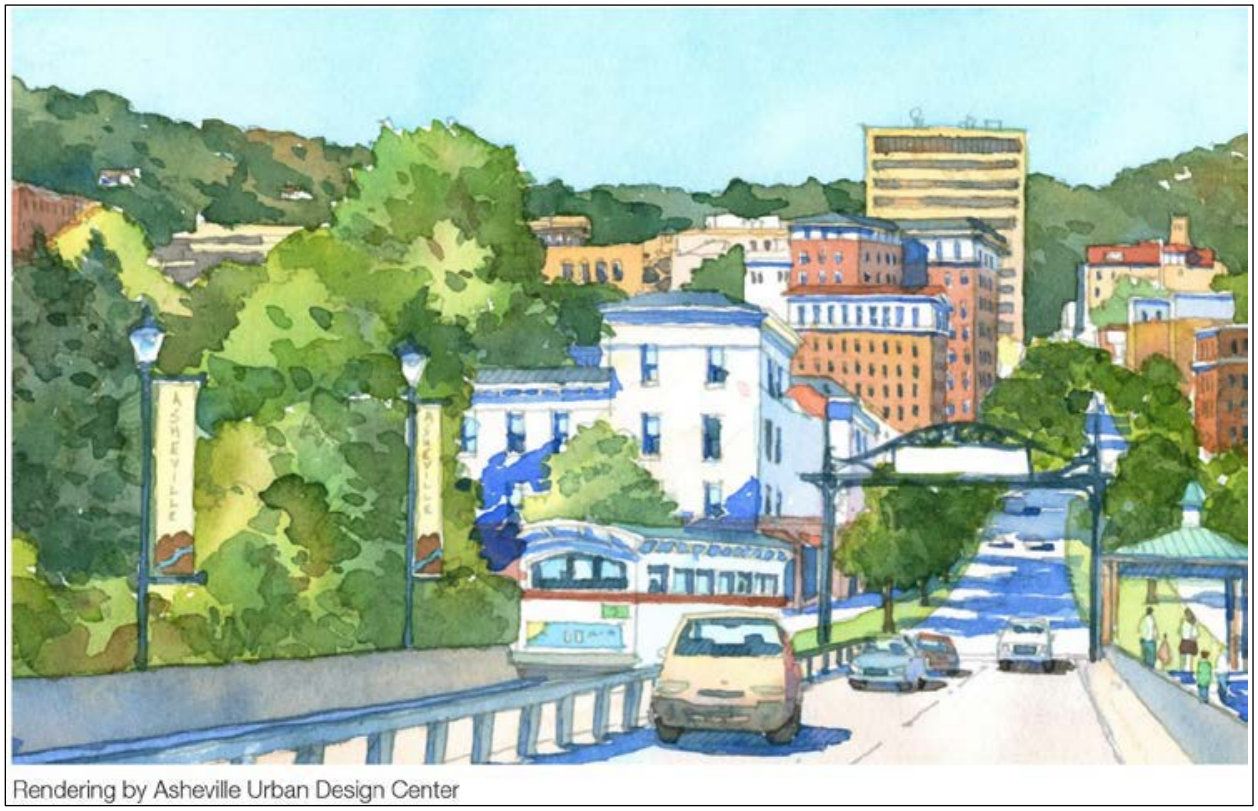
Asheville Comprehensive Plan, 2018

The now adopted Living Asheville Comprehensive Plan directly addresses Patton Avenue within the land use plan and with a stated vision for the corridor:

> "Return Patton Avenue to a local road knitting Downtown and West Asheville together with human-scale development, re-integrate Patton Avenue with traditionally underserved neighborhoods, improve access to the river and convert Patton Avenue to a multimodal boulevard with enhanced pedestrian, bicycle, transit and greenway connections."

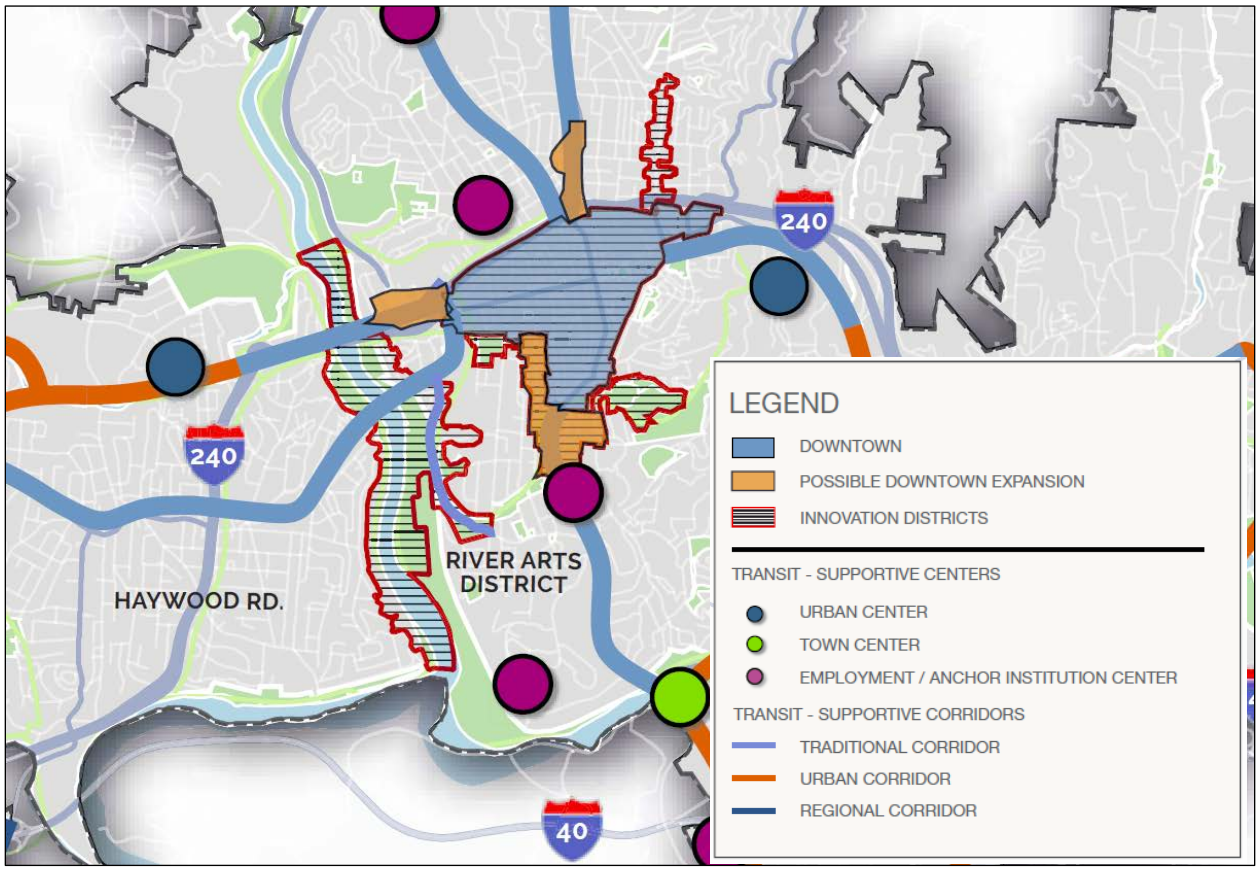
The desired land use patterns along Patton Avenue include "downtown," "urban center," and "urban corridor."

Figure 6: Vision for Patton Avenue, view looking east from the Captain Jeff Bowen Bridges



Rendering by Asheville Urban Design Center

Figure 7: Detail of the Preferred Growth Scenario from the Asheville Comprehensive Plan



City of Asheville I-26 Connector City Council Resolutions

City Council Resolution 15-232 asks NC DOT to reduce the impact of the project on neighborhoods and improve connectivity with more bicycle and pedestrian infrastructure as required by NC DOT's Complete Streets policy. The city also asks that NC DOT analyze alternatives in Section A and B in an effort to reduce congestion and maintain safety. City Council endorses Alternatives 4 and 4B for Section B, and Alternative F1 for Section C.

Resolution 16-163 further emphasizes the benefits of these endorsed Alternatives. Alternative 4B will make Patton Avenue a true urban boulevard and result in the least impact on the Burton Street community. In addition, City Council notes that more improvements are needed to make the project more neighborhood and context sensitive. The complete 15-232 and 16-163 resolutions are included as appendices to this memo.

Summary

The previous visions presented here come from a nearly 20-year time period and from community groups and City government. Despite their varied backgrounds, they have many common themes that build toward a shared vision for the Patton Avenue corridor as an extension of the downtown urban fabric westward. This vision is reflected in the City's goals for the I-26 Connector Project, which are explained in the next section.

City's Goals

The City's own vision for the Patton Avenue corridor and the I-26 Connector Project are informed by the previous visions and defined in seven goals, which were drawn from a variety of planning documents.

Goals

Separate

Fully separate the interstate traffic from Patton Avenue, allowing it to return to being an urban street.

Gateway

Patton Avenue and the Captain Jeff Bowen Bridges should serve as a gateway to the Downtown.

Mixed-Use

Set the stage for mixed-use development along Patton Avenue.

Complete Street

Transform Patton Avenue into a complete street that is safe for all road users.

Hillcrest

Improve conditions at Hillcrest to integrate this community into Downtown.

River Connection

Better connect Downtown to the river neighborhoods.

Greenways

Create a connected network of off-street multi-use paths to economic and recreational opportunities.

Goal Sources

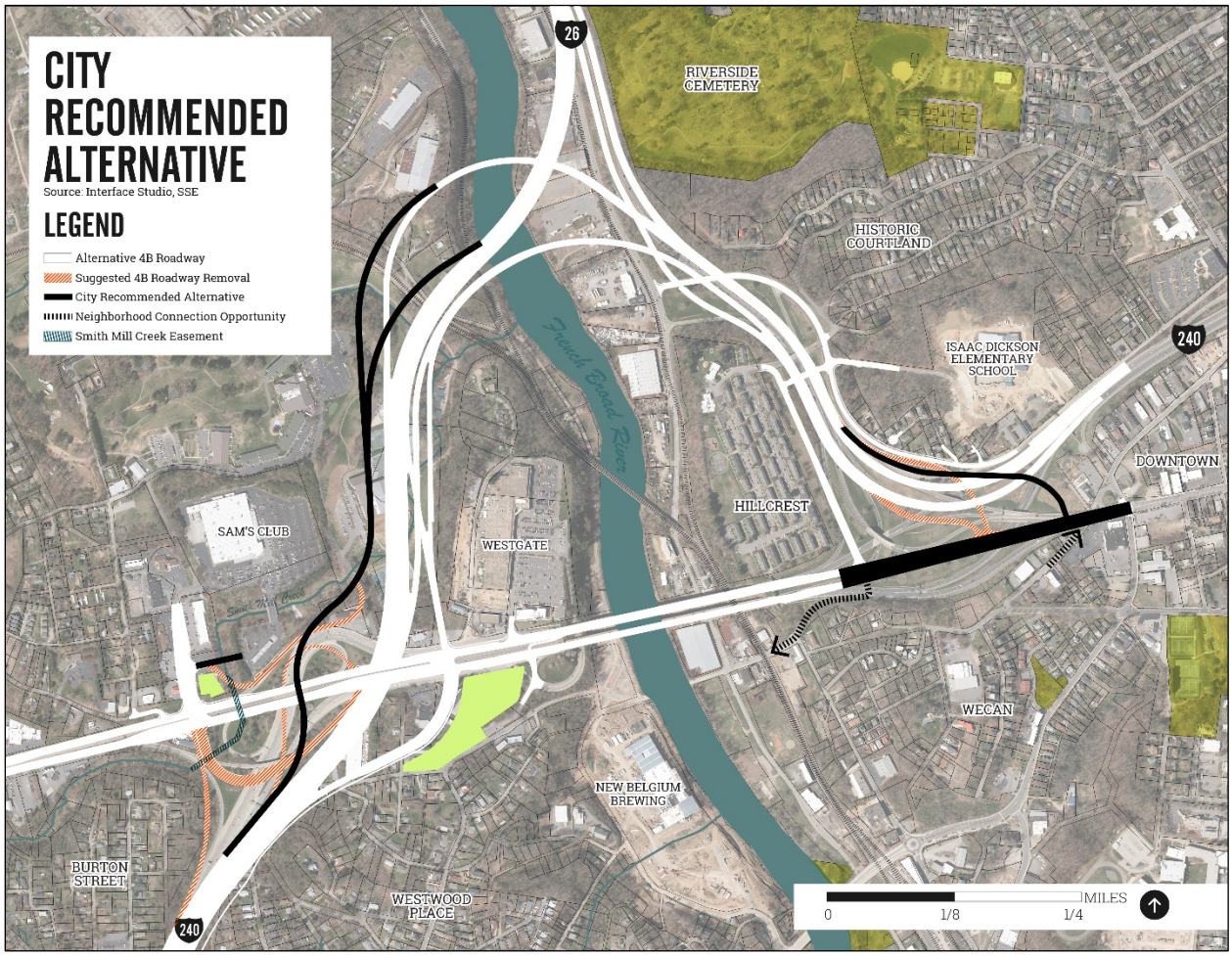
There are a variety of source documents for the City's goals, including the Draft Environmental Impact Statement (DIES) of the I-26 Connector Project.

Goal		Sources
1	Separate	DEIS Community Coordinating Committee
2	Gateway	Asheville Design Center (ADC) Asheville Draft Comprehensive Plan
3	Mixed-Use	
4	Complete Street	DEIS Community Coordinating Committee ADC Asheville in Motion (AIM) Asheville Draft Comprehensive Plan
5	Hillcrest	
6	River Connection	
7	Greenways	ADC Asheville in Motion (AIM) Asheville Draft Comprehensive Plan

Design Alternatives

Melding the previous visions, the City's goals, and new analysis, the City has developed its own preferred alternative for 4-B. One primary feature of this alternative is a redesigned Patton Avenue and interchange, on the east side of the river, that sets the stage for development and new roadway connections. On the west side of the river, the interchange is modified to increase the amount of land that could potentially be developed and creating the potential for improved connectivity for the Burton Street Neighborhood.

Figure 8: The City's preferred alternative for 4-B, with a design for Patton Avenue that opens up new options for development close to Downtown



West Side of French Broad River

A potential alternative concept for the interchange of I-26, I-240, and Patton Avenue on the west side of the French Broad River is shown in Figure 9. This concept replaces the ramps as currently proposed with a more traditional diamond interchange, which NCDOT's consultant AECOM confirmed could be feasible from a preliminary geometric analysis within the project requirements for horizontal and vertical alignments. Due to vertical clearance requirements over the Blue Ridge southern railway adjacent to Emma Road, the I-240 WB Flyover elevations will increase approximately 10'-12' higher than the current (NCDOT) plan proposes. In order to maximize the use of the 8 acres of potentially disposable land, the control of access boundary may need to be modified through the standard NCDOT control of access adjustment process.

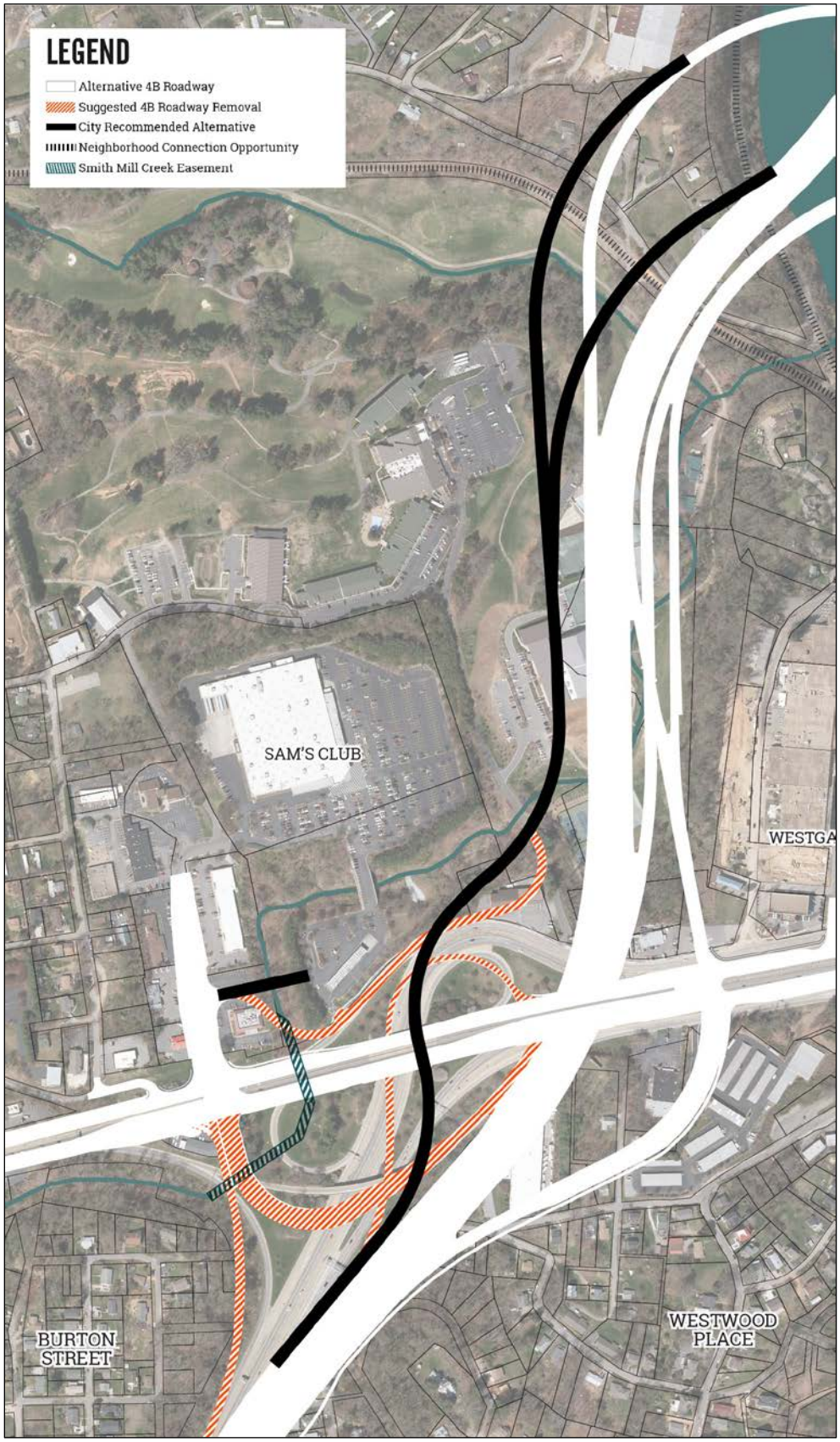
This alternative offers potential benefits including greater developable land and less highway ramp infrastructure around Patton Avenue, however it requires taking considerably more land in Emma, and the development potential of the parcels along Patton Avenue may be limited by the presence of the Smith Mill Creek. This alternative also has the possibility to provide traffic operations improvements, redirecting a currently-designed heavy left-turn movement from I-26 onto Patton Avenue into a proposed right-turn movement, increasing intersection capacity and throughput.

More generally, in line with the City's urban-style land use and complete street vision for Patton Avenue in this section of West Asheville, the corridor should be designed in a manner appropriate to a (future) walkable, mixed-use neighborhood: as a tree-lined boulevard with tight, comfortable intersections, minimal curb cuts, and a target speed, design speed, and speed limit of 30-35 mph. Likewise, in either scenario, the Smith Mill Creek should be daylighted to the extent possible.

City's Recommendation

Both alternatives have significant benefits and drawbacks that require more study. The City recommends that both alternatives be kept in consideration through the design process.

Figure 9: Conceptual drawing of SB I-26 ramps with Patton Avenue with alternative (black) ramps that could replace the original Alternative 4-b alignment (orange) and the remaining NCDOT proposed alignment (white)



Captain Jeff Bowen Bridges

The proposed configuration for the Captain Jeff Bowen Bridges includes four moving lanes on the westbound bridge (north span) and two moving lanes on the eastbound bridge (south span), allowing for a 12' wide multi-use path on this span. The City's alternative proposal narrows the moving lanes and removes a lane from the westbound span, allowing for a wide multi-use path on both spans. As the westbound roadway approaches the west side of the river, a third lane would open up for right turns into the Westgate development. Bike and pedestrian paths on both bridge spans would allow easier travel to Westgate, West Asheville, and downtown.

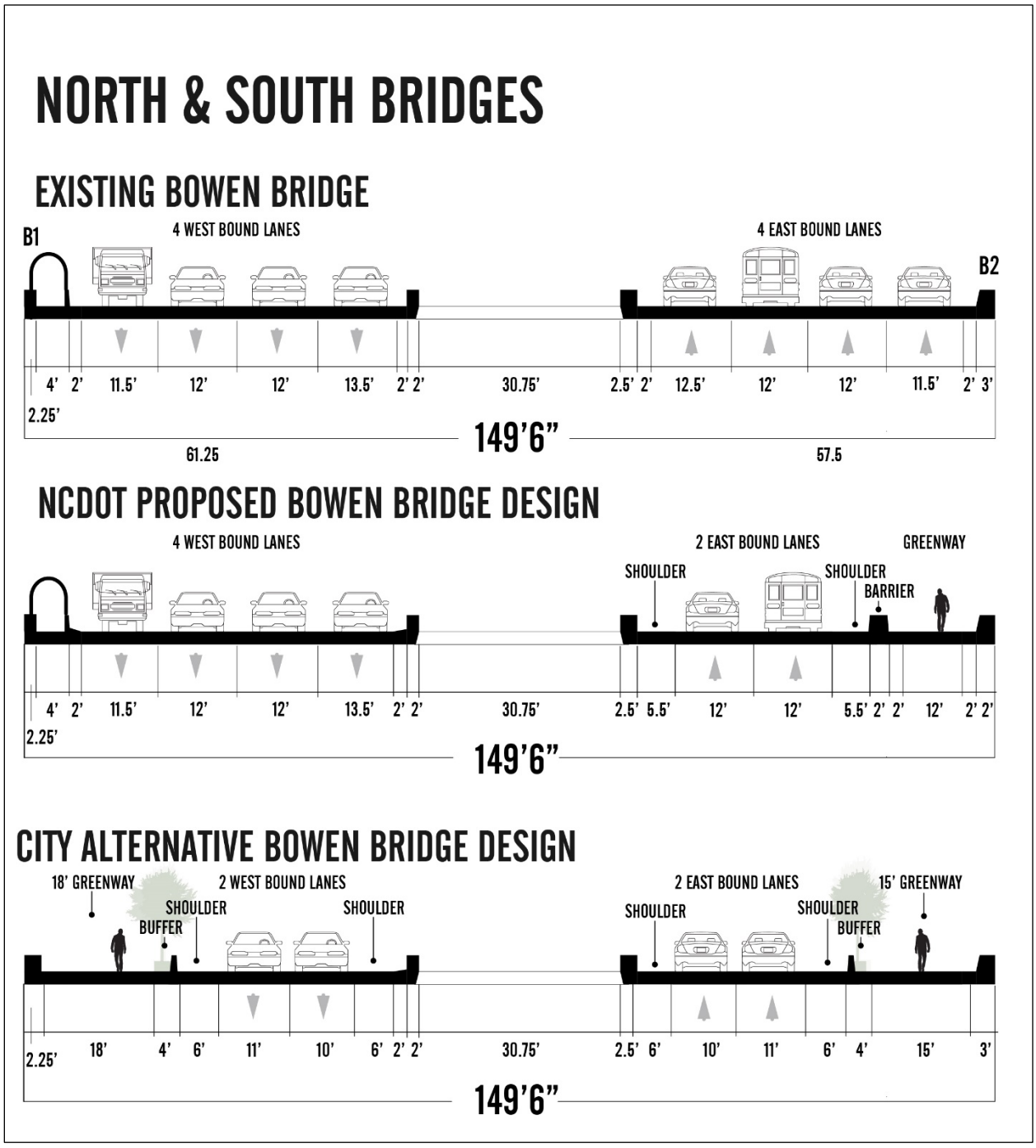
This alternative configuration has the key benefits of providing generous pedestrian and bicycle space on both bridges and calming traffic on this long stretch of roadway between traffic signals, while still being able to provide additional storage space to sufficiently accommodate queuing vehicles at the signalized intersections to the east and west of the Captain Jeff Bowen Bridges. AECOM has confirmed that the westbound bridge could theoretically be narrowed to 2 or 3 lanes but would likely have to widen to 4 lanes as it approaches the interchange with I-26/I-240. Further, while the state has committed to the multi-use path on the eastbound bridge, any such improvement on the westbound bridge may have to paid for by the City.

The City's preferred alternative would allocate as much space as feasible to a multi-use path, while still allowing for effective progression of vehicle traffic across the bridges. The City would prefer the bridges operate at a lower speed limit (e.g. 25 or 30 mph) with narrow travel lanes encouraging lower travel speeds as people enter and exit the Patton Avenue downtown extension. The City understands that significant further design work is necessary to finalize the specific design of the bridges.

City's Recommendation

As described above, the City recommends "right-sizing" the vehicular lanes on the bridges and creating pedestrian and bicycle connections over both spans of the bridge, per Figure 10.

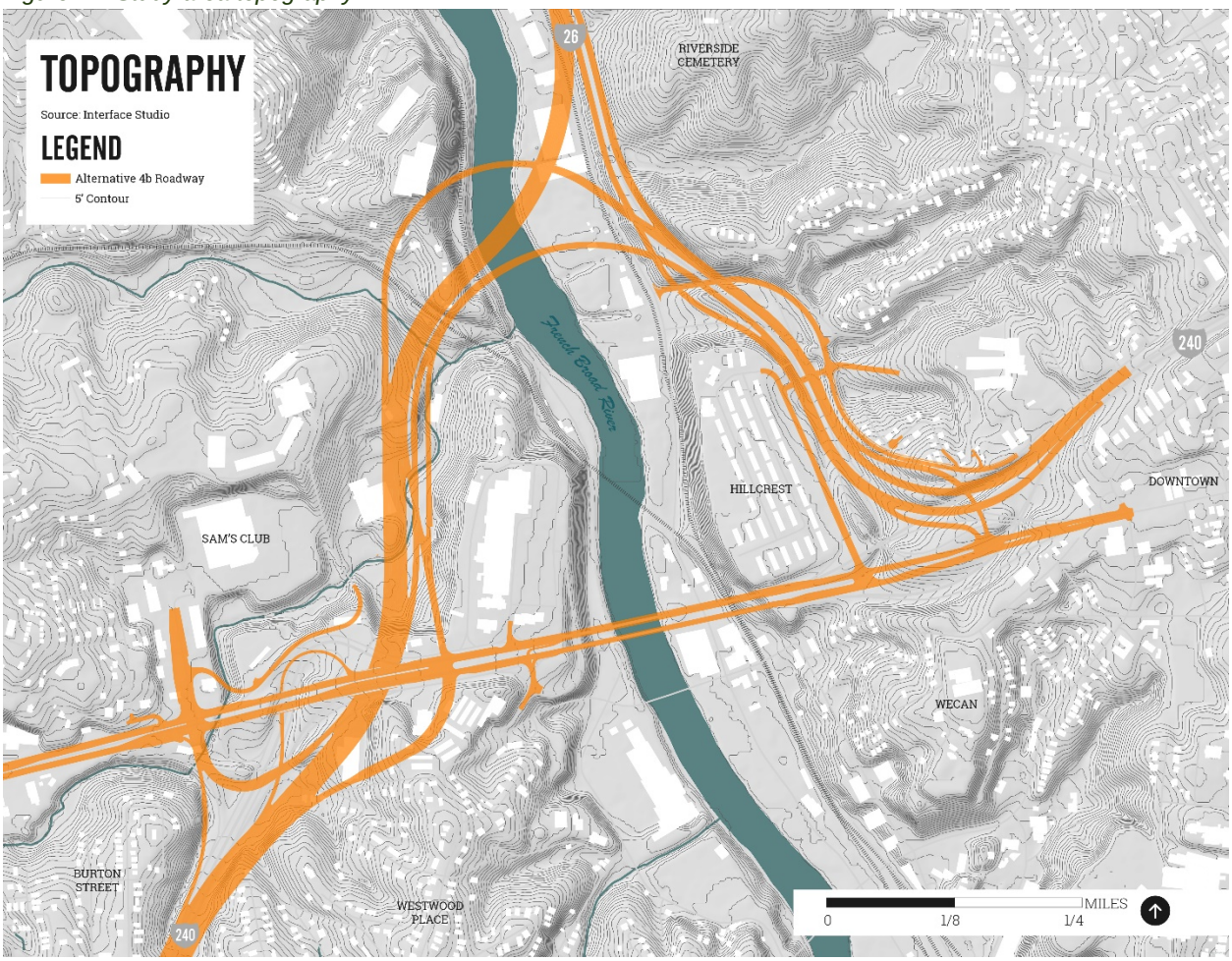
Figure 10: Existing, NCDOT proposed, and City alternative design for the Captain Jeff Bowen Bridges



East Side of the French Broad River

The existing interchange to the east of the French Broad River possesses widely varying topography, as shown in Figure 11 below.

Figure 11: Study area topography

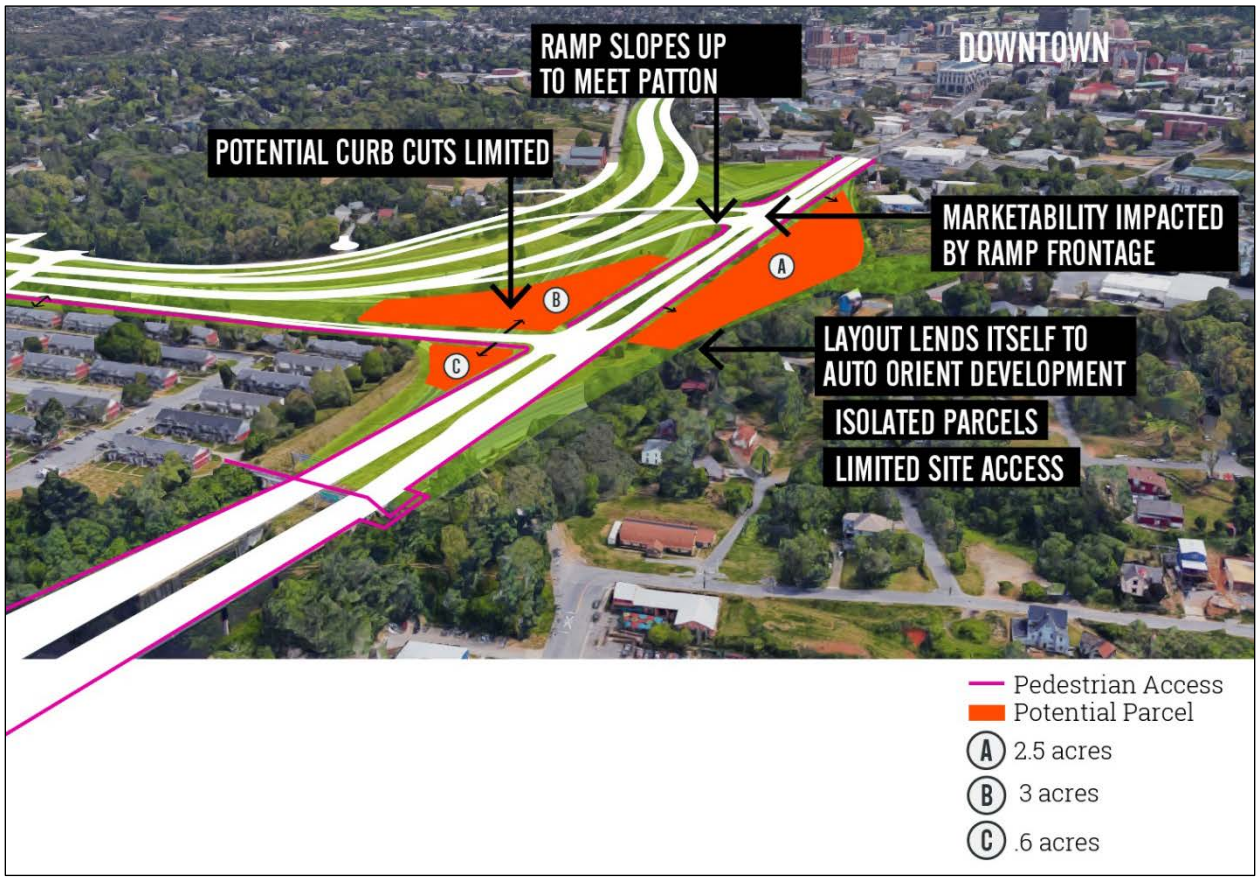


Under the current proposed design, the existing topography in this area would need to be significantly altered to site the new roadways and ramps. The City recognizes that significant additional regrading would also be necessary to make the adjoining land developable.

Highway Interchange Alternatives

As currently designed (see Figure 12 below), the proposed on and off ramp onto Patton Avenue on the east side of the French Broad River inhibits the City's vision in a number of ways. If the ramps were to be built as proposed, the number of curb cuts would create a discontinuous street wall, the elevations of the ramps would impact developability, the fragmentation of developable land would lend itself to auto-oriented land uses, and the overall land value would be impacted by this type of highway-related infrastructure.

Figure 12: East side development potential



Given these reasons, three alternatives were explored for this segment of Patton Avenue and its associated highway interchanges:

1. **Option 1: No interchange with I-240**
   This alternative removes the on- and off-ramps that currently intersect with the proposed Patton Ave. This is the most preferred alternative from the City's perspective, but the potential impacts to the adjacent interchanges and roadways would need to be studied further.
2. **Option 2: Tie the I-240 ramps in at the northern end of the Hillcrest Connector**
   The team explored integrating the ramps into the proposed street along Hillcrest. This would impact the existing low-income housing development with more vehicular traffic in line with that of a typical urban street, but would also help create a more walkable connection to and from Hillcrest, particularly along Patton Avenue, better integrating the community into Downtown. Therefore, from a land use planning perspective, the increased traffic along this proposed street could be justified. However, further analysis by NCDOT's consultants concluded that this alternative may impact the Riverside Cemetery with a new retaining wall.
3. **Option 3: Remove I-240 off-ramp and relocate on-ramp east**
   This alternative is a compromise between Options 1 and 2. The off-ramp from I-240 to Patton Avenue is removed due to the other existing options available to WB I-240 traffic wishing to access downtown Asheville, while the on-ramp is relocated as close as possible

to the Patton Avenue intersection with Clingman Avenue. The on-ramp could be accessed via both westbound right turns and eastbound left turns, although restricting access to right turns only (to reduce pedestrian crossing distance and optimize signal timing) would also be a possibility given the availability of the I-240 on-ramp located just across the river. This alternative would significantly increase the amount of contiguous developable land and limit the amount of ramp roadway a pedestrian would have to cross when walking from Downtown.

Because Options 1 and 2 have some significant challenges, Option 3 may be a strong alternative that achieves many of the City's stated goals. With this configuration, control of access issues are minimized because the highway ramps are moved to the extremes of the segment, allowing for a potential 13.8 acres of developable land.

The removal of the off-ramp would increase traffic volumes at other interchanges along I-240, and possibly the I-26/Patton Avenue interchange west of the river. However, these intersections with expressway traffic exiting onto local surface streets are already timed to prioritize the traffic exiting the expressway, with the proposed on-ramp providing a needed alternative for traffic on local surface streets traveling to the north and east via the I-240 expressway.

Based on the traffic assignments and origin-destination models used by AECOM in developing expected traffic volumes, nearly all (95%+) traffic destined to the subject ramp pair in the currently proposed condition are traveling to and from the east. This supports the possibility of restricting left-turn movements onto the highway at this on-ramp. Traffic entering the expressways from the west would likely enter the interstate system via the interchange on the west side of the French Broad River.

City's Recommendation

The City recommends Option 3, omitting the redundant I-240 off-ramp while relocating the on-ramp as far to the east as possible to maximize developable land. The desirability of allowing eastbound left turns onto the on-ramp, vs. restricting access to right-turns, should be studied further to weigh the relative safety, land development, and traffic capacity benefits.

Patton Avenue Alignment Alternative

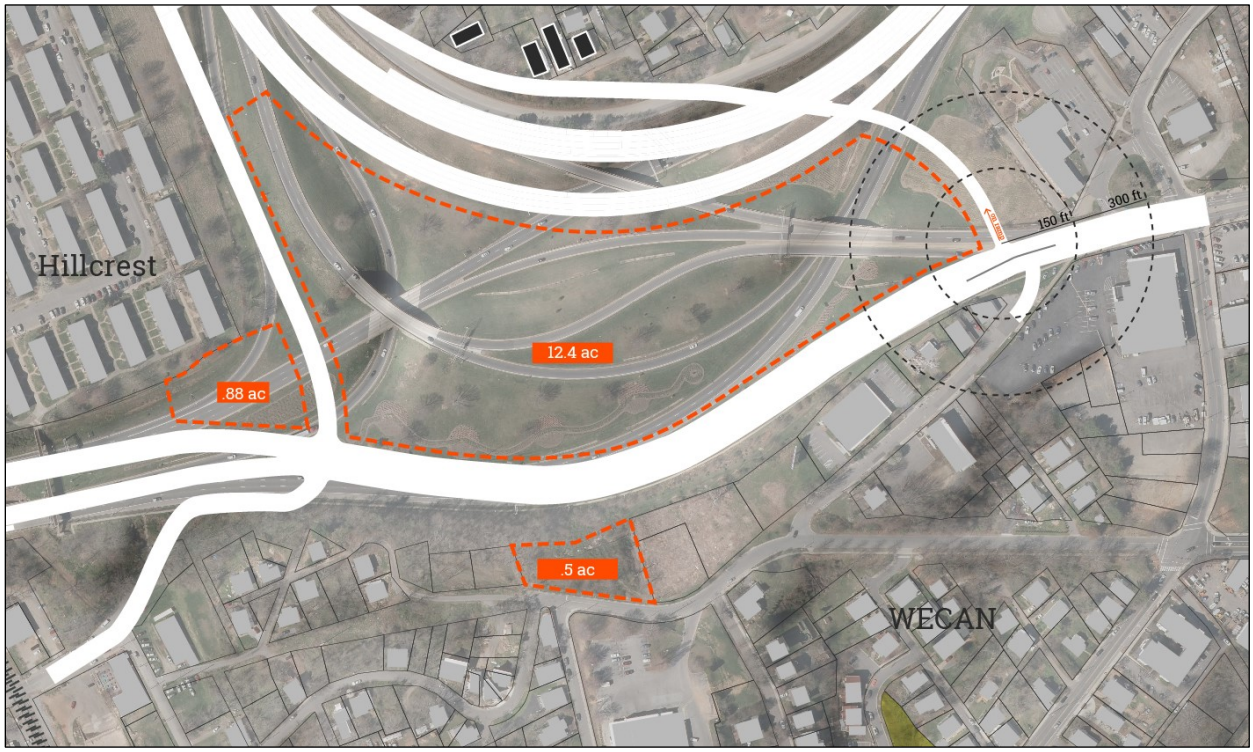
As currently drawn, the proposed Patton Ave in Alternative 4-B is aligned as a straight connection from the Jeff Bowen bridge to the Clingman Ave intersection. Alternatively, "bending" Patton Avenue in a southward arc along today's eastbound Patton Avenue alignment (see Figure 13) would result in the largest contiguous developable parcel possible. This would attract larger, higher quality development proposals, thus maximizing the economic development potential of the site. It also has the added benefit of not being dependent on NCDOT's proposed design of Patton Avenue, which, as currently proposed as part of the I-26 Connector project, may end up as a 132-foot right-of-way with a highway-like aesthetic.

In general, all three options for the I-240 ramps described above could be accomplished through either the straight or curved Patton Avenue alignment. As can be seen in Figure 13, Option 3 may be more feasible with the extra space afforded by the curved Patton Avenue alternative.

City's Recommendation

Per discussions with NCDOT, the City recommends a straight alignment for Patton Avenue.

Figure 13: A conceptual drawing of a new alignment for Patton Avenue, with an on-ramp on the eastern end of the segment



Patton Avenue Design

The design of Patton Avenue is a critical piece of the overall 4-B plan, determining if this restored surface street will foster an urban extension of downtown as desired. The City has therefore recommended a design for Patton Avenue that maximizes adjacent development opportunities, connects to the Hillcrest community, and minimizes the overall cross-section of the roadway. By altering the location of the highway ramps, the amount of land disposed of can be increased and the impedance of control of access can be reduced, increasing the overall urban character of the corridor.

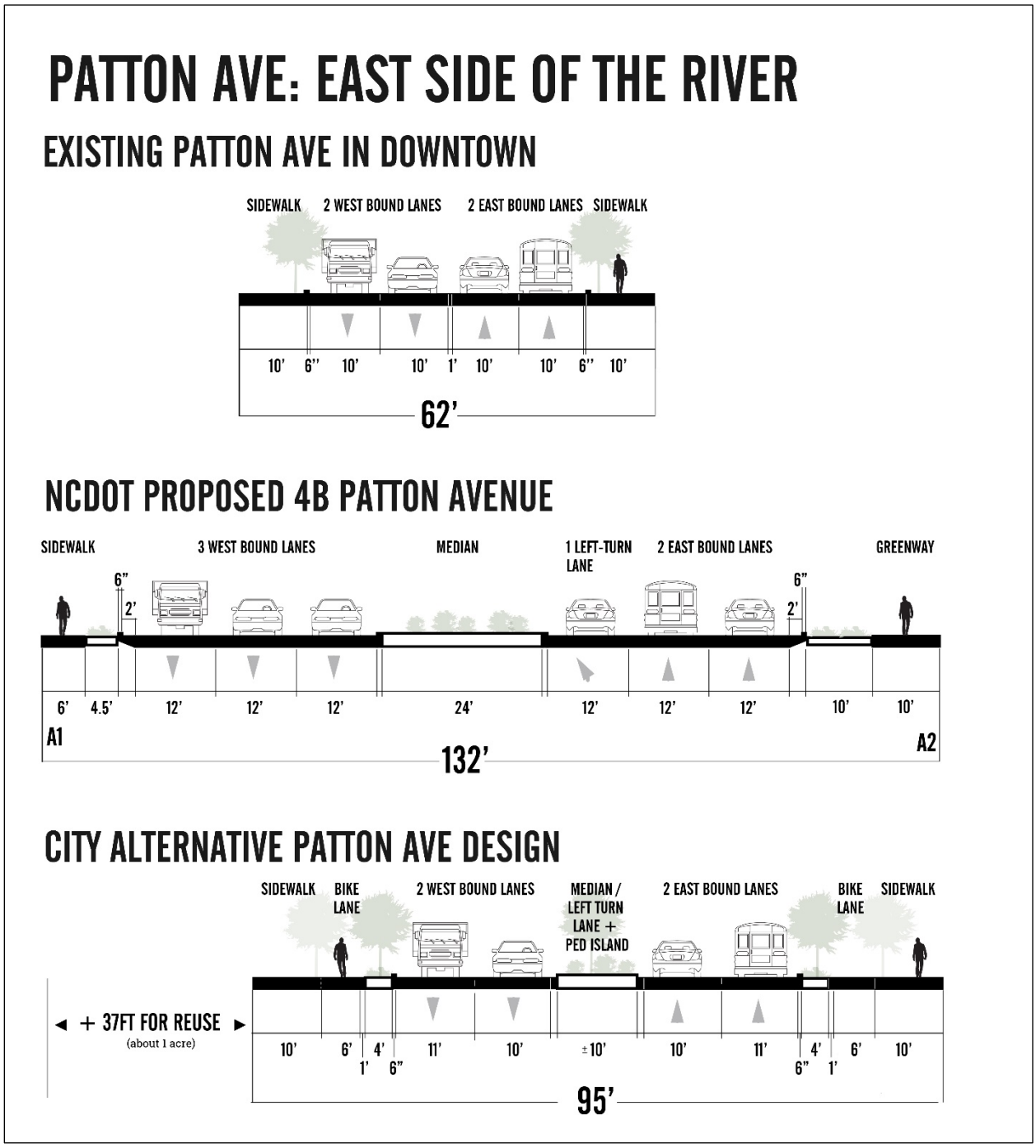
The alternative design calls for two primary moving lanes in each direction, widening to include turning lanes at intersections (where appropriate). This design also reduces the width of the planted median. The overall impact is a cross section that is 97', as opposed to the proposed 132'. This significantly reduces the distance for pedestrians to cross the roadway, and, depending on urban design and curb cuts, can change the perception of the roadway from a suburban arterial to a downtown street. As noted in the "West Side of the French Broad River" section, Patton Avenue in this section should also be designed as a tree-lined boulevard with tight, comfortable intersections, minimal curb cuts, and a target speed, design speed, and speed limit of 30-35 mph.

This design aligns more closely with the street's current configuration east of Clingman Avenue. In order to accommodate the anticipated traffic volumes, the roadway will widen at ramps, intersections, and on the west side of the river as it approaches the interchange with I-26/I-240. Additionally, the City's recommendation would see the proposed speed limit of Patton Avenue reduced to 30 mph, reflecting the City's desire for Patton Avenue to operate as an urban collector roadway as opposed to a suburban arterial.

City's Recommendation

As described above, the City recommends that Patton Avenue be designed as a walkable, tree-lined urban boulevard with a greenway along the southern side, while minimizing the street's footprint to the extent possible, per Figure 12: Existing, NCDOT proposed, and City alternative design for Patton Avenue east of the French Broad River.

Figure 14: Existing, NCDOT proposed, and City alternative design for Patton Avenue east of the French Broad River



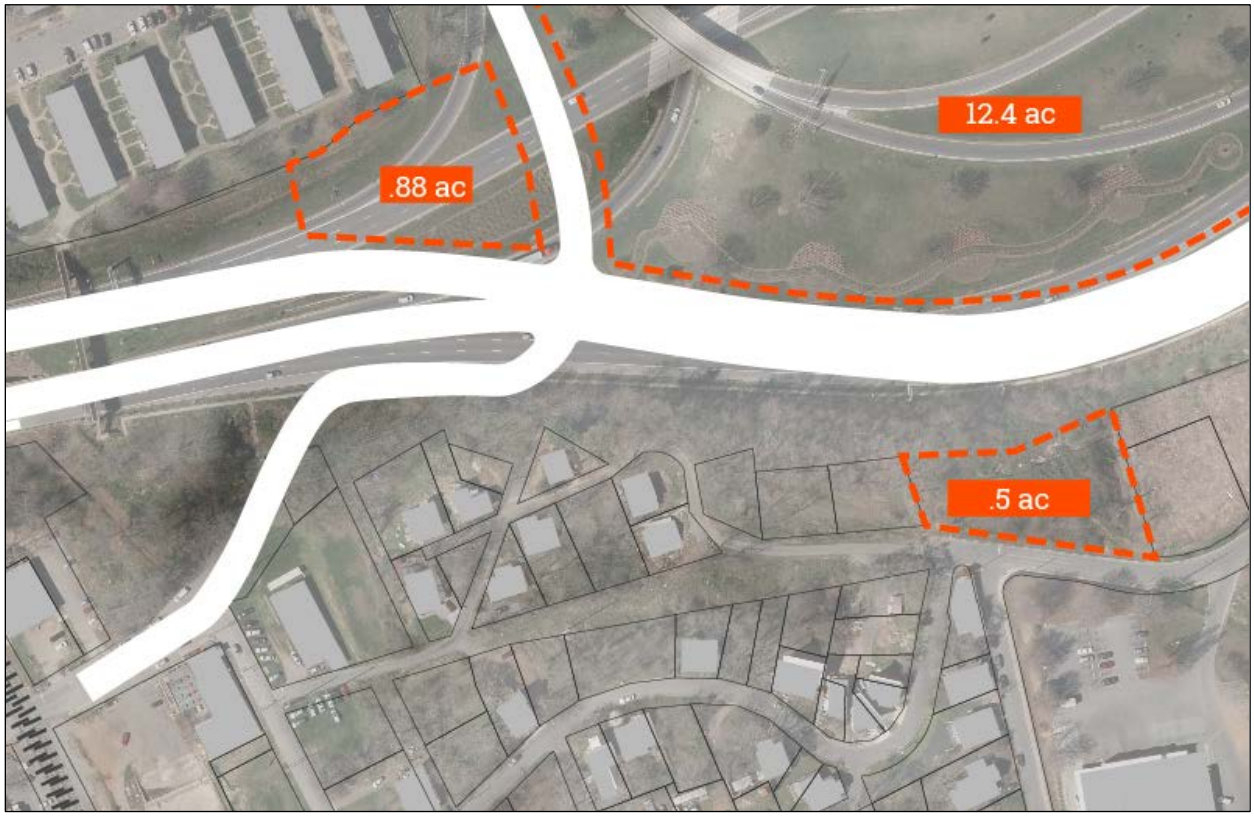
WECAN Connection

A connection from Patton Avenue down to WECAN and the river could be accomplished via a new roadway that extends south from the new Hillcrest Connector to West Haywood Street and the Craven Street Bridge (see Figure 15). This would help achieve the goal of connecting the River District with Downtown, relieving pressure on the traffic network and providing more convenient connections for those walking and biking through a more interconnected street grid.

City's Recommendation

The City recommends studying the possibility for this connection to WECAN and the Craven Street Bridge in more depth through the design process.

Figure 15: An example of a potential alignment of the WECAN Connector and adjacent development plots



Greenways

The I-26 Connector Project is critical to the creation of a network of interconnected, off-street multi-use paths in Asheville because key links within the network are affected by the project. At a minimum, this project should allow space for the greenways and not preclude the planned network. This principally includes the Patton Avenue greenway on the eastbound span of the Captain Jeff Bowen Bridges and the Haywood Road greenway connection to Patton Avenue, which have already been included in NCDOT's plans. Other planned greenways that require close coordination with the I-26 Connector Project include the Smith Mill Creek and Emma Road greenways.

As currently planned, the culvert system near the Montford Complex will not be altered, limiting any greenway incorporation/pedestrian barrel within that system. The desire to leave the culvert

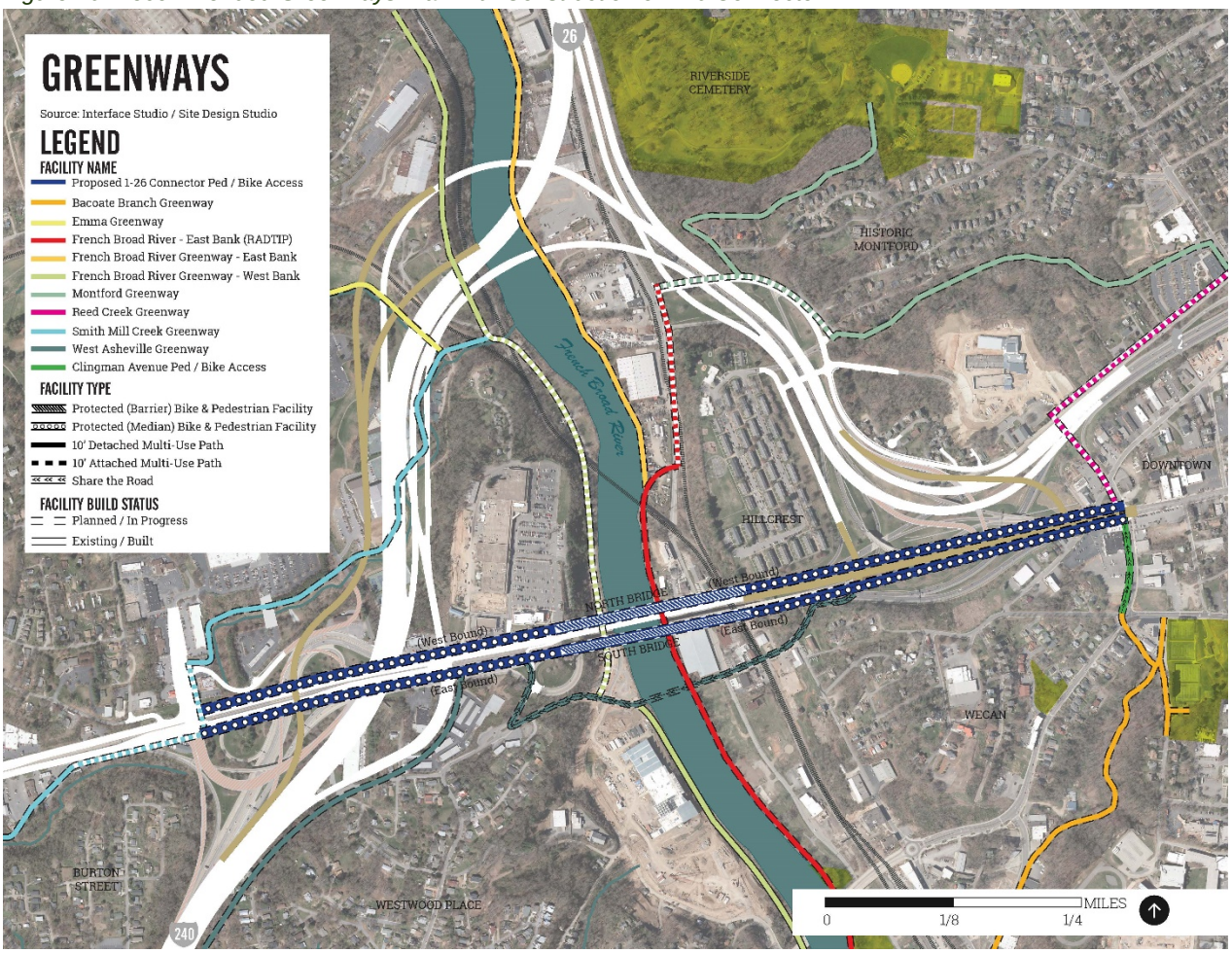
system as-is stems from the discovery that the existing culvert system serves as a roosting location for the federally-endangered gray bat. An inspection of the culvert by NCDOT in February also indicated the culvert is structurally sound and will not need to be replaced as part of this project.

The Burton Street neighborhood has requested, through their in-progress neighborhood plan, a connection to the Smith Mill Creek Greenway as part of this project.

City's Recommendation

The City recommends implementation of the greenway plan as shown in Figure 14: Recommended Greenways Plan with Construction of I-26 Connector, which has been developed to complement and not conflict with the I-26 Connector project. The I-26 Connector should build out those portions of the greenways can be economically designed and constructed as part of the interstate project; at minimum, it should not preclude future construction of these planned greenways.

Figure 16: Recommended Greenways Plan with Construction of I-26 Connector



Next Steps

This memo is intended to be included in the I-26 Connector Project FEIS as the official record of the City and State's collaboration and agreement to improve the 4-B plan as well as the City's preferences not reflected in the FEIS. This will help to guide the scope and/or Alternative Technical Concept (ATC) requests that could be included as part of the design-build project RFP (Request for Proposals).

Appendices

1. **Detailed Greenways Recommendations**
2. **City Council Resolution # 15-232**
3. **City Council Resolution # 16-163**
4. **Figg and Lochner I-26 Connector Final Report**

GREENWAYS

Source: Interface Studio / Site Design Studio

LEGEND

FACILITY NAME

- Proposed 1-26 Connector Ped / Bike Access
- Bacoate Branch Greenway
- Emma Greenway
- French Broad River - East Bank (RADTIP)
- French Broad River Greenway - East Bank
- French Broad River Greenway - West Bank
- Montford Greenway
- Reed Creek Greenway
- Smith Mill Creek Greenway
- West Asheville Greenway
- Clingman Avenue Ped / Bike Access

FACILITY TYPE

- Protected (Barrier) Bike & Pedestrian Facility
- Protected (Median) Bike & Pedestrian Facility
- 10' Detached Multi-Use Path
- 10' Attached Multi-Use Path
- Share the Road

FACILITY BUILD STATUS

- Planned / In Progress
- Existing / Built

RIVERSIDE CEMETERY

HISTORIC MONTFORD

DOWNTOWN

HILLCREST

WECAN

NORTH BRIDGE

SOUTH BRIDGE

(West Bound)

(East Bound)

(West Bound)

(East Bound)

French Broad River

BURTON STREET

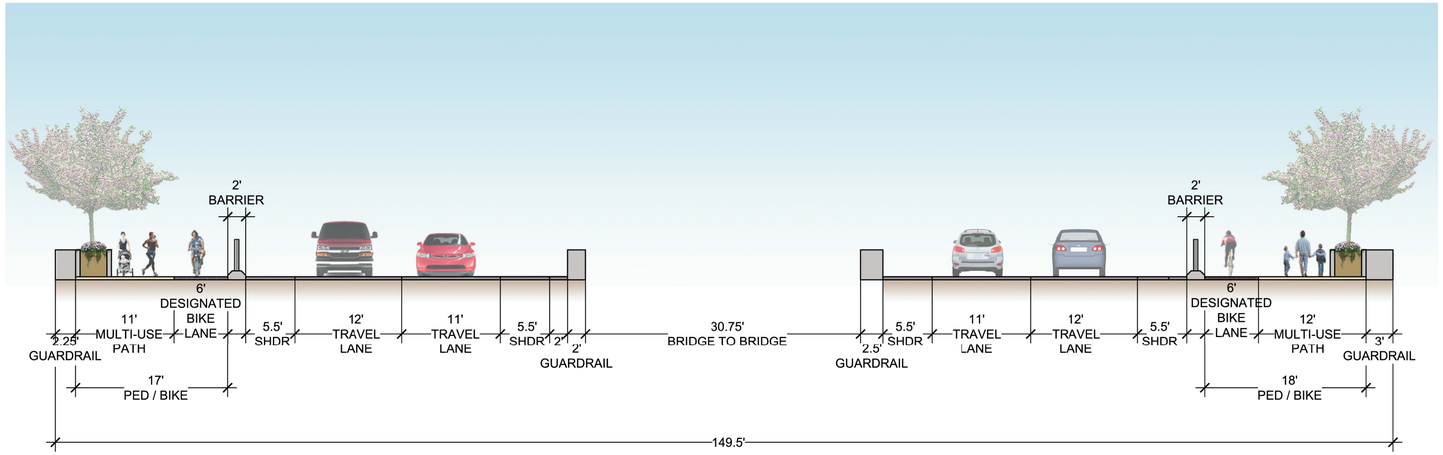
WESTWOOD PLACE

26

240

2

0 1/8 1/4 MILES



Section 1 - Protected Bike & Pedestrian Facility (Bowen Bridge)

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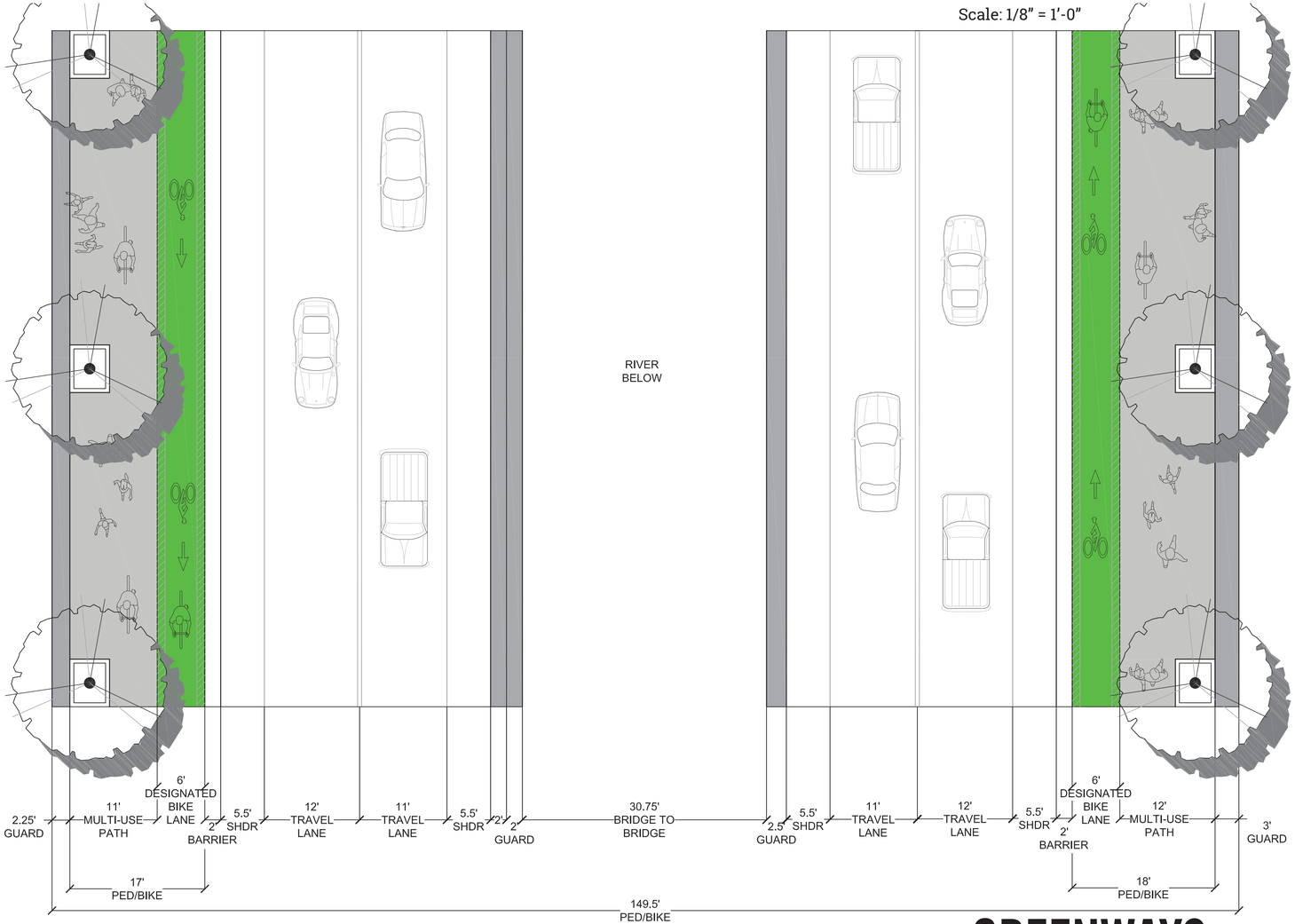
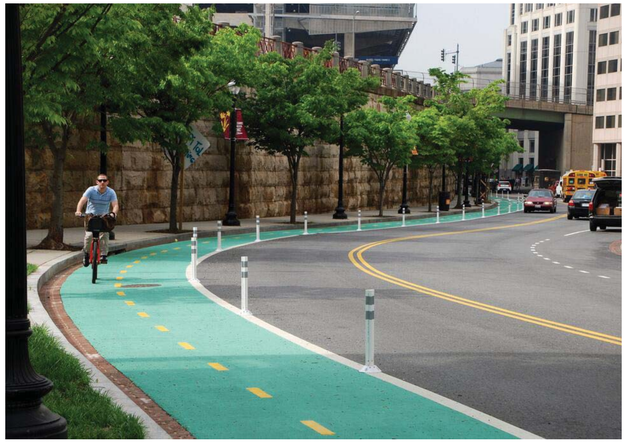
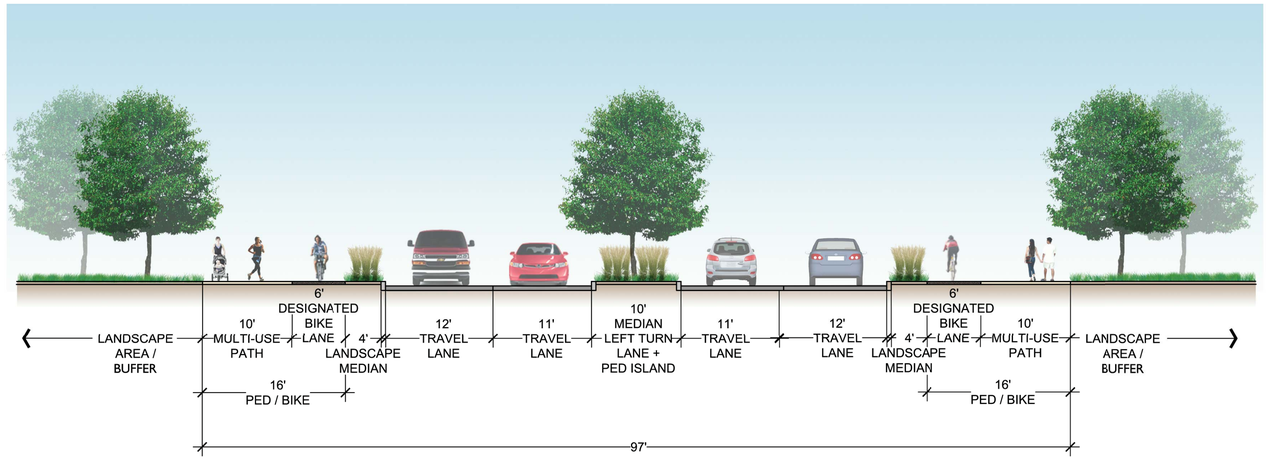




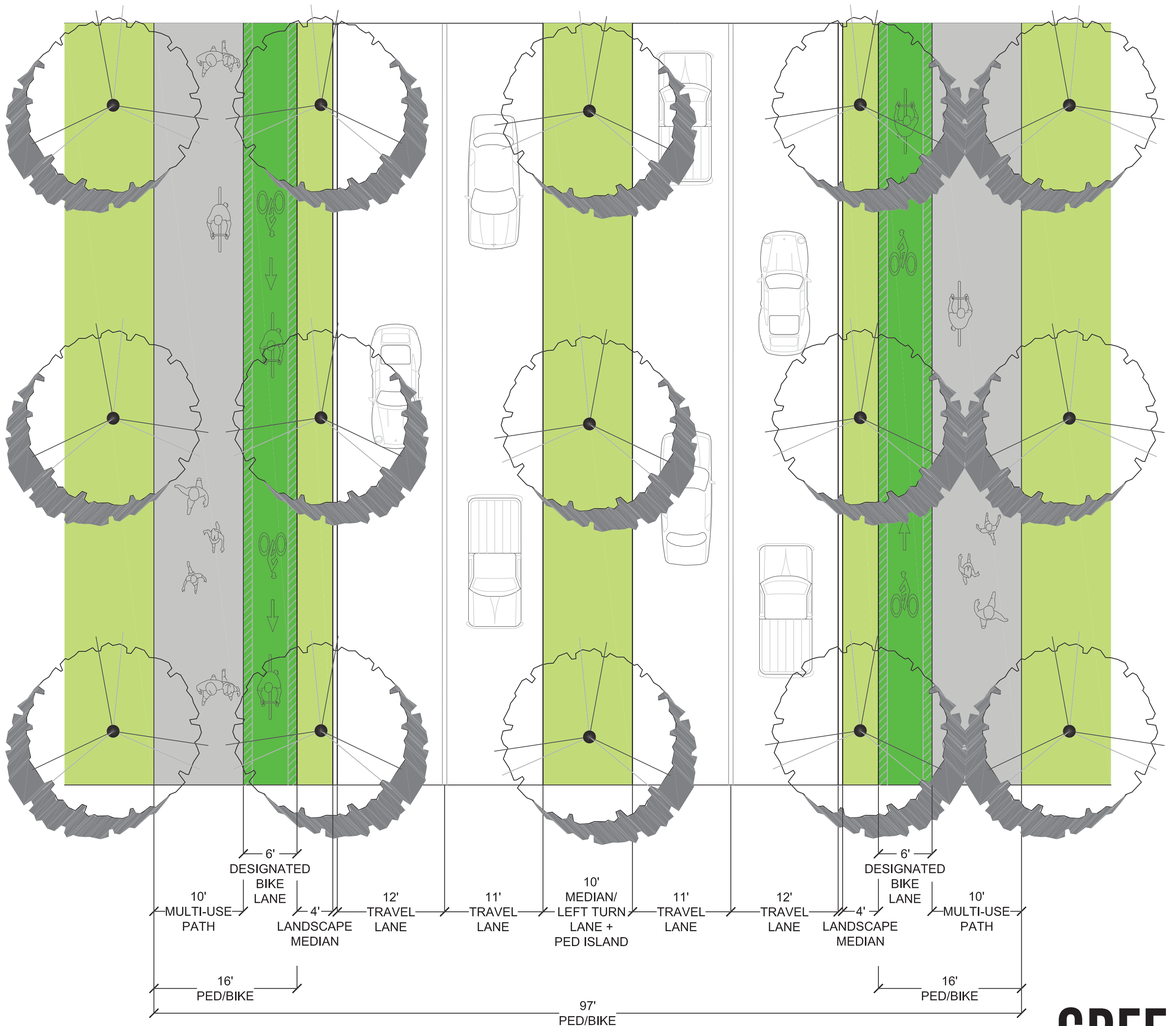
GREENWAYS

Typical Sections



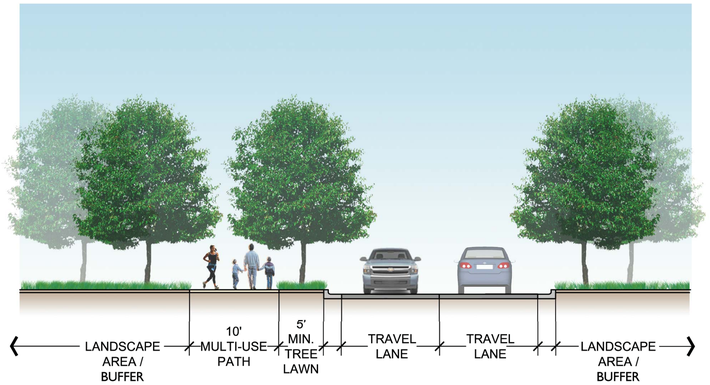
Section 2 - Protected Bike & Pedestrian Facility (Patton Avenue)

Scale: 1/8" = 1'-0"



GREENWAYS

Typical Sections



Section 3 - 10’ Detached Multi-Use Path

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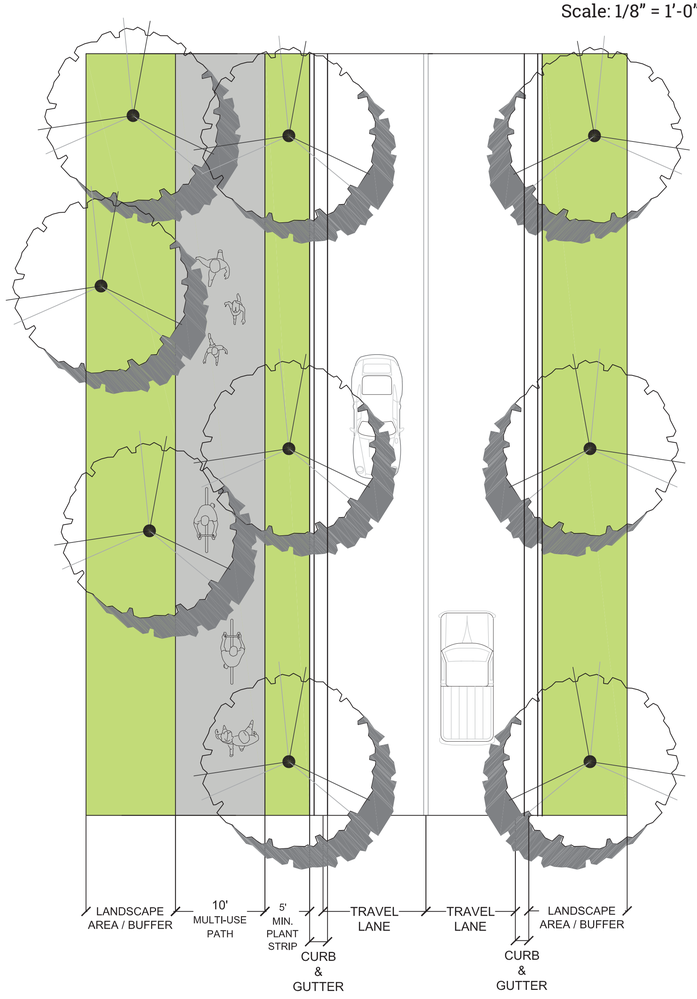
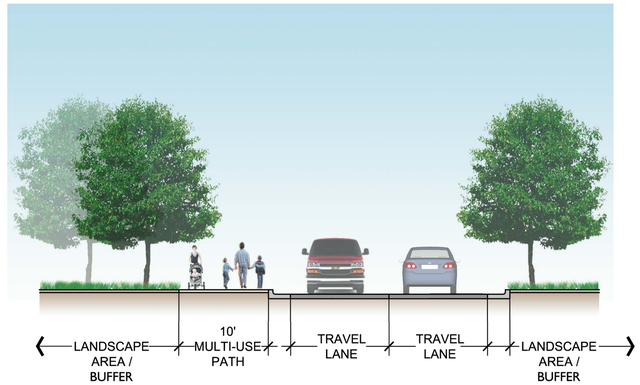
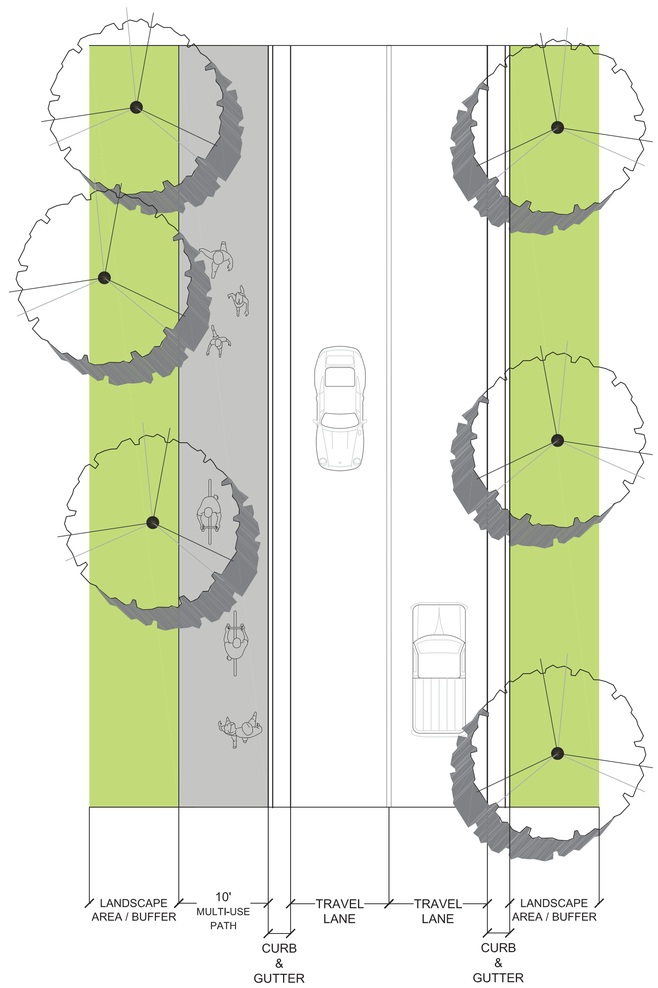




Section 4 - 10’ Attached Multi-Use Path

Scale: 1/8” = 1’-0”



GREENWAYS

Typical Sections

RESOLUTION NO. 15-232

RESOLUTION REGARDING THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION I-26 CONNECTOR TIP PROJECT-2513

WHEREAS, the North Carolina Department of Transportation ("NC DOT") has issued a Draft Environmental Impact Statement ("DEIS") for the I-26 Connector Project, TIP Project I-2513 ("the project"); and

WHEREAS, NCDOT is seeking public input on the DEIS and held a public information session and hearing on November 16, 2015; and

WHEREAS, the City of Asheville is providing comments to NCDOT on the DEIS through a letter and this resolution; and

WHEREAS, the I-26 and I-240 corridors are critical to local and regional residents, visitors, interstate travelers, and regional commerce; and

WHEREAS, traffic congestion and safety are continuing challenges along I-240 and I-26 through Asheville; and

WHEREAS, improvements to the I-240 and I-26 corridors should be minimally impactful to the local community and should enhance the quality of life for residents and the quality of experience for visitors wherever possible; and

WHEREAS, NC DOT has been responsive to input from the City of Asheville and Buncombe County by including new bicycle and pedestrian facilities in the DEIS; and

WHEREAS, the NC DOT has committed to run the new, local travel demand model and undertake a capacity analysis that considers a six-lane alternative for Section A and has stated that fewer lanes would be built if these analyses demonstrate fewer lanes would be sufficient; and

WHEREAS, members of the community have expressed at the November 16 public hearing and through letters their strong preference for a project that addresses current congestion and safety problems but also one that is smaller overall, better reflects the character of Asheville, incorporates additional bicycle and pedestrian facilities, and minimizes harm to the affected neighborhoods of West Asheville, Burton Street, Emma, and Montford; and

WHEREAS, the City of Asheville seeks a closer working relationship with NC DOT on the ongoing design of this project to ensure its impacts are minimized;

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

1. The City of Asheville calls on NC DOT to use any and all tools at its disposal to reduce the overall size and impact of the project on Asheville's neighborhoods and businesses and to improve community connectivity through inclusion of additional bicycle and pedestrian elements required by NC DOT's Complete Streets policy, reflected in adopted City plans and policies, and referenced in the December 9, 2015, cover letter and December 8, 2015, Memorandum from the City of Asheville, both of which are specifically incorporated herein by reference.

2. The City of Asheville further calls on NC DOT to analyze in both the travel demand model and the capacity analysis a six-lane alternative in Section A (the West Asheville section) coupled with four lanes for I-26 in Section B (the bridge section) and to construct as few lanes as possible to address safety and congestion.

3. The City of Asheville further calls on NC DOT to partner with the City in creating a collaborative working group of City appointees and NC DOT design professionals that will meet regularly starting in early 2016 and throughout the design phase to:

    a. minimize the project's size and impact, which will provide community benefits and reduce cost
    b. ensure adequate consideration of the concerns listed in the City's comment letter
    c. analyze the travel demand model, capacity analysis, and the methodology of calculating Level of Service in an effort to gain consensus on these foundational elements of the project
    d. identify opportunities to return land around the project to productive, tax-generating use and to ensure land on the east side of the river under any new bridges is put to use in a way that enhances the riverfront
    e. identify opportunities to repair or redress impacts of previous transportation projects on neighborhoods and businesses.

4. In order to provide the most benefit to the Asheville community while also accommodating through traffic, and for all the reasons stated in the City of Asheville's comment letter, the City of Asheville endorses Alternatives 4 and 4B for Section B and calls on NC DOT to further minimize the size and scale of these alternatives, particularly the impacts on the Burton Street Community, the impacts of Alt. 4 on the Emma Community, and the impacts of Alt. 4B on the Montford Community. Following completion of the new travel demand model and capacity analysis and focused exploration with NC DOT of options to reduce the overall size and impact of the project, the City of Asheville anticipates being able to endorse a single alternative but, in the absence of additional information, is not able to do so at this time.

5. The City of Asheville endorses Alternative F1 for Section C (I-40/I-26/I-240 interchange) in order to minimize the footprint and cost, while achieving the primary objective of creating full movement between interstate highways. For the reasons cited in the City's comment letter, the City of Asheville does not endorse the increased expense associated with the proposed collector roads and widening of I-40 east of Brevard Road.

Read, approved and adopted this the 8th day of December, 2015.

Magdalen Burleson
City Clerk

Mayor

Approved as to form:

City Attorney

RESOLUTION NO. 16-163

RESOLUTION REGARDING THE I-26 CONNECTOR

WHEREAS, the I-26 and I-240 corridors are critical to local and regional residents, visitors, interstate travelers, and regional commerce; and

WHEREAS, Alternatives 4 and 4B were the alternatives most strongly supported by the residents of Asheville and endorsed by City Council;

WHEREAS, the selection of Alternate 4B selection will put the interstate on a new location from the Patton Avenue interchange across the French Broad River, just north of the Captain Jeff Bowen bridges, and connect with U.S. 19/23/70; and

WHEREAS, the selection of Alternate 4B will return Patton Ave to a surface street, allowing the opportunity to create a new gateway into downtown and a truly urban, multi-modal boulevard with new, infill development – all of which will help Asheville grow sustainably and create opportunities for economic investment and development; and

WHEREAS, this alternative has the least amount of impact on the Burton Street community and would provide the opportunity for a new connection from Hillcrest directly to Patton Ave; and

WHEREAS, this decision will help ensure the project provides benefits to the residents of Asheville in addition to those travelling through our city; and

WHEREAS, there are still improvements needed to make this project context and neighborhood sensitive and to ensure it aligns with the City of Asheville's strategic vision and goals, including making the footprint as small as possible, minimizing the noise and visual impacts on all Asheville neighborhoods and historic resources, designing new bridges that will contribute to Asheville's scenic beauty, including more bike/pedestrian facilities, and maintaining accessibility to and the scenic nature of the French Broad River as an amenity for residents and visitors; and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ASHEVILLE THAT:

The City of Asheville is grateful to the North Carolina Department of Transportation and other state and federal agencies for responding to public input and selecting the Alternate 4B option in section B of the I-26 Connector project; and the City of Asheville looks forward to continuing the positive working relationship between the city's working group and NCDOT to address the remaining issues, and looks forward to positive decisions emerging from those discussions that will continue to improve the project for the residents of Asheville.

Read and approved and adopted this 5th day of July, 2016.

Magdalen Burleson
CITY CLERK

Esther G. Manheimer
MAYOR

Approved as to form:

CITY ATTORNEY

Study of the Asheville Design Center's

I-26 CONNECTOR

Proposal

for City of Asheville

Buncombe County

Asheville Design Center

by

FIGG

In Association with LOCHNER

VOLUME I
Report

March 26, 2009

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VOLUME I

VOLUME II

List of Figures and Tables

OBJECTIVES

On September, 2007 the City of Asheville and Buncombe County (CA/BC) in conjunction with the Asheville Design Center (ADC) requested qualifications from engineering consultants interested in providing professional services for the analysis and review of the Asheville Design Center's proposed alternate plan for the I-26 Connector in Asheville, North Carolina. The intent of the study was to determine the feasibility of the proposal as a viable alternative for inclusion in the North Carolina Department of Transportation's (NCDOT) Environmental Impact Statement (EIS) for the project. On November 2, 2007 Figg Bridge Engineers, Inc (FIGG), in association with Lochner as a principal subconsultant, was given notice to proceed with the study.

PROJECT DESCRIPTION

This portion of the NCDOT project being considered is approximately a two-mile connection between two completed segments of I-26 that extend through Asheville adjacent to the French Broad River and downtown. NCDOT currently has three remaining proposed alternative connections, but the CA/BC and ADC were concerned that these alternatives are not context sensitive solutions that satisfy their stated sustainable community goals. A non-profit organization, the Asheville Design Center, created a new alternative within the same study area (Figure 1) that was considered by the community as a viable alternative that offers a more context sensitive solution.

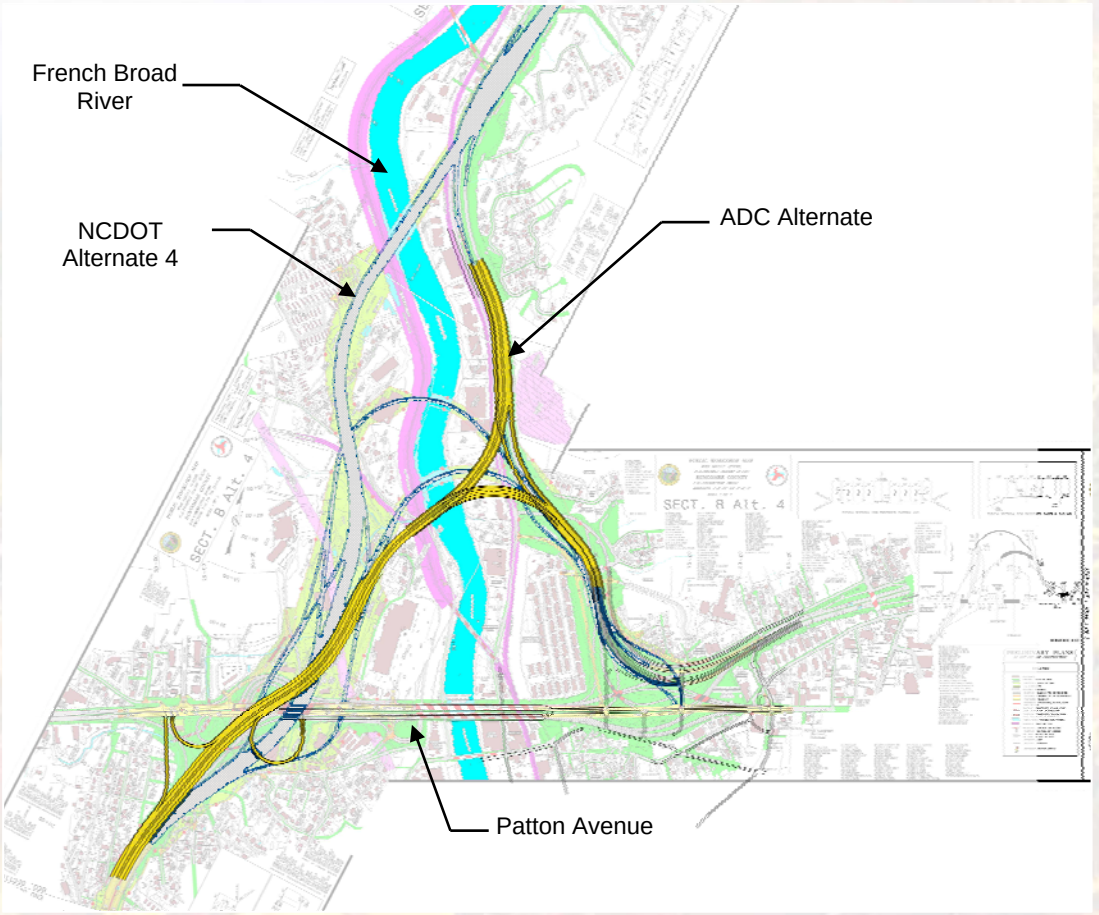


Figure 1 – ADC Alternative

In the summer of 2007, at the request of the Asheville City Council and local state legislators, the NCDOT consultants currently working on the project provided a partial analysis of the ADC proposal. Although the ADC proposal was not determined infeasible in the NCDOT report, results of the study identified several concerns. In an effort to address these concerns, community leaders sought an objective, independent analysis and review to determine the viability of the proposed ADC alternative.

BACKGROUND

The I-26 connector project has been under discussion and review for almost 20 years. In June 2006, the AIA Asheville Section was awarded a grant from the American Institute of Architects (AIA) for a "Bridging the French Broad: Creating Connected Livable Communities" Legacy project. The goal of this project was to engage the community in finding a more context sensitive design solution to the I-26 connector alternatives proposed by NCDOT. The ADC adopted a set of specific guidelines for the project by incorporating existing, established design goals from the following documents:

- The AIA "Ten Principles for Livable Communities"
- The Community Coordinating Committee's (CCC) Report
- Wilma Dykeman River-way Plan
- The Asheville City Development Plan for 2025

After studying four connector designs proposed by NCDOT, ADC developed a modified plan. This alternative met community goals and honored and satisfied the design guidelines listed above. It also offered opportunities for sustainable growth with increased "livability" along the riverfront and in neighborhoods west of downtown Asheville. The project also presented the opportunity for a new "signature" bridge over the French Broad River. Key to the success of this plan was the separation of existing I-240 and I-26 traffic from local traffic on Patton Avenue. (These are currently mixed on the same roadways.) The ADC plan proposes a co-location of a new I-26 "signature" bridge over the French Broad, with a new interchange between I-240 and I-26 just north of existing Patton Avenue/I-240 "Smoky Park" Bridge within sight of downtown. A double deck bridge with compact lane movements on each end was proposed as a solution that addressed the mountainous terrain, limited roadway widths, and nearby historic properties found in the project area.

SCOPE OF WORK

The CA/BC supported by the ADC requested that the study/analysis identify and address the following key engineering elements including:

1. Address NCDOT design concerns with the ADC proposal as described in their report to the Asheville City Council. Concerns identified in the NCDOT report include:
    a. Line and grade of bridge approaches
    b. Super-elevation of ramps
    c. Weaving distance between traffic movements on I- 240
    d. Bridge design and dimensions (heights proposed by NCDOT design require longer steeper ramps than the ADC proposal)
    e. Horizontal clearance along River Road and the Cemetery
    f. Vertical clearance over the railroad

2. Incorporate ADC primary design objectives in the design solution, as follows:
    a. Context sensitive design – provide a compact road alignment and bridge structure utilizing the double deck scheme proposed by the ADC or other appropriate design for the location that addresses these issues
    b. Separation of local and interstate traffic - achieve city planning goals, featuring Patton Avenue/Smoky Park Bridge must be a local urban street connecting downtown Asheville to West Asheville and Emma across the French Broad.
    c. Traffic movement– design speeds and lane capacities should be appropriate for the urban locations planned growth and meet with applicable State and federal guidelines.
    d. Constructibility – a smaller highway footprint should require less land acquisition and less physical construction. This should translate into project savings in time and construction cost, leaving more land along the river available for future development.
    e. Time – a major concern of the community has been the continual delay of this project. Solutions considered should simplify the project and reduce the overall completion schedule
    f. Aesthetics – retain the possibility of a "signature bridge" integrated into the urban fabric

3. Propose schematic solutions that address the NCDOT concerns and ADC objectives in accordance with standard professional engineering practice that satisfies FHWA requirements and standards.

4. Develop a conceptual statement of probable construction quantities for the two-mile segment in the scope of this proposal.

5. Develop an initial construction schedule for the two-mile segment in the scope of this proposal.

APPROACH TO PROJECT

A. General

The I-26 Connector project has a long history and over time numerous studies and alternates have been considered. There has also been a considerable public involvement effort that includes many meetings with community leaders, local interest groups, business groups and the affected business owners and neighborhood groups since 1989. Due to the voluminous amount of available information and project data, it was imperative to develop a project approach that would systematically study, analyze and ultimately develop any necessary proposed improvements to the alternate for consideration by the CA/BC and ADC. This approach would also consider other major project stakeholders such as the FHWA and NCDOT.

The following major tasks were identified for evaluating the feasibility of the proposed ADC alternate:

1. **Develop Approved Design Criteria & Comprehensive List of NCDOT Concerns**. This was the starting point of the review process. For the study/analysis to be successful, it was imperative to have a clear understanding

of the stakeholders' objectives, concerns and constraints. After engaging in partnering meetings with the FHWA and NCDOT, it is understood that their key objectives can be summarized as follows:

a. Provide a safe and functional system
b. Meet local and federal design standards
c. Consider environmental impact
d. Meet operation requirements

2. **ADC Alternative 4b Analysis**. Once the design criteria were established and a comprehensive list of concerns had been prepared, the FIGG Team analyzed alternative 4B. This was an iterative process in which all the stakeholders were involved in the decision making process jointly developing solutions to any and all challenges. The constant communication was very important for the quick resolution of concerns.

3. **Final Plan Development (Schematic Solutions)**. This is the last step in the process where the alternative has evolved into a schematic solution that the NCDOT indicated was acceptable for inclusion into the EIS and subsequent advancement into the preliminary design phase. The final plan development phase consists of evolving the ADC alternative into a complete functional highway design that is compliant with FHWA and NCDOT design guidelines and achieves the ADC's objectives.

The following elaborates further on the results realized from performing this study that focuses on these three major tasks.

B. Develop Approved Design Criteria & Comprehensive List of NCDOT Concerns

On October 22, 2007 a project Kick-Off meeting was held at City Hall, Asheville, North Carolina. The intent of the meeting was to meet all the stakeholders, discuss in detail the intent of the City's study, schedule, NCDOT design criteria and concerns. A copy of the meeting minutes and list of attendees can be found in Appendix H. From this meeting, the following list of NCDOT concerns and items to accommodate were developed:

1. Address items in these areas:
    a. clearances (shoulders, over and under streets and railroads)
    b. alignment (horizontal and vertical) and
    c. traffic volume capacities (operational).
2. Address non-standard shoulder offsets, clearance between lanes and gradients.
3. Accommodate "physical constraints" on the west side relative to footing placement where the bridge over the French Broad River will cross the Smith Mill Creek floodplain, a railroad and a golf course.
4. End all alternates at Broadway in order to compare alternatives equitably. This is necessary for the EIS document even if construction is done in phases.
5. On the east side, there is a landfill running along the French Broad River, the Montfort Area Historic District and a railroad spur (runs along landfill). These three constraints pose horizontal clearance challenges (this condition is illustrated as Section F in the NCDOT PowerPoint presentation to Asheville City Council). North of Section F available horizontal clearance increases.

6. The grade on I-240 EB ramp (west side of river) required to provide the necessary vertical clearance over I-26 (at the double deck bridge) is acceptable. However, the profile on I-240 WB ramp (west side of river) required to provide the necessary vertical clearance over I-26 (at the double deck bridge) is not acceptable. Unlike the I-240 EB lanes, the I-240 WB lanes are at the low point of the 6% super-elevation prior to passing over I-26. This condition requires a steep grade approaching the double deck structure. There is also a low point on the structure which is unacceptable to the NCDOT. NCDOT does not allow sag profile low points on structures.
7. If the I-240 ramp profile (west of river) is lowered, the ramp length can be reduced.
8. Maintain a bridge cross-section approaching double-deck structure is 216 ft. out-to-out including 10 lanes plus shoulders to interstate criteria.
9. Operational issues (queue storage and weave distances) were identified as questionable at the following locations:
    a. I-240 EB Exit Ramp to Patton
    b. I-240 EB Entrance loop from Patton
    c. I-240 WB Exit Loop to Patton
    d. I-240 WB Exit to Hill Street
    e. I-240 WB Entrance from Hill Street
    f. Hill Street Connector
10. Develop cost estimates strictly as construction costs. Detour costs have not been included yet on the other NCDOT alternates.
11. TGS Engineers, working for NCDOT, did not review the Hill Street Interchange for possible improvements. Their scope of work consisted of evaluating Alternate 4b as presented to them.
12. The bridge cross-section approaching the double-deck structure has a 6% super-elevation. Vertical separation of the I-240 ramps will be a constraint.
13. Freeman and C.G. Worley Historic Properties are constraints on the other NCDOT alternates.
14. Traffic storage on the southwest loop that is approximately 500 feet long needs to be improved.
15. Fiber Optics near Patton is a concern due to the high cost of relocation. This is also a constraint for NCDOT alternates 3, 4 & 5. Overhead Power is a constraint for all alternates.
16. The Railroad on the east side of the river runs about 3 trains per week. Each train has between 3 to 6 cars each which corresponds to 13 to 26 tractor trailers.

The following figures illustrate the major design, environmental and operational concerns raised by the NCDOT.

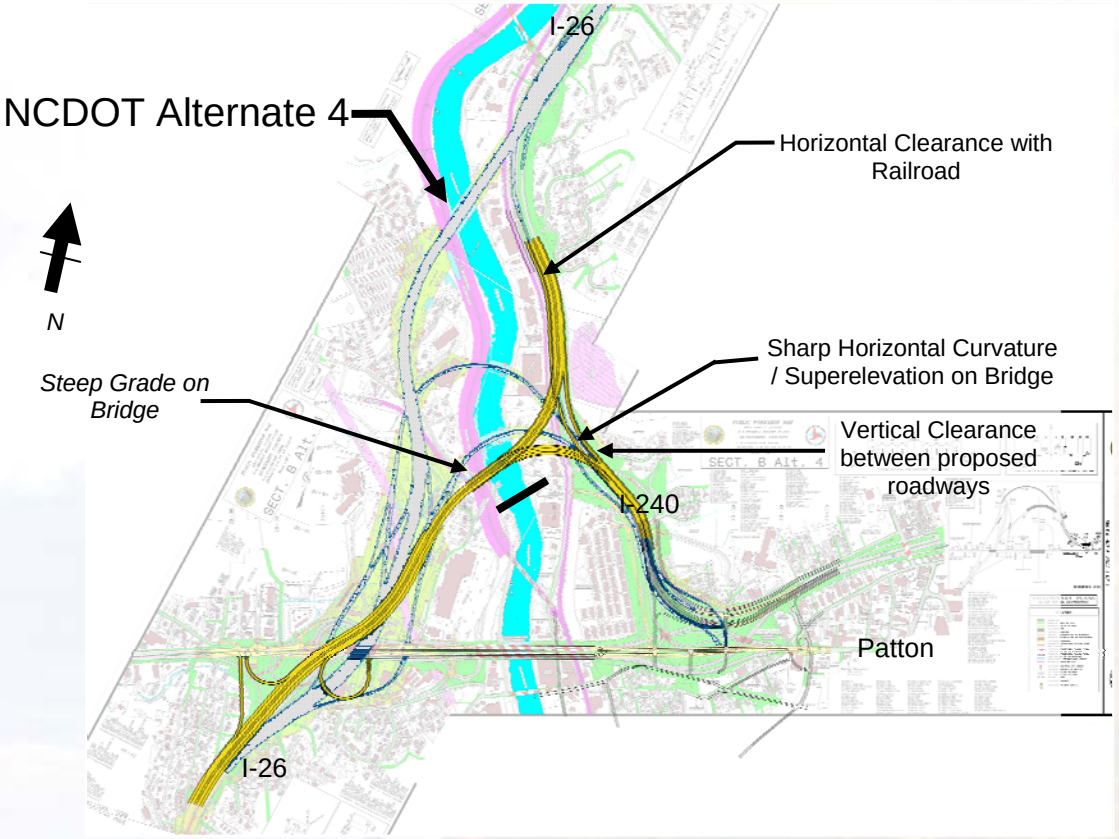


Figure 2 – NCDOT Design Concerns

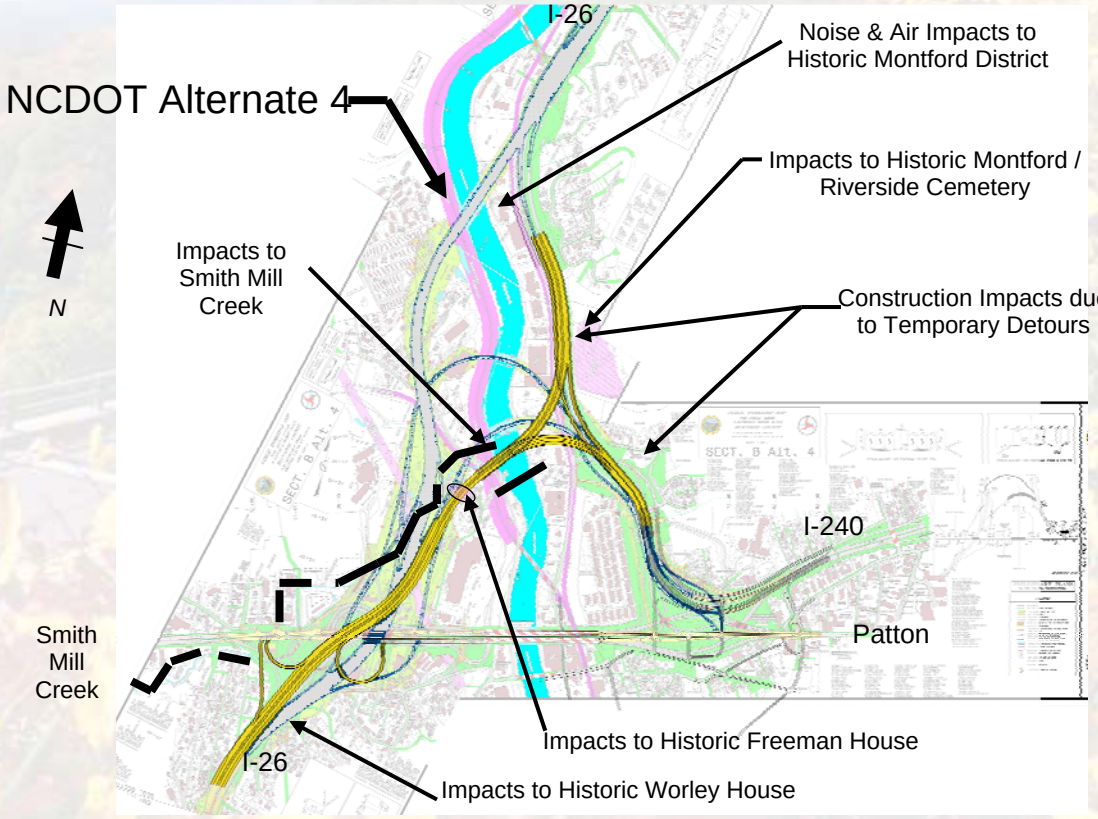


Figure 3 – NCDOT Environmental Concerns

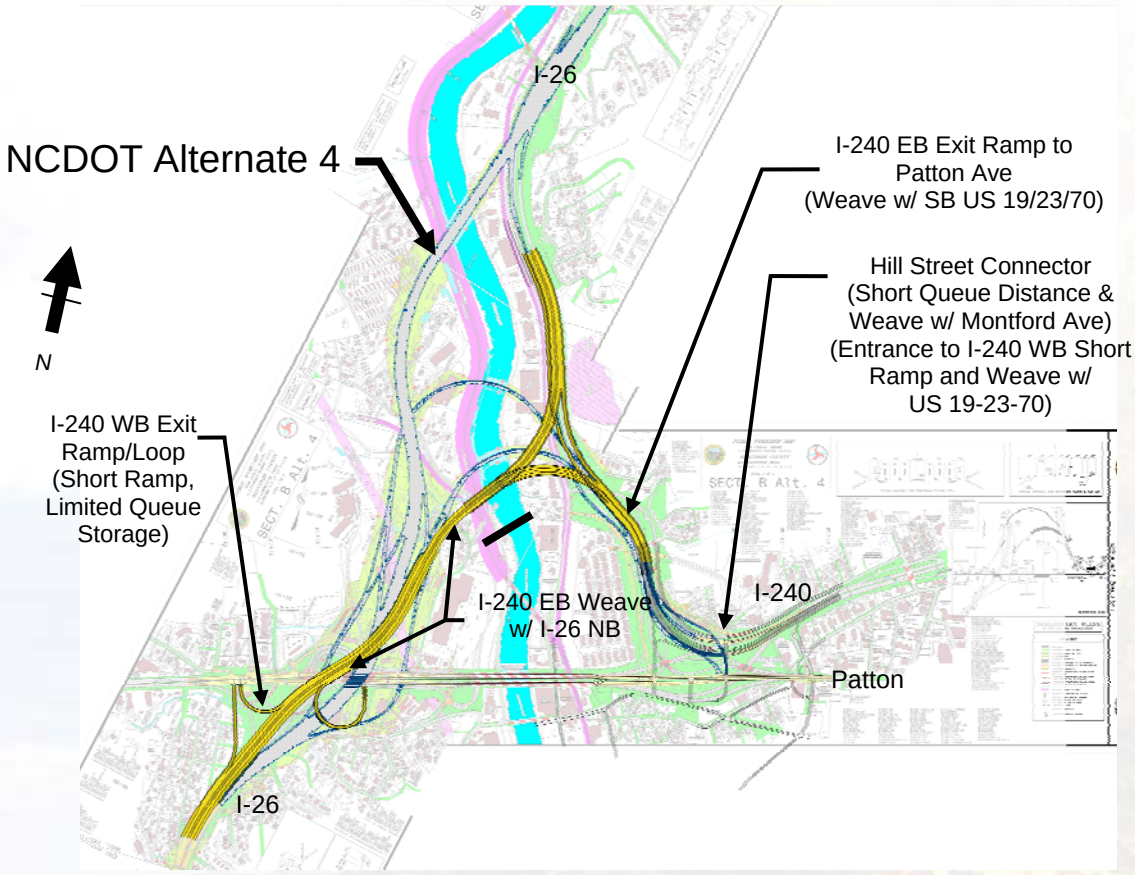


Figure 4 – NCDOT Operational Concerns

With regards to the design criteria, NCDOT noted the following:

- Design criteria for alternate 4B are the same as for all other alternates
- FHWA requires no design exceptions
- A copy of the design criteria will be provided via e-mail

The list of approved design criteria for this project is provided in Appendix A.

C. ADC Alternative 4B Analysis

During this phase the review was focused on coordinating with all the stakeholders and performing the appropriate level of engineering analysis to assist in determining the feasibility of the proposed alternative. The basis for this analysis was the design criteria and list of NCDOT concerns established above and the study corridor mapping developed by NCDOT for the other alternatives. Factors included in the study corridor mapping include jurisdictional wetlands (as identified by field delineations), floodplains, parks and recreational areas, recorded hazardous waste generators and underground storage tank sites, cultural resources, businesses, communities and community facilities (such as cemeteries, schools, and churches). The analysis of Alternative 4B included performing the following principal technical tasks by the review team:

Bridge Geometry Alternatives – Performed conceptual level engineering analysis using resources from previous projects to establish bridge typical sections and pier

layouts. This included a focus on reducing the grade of bridge approaches along with increasing vertical clearances over existing railroads and roads. This was provided while maintaining consistency with the ADC objective for using compact roadway alignments. The analysis also assumed preserving the possibility of a "signature bridge" that can be integrated into the urban fabric.

Traffic and Operational Analysis – Conducted a traffic analysis (capacity analysis) on the ADC Alternative. It included a weaving analysis, ramp merge analysis, ramp diverge analysis, freeway analysis, multi-lane analysis, signalized intersections and traffic network solutions. This analysis was performed utilizing traffic counts provided by NCDOT.

Horizontal and Vertical Curve Alignment Evaluation – Reviewed the ADC alternative for conformance with NCDOT and FHWA design criteria. This review included lane widths, shoulder widths, cross slope, horizontal curvature, super-elevation, tangent grade, vertical curvature, vertical clearance, stopping sight distance, bridge width, horizontal clearance and design speed.

During the initial review of Alternative 4B, the focus was on five areas that were considered fundamental because they could impact the intent of the concept developed by the CA/BC and ADC. The FIGG Team provided the results from our analysis of these key areas and the associated recommendations for consideration by CA/BC and ADC.

The following timeline of communications outlines the evolution of addressing the results from our review with adjustments to the original ADC alternative alignment.

November 30, 2007 Meeting

The FIGG Team's original recommendations were shared during the first progress meeting with the CA/BC and ADC at City Hall in Asheville, North Carolina.

The five key areas of recommendations that were prepared for discussion at this meeting were:

1. **Developing a conceptual bridge superstructure clearance envelope that is reasonable and does not preclude any structure types from consideration**. This envelope shown in Figure 5 was developed to check all vertical clearances and allow the City, County, ADC and NCDOT flexibility in selecting various superstructure types in the future. To develop the superstructure clearance envelope, it was important to consider structure types that are feasible for this project. Bridge superstructure types considered for this study as shown in Figure 6 and 7, include concrete box girder, steel plate girder and precast Bulb-T configurations.

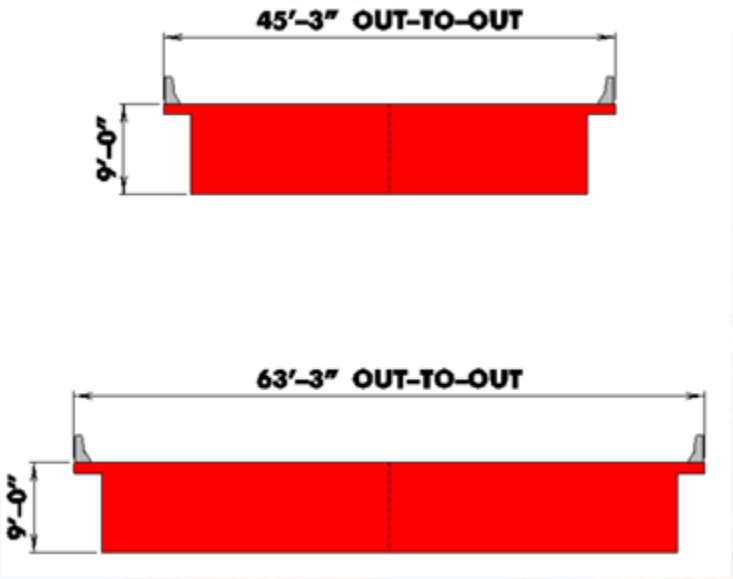


Figure 5 – Conceptual Superstructure Clearance Envelope

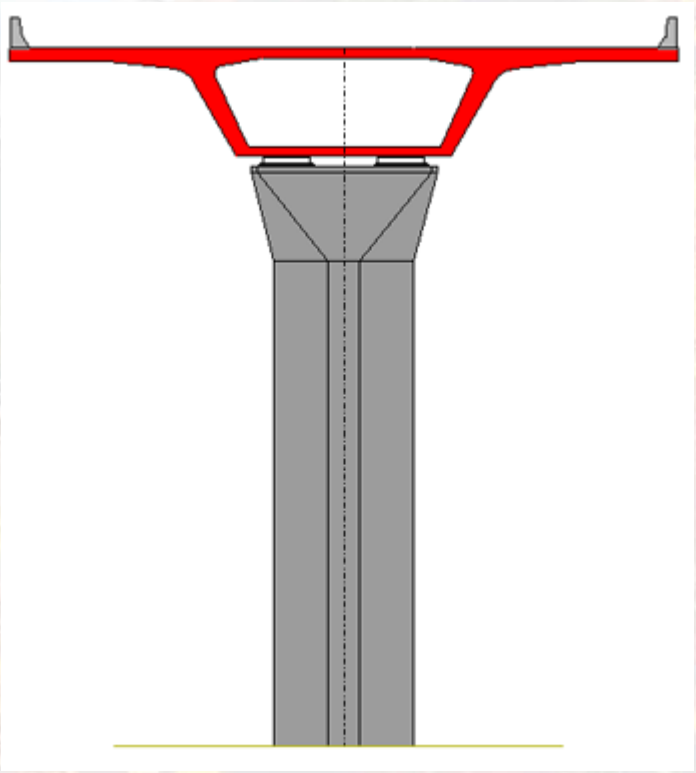


Figure 6 – Possible Box Girder Bridge Superstructure Concept

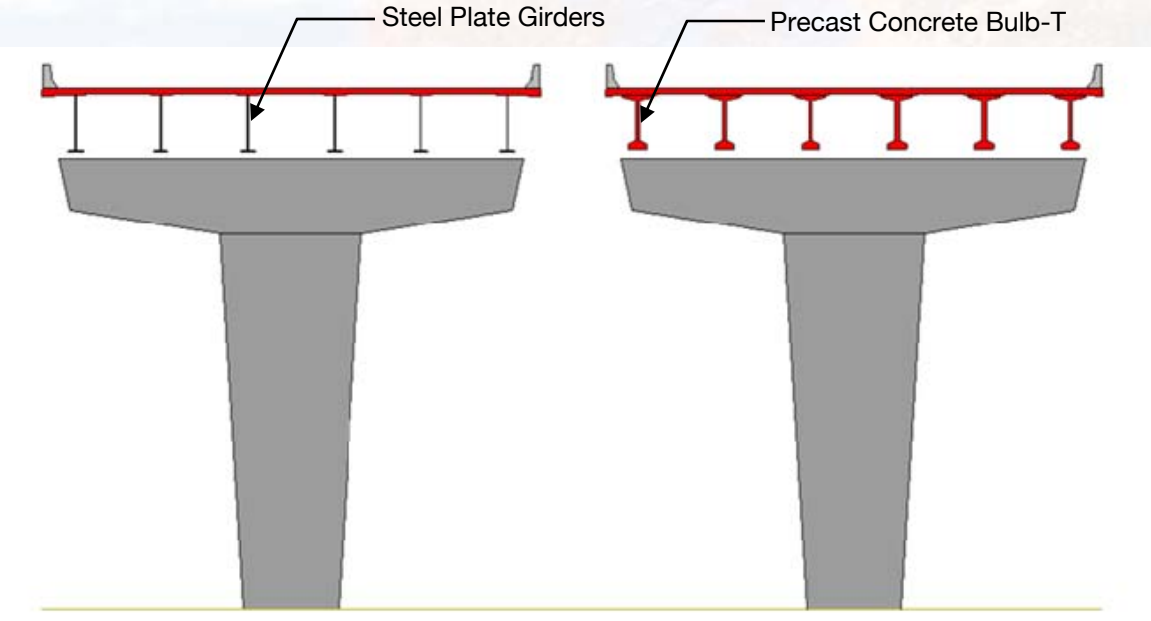


Figure 7 – Possible Beam Bridge Superstructure Concepts

2. **I-240 ramps super-elevation and required radius**. This challenge was selected for review based on the potential to impact a double deck bridge concept. The preliminary horizontal alignment developed by the NCDOT had an 8% super-elevation on the I-240 ramps. The I-240 ramps super-elevation and required radius were reviewed with a focus on meeting the most current NCDOT design criteria of 50 mph with a 6% super-elevation. Given the increased radii required to satisfy the 6% super-elevation, it was not feasible to tie I-240 back to I-26 in the vicinity of the river crossing. A concept revision as shown in Figure 8 was developed to preserve the ADC objective for minimizing the structural footprint, while satisfying the NCDOT design criteria and preserving the possibility of a signature structure. This concept locates I-240 EB on a structure that crosses over I-26, with I-26 / I-240 WB crossing the French Broad River on a separate lower level structure. The benefits of this concept as shown in Figure 8 are that it:
    a. satisfies AASHTO minimum required radii (uses identical radius to those in the NCDOT alternate),
    b. preserves the intent of the double deck structure by minimizing the structural footprint, and
    c. enhances the ability to explore structural forms (structure depth, span length and pier shapes) that are less visually intrusive.

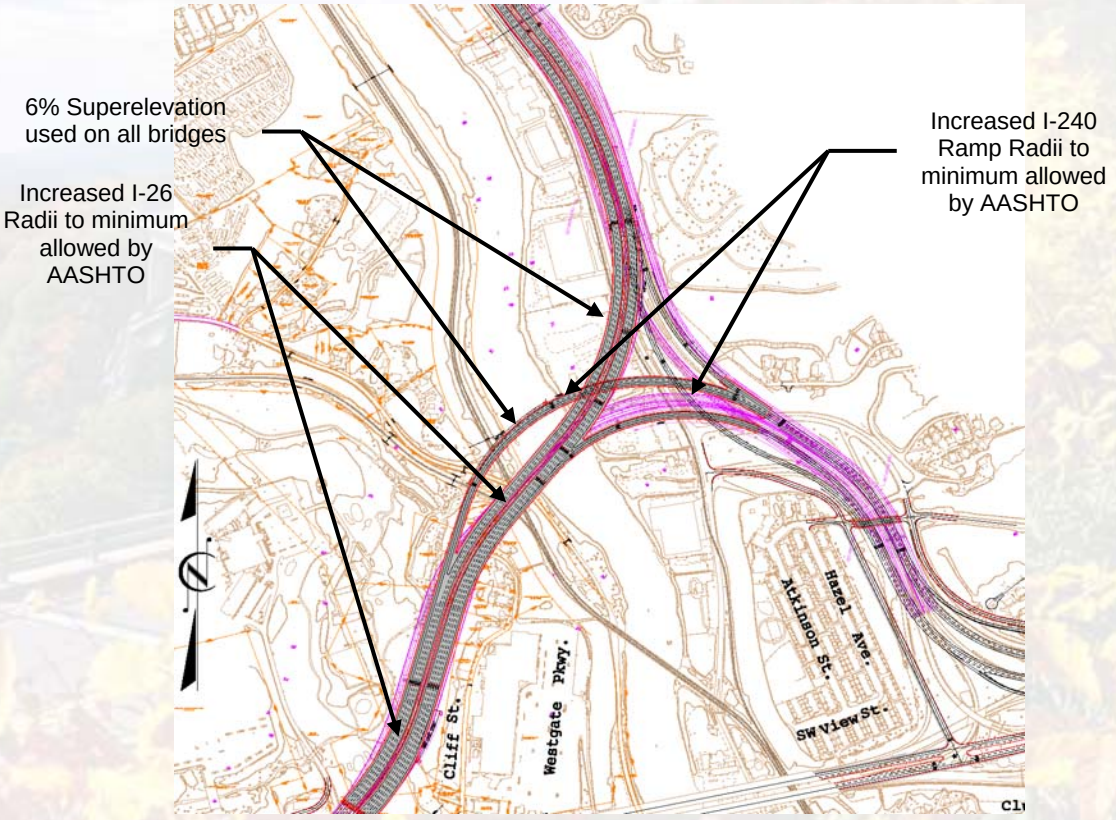


Figure 8 – Alternative 4B Revised French Broad River Crossing Concept

3. **Merger of I-26 with US 19-23**. The initial review of merging I-26 with US 19-23 focused on developing a concept that satisfies the super-elevation design criteria for structures (6% maximum) and is within the environmental and horizontal clearance constraints identified by NCDOT. The concept as presented in Figure 9 extends the I-26 structure through the horizontally constrained areas until the available right-of-away allows the structure to transition back down to grade. In this concept, the I-26 NB structure is elevated along the existing US 19-23 median; and the I-26 SB structure is elevated along the area between US 19-23 SB and Riverside Drive. The benefits of this concept are that it:
    a. Reduces and possibly eliminates the need for additional right-of-way.
    b. Eliminates impacts to the historic cemetery and railroad right-of-way.
    c. Provides the opportunity to minimize retaining walls.
    d. Preserves possible use of existing shoulders as temporary traffic lanes for maintenance of traffic during construction.
    e. Prevents the need to relocate Riverside Drive and the railroad spur.
    f. Serves as an attractive horizontal buffer to noise from vehicles on the US 19-23 roadways below the new elevated deck with the wide wings of the box girder structure.

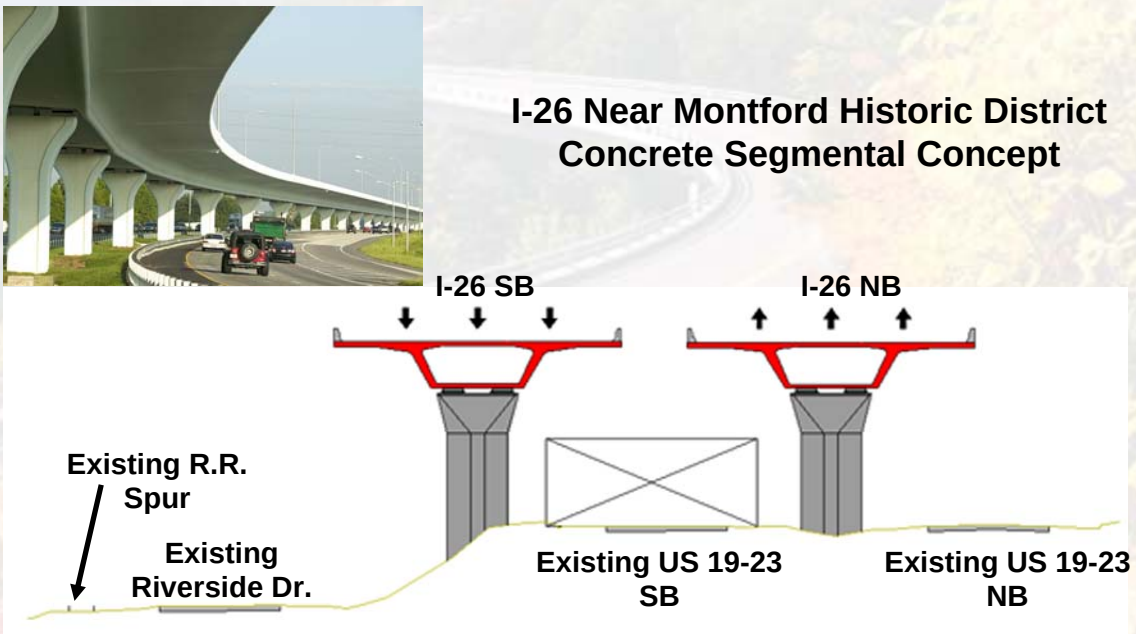


Figure 9 – Alternative 4B I-26 Merger with US 19-23 Concept

4. **Patton Avenue / I-26 Interchange**. The I-26 and Patton Avenue interchange review focused on developing a concept that satisfies several operational concerns identified by NCDOT. The concept shown in Figure 10 was developed to provide an additional connection for Regent Park and Holiday Inn Drive. This also accommodates a triple left turn on the I-240 EB exit loop to Patton as a means of addressing the queue storage needs identified by NCDOT. A triple left turn as shown in this concept is not an uncommon design element to NCDOT and is currently being considered by NCDOT for other projects in the state.

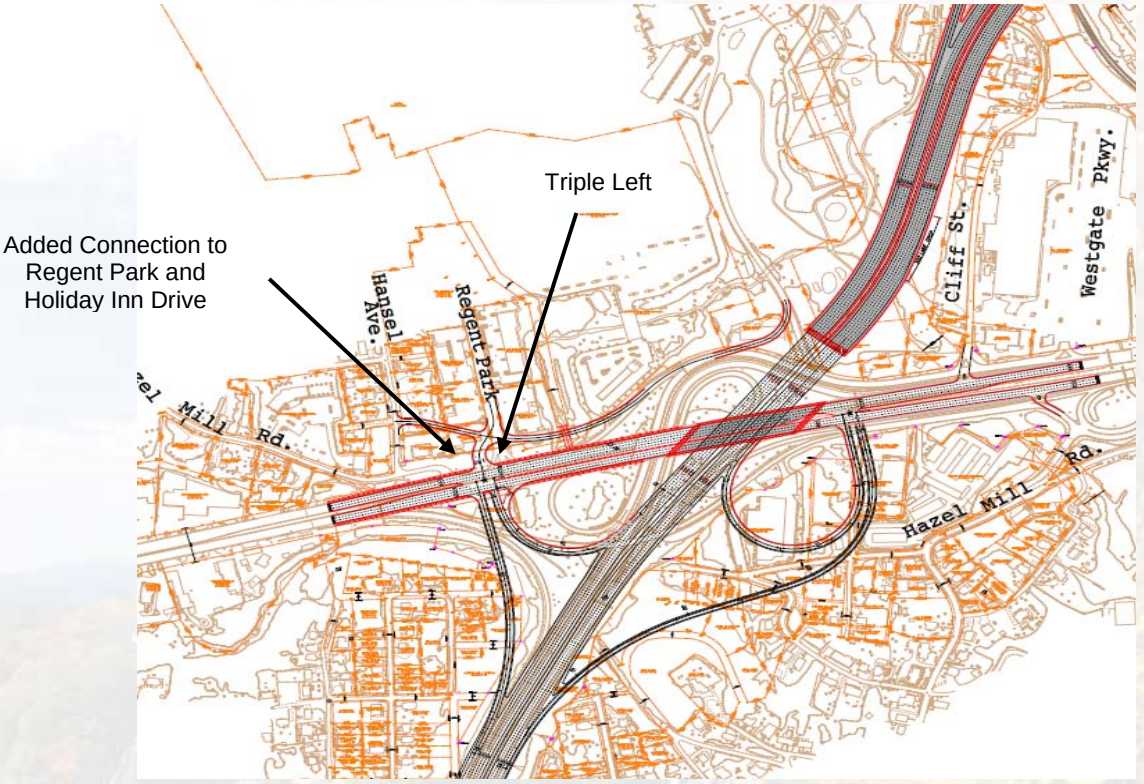


Figure 10 – Alternative 4B Patton Avenue Interchange

5. **Patton Avenue / Hill Street / I-240 Interchange**. The Patton Avenue / Hill Street / I-240 interchange was reviewed to address several NCDOT operational concerns associated primarily with traffic storage at the Hill Street. Our analysis indicated it is difficult to add an interchange with Hill Street due to the close proximity of the Montford Avenue Interchange. A possible improvement was proposed by adding a service road to connect Hill Street with Patton Avenue and Riverside Drive as shown in Figure 11. Another option was presented which added a connection between Hillard Street and Patton Avenue along with connecting Patton Avenue and I-240 EB as shown in Figure 12. The City, County and ADC advised that the first option was more consistent with the objectives of converting Patton Avenue into a future boulevard.

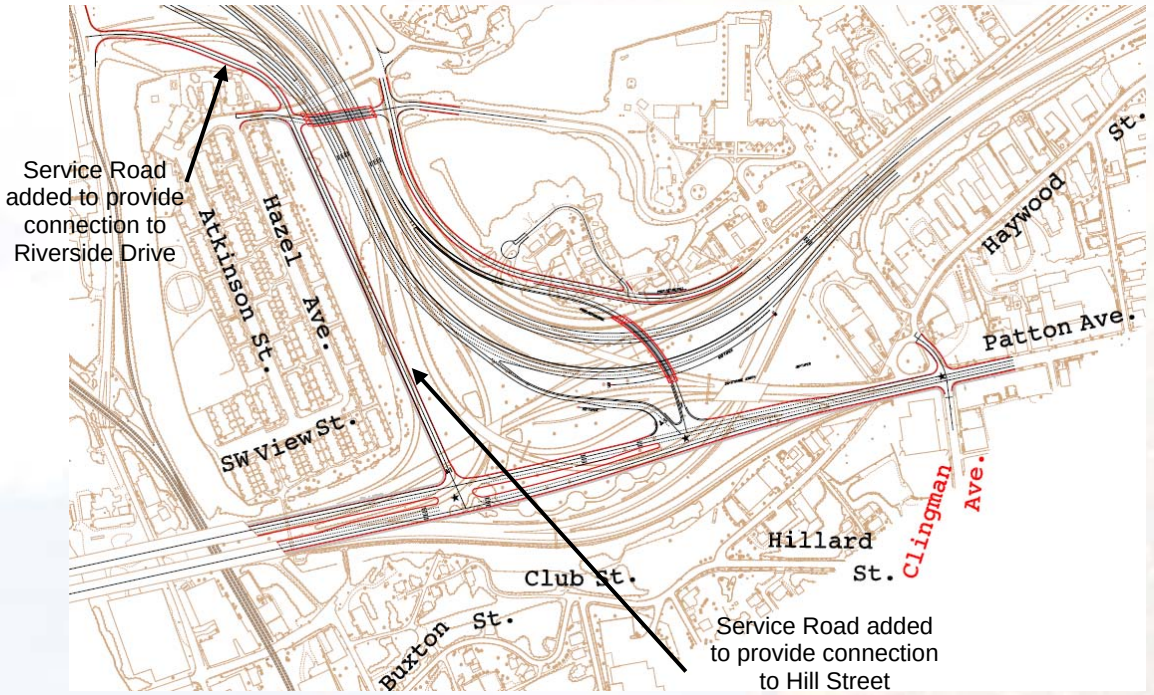


Figure 11 – Alternative 4B Patton Avenue I-240 Access

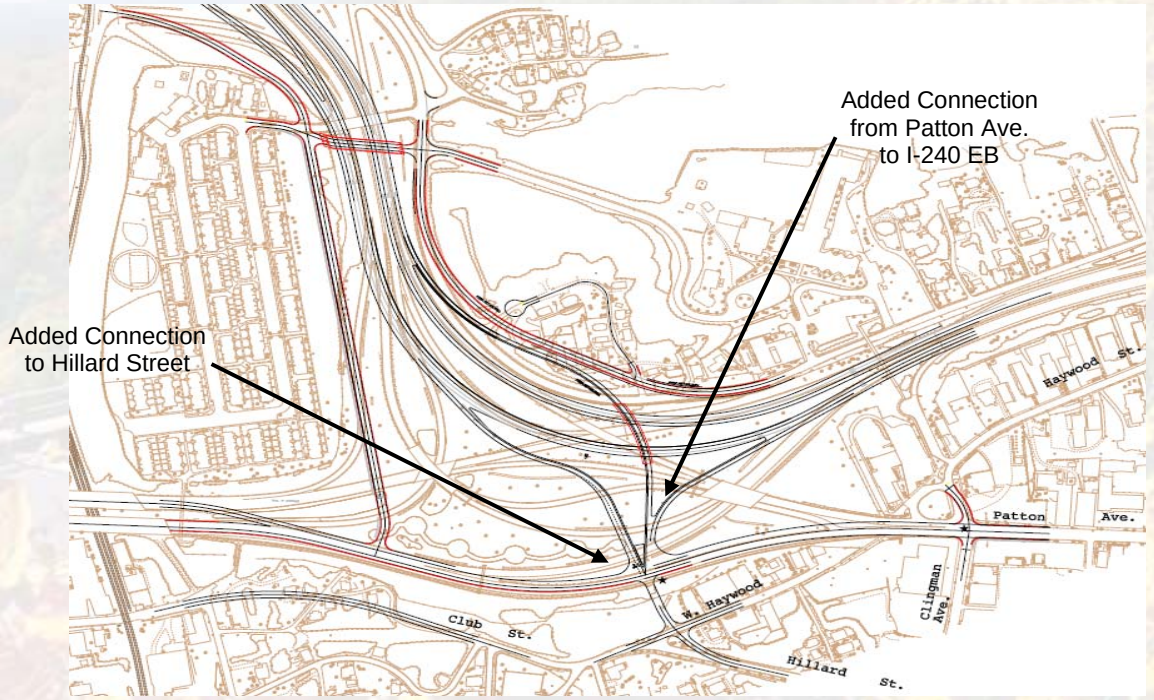


Figure 12 – Alternative 4B Patton Avenue I-240 Access Option

The impact of all these proposed revisions to the original ADC alternative are illustrated by superimposing the revised alignment over the initial 4B alternate, as shown in Figure 13. This illustrates that the proposed revisions will achieve the ADC goals for maintaining a small footprint and preserving the ability to integrate a signature bridge into the final configuration.

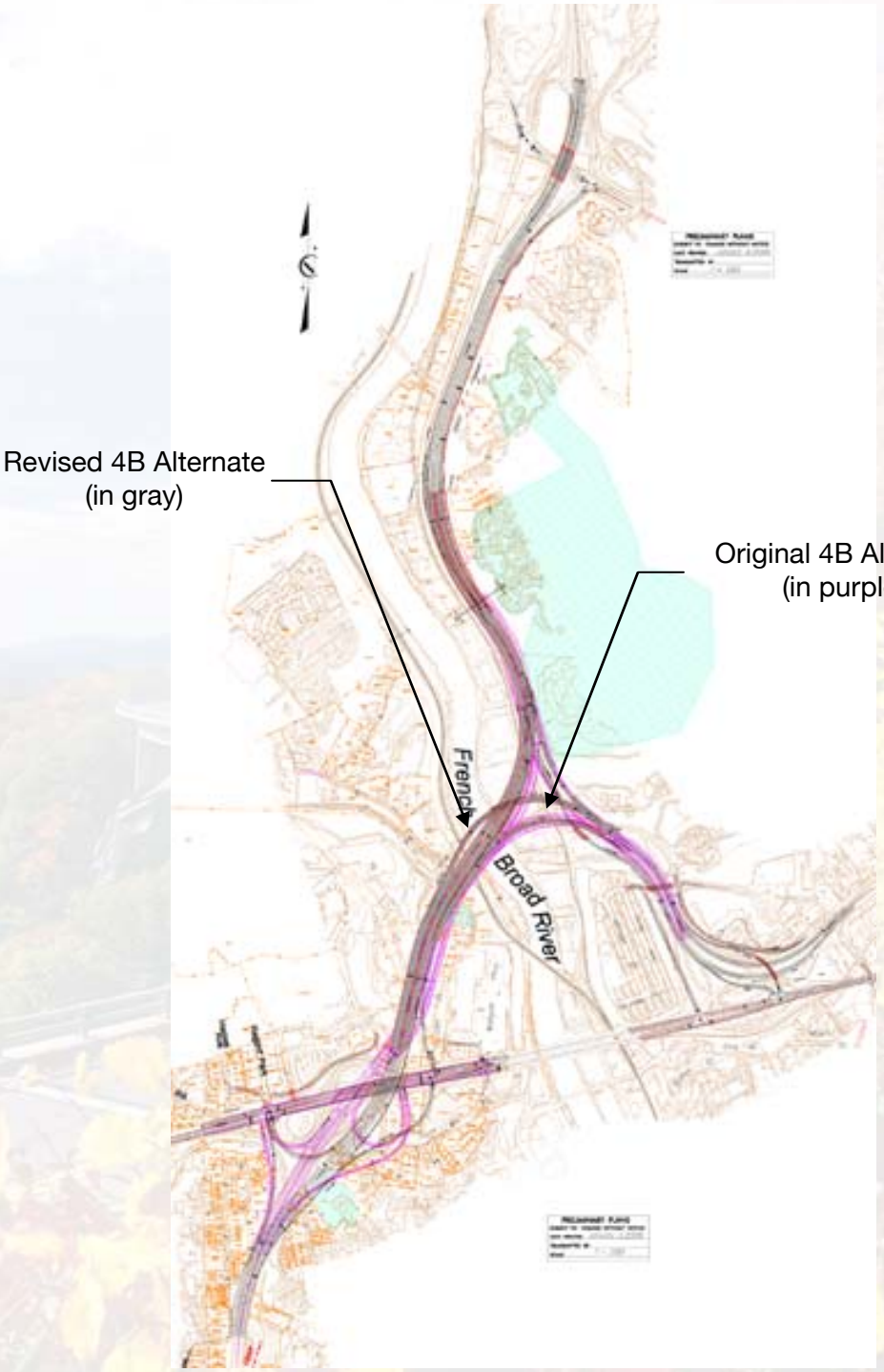


Figure 13 – Superimposition of Original and Revised 4B Alternates
(see appendix for 11" X 17" print)

The efforts following the initial recommendations and feedback from the CA/BC and ADC were directed towards completing the Alternative 4B traffic capacity analysis for the I-26 / Patton Avenue interchange and developing vertical profiles for the horizontal alignment concepts that were presented at the meeting.

After the initial proposed improvements were discussed with the CA/BC and ADC and as the review continued, a progress meeting was scheduled with the NCDOT. This allowed our team to maintain constant coordination and communication with all the stakeholders during the review process. This also marks the beginning of an iterative process of sharing concepts between the CA/BC/ADC, NCDOT and FHWA to determine an acceptable Alternative 4B alignment for all the parties involved with this process.

December 11, 2007 Meeting

The subsequent meeting on Tuesday morning, December 11, 2007 was performed at the North Carolina Department of Transportation (NCDOT) Century Building in Raleigh. The NCDOT was updated on the status of the ADC Alternate 4B review along with a discussion regarding possible improvements that have been identified and discussed with the City of Asheville, Buncombe County, and the Asheville Design Center.

Appendix H contains a copy of the minutes and attendees sign-in sheet associated with the communications at this meeting.

Discussions focused on five key areas that the review team had shared with the CA/BC and ADC:

1. I-240 WB Exit Loop to Patton Avenue
2. I-240 EB Exit Ramp to Patton Avenue
3. Double Deck Structure Concept over the French Broad River
4. I-26 Merger with US 19-23 (Montford Historic District)
5. Hill Street / Patton Avenue / I-240 interchange

The FIGG Team presented in detail the proposed improvements and received the following summary of primary responses from NCDOT:

1. **I-240 WB Exit Loop to Patton Avenue**. NCDOT noted that all movements need to be at a minimum level of service “D”.

2. **I-240 EB Exit Ramp to Patton Avenue**. The FIGG Team was evaluating the possibility of revising the I-240 EB Entrance Loop to shift the I-240 EB Exit Ramp further west and minimize or eliminate impacts on the C.G. Worley House Historic Property.

3. **Double Deck Structure Concept over the French Broad River**. NCDOT noted that if the concept to replace the double deck structure concept is advanced and a gore area is located over the French Broad River, then pier placement and orientation will need to consider any skew with respect to the river hydraulics.

   NCDOT raised concerns about the gore area for I-26 NB and I-240 EB being located on a bridge. The concern was with excessive rollover between the two

alignments since I-26 curves to the left with a 6% super and I-240 EB curves to the right with a 6% super. NCDOT was also concerned about having the super elevation reach 0% on the bridge.

4. **I-26 Merger with US 19-23 (Montford Historic District)**. NCDOT noted that they prefer a 0.5% minimum longitudinal grade on structures and that design termini for alternate 4B should remain consistent with NCDOT's other alternatives.

   FIGG/LOCHNER stated that the bridge limits along US 19-23 were estimates only to show conceptual location, and recommend that a detailed study during final design be completed to determine the actual bridge limits.

5. **Hill Street / Patton Avenue / I-240 interchange**. NCDOT suggested that it may be beneficial to extend the I-240 bridges past Hill Street. In this manner, Hill Street will go under the bridges and prevent an excessive steep grade on the relocated Hill Street connection, as currently proposed.

In addition, the FIGG Team also discussed with NCDOT the following two optional horizontal alignments that were under consideration to address the footprint over the Freeman House and horizontal curvature design criteria requirements.

1. The first optional alignment as shown in Figure 14 is primarily a tangent section on the west side of the river with horizontal curves used to cross the French Broad River and merge into the elevated structure on the east side of the river. It was developed subsequent to the meeting with the CA/BC/ADC on November 30, 2007 and prior to this meeting with the NCDOT. The radii for this alignment were selected on the basis of using the 8% super-elevation charts, a minimum radius of 2,320 ft., which provides for a 6% super-elevation at 60 mph.

2. The second optional alternative as shown in Figure 15 is a variation of the first option. This option is characterized primarily as a series of horizontal curves intended to minimize impacts to the Smith Mill Creek and Freeman House historic properties west of the river and merge into the elevated structure on the east side of the river. The radii on this alignment were selected on the basis of those used on other NCDOT alternatives, which appear to be based on the 6% super-elevation chart. This is the same alignment that was presented to the CA/BC/ADC during the November, 30, 2007 progress meeting.

   While meeting with NCDOT, the FIGG Team requested clarification on the use of the 6% and 8% super-elevation charts for the I-26 mainline. NCDOT stated that the 6% super-elevation charts (tighter radius) would be allowed for sections of I-26 that are located on a bridge.

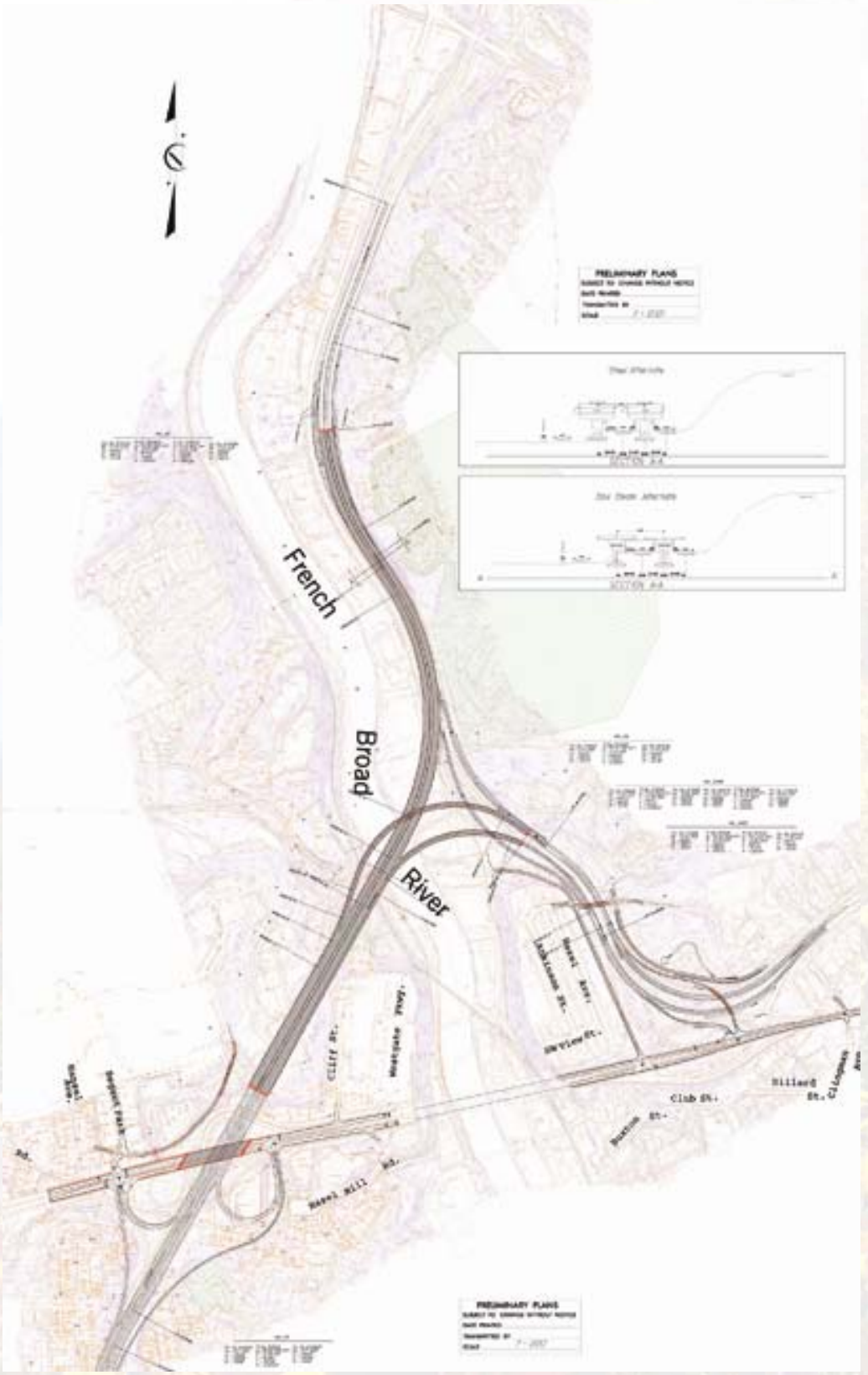


Figure 14 – Alternative 4B Alignment Option 1
(see appendix for 11” X 17” print)

Figure 15 – Alternative 4B Alignment Option 2
(see appendix for 11” X 17” print)

NCDOT also offered the following comments regarding their constructibility considerations with these options:

- maintain traffic on the existing Patton Avenue and I-240 Interchange during construction.
- address the significant cut on the I-240 EB Exit Ramp to Patton Avenue.
- contact and discuss with Norfolk Southern about the elevated alignments over the Norfolk Southern Bridge spanning the Smith Mill Creek Bridge.
- address traffic control during construction of the elevated structure over US 19-23.

NCDOT indicated that these construction sequence comments are important; however, they will only need to be addressed later during the functional plan development phase.

December 19, 2007 Teleconference Meeting

The CA/BC and ADC were updated during this teleconference regarding the outcome of the December 11, 2007 progress meeting with NCDOT. A copy of the minutes from this meeting can be found in Appendix H.

After summarizing the December 11, 2007 meeting with the NCDOT, the following discussions proceeded with the CA/BC and ADC.

It was noted that Option 2, as previously shown in Figure 15, provided a larger footprint over the Freeman House historic property than Option 1 and both Options 1 and 2 have a larger footprint over the Freeman House Historic Property than NCDOT Alternate 4.

Based on the outcome of discussions during the December 11, 2007 meeting with NCDOT regarding the two options presented to address horizontal curvature and impacts to the Freeman House historic property, the FIGG Team developed a third conceptual alignment for consideration of the CA/BC and ADC. This third adjusted alignment as shown in Figure 16 is similar to Option 1 with a tangent section west of the river and a horizontal curve used to cross the French Broad River and tie into US 19-23. However, this Option 3 alignment is shifted west to avoid the Freeman House property completely. This concept was developed to achieve two distinct advantages over the NCDOT alternates. First, it eliminates all impacts to the Freeman House historic property. Secondly, the horizontal curvature is in accordance with the most stringent interpretation of AASHTO (8% super-elevation charts). The footprint of Option 3 does extend over the commercial properties on the east side of the river and is significantly larger than Option 1 and Option 2.

Figure 16 – Alternative 4B Alignment Option 3
(see appendix for 11” X 17” print)

After reviewing these three options, the CA/BC and ADC offered the following comments:

1. **Option 1**. The CA/BC and ADC had previously looked at a similar tangent alignment west of the river and NCDOT had advised them that it may not satisfy constructibility. This option also has a larger footprint over the Freeman House Historic Property.
2. **Option 2 (preferred alternate)**. It is consistent with their objectives by minimizing the footprint on the waterfront properties and is anticipated to have the most public support.
3. **Option 3**. This alignment does provide technical and environmental advantages over NCDOT alternates; however, most of the commercial business properties on the east side of the river are affected. Minimal public support for this alternate is expected.

The FIGG Team also noted that they had received the Norfolk Southern contact information from NCDOT, and FIGG initiated communications with the Norfolk Southern Railroad. A request was made for any policies and criteria regarding construction of highway bridges directly over their railroad structures in North Carolina.

During this teleconference, the CA/BC requested that the FIGG Team provide a progress update for the Asheville City Council and representatives from Buncombe County in January 2008. It was agreed that another progress meeting with the NCDOT should be scheduled prior to the briefing meetings with the City of Asheville and Buncombe County.

January 4, 2008 Meeting

On the afternoon of Friday, January 4, 2008 a progress meeting was held at the City of Asheville 6th Floor Conference Room with the CA/BC, ADC and NCDOT. A copy of the minutes and attendees sign-in sheet is provided in Appendix H.

The City of Asheville noted that they had scheduled an I-26 Alternate 4B Study progress update to be delivered at the next Asheville City Council meeting on the evening of January 15, 2008. The City of Asheville also agreed to submit the study of the Asheville Design Center (ADC) I-26 Alternate 4B to NCDOT on January 18, 2008. NCDOT requested that the following material be included in the January 18, 2008 submittal for them to determine the feasibility of including Alternate 4B in their Environmental Study Documents:

1. **Functionality** – include slope limits, grades, capacity analysis and a staging plan for the project. Construction staging needs to specifically address construction of the Patton Avenue interchange and I-26 elevated portion over US 19-23.

2. **Standards and Movements** – demonstrate that the alternate satisfies the project design standards and movements.

The NCDOT indicated that they will need 2 months from the time the study is submitted to complete their review and determine if the ADC revised alternate is feasible to include as one of the Environmental Study feasible alternatives. NCDOT is currently

working on the other alternates and suggested reviewing Alternate 4B concurrently. They suggested accommodating the schedule by including Alternate 4B as a supplement to the Draft Environmental document. However, NCDOT needed consent from FHWA to pursue a supplement to the Environmental Study process. The NCDOT also indicated that they did not need cost estimates to commence their review. They would need a rough cost estimate later in the review process. Since Alternate 4B incorporates portions of Alternate 4, it was agreed that the NCDOT would provide the breakdown of those quantities common to both alternates. Selection of the preferred alternate is done by a large group of stakeholders that considers in aggregate the environmental impact of the overall project and not just the effect on historic properties. Community support is an important consideration when selecting the preferred alternate.

Based on the alternate versions they had seen to date, NCDOT provided the following advanced comments:

- The mainline grade at Patton Avenue is approximately 30' below the loop. The construction staging needs to address construction sequence in this area.

- During construction of the elevated portion of I-26 over US 19-23, the solution needs to maintain two lanes open in each direction with an allowance from 8 pm to 6 am for some traffic control.

- No major concerns with triple left turn on the Patton Avenue Loop, pending further review.

- Traffic analysis needs to consider existing traffic conditions outside of the project limits and prevent creating capacity concerns.

January 15, 2008 Meeting

A PowerPoint presentation was provided by FIGG to representatives from Buncombe County and at the Asheville City Council meeting on January 15, 2008. A copy of this presentation is provided in Appendix C.

D. Final Plan Development (Schematic Solutions)

This phase commenced after the January 18, 2008 Revised Alternate 4B submittal to the NCDOT. At this stage in the process, improvements to Alternate 4B had been identified and incorporated with approval from the CA/BC and ADC. Progress meetings were held with NCDOT to update them on the review and various improvements that were considered and adopted, including adjustments based on NCDOT input up to this date.

However, the NCDOT had noted that their formal review did not begin until the requested information was submitted on January 18, 2008. During this period of the formal review process, comments were received from the NCDOT and resolved with NCDOT input while also coordinating with the CA/BC and ADC. This led ultimately to a notification from NCDOT at a progress meeting in the Raleigh NCDOT headquarter offices on June 20, 2008 that they had not found any fatal flaws and the NCDOT would move forward with incorporating the revised Alternate 4B into their environmental process.

The following timeline of communications outlines the evolution of additional adjustments to the revised ADC Alternative 4B alignment as submitted on January 18, 2008 that were triggered by comments from the NCDOT through their formal review.

January 22, 2008 Meeting

To discuss the review process, review assignments, schedule and materials submitted by the FIGG Team, a meeting was held on January 22, 2008 at the NCDOT Highway Building in Raleigh. A copy of the minutes and attendees sign-in sheet is provided in Appendix H.

The NCDOT project team started their review of the ADC modified Alternative 4B concept with a focus on identifying any fatal flaws. The review assignments for the NCDOT project team members were as follows:

- Engineering Plan review – Roadway Design Unit, Structures Unit and TGS (primary), Division Office and URS (secondary)
- Capacity Analysis – URS
- Construction Staging – Work Zone Traffic Control Unit
- Environmental Impacts – TGS and URS

Issues discovered during the review process were brought directly to the attention of the FIGG Team through NCDOT staff. NCDOT agreed to complete the review by February 22, 2008.

The goal of this review was to determine if the ADC Alternate 4B was a feasible alternative. If it was identified as a viable alternative, then it would be adopted as a project alternative eligible for further detailed study by NCDOT prior to a LEDPA decision.

The concept alternative review package as provided by the FIGG Team in the January 18, 2008 submittal (see Appendix D) included:

- Plan, profiles and cross sections
- Construction staging plans (These represent the FIGG Team's proposed initial construction schedule for the modified Alternate 4B.)
- Compact disc containing the above and a capacity analysis

January 22 through March 13, 2008 Progress

As the NCDOT team proceeded with their review, both formal and informal meetings were held to discuss comments and possible solutions. Many informal communications occurred in the spirit of partnering between the FIGG Team and NCDOT staff to fine-tune the alignment characteristics during the course of the NCDOT review. This interaction with the NCDOT led to the March 13, 2008 comment resolution meeting.

March 13, 2008 Meeting

The first formal comment resolution meeting was held on March 13, 2008, at the NCDOT Highway Building in Raleigh. The purpose of the meeting was to discuss and resolve review comments related to the operational and design issues identified by the NCDOT Roadway Design Unit in their review of the FIGG Team functional designs of the ADC modified conceptual alternative.

The main review comments that were discussed are:

- The two lane collector/distributor for I-26 northbound to I-240 eastbound was considered a left hand exit
- Elimination of a movement at the interchange west of the French Broad River where eastbound Patton Avenue traffic would cross the river west (north) on I-26
- Concerns with the operation of braided ramps that they considered to conflict with driver expectation (i.e. exit right to go left)
- Concerns with route continuity

NCDOT noted that they had not checked the design in detail because they identified these primary issues for resolution before proceeding with a full review of the plans.

During the meeting, several options were discussed as possibilities for resolving these concerns:

- The simplest solution to the braided ramps concern is to include a loop in the southeast quadrant of the interchange, west of the river. TGS and NCDOT stated that it had been considered in the past and had proven difficult to resolve along with concerns about truck rollovers on the tight radius loop. Adding a loop would also significantly impact neighborhoods, businesses and a historic property. This would conflict with objectives of the City and ADC to minimize the project footprint.

- None of the NCDOT alternatives provide all movements at all interchanges, but the movement that would not be included from Patton Avenue eastbound to I-26 northbound with this Alternative 4B is considered a primary required movement by NCDOT and FHWA.

- NCDOT is concerned that their traffic forecast numbers are too low and a left turn movement on to I-26/I-240 from Patton Avenue will not accommodate the traffic.

- NCDOT was concerned with the length of the ramps before they split to I-26 and I-240 and stated that they felt a minimum of 1,000 feet was needed for decision making and to provide adequate signing.

- Discussion of traffic – Highway Capacity Software (HCS) used by the NCDOT representatives indicated that some weaving movements will work but HCS has anomalies in the analysis of complex traffic operations, so we should not rely on HCS alone. They may need to use micro simulation for evaluating traffic operations.

- The sag on the bridge for the braided ramp option is not acceptable.

- In addition to the initial review comments focused on operations, the NCDOT also felt that concerns over constructibility and cost were not yet satisfied.

- I-240 was identified as a Collector/Distributor (C/D) on the ADC alternative, but NCDOT considers it as the I-240 mainline. Thus NCDOT believes the I-26 northbound movement functions as a left hand exit.
- URS, as a consultant working for NCDOT, also mentioned that there were concerns with how the proposed triple lefts from Patton Avenue eastbound to I-26/I-240 west (south) bound would be accommodated relative to the location of the Haywood Street interchange. The weaving section and lane drops would be an important issue relative to maintaining access to Haywood Street.

To resolve these concerns, the following course of action was agreed to:

- The FIGG Team will further address three potential solutions:
    - Braided ramp (also removing the sag on the bridge)
    - Add a loop to the interchange west of the river in the southeast quadrant
    - Provide the Patton Avenue EB to I-26 NB movement east of the river.

- After the FIGG Team revised and resubmitted the alternative, NCDOT would conduct a full review of the alternative.

March 13 through April 16, 2008 Progress

After evaluating the three potential solutions discussed above during the comment resolution meeting of March 13, 2008, it was determined by the FIGG Team that the best solution was the braided ramp option. This solution consisted of:

- Adding a second lane to I-240 EB (2 lane C/D)
- Using a braided ramp to eliminate the left hand exit for driver on Ramp D intending to continue north on I-26.

This new revised Alignment 4B (see Figure 17) was submitted to the NCDOT on March, 28, 2008 for their continued review.

Concurrent with development of the braided ramp option, the FIGG Team also prepared responses to constructibility comments that were received on April 9, 2008 from the Traffic Control Project Engineer and Division 13 Construction Engineer. On April 9, 2008 the FIGG Team provided responses to the construction comments received. See Appendix E for a copy of the construction comments and associated responses.

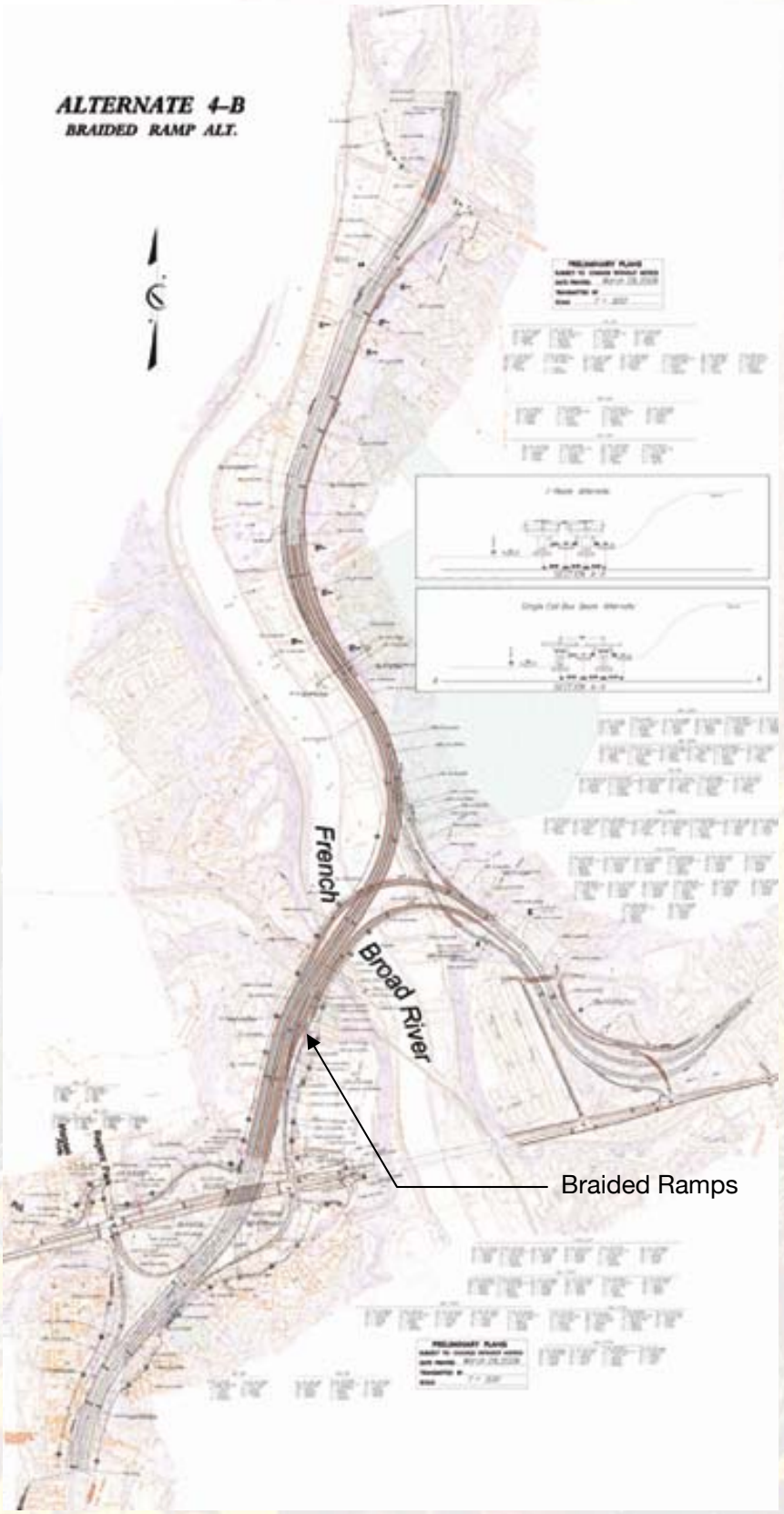


Figure 17 – Alternative 4B Braided Ramp Concept
(see appendix for 11" X 17" print)

April 16, 2008 Meeting

In order to discuss review comments on the revised horizontal alignment of the Alternate 4B (braided ramp option) that was submitted on March 28, 2008 and constructibility comments responses submitted on April 9, 2008, a second comment resolution meeting was held on the morning of April 16, 2008 at the NCDOT Century Center in Raleigh. A copy of the minutes and list of attendees from the meeting is provided in Appendix H. Review comments were provided by the following NCDOT representatives:

- NCDOT Roadway Section – Design Review
- TGS – Design Review
- URS – Capacity Analysis
- NCDOT Congestion Management Section – Traffic Operations Review
- NCDOT Eastern Work Zone Traffic Control Region and Highway Division 13 – Construction Phasing and Constructibility
- NCDOT Bridge Section – Structures Review (via handout)
- TGS – Environmental Impact Review

On the basis of the review comments presented during this meeting, the following course of action was agreed to by NCDOT and the FIGG Team:

- The FIGG Team would address and provide responses to major comments from NCDOT within two weeks. Major concerns included the following:
    1. Operation of the I-26 EB/I-240 WB weaving movement between Patton Avenue and Haywood Street and Patton Avenue westbound triple lefts to I-26 EB/I-240 WB.
    2. Remove the Hazel Mill intersection and terminate with a cul-de-sac. Then check if Patton Avenue/Loop B intersection will operate at an acceptable LOS. NCDOT also noted a concern with the cycle length used in the provided analysis, given that the adjacent signalized intersections may control.
    3. With the removal of Hazel Mill intersection, the FIGG Team will re-analyze the Patton Avenue and Regent Park Boulevard/Loop B intersection.
    4. Evaluate the gore width for the I-240/I-26 split.
    5. Investigate the rollover issue with the US 19-23-70 NB diverging traffic from I-240.
- Forward vertical clearance correspondence with Norfolk Southern Railroad to Vince Rhea and Lonnie Brooks (see Appendix G).
- Provide Mr. Brooks with a copy of the preliminary pier location plans.

The NCDOT indicated that, until their most recent comments were addressed, there would not be any further consideration of Alternate 4B as a feasible alternative. It was agreed that the remainder of comments that NCDOT had generated to date were less serious in nature and could be addressed in the preliminary design phase of Alternative 4B if these major comments could be resolved to the satisfaction of NCDOT.

April 16 through June 20, 2008 Progress

After evaluating and studying these additional review comments from NCDOT, and in an effort to determine a version of the alternative that would be acceptable to the

NCDOT, the FIGG Team revised the alternative to address the comments discussed during the April 16, 2008 meeting.

The primary revisions to the Alternative 4B (braided option) as presented during the April 16, 2008 meeting, consisted of locating the I-26 new alignment over Patton Avenue. The primary consideration for this modification was to use the existing I-240 WB and I-26 EB ramp (Ramp DB) as the means for providing free flowing traffic from west bound Patton Avenue onto I-26 SB without triple lefts at the Regent Park intersection traffic signal.

This resulted from a previous NCDOT position that west bound Patton Avenue traffic required a means for accessing I-26 SB at a location near the Regent Park intersection traffic signal rather than only using the I-240 WB to I-26 SB ramp connection. As a result of including this traffic connection for west bound Patton Avenue traffic at this intersection, the projected volume of traffic moving through this signal was larger than could be accommodated to achieve an acceptable Level of Service with only two lanes. The solution was to use triple left turn lanes from west bound Patton Avenue onto Ramp B for merging onto I-26 SB. This presented a difficult scenario for reducing the number of lanes on the ramp from three to one before the next interchange at Haywood Street, thus resulting in an unacceptable weaving condition on I-26 SB.

Locating the new I-26 alignment over Patton Avenue also avoids a complex on-site detour for Patton Ave. since the existing bridge on Patton Ave over the ramps to I-26/240 can remain in place during construction. This would eliminate the numerous and expensive construction staging phases that would otherwise be necessary to perform the earthwork cuts where I-26 would pass under Patton Avenue.

The following modifications were also incorporated into the I-26 over Patton Avenue revision to further address other NCDOT comments:

- Eliminate the triple left on Patton Avenue WB accessing I-26 SB by preserving the existing I-240 WB and I-26 EB ramp (Ramp DB).
- Add Ramp B for Patton Avenue EB traffic accessing I-26 SB.

This newest revised alignment as shown in Figure 18 that addressed the NCDOT comments from the April 16, 2008 meeting was discussed with the City of Asheville and the ADC and subsequently submitted to NCDOT for their continued review on May 27, 2008.

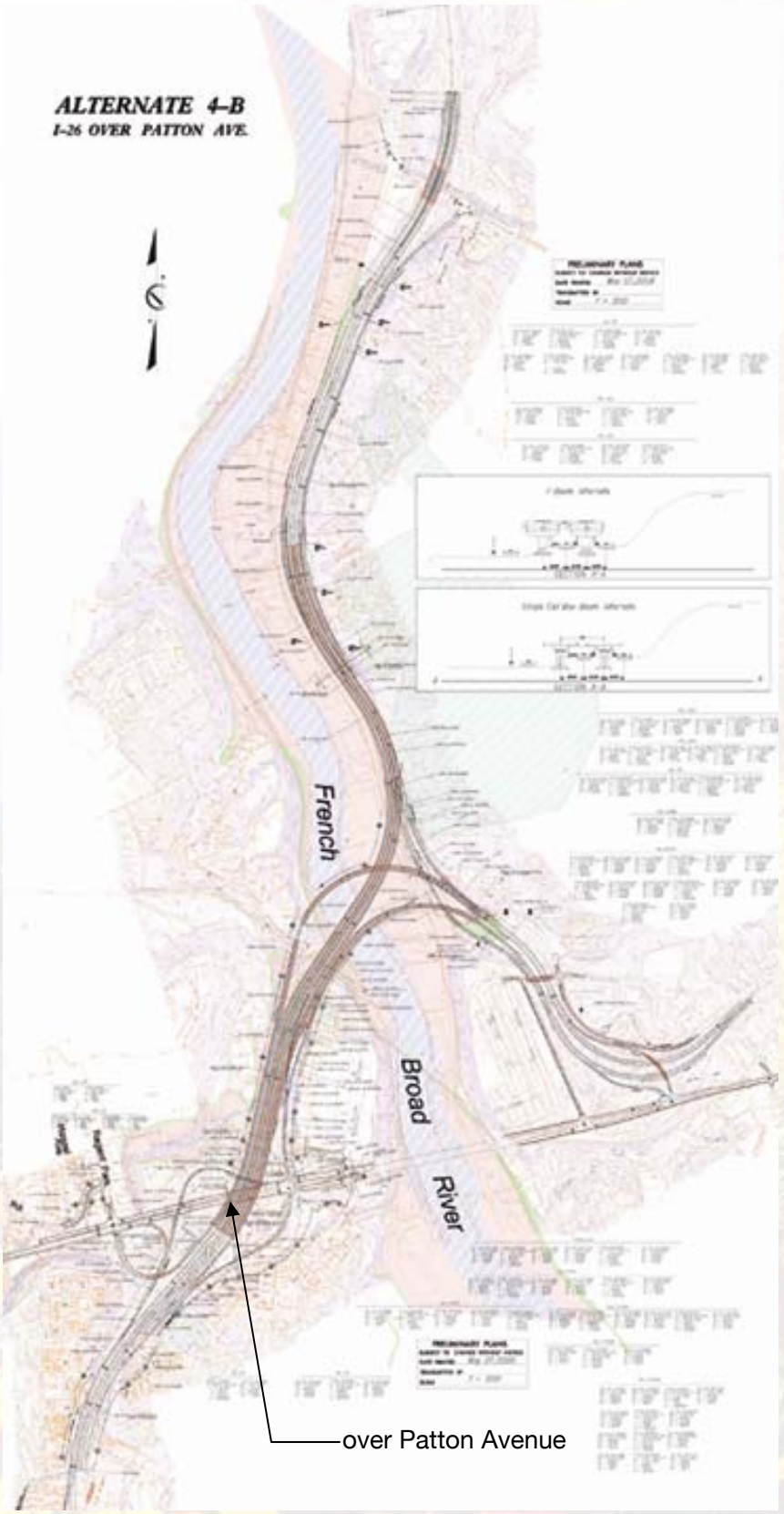


Figure 18 – Alternative 4B I-26 over Patton Avenue Concept (see appendix for 11" X 17" print)

June 20, 2008 Meeting

The review comments on the revised Alternative 4B were discussed during a resolution meeting on Friday, June 20, 2008 at the NCDOT Transportation Building in Raleigh. For a copy of the minutes and list of attendees refer to Appendix H.

Review comments that had been submitted from various NCDOT branches, TGS and URS were discussed at this meeting. The review comments were provided by:

- NCDOT Roadway Design Unit
- NCDOT Congestion Management
- NCDOT Structure Design Unit
- URS
- TGS
- NCDOT Work Zone Traffic Control and Division 13 Construction

After discussing the review comments, NCDOT noted that no fatal flaws had been identified with the concept as shown in Figure 18, and NCDOT would proceed with this alternative into preliminary design for inclusion in the NEPA process. NCDOT also noted that this alternative would be presented as a Corridor Hearing/Public Workshop map.

It was also agreed that the Quantity Estimates would be done by the FIGG Team and these quantities would be used by NCDOT to develop the Cost Estimates for this Alternative 4B.

August 15, 2008 Submittal

As agreed during the June 20, 2008 meeting, the FIGG Team prepared and submitted the requested quantities on August 15, 2008 to the NCDOT. A copy of the submitted quantities for the approved Alignment 4B is provided in Appendix F.

It is noted that the original recommended adjustments to the ADC Alternate 4B includes the possibility for using an elevated segmental box girder structure type. This bridge type has provided value to previously completed FIGG bridges with minimal on-site construction time, reduced on-site construction staging requirements, less inconvenience to the traveling public during construction and cost savings from the economies of segmental construction. Given the estimated quantities that were submitted for Alternate 4B in combination with using a segmental box girder structure type, the estimated cost for Alternate 4B should be competitive with the costs estimated for Alternate 4.

SUMMARY

On November 2, 2007 the City of Asheville and Buncombe County (CA/BC) in conjunction with the Asheville Design Center (ADC) provided the FIGG Team notice to proceed with a feasibility study of the ADC proposed Alternative Alignment for the I-26 Connector in Asheville, North Carolina. The FIGG Team performed an analysis and proposed modifications to obtain NCDOT acceptance of the ADC proposed Alignment Alternative 4B for including in the NEPA Environmental Study as a feasible alternative. The goal of the CA/BC and ADC is to receive preferred alternative status for the proposed Alternative 4B.

The FIGG Team engaged in numerous formal and informal meetings with the NCDOT while also coordinating with the technical team representing the CA/BC and ADC throughout the study period that extended from October 2007 through August 2008. A summary listing of the formal meetings is provided in Table 1.

Through this partnering process the NCDOT has agreed to accept the Alternative 4B functional plans that were submitted on May 27, 2008 for continuing through Preliminary Design in the NEPA environmental study process. The next major milestone for Alternative 4B is inclusion in the NCDOT Corridor Hearing and Public Workshop.

Date	Purpose of Meeting
October 22, 2007	Kick-off meeting with CA/BC & ADC (Asheville)
November 30, 2007	Progress meeting with CA/BC & ADC (Asheville)
December 11, 2007	Progress meeting with NCDOT (Raleigh)
December 19, 2007	Progress teleconference with CA/BC & ADC
January 4, 2008	Progress meeting with CA/BC, ADC & NCDOT (Asheville)
January 15, 2008	Progress meeting with CA/BC, ADC & NCDOT (Asheville)
January 22, 2008	Coordination meeting with NCDOT (Raleigh)
February 28, 2008	Progress meeting with CA/BC & ADC (Asheville)
March 13, 2008	Progress meeting with NCDOT & FHWA (Raleigh)
April 16, 2008	Progress meeting with NCDOT (Raleigh)
June 20, 2008	Progress meeting with NCDOT & FHWA (Raleigh)
July 7, 2008	Status meeting with CA/BC & ADC (Asheville)
August 19, 2008	Status meeting with CA/BC, ADC & NCDOT (Asheville)
August 24, 2008	Rendering review meeting with ADC (Asheville)

Table 1 – Project Meeting Summary

APPENDIX C

CORRESPONDENCE SINCE PUBLICATION OF THE 2015 DEIS

APPENDIX C1

CORRESPONDENCE FROM FEDERAL AGENCIES

Date	From	To	General Subject
11/02/2015	National Oceanic and Atmospheric Administration, Marine Fisheries Service	USACE	Comments on USACE public notice.
11/24/2015	State Historic Preservation Office	USACE	Comments on USACE public notice.
11/30/2015	Southern Environmental Law Center	USACE	Comments on USACE public notice.
12/07/2015	US Department of Interior	FHWA	Comments on DEIS
12/07/2015	US Environmental Protection Agency	NCDOT	Comments on DEIS
12/17/2015	USACE	NCDOT	USACE public notice
01/04/2017	United States Coast Guard; Fifth Coast Guard District	FHWA	Notification that Coast Guard bridge permit not required for project due to Surface Transportation Assistance Act (STAA) exemption.
02/21/2018	USFWS	NCDOT	Gray bat monitoring
06/18/2018	USACE	NCDOT	Comments on CP 4A merger meeting packet
03/01/2019	Office of Federal Agency Programs – Advisory Council on Historic Preservation	FHWA	Notification that consultation not needed to resolve adverse effects.
05/17/2019	USCG	NCDOT	I-26 French Broad River Monitoring
08/16/2019	FHWA	City of Asheville	Approval to designate the City of Asheville Transportation and Planning & Urban Design Department as a Consulting Party under Section 106 of the National Historic Preservation Act of 1966.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

November 2, 2015

(Sent via Electronic Mail)

Colonel Kevin P. Landers Sr., Commander
U.S. Army Corps of Engineers Wilmington District
69 Darlington Avenue
Wilmington, North Carolina 28403-1398

Dear Colonel Landers:

NOAA's National Marine Fisheries Service (NMFS) reviewed the projects described in the public notice(s) listed below.

Based on the information in the public notice(s), the proposed project(s) would ***NOT*** occur in the vicinity of essential fish habitat (EFH) designated by the South Atlantic Fishery Management Council or NMFS. Present staffing levels preclude further analysis of the proposed activities and no further action is planned. This position is neither supportive of nor in opposition to authorization of the proposed work.

NOTICE NO.	APPLICANT	NOTICE DATE	DUE DATE
2004-9986803	NCDOT	October 28, 2015	November 30, 2015

Please note these comments do not satisfy your consultation responsibilities under section 7 of the Endangered Species Act of 1973, as amended. If the activity "may effect" listed species or critical habitat that are under the purview of NMFS, consultation should be initiated with our Protected Resources Division at the letterhead address.

Sincerely,

Pace Wilber (for)

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

November 24, 2015

Lori Beckwith
US Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

Re: Discharge Fill Materials into US Waters for the I-26 Connector, Asheville, I-2513, Buncombe County, CH 96-0472

Dear Ms. Beckwith:

We have received a public notice concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona M. Bartos

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 828-258-2023 | 22 SOUTH PACK SQUARE, SUITE 700 ASHEVILLE, NC 28801-3494 | Facsimile 828-258-2024

November 30, 2015

Sent Via Electronic-Mail and First Class U.S. Mail

Ms. Lori Beckwith
U.S. Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue
Room 208
Asheville, NC 28801-5006
loretta.a.beckwith@usace.army.mil

Re: Comments on the I-26 Connector, Corps Action ID #: SAW-2004-9986803

Dear Ms. Beckwith:

These comments are submitted on behalf of MountainTrue in response to U.S. Army Corps of Engineers' ("Corps") request for public comment on the I-26 Connector Draft Environmental Impact Statement ("DEIS").

MountainTrue is a § 501(c)(3) non-profit public interest organization dedicated to protecting the natural heritage and environment of Western North Carolina. MountainTrue's members live and work in the project area, regularly drive the project corridor, use and enjoy the French Broad River and its tributaries, and own homes and businesses impacted by the proposed project. MountainTrue administers the French Broad Riverkeeper program, which monitors and advocates for protection of the French Broad watershed from a variety of threats, including pollution from runoff, road projects and development.

We urge the Corps to acknowledge that it cannot, consistent with the mandate of the Section 404(b)(1) guidelines and statutory authority, issue a Department of the Army permit for any of the alternatives currently proposed by the N.C. Department of Transportation ("NCDOT") for the I-26 Connector. In particular, the Corps cannot issue a permit for any of the proposed alternatives for two reasons: (1) the project is improperly segmented in violation of National Environmental Policy Act ("NEPA"), depriving the Corps of the information it needs to make a permit decision; and (2) less harmful practicable alternatives exist for Section A of the project—six lanes or six lanes with auxiliary lanes would be more than adequate to meet future needs and would cause less harm to aquatic resources throughout the Connector.

Section 404(b)(1) Guidelines

In deciding whether to issue a Section 404 permit, the Corps must apply the EPA Section 404(b)(1) Guidelines. As required by the Clean Water Act (CWA), the Guidelines specify where and under what conditions dredged or fill material can be discharged lawfully. The Corps cannot issue a permit if any of the following are true: (i) there is a less harmful "practicable alternative" to the project, (ii) the project would cause a "significant degradation of the aquatic ecosystem," (iii) the applicant has not taken appropriate steps to "minimize potential harm to the aquatic ecosystem," or (iv) the Corps does not have "sufficient information" to make a reasonable permit decision. 40 C.F.R. § 230.12(a)(3). The alternatives currently proposed by NCDOT for the I-26 Connector fail because improper segmentation deprives the Corps of "sufficient information" to make a reasonable permit decision and less harmful practicable alternatives exist for Section A of the project that NCDOT failed to analyze.

I. The Corps Lacks Sufficient Information to Make a Reasonable Permit Decision Because the Project Is Improperly Segmented in Violation of NEPA

NCDOT's plans are plain: it is determined to build a continuous six-to-eight lane interstate from south of Hendersonville to north of Weaverville. The overbuilt highway expansion proposal though the entire Asheville metropolitan area will spoil scenery, alter development patterns, and impact aquatic resources throughout the corridor. Yet rather than fully and fairly disclosing the consequences of its desired corridor, NCDOT is proceeding piecemeal, analyzing only small segments of the project. Such segmentation hides the corridor's full environmental impacts and evades what NCDOT's own traffic data shows: that these segments are so interrelated that expanding one segment forces expansions in adjacent segments, and it is unreasonable to consider these segments under the fiction that they will occur in isolation. NCDOT's approach also violates NEPA—flouting a federal ruling on segmentation in this very corridor—and deprives the Corps of the information it needs to make a permit decision.

It is well established that "[a]gencies may not engage in segmentation, which involves an attempt to circumvent NEPA by breaking up one project into smaller projects and not studying the overall impacts of the single overall project." *Defenders of Wildlife v. N.C. Dep't of Transp.*, 762 F.3d 374, 394 (4th Cir. 2014) (internal quotation marks omitted). The Council on Environmental Quality ("CEQ") and the Federal Highway Administration ("FHWA") have regulations that guide whether a project is improperly segmented. The CEQ regulations provide that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a). Actions are closely related, and thus must be considered in the same impact statement, if they are connected actions. 40 C.F.R. § 1508.25(a).

> Actions are connected if they:
> (i) Automatically trigger other actions which require environmental impact statements.
> (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Id. The FHWA's regulations related to segmentation contemplate similar factors:

> In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each EIS . . . shall:
> (1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope;
> (2) Have independent utility or independent significance, *i.e.*, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and
> (3) Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

23 C.F.R. § 771.111(f). The Corps' regulations contain a similar mandate to consider linked projects together: "All activities which the applicant plans to undertake which are reasonably related to the same project and for which a DA permit would be required should be included in the same permit application. District engineers should reject, as incomplete, any permit application which fails to comply with this requirement." 33 C.F.R. § 325.1(d)(2).

Although NCDOT plans one contiguous highway expansion, it is dividing the expansion into three distinct environmental review processes. The current DEIS analyzes TIP No. I-2513, encompassing widening and other modifications from just south of the I-26/I-40/I-240 interchange to north of where I-240 crosses the French Broad River, near the US 19/23/70 and SR 1781 (Broadway) interchange. To the north, NCDOT is developing TIP No. A-0010A, which spans from the northern end of this project to Exit 13 on US 19/23, near Mars Hill. To the south, NCDOT plans to widen 22.2 miles of I-26, from the southern end of this project to south of Hendersonville near US 25. This southern widening project is identified as TIP No. I-4400/I-4700. Originally, these were two distinct widening projects, but, as will be discussed below, a federal judge ruled that proceeding with an environmental analysis and decision limited to I-4400 alone constituted unlawful segmentation in violation of NEPA. In reality, TIP Nos. I-4400/I-4700, I-2513, and A-0010A are an integrated single project: the completion and expansion of I-26 through North Carolina.

Beyond their physical and thematic connection, a closer look reveals that these projects are inseparable and interdependent. First, as the DEIS acknowledges, a widened Connector is needed, in part, to accommodate traffic from the planned expansion north of the Connector, as that project will increase "traffic demands along I-240 west of Asheville." I-26 Connector Draft Environmental Impact Statement [hereinafter "DEIS"], at 1-3. Thus, planned widening in a "separate" project is constraining alternatives in this project. Similarly, expanding the Connector will force implementation of the proposed northern and southern expansions, or require those expansions to occur first, raising red flags under both CEQ's and FHWA's segmentation regulations.

For proof of the interdependent nature of these "separate" projects, the Corps need only refer to the maps and traffic capacity tables provided with the DEIS. If the Connector is built as planned, then the I-26 westbound lanes at the northern end of the project, which carry the traffic leaving Asheville for points north, will rapidly drop from five lanes to the existing two-lane footprint.[1] Creating such a bottleneck in the very lanes that will be carrying northbound traffic out of Asheville during afternoon rush-hour is untenable and will force additional widening projects. A comparable bottleneck is designed into the southern end of the project in the I-26 eastbound lanes: commuters traveling to destinations south of Asheville will have to navigate rush hour traffic as the roadway suddenly drops from five to two lanes. These bottlenecks are designed into all alternatives under consideration. Because much of the afternoon commuter traffic out of Asheville heads to points north and south, these bottlenecks inherent to the project will cause intolerable dysfunction in the corridor if the Connector project proceeds alone.

NCDOT's traffic capacity analyses bear this out. The following tables show the level of service ("LOS") predicted by NCDOT for these highway sections in 2033. These sections were analyzed under two scenarios: the long-range plan ("LRP"), which assumes these sections will be expanded to six lanes, and the additional improvements scenario ("AIS"), which analyzes these sections as an eight-lane highway. Under the LRP, assuming the Connector is built, there will be LOS failures during afternoon rush hour north and south of the Connector in all proposed alternatives. Drivers heading south will experience LOS F; drivers heading north will experience LOS E. This is true under all alternatives being considered for the Connector. To reach levels of service deemed acceptable by NCDOT, I-26 will need to be expanded to eight lanes (the AIS) to the north and south if the Connector is built as proposed. NCDOT has not provided a capacity analysis that assumes the existing four-lane footprint to the north and south of the Connector, but given the failures with six lanes, it is safe to assume those sections would perform even worse without any expansion. Indeed, the back-ups from the bottlenecks may be so severe that areas within the Connector may start to fail.

Table 1: Year 2033 Section C Level of Service Analysis[2]

Freeway Segments	2033 PM Peak Hour LOS
I-26 WB – South of I-40	D (LRP) C (AIS
I-26 EB – South of I-40	F (LRP) D (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 54, table 13 (URS 2010)[3]; *see also* DEIS at 2-93, Fig. 2-23.

Table 2: Year 2033 Section B Level of Service Analysis[4]

Freeway Segments	2033 PM Peak Hour LOS

[1] The DEIS describes this as a decrease from a four-lane section to a two-lane section, but an auxiliary lane creates a five-lane footprint.

[2] This table contains data from the capacity analysis for Alternative C-2 in Section C. Data from only one alternative is shown because the LOS results are the same for all Section C alternatives in these segments.

[3] This document is the source for NCDOT's capacity analysis for the Connector. *See, e.g.*, DEIS at 2-9 (citing the Traffic Capacity Analysis Memorandum in Tables 2-2 and 2-3).

[4] This table contains data from the capacity analysis for Alternative 3 in Section B. Data from only one alternative is shown because the LOS results are the same for all Section B alternatives in these segments.

I-26 WB – North of Broadway	E (LRP) D (AIS)
I-26 EB – North of Broadway	D (LRP) C (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 63, table 17; *see also* DEIS at 2-98, Fig. 2-27.

More proof that NCDOT knows and expects that the Connector will force expansions to the north and south can be found in the capacity analysis table that assumes the Connector is not built. Under the six-lane LRP footprint, the segments to the north and south perform at acceptable levels of service, even during afternoon rush hour. Thus the same sections that fail if the Connector is built perform fine if it is not built.

Table 3: Year 2033 No-Build Level of Service Analysis

Freeway Segments	2033 PM Peak Hour LOS
I-26 WB – South of I-40	D (LRP) C (AIS
I-26 EB – South of I-40	D (LRP) C (AIS)
US 19-23-70 NB – North of Broadway	D (LRP) C (AIS)
US 19-23-70 SB – North of Broadway	C (LRP) B (AIS)

Traffic Capacity Analysis Memorandum, Vol. 1, at 48, table 11; *see also* DEIS at 2-89 – 2-90, Figs. 2-20, 2-21.

By increasing capacity for the Connector project without taking into account the resulting traffic flow failures in related sections, NCDOT is artificially restricting the range of alternatives available for those sections, as well. The DEIS states that A-0010A and I-4400/I-4700 are also being designed to meet LOS D. DEIS at 2-8. Based on the above tables, NCDOT's plans for the Connector preclude anything less than an eight-lane footprint to the north and south. Thus, not only does the Connector foreclose a no-build alternative for those sections, which NEPA requires agencies to consider throughout EIS process, *it also forecloses six-lane alternatives*. In CEQ's regulatory terms, these facts show wrongful segmentation because the Connector "[a]utomatically trigger[s]" under NCDOT's own standards for traffic operation the northern and southern highway expansions and because the Connector "[c]annot or will not proceed unless" those expansions "are taken previously or simultaneously." 40 C.F.R. § 1508.25(a). At the very least, the Connector will "restrict consideration of alternatives for other reasonably foreseeable transportation improvements." 23 C.F.R. § 771.111(f). It also shows that the Connector is only a "reasonable expenditure" if the other expansions are made. *Id.* More broadly, the bottlenecks and interrelated traffic flow failures indicate that the Connector lacks logical termini, *id.*, and that these projects are in fact "interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a).

As noted above, a federal judge reached similar conclusions about NCDOT's attempt to evaluate I-4400 alone. *See W.N.C. Alliance v. N.C. Dep't of Transp.*, 312 F. Supp. 2d 765

(W.D.N.C. 2003). Just as with this project, completing I-4400 alone would have created a bottleneck precisely where congestion was already a problem, confirming that the project lacked logical termini and independent utility. *Id.* at 774. Moreover, the bottleneck would have wrongfully restricted consideration of alternatives for I-4700 because it would have eliminated the no-build option. *Id.* at 775. Although NCDOT has elected to interpret the segmentation portion of the opinion to mean only that I-4400 and I-4700 must be considered together, the opinion does not limit itself. *See* URS, *US 19/23 (Future I-26) Improvements Logical Termini and Independent Utility Memorandum* [hereinafter "Logical Termini Memo"], at 3 (Nov. 13, 2014). The court expressly found "that I-4400 does not have a logical terminus in the north and *is not a reasonable expenditure if I-4700 or the other proposed expansions are not undertaken.*" *W.N.C. Alliance*, 312 F. Supp. At 775 (emphasis added). The same is true for the Connector. Indeed, proceeding with the Connector alone is even worse under the segmentation factors, as it will create not one, but two, bottlenecks, and it forecloses not just no-build alternatives, but six-lane alternatives as well.

The record indicates that the Corps has raised similar segmentation concerns in discussions with NCDOT and FHWA on A-0010A. *See* Logical Termini Memo at 1-3. In the memorandum on this topic, FHWA and NCDOT provided only superficial and unpersuasive rebuttals for these concerns. For example, on the question of whether A-0010A would restrict consideration of alternatives, the memorandum provides only *ipse dixit*: "[T]he eastern terminus of the A-0010A Project was chosen in order to not restrict consideration of alternatives for the . . . I-2513 Project." *Id.* at 3. Such "say-so" is unpersuasive and inadequate under NEPA.[5] And as the Corps well knows, wrongful segmentation is no small matter: what the DEIS presents as approximately seven miles of highway expansion may in fact force over forty miles of highway expansion—more than doubling the existing footprint in many sections, including areas less developed and more sensitive than those impacted by I-2513.[6] Without a single EIS considering the direct, indirect, and cumulative impacts of expanding the entire corridor, the Corps lacks sufficient information to make a permit decision, as the full aquatic impacts of this project remain unknown. The Logical Termini Memo on segmentation in A-0010A suggests that the Corps took this position as to that project, and we urge the Corps to take the same position as to I-2513's DEIS.

II. The Corps Cannot Issue a Permit Because Less Damaging Practicable Alternatives Exist for Section A

The 2015 DEIS offers only one alternative for Section A: four travel lanes in each direction with auxiliary lanes for most of the section. This eight-to-ten lane footprint will more than double the existing roadway, disrupting West Asheville's renaissance with a freeway fit for Los Angeles. Yet, less damaging practicable alternatives exist: six travel lanes or six travel lanes with auxiliary lanes are feasible alternatives that will cause less damage throughout the

[5] The DEIS includes similar language, declaring that these projects do not restrict consideration of alternatives in the adjacent projects without any explanation or justification. *See* DEIS at 2-5 – 2-6.

[6] The memo also notes that a regional cumulative effects study found that the all projects under consideration for the corridor are not expected to result in significant cumulative effects. Logical Termini Memo at 3. Even assuming that statement is correct, it does not assuage concerns about the direct impacts construction of these sections will have on aquatic resources.

project and will adequately meet future demand. NCDOT's refusal to consider such alternatives, despite two decades of community pressure, is based on skewed studies, failed predictions, and flawed conclusions, and violates its core obligations under NEPA.

Although NCDOT failed to study practicable alternatives with lesser environmental impacts, the Corps is nonetheless required to independently evaluate the availability of less damaging alternatives in light of the project's legitimate objectives. *Friends of the Earth v. Hintz*, 800 F.2d 822, 833-34 (9th Cir. 1986) (Corps is required "to ensure that the applicant's stated purpose is legitimate"); *Alameda Water & Sanitation Dist. v. Reilly*, 930 F. Supp. 486, 492 (D. Colo. 1996) (the Corps "required independently to review and define the project's overall purpose"); *Sierra Club v. United States Army Corps of Eng'rs*, 2005 U.S. Dist. LEXIS 36385, *26 (D.N.J. 2005) ("The Army Corps is not restricted to the definition of project purpose contained in a permit application."). As explained in more detail below, six travel lanes or six travel lanes with auxiliary lanes represent viable and less damaging practicable alternatives; accordingly, the Corps cannot issue a permit for any of NCDOT's current proposals.

A. Six-Lane Alternatives Are Practicable Because They Will Adequately Meet Future Capacity Needs

The Corps is prohibited from issuing a 404(b) permit "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 C.F.R. § 230.10(a). "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." *Id.* § 230.10(a)(2). Moreover, as noted above, the Corps may also reject a permit application if it "lacks sufficient information to make a reasonable judgment as to whether the proposed discharge will comply" with the Corps' guidelines. *Id.* § 230.12(a)(3)(iv).

As is relevant to Section A, the DEIS identifies the following purpose for the project: "Improve the capacity of existing I-240 west of Asheville to accommodate the existing and forecasted (2033 design year) traffic in this growing area." DEIS at 1-3. Thus the only question from a practicability standpoint is whether the six-lane alternatives can meet the forecasted traffic demand for this section in 2033. In the DEIS, NCDOT concludes that six-lane alternatives are inadequate to meet this demand and steadfastly refuses to give full consideration to any alternative configuration. But NCDOT forces that result by imposing an arbitrary requirement, overinflating demand forecasts, and underestimating lane capacity. After stripping away NCDOT's flawed methodologies, it becomes clear that six lane alternatives are in fact practicable.

1. There Is No Requirement That the Connector Achieve LOS D at the Peak Hour

NCDOT's only justification for an eight-to-ten lane highway through West Asheville is that it is required by regulation to design the highway to achieve LOS D during the peak hour in the design year. No such legal requirement exists, however. NCDOT cites 23 C.F.R. § 625.4(a), which provides that FHWA adopted several documents as design standards for highways. But as the DEIS acknowledges, these documents do not impose a firm LOS D requirement. *See* DEIS

at 1-23. Rather, the pertinent document provides, as one would expect, flexibility in selecting the appropriate LOS, and that generally "agencies should strive to provide the highest level of service practical." *See id.* A policy to strive for the highest level of service practical is not a legal requirement to refuse to consider anything less than LOS D, and NCDOT's statements to the contrary are inaccurate and misleading. *E.g.*, *id.* at iv (asserting that "FHWA has adopted through regulation" an LOS D requirement for urban interstates).

Indeed, the claimed requirement to meet LOS D is belied by the NCDOT's own actions in pushing for the approval of eight travel lanes in 2002. At the time, NCDOT projected a traffic demand of 143,000 cars per day. Based on that number, the very table that NCDOT provided to the public indicated that an eight-lane freeway would exceed LOS E, yet NCDOT aggressively urged the MPO to approve eight lanes. Achieving LOS D cannot be a firm requirement, or else NCDOT itself violated that requirement in 2002 (the applicable laws have not changed in the intervening years, and the document providing recommended levels of services was published in 2001). Since NCDOT itself was not just willing to consider a Connector that would have exceeded LOS E, but also forcefully sought approval for such a Connector, at a minimum NCDOT must consider alternatives that would build fewer lanes but would achieve the same LOS that was acceptable when NCDOT wanted it to be acceptable.

Lacking a clear legal requirement to meet LOS D, the 2015 DEIS relies on a July 2004 letter from FHWA. *See* DEIS at 1-23. The letter states that the Connector project should be designed to meet LOS D. The credibility of this letter is completely undermined by an NCDOT official's notes, which were drafted in May 2004, shortly before FHWA's letter appeared. The notes, which were obtained in a public records request,[7] provide as follows:

→ Look for letter from FHWA on LOS E
→ Only let us design for LOS D or better. We will draft for them.

"**We will draft for them.**" (emphasis added). Ordinarily, a letter from one official to another would be weak evidence of a legal requirement. But here, where it appears that NCDOT drafted the letter to itself to justify its own action, citing such a letter is unpersuasive and an ad hoc justification of a decision already made, which violates NEPA.

NCDOT's claim that it must design for LOS D is thus based on a regulatory requirement that does not exist—and that NCDOT was in any event willing to violate when the forecasted traffic did not provide the result it wanted—and on a letter that NCDOT apparently drafted to itself. Reliance on such an illusory and fabricated requirement to reject reasonable alternatives is arbitrary and capricious, and in no way demonstrates that six-lane alternatives are impracticable.

[7] Copies of these notes are available upon request.

2. NCDOT's Traffic Demand Model and Traffic Capacity Analysis Are Flawed and Wrongly Skewed to Reject Six-Lane Alternatives

Even assuming that designing for LOS D is proper, NCDOT's rejection of six-lane alternatives is nonetheless flawed as it is based on studies skewed to ensure an eight-to-ten lane result. By overestimating future demand and underestimating capacity, NCDOT put six-lane alternatives through a test they could not possibly pass. Moreover, given that NCDOT's past models for this project have repeatedly failed to predict the future by greatly overestimating demand, and no basis exists to conclude that the latest model is not similarly flawed, the Corps should not rely on NCDOT's forecasts in its search for less damaging alternatives.

a) The Model's Assumption That the Connector Will Be Eight Lanes Creates Circular and Self-Fulfilling Decision Process

In generating its projected traffic demand for the Connector, the model itself has been programmed with the assumption that the Connector will have eight travel lanes. *See* Martin/Alexiou/Bryson, *French Broad River Metropolitan Planning Organization Travel Demand Model Final Report* [hereinafter "FBRMPO Travel Demand Report"], at 9-8, Ex. 5A (Nov. 2007) (noting that demand model assumed I-240 would be widened to eight lanes through West Asheville). In turn, this critical assumption underlies the projected traffic demand and induces more traffic than a smaller future footprint. *See* Martin/Alexiou/Bryson, *Traffic Forecasts for NCDOT State TIP Project No. I-2513, I-26 Connector*, at 26 (2010) ("The introduction of the connector, flyover, and (8-lane) widening in the Build Alternatives cause more trips than the No-Build Alternative along I-240 and I-26 because of reduced delay and increased capacity associated with building a new facility."). NCDOT then conducts a capacity analysis, asking how many lanes are needed to meet eight lanes of demand. Unsurprisingly, the analysis concludes that only eight lanes can meet eight lanes of demand; six lanes or six lanes with auxiliary lanes cannot. Community members have objected to this circular and self-fulfilling prophecy for years, but NCDOT repeats it in the 2015 DEIS to reject six-lane alternatives. *See* DEIS § 2.5.2.2 (applying eight-lane demand volumes to six lanes of capacity). Such flawed analysis is arbitrary and capricious, and in no way demonstrates that eight-to-ten lanes is the only practicable alternative.

It is noteworthy that, in 2002, the old model also generated projected traffic volumes for a four-lane and a six-lane Connector, and that these projections were substantially lower than the 143,000 cars per day projected for the eight-lane Connector at that time. Comparable traffic projections from the new model for a four-lane and six-lane Connector have not been provided to the public this time around, but it is likely that these projections also would be substantially less than the current forecast, and that these lower projections would be even more consistent with fewer lanes providing an appropriate LOS. NCDOT is required to provide these four-lane and six-lane projections to the public and use the Connector EIS fully to consider them and the lane alternatives they represent.

b) Demand Is Further Inflated By Including Expansions of I-26 to Six Lanes North and South of the Connector

As discussed in the segmentation analysis above, NCDOT's 2033 traffic capacity analysis assumed that I-26 will be expanded to six lanes north and south of the Connector. This assumption is also programmed into NCDOT's traffic demand forecasts. *See* FBRMPO Travel Demand Report, at 9-7, Ex. 5A. As a result, the traffic forecasted for the Connector includes the demand induced by having at least six travel lanes all the way from south of Hendersonville to north of Weaverville. The DEIS acknowledges that such expansions increase demand for the Connector. *See* DEIS at 1-3 ("The completion of portions of NCDOT STIP Project A-10 will further increased [*sic*] traffic demands along I-240 west of Asheville."). Therefore, NCDOT is rejecting six-lane alternatives based on future demand that is inflated by expansions adjacent to the project and eight lanes of demand within the project. This represents more circular and self-fulfilling logic, with NCDOT dreaming-up a superhighway and then asking if anything less can meet the demand that would be created along a superhighway. While effective at justifying superhighways, this approach does not answer the operative question: whether less damaging practicable alternatives exist. To answer this question, NCDOT must do what it has steadfastly refused, which is to forecast the demand for a smaller Connector *and* smaller overall corridor, and only then determine how many lanes are needed to meet that demand.

c) NCDOT's Lane Capacity Analysis Is Flawed, Underestimating Lane Capacity by Over 20%

In addition to overestimating demand, NCDOT underestimated lane capacity in the 2015 DEIS. Table 2-2 in the DEIS shows the estimated capacity for various numbers of lanes for different levels of service. NCDOT estimated these capacities using procedures from the Highway Capacity Manual (HCM). However, some of the assumptions used in the analysis, listed at the bottom of Table 2-2, are flawed.

First, NCDOT assumed a default truck percentage of 8%, and a truck equivalence factor of 2.5. This yields an adjustment factor of 0.893 that was applied to the theoretical lane capacity. However, the actual truck percentage is 5.2% (NCDOT SPOT worksheet). The HCM (Table 23-9) specifies a truck equivalence factor of 1.5 for the conditions in Section A, and FHWA's Appendix N (Procedures for Estimating Highway Capacity) also cites 1.5 as the appropriate factor. Using these figures would result in an adjustment factor of 0.975, which in turn would increase the calculated capacity by 9.2%.

Second, NCDOT used a driver population adjustment of 0.95. The HCM (23.12), Appendix N, and NCHRP Report 599 all recommend using a factor of 1.0. This would yield an additional capacity increase of 5.3%.

Third, NCDOT used a peak hour factor ("PHF") of 0.90. This factor is intended to accommodate higher traffic flows during the peak 15 minutes. The NCHRP Report 599 recommends a default value of 0.94.

If the three factors are revised as discussed above, then the combined adjustment factor would be 0.916 with PHF of 0.94. This would increase the assumed lane capacity by over 20%.

Starting with a theoretical lane capacity for LOS D of 2,040 (HCM Fig. 23-3), the directional peak-hour capacity for a six-lane freeway would increase from 4,570 in Table 2-2 to 5,610. Comparing this to the forecast volumes in Table 2-3, DEIS at 2-9, six lanes would be sufficient at all but two locations (Brevard Road to Amboy Road and Haywood Road to Patton Avenue); auxiliary lanes could be built for these segments. If the travel demand forecasts are adjusted downward to account for the base year over-estimates discussed below, then six lanes would suffice everywhere in Section A *even if* LOS D is an inflexible minimum at all times.

When capacity is calculated correctly, six lanes or six lanes with auxiliary lanes provide sufficient capacity to meet future demand. Notably, this assumes the validity of NCDOT's overinflated traffic forecasts. If a proper traffic forecast were done to correct the errors described above, then six lanes would likely provide more than enough capacity to maintain LOS D.

d) NCDOT's Traffic Forecast Model Is Improperly Calibrated Skewing Demand Upward

The 2010 traffic model that is used in the 2015 DEIS was calibrated for a base year of 2007. The calibration process is intended to ensure that the model correctly replicates actual current traffic behavior. The DEIS includes the model estimates for 2007 traffic along the I-26 corridor. These estimates exceed the actual traffic counts, indicating that the model was not properly calibrated. NCDOT's traffic counts are performed in even-numbered years, so the counts for 2006 and 2008 can be averaged to produce a fair estimated count for 2007. For the Bowen Bridges, the model estimate is 103,500, which is 7.8% higher than the count of 96,000. For I-240 south of Haywood Road, the model estimate of 54,900 exceeds the count by 7.6%. For US 19/23 north of I-240, the model estimate of 58,000 is 5.5% higher than the count. While it is impossible for a model to match every location exactly, over-estimating all of the locations along the most important corridor in the region by comparable factors indicates a systematic flaw in the model.

These calibration errors mean that future forecasts will very likely overestimate I-26 traffic by a comparable percentage. This is significant, because in some cases the projected volume is only slightly more than the estimated capacity at LOS D. For example, I-26/I-240 at Brevard Road is identified as a location where six lanes would not provide enough capacity, but the difference is only 5%, less than the calibration error. Thus, here again, NCDOT has skewed the numbers to ensure an eight-to-ten lane highway through West Asheville.

e) NCDOT Fails to Account for Large Margin of Error in Traffic Forecasting

In general, traffic forecasts are highly inaccurate and tend to overestimate demand. Substantial literature supports this point. *See generally* David T. Hargen, *Hubris or humility? Accuracy Issues for the Next 50 Years of Travel Demand Modeling*, Transportation (2013). One global study of transportation projects found that for road projects, on average, the difference between actual and forecasted traffic was more than ±20%, and for 25% of projects the difference was more than ±40%. Bent Flyvbjerg, et al., *Inaccuracy in Traffic Forecasts*, Transport Reviews, Vol. 26, No. 1, at 1-24 (2006). Surveys of traffic forecasters confirm these dismal results. One survey found that forecasters expected 20-year forecasts to only be within

±32.5% of actual traffic on an existing road, and ±42.5% on a new road. *See* Robert Bain, *The Reasonableness of Traffic Forecasts: Findings from a Small Survey* (April 2011). Another found slightly more optimism, with forecasters estimating that 20-year traffic forecasts would be within 24% of actual traffic for a new road, and 23% of actual traffic for a road widening project. *See* David T. Hartgen, *Travel Forecasting: Science, Craft, or Astrology*, Presentation at the Transportation Research Board Annual Meeting, January 2015, *available at* http://www.trb.org.

The poor predictive power of traffic forecasts can be seen in this case. Because NCDOT has been pushing for eight lanes since 1995, its then-25 year forecast to 2020 is rapidly approaching. The following table shows just how far NCDOT's 1995 forecasts for 2020 diverge from reality. The first column identifies segments of Section A. The second column provides the estimated ADT volume for those segments as reported in NCDOT's 1995 traffic forecast. The third column presents NCDOT's actual 2014 AADT volumes for those segments. The final column shows the 2020 volumes NCDOT predicted for those segments in 1995.

Table 4: Overestimation in NCDOT's 1995 Forecasts

Segments of I-240 in Section A	1995 ADT Volumes	2014 AADT Volumes	2020 Build Scenario Estimates (from 1995 forecast)
Between I-40 and NC 191	49,700	60,000 21% increase from 1995 1.1% per year	88,200 47% increase from 2014 7.8% per year
Between NC 191 and Amboy Rd.	55,400	69,000 25% increase from 1995 1.3% per year	99,100 44% increase from 2014 7.3% per year
Between Amboy Rd. and Haywood Rd.	48,600	59,000 21% increase from 1995 1.1% per year	84,200 43% increase from 2014 7.2% per year
Between Haywood Rd. and Patton Ave.	53,200	63,000 18% increase from 1995 0.9% per year	89,100 41% increase from 2014 6.8% per year

If NCDOT's 2020 predictions hold true, Asheville must prepare for a tidal wave of traffic in the next five years. Gradual one-percent increases in traffic will soon rise sevenfold in these segments, with each segment carrying an extra twenty to thirty thousand cars per day. While it is true that the 2020 numbers assumed a built Connector, which, as noted, will induce more traffic, these numbers still seem extremely high.

NCDOT has provided no basis to conclude that its current forecasts are any more accurate than its 1995 forecasts or traffic forecasts generally. Indeed, as discussed above, several bases exist to conclude that NCDOT's traffic forecasts are especially overinflated in this case. And despite the vast literature showing traffic forecasting to be a rough and moldable science, NCDOT presents its results as absolutes; the DEIS fails to describe or even acknowledge the inadequacies and margins of error in traffic forecasting. Combining the poor predictive power of traffic forecasts generally with the specific forecasting and capacity issues here, it becomes apparent that NCDOT has no rational basis to seek the massive highway footprint it seeks here.

It most certainly cannot dismiss the practicable 6-lane or 6-lane with auxiliary lane alternatives without violating NEPA.

3. NCDOT's Refusal to Consider Alternatives of Less Than Eight Lanes Is Arbitrary and Violates NEPA.

The Fourth Circuit has stressed that NEPA compliance must be measured by the totality of the circumstances in each specific case. *Nat'l Audubon Soc'y v. Dep't of the Navy*, 422 F. 3d 174, 186 (4th Cir. 2005). Each of the circumstances outlined above demonstrates that, to this point, NCDOT has arbitrarily predetermined to consider only eight travel lanes. The totality of these circumstances indicates that this approach, if continued into the final EIS, would violate NEPA's requirement that the agency consider all reasonable alternatives. The Corps should not repeat or incorporate NCDOT's illegal approach in its search for less damaging practicable alternatives. Rather, in light of the remarks above, the Corps should conclude that six lanes or six lanes with auxiliary lanes present practicable alternatives.

B. Six-Lane Alternatives Will Cause Less Damage to the Aquatic Ecosystem

Because six lanes or six lanes plus auxiliary lanes present practicable alternatives, the only remaining question is whether they "would have less adverse impact on the aquatic ecosystem" without causing "other significant adverse environmental consequences." 40 C.F.R. § 230.10(a). If so, the Corps must refuse to issue a permit to any eight-lane alternative. Limited data is available to answer this inquiry because for two decades NCDOT has refused to consider or analyze less than eight lanes in Section A. That said, certain general points may be made which show that six lane alternatives will cause less damage to the aquatic ecosystem.

First, as is obvious, a smaller highway footprint will allow Section A to cause less short-term and long-term effects on aquatic resources. Although NCDOT contends that constructing six lanes with auxiliary lanes in Section A will require almost as much land as its desired eight-to-ten lane footprint, it is still less land. This means that, short-term, less soil will be disturbed and, long-term, there will be a smaller amount of impervious surface—and thus less polluted runoff—in Section A. The land use and impervious surface benefits would likely be even greater in a pure six-lane footprint, which it appears NCDOT has not evaluated in detail. *See* AECOM, *Memorandum Re: Section A Project Footprint Scenarios*, at 1-2 (Sept. 24, 2015) (discussing only six lanes with auxiliary lanes).

More important than Section A's footprint, however, is the impact a smaller Section A will have on Sections B and C. These sections impose greater threats to aquatic resources, in part because Section B involves the addition of multiple river crossings, and Section C is near sensitive water resources, including Hominy Creek. Shrinking Section A will cause less damage to aquatic resources in those sections because a smaller Section A will allow for smaller Sections B and C. Part of the reason that Sections B and C have such large footprints is because they must feed into and out of an eight-to-ten lane Section A. If Section A has fewer lanes, then Sections B and C will need fewer lanes to feed into and out of Section A. Thus a smaller Section A permits a physical reduction in size that will reduce aquatic impacts throughout the Connector. Similarly, given the well-established relationship between highway size and traffic demand, a

smaller Section A will induce less traffic throughout the Connector, meaning that Sections B and C would likely require fewer lanes, further reducing aquatic impacts.

It is also possible that a right-sized Section A, by shrinking the Connector to 6 lanes, will reduce traffic demands throughout the I-26 corridor, preventing or limiting impactful expansions north and south of the Connector. Without proper analysis, it is impossible to quantify the reduction in induced demand, but NCDOT's figures show that the Connector as planned will increase demand throughout the corridor, even at the edges of the study area. A smaller Connector will reduce the need for expansions and associated aquatic impacts within and beyond the Connector.

Based on the foregoing, six-lane alternatives will cause less damage to aquatic resources, and thus the Corps must reject any permit application that includes eight lanes or more in Section A. To the extent NCDOT's failure to analyze six-lane alternatives has deprived the Corps of sufficient information to identify the least damaging alternative, the regulations authorize the Corps to deny a permit request on that basis alone. *See* 40 C.F.R. § 230.12(a)(3)(iv). Additionally, the Corps' regulations contemplate supplementing the NEPA documents when the Corps lacks sufficient information to make its determination. *See id.* § 230.10(a)(4). Accordingly, as the Corps is unable to identify the least damaging alternative with the information before it, the Corps has at least two mechanisms available to obtain that information.

Public Interest Review

Public interest review gauges the public and private need of the project. *See* 33 C.F.R. 320.4(a)(1) (describing public interest review and stating that the Corps must deny the permit if the application does not comply with the § 404(b)(1) Guidelines); Environmental Law Institute, *The Federal Wetlands Permitting Program: Avoidance and Minimization Requirements* 2 (Mar. 2008). Public interest review requires the Corps to consider any "probable impact which the proposed activity may have on the public interest." 33 C.F.R. § 320.4(a)(1). Benefits must be balanced against detriments. *Id.*

As currently proposed, the Connector project is not in the public interest. NCDOT has hidden the full impacts of this project by wrongfully segmenting it, and it has failed to consider less damaging practicable alternatives in Section A, despite decades of community pressure. As of the last traffic simulation analysis, the travel benefits of an eight-lane footprint over a six-lane footprint through West Asheville are slight—a matter of seconds for commuters—but the detriments to the community are enormous. A thriving urban community will be replaced with a superhighway, forcing numerous relocations in a city that already faces an affordable housing shortage, and the character of Asheville will be forever changed for the worse. But the damage does not stop at Asheville because, as noted, the demand induced by the Connector will force expansions to the north and south. While improving the current highway infrastructure is a legitimate need, more than doubling miles of the existing four-lane highway is not the answer. It will not serve the public interest, as is clear based on the myriad of flaws outlined above. Accordingly, we urge the Corps to conclude that the project, as presented in the I-2513 DEIS, does not survive public interest review.

Conclusion

For the foregoing reasons, the Corps could not grant a DA permit for any of NCDOT's proposed alternatives. The improper segmentation of the project deprives the Corps of sufficient information to make a permit decision, and there are less environmentally damaging practicable alternatives—six lanes or six lanes with auxiliary lanes in Section A. If the Corps continues to consider the application, a public hearing is necessary to fully ventilate the serious deficiencies in the proposed plan.

Sincerely,

Austin DJ Gerken

cc

Julie Mayfield, MountainTrue

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Richard B. Russell Federal Building
75 Spring Street, S.W., Suite 1144
Atlanta, Georgia 30303

ER 15/0584
9041.3

December 7, 2015

John F. Sullivan, III, P.E.
Federal Highway Administration
310 New Bern Avenue, Suite 410
Raleigh, NC 27601-1418

Re: Comments and Recommendations on the Draft Environmental Impact Statement and Section 4(f) Evaluation I-26 Connector, I-40 to US 19/23/70 North of Asheville in Buncombe County, North Carolina

Dear Mr. Sullivan:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation I-26 Connector, I-40 to US 19/23/70 North of Asheville in Buncombe County, North Carolina. The following comments are provided in accordance with the National Environmental Policy Act (42 U.S.C.§4321 et seq.) and Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

The North Carolina Department of Transportation (NCDOT) proposes to improve the existing I-240 and US 19-23 corridors from the I-26/I-40/I-240 interchange to the US 19-23-70 interchange with SR 1781 (Broadway Street). The project is approximately 7 miles long and is described in three sections; A, B and C.

We have been involved as a Merger team member for this project since 2002 and has been involved for the last 13 years. The US Fish and Wildlife Service (USFWS) provided comments and concurrence on the Purpose and Need (CP 1), the Alternatives to be Studied in Detail (CP 2) and the Bridging and Alignment Review (CP 2A).

Impacts to Federally Listed Species

We recommend the NCDOT and Federal Highway Administration (FHWA) continue coordination with the Department regarding required surveys as this project progresses through

the Merger Process. Given the urban nature of this project, the alternatives currently displayed in the DEIS are very similar in potential impacts to federally listed species.

Impacts to the Natural Environment

Reducing the footprint of this project has been a goal, particularly in developing later alternatives. We agree that a smaller, more compact project reduces direct impacts, especially to the human environment. However, those benefits may be negated if increases in stormwater cannot be properly treated to reduce thermal, chemical and velocity inputs to the French Broad River and its tributaries in the project area. Given the project's proximity to the French Broad River and the addition of impervious surface to this area, special and early attention should be paid to making sure that adequate area for stormwater detention and treatment is available. All of the alternatives should provide consideration of stormwater management.

We recommend that the NCDOT and FHWA continue coordination with the USFWS in the Merger Process. If you have questions about the above comments, please contact Marella Buncick on (828) 258-3939 ext. 237.

Section 4F

There is an extensive record of coordination with land owners and managers of 4F properties as well as the State Historic Preservation Office (SHPO) for this project. The potential uses of these resources were discussed, avoidance alternatives and other measures to minimize harm to the resources are identified and coordination with the public official having jurisdiction over each resource is documented. Section 4F resources that have the potential to be impacted are listed below:

Biltmore Estate
Asheville School
French Broad River Greenway
Carrier Park
West Asheville/Aycock School Historic District and Expansion
William Worley House (formerly C.G. Worley House)
Montford Hills Historic District
Montford Hills/Hibriten Drive Boundary Expansion
Archaeological Site 31BN623

Since a preferred alternative has not been identified at this time and a Memorandum of Agreement has not been developed, we cannot concur that the section 4F document includes all planning to avoid, minimize and mitigate all harm to 4F resources; and that there is no other prudent or feasible alternative at this time.

The Department has no objection to the demimimis determination provided that a MOA is developed outlining who is responsible for each avoidance, minimization and mitigation effort and the MOA is signed with the SHPO and land owners/managers.

Thank you for the opportunity to review and provide comments. If you have questions, please contact Anita Barnett on (404) 507-5706. I can be reached on (404) 331-4524 or via email at joyce_stanley@ios.doi.gov.

Sincerely,

Joyce Stanley, MPA
Regional Environmental Protection Specialist

cc: Anita Barnett – NPS
Gary Lecain – USGS
Christine Willis – FWS
Chester McGhee – BIA
Robin Ferguson – OSRME
OEPC - WASH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 07 2015

Mr. Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Re: Federal Draft Environmental Impact Statement (DEIS) and Draft §4(f) Evaluation for the I-26 [Asheville] Connector Project, Buncombe County, North Carolina; ERP No.: FHW-E40851-NC; CEQ No.: 20150294; F.A. Project No.: MA-NHF-26-1(53); State Project No.: 34165.1.1; TIP Project No.: I-2513

Dear Mr. Hancock:

The U.S. Environmental Protection Agency Region 4 Office has received and reviewed the subject document and is commenting in accordance with §309 of the Clean Air Act (CAA) and §102(2)(C) of the National Environmental Policy Act (NEPA). The Federal Draft Environmental Impact Statement (DEIS) proposes a 7-mile interstate project that would connect I-26 in southwestern Asheville to U.S. 19-23-70 in northwest Asheville. The I-26 Connector would upgrade and widen I-240 from I-40 to Patton Avenue, and then cross the French Broad River as a new freeway to U.S. 19-23-70 slightly south of the Broadway interchange.

The EPA staff has been an active participant in the NEPA/§404 Merger process for the proposed project, including purpose and need, detailed study alternatives to be carried forward and alignment review. The EPA signed Concurrence Point 2A on April 2, 2015. Specific technical review comments on the DEIS are enclosed to this letter (See Enclosure).

Climate change could have potential effects on transportation infrastructure. We recommend that the North Carolina Department of Transportation (NCDOT) in concert with the Federal Highway Administration (FHWA) incorporate scenarios from the National Climate Assessment (NCA), released by the U.S. Global Change Resource Program[1] as a prediction of how climate change may impact this particular transportation facility. Based on future scenarios, it may be appropriate to incorporate resiliency features to withstand more frequent and/or more intense storm events as well as the impact of temperature extremes on pavement and infrastructure.

[1] http://nca2014.globalchange.gov/

The EPA rated the DEIS as 'Environmental Concerns' (EC-2), indicating that several concerns requiring additional information regarding impacts to the natural and human environment, including environmental justice (EJ) were identified. Our review identified the opportunity for potential avoidance and minimization of impacts as well as mitigation measures related to stream and wetland impacts, water quality, and EJ and community impact issues. The '2' rating indicates that the DEIS information and environmental analysis will require some additional information and clarification as the project moves forward, including: floodway and floodplain impacts, water resources impacts, impacts to threatened and endangered species, archaeological resources impacts, and the ability to secure affordable housing for potential residential relocations.

In general, the EPA supports the proposed project's purpose and need and detailed study alternatives. With appropriate disclosure and proper mitigation, this project should result in reduced adverse impacts. The EPA recommends that all of the technical comments in the enclosure be addressed in the Final EIS (FEIS). Additionally, we recommend that all relevant environmental impacts that have not been disclosed in this document or covered in the FEIS be addressed in additional NEPA documentation prior to the issuance of a Record of Decision (ROD).

Dr. Cynthia F. Van Der Wiele, of my staff, will continue to work with you as part of the NEPA/§404 Merger Team process in the identification of reasonable and feasible alternatives. Should you have any questions concerning these comments, please feel free to contact her at vanderwiele.cynthia@epa.gov or (919) 450-6811. We appreciate the opportunity to comment on the proposed I-26 Connector project.

Sincerely,

G. Alan Farmer
Director
Resource Conservation and Restoration Division

Enclosure

cc: John F. Sullivan, III, P.E, FHWA- NC
Lori Beckwith, USACE Asheville Field Office
Marella Buncick, USFWS Asheville Field Office
Karen Compton, USFS
Ashley Farless, TVA
Kevin Barnett, NCDEQ, DWR Asheville Regional Office
Marla Chambers, NCWRC

ENCLOSURE

Draft Environmental Impact Statement
I-26 [Asheville] Connector Project
Buncombe County
ERP No.: FHW- E40851-NC; CEQ No.: 20150294

Project Purpose and Need

The primary purposes of the project are outlined in Section 1.3 of the DEIS and are aimed to: upgrade the interstate corridor from I-26 south of Asheville through the U.S. 19-23-70 interchange to meet interstate design standards; provide a link in the transportation system connecting a multi-lane freeway facility meeting interstate standards from the Port of Charleston, SC, to I-81 near Kingsport, TN; improve the capacity of existing I-240 west of Asheville to accommodate existing and forecasted [2033 design year] traffic volumes; reduce traffic delays and congestion along the I-240 crossing of the French Broad River; and increase the remaining useful service of the Captain Jeff Bowen bridges by substantially reducing the volume of traffic on this crossing of the French Broad River.

The needs for the proposed project are detailed in Section 1.2; these include: 1) *system linkage*—by completing an interstate connection from Charleston, SC to Kingsport, TN; 2) *capacity*—by providing additional capacity to reduce traffic congestion and delay; and 3) *address roadway deficiencies*—by developing a facility that meets current interstate design standards and aims to reduce vehicle crash rates.

The EPA recognizes the purpose and need of this project as a critical segment in the completion of the I-26 interstate system.

Detailed Study Alternatives

The DEIS Selection of a Build Alternative was based on several key decisions: logical termini/independent utility, roadway design criteria/typical sections, and study alternatives for each section. Table 2-13 (page 2-134) lists the detailed study alternatives and compares each to the project's purposes. On January 22, 2015, the EPA also concurred with NCDOT's Detailed Study Alternatives (Concurrence Point 2). The DEIS did not indicate a preferred alternative for each section.

EPA Recommendations: At potential wildlife "hotspot" areas along the corridor, the EPA encourages collaboration with the N.C. Wildlife Resources Commission (NC WRC) and the U.S. Fish & Wildlife Service (USFWS) to design appropriate under-and overpasses to reduce large mammal mortality and increase safety and reliability.

Existing Environments

Population Characteristics

Census data used for the DEIS noted that Limited English Proficiency (LEP) populations do not meet the Department of Justice (DOJ) LEP Safe Harbor threshold, but do indicate a Spanish-speaking population that exceeds 50 persons within the Detailed Study Area (DSA). According to Table 3-4 Limited English Proficiency (LEP) by Block Group (2007-2011), two of the block groups in the study area have LEP. These correspond to the Westgate and Emma Road/Bingham Road neighborhoods.

EPA Recommendations: Outreach should include availability of the DEIS in Spanish (as well as any other printed material related to the I-26 Connector project), and Spanish-speaking staff at public meetings and workshops.

Environmental Justice

EJ Demographics: Table 3-8 provides a summary of EJ populations within the detailed study area and includes the community, ethnic percentage and percentage of low income population.

EPA Recommendations: The EPA recommends that the FEIS continue to include public comments related to EJ as part of an ongoing responsiveness summary and indicate issues that remain unresolved. Secondly, there is strong concern regarding the difficulty in finding housing within financial means due to the substantial increase in housing values within Asheville. The EPA recommends that every effort should be made to continue to work with residents to ensure that appropriate replacement housing is available or to provide residents with last-resort housing (see NC General Statute 133-10.1). The EPA notes from the DEIS summary of impacts that the alternatives under consideration include a range of residential relocations of 194 to 227 residences. We further recommend that the FEIS summarize or reference efforts made to avoid and minimize acquisitions and displacement impacts to EJ communities.

Environmental Consequences

Parks and Recreational Facilities / Section 6(f)

Carrier Park and the French Broad River Greenway would be directly affected by the I-26 Connector Project.

EPA Recommendations: The EPA encourages collaboration with the City of Asheville during final design to develop further avoidance and minimization of impacts and to locate suitable mitigation for these impacts.

Compatibility with Local Plans

Section 4.1.2.1 discusses compatibility with local land use and transportation plans. Future land use plans are anticipated to be in harmony with the I-26 Connector and will likely result in greater infill within the urban core of Asheville.

EPA Recommendations: The EPA encourages continued coordination with the City of Asheville to avoid and minimize impacts to parks and recreational facilities. In addition, the EPA also encourages NCDOT to coordinate with the City of Asheville in order to integrate the City of Asheville's Bicycle Plan (2008) into the I-26 Connector design so that bicycle access is provided along the Smoky Park Bridges, the Amboy Road extension, as well as particular locations where bicycle facility design features would not meet the improvements included in the local plans. The EPA encourages the NCDOT to follow the Asheville Pedestrian Plan which indicates several existing pedestrian bridges crossing I-240 within the project study area. According to the Asheville Pedestrian Plan and the DEIS, Patton Avenue across the French Broad River is a corridor which particularly needs pedestrian linkage.

Noise Impacts

Tables 4-7 (page 4-51) and 4-28 (page 4-64) lists the preliminary noise barrier evaluation results and sites recommended for barrier construction based upon the NCDOT's Traffic Noise Abatement Policy (2011). The EPA understands that a more detailed review of specific locations will be performed during the final design process.

EPA Recommendations: The EPA encourages the design and implementation of evergreen roadside vegetation in locations that do not meet the threshold for noise barriers. The use of vegetative roadside screening ameliorates noise impact issues, visual quality impacts, as well as provides potential mitigative effects for downwind vehicle emissions from near-roadway air pollutants.

Floodplains and Floodways

Table 4-11 (page 4-72) lists the FEMA floodplain and floodway impacts. Impacts to the 500-year floodplain was not included in the DEIS.

EPA Recommendations: Floodplains and floodways are vital to reducing the likelihood of localized flooding during storm events, particularly as the Asheville area continues to urbanize. The EPA supports Alternative F-1 (Section C) and Alternative 4-B (Section B) as the alternatives having the least impacts to floodplains and floodways. The EPA prefers bridges to culverts at hydraulic crossings. The EPA encourages engineering design that incorporates resiliency strategies into the I-26 Connector project to mitigate the likelihood of flooding in low-lying, flood-prone areas in addition to the identified FEMA 100-year floodplain and floodways. Such design will ensure that the project purpose and need is met with regard to a robust, reliable transportation system as well as mitigate for extreme weather events that are anticipated to increase as a result of climate change.

Historic and Archaeological Resources

Section 4.1.4 addresses Historic and Archaeological Resources. Table 4-21 lists the determination of effects on Section 106 historic resources.

EPA Recommendations: The FEIS should address what measures will be proposed to alleviate the No Adverse Effect on the historic properties. If no measures are proposed, documentation should include why mitigation is not possible since the majority of these buildings and historic neighborhood districts are in active, daily use by the citizens (including children) of Asheville, and represent vital community resources. The EPA encourages ongoing coordination with the State Historic Preservation Office and the Eastern Band of Cherokee Indians in identifying and mitigating any impacts to archaeological resources as the most recent survey was submitted in 2007.

Water Resources

The I-26 Connector project will substantially increase the amount of impervious surface area (see Table 4-24); thus, treatment of stormwater runoff is critical to protecting water quality.

EPA Recommendations: The EPA supports Alternative F-1 (Section C) and Alternative 4 (Section B) as the alternatives having the least impacts to streams and wetlands based upon the DEIS summary impact tables. Further avoidance and minimization during final design will be necessary to reduce impacts to aquatic resources, particularly those streams and wetlands that have a higher quality rating using the NC Stream Assessment Methodology (SAM) and the NC Wetland Assessment Methodology (WAM), respectively.

Protected Species

Table 4-31 lists the federally-protected species found within Buncombe County and the biological conclusions regarding the I-26 Connector project's effects. Seven threatened/endangered species have habitat present within the DSA; two species are as of yet unresolved with regard to their biological conclusions and one species is indicated as "may effect-not likely to adversely effect."

EPA Recommendations: The EPA encourages further collaboration with the U.S. Fish and Wildlife Service and the NC Wildlife Resources Commission during final design to avoid and minimize impacts to threatened and endangered species. Two species of bats have the potential for adverse effects as a result of the project. Several recent studies have examined the use of bridges and culverts as [day and night] bat roosting habitat[1]. Structural design with regard to particular species should be considered during final design.

Climate Change Adaption

We recommend considering climate adaption measures based on how future climate scenarios may impact the proposed project in the FEIS. The NCA contains scenarios for regions and sectors, including transportation. Using NCA or other peer review-reviewed climate scenarios to inform alternatives analysis and possible changes to the proposal can improve resilience and preparedness for climate change. Changing climate conditions can affect a proposed project as well as the project's ability to meet the designated purpose and need.

[1] See: http://www.icoet.net/downloads/99paper21.pdf

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

December 17, 2015

Regulatory Division/1200A

Action ID: SAW-2004-9986803

North Carolina Department of Transportation
Project Development and Environmental Analysis
Attn: Richard W. Hancock, P.E.
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Mr. Hancock:

I refer to the application submitted by the North Carolina Department of Transportation (NCDOT), pursuant to the NEPA/404 Merger Process, concerning alternatives under consideration for the proposed I-26 Connector in Asheville, Buncombe County, North Carolina, TIP No. I-2513. As you are aware, implementation of any of the alternatives examined in your application and in the Federal Highway Administration's (FHWA) Draft Environmental Impact Statement (DEIS), would require Department of the Army (DA) authorization to discharge dredged or fill material into waters of the United States.

In response to the Merger public notice issued by this office on October 28, 2015, we received written comments from the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), the North Carolina Historic Preservation Office (NCHPO), the City of Asheville, and the Southern Environmental Law Center (SELC). All written comments received by this office are attached to this letter.

We request that you respond in detail to the two main points of the SELC letter, specifically the concerns expressed in paragraph 3 on page 1 (i.e., segmentation and other alternatives for Section A), and as detailed in the following pages of the letter. Upon reviewing your response, we will issue a letter with (1) our comments on the merger application and DEIS for this project or, (2) a request for additional information, if we determine that the information provided in your response does not address the concerns adequately.

We request that you respond at the earliest opportunity, as we cannot proceed to Concurrence Point (CP) 3 until we have the opportunity to review your response and send you our comments on the Merger application and the DEIS.

Please contact Ms. Lori Beckwith, Regulatory Project Manager in the Asheville Field Office, at (828) 271-7980, extension 223, if you have any questions.

Sincerely,

Monte Matthews
Lead Regulatory Project Manager
Wilmington District

Enclosures

Copies furnished w/encl by email:

USFWS, Attn: Ms. Marella Buncick
USEPA, Attn: Dr. Cynthia Van Der Wiele
NCDWR, Attn: Mr. Kevin Barnett
NCWRC, Attn: Ms. Marla Chambers
NCDOT, Attn: Mr. Derrick Weaver
NCDOT, Attn: Mr. Michael Wray

Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, VA 23704-5004
Staff Symbol: dpb
Phone: (757) 398-6587
Fax: (757) 398-6334
Email:
Mickey.D.Sanders2@uscg.mil

U.S. Department of Homeland Security

United States Coast Guard

16593
04 JAN 2017

Mr. Donnie Brew, P.E.
Federal Highway Administration
310 New Bern Ave, Suite 410
Raliegh, NC 27601

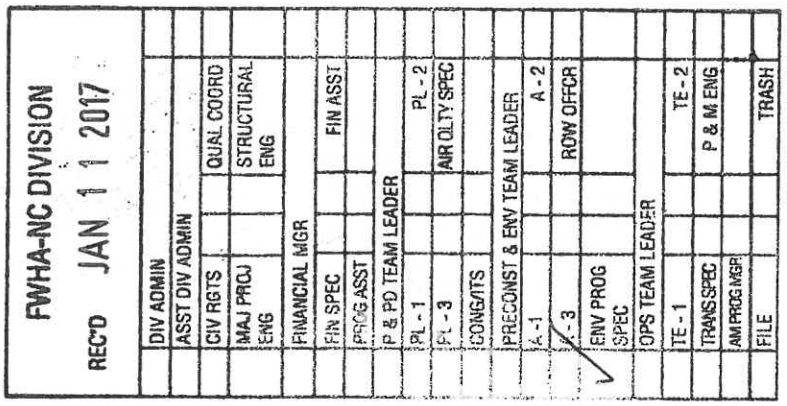
Dear Mr. Brew:

Coast Guard review of your Coast Guard bridge permit exemption determination as provided in your email dated October 05, 2016, as authorized in 23 CFR 650.805, is complete.

Based on the documentation provided and our research, the Coast Guard concurs with the Federal Highway Administration determination that a Coast Guard bridge permit will not be required for the I-240 (Captain Jeff Bowen) bridge across French Broad River at Asheville, NC.

The project will be placed in our Federal Highway Administration **Surface Transportation Assistance Act (STAA)** exemption category for the location and structure described above. The Coast Guard concurrence of the Federal Highway Administration determination **is valid for five years from the date of this letter**. If the construction project does not commence within this time period, the Coast Guard requests that the Federal Highways Administration contact this office for reaffirmation of this concurrence. The Surface Transportation Assistance Act (STAA) exempts bridge projects from Coast Guard bridge permits when the bridge project crosses non-tidal waters which are not used, susceptible to use in their natural condition, or susceptible to use by reasonable improvement as a means to transport interstate or foreign commerce, and tidal waters used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

In addition, the requirement to display navigational lighting at the aforementioned bridge is hereby waived as per Title 33 Code of Federal Regulations, Part 118.40(b). This waiver may be rescinded at anytime in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.



The fact that a Coast Guard bridge permit is not required does not relieve the bridge owner of the responsibility for compliance with the requirements of any other Federal, State, or local agency who may have jurisdiction over any aspect of the project. If you have any further questions, please contact Mr. Mickey Sanders at the above listed address or telephone number.

Sincerely,

HAL R. PITTS
Bridge Program Manager
By direction of the Commander
Fifth Coast Guard District

Copy: Mr. Michael Wray, North Carolina Department of Transportation
U. S. Army Corps of Engineers, Wilmington, NC District
CG Sector North Carolina, Waterways Management

Rocco, Joanna

From: Buncick, Marella <marella_buncick@fws.gov>
Sent: Wednesday, February 21, 2018 10:53 AM
To: Cox, Marissa R; Weaver, Derrick G; Rocco, Joanna; Susan Cameron
Subject: I-2513 bat monitoring

Good Morning,

I wanted to follow-up from our meeting yesterday regarding I-2513 and the bat monitoring questions and the comments I made.

First, thanks much for the roll map. It really helps to be able to see the whole project. Second, I was able to coordinate with Sue Cameron regarding the overall monitoring scheme and detector placement. We were not able to coordinate with Katherine Caldwell because she is doing field work this week and is not available. Both Katherine and Sue are out next week at meetings so the soonest we will be able to review the information will be the first week of March--assuming Katherine is available.

In my conversation with Sue, she agrees that more coverage in the area of the new bridges over the FB in the B section would be helpful information. She also agreed with trying to locate another detector in the area where the A and C sections overlap.

Hopefully this is enough for you all to move forward until we can meet on our end to review and provide any further comments.

If you have questions, please let me know.

marella

--
Marella Buncick
USFWS
160 Zillicoa St
Asheville, NC 28801
(828) 258-3939 ext 237
fax (828) 258-5330

Rocco, Joanna

From: Beckwith, Loretta A CIV USARMY CESAW (US) <Loretta.A.Beckwith@usace.army.mil>
Sent: Monday, June 18, 2018 1:02 PM
To: Rocco, Joanna
Cc: Matthews, Monte K CIV USARMY CESAW (US); Buncick, Marella; Weaver, Derrick G; Moore, Kevin E
Subject: USACE comments on revised CP 4A packet for I-2513

Hi Joanna,

I reviewed the additional information and revised CP4 packet. I apologize but I think there has been a misunderstanding. I've discussed information about the river users in the CP4A information for this project with NCDOT a number of times. This has also been a big issue with the revised CP 4A for another project - I-4400/I-4700. Through conversations, I thought that NCDOT was going to include this information in the CP4A packet for the I-2513 project, but based on the revised packet, it doesn't seem like that information has been conveyed to you. I thought it had just been left out of the CP4A packet which is why I briefly mentioned it in my previous comments, but based on the revised language, it seems like it hasn't really been considered in detail for this project (I-2513). Because of this, this email is long. What I've done below is taken a lot of my comments for the I-4400/I-4700 project and pasted them below. Please revise the CP4A packet as noted below.

We'll need at least a summary of the information described below for the CP 4A meeting, then we'll need a detailed plan for the final review (earlier is fine, too). The summary points should be listed on the revised CP4A form. The type of information we'll need is outlined below:

While a detailed river user safety and access plan (plan) is not required to issue a public notice for this project, we will need a detailed plan for our review of the final application. If we don't receive it with the final application, we will ask for it in our post public notice letter. Also, if NCDOT submits a detailed plan with the final application for this project (vs. at a later time during our review process), we'll be able to reference it in the public notice and a lot of concerns from the public may be answered. If NCDOT chooses to not submit this detailed plan in the final application for this project, it's possible that more comments from the public will be received re these issues.

Either way, we will transmit comments that we receive after the close of the public notice comment period and ask NCDOT to respond to all substantive comments; we will also note if we have any outstanding informational needs. These issues (river user safety and access) factor into our public interest review (PIR) (e.g., safety, economics, recreation, navigation, etc.), which is part of our overall process to determine whether or not we can issue a permit for a proposed project.

For the I-4400/I-4700 project I know that NCDOT talked to businesses (that use the river) and groups of people who float the river (clubs, organizations, etc.). If you haven't already, you can probably get this information from them and see if it would be useful fort this project as well. If applicable to this project, the information would be extremely helpful in drafting your proposed plan, as I expect those people/groups to comment on this part of the public notice. If NCDOT talked to them and listens to their concerns and unique perspectives, I wouldn't expect there to be a lot of surprises in the public comments about this issue.

If the information already gathered won't help with this project (due to location mainly), you may want to have a meeting where you discuss these issues with river users. If you need to do this, I would make sure to advertise it sufficiently - i.e., send an invitation to all businesses that use the river, to the environmental groups and river user groups in Buncombe Co., newspapers, and even radio and TV. Again, that way you'll capture many, if not most, of the concerns/issues and factor these into your plan. This is an extremely important issue up here, as there are a lot of

people that use the French Broad River; this is why I mentioned it in the post public notice letter and discussed it with Jennifer when I emailed that letter. River use has gone up considerably in the last few years.

Also, something to consider - is NCODT going to propose putting in a take-out and put-in for river users so that they don't have to float through an active construction zone? If not, why was that decision made? Keep in mind that a lot of river users are families with small children, and many of these children are in their own tubes, kayaks, etc. River use has increased in the last few years and it would be beneficial to any decision that NCDOT makes to have data concerning that use. Again, recreation, safety, etc. are some of our PIR factors and these issues need to be addressed in our decision document.

In additional to the plan for the river user safety and access, the below information goes to what will be needed re bridge/causeway discussion. Again, a summary will work for CP4A, but a detailed plan needs to be included in the final application or I will ask for it post public notice. Submitting it with the application may prevent a lot of public comment on this issue..

1. The summary and/or plan for the bridge work in and over the French Broad River should include documentation concerning how NCDOT proposes to manage high water flows, whether expected or unexpected. This should include, among other things, any proposed measures to avoid or minimize adverse effects from the causeways to upstream and downstream areas. Adverse effects include things such as bank erosion, scour, flooding, etc. This documentation should include details concerning monitoring of conditions preconstruction, during construction, and post construction. Details should include number of cross sections, locations, explanation of the issues examined and monitored, to include bank erosion.

2. This documentation should also include a plan to address remediation measures for any streambank instability as soon as possible after a high water event, or in the case of a destabilizing issue that arises for some other reason related to the causeways - e.g., debris caught on the causeways, etc. Plans to ensure that equipment and supplies are not placed in locations that will flood in the event of high water should also be detailed.

3. The summary and/or plan should include information that details how the causeways and any other temporary structure(s) will not cause or exacerbate any upstream flooding under both normal and high flow conditions. A text description should be included.

4. As noted in #1 above, please include details of preconstruction, during construction, and post construction cross sections and monitoring both above and below the causeways. These details should include number of cross sections, locations, explanation of the issues examined and monitored, to include bank erosion.

5. The summary and/or plan should also detail the efforts NCDOT will undertake for ensuring that river users (while on the water) are sufficiently notified of their options - e.g., float through the area, take out (if an option), etc. Warning signs with this information should be posted upstream and immediately downstream of the work area. Lights for those that use the river at night (red lights are being used on the I-4400/I-4700 project due to bat presence).

6. Creation of a Public Involvement Plan for river users during construction - this includes details about how NCDOT will inform river users about issues, such as closures, safety, etc. Again, I would think that you could use the information that has already been developed for the I-4400/I-4700 project.

While some of the above mentioned information will be in the BA for this project (you are doing formal consultation, correct?), it would be beneficial if NCDOT would draft a plan that includes all of these issues (as noted), as opposed to these issues being scattered in numerous documents. As noted above, if NCODT submits the detailed plan with the final application for this project (or earlier), we can then reference this plan in the public notice, as these issues (river use and effects to the river and adjacent properties from the causeways) will most likely generate many comments from the public.

Other comments on the revised CP 4A packet for the I-2513 project -

Thank you for addressing my previous comments. I just have a few comments, other than those noted above.

Page 13, second paragraph from the bottom of the page - please define "longitudinal impacts" to Upper Hominy Creek and Ragsdale. Are these direct impacts, such as pipe or a retaining wall?

Page 16, 2nd paragraph from top - this information isn't sufficient re river user safety and access for the CP 4A packet. Please see comments above.

Page 18, minimization method column for Ragsdale Creek - it looks like the end of the sentence was cut off.

Page 20 - why is the retaining wall necessary? That's a question I had for all of the increases where retaining walls were the cause of the increase.

Page 21 - I may have missed it, but why are the 2018 FEIS designs currently being reconfigured?

Table 9, page 23 - I apologize if I missed this the first time, but all of the TBDs in Table 9 - is this normal to have these at this point (CP 4A)?

Table 9, page 24 - Derrick mentioned the adverse effect to the cemetery being avoided by putting in a wall, so please remind me what the adverse effect to historic properties is in Section B.

Please let me know if you have any questions about what I've written above.

Thank you,

Lori

under

Preserving America's Heritage

March 1, 2019

Mr. Felix Davila
Federal Highway Administration
North Carolina Division
310 New Bern Avenue, Suite 410
Raleigh, NC 27601

Ref: *Proposed I-26 Connector Highway Project*
Asheville, Buncombe County, North Carolina
NCDOT STIP# I-2513, FA# MANHF-26-1(53)
ACHPConnect Log Number:13625

Dear Mr. Davila:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the North Carolina State Historic Preservation Officer (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Mandy Ranslow at (202) 517-0218 or by email at mranslow@achp.gov.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

Rocco, Joanna

From: Stillwell, Charles <cstillwell@usgs.gov>
Sent: Friday, May 17, 2019 4:00 PM
To: Kat Bukowy
Cc: Lauffer, Matthew S; ljbodkin@usgs.gov; trowley@usgs.gov; jriley@usgs.gov; jmfine@usgs.gov; giorgino@usgs.gov; jessicamoore@usgs.gov; dwagner@usgs.gov; wfhazell@usgs.gov; awhaling@usgs.gov; jmazurek@usgs.gov; Ward, Mark G; Cox, Marissa R; Dagnino, Carla S; Weaver, Derrick G; Bryan, Roger D; Austin, Wanda H; Adams, Theodore B; Bishop, Joseph M; Moneyham, Nathaniel S; Mckinney, Randall J; McHenry, David G; Rocco, Joanna; Lee, Claudia; Ellerby, Theresa T; Hulsey, Steven L; Mullins, Ryan M; Honeycutt, Keith E; Morgan, Stephen R; McDaniel, Andrew H.; Kincannon, William C.
Subject: Re: [EXTERNAL] RE: USGS I-26 Monitoring Kickoff Meeting

Hi everyone,

Thanks Kat for those contacts, and thanks to everyone who was at today's meeting.

Below is the list of action items that arose during today's meeting - If I am forgetting something please let me know. I have also added the meeting minutes to the sharepoint website, which you should have access to sometime next week.

- Matt Lauffer and Charlie Stillwell – Complete the communication plan
- Matt Lauffer – Invite all project personnel to sharepoint website
- Kat Bukowy (and others as needed) – Add reference documents to sharepoint (BA, EIS, etc.)
- Bill Hazell and Roger Bryan – Add raingage at or near existing I-26 bridge?
- Mark Ward and Dan Wagner (and others) – Follow up meeting to coordinate surveys
- Everyone – Verify contact information in Project Personnel spreadsheet (Documents folder in sharepoint)

Thanks again, USGS is very excited for this project to begin!

Charlie

Charles C. Stillwell, E.I.T
Student Hydrologist
USGS South Atlantic Water Science Center
(919) 571-4018

On Fri, May 17, 2019 at 1:17 PM Kat Bukowy <kbukowy@hntb.com> wrote:

> Good afternoon,
>
> As requested during the meeting, the following are the agency representatives for I-4400/I-4700 and for I-2513:

Lori Beckwith (Loretta.A.Beckwith@usace.army.mil) – US Army Corps of Engineers

Claire Ellwanger (claire_ellwanger@fws.gov) – US Fish and Wildlife Service (USFWS)

Jay Mays (jason_mays@fws.gov) – USFWS

Kevin Barnett (kevin.barnett@ncdenr.gov) – NC Division of Water Resources (NCDWR)

Amy Chapman (amy.chapman@ncdenr.gov) – NCDWR

Robert Patterson (robert.patterson@ncdenr.gov) - NCDWR

The first four people are located in/near Asheville, the latter two are in Raleigh. Please let me know if you need any additional information regarding the I-4400/I-4700, I-26 Widening project.

Thanks,

Kat

-----Original Appointment-----
From: Lauffer, Matthew S <mslauffer@ncdot.gov>
Sent: Wednesday, May 8, 2019 11:04 AM
To: Lauffer, Matthew S; Stillwell, Charles C; ljbodkin@usgs.gov; trowley@usgs.gov; jriley@usgs.gov; jmfine@usgs.gov; giorgino@usgs.gov; jessicamoore@usgs.gov; dwagner@usgs.gov; wfhazell@usgs.gov; awhaling@usgs.gov; jmazurek@usgs.gov; Ward, Mark G; Cox, Marissa R; Dagnino, Carla S; Weaver, Derrick G; Bryan, Roger D; Austin, Wanda H; Kat Bukowy; Adams, Theodore B; Bishop, Joseph M; Moneyham, Nathaniel S; Mckinney, Randall J; McHenry, David G; Joanna.rocco@aecom.com; 'Lee, Claudia'; Ellerby, Theresa T; Hulsey, Steven L; Mullins, Ryan M; Honeycutt, Keith E; Morgan, Stephen R; McDaniel, Andrew H.; Kincannon, William C.
Subject: USGS I-26 Monitoring Kickoff Meeting
When: Friday, May 17, 2019 10:00 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: 4809 Beryl Road, Raleigh, NC 27606 /Skype - Conference Call - 888-204-5984 ACCESS CODE: 2324725 (Don't Use Skype Audio)
Importance: High

The USGS will be performing “Monitoring and Assessment of Surface Water-quality and Geomorphologic Conditions Before, During, and After Construction of the I-26 Projects in Western North Carolina” to meet Endangered Species, 401/404 and NPDES requirements for the I-2513, I-4700/I-4400 projects. This currently scoped monitoring is scheduled to start 2nd Quarter 2019 and continue through 2023.

This meeting will help kick-off the project and provide an opportunity to communicate and coordinate with project professionals. A second meeting will be held in the field later this summer in Asheville as well.

Directions to the meeting facility are below. For those not attending in person, a Skype meeting (Don't Use Skype Audio) will be available and the following conference call number: 888-204-5984 ACCESS CODE: 2324725

Agenda:

Welcome and Introductions

Overview of I-2513 and I-4700/I-4400 (Scope and Schedules of Projects)

Overview of USGS Study

Coordination between USGS and NCDOT

General Discussion

Next Steps

Adjourn

If you have any questions please do not hesitate to call

Charlie Stillwell, USGS – 513-378-8302

Matt Lauffer, NCDOT – 919-621-0443

……

Join Skype Meeting

Trouble Joining? Try Skype Web App

U.S. Department of Transportation
Federal Highway Administration

North Carolina Division

310 New Bern Avenue, Suite 410
Raleigh, NC 27601
(919) 856-4346
(919) 747-7030
http://www.fhwa.dot.gov/ncdiv/

August 16, 2019

In Reply Refer To:
HDA-NC

Mr. Ken Putnam, PE
City of Asheville
Transportation Department Director
P.O. Box 7148
Asheville, NC 28802

Dear Mr. Putnam:

This is in response to your attached letter to Mr. John F. Sullivan III and Mr. Jim Trogdon III, dated August 14, 2019, as representative for the City of Asheville Transportation and Planning & Urban Design Departments, concerning the I-26 Connector project I-2513 in Asheville, NC.

As requested, the City of Asheville Transportation and Planning & Urban Design Departments is formally designated as a Consulting Party under Section 106 of the National Historic Preservation Act of 1966.

Sincerely,

For John F. Sullivan, III, P.E.
Division Administrator

ec:

Ms. Debra Campbell, City Manager
Ms. Cathy Ball, Assistant City Manager
Mr. Todd Okolichany, Planning & Urban Design Director
Ms. Stacy Merten, Long Range Planning Manager
Dr. Kevin Cherry, NC DNCR
Mr. Jim Trogdon III, NCDOT, Secretary of Transportation
Mr. Derrick Weaver, NCDOT

City of Asheville
Transportation Department

P.O. Box 7148
Asheville, NC 28802
828-259-5943
Fax 828-232-4525
www.ashevillenc.gov

August 14, 2019

Mr. John Sullivan, III, PE
Division Administrator
Federal Highway Administration
310 New Bern Avenue, Suite 410
Raleigh, NC 27601-1418

Mr. Jim Trogdon, III
Secretary of Transportation
North Carolina Department of Transportation
1501 Mail Service Center
Raleigh, NC 27699-1501

Dear Mr. Sullivan and Mr. Trogdon:

The City of Asheville Transportation and Planning & Urban Design Departments respectfully request to be a consulting party to the Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act for the I-26 Connector project (Project # I-2513).

Please let me know if additional information is needed.

Respectfully,

Ken Putnam, PE
Transportation Department Director

KJP/

cc. Ms. Debra Campbell, City Manager
Ms. Cathy Ball, Assistant City Manager
Mr. Todd Okolichany, Planning & Urban Design Department Director
Ms. Stacy Merten, Long Range Planning Manager
Dr. Kevin Cherry, SHPO

APPENDIX C2

COORESPONDENCE FROM STATE AGENCIES

Date	From	To	General Subject
11/23/2015	N.C. Department of Public Safety, Emergency Management	NCDOT	Comments on DEIS
11/24/2015	N.C. Department of Natural and Cultural Resources, State Historic Preservation Office	USACE	Public Notice
12/01/2015	N.C. Department of Transportation, Planning Branch	NCDOT	Comments on DEIS
12/02/2015	N.C. Department of Natural and Cultural Resources, N.C. Natural Heritage Program	NCDOT	Comments on DEIS
12/10/2015	N.C. Division of Waste Management, Hazardous Sites Branch	NCDOT	Comments on DEIS
12/11/2015	N.C. Division of Waste Management, Solid Waste Section	NCDOT	Comments on DEIS
12/16/2015	N.C. Wildlife Resources Commission	NCDOT	Comments on DEIS
12/17/2015	N.C. Department of Environmental Quality	NCDOT	Comments on DEIS
12/18/2015	NC State Environmental Review Clearinghouse	NCDOT	Comments on DEIS
05/02/2016	N.C. Department of Natural and Cultural Resources, Division of Land and Water Stewardship	NCDOT	Carrier Park Speedway Easement
07/17/2018	NCWRC	NCDOT	Gray bat telemetry study results
08/14/2018	N.C. State Parks	NCDOT	Concurrence letter for Section 4(f) de minimis impact on French Broad River
11/27/2018	N.C. Department of Natural and Cultural Resources, State Historic Preservation Office	NCDOT	Supplemental Concurrence Form for Assessment of Effects

North Carolina Department of Public Safety

Emergency Management

Pat McCrory, Governor
Frank L. Perry, Secretary

Michael A. Sprayberry, Director

November 23, 2015

State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

Subject: Intergovernmental Review State Number: 16-E-4220-0133
I-26 Connector, Buncombe County

As requested by the North Carolina State Clearinghouse, the North Carolina Department of Public Safety Division of Emergency Management Risk Management reviewed the proposed project for the Coastal Carolina Regional Airport Development Project and offers the following comments:

1) All project alternatives include crossings of the Special Flood Hazard Area (SFHA). North Carolina Executive Order 123 directs NCDOT to coordinate with and follow the FHWA floodplain management requirements which are found in the Federal Executive Order 11988. To ensure NCDOT compliance with EO 11988 and 44 CFR the NCDOT Hydraulics Section and the NC Floodplain Mapping Program have a Memorandum Of Agreement (MOA). Please coordinate with Mr. David Chang, NCDOT Hydraulics, to determine if the proposed crossings within this project are eligible to fall within the MOA.

2) Crossings that are not eligible to fall within the MOA will require a Conditional Letter of Map Revision (CLOMR) issued by the Federal Emergency Management Agency (FEMA) prior to construction. This should be noted in Section 4.4: Required Permits and Actions of the Environmental Impact Statement.

Thank you for your cooperation and consideration. If you have any questions concerning the above comments, please contact me at (919) 825-2300, by email at dan.brubaker@ncdps.gov or at the address shown on the footer of this document.

Sincerely,

John D Brubaker

John D. Brubaker, P.E., CFM
NFIP Engineer
Risk Management

MAILING ADDRESS:
4218 Mail Service Center
Raleigh NC 27699-4218
www.ncdps.gov
www.ncfloodmaps.com

GTM OFFICE LOCATION:
4105 Reedy Creek Road
Raleigh, NC 27607
Telephone: (919) 825-2341
Fax: (919) 825-0408

cc: John Dorman, Program Director
John Gerber, NFIP State Coordinator

File

North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

November 24, 2015

Lori Beckwith
US Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

Re: Discharge Fill Materials into US Waters for the I-26 Connector, Asheville, I-2513, Buncombe County, CH 96-0472

Dear Ms. Beckwith:

We have received a public notice concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona M. Bartos

Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

December 1, 2015

North Carolina State Clearinghouse
Department of Administration
Intergovernmental Review

Thank you for allowing the NCDOT Transportation Planning Branch the opportunity to review the Draft Environmental Impact Statement (DEIS) for TIP project number I-2513 (I-26 Connector project in Asheville), State Number 16-E-4220-0133.

Our review of the I-2513 DEIS indicates that the studied project is reflected in the current (2015) FBRMPO Metropolitan Transportation Plan (MTP), FBRMPO 2008 Comprehensive Transportation Plan (CTP), FBRMPO's 2016-2025 Metropolitan Transportation Improvement Plan (MTIP) and the North Carolina 2016-2025 State Transportation Improvement Plan (STIP).

If you have any questions, please contact Brendan Merithew at 919-707-0943 or bwmerithew@ncdot.gov .

Sincerely,

Brendan Merithew
NDOT Tansportation Planning Branch
FBRMPO & LOSRPO Coordinator

Natural and
Cultural Resources

PAT McCRORY
Governor

SUSAN KLUTTZ
Secretary

MEMORANDUM

To: Lyn Hardison

From: Suzanne Mason, Conservation Information Manager

Date: December 2, 2015

Re: Draft Environmental Impact Statement - Proposed project is for the I 26 Connector, from I 26 to US 19 23 70 that includes the I 26/I 40/I 240 interchange. TIP I 2513.

Project: 16-0133

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to review the Draft Environmental Impact Statement for TIP I 2513.

A search of NCNHP managed area records (2015-10 dataset) indicates that Section A of the project intersects a property feature that has a Clean Water Management Trust Fund (CWMTF) easement associated with it. The property is Carrier Park, owned by City of Asheville, which is located between Amboy Road (SR 3556) and French Broad River. Please contact Will Summer, CWMTF Stewardship Manager, at will.summer@ncdenr.gov or 919-707-9127 for more information on the specific extent of the CWMTF easement.

Also, in the last sentence on page 3-79 the name of NCNHP is incorrectly stated to be "the North Carolina National Heritage Program." We request this be corrected to read: "the North Carolina Natural Heritage Program."

Waste Management
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

LINDA CULPEPPER
Director

Date: December 10, 2015

To: Linda Culpepper, Director
Division of Waste Management

Through: Jim Bateson, Superfund Section Chief

From: Amy Axon, Inactive Hazardous Sites Branch

Subject: SEPA Project #16-0133, I-26 Connector: I-40 to US-19-23-70 North of Asheville, Asheville, Buncombe County, North Carolina

A review of the I-26 Connector project study area in proximity of sites under the jurisdiction of the Superfund Section has been completed. Under the proposed project, a study will be conducted to determine the best route to connect I-26 in southwestern Asheville to US 19-23-70 in northwest Asheville.

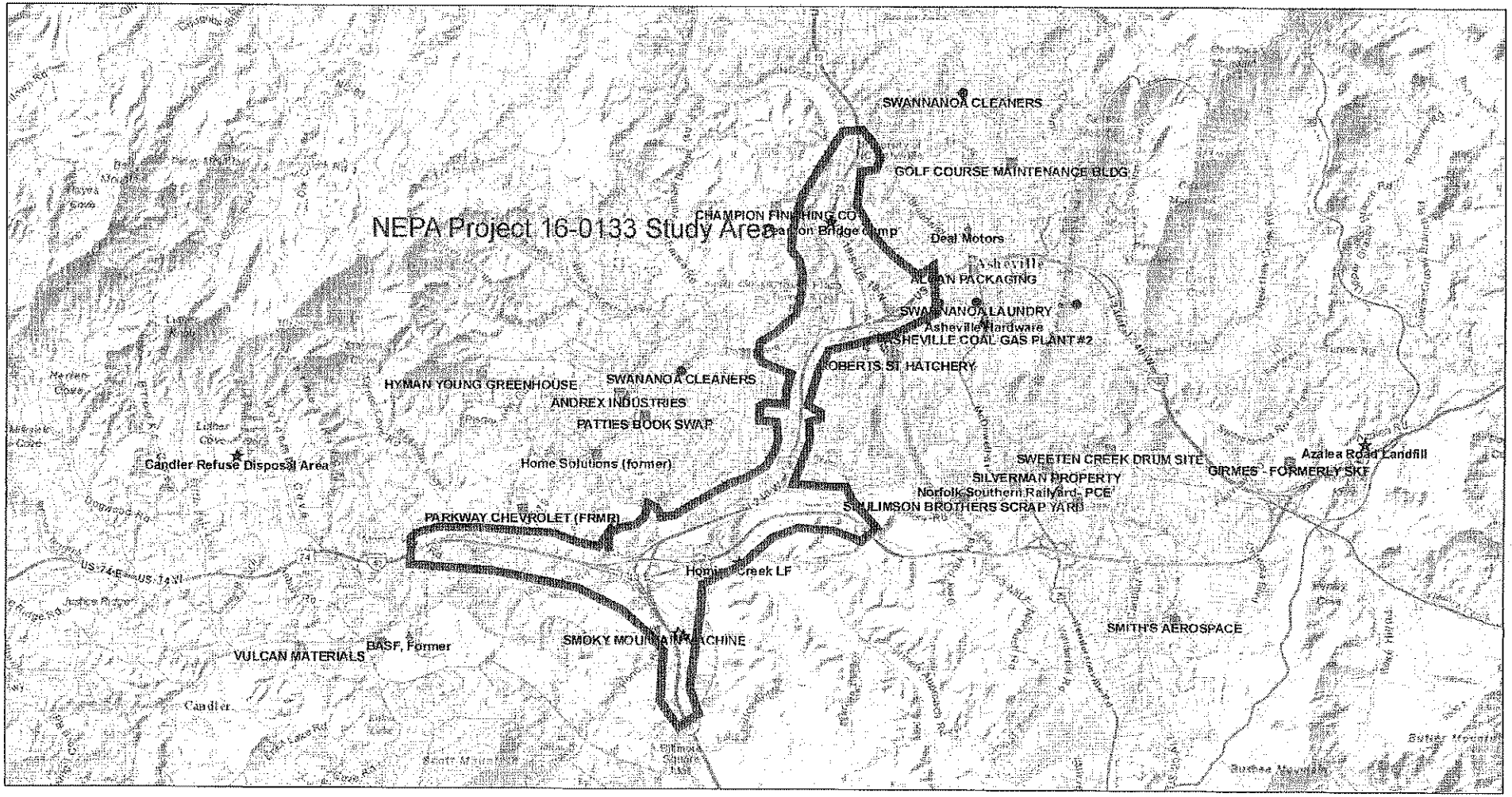
Thirty-four (34) sites were identified either within the study area or within a 1-mile radius of the proposed project study area. The identified sites are listed on the attached spreadsheet and shown on the attached map.

Files for the attached sites can be accessed by following the "Access Online Files" link on the Superfund Section website: http://portal.ncdenr.org/web/wm/sf-file-records. Please contact me at 919.707.8371 if you have any questions.

Ec: Jim Bateson
Qu Qi
Peter Dorn

Site Name	Site ID	Oversite Program	Address	City	County
CAROLINA TIRE #2936	NONCD0001451	IHSB	990 PATTON AVE.	ASHEVILLE	Buncombe
Pond Road LF #2	NCD980558027	PRLF	80 Pond Rd.	Asheville	Buncombe
Pond Rd ldfl #1	NONCD0000164	PRLF	79 & 80 Pond Rd	ASHEVILLE	Buncombe
Pearson Bridge dump	NONCD0000811	PRLF	690 riverside Dr	asheville	BUNCOMBE
SMOKY MOUNTAIN MACHINE	NONCD0002483	IHSB	80 MCINTOSH RD.	ASHEVILLE	Buncombe
Hominy Creek LF	NCD980558035	PRLF	190 Hominy Creek Rd.	Asheville	Buncombe
Historic Cotton Mill	07015-03-11	BFA		Asheville	Buncombe
Pond Road Landfill	09032-05-11	BFA		Asheville	Buncombe
NU-WAY CLEANERS	DC110005	DSCA	171 Patton Ave	Asheville	Buncombe
Belgium Brewing	16021-12-11	BFA		Asheville	Buncombe
The Old Wood	14026-10-11	BFA		Asheville	Buncombe
METPRO PROP.(FOR. DRY CLEANER)	NONCD0002066	IHSB	1030 PATTON AVE.	ASHEVILLE	Buncombe
Asheville Ice Plant	09033-05-11	BFA		Asheville	Buncombe
ROBERTS ST ORGANICS	NONCD0002626	IHSB	109 ROBERTS ST	ASHEVILLE	BUNCOMBE
SQUARE D COMPANY	NCD003951878	IHSB	128 BINGHAM RD	ASHEVILLE	BUNCOMBE
CHAMPION FINISHING CO	NONCD0001162	IHSB	200 BINGHAM RD	ASHEVILLE	BUNCOMBE
PARKWAY CHEVROLET (FRMR)	NONCD0002742	IHSB	205 SMOKEY PARK HWY	ASHEVILLE	BUNCOMBE
ROBERTS ST HATCHERY	NONCD0002878	IHSB	144 ROBERTS ST	ASHEVILLE	BUNCOMBE
ASHEVILLE COAL GAS PLANT #1	NCD986188787	IHSB	RIVERSIDE DR AT LYMAN ST	ASHEVILLE	BUNCOMBE
Wilma Dykeman Riverway	13018-09-11	BFA		Asheville	Buncombe
ALCAN PACKAGING	NONCD0000045	IHSB	3005 SWEETEN CREEK RD	ASHEVILLE	BUNCOMBE
SWANNANOA LAUNDRY	DC110001	DSCA	22 Church St	Asheville	Buncombe
CRISP ONE HOUR CLEANERS	DC110008	DSCA	121 Biltmore Ave	Asheville	Buncombe
Asheville Hardware	16054-12-11	BFA		Asheville	Buncombe
Deal Motors	14021-10-11	BFA		Asheville	Buncombe
ASHEVILLE COAL GAS PLANT #2	NONCD0000032	IHSB	VALLEY & MARTIN LUTHER	ASHEVILLE	BUNCOMBE
Home Solutions (former)	NONCD0001863	IHSB	1625 Patton Avenue	Asheville	Buncombe
BASF, Former	12012-08-11	BFA		Asheville	Buncombe
SWANANOA CLEANERS	DC110007	DSCA	1336 Patton Ave	Asheville	Buncombe
PATTIES BOOK SWAP	NONCD0002274	IHSB	1478 PATTON AVE.	ASHEVILLE	Buncombe
BASF-ENKA (OTM BUILDING)	NONCD0001323	IHSB	SANDHILL ROAD	ASHEVILLE	Buncombe
TICAR CHEMICAL CO	NONCD0002599	IHSB	PO BOX 4205	ASHEVILLE	Buncombe
SHULIMSON BROTHERS SCRAP YARD	NCN000407206	IHSB	MEADOW ROAD	ASHEVILLE	BUNCOMBE

Superfund Section SEPA Review



December 9, 2015

- Brownfields Sites
- Pre-Regulatory Landfill Sites
- Dry-Cleaning Solvent Cleanup Act Sites
- Inactive Hazardous Sites
- All Sites

1:72,224

0 0.75 1.5 3 mi

0 1.25 2.5 5 km

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Web AppBuilder for ArcGIS

State of North Carolina
Department of Environment and Natural Resources
INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

Reviewing Office: Asheville

Project Number 16-0133 Due Date: 12/10/2015
County Buncombe

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☐	Permit to construct & operate Transportation Facility as per 15A NCAC (2D.0800, 2Q.0601	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
☐	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☐	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☒	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of **$65** for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
☒	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		(30 days)
☐	Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any arc mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction. certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)

County Buncombe		Project Number: 16-0133 Due Date: 12/10/2015	Normal Process Time (statutory time limit)
PERMITS		SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
☐	State Lakes Construction Permit	Application fee based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
☒	401 Water Quality Certification	N/A	60 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	55 days (150 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☒	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
☐	Catawba, Jordan Lake, Randalman, Tar Pamlico or Neuse Riparian Buffer Rules required.		
☒	Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq. Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring requirements. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days
☒	If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days

Other comments (attach additional pages as necessary, being certain to cite comment authority)

Division	Initials	No comment	Comments	Date Review
DAQ	MAP	☒	This project is in Buncombe County, so the local air program is the agency that needs to review this A-95.	11/23/15
DWR-WQROS (Aquifer & Surface)	EMW EMW	☐ ☐	Project may need 401 Water Quality Certification	12/8/15 12/8/15
DWR-PWS	KPM	☒	Plan approval required if existing water infrastructure moved.	12/2/15
DEMLR (LQ & SW)	FLW	☐	Checked SPCA box above. Project is located within a local stormwater program.	12/8/15
DWM - UST	JCA	☐	Checked Orphan UST box above	11/30/15

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☒ **Asheville Regional Office**
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500

☐ **Fayetteville Regional Office**
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

☐ **Mooresville Regional Office**
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699

☐ **Raleigh Regional Office**
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200

☐ **Washington Regional Office**
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215

☐ **Winston-Salem Regional Office**
450 West Hanes Mill Road, Suite 300
Winston-Salem, NC 27105
(336) 771-9800

Waste Management
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

LINDA CULPEPPER
Director

DATE: December 11, 2015

TO: Linda Culpepper, Division Director through Sharon Brinkley

FROM: Deb Aja, Western District Supervisor - Solid Waste Section

Digitally signed by Deborah Aja
DN: cn=Deborah Aja, o=Solid Waste Section, ou, email=deborah.aja@ncdenr.gov, c=US
Date: 2015.12.11 12:34:52 -05'00'

RE: NEPA Review Project #16-0133, Buncombe County, N.C.
USDOT/FHA and NCDOT I-26 Connector

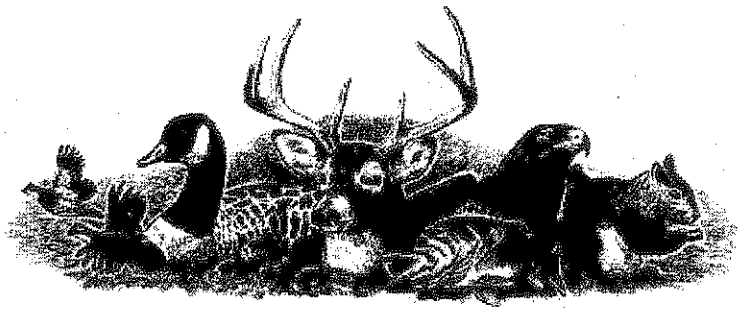
The Solid Waste Section has reviewed the Draft Environmental Impact Statement for the proposed I-26 Connector from I-40 to US-19-23 North of Asheville, Buncombe County, North Carolina. The review has been completed and has seen no adverse impact on the surrounding community and likewise knows of no situations in the community, which would affect this project from a solid waste perspective.

There are three closed unpermitted solid waste disposal sites that may be located within the project area. Notices for these sites are recorded in the Buncombe County Register of Deeds at Book 1846 on Page 101, Book 1700 on Page 260, and Book 1775 on Page 408.

During construction, every feasible effort should be made to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. Any waste generated by this project that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility approved to manage the respective waste type. The Section strongly recommends that any contractors are required to provide proof of proper disposal for all waste generated as part of the project. The nearest permitted facilities to the project are the Buncombe County MSW Lined Landfill and C&D Landfill, the Waste Management of Asheville Transfer Facility, and the Buncombe County Transfer Facility. Additional permitted facilities are listed on the Solid Waste Section portal site at: http://portal.ncdenr.org/web/wm/sw/facilitylist.

Please contact Mr. Bill Wagner, Environmental Senior Specialist, for with any questions regarding solid waste. Mr. Wagner may be reached at (828) 296-4705 or by email at bill.wagner@ncdenr.gov.

Cc: Jason Watkins, Field Operations Branch Head
Bill Wagner, Environmental Senior Specialist
Sarah Rice, Compliance Officer
Dennis Shackelford, Eastern District Supervisor



North Carolina Wildlife Resources Commission

Gordon Myers, Executive Director

TO: Lyn Hardison, Environmental Assistance and SEPA Coordinator
Division of Environmental Assistance & Customer Services, NCDENR

FROM: Marla Chambers, Western NCDOT Coordinator Marla Chambers
Habitat Conservation Program, NCWRC

DATE: December 16, 2015

SUBJECT: Review of the Draft Environmental Impact Statement document for NCDOT's proposed I-26 Connector, I-40 to US 19-23-70 North of Asheville, Buncombe County, North Carolina. TIP No. I-2513. NCDENR Project No. 16-0133, due 12/10/2015, extended.

North Carolina Department of Transportation (NCDOT) has submitted for review a Draft Environmental Impact Statement (DEIS) document for NCDOT's proposed I-26 Connector, I-40 to US-19-23-70 North of Asheville. Staff biologists with the North Carolina Wildlife Resources Commission (NCWRC) have reviewed the information provided and are participating in the Merger process for this project. These comments are provided in accordance with the provisions of the state and federal Environmental Policy Acts (G.S. 113A-1through 113-10; 1 NCAC 25 and 42 U.S.C. 4332(2)(c), respectively), the Clean Water Act of 1977 (33 U.S.C. 466 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d), as applicable.

The proposed I-26 Connector would extend I-26 from I-40 in southwestern Asheville to US 19-23-70 in northwest Asheville, a length of approximately 7 miles. The project would also upgrade and widen I-240 from I-40 to Patton Avenue and then cross the French Broad River as a new freeway to US 19-23-70, slightly south of the Broadway interchange. The project is divided into three sections. The DEIS evaluated four alternatives for Section C, one for Section A, and four for Section B.

Project area waterways include the French Broad River and several of its unnamed tributaries (UTs), Hominy Creek and UTs, Moore Branch, Ragsdale Creek and UTs, Reed Creek, Smith Mill Creek and UTs, and Trent Branch and UTs. Estimated project stream impacts range from 4,621 linear feet (lf) to 7,636 lf for the various alternative combinations. The DEIS reviewed

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh NC 27699-1721
Telephone: (919) 707-0070 · **Fax:** (919) 707-0028

federally listed species in the project area, including historic records for fish and mussel species. State listed aquatic species that are expected to occur include the Slippershell mussel (*Alasmidonta viridis*), State Endangered, and the Blotched Chub (*Erimystax insignis*), a Federal Species of Concern and State Significantly Rare fish.

Although much of the project area is urban, terrestrial wildlife are a concern. Recent research studied black bear in the Asheville area, including a number of bear denning within the city limits. The I-26 Connector project should provide crossing structures that allow safe passage by large and small wildlife in appropriate areas, such as stream crossings and other potential wildlife travel corridors. NCDOT should also investigate accidents involving wildlife in the project area to determine areas of potential safety concerns for motorists and wildlife.

Thank you for the opportunity to review and comment on this project. If you have any questions regarding these comments, please contact me at marla.chambers@ncwildlife.org or (704) 982-9181.

cc: Marella Buncick, USFWS
Cynthia Van Der Wiele, USEPA
Amy Chapman, NCDWR

Environmental Quality

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

MEMORANDUM

To: Crystal Best
State Clearinghouse Coordinator
Department of Administration

FROM: Lyn Hardison
Division of Environmental Assistance and Customer Service
Permit Assistance & Project Review Coordinator

RE: 16-0133
Draft Environmental Impact Statement
Proposed project is for the I-26 Connector, from I-26 to US 19-23-70 that includes the I-26/I-40/I-240 interchange
TIP Project – I-2513
Buncombe County

Date: December 17, 2015

The Department of Environmental Quality has reviewed the proposal for the referenced project. Based on the information provided, several of our agencies have identified permits that may be required and offered some guidance to minimize impacts to the natural resources within the project area. The comments are attached for the applicant's consideration.

The Department encourages the applicant to continue to work with our agencies during the NEPA Merger Process and as this project moves forward.

Thank you for the opportunity to respond.

Attachment

North Carolina
Department of Administration

Pat McCrory, Governor

Bill Daughtridge, Jr., Secretary

December 18, 2015

Mr. Michael Wray
North Carolina Department of Transportation
Project Development & Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Re: SCH File # 16-E-4220-0133; DEIS; Proposed project is for the I-26 Connector, from I-26 to US 19-23-70 that includes the I-26/I-40/I-240 interchange. TIP # I-2513.

Dear Mr. Wray:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Crystal Best

Crystal Best
State Environmental Review Clearinghouse

Attachments

cc: Region B

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: BUNCOMBE

F02: HIGHWAYS AND ROADS

STATE NUMBER: 16-E-4220-0133
DATE RECEIVED: 11/16/2015
AGENCY RESPONSE: 12/10/2015
REVIEW CLOSED: 12/15/2015

CLEARINGHOUSE COORD REGION B
LAND OF SKY REGIONAL COUNCIL
339 NEW LEICESTER HWY, STE. 140
ASHEVILLE NC

REVIEW DISTRIBUTION

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DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
DPS - DIV OF EMERGENCY MANAGEMENT
LAND OF SKY REGIONAL COUNCIL

PROJECT INFORMATION

APPLICANT: NCDOT
TYPE: National Environmental Policy Act
Draft Environmental Impact Statement

DESC: Proposed project is for the I-26 Connector, from I-26 to US 19-23-70 that includes the I-26/I-40/I-240 interchange. TIP I-2513.

CROSS-REFERENCE NUMBER: 08-E-4220-0293

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☑ COMMENTS ATTACHED

SIGNED BY: Donna Stansbury DATE: 12/10/15

339 New Leicester Hwy., Suite 140
Asheville, NC 28806
p: 828.251.6622 | 800.727.0557
f: 828.251.6353 | w: landofsky.org

Regional Clearinghouse

LAND of SKY REGIONAL COUNCIL

N.C. Intergovernmental Review Process
Review and Comment Form

Land of Sky Regional Council has received the attached information about a proposal which could affect your jurisdiction.

If you wish to comment on this proposed action, complete this form and return it with your comments to this office by 12/9/2015. Comments received after this date cannot be included in our response to the State Clearinghouse.

If you need additional time in order to obtain more information about the application, to formulate your comments, please call Christina Giles at (828)251-6622 as soon as possible. An extension of the review period may be possible.

A note to reviewers: Projects with a "C" in the State Application Identifier (below) is a funding proposal review. Comments should focus on the acceptability or unacceptability of the project. Projects with an "E" in the Identifier are environmental or site reviews. Comments for these projects should focus on the adequacy of the environmental document or site selection process.

If no comment is received by the above date, it will be assumed you have no comments regarding this proposal.

State Application Identifier # 16-E-4220-0133 Regional # 04-2015

Commenter's Name KEN PUTNAM Title TRANSPORTATION

Representing CITY OF ASHEVILLE (Local Government)

Address PO BOX 7148, ASHEVILLE, NC 28802

Phone (828) 259-5405 Date 12-7-15

Comment (or attach):

THE CITY OF ASHEVILLE WILL BE SUBMITTING COMMENTS DIRECTLY TO NCDOT.

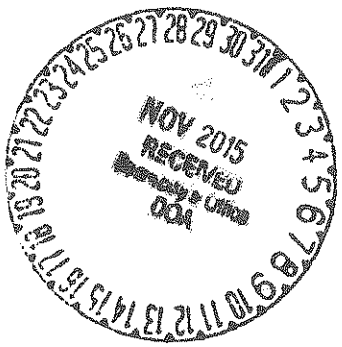
NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: BUNCOMBE

F02: HIGHWAYS AND ROADS

STATE NUMBER: 16-E-4220-0133
DATE RECEIVED: 11/16/2015
AGENCY RESPONSE: 12/10/2015
REVIEW CLOSED: 12/15/2015

MS ELIZABETH HEATH
CLEARINGHOUSE COORDINATOR
DEPT OF AGRICULTURE
1001 MSC - AGRICULTURE BLDG
RALEIGH NC



REVIEW DISTRIBUTION

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DPS - DIV OF EMERGENCY MANAGEMENT
LAND OF SKY REGIONAL COUNCIL

PROJECT INFORMATION

APPLICANT: NCDOT

TYPE: National Environmental Policy Act
Draft Environmental Impact Statement

DESC: Proposed project is for the I-26 Connector, from I-26 to US 19-23-70 that includes the I-26/I-40/I-240 interchange. TIP I-2513.

CROSS-REFERENCE NUMBER: 08-E-4220-0293

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☑ NO COMMENT ☐ COMMENTS ATTACHED

SIGNED BY: _____ DATE: 11/24/2015

Rocco, Joanna

From: Summer, Will <will.summer@ncdcr.gov>
Sent: Monday, May 02, 2016 6:11 PM
To: Rocco, Joanna
Cc: Werner, Christopher (Morrisville); Foushee, Celia
Subject: RE: I-2513 I-26 Connector: Carrier Park conservation easement

Sorry to be so delayed in getting back to you. The line you drew on the attached image appears more or less correct and indicates that your project should be well outside of the 100 foot riparian corridor on the French Broad River that is the subject of the conservation easement in question (Buncombe BK2060 PG53). If you have any other questions or concerns, please contact me.
Thanks,
Will

*****NOTE: Our email addresses have changed to "@ncdcr.gov" effective 4/11/2016. Mail sent to the old "@ncdenr.gov" address will only be deliverable for a short time. Please update your contacts.*****

Will Summer
Stewardship Director
Clean Water Management Trust Fund
Division of Land and Water Stewardship
North Carolina Department of Natural and Cultural Resources
1651 Mail Service Center
Raleigh, North Carolina 27699-1651

919.707.9127 office/fax
will.summer@ncdcr.gov

From: Rocco, Joanna [mailto:joanna.rocco@aecom.com]
Sent: Wednesday, April 27, 2016 12:36 PM
To: Summer, Will <will.summer@ncdcr.gov>
Cc: Werner, Christopher (Morrisville) <christopher.m.werner@aecom.com>; Foushee, Celia <celia.foushee@aecom.com>
Subject: I-2513 I-26 Connector: Carrier Park conservation easement

Hi Will,

Thanks again for the information regarding the Carrier Park easement. To follow up, I wanted to confirm with you that the I-2513 project will not impact the easement. Attached you will find a graphic of the I-2513 public hearing map with the conservation easement limits drawn in red within Section A, approximately 100 feet from the edge of the French

Broad River. The design limits at Old Amboy Road are approximately 300 feet from the edge of the river; therefore, we conclude the project impacts are outside of the 100 foot conservation easement.

Please let me know if you have any questions or concerns regarding our assessment.

Thanks again for your assistance!
Joanna

From: Summer, Will [mailto:will.summer@ncdenr.gov]
Sent: Thursday, March 03, 2016 10:22 AM
To: Rocco, Joanna
Subject: I-26 Expansion and Carrier Park

Ms. Rocco,
Per your request, I have attached the conservation easement that covers a portion of Carrier Park. The area of the tract specifically subject to the easement is a greenway buffer that extends 100 feet from the French Broad River. There is a map exhibit in the document, but it is difficult to read. You might get a better copy directly from the Buncombe County Register of Deeds, the City if Asheville, or perhaps even Riverlink as the original CWMTF grantee for this project.

From our conversation, it sounds like your project will not impact our area of interest. However, if it does, please be aware that the State has set a high bar for amending permanent conservation easements, so it is prudent to avoid any impacts wherever possible. If an impact is unavoidable and has a clear benefit to the greater public interest, there is a process. An amendment to the easement must be approved by the Clean Water Management Trust Fund Board and subsequently the Governor and Council of State. The latter only after a conservation benefit analysis has demonstrated that the amendment will result in a net positive for the conservation values, per recent legislation that has strengthened the permanence of State-held conservation agreements.

If you find that there will be an intersection between your project and the easement area, please contact me with any further questions.
Thanks,
Will

Will Summer
Stewardship Director
Clean Water Management Trust Fund
Division of Land and Water Stewardship
North Carolina Department of Natural and Cultural Resources
1651 Mail Service Center
Raleigh, North Carolina 27699-1651

919.707.9127 office/fax
will.summer@ncdenr.gov

Rocco, Joanna

From: Caldwell, Katherine <katherine.caldwell@ncwildlife.org>
Sent: Tuesday, July 17, 2018 3:10 PM
To: Marella Buncick; Cox, Marissa R; Manley, Chris; Heather Wallace; Miller, Melissa R; Rocco, Joanna; Joy O'Keefe; joey.weber@indstate.edu
Subject: Follow-up from MYGR Update Call
Attachments: 2016-2017 NCWRC Gray Bat Telemetry Summary.pdf

Hi Everyone,

I've attached the telemetry summary from our 2016 and 2017 tracking efforts that was mentioned on the call today. I also wanted to clarify the emergence count totals at the Parkway bridge that Marella asked about:

- 5/9/2016: 240 bats. Only counted on east side of bridge because we didn't realize bats were roosting in joints on the west side
- 7/18/2016: estimated over 1000 bats -- not prepared to count so many bats, needed night vision.
- 7/11/2017: 1078 bats. Used night vision for the first time during this count.

Let me know if you have any questions. Thanks!

Katherine

Katherine Caldwell
Wildlife Diversity Biologist
Associate Wildlife Biologist®

NC Wildlife Resources Commission
Asheville, North Carolina
828-545-8328

ncwildlife.org

2016-2017 NCWRC Gray Bat Telemetry Summary

2016 Gray Bat Telemetry Summary

Two gray bats were captured and outfitted with radio-transmitters by NCWRC personnel in Buncombe County, NC on August 30, 2016. The bats were tracked for 12 days until the transmitters became inactive (Aug 30 - Sept 12). The bats returned to the primary roost every day and routinely foraged in their respective areas during the seven nights of radio-tracking. Bat A foraged on Hominy Creek in the area where Pond Rd. crosses Hominy Creek and Bat B foraged on the French Broad River just North of the I-40 crossing of the river (Fig 1). During two nights of tracking, Bat B left its typical area and was not detected again that night.

2017 Gray Bat Telemetry Summary

Three gray bats were captured and outfitted with radio-transmitters by NCWRC personnel in Buncombe County, NC on August 9, 2017. The bats were tracked until their signals were no longer detected or until the transmitter fell off (Aug 9 – Aug 21). Bat A returned to the primary roost every day and Bat B returned to the primary roost 8 of the 12 days of tracking (Fig 3). Bat C returned to the primary roost 3 of the 12 days of tracking and was found roosting in Madison County approximately 21 miles straight-line distance (~32 river miles) from the primary roost on 3 of the 12 days (Figs 3-4). On 7 days, roosts for at least one of the bats were not located despite tracking efforts along the entire length of the French Broad River, Swannanoa River, and Hominy Creek and at known roosts in Madison County. In contrast to 2016 tracking results, bats did not routinely forage in the same areas each night or spend a considerable amount of time in one particular area, though many areas where bats were detected were similar to 2016 results. Bats were again detected traveling North on the French Broad River by Hwy 191 in the Bent Creek area, on Hominy Creek in the vicinity of Pond Rd., and on the French Broad River near the I-40 crossing. Additionally, bats were detected using a greater extent of Hominy Creek than in 2016 including the area near the I-240 crossing of Hominy Creek, north of I-240 along Sand Hill Rd., and along Hominy Creek Rd (Figs 1-2). Bats B and C were frequently detected on the Biltmore Estate property adjacent to Hwy 191 on the stretch that extends from I-26 to the area east of the Hominy Creek-French Broad River confluence. Bats B and C were also detected in the vicinity of the Asheville Outlet Mall and seemed to cross I-26 in this area, though without triangulation it is difficult to pinpoint exactly where this crossing occurred. Bat A was detected traveling South on the French Broad River during one night of telemetry. The bat's signal was detected between Clayton Rd. and Hwy 191 near Ashley Branch. This bat was also detected Northwest of the Long Shoals Rd. bridge during the same night. On two other nights, Bat A was detected foraging at the North Carolina Arboretum and Bent Creek Experimental Forest. Finally, Bat C was tracked from the Marshall roost on one night, but was lost approximately 10 minutes after emergence when personnel were delayed from tracking the bat by a train. The bat was last detected heading north, but was not detected after searching the French Broad River to the Tennessee border.

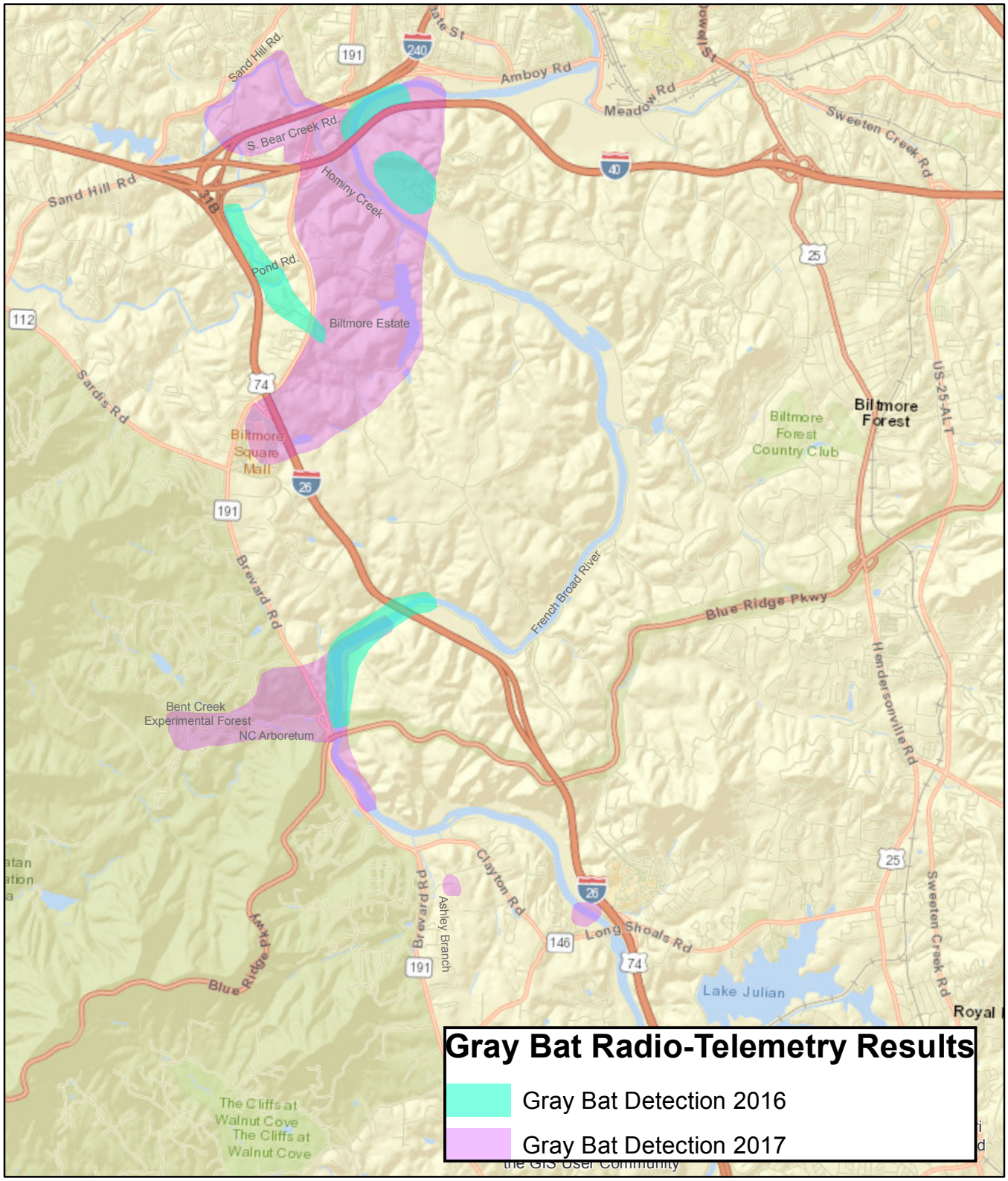
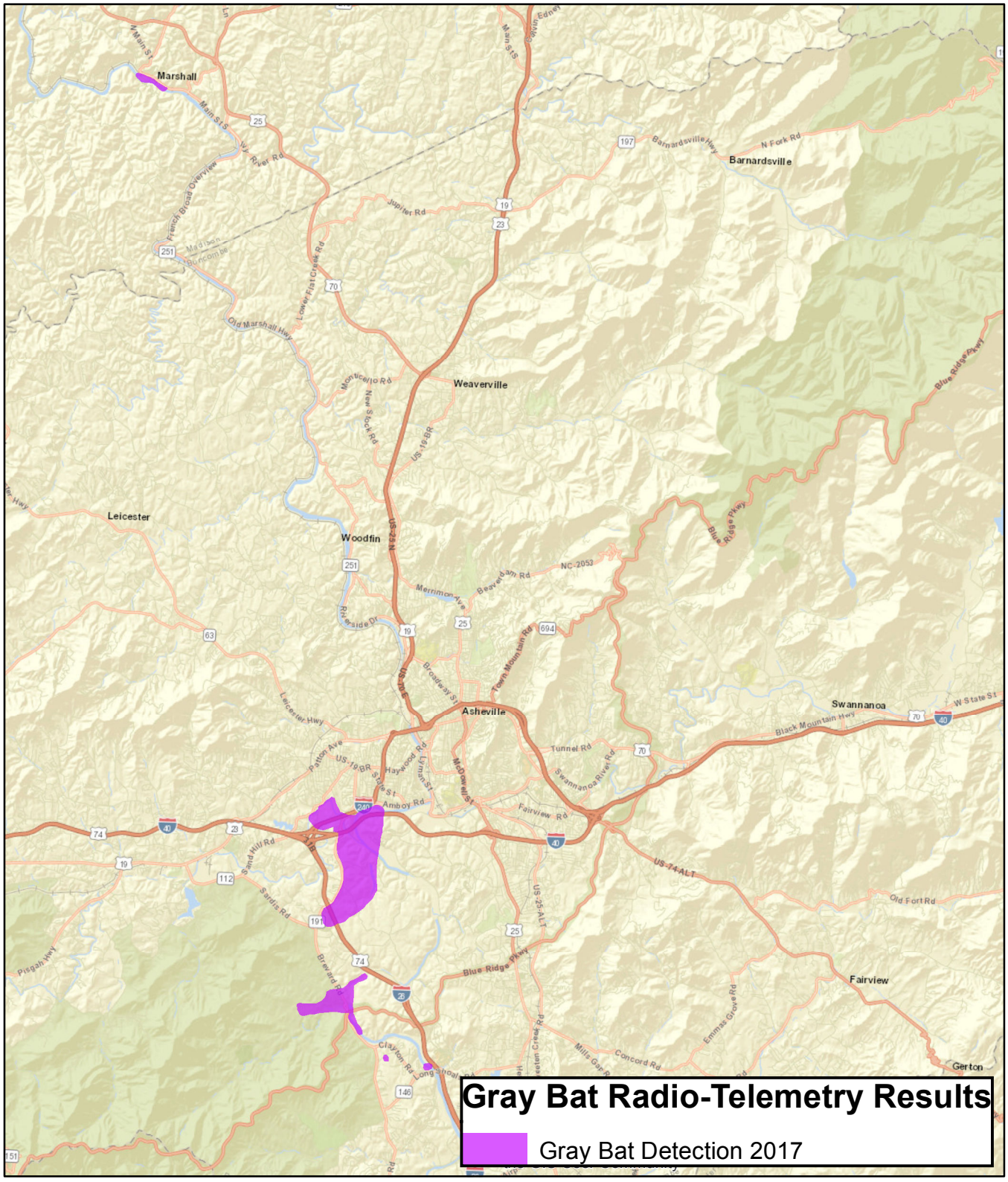


Figure 1. All areas in Buncombe County that radio-tagged gray bats were detected during 2016-2017 tracking efforts.



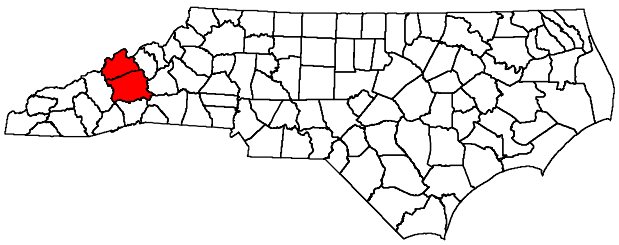


Figure 2. All areas that radio-tagged gray bats were detected during 2017 tracking efforts.

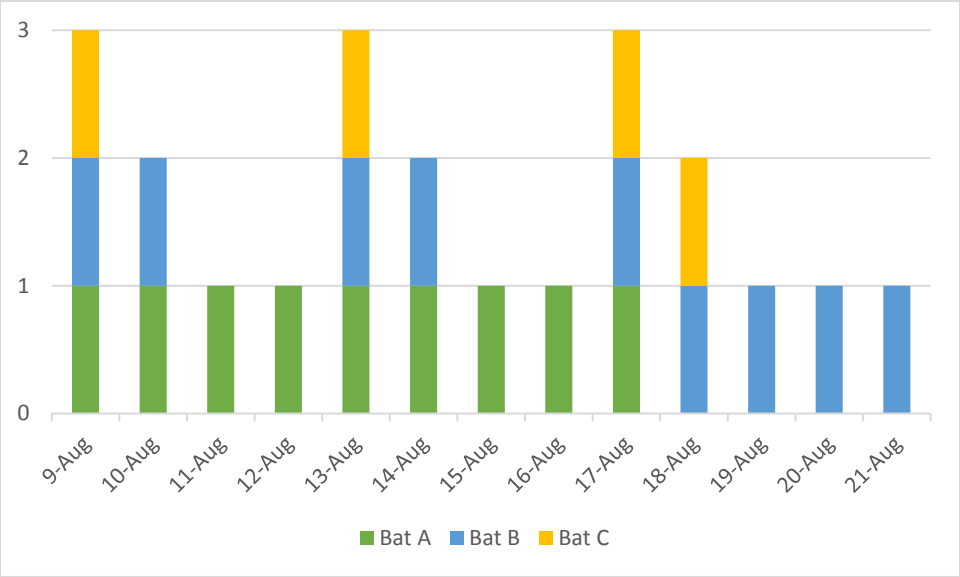


Figure 3. Occupancy of the primary roost by radio-tagged bats during 2017 tracking efforts.

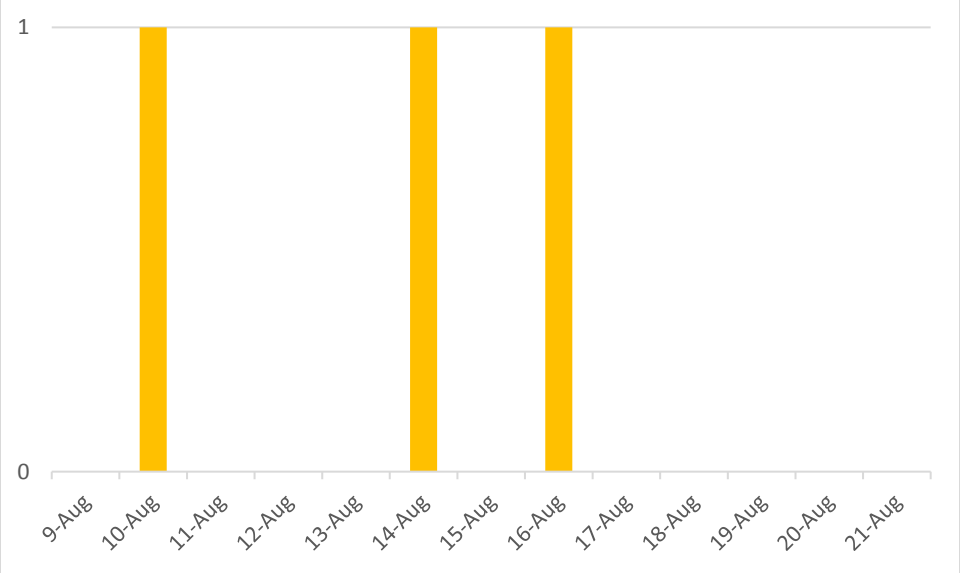


Figure 4. Occupancy of the Madison County roost by Bat C during 2017 tracking efforts.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

DATE: August 14, 2018

TO: Mr. Justin Williamson-Environmental Review Coordinator
NC State Parks
1615 Mail Service Center
Raleigh, NC 27699-1615

FROM: Derrick Weaver, Unit Head
Environmental Policy Unit

RE: STIP Project Number I-2513; I-26 Connector in Asheville, Buncombe County, North Carolina, WBS No. 34165.1.2

Dear Mr. Williamson:

The Federal Highway Administration (FHWA) and North Carolina Department of Transportation (NCDOT) are seeking your acknowledgement of the *de minimis* use of the French Broad River Paddle Trail for the proposed I-26 Connector project in Buncombe County, NC (State Transportation Improvement Program [STIP] No. I-2513). A *de minimis* impact is one that, after taking into account avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the resource under Section 4(f) protection.

In accordance with 23 CFR Part 774 (Sections 774.3(b) and 774.17), the FHWA and NCDOT intend to make a *de minimis* finding based on your concurrence with a No Adverse Effect to the French Broad River Paddle Trail.

The proposed I-26 Connector project in Buncombe County, NC (STIP project No. I-2513) would require placement of bridge bents in the French Broad River for construction of new location bridges for I-240 and I-26. Paddle accesses, campgrounds, and businesses along the French Broad River will be signed and/or notified by NCDOT prior to and during construction activity. NCDOT will be preparing a River User Safety Plan and River User Communication Plan in order to ensure effective public notification of the hazards, project progress, and temporary closures.

As the official with jurisdiction over the French Broad River Paddle Trail, I concur in a determination that the proposed transportation project as described in this letter would not adversely affect the activities, features, or attributes that qualify the French Broad River Paddle Trail for Section 4(f) protection. I have also been informed, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to the French Broad River Paddle Trail, thus satisfying the requirements of Section 4(f).

Date: 8-14-2018 Signature: (NCDPR)

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1548 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

Federal Aid #: **MANHF-26-1(53)** *TIP#:* **I-2513** **WBS#: 34165.1.2** *County*: **Buncombe**

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Updated for several of historic properties in the APE after the DEIS published and the preferred alternative identified. Does not address all historic properties, only those with changes, therefore this is a supplemental form to the original form dated May 21, 2016

Project Description: Proposed I-26 Connector from I-40/I-26 in southwestern Asheville to US 19-23-70 in northwest Asheville for total length of approximately 7 miles

On *September 17, 2018 and November 27, 2018* representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)
- ☒ Federal Highway Administration (FHWA)
- ☒ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

Representative, NCDOT — Date: 11/27/2018

FHWA, for the Division Administrator, or other Federal Agency — Date: 11-29-18

Representative, HPO — Date: 11.27.18

Resource Name	Preferred Alternative and Effect	Reasons/ Conditions
Asheville School	Section C: Alt. F-1 No adverse effect with environmental commitments *De minimis* under 4(f)	The DEIS reported 2.79 acres of right-of-way impacts and 0.58 acre of construction easement impacts. Revised designs reduced the amount of right-of-way impacts to 0.51 acre. The amount of construction easement required for this property increased from 0.58 acre to 1.48 acres for the reconstruction of small section of soil path/driveway near corner of I-40 and Sand Hill Road.
West Asheville/Aycock School Historic District	Section A No adverse effect with environmental commitments *De minimis* under 4(f)	The DEIS reported 0.35 acre of right-of-way impacts and 0.25 acre of construction easement impacts to the school. Revised designs reduced the amount of impacts to 0.15 acre and 0.10 acre, respectively. However, after speaking with school administration, redesign of the school's traffic pattern and purchase of a vacant lot on Argyle Lane could recoup the parking spaces impacted and alleviate the access issues. Construction easements would increase with this scenario but NCDOT investigating the constructability and design details for the new parking lot in consultation with the school and HPO. Commitments: • Recoup the school's loss of 25 parking spaces with a new parking lot • Screening trees preserved along west side of classrooms. • Fencing (a minimum of 6 feet in height and of the school's chosen materials) installed between the Greenway and school yard. • Along Haywood Road, the trees and Arrowhead monument on school grounds protected during construction.
Freeman House	Section B, Alt 4B No adverse effect with environmental commitments	After publication of the DEIS, NCDOT contacted the property owner to explain proposed audible and visual impacts resulting from the project and potential abatement measures. The property owner indicated that they would like NCDOT to provide funding for appropriate abatement measures. Commitments: • NCDOT will reimburse the property owner for the costs to install central heat/AC, storm windows, and insulation based on the lowest of 3 bids provided to NCDOT

		by the property owner. If the property owner chooses, NCDOT will make payment directly to a third party contractor(s) upon satisfactory completion of the work. • Install landscaping along the edges of their property facing the new facility.
William Worley House	Section B, Alt 4B No adverse effect with environmental commitments *De minimis* under 4(f)	Revised designs reduced the amount of right-of-way impacts to 0.05 acre and increased the amount of permanent underground easement slightly to 0.26 acre to construct the retaining wall. After publication of the DEIS, NCDOT contacted the property owner to explain proposed audible impacts resulting from the project and potential abatement measures. The property owner indicated that they would like NCDOT to provide funding for appropriate abatement measures. Commitments: • NCDOT will reimburse the property owner for the costs to install central heat/AC, storm windows, and insulation based on the lowest of 3 bids provided to NCDOT by the property owner. If the property owner chooses, NCDOT will make payment directly to a third party contractor(s) upon satisfactory completion of the work. • Install central heat/AC, storm windows, and insulation.
Montford Area Historic District	Section B, Alt 4B **Adverse Effect**	NCDOT is working with the newly-formed Asheville Aesthetics Advisory Committee to design appropriate landscaping measures to minimize the visual effects of the elevated roadway adjacent to Riverside Cemetery.
Montford Hills	Section B, Alt 4B No adverse effect	Revised designs do not require the underground easement to accommodate the retaining wall; therefore, there are no temporary or permanent easements within the district's boundaries.
Haywood Street United Methodist Church	Section B, Alt 4B No adverse effect *De minimis* under 4(f)	Originally, no construction work or temporary construction easements would impact the church or its parking. However, the construction of a sidewalk in front of the church is currently proposed and supported by the congregation.

Initialed: NCDOT MPT FHWA DB HPO DSE

FHWA Intends to use the HPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):

- Asheville School
- West Asheville/Aycock School Historic District
- William Worley House
- Haywood Street United Methodist Church

APPENDIX C3

COORESPONDENCE FROM LOCAL AGENCIES

Date	From	To	General Subject
12/01/2015	City of Asheville	NCDOT	Comments on DEIS
12/08/2015	City of Asheville	Mayor and City Council (Asheville)	Comments on DEIS
12/15/2015	Town of Woodfin	NCDOT	Resolution for I-26 Connector
12/16/2015	Asheville Area Chamber of Commerce	NCDOT	Comments on DEIS
12/12/2016	City of Asheville	NCDOT	Bicycle and pedestrian accommodations
01/25/2017	FBRMPO	NCDOT	Amboy Road complete streets resolution
11/29/2017	City of Asheville	NCDOT	Traffic capacity analysis
01/18/2018	City of Asheville	NCDOT	Transit impacts
11/29/2018	City of Asheville	NCDOT	Traffic Noise Studies
01/08/2019	City of Asheville	NCDOT	Carrier Park Improvements
04/25/2019	City of Asheville	NCDOT	Patton Avenue design
06/24/2019	City of Asheville	NCDOT	Carrier Park de minimis concurrence

Foushee, Celia

From: Werner, Christopher (Morrisville)
Sent: Wednesday, December 02, 2015 10:18 AM
To: Rocco, Joanna; Foushee, Celia
Subject: FW: I-26 Connector Project Memo
Attachments: I-26 DEIS Comments Memo 12-08-15.doc; ATT00001.htm; Attach 1 - Project Overview Map.pdf; ATT00002.htm; Section B Comments 11-30-15.docx; ATT00003.htm; Section C Comments 11-30-15.docx; ATT00004.htm; General Comments 11-30-15.docx; ATT00005.htm; Section A Comments 11-30-15.docx; ATT00006.htm

FYI

Thanks,
Chris

NEW CONTACT INFORMATION AFTER 11/5/2015

Christopher M. Werner, PE
Transportation Engineer, Planning Department, North Carolina D +1-919-239-7168 christopher.m.werner@aecom.com

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701 Corporate Center Drive, Suite 475
Raleigh, NC 27607, United States
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aecom.com

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LinkedIn Twitter Facebook Instagram

-----Original Message-----
From: Solberg, Kristina L [mailto:klsolberg@ncdot.gov]
Sent: Tuesday, December 01, 2015 2:23 PM
To: Weaver, Derrick G; Wray, Michael G; Werner, Christopher (Morrisville)
Cc: Tipton, Ricky A
Subject: FW: I-26 Connector Project Memo

FYI

Begin forwarded message:

From: Ken Putnam <KPutnam@ashevillenc.gov<mailto:KPutnam@ashevillenc.gov>>
Date: December 1, 2015 at 1:48:16 PM EST
To: "Bruce & Day Ann Emory (emory22@charter.net<mailto:emory22@charter.net>)"
<emory22@charter.net<mailto:emory22@charter.net>>, "Don Kostelec
(don.kostelec@gmail.com<mailto:don.kostelec@gmail.com>)"

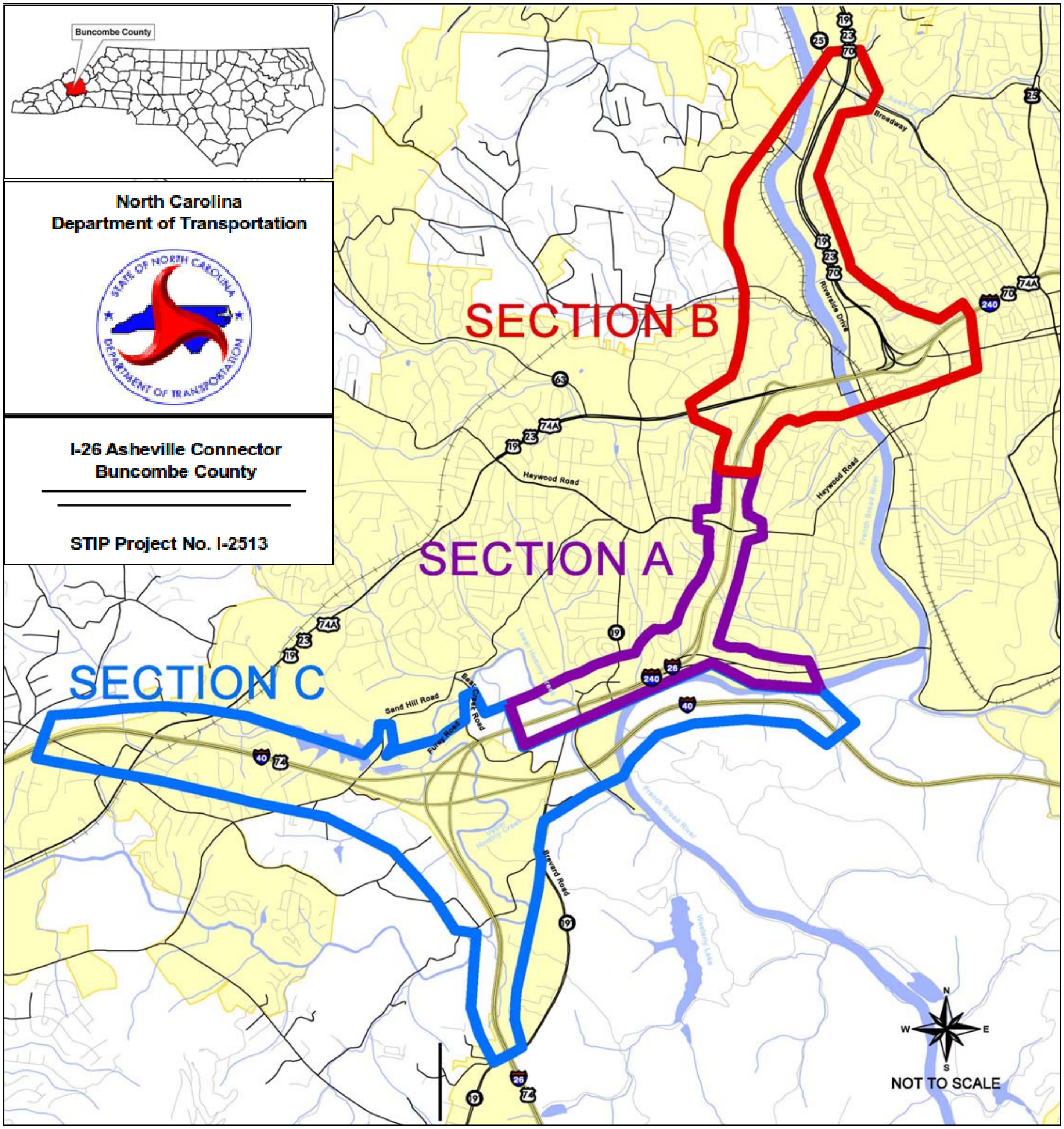
<don.kostelec@gmail.com<mailto:don.kostelec@gmail.com>>, Gwen Wisler
<gwenwisler@avlcouncil.com<mailto:gwenwisler@avlcouncil.com>>, Jim Grode
<jimgrode@gmail.com<mailto:jimgrode@gmail.com>>, "John Ridout (jridout@unca.edu<mailto:jridout@unca.edu>)"
<jridout@unca.edu<mailto:jridout@unca.edu>>, "Joshua OConner
(Joshua.OConner@buncombecounty.org<mailto:Joshua.OConner@buncombecounty.org>)"
<Joshua.OConner@buncombecounty.org<mailto:Joshua.OConner@buncombecounty.org>>, "Julie Mayfield
(julievmayfield@gmail.com<mailto:julievmayfield@gmail.com>)"
<julievmayfield@gmail.com<mailto:julievmayfield@gmail.com>>, "Kristy Carter
(kristy.carter@jmteagueengineering.com<mailto:kristy.carter@jmteagueengineering.com>)"
<kristy.carter@jmteagueengineering.com<mailto:kristy.carter@jmteagueengineering.com>>, Martha McGlohon
<mmcglohon@ashevillenc.gov<mailto:mmcglohon@ashevillenc.gov>>, Mary Weber
<mary@maryweberdesign.com<mailto:mary@maryweberdesign.com>>, "Philip Lenowitz"
<paladin@ncchangeagent.com<mailto:paladin@ncchangeagent.com>>, Richard Lee
<ric.hardlee@live.com<mailto:ric.hardlee@live.com>>, Terri March
<terri.march@mahec.net<mailto:terri.march@mahec.net>>, Till Dohse
<till.dohse@gmail.com<mailto:till.dohse@gmail.com>>
Cc: Gary Jackson <GJackson@ashevillenc.gov<mailto:GJackson@ashevillenc.gov>>, Cathy Ball
<cball@ashevillenc.gov<mailto:cball@ashevillenc.gov>>, councilgroup
<AshevilleNCCouncil@ashevillenc.gov<mailto:AshevilleNCCouncil@ashevillenc.gov>>, "Keith Young
(williamkyoung@hotmail.com<mailto:williamkyoung@hotmail.com>)"
<williamkyoung@hotmail.com<mailto:williamkyoung@hotmail.com>>, "Brian Haynes
(brianhaynes57@yahoo.com<mailto:brianhaynes57@yahoo.com>)"
<brianhaynes57@yahoo.com<mailto:brianhaynes57@yahoo.com>>, "Maggie Burleson"
<MBurleson@ashevillenc.gov<mailto:MBurleson@ashevillenc.gov>>, Janet GeorgeMurr
<JGeorgeMurr@ashevillenc.gov<mailto:JGeorgeMurr@ashevillenc.gov>>
Subject: FW: I-26 Connector Project Memo

Greetings all! Attached, please find staff's comments regarding the I-26 Connector Project that will be shared at the MMTC meeting tomorrow afternoon. This is the same information that will be shared with City Council on December 8th and then it will be sent to the NCDOT via a cover letter signed by me as the Transportation Department Director.

Please let me know if additional information is needed.

From: Ken Putnam
Sent: Monday, November 30, 2015 5:23 PM
To: Maggie Burleson
Cc: Gary Jackson; Cathy Ball
Subject: I-26 Connector Project Memo

Attached, is the memo, staff comments, and project overview map which will now be made as a presentation. Please let me know if additional information is needed.


Buncombe County
North Carolina
Department of Transportation
I-26 Asheville Connector
Buncombe County
STIP Project No. I-2513
SECTION A
SECTION B
SECTION C
Haywood Road
Sand Hill Road
Furey Road
Brevard Road
Riverside Drive
Broadway
French Broad River
NOT TO SCALE
N
S
E
W

I-26 CONNECTOR DEIS REVIEW

General Comments

- The City of Asheville's City Council approved a resolution adopting a complete streets policy on June 26, 2012 (Resolution # 12-154). NCDOT adopted a similar policy during July 2009. In order to be consistent with these policies, the City of Asheville strongly encourages the NCDOT to implement complete streets elements consistent with design guidelines published by the National Association of City Transportation Officials (NACTO) along all of the -Y- lines including the bridges that cross the -L- line throughout the entire project length for all sections. As the -Y- lines are streets that are generally local in nature, the City of Asheville strongly encourages collaborative planning throughout the design and construction phases.

- The City of Asheville has committed $2,000,000 of co-funding to the I-26 Connector project in order to ensure that local needs are met.

- The City and County approved a joint resolution regarding the I-26 Connector on March 18, 2014 (Resolution # 14-54 and # 14-03-12). The resolution included the following quote, "…in preparation of the draft Environmental Impact Statement for the project, NCDOT clearly include elements that will address community needs for sound barriers and bicycle, pedestrian and neighborhood connections, including location, design, and the funding methodology of associated infrastructure elements." The City of Asheville strongly encourages NCDOT to fully address these elements in the Final EIS document.

- Now that the City of Asheville (and other cities throughout North Carolina) is limited in the ability to annex, the City's geographical area has now become finite and as a result, land is more valuable to the City's tax base and is necessary for downtown infill redevelopment especially along Patton Avenue east of the Jeff Bowen Bridges. Therefore, the City of Asheville strongly encourages the NCDOT to make all efforts to minimize the overall footprint throughout the entire project length for all sections with the use of additional retaining walls and additional urban design strategies to make sure that all of the on/off ramps are placed as close to the -L- line as possible. Design exceptions should be considered in cases where greater land preservation would result. The City of Asheville would like to be involved in discussing these suggestions during the design phase.

- Summary, Page xi, it states that "NCDOT policies prescribe that certain pedestrian improvements require partial funding by and formal requests from the local governments; therefore, until a preferred alternative is selected, it cannot be definitively determined what elements will be included in the final design of the project." The City of Asheville is very interested in assuring the best possible pedestrian and bicycle improvements and would like to be actively involved in the design phase of the project regarding the pedestrian elements after a preferred alternative has been selected. This involvement is critical in order for the City of Asheville to conduct its own transportation and financial planning.

- The City of Asheville's preferred sidewalk cross-section includes a 5-foot sidewalk and a 5-foot utility strip (buffer area) with a 10-foot overall width. The City of Asheville strongly

encourages this cross-section at all sidewalk locations throughout the entire project length for all sections. If the preferred sidewalk cross-section cannot be provided in specific areas, a reduced-width utility strip should be considered, and if that is not possible, then a 6-foot back of curb sidewalk should be used.

- The City of Asheville strongly encourages the NCDOT to consider wider (6') minimum bicycle lane widths along roads with traffic volumes greater than 10,000 vpd and/or operating speeds greater than 35 mph to be consistent with the City of Asheville Standard Specifications and Details Manual, City of Asheville Comprehensive Bicycle Plan, and NACTO recommendations. In addition, The NC Bicycle Facilities Planning and Design Guidelines (1994), calls for a preferred bicycle lane width of 5' or greater. It recommends additional width "where substantial truck traffic is present, where prevailing winds are a factor, on grades, or where motor vehicle speeds exceed 35 mph. (p 31)" As do other guides, the NC Bicycle Facilities Planning and Design Guidelines shows bicycle lane width measured exclusive of gutter, and shows a minimum 2' gutter area in Figure 5-2 (p 32).

- The City of Asheville strongly encourages the NCDOT to consider multi-use paths to measure 14-16 feet wide with an absolute minimum width of 12 feet.

- The City of Asheville would like to be actively involved in the Aesthetics Advisory Committee (AAC) in order to help integrate aesthetics features into the proposed design after a preferred alternative has been selected and final design begins. Retaining walls should include aesthetics standards consistent with the City of Asheville Standard Specifications and Details Manual.

- The City of Asheville strongly encourages the NCDOT to include bus stops along all of the transit routes within the project limits. These bus stops must be designed and constructed to meet ADA requirements.

- The City of Asheville would like for the NCDOT to consider "bus on shoulder system" to be authorized within the project limits.

- The City of Asheville strongly suggests that NCDOT create a collaborative working group that would meet regularly starting in early 2016 and throughout the design phase to ensure adequate consideration of the concerns listed above. This group could also examine the travel demand model, capacity analysis, and the methodology of calculating Level of Service in an effort to gain consensus.

- The City of Asheville is pleased that NCDOT will be using the new local travels demand model to re-examine travel demand and to conduct a new capacity analysis with a 6-lane alternative in Section A.

- Maps included in the DEIS do not seem to indicate the placement of sound walls as were indicated in earlier versions. The City of Asheville would like more information

about the placement and sufficiency of sound walls, and assurance that sound walls will be fully included in the Final EIS.

Memorandum

Date: December 8, 2015

To: Mayor and City Council

Via: Gary Jackson, City Manager

From: Ken Putnam, PE, Transportation Department Director

Subject: I-26 Connector Project Draft Environmental Impact Statement (DEIS) Comments

The purpose of this memorandum is to update City Council regarding staff's comments about the I-26 Connector Project Draft Environmental Impact Statement (DEIS).

The I-26 Connector Project is an interstate freeway project that is being proposed to connect I-26 in southwest Asheville to US 19-23-70 in northwest Asheville. The North Carolina Department of Transportation (NCDOT) has programmed this project to upgrade and widen I-240 from I-40 to Patton Avenue, and then proceed northward from Patton Avenue on new location across the French Broad River and connect to US 19-23-70 just south of Exit 25 (Broadway). Upon completion, this project will be part of the I-26 interstate that extends from Charleston, South Carolina to Kingsport, Tennessee. It is about 7 miles long and includes three sections: C, A, and B (see attached project overview map).

The North Carolina Department of Transportation (NCDOT) completed and released the I-26 Connector Project Draft Environment Impact Statement (DEIS) for review and comment on October 16, 2015. As a part of the release, copies of the actual document were provided to the following locations; the NCDOT local Division 13 office on Orange Street, the Land-of-the-Sky offices on New Leicester Highway, the City of Asheville Transportation Department in City Hall, the Pack Memorial Library, the West Asheville Library, and the Buncombe County Law Library. In addition, the public hearing maps were provided to the following locations; the NCDOT local Division 13 office on Orange Street, the Land-of-the-Sky offices on New Leicester Highway, and the City of Asheville Transportation Department in City Hall. All of the project materials can also be viewed at the project website at http://www.ncdot.gov/projects/i26connector/.

The Open House and Public Meeting were held on Monday, November 16, 2015 at the Renaissance Hotel located at 31 Woodfin Street. The informal open house was held from 4:00 pm until 6:30 pm and during this time, NCDOT representatives were available to answer questions and receive comments on a one-on-one basis. Earlier in the day (from noon until 1:00 pm, an informational meeting with local officials was held. The formal public hearing began at 7:00 pm with a presentation including an explanation of the proposed corridor location, design, right-of-way, relocation requirements/procedures, and the state-federal relationship. After the presentation, statements, questions, and comments were received by the persons attending the meeting. All of the comments were recorded and a transcript is being prepared. The official comment period ends on December 16, 2015 and the NCDOT has provided many ways for comments to be submitted. In addition, the City's public media staff has worked closely with the NCDOT to ensure that all comments are submitted to the NCDOT.

City staff conducted two "work sessions"; one on November 6, 2015 and the other one on November 17, 2015 to review the materials and prepare comments. Attendees included staff members from the Transportation Department, the Planning Department, the Public Works

Department, the Multi-Modal Transportation Commission, the Asheville Design Center, and the Southern Environmental Law Center. Staff comments (see attachment) focused on multi-modal transportation elements and the City's transportation plans as outlined in the joint resolution approved by the City of Asheville, Buncombe County, and the French Broad River Metropolitan Planning Organization (FBRMPO) on March 25, 2014 (Resolution # 14-54). Staff's comments are more technical in nature and staff does not recommend a specific alternative. The comments will be submitted to the NCDOT via a cover letter on December 16, 2015.

Please let me know if additional information is needed.

Attachments:
(1) Project Overview Map
(2) Comments

I-26 CONNECTOR DEIS REVIEW

Section A Comments

- The City of Asheville strongly encourages that an updated Travel Demand Model for the project be developed as quickly as possible to assess a scenario for six lanes through Section A, that the analysis in the six-lane scenarios carefully avoid assuming induced-demand levels associated with an eight-lane design, that the analysis include the resulting impact of six lanes on Section B, and that final design of the project include the fewest number of lanes and smallest footprint possible through the A and B Sections of the project.

- The Haywood Road bridge (-Y6-) and associated intersections do not seem to include complete streets elements as indicated by the public hearing corridor maps. The City of Asheville strongly encourages the NCDOT to include complete streets elements consistent with NACTO guidelines on the subject bridge and through the intersections and to make all efforts to make the bridge and intersections as pedestrian and bicycle friendly as possible especially since a proposed greenway (multi-use transportation path) will be located in the northeast quadrant. These elements should include a minimum sidewalk width of 6 feet measured back of curb, bicycle lanes, reduced lane width and intersection dimensions, and reduced radii at the on/off ramps.

- Amboy Road (-Y4-) is indicated as a four-lane facility. The City of Asheville strongly prefers that Amboy Road be designed as a two-lane facility, possibly with wider intersections for turn lanes, in order to reduce the footprint of the entire project and the taking of property, to make it more compatible with adjoining neighborhoods, to make Amboy Road more bicycle and pedestrian-friendly, and to reduce project cost, even if it means achieving level-of-service E for that section of Amboy Road.

- Amboy Road (-Y4-) is not pedestrian and bicycle friendly with the proposed 4-lane cross-section which is recommended simply to match the proposed design for project # U-4739. The City of Asheville is currently designing a project identified as RADTIP which is a complete streets project along Lyman Street/Riverside Drive from Amboy Road (near the French Broad River) to Hill Street. Construction will begin during Calendar Year 2017. The proposed cross-section along the southern section of the project includes two travel lanes, sidewalks, a greenway (multi-use transportation path), and a protected two-way bikeway (1 bicycle lane in each direction). In addition, the 2040 Metropolitan Transportation Plan (MTP) no longer recommends major widening for project # U-4739 but instead recommends spot widening, roadway modernization and access management with complete streets elements. The City of Asheville strongly encourages the NCDOT to redesign Amboy Road (-Y4-) to be consistent with the City's ongoing project with a design speed no greater than 40 mph.

- The typical cross-section for Amboy Road (-Y4-) between NC 191 (Brevard Road) and I-26 does not provide enough width for the City's preferred sidewalk cross-section. The City of Asheville strongly encourages the NCDOT to design and construct the preferred sidewalk cross-section.

- The City of Asheville greatly appreciates the inclusion of the West Asheville Greenway from Haywood Road across the Jeff Bowen Bridges, and to Clingman Avenue. The City of Asheville anticipates that this facility will be very heavily used by bicycle commuters, recreationists, pedestrians, and visitors. Given the anticipated high usage levels, the City strongly encourages that this Greenway, as with all greenways reflected in the DEIS, should reflect the AASHTO and National Association of City Transportation Officials (NACTO) design standards, which would result in a greenway that is roughly 14-16 feet wide to safely accommodate bikes, and would also include appropriate shy-distance from any barriers, consistent with AASHTO guidelines and NACTO guidelines Additionally, the path should be marked with 2-way bicycle and pedestrian lanes.

- The proposed closing of Hanover Street at its intersection with Haywood Road adversely impacts transit routes W1 and W2 regarding its service to the Pisgah View Apartments (a public housing complex).

- The City of Asheville strongly encourages the NCDOT to include bicycle/pedestrian infra-structure at the beginning/end of the Hominy Creek Greenway at Hominy Creek Road.

- The City of Asheville is concerned about the impact to the French Broad River Greenway during the construction of the proposed retaining wall.

- The City of Asheville would like the opportunity to collaborate with NCDOT on the design for the new interchanges at Brevard Road and Amboy Road in order to identify opportunities for urban design strategies and the possible use of roundabouts.

I-26 CONNECTOR DEIS REVIEW

Section B Comments

- The City of Asheville greatly appreciates the inclusion of the West Asheville Greenway (identified as # 20 on the City of Asheville Greenway Master Plan that was adopted on November 12, 2013) from Haywood Road to the eastern end (Asheville side) of the Jeff Bowen Bridges. There is a section of the West Asheville Greenway that intersects with Hazel Mill Road which then follows Hazel Mill Road and the Craven Connector before it ties back into the Jeff Bowen Bridges. The City of Asheville strongly encourages the NCDOT to keep the West Asheville Greenway "running" parallel to the C/A fence and the -Y7- EBL in order to avoid the 18%+/- vertical grade along Hazel Mill Road and to be routed underneath, via culvert, any street crossings in its path. This greenway, as with all greenways reflected in the DEIS, should reflect the National Association of City Transportation Officials (NAACTO) design standards, which would result in a greenway that is roughly 14-16 feet wide, plus necessary shy distance from barriers, to safely accommodate bikes and pedestrians. The City of Asheville strongly encourages that this greenway be extended southward to connect to the French Broad River Greenway and that it be extended eastward to connect with Clingman Avenue.

- The City of Asheville strongly encourages the inclusion of the Emma Greenway (identified as # 7 on the City of Asheville Greenway Master Plan that was adopted on November 12, 2013), the Montford Greenway (identified as # 14 on the City of Asheville Greenway Master Plan that was adopted on November 12, 2013), and the Smith-Mill Creek Greenway (identified as # 17 on the City of Asheville Greenway Master Plan that was adopted on November 12, 2013). The City of Asheville notes that there appears to be the opportunity to "daylight" Smith-Mill Creek as it runs through the project area and the City of Asheville strongly encourages NCDOT to pursue that option.

- The City of Asheville is concerned that there is no direct access to Haywood Road from I-26 eastbound under alternatives 3 and 3C which might encourage that traffic to go to the Amboy Road interchange using NC 191 (Brevard Road) and other neighborhood city-maintained streets (Virginia Avenue and Fairfax Avenue) to gain access to Haywood Road. The proposed access requires vehicles to travel through four signalized intersections before reaching Haywood Road.

- The City of Asheville is concerned about the adverse impact that Alternatives 3 and 3C will have on the long-term viability of the Westgate Shopping Center including the impact of a new hotel currently under construction at the same location that -Y7I- will terminate.

- The City of Asheville is concerned about the adverse impact that Alternatives 3 and 3C will have on the Burton Street Community. Regardless of the alternative chosen, the City of Asheville strongly encourages a collaborative planning process to identify opportunities to reduce the overall footprint of the project.

- The City of Asheville strongly encourages the NCDOT to minimize as much traffic on the Jeff Bowen Bridges as possible in order to extend the life of the two existing bridges.

- The City of Asheville is concerned that Alternatives 3 and 3C will not completely eliminate the existing weaving maneuvers and congestion on the Jeff Bowen bridges.

- The City of Asheville is concerned about the adverse impacts to business and industrial sites with Alternatives 3 and 3C.

- The City of Asheville strongly encourages continuous sidewalks along both sides of Patton Avenue from the west side of the French Broad River to Clingman Avenue for Alternatives 4 and 4B.

- The City of Asheville strongly encourages the NCDOT to improve access to the Hillcrest Community.

Pros and Cons

Alternatives 3 and 3C

- Lower overall cost compared to Alternatives 4 and 4B
- Does not separate local and interstate traffic (weaving maneuvers and traffic congestion on the Jeff Bowen bridges not eliminated).
- Adverse impacts to the Burton Street Community.
- Adverse impacts to the Westgate Shopping Center (including a new hotel currently under construction).

Alternatives 4 and 4B

- Separates local and interstate traffic (creates a gateway into downtown Asheville).
- Minimizes traffic volumes on the Jeff Bowen bridges; therefore extending the life of the bridges.
- The existing bridge(s) could accommodate the multi-use transportation path without widening or constructing a new bridge.
- Improved transit service between downtown Asheville and West Asheville (more direct and faster travel times).
- Higher overall cost compared to Alternatives 3 and 3C.

I-26 CONNECTOR DEIS REVIEW

Section C Comments

- The City of Asheville strongly encourages the NCDOT to minimize the overall footprint for the section at and near I-40 Exit # 44 by using retaining walls and keeping the separation between the collector-distributor ramps and the –L- line as narrow as feasibly possible. Alternative F1 minimizes the footprint and cost.

- Will project # I-4759 not provide much needed relief regarding traffic congestion at I-40 Exit # 44, and if so, could the overall footprint be reduced? The City of Asheville questions the additional investment in the collector roads shown along I-40 west of I-26. These roads would take a significant number of homes and would not resolve the congestion at Exit #44 but simply move it to a new location. Making this additional investment in this location makes the previous widening here appear excessive and may call into question the need for the proposed Liberty Road interchange (Project # I-4759), which was proposed to help relieve congestion at Exit #44. The new collector road on the south side of I-40 seems a significant new investment to address something that is not clearly a current problem.

- The City of Asheville suggests than an additional exit ramp from I-40 westbound onto Smoky Park Highway eastbound at Exit # 44 be considered in order to relieve congestion at the existing ramp.

- The City of Asheville is concerned about the need to widen I-40 east of the Brevard Road interchange since there is no data to support the proposed widening and it adds significantly to the cost.

- As a general matter, if there is an additional $100,000,000 to spend on this project, the City of Asheville would prefer those additional investments be made in Section B rather than in Section C.

The Town of Woodfin
90 Elk Mountain Road
Woodfin, NC 28804
828-253-4887 fax: 828-253-4700

Resolution: *Recommending the Quick Adoption and Implementation of the Proposed I-26 Connector project to the North Carolina Department of Transportation*

Passed December 15, 2015:

WHEREAS, the I-26 Connector project is a project in the approved Long Range Transportation Plan and an approved project in the TIP; and

WHEREAS, the Town of Woodfin is a member of the French Broad River Metropolitan Planning Organization (MPO), and supports a transportation planning process in the urbanized area that is comprehensive, cooperative, and continuing, and addresses public safety and local and regional economic needs; and

WHEREAS, the North Carolina Department of Transportation (NCDOT) is responsible for designing and implementing projects in the TIP; and

WHEREAS, the I-26 Connector project has been long delayed by design and planning discussions; and

WHEREAS, the Town of Woodfin finds the travel demand modeling assumptions employed in the development of the various proposals are sound; and

WHEREAS, the NCDOT is soliciting ongoing input from the French Broad River MPO and the local community on the design of the I-26 Connector project;

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN BOARD OF THE TOWN OF WOODFIN:

That the Town of Woodfin recommends and requests that the NCDOT choose a design and begin construction of the I-26 connector project as soon as possibile.

Ayes 6

Nays 0

Abstains 0

M. Jerry VeHaun
Mayor

Attest:

Cheryl Mears
Cheryl Mears
Town Clerk

Joyner, Drew

From: Jeff Joyce <jjoyce@ashevillechamber.org>
Sent: Wednesday, December 16, 2015 8:26 AM
To: Joyner, Drew
Subject: I-26 Comments

Drew:

On behalf of the Asheville Area Chamber of Commerce and our 1,800 members from across Western North Carolina, I would like to thank you and the NC DOT for your work on addressing I-26. I-26 serves as the backbone of commerce and transportation for our region. The Asheville Chamber is an active partner with the other chambers in the region (Black Mountain, Henderson County, Haywood County, Brevard/Transylvania, and Madison County) and we have formed the WNC Chambers Coalition. This group primarily works to advocate for regional issues at the North Carolina General Assembly and for the last three years the completion of the I-26 projects has been our top priority. This is a great testament to the importance of this piece of highway for our region. Here in Buncombe county we are a ten county labor shed. Everyday the workforce is dependent on I-26 to come to work. Please, work as quick as possible to make the improvements to this critical piece of highway.

My best,

Jeff

Jeff Joyce, Director of Public Policy
Public Policy Department- Asheville Area Chamber of Commerce
36 Montford Avenue - Asheville, NC 28801 - 828.258.6122 ph - 828.251.0926 fax
jjoyce@ashevillechamber.org - www.ashevillechamber.org

ASHEVILLE
AREA CHAMBER OF COMMERCE

#getmovingoni26

Upcoming Events: | December Business After Hours – Dec. 3 **| December Educational Series** – Dec. 9 **| December Business Before Hours** – Dec. 15

AVL 5x5 Vision 2020 – Uniting our community for higher-wage jobs and a healthy local economy

Visit Spain with the Chamber! – Nov. 2016

Rocco, Joanna

From: Ken Putnam <KPutnam@ashevillenc.gov>
Sent: Monday, December 12, 2016 2:50 PM
To: Dean, Neil
Cc: Werner, Christopher (Morrisville); Rocco, Joanna; Foushee, Celia; Wray, Michael G; Weaver, Derrick G; Johnson, Edward R; Johnson, Edward R
Subject: RE: Cycle track typical section and questions

Good afternoon Neil! I apologize for the delayed response. I think for purposes of the I-26 Connector project, option 2 would be the preferred treatment. Please let me know if additional information is needed.

From: Dean, Neil [mailto:neil.dean@aecom.com]
Sent: Friday, December 02, 2016 1:37 PM
To: Ken Putnam
Cc: Werner, Christopher (Morrisville); Rocco, Joanna; Foushee, Celia; Wray, Michael G; Weaver, Derrick G; Johnson, Edward R; Johnson, Edward R
Subject: FW: Cycle track typical section and questions

Ken,

I wanted to touch base with you and see if you had any ideas on the Asheville's preferred typical section for the cycle tracks.
We're working hard with DOT to come up with suggestions on how to resolve the requests and I need a little input from you.

The Betterments List you provided to us describes these as "Provide a 2-way protected bicycle "track" …." For our internal discussions and estimating efforts, I need some clarification on what the City would like as the protection.

I'm aware of three typical sections for cycle tracks:

1) A raised island that separates the bicycle traffic completely from the motor vehicles, similar to this:

2) The Bicycle facility would be separated from motor vehicles by a painted island and flexible delineators, similar to:

3) The cycle track would be separated from vehicular traffic an edge line and delineators, similar to:

Obviously any of these have plusses and minuses and I'd be happy to discuss these with you further, but for the purposes of this e-mail, I didn't want to drill too far down into those issues

If you need to discuss this further, don't hesitate to call me at the information below.

Neil J. Dean, PE
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Rocco, Joanna

From: Foushee, Celia
Sent: Wednesday, January 25, 2017 3:08 PM
To: Werner, Christopher (Morrisville); Rocco, Joanna
Cc: Bell, Andrew; Gore, Heath; Dean, Neil; Spalding, Eric
Subject: FW: I-2513 I-26 Connector: Amboy Road
Attachments: 2013_10_31_CompleteStreetsCrosssectionsResolution_Signed.pdf

FYI in regards to our call with Lyuba today.

Celia Foushee
Environmental Planner, North Carolina
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celia.foushee@aecom.com

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From: Lyuba Zuyeva [mailto:lyuba@landofsky.org]
Sent: Wednesday, January 25, 2017 3:02 PM
To: Foushee, Celia; andrew.belz@aecom.com
Subject: RE: I-2513 I-26 Connector: Amboy Road

Celia and Andrew-

Good to talk to you both today.
Please find attached a copy of the FBRMPO Board resolution which included a two-lane rural avenue recommendation for Amboy Road form I-240 to Amboy Road bridge (see p. 4, project SPOT 491). The Wilma Dykeman Riverway Plan (this plan dates back to 2004, so slightly outdated at this point and in parts unrealistic, but still presents a nice overall vision for multi-modal transportation network development along the French Broad River) envisioned a two-lane cross-section with a median, on-road bicycle accommodation and a multi-use path for this portion of Amboy-see District 3 http://riverlink.org/wp-content/uploads/2014/10/WilmaDykemanSm.pdf A bike lane along this corridor is recommended in the Asheville in Motion Plan, as well as in the Blue Ridge Bike Plan.

As discussed over the phone, due to the physical and topographic constraints along the corridor, as well as the ROW constraints resulting from new development, I see the Amboy Road section from I-240 to Amboy Road bridge as a two or three-lane future cross-section. Four-lane divided cross-section would likely be unrealistic with the consideration for existing park and new development along the river, and would likely be unpopular with West Asheville neighborhoods. Recent developments include:

- New climbing gym—Smoky Mountain Adventure Center, a 6,000 sq ft building with a bar upstairs, see http://www.citizen-times.com/story/money/business/2015/08/07/climb-smoky-mountain-adventure-center-gets-ready-rock/31276245/
- New development with about 15-20 homes on a new road cut into the hillside between Amboy Road and Joyner Avenue—"Upstream Way", see http://www.ashevillerealestate.com/community/upstream-way
- The Asheville Food Park which offers rotating food trucks as well Edna's Café

Please let me know if you have further questions.
You might also want to reach out to Rick Tipton to pick his brain about this project.

Best,
Lyuba

Lyuba Zuyeva
FBRMPO Director
Land of Sky Regional Council
828.251.7454

From: Foushee, Celia [mailto:celia.foushee@aecom.com]
Sent: Monday, January 23, 2017 9:53 AM
To: Lyuba Zuyeva <lyuba@landofsky.org>
Subject: I-2513 I-26 Connector:

Good morning Lyuba,

In review of the dossiers in the 2040 MTP, are there plans available for the Amboy Road Extension between the existing Amboy Road and NC 191 that are not included in the MTP? This would be segment A27, which is shown in the Dossier for A22, but not mentioned in the improvements. We also want to confirm that the dossier for A27 (Existing Amboy Road) on the FBRMPO website is the latest and greatest. We want to make sure we have all the available information needed for the traffic concepts and designs.

Thank you!
Celia

Celia Foushee
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RESOLUTION
French Broad River Metropolitan Planning Organization

RESOLUTION TO ADOPT COMPLETE STREETS CROSS-SECTION RECOMMENDATIONS

WHEREAS, Metropolitan Planning Organizations are required by 23 USC 134.c.2 to develop "transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area"; and

WHEREAS, In response to rising demand for and awareness of multimodal transportation options, many cities, states, and MPOs across the country have recently adopted Complete Streets policies; and

WHEREAS, the North Carolina Board of Transportation has adopted a Complete Streets Policy on July 9, 2009; and a Healthy Transportation Policy in October 2012, which states that: "The North Carolina Department of Transportation will seek to have positive health outcomes by considering public health implications in our decision-making across all modes, programs, policies, projects, and services, and through all stages of the life of a transportation project from planning to project development, construction, operations, and maintenance"; and

WHEREAS, On November 18, 2010 the French Broad River MPO TAC (Board) has created FBRMPO Complete Streets Subcommittee; and

WHEREAS, On February 28, 2013, the French Broad River MPO TAC (Board) has adopted an FBRMPO Complete Streets Policy; and

WHEREAS, the French Broad River MPO Complete Streets Subcommittee has met and discussed a sub-set of projects and made recommendations for the appropriate cross-sections,

NOW THEREFORE BE IT RESOLVED BY THE FRENCH BROAD RIVER METROPOLITAN PLANNING ORGANIZATION to apply the following cross-section recommendations and route name clarifications for the projects listed below:

SPOT ID 1102, 1104 US 19 West of Maggie Valley

- Consolidate SPOT 1102 and 1104 and change description to "US 19, from beginning of 3 lane section (at Billy Drive) to SR 1304 Fie Top Road (near Ghost Town in the Sky)"
- Recommended cross-section: **rural road with a 3-lane cross-section** to allow for climbing lane and bike shoulder; sidewalk on one side where feasible

SPOT 1089, US 19 West of Maggie Valley, widen to 20 feet with 4 feet paved shoulder.

- Change SPOT 1089 termini from Rough Branch Road (EBCI Road) to Huckleberry Drive (previously Blue Ridge Parkway)
- Recommended cross-section: **rural road with a 3-lane cross-section** to allow for climbing lane and bike shoulder

SPOT 274 and SPOT 275 (R-4406B), NC 215 to Multi-lanes near NC 151. Widen to multi-lanes (coordinate with B-3656). 274/SectionA: NC 215 to SR 1836 (Chestnut Mtn Rd) in Canton. 275/Section B: US 19/US 23 from SR 1836 (Chestnut Mtn Rd) to SR 1200 (Wiggins Road). (Note: this project has been taken out of STIP due to low SPOT 2.0 scores. Also see SPOT 276 in Buncombe Co.)

- SPOT 274: **Urban/Suburban Main street cross-section** for urban section in Canton from NC 215 to Church Street
- SPOT 274 and portion of SPOT 275: Change the segment from Church Street to Canton ETJ boundary just west of Happy Hollow Drive to **Urban/Suburban Parkway**
- Second portion of SPOT 275: east of Canton ETJ/Happy Hollow Drive to Wiggins Rd-- **Rural Parkway**
- Median might need to be more narrow than typical rural parkway cross-section due to RR presence and ROW constraint

SPOT 386 NC 215 from SR 1946 (Pigeon St) to US 276

- Recommended cross-section for the Pigeon St to northern intersection with Filter Plant Rd—**Rural Village Main St cross-section**
- Recommended cross-section of **Rural road with multi-use path** starting at the bridge/northern crossing of Filter Plant Rd

SPOT 834 Dellwood Road from US 276 Russ Ave to Miller Rd. ("Frog Level Bypass").

- Update route name to Dellwood Rd/Mill Street; include Chestnut Park Drive and Mill Street to Smathers Street-"Frog Level Bypass"
- Mill St from Chestnut Park Dr to Smathers St: **Local/subdivision residential street** with two lanes and no on-street parking; curb and gutter and sidewalks; shared bike accommodation (sharrows)
- Dellwood Rd from US 276 to Chestnut Park Ave at Mill Street-**Rural Avenue** with sidewalks curb and gutter and bike lanes or sharrows

SPOT 1000 Plott Creek Road from Hyatt St to Will Hyatt Rd

- **Rural Avenue cross-section**

SPOT 999 N Main St (US 23 Business) from Walnut St to E Marshall St

- Move eastern terminus one block east to Walnut St and N Main St to include the current Waynesville North Main St study segment
- **Rural Avenue cross-section** recommended

SPOT 876 Beaverdam Street from NC 215 Champion Dr to Cherry St. Improvements (Note: topography issues)

- **Rural Avenue cross-section**

SPOT 394 U-3403A, NC 191 from NC 280 to NC 146. Widen to Multi-Lanes. (Note: connects to SPOT 395 U-3403B).

- **Rural Parkway cross-section**

SPOT 867 SR 1166 Rutledge Dr from NC 225/SR 1890 (Brookdale Ave) to NC 225. Construct bicycle lanes and construct geometric improvements.

- Segment 1: NC 225 to Erkwood (Southern). **Rural Avenue** cross-section, curb and gutter with multi-use path
- Segment 2: Erkwood to NC 225 (Northern). **Rural Road** cross-section, bike lane and sidewalk.

SPOT 877 New Route - Fanning Bridge Road Extension, from Dogwood Terrace to US 25/SR 1006 (Howard Gap Rd).

- **Suburban main street** cross-section

SPOT 894 SR 1545 Old Airport Road from US 25 to Mills Gap Road. Widening and Improvements.

- **Rural road** cross-section, bike lanes, sidewalks and turn lanes as needed

SPOT 1009 and SPOT 897: Butler Bridge Rd

- No specific cross-section recommendation for the shorter stretch, SPOT 897 SR 1352 Butler Bridge Rd, SR 1345 (Jeffries Road) to Foxhall Road- straightening of road between Glens of Aberdeen and Hollobrooke Farms. Update the name to Foxhall Rd (not Fox Hill Rd).
- **Rural boulevard** cross-section for the longer project (SPOT 1009)

SPOT 899 SR 1353 Hooper Lane from NC 191 (Haywood Rd) to SR 1345 (Jeffries Rd). Paving, bridge approach realignment, Mills River

- **Rural Road cross-section**

SPOT 900 SR 1359 Rutledge Rd from SR 1358 (Fanning Bridge Rd) to Buncombe County Line. Widen to 10', improve geometries and add bicycle lanes, Fletcher.

- **Rural avenue cross-section** with curb and gutter and bike lanes.

SPOT 901, SR 1123 Little River Rd from SR 1127 (Kanuga Rd) to US 25 (Greenville Hwy). Resurface, widen add bike lanes, Flat Rock.

- Segment 1: NC 225 to Carl Sandburg Home, **Rural Avenue cross-section,** curb and gutter.

- Segment 2: Carl Sandburg Home to Kanuga Road, **Rural Avenue cross-section, curb and gutter with multi-use path** (not bike lane or sidewalk desired)

SPOT 1001, SR 1170 White St from SR 1171 Willow Rd to US 176 (Spartanburg Hwy). White Street Realignment & Extension; Construct 3-Lane Connector; Intersection realignment, and Improvements at NC 225/US 176, .5mi

- **Rural Avenue cross-section**. Curb and gutter

SPOT 1002, Blythe St from NC 191 to US 64. Upgrade roadway - Add turn lanes, widen shoulder and improve geometrics as appropriate

- **Rural Avenue** cross-section. Curb and gutter, and at least 1 side of street to contain a sidewalk

SPOT 1003 State St from SR 1172 (Hebron Rd) to SR 1127 (Kanuga Rd). Upgrade roadway - Add turn lanes, widen shoulder and improve geometrics as appropriate

- **Rural Ave cross-section**, curb and gutter and sidewalks

SPOT 1005 SR 1323 Brickyard Rd from US 64 to NC 280. Improve Geometrics (straightening) and Widen with spot safety improvements.

- **Rural Road cross-section, s**idewalk and bike lane in the segment south of the intersection with Turnpike Rd; Multi-use path north of the intersection with Turnpike Rd

SPOT 1106 SR 1127 Kanuga Rd from US 25 Bus to SR 1123 (Little River Rd). Improve Geometrics and Widen as appropriate. LRTP Tier III.

- Segment 1: King Street to Erkwood Drive. **Rural Village Main Street** cross-section; bike lane.
- Segment 2: Erkwood Drive to Little River: **Rural Ave cross-section**, curb and gutter with multi-use path

SPOT 1109 SR 1351 Butler Bridge Rd from US 25 to NC 280. Straightening and Improvement of Geometrics

- **Rural Boulevard** cross-section

SPOT 1084 NC 191 from NC 280 to Buncombe County Line. Construct 24' paved roadway with 4' paved and 4' grass shoulders and construct left turn lanes at intersections. Note: **this overlaps with SPOT 394 U-3403A, NC 191 from NC 280 to NC 146, a smaller project.**

- **Consolidate this project with SPOT 394, Rural Parkway cross-section**

SPOT 1085 US 25 from South Main St to US 176. Widen Bridge #143 to 5 lanes.

- Match the remainder of the project at this bridge crossing, add sidewalks on both sides.

SPOT 1092 SR 1574 Fruitland Rd from US 64 to SR 1565 (Terry's Gap Rd) Construct 24' paved roadway with 6' grass shoulders. Note: make sure description includes Fruitland Rd.

- **Rural road cross-section**, bike lanes to be included

SPOT 1093 SR 1783 Highland Lake Road, NC 225 to US 176. Construct 24' paved roadway with 4' paved shoulders and 6' grass shoulders.

- Rural Avenue cross-section
- Curb and gutter with multi-use path

I-4759 Liberty Road Interchange. Construct new interchange on I-40 between mile marker 37 and 44 and realign Liberty Rd. Convert existing I-40/SR 1228 (Liberty Road) grade separation to an interchange and construct a two-lane road from US 19-23/NC 151 to SR 1224 (Monte Vista Road)

- New two-lane road: **Rural avenue cross-section** with bike lanes and sidewalks (possible multi-use path one side in lieu of sidewalks)

SPOT ID 3.1, NC-63 New Leicester Highway from Patton Avenue to Newfound Road—Median and Access Management. LRTP Tier II.

- Modify description to add "include safe pedestrian crossings" (no locations specified at this time); also include in the description "Add remaining sidewalks where needed to ensure both sides of roadway and gap closure"
- **Urban/suburban boulevard** cross-section up to Ingles/Mt Carmel Road
- **Urban/suburban parkway** north of Mt Carmel Road

SPOT 3.2 US 70 from Azalea Rd to Cragmont Rd Or a Longer Stretch from Tunnel Road to Cragmont Rd as included in the CTP

- **Urban/Suburban Avenue** for more urbanized sections (West Black Mountain, Swannanoa)
- **Urban/Suburban Boulevard** on less developed sections
- **US 70 College St to Azalea Rd—Urban/Suburban Ave cross-section** (either three lane or four lane, consider safer ped crossings and median refuge islands for crossings, add bike accommodation);

Wilma Dykeman Riverway Project Phase 4

- For WDR Phase 4, Riverside Drive from Broadway Ave to Hill St at I-240: **Three Lane Urban Suburban Avenue cross-section (o**ne travel lane in each direction with turning lane where needed); sidewalk on one side (the side with development) and bike lanes on both sides

SPOT 1315, Swannanoa River Road from US 70 to Biltmore Ave—Wilma Dykeman Riverway Phase 3 and Phase 5

- **Rural Avenue cross-section** with curb, gutter and sidewalk plus multi-use path

SPOT 491 Wilma Dykeman Riverway Project Phase 2—STIP ID U-4739-Meadow Road from Biltmore Ave to Amboy Road at I-240 interchange. Multi-lanes with new bridge over the French Broad River (Notes: 2.6 miles; CST costs previously estimated at $42.5 million; NCDOT score of 15.92 in SPOT 2 process –did not include multi-modal points)

- Amboy Rd and Meadow Rd from Amboy Rd to Victoria Rd: **Rural Avenue** cross-section with curb, gutter and sidewalk, bike lanes; multi-use path on one side;
- Consider lowering the speed limit to 35 throughout the corridor; add ped signals and crossings
- Meadow Rd from Victoria Rd to Biltmore Ave: **Urban/Suburban Ave cross-section**

SPOT ID 194, Long Shoals Road-new location from NC 191 to Clayton Road (Note: this road would come out by the entrance to the Cliffs; zoned EMP-light industrial manufacturing; likely either light industrial or affordable residential development to come here in the future)

- **Urban/suburban boulevard cross-section** with safe bicycle accommodation and safe accommodation including pedestrian crossings needed

SPOT ID 276, R-4406C, US 19/23 from SR 1200 (Wiggins Road) to NC 151, Mount Pisgah Hwy

- **Rural boulevard cross-section with a bikeable shoulder**

SPOT 395, NC 191 from NC 280 to NC 112 Sardis Road

- Change the termini to be at Bent Creek Road just north of Blue Ridge Parkway and not Sardis Road
- **Urban/suburban boulevard** cross-section.

SPOT 423, U-3601, NC 191 from east of I-26 to I-40. Widen to multi-lanes

- Remove from list, already built (U-3601)

SPOT 870, Beaverdam Rd from US 25 Merrimon Ave to Wolfe Cove Rd

- **Rural Avenue** with Curb and gutter, sidewalks, bike lanes up to Elk Mountain Scenic Hwy/YMCA Youth Services;
- Rural Road north of Elk Mountain Scenic Hwy

SPOT ID 835 Black Mountain Southeast Connector—New Route to Connect NC 9 to US 70 (currently property along this corridor zoned commercial-many vacant parcels)

- **Urban/suburban avenue** cross-section with **two lanes** and alternating left turn lane; bike ped accommodation to be determined

SPOT 920 Weaverville Highway from Asheville/Woodfin town limit to SR 1740 New Stock Road

- Elkwood Ave/Woodfin Town limit to Hillcrest Road—**Urban Suburban Main Street Cross-section**, no parking (35 mph speed limit), bike lanes if feasible, multi-use path on one side

- Hillcrest Rd to New Stock Rd-**Three Lane Urban/Suburban Avenue cross-section** without the parking
- Roundabout planned at Weaverville Rd and North Merrimon Avenue
- Ensure sure safe pedestrian crossings are added around New Stock Rd Interchange area-future redevelopment expected

SPOT 954 Broadway Street from Riverside Drive to I-240

- **Urban/ Suburban Boulevard** from Riverside Dr. to Chestnut St.; sidewalk gap closure and ped crossing improvements; add bike lanes through lane narrowing
- **Urban Suburban Ave**- possibly two-lane (road diet subject to traffic volume analysis) from Chestnut St to downtown/I-240; sidewalk gap closure and ped crossing improvements; bike lanes if road diet allows sufficient ROW

SPOT 955 Victoria Road from Meadow Road to McDowell Road (note: local road, does not qualify for SPOT funds, could be STP-DA or local funds)

- **Two-lane urban suburban avenue cross-section** with sidewalks on both sides; add climbing bike lane from Meadow Road to Oakland Rd

ADOPTED: This the 31st day of October, 2013.

Jan Davis, Chair
Transportation Advisory Committee
French Broad River Metropolitan Planning Organization

Attest: Vicki Eastland, Notary Public

My commission expires on Nov. 24, 2013

VICKI L. EASTLAND
Notary Public, North Carolina
Haywood County
My Commission Expires
November 24, 2013

Rocco, Joanna

From: Bell, Andrew (Raleigh)
Sent: Wednesday, November 29, 2017 2:01 PM
To: Julie@mountaintrue.org
Cc: Foushee, Celia; Rocco, Joanna; mgwray@ncdot.gov; Weaver, Derrick G (dweaver@ncdot.gov)
Subject: I-2513 - Draft Traffic Operations Tech Memo
Attachments: I-2513 Draft Traffic Operations Tech Memo 171114.pdf

Hi Julie,

As requested, please find attached the draft Traffic Operations Technical Memorandum, which was submitted to NCDOT on November 14th. I have excluded all of the analysis output sheets to cut down on file size. Please let me know if you have any questions.

Thanks,

Andrew Bell, PE, PTOE
Transportation Engineer, Capacity Analysis and Safety Leader, Project Manager
+1-919-239-7189
andrew.bell@aecom.com

AECOM
701 Corporate Center Drive, Suite 475
Raleigh, North Carolina, 27607
T+1-919-854-6200 F +1-919-854-6259
www.aecom.com

Rocco, Joanna

From: Rocco, Joanna
Sent: Thursday, November 29, 2018 6:13 PM
To: Julie Mayfield
Subject: RE: couple of questions

Hi Julie!

Sorry it took me a little while to respond. Regarding the noise studies, we are in the process of updating the noise analysis based on the most recent design, however it has not been completed so we have decided not to show anything on the Public Hearing Maps at this time. The NCDOT Noise Policy has changed since the last Public Hearing where we showed Noise Study Areas – which are the areas that were studied for the feasibility of noise walls based on the policy. Under the new policy we normally show Noise Abatement Areas, which indicate where a noise wall could be built if most residents vote to have one, but we're not prepared to show those areas yet.

We will have our Traffic Noise Analysis staff at the hearing to answer questions. I know people will want to know if they are going to get a wall or at least if they were considered and our staff will be able to answer the latter question (because every area is considered-the noise model assesses changes in traffic noise for the entire project). Staff can also explain the policy and let them know where we placed noise detectors for the analysis, including several additional detectors that were added within the project study area since the last hearing.

Our Final Environmental Impact Statement will include the updated noise analysis. Additionally, once the design build team starts to prepare final designs, noise abatement measures will be re-analyzed based on updated designs, and there will be public involvement with the neighborhoods/residences/businesses that are candidates for receiving a noise wall.

As for the 360 visualizations, they have been updated to reflect the most current designs – you are correct that the ramps in View #13 at the Crowne Plaza are not complete and we will make sure that's corrected before the meeting.

I'm happy to answer any other questions you may have, please let me know if you'd like more info – we look forward to seeing you on Tuesday!

Thanks and have a great night,
Joanna

Joanna H. Rocco, AICP
AECOM
Office: 919-239-7179
Mobile: 919-607-7975
joanna.rocco@aecom.com

From: Julie Mayfield [mailto:julie@mountaintrue.org]
Sent: Wednesday, November 28, 2018 12:41 PM
To: Rocco, Joanna
Subject: couple of questions

Hi Joanna – I hope you are well. Looking forward to seeing you next week. I've had a couple of questions from residents about the project that I'm hoping you can help with.

1. I believe I heard that new sound studies are starting again now that the design is largely complete. Is there a map of the areas being studied that you can share with me? If there are disagreements about whether those areas are inclusive enough, I'd rather they happen now than when the studies are complete. Some Montford residents on the western part of Westover drive are concerned that they were not included in the previous study, and they would like to be included in the new study. If that's easy enough to do, maybe that can just happen. If not, maybe we can have a discussion about that at the hearing next week. Will DOT's sound study people be there?

2. Are the 360 degree visualizations being updated to reflect any changes to the maps? The view from the Crowne Plaza seems to have something resembling the new ramps but it doesn't seem quite complete.

Thanks

Julie

Julie Mayfield, Co-Director

MountainTrue

29 N. Market Street, Suite 610

Asheville, NC 28801

828-258-8737, X202

<<…>>

MountainTrue is committed to keeping our mountain region a beautiful place to live, work and play. Our members protect our forests, clean up our rivers, plan vibrant and livable communities, and advocate for a sound and sustainable future for all residents of WNC.

BUILD A BETTER TOMORROW FOR WESTERN NORTH CAROLINA.
BE MOUNTAINTRUE.

mountaintrue.org/join

Rocco, Joanna

From: Ken Putnam <kputnam@ashevillenc.gov>
Sent: Thursday, January 18, 2018 9:15 AM
To: Dean, Neil
Cc: Rocco, Joanna; Foushee, Celia; Weaver, Derrick G
Subject: Re: I-2513 Betterment Requests - Transit
Attachments: PVA Route.pdf

W1 & W2 Transit Routing 01-18-18.pdf

Good morning Neil! I hope you are enjoying the cold weather and the snow that came your way yesterday. We are due for a good warm-up beginning late today and lasting for the next several days. I apologize that it has taken so long for me to respond regarding the transit requests but I believe I now have good news regarding the major issue.

The major issue is the closing of Hanover Street which would affect two existing routes; specifically, W1 and W2 (see attached map section). At this time, the transit master plan (TMP) is being updated and as a part of that update, a new route is being explored which would provide relief to routes W1 and W2 (see attached summary). Based on the anticipated construction schedule for the I-26 Connector project, staff is confident that we would want to implement this new route much quicker. So, based on this information there is no need to explore other solutions that might require improvements along other city streets as a part of the I-26 Connector project.

Please let me know if additional information is needed.

On Mon, Aug 21, 2017 at 3:46 PM, Dean, Neil <neil.dean@aecom.com> wrote:

> Ken,
>
> At the last working group you mentioned that you guys were still working out the transit requests. Please let me know when you have more information on this part of the betterments requests.
>
> If you have any questions or need to discuss how these may be incorporated in the project, I'd be happy to coordinate that discussion with the project team.
>
> Thanks for your help.
>
> Neil

West Asheville / Pisgah View Apartments Route

Background

A circulator route that would connect both Pisgah View Apartments (PVA) and Hillcrest Apartments (Hillcrest) to Downtown was included as a recommendation in the original Transit Master Plan (TMP) as an enhancement that would be implemented in 2013. The City is now considering including this recommendation in the current update to the TMP.

Benefits

There are multiple benefits of creating a new route for PVA. 1.) It would allow W1 and W2 to be removed from PVA which would add more time to those routes and alleviate on-time performance issues. Both of those routes currently experience significant timing issues due to traffic and growing ridership, and those issues will only increase as development continues in those areas of West Asheville. 2.) Depending on the final routing, this would either add frequency to the Haywood Rd Corridor, or bring new service to the River Arts District which currently does not have proper transit access. 3.) A new route that serves PVA directly would provide this area with an enhanced level of service.

Route Option 1

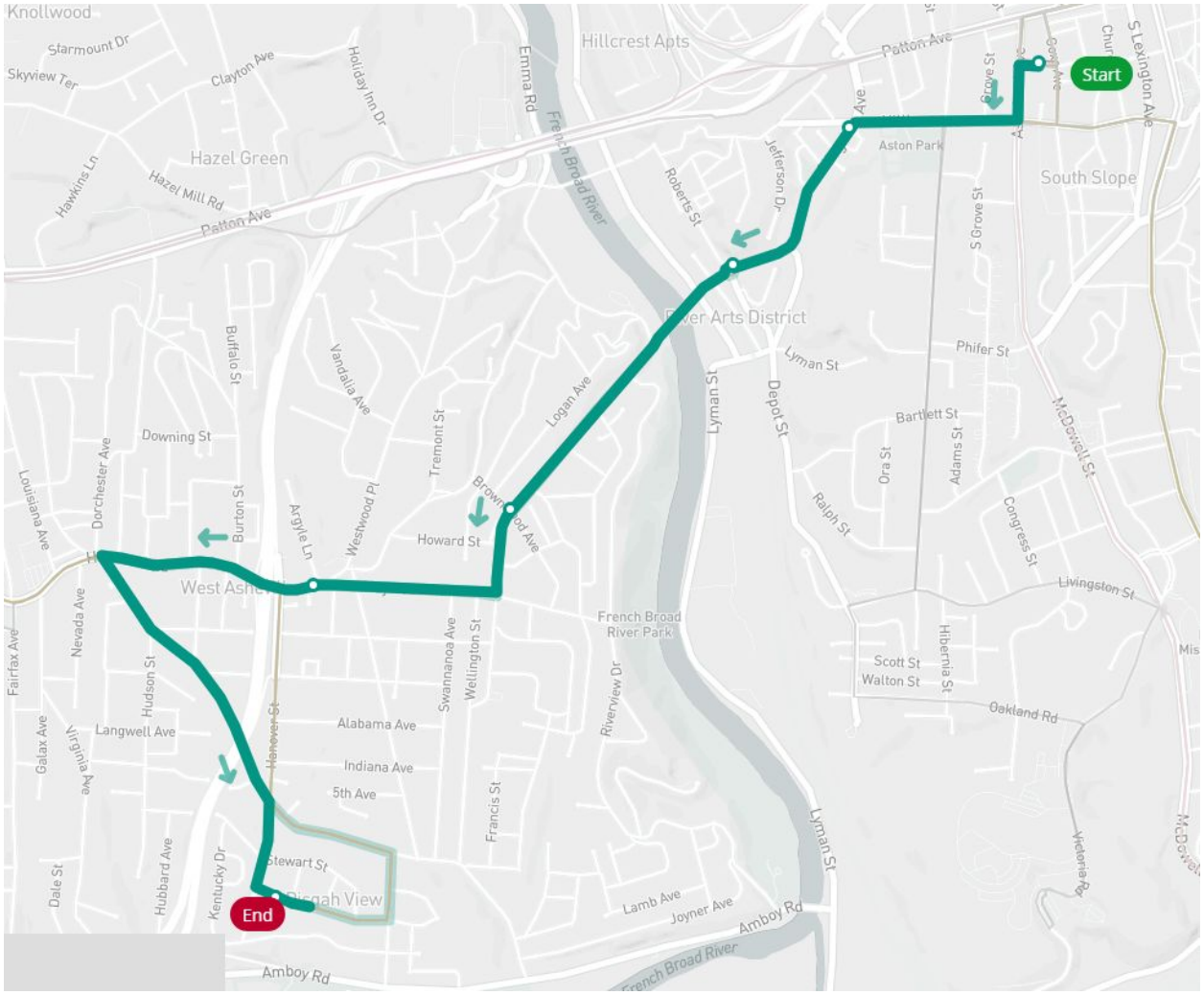
Option 1 would create a new route along the Haywood Rd Corridor, similar to the current W1 and W2 routes. Coupled with the W1 and W2 routes, this would create a high frequency corridor along Haywood Rd, with 15-min frequency all the way to State Street. This would also fill in a large service gap on Haywood Rd which currently exists between Hanover St and State St, due to the fact that W1 and W2 are currently deviating down Hanover St.

This route option would be the primary recommendation of staff given that it is the most efficient option and would improve service frequency along Haywood Rd.

Route Option 2

Option 2 would create a new route through the River Arts District along Lyman St and Amboy Rd. The benefit of this option would be to provide service to areas that currently have no transit access, however these areas are not heavily developed at present. The downside of this option as compared to Option 1 is that it would not create a high frequency corridor, and it would not connect to Haywood Rd via State St. Because of this lack of a western connection, residents of PVA would have to travel further into town and then transfer to W1 or W2 on Clingman Ave. There are also potential issues with on-time performance with this route because it crosses the railroad tracks in the River Arts District, which could cause major delays in service.

OPTION 1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Knollwood
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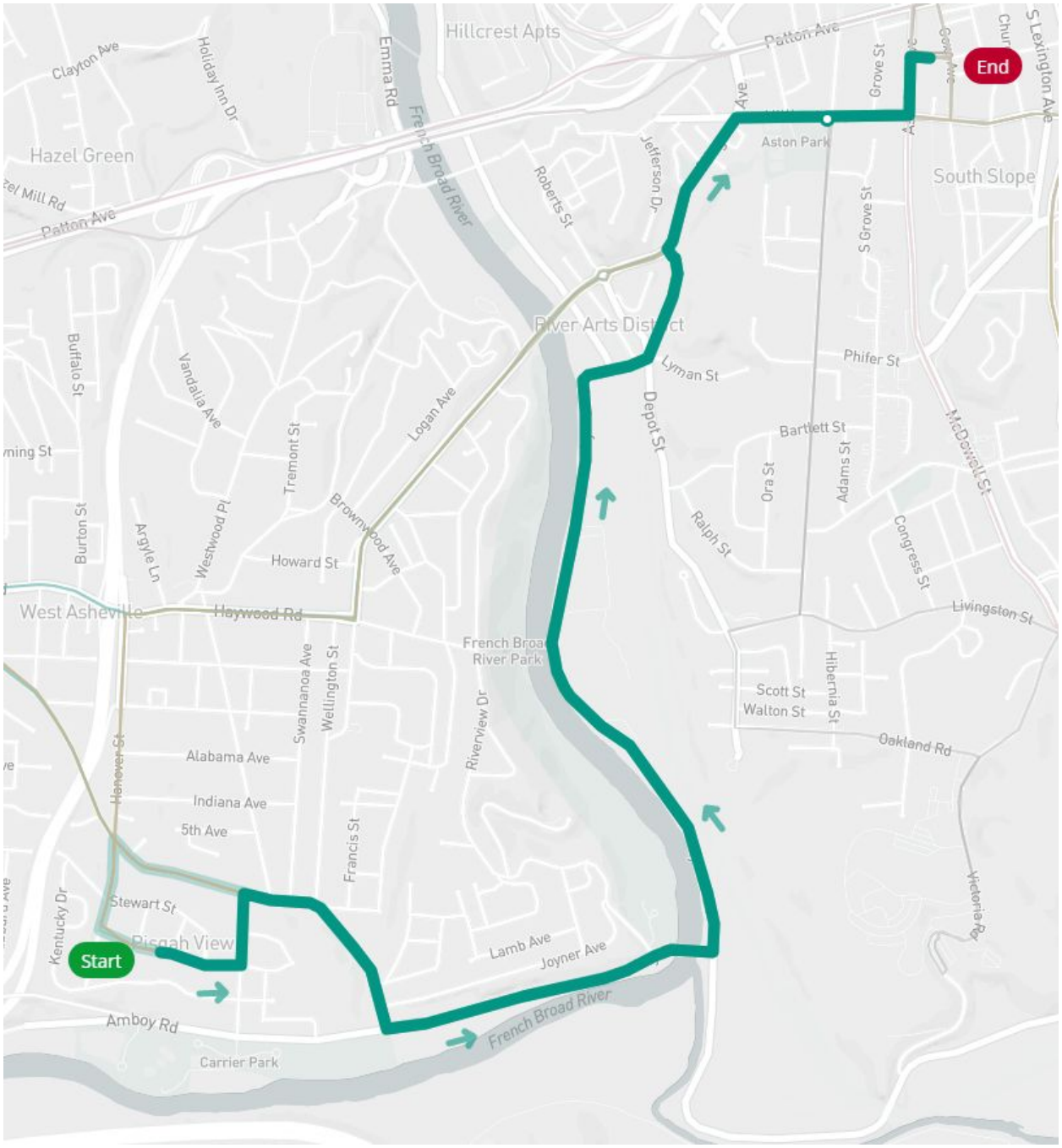
Skyview Ter
Clayton Ave
Holiday Inn Dr
Hillcrest Apts
Emma Rd
French Broad River
Patton Ave
Hazel Green
Hawkins Ln
Hazel Mill Rd
Aston Park
South Slope
Roberts St
Jefferson Dr
S Grove St
S Lexington Ave
River Arts District
Phifer St
Lyman St
Depot St
Bartlett St
Ora St
Adams St
McDowell St
Ralph St
Congress St
Livingston St
Buffalo St
Vandalia Ave
Tremont St
Logan Ave
Downing St
Louisiana Ave
Dorchester Ave
Burton St
Argyle Ln
Westwood Pl
Howard St
Brownwood Ave
West Ashe
Fairfax Ave
Nevada Ave
Hudson St
Swannanoa Ave
Wellington St
French Broad River Park
Riverview Dr
Scott St
Walton St
Hibernia St
Oakland Rd
Langwell Ave
Alabama Ave
Indiana Ave
5th Ave
Francis St
Galax Ave
Virginia Ave
Hanover St
Stewart St
Dale St
Hubbard Ave
Kentucky Dr
Lamb Ave
Joyner Ave
Amboy Rd
Lyman St
Victoria Rd
French Broad River
Amboy Rd

OPTION 2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Emma Rd
French Broad River
Patton Ave
Roberts St
Jefferson Dr
Aston Park
Grove St
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South Slope
S Grove St
River Arts District
Buffalo St
Vandalia Ave
Tremont St
Logan Ave
Lyman St
Depot St
Phifer St
Bartlett St
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Adams St
McDowell St
Congress St
Ralph St
Livingston St
Howard St
Brownwood Ave
Burton St
Argyle Ln
Westwood Pl
West Asheville
Haywood Rd
French Broad River Park
Swannanoa Ave
Wellington St
Riverview Dr
Scott St
Walton St
Hibernia St
Oakland Rd
Alabama Ave
Indiana Ave
5th Ave
Hanover St
Francis St
Stewart St
Kentucky Dr
Pisgah View
Lamb Ave
Joyner Ave
Victoria Rd
Amboy Rd
Carrier Park
French Broad River

Rocco, Joanna

From: Ken Putnam <kputnam@ashevillenc.gov>
Sent: Tuesday, January 08, 2019 12:31 PM
To: Rocco, Joanna
Cc: Al Kopf; Mark Halstead; Debbie Ivester
Subject: Fwd: Carrier Park - I-26 Amboy Rd. improvement impact
Attachments: Carrier Park Site Plan Amboy Rd Improvment.pdf

Good afternoon Joanna! As a follow-up to our conference call yesterday, here is the information that the City needed to provide. Please let me know if additional information is needed.

---------- Forwarded message ---------
From: **Debbie Ivester** <divester@ashevillenc.gov>
Date: Mon, Jan 7, 2019 at 3:27 PM
Subject: Carrier Park - I-26 Amboy Rd. improvement impact
To: Ken Putnam <kputnam@ashevillenc.gov>
Cc: Mark Halstead <mhalstead@ashevillenc.gov>, Al Kopf <akopf@ashevillenc.gov>

Ken
Thanks for organizing the phone meeting today with DOT and the consultant to better identify impacts to Carrier Park associated with the I-26 and Amboy Rd improvements.

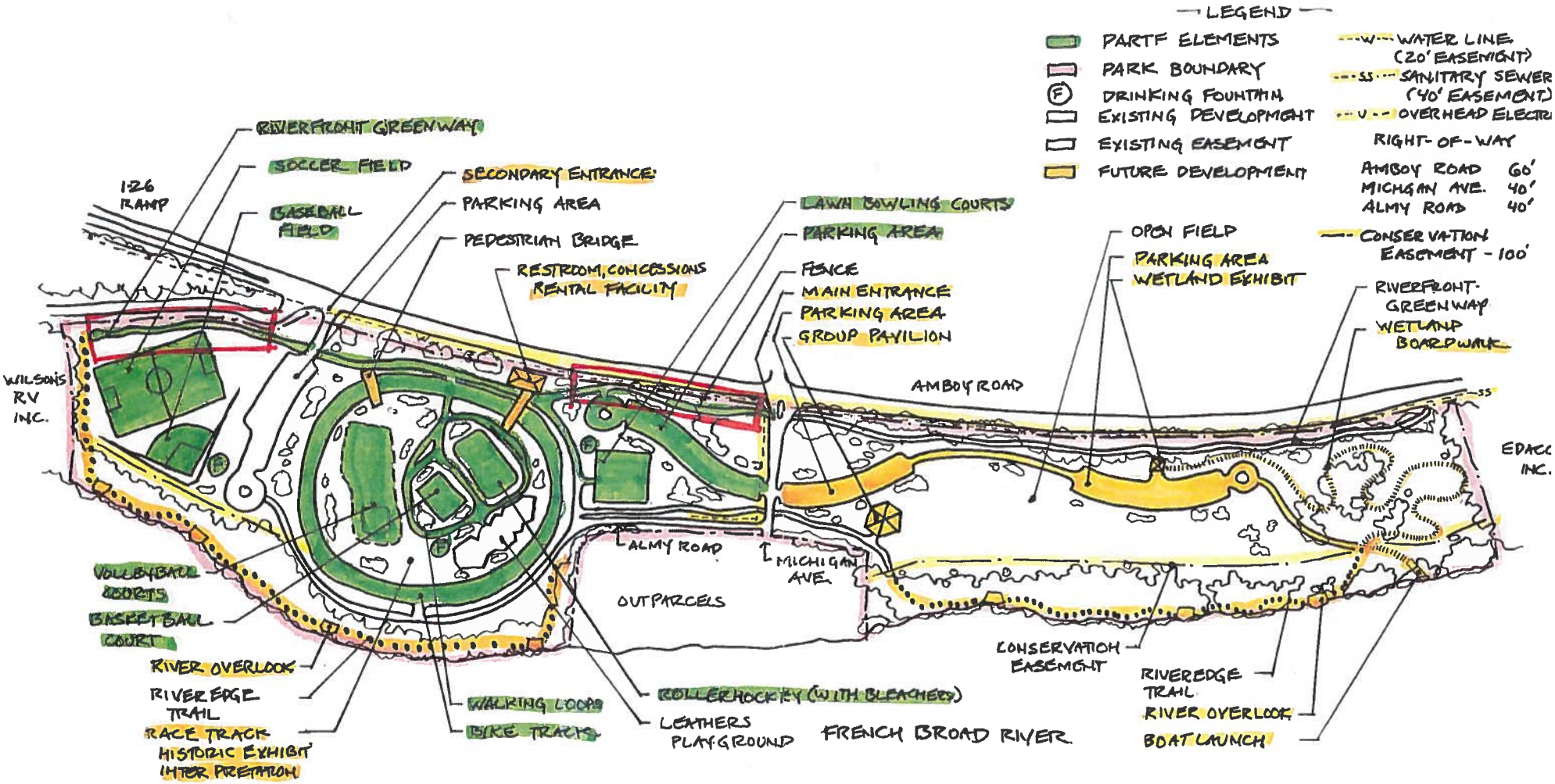
We were able to find our follow up info very quickly.

Carrier Park as built site plan
Please see the attached document that identifies the various park features within Carrier Park that were built with the Parks and Recreation Trust Fund grant (items highlighted in green). This was back in the day when we were still drawing things by hand so it is not 100% to scale. The two locations in which the temporary easement could impact the portion of the trail closest to Amboy Rd are highlighted with a red box.

Unofficial road side parking on Amboy Rd by park users
We estimate this area accommodates about 45 vehicles.

During our conversation after the phone meeting, we suggested the areas of concern and the agreed upon options be identified in the letter dated 7/24/18 on which the city is asked to sign. Whether its an attachment to the existing letter or if the letter is renewed and included in the letter.

Thanks and let me know if need anything else for this round of info.
Debbie
--
Debbie Ivester
City of Asheville
Parks and Recreation Department
PO Box 7148
Asheville, NC 28802
Office: 828-259-5804
Cell: 828-280-6387



AS BUILT DRAWING

SITE PLAN

AUGUST 23, 2002

French Broad River Park

phase four

PARK AREA
33 ACRES

NORTH

150' 50' 25' 0' 50' 150'

Rocco, Joanna

From: Julie Mayfield <juliemayfield@avlcouncil.com>
Sent: Thursday, April 25, 2019 4:34 PM
To: 'Weaver, Derrick G'; 'Bruce & Day Ann Emory'
Cc: Rocco, Joanna; 'Gibbs, Mark T'; 'Cannon, Steven L'; 'Merithew, Brendan W'; 'Ken Putnam'; 'Alan McGuinn'; 'Gwen Wisler'; Miars, Celia; 'Todd Okolichany'; 'DeWayne Barton'; 'Mckinney, Randall J'; Dean, Neil; Spalding, Eric
Subject: RE: [External] Re: I-26 Connector and Diverging Diamond

Thanks Derrick. Disappointing that it doesn't tighten that interchange up very much at all. Probably not worth pursuing, especially given the bike/ped challenges, but I'll pass this on to our bike advocates and see if they have any thoughts.

So I would then ask whether there are design exceptions or anything (seriously, ANYTHING) else that can be done to tighten up that interchange. Same question stands for the Haywood Rd. interchange that anyone who looks at it (most recently the aesthetics committee) thinks is too wide and impactful.

I know we're talking about changes that will come post-EIS but these two interchanges – along with the interchange on the east side of the river and the cross section of the northern bowen bridge – remain critical outstanding design issues that we need to work hard to fix as designs get refined.

Julie

From: Weaver, Derrick G [mailto:dweaver@ncdot.gov]
Sent: Thursday, April 25, 2019 9:55 AM
To: Julie Mayfield <juliemayfield@avlcouncil.com>; Bruce & Day Ann Emory <emory22@charter.net>
Cc: Joanna.rocco@aecom.com; Gibbs, Mark T <mgibbs@ncdot.gov>; Cannon, Steven L <slcannon@ncdot.gov>; Merithew, Brendan W <bwmerithew@ncdot.gov>; Ken Putnam <KPutnam@ashevillenc.gov>; Alan McGuinn <alan.mcguinn@arca-design.com>; Gwen Wisler <gwenwisler@avlcouncil.com>; celia.miars <celia.miars@aecom.com>; Todd Okolichany <tokolichany@ashevillenc.gov>; DeWayne Barton <bloveproductions@bellsouth.net>; Mckinney, Randall J <rmckinney@ncdot.gov>; Dean, Neil <neil.dean@aecom.com>; Spalding, Eric <Eric.Spalding@aecom.com>
Subject: RE: [External] Re: I-26 Connector and Diverging Diamond

Attached is a concept that AECOM developed to show the footprint of a DDI at Patton Ave. There are 3 PDF's attached, the first is the plan sheet of our current design, the second has the new DDI concept with survey information, and the third has the DDI concept with survey information PLUS the current design in red, which is probably most useful. As you see, the design does keep the bike/ped accommodation to the Greenway side of the proposed design, but also the DDI doesn't significantly reduce the footprint. The skew of I-26 as it crosses Patton doesn't facilitate a tighter option due to turning radius needed.

The current design for Patton and I-26 only provides the minimum clearance, so to consider a bike/ped facility under the Patton bridge would require lowering I-26 and/or raising Patton Ave to gain an additional 10-15 feet of clearance. As Bruce mentioned either option would increase the cost and impacts, especially to ramps behind Westgate. The grade along these ramps is already at the maximum due to the required weave to connect to I-240 and I-26. Therefore, any significance changes in vertical proposed at Patton and I-26 would create additional impacts and would likely affect the grade of the new crossing of the French Broad. Additionally, there are concerns with maintaining the connection to Westgate and Hazel Mill if Patton is raised too much. Therefore, I don't think the DDI is the best option.

The idea of a separate elevated Greenway could be feasible, so I will have AECOM investigate where a structure could be located that would work grade wise and be the most cost effective.

Please let me know if you would like any additional information on the DDI option.

Derrick G. Weaver, P.E.
Unit Head
Environmental Policy Unit
North Carolina Department of Transportation

919 707 6253 office
919-673-7526 mobile
dweaver@ncdot.gov

From: Julie Mayfield <juliemayfield@avlcouncil.com>
Sent: Saturday, April 20, 2019 2:43 PM
To: Bruce & Day Ann Emory <emory22@charter.net>
Cc: Weaver, Derrick G <dweaver@ncdot.gov>; Joanna.rocco@aecom.com; Gibbs, Mark T <mgibbs@ncdot.gov>; Cannon, Steven L <slcannon@ncdot.gov>; Merithew, Brendan W <bwmerithew@ncdot.gov>; Ken Putnam <KPutnam@ashevillenc.gov>; Alan McGuinn <alan.mcguinn@arca-design.com>; Gwen Wisler <gwenwisler@avlcouncil.com>; Todd Okolichany <tokolichany@ashevillenc.gov>; DeWayne Barton <bloveproductions@bellsouth.net>
Subject: [External] Re: I-26 Connector and Diverging Diamond

Thanks Bruce. You ask a good, threshold question, which is how much smaller would the interchange be as a diverging diamond. If it's not much, then we just leave it. But if it's dramatic, then new bike/PED options are worth exploring. Derrick, how can we know how much smaller a diverging diamond would be?

Julie

Sent from my iPhone

On Apr 20, 2019, at 11:31 AM, Bruce & Day Ann Emory <emory22@charter.net> wrote:

> Hi Julie:
>
> I am pessimistic about the idea of running the bike/ped facility under the Patton bridge. I doubt if there is enough vertical clearance to allow this without either lowering I-26 or raising Patton. [The plans don't show elevations, but I'd be surprised if there is more than the minimum vertical clearance, since the new I-26 alignment would require excavation.] Lowering I-26 would be expensive, as would raising Patton; the latter might also cause problems at the adjacent intersections. Also, the on-ramps and off-ramps might have to be lengthened, which would increase impacts. I'm also not enthusiastic about the idea of walking or riding underneath a long and wide bridge. I agree that being in the median of Patton is not desirable, so I would only favor a DDI if it allows a significant reduction in the footprint of the interchange. Have we seen a diagram of what that might be? I would also like to see an option of a separate elevated structure for the Smith Mill Creek Greenway, some distance south of Patton. It would be expensive, but maybe less than an under-Patton option.
>
> Bruce
>
> ---
>
> **From:** Julie Mayfield <juliemayfield@avlcouncil.com>
> **Sent:** Friday, April 19, 2019 3:31 PM

To: Derrick Weaver <dweaver@ncdot.gov>; Joanna.rocco@aecom.com; Mark T Gibbs <mgibbs@ncdot.gov>; Cannon, Steven L <slcannon@ncdot.gov>; Brendan Merithew <bwmerithew@ncdot.gov>
Cc: Ken Putnam <KPutnam@ashevillenc.gov>; Bruce Emory <emory22@charter.net>; Alan McGuinn <alan.mcguinn@arca-design.com>; Gwen Wisler <gwenwisler@avlcouncil.com>; Todd Okolichany <tokolichany@ashevillenc.gov>; DeWayne Barton <bloveproductions@bellsouth.net>
Subject: I-26 Connector and Diverging Diamond

Hi all – I've met with Mike Sule and Clark Mackey of Asheville on Bikes to talk about how to make the bike/ped aspects of a diverging diamond on the west side of the river work in order to make that interchange smaller. After significant discussion, we concluded that putting people through the middle of the interchange, as has been done in other diverging diamonds, is just a terrible idea. Also not safe to keep them on the edges of the interchange due to the conflict points with free flowing traffic.

So, our best solution is to put the bikes/peds under the entire interchange, on a suspended bike/walkway. One way to think about it is to take the bike/ped infrastructure that is used in a diverging diamond to bring people to the center and sink it under the interchange. They would go down before the first entrance/exit ramp and emerge on the other side beyond the other entrance/exit ramp. Underneath the bridge, the two directions would come together on one path. Here's an image Mike found of a suspended path under a bridge that might help you visualize it.

So this depends on there being enough distance between Patton and the interstate to hang something like this AND on being able to drop the bike/ped paths below the entrance/exit ramps so they don't have to cross any portions of the intersection. I know that messing with the height of things on either side of the bridge has implications for the other side, and I have no idea what those are, but I wanted to pass this on and get people thinking about it. I also realize cost would be a factor to consider.

Just fyi, we are about to convene a group of designers and engineers to explore new options on the east side of the river as well, given the parameters we now know. Will share the outcome of that with you when it's ready.

We're doing all of this based on the assurance that these kinds of changes can be incorporated into the design process post-FEIS and ROD, provided they don't significantly change or increase impacts. If that is not correct, someone tell me now.

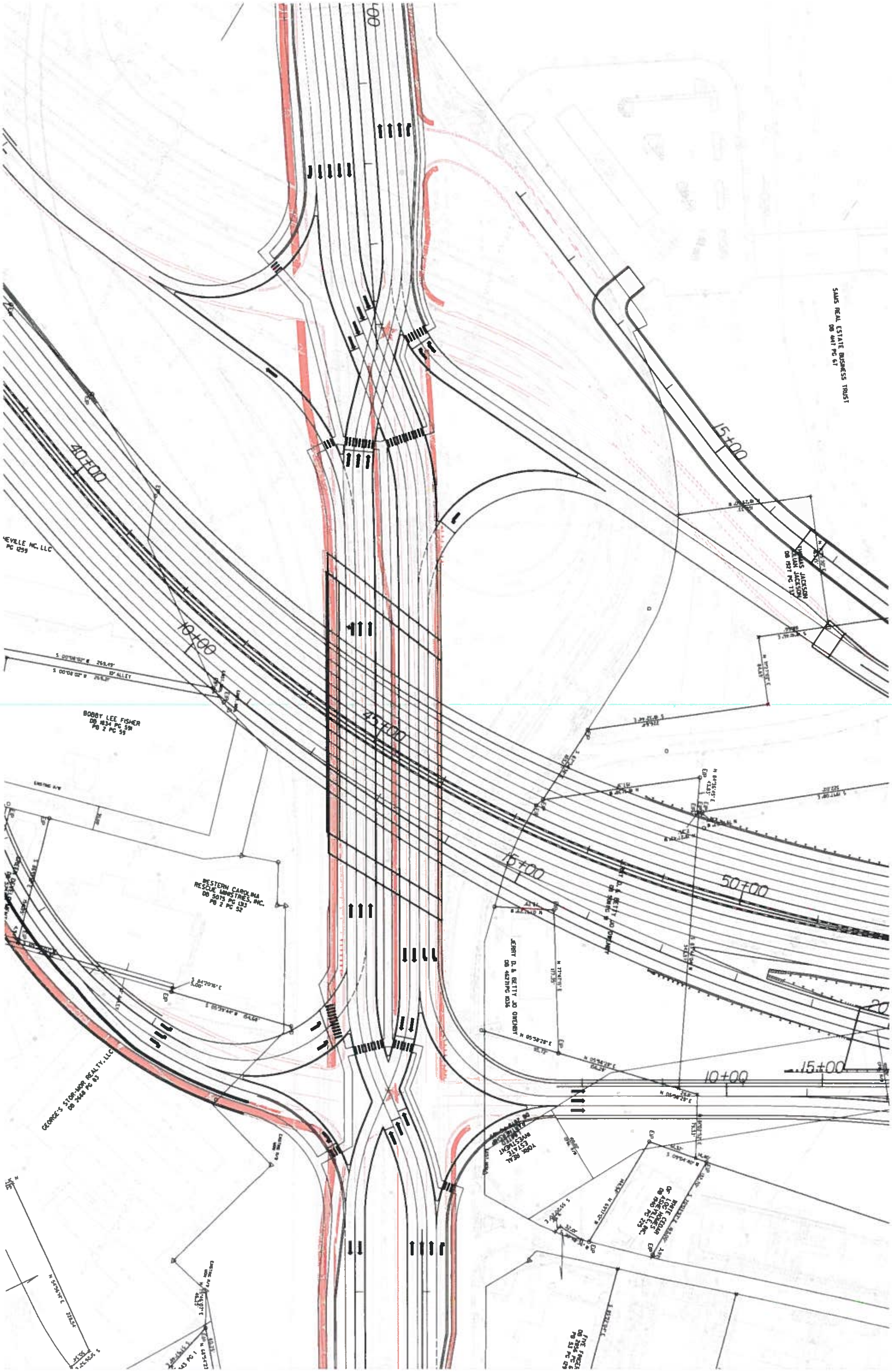
Thanks

Julie

--

Mike Sule
Executive Director

Asheville on Bikes


SAMS REAL ESTATE BUSINESS TRUST
15+00
40+00
10+00
10' ALLEY
BOBBY LEE FISHER
45+00
WESTERN CAROLINA RESCUE MINISTRIES, INC.
15+00
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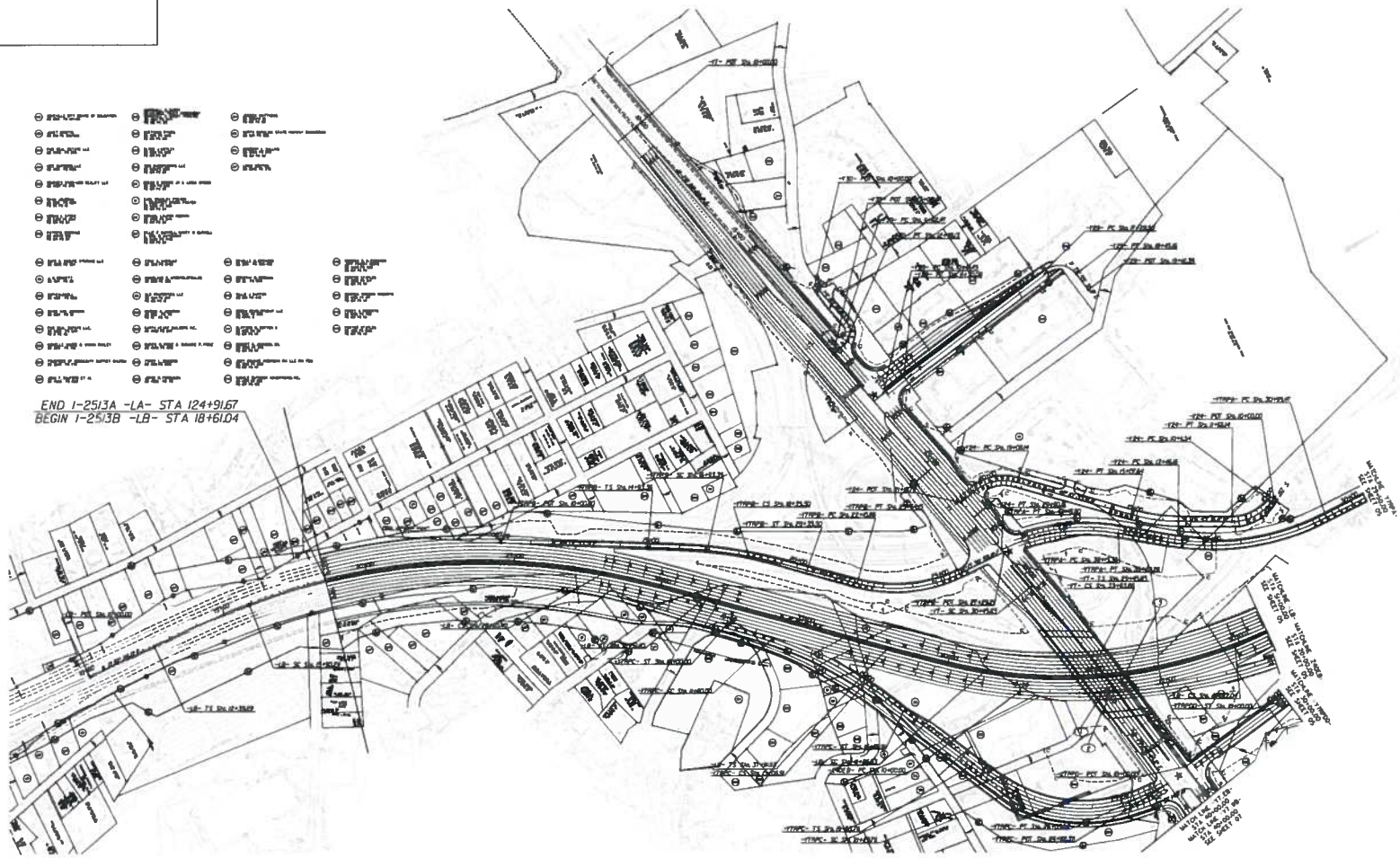
JERRY D. & BETTY JO OWENBY
10+00
15+00



I-2513 | 04

INTERCHANGE PLANS

FOR SECTION & CURVE DATA SEE SHEET NO.3

GRAPHIC SCALE
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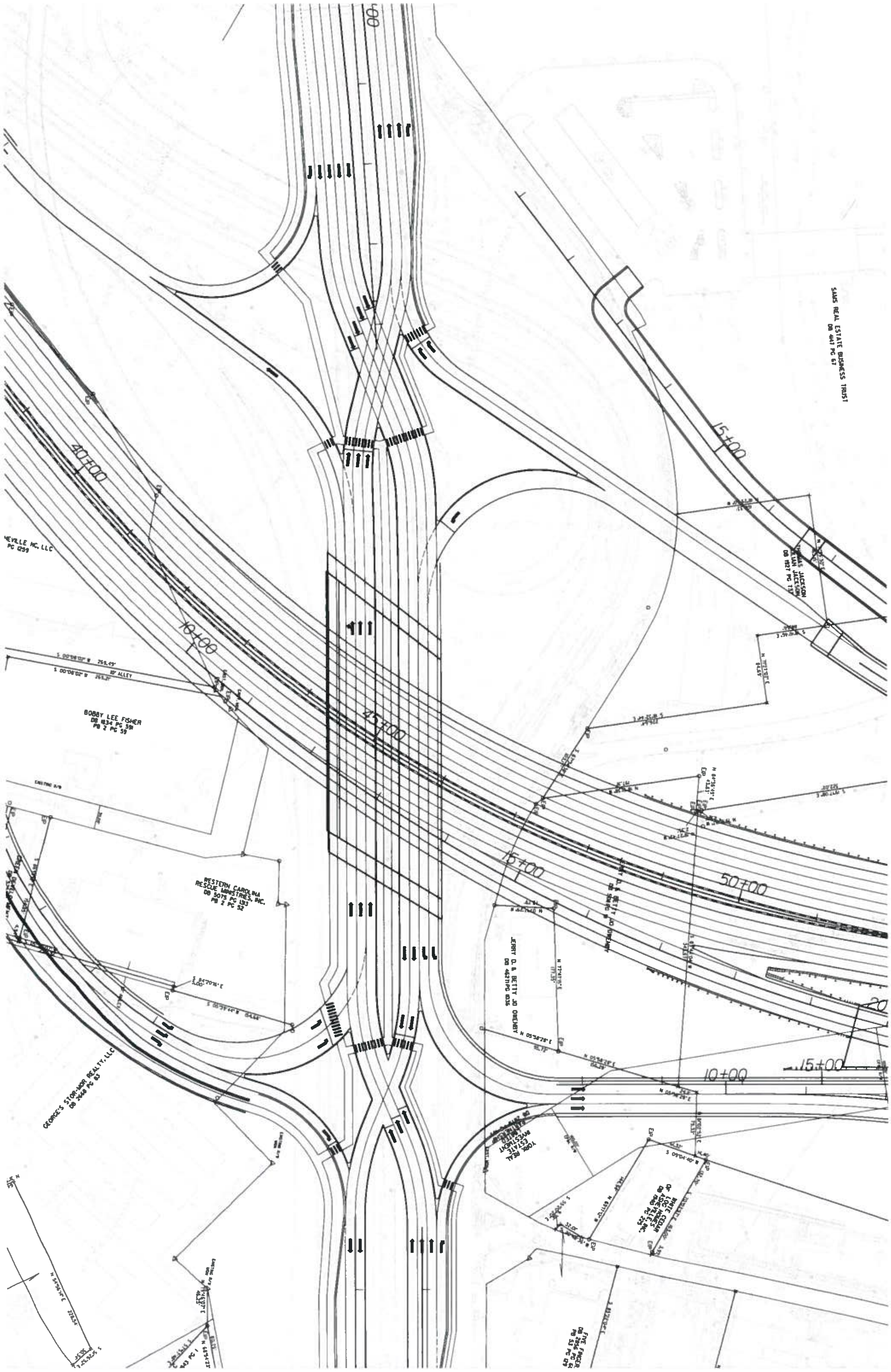
PLANS



SAMS REAL ESTATE BUSINESS TRUST
BOBBY LEE FISHER
WESTERN CAROLINA RESCUE MINISTRIES, INC.
GEORGE'S STOR-MOR REALTY, LLC
10' ALLEY
40+00
10+00
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50+00
10+00
15+00

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

DATE: July 24, 2018

TO: Mr. Al Kopf
City of Asheville Parks and Recreation
PO Box 7148
Asheville, NC 28802-7148

FROM: Derrick Weaver, Unit Head
Environmental Policy Unit

RE: STIP Project Number I-2513; I-26 Connector in Asheville, Buncombe County, North Carolina, WBS No. 34165.1.2

Dear Mr. Kopf:

The Federal Highway Administration (FHWA) and North Carolina Department of Transportation (NCDOT) are seeking your acknowledgement of the *de minimis* use of Carrier Park for the proposed I-26 Connector project in Buncombe County, NC (State Transportation Improvement Program [STIP] No. I-2513). A *de minimis* impact is one that, after taking into account avoidance, minimization, mitigation, and enhancement measures, results in no adverse effect to the resource under Section 4(f) protection.

In accordance with 23 CFR Part 774 (Sections 774.3(b) and 774.17), the FHWA and NCDOT intend to make a *de minimis* finding based on your concurrence with a No Adverse Effect to Carrier Park.

The proposed I-26 Connector project in Buncombe County, NC (STIP project No. I-2513) would require the incorporation of less than an acre of the existing Amboy Road frontage of the Carrier Park property. Almost all of the 0.94 acre would be from a wide paved shoulder that has provided parking for the site. According to Asheville city officials, future plans for the park call for the removal of this parking. No park amenities are contained in the required property.

As the official with jurisdiction over Carrier Park, I concur in a determination that the proposed transportation project as described in this letter would not adversely affect the activities, features, or attributes that qualify Carrier Park for Section 4(f) protection. I have also been informed, based on my concurrence, the FHWA intends to make a *de minimis* finding regarding the impacts to Carrier Park, thus satisfying the requirements of Section 4(f).

Date: 6/24/2019 Signature: _____

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1548 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

Telephone: (919) 707-6000
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

APPENDIX D

RELOCATION AND RIGHT-OF-WAY REPORTS

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34165.1.2	COUNTY	Buncombe	Alternate 1 of 1 Alternate
T.I.P. NO.:	I-2513 A			
DESCRIPTION OF PROJECT:	I-26 / I-240 Interchange in Asheville, NC; I-26 Connector			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	51	20	71	3
Businesses	0	14	14	0
Farms	0	0	0	0
Non-Profit	1	0	1	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	3	20	31	17

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	2	250-400	3
70-100M	2	400-600	7
100 UP	47	600 UP	10
TOTAL	51		20

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	1
20-40M	2	150-250	0
40-70M	4	250-400	0
70-100M	12	400-600	2
100 UP	1916	600 UP	68
	1934		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
☐	☒	1. Will special relocation services be necessary?
☒	☐	2. Will schools or churches be affected by displacement?
☒	☐	3. Will business services still be available after project?
☒	☐	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
☐	☒	5. Will relocation cause a housing shortage?
X		6. Source for available housing (list).
☐	☒	7. Will additional housing programs be needed?
☒	☐	8. Should Last Resort Housing be considered?
☐	☒	9. Are there large, disabled, elderly, etc. families?
☐	☒	10. Will public housing be needed for project?
☒	☐	11. Is public housing available?
☒	☐	12. Is it felt there will be adequate DSS housing housing available during relocation period?
☐	☒	13. Will there be a problem of housing within financial means?
☒	☐	14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 18 to 24 months

REMARKS (Respond by Number)

2. One Church (Parcel 180) is affected but other Churches remain in the project area.
(#10 on EIS Worksheet)
3. Businesses will remain available as much of the project area is commercial.
4. See EIS Worksheet
14 Business Relocatees
1 Church Relocatee

6. MLS, Newspaper, Realtor, Real Estate Publications, Internet

8. As required by Law and in accordance with the Uniform Relocation Act.
11. Buncombe County has Public Housing
12. Based on current market, housing and storefront business locations should be available.
14. MLS, Newspaper, Realtor, Real Estate Publications, Internet

Note: DSS Dwelling Availability was obtained from Realtor.com For Buncombe County

Phil Ward 8/13/18
Right of Way Agent — Date

Chris Coughlin 08/21/2019
Relocation Coordinator — Date

FRM15-E

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34165.1.2	**COUNTY**	Buncombe	**Alternate** 1 **of** 1 **Alternate**	
T.I.P. NO.:	I-2513 B				
DESCRIPTION OF PROJECT:	I-26 / I-240 Interchange in Asheville, NC; I-26 Connector				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	22	7	29	2
Businesses	4	15	19	0
Farms	0	0	0	0
Non-Profit	2	0	2	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	2	3	10	14

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	1
20-40M	0	150-250	0	20-40M	2	150-250	0
40-70M	0	250-400	0	40-70M	4	250-400	0
70-100M	0	400-600	2	70-100M	12	400-600	2
100 UP	22	600 UP	5	100 UP	1916	600 UP	68
TOTAL	22		7		1934		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
☐	☒	1.	Will special relocation services be necessary?
☒	☐	2.	Will schools or churches be affected by displacement?
☒	☐	3.	Will business services still be available after project?
☒	☐	4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
☐	☒	5.	Will relocation cause a housing shortage?
X		6.	Source for available housing (list).
☐	☒	7.	Will additional housing programs be needed?
☒	☐	8.	Should Last Resort Housing be considered?
☐	☒	9.	Are there large, disabled, elderly, etc. families?
☐	☒	10.	Will public housing be needed for project?
☒	☐	11.	Is public housing available?
☒	☐	12.	Is it felt there will be adequate DSS housing housing available during relocation period?
☐	☒	13.	Will there be a problem of housing within financial means?
☒	☐	14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? **18 to 24 months**

REMARKS (Respond by Number)

2. Churches and Rescue Ministry will remain available as the project area has other civic related uses.
3. Businesses will remain available as much of the project area is commercial.
4. See EIS Worksheet
   19 Business Relocatees
   1 Church Relocatee & 1 Non-Profit Rescue Ministry
6. MLS, Newspaper, Realtor, Real Estate Publications, Internet
8. As required by Law and in accordance with the Uniform Relocation Act.
11. Buncombe County has Public Housing.
12. Based on current market, housing and storefront business locations should be available.
14. MLS, Newspaper, Realtor, Real Estate Publications, Internet

Note: DSS Dwelling Availability was obtained from Realtor.com For Buncombe County

Phil Ward 8/13/18
Right of Way Agent — Date

Chris Coughlin 08/21/2019
Relocation Coordinator — Date

FRM15-E

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ **E.I.S.** ☐ **CORRIDOR** ☐ **DESIGN**

WBS ELEMENT:	34165.1.2	**COUNTY**	Buncombe	**Alternate** 1 **of** 1 **Alternate**	
T.I.P. NO.:	I-2513 C				
DESCRIPTION OF PROJECT:	I-26 / I-240 Interchange in Asheville, NC; I-26 Connector				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	3	11	14	0
Businesses	2	0	2	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	1	2	8	3

VALUE OF DWELLING / DSS DWELLING AVAILABLE

Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	1
20-40M	0	150-250	0	20-40M	2	150-250	0
40-70M	0	250-400	0	40-70M	4	250-400	0
70-100M	0	400-600	1	70-100M	12	400-600	2
100 UP	3	600 UP	10	100 UP	1916	600 UP	68
TOTAL	3		11		1934		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
☐	☒	1. Will special relocation services be necessary?
☐	☒	2. Will schools or churches be affected by displacement?
☒	☐	3. Will business services still be available after project?
☒	☐	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
☐	☒	5. Will relocation cause a housing shortage?
X		6. Source for available housing (list).
☐	☒	7. Will additional housing programs be needed?
☒	☐	8. Should Last Resort Housing be considered?
☐	☒	9. Are there large, disabled, elderly, etc. families?
☐	☒	10. Will public housing be needed for project?
☒	☐	11. Is public housing available?
☒	☐	12. Is it felt there will be adequate DSS housing housing available during relocation period?
☐	☒	13. Will there be a problem of housing within financial means?
☒	☐	14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **18 to 24 months**

REMARKS (Respond by Number)

3. Businesses will remain available as much of the project area is commercial.
4. Two Business Relocatees are:
   Parcel 1 - Burger King – 3,160 SF, 10 Employees w/ 4 Part Time Employees
   Parcel 111 - Gathering Center for Campground – 3,742 SF, 5 Employees w/ 2 Part Time Employees
6. MLS, Newspaper, Realtor, Real Estate Publications, Internet
8. As required by Law and in accordance with the Uniform Relocation Act.
11. Buncombe County has Public Housing.
12. Based on current market, housing and storefront business locations should be available.
14. MLS, Newspaper, Realtor, Real Estate Publications, Internet

Note: DSS Dwelling Availability was obtained from Realtor.com For Buncombe County

Phil Ward	8/13/18	Chris Coughlin	08/21/2019
Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E

APPENDIX E

BURTON STREET NEIGHBORHOOD PLAN

Burton Street Neighborhood Plan

September 2018

Prepared by:
Public Participation Partners
For the Burton Street Community Association

CONTENTS

ACKNOWLEDGEMENTS

The Burton Street Neighborhood Plan was made possible through the joint efforts and involvement of the following individuals and organizations:

Burton Street Community Association Leadership

- Vivian Conley, President
- Thomas Davidson, Vice President
- Margaret Fuller, Secretary
- Zanie Davidson, Treasurer

City of Asheville

- Todd Okolichany, Director, Planning and Urban Design
- Brenda Mills, Manager, Neighborhood and Community Engagement Manager
- Shateisha Lenior-Bowden, Facility Manager, Burton Street Community Center
- Ken Putnam, Director, Transportation
- Alan Glines, Assistant Director, Planning and Urban Design
- Vaidila Satvika, Planner II, Planning and Urban Design
- Elias Mathes, Transit Planning Manager

North Carolina Department of Transportation

- Derrick Weaver, Unit Head, Environmental Policy Unit
- Harrison Marshall, Team Lead, Community Studies
- Jamille Robbins, Group Leader, Public Involvement, Community Studies and Visualization

A special thanks to:

- Pastor Charles Martin, St. Paul Missionary Baptist Church

And most of all we wish to thank the residents and religious organizations of the Burton Street neighborhood who participated in the planning process, and offered their support and feedback throughout the community engagement process.

INTRODUCTION

Neighborhood and Mitigation Strategies Project Background

The proposed State Transportation Improvement Project (STIP) I-2513 I-26 Connector project is a 7-mile interstate freeway that would connect I-26 in southwest Asheville to U.S. 19/23/70 in northwest Asheville. Once completed, the freeway would be a part of the I-26 interstate that extends from Charleston, SC to Kingsport, TN.

The Burton Street neighborhood is one of ten communities being impacted by the proposed I-26 improvements. The neighborhood was first impacted by interstate development in the 1960s when I-240 was built. The construction of I-240 displaced residents and took land from many areas in West Asheville, resulting in significant impacts to the Burton Street neighborhood. As a result of the proposed widening of I-26 in Segment A, additional right-of-way will be required in the Burton Street neighborhood. Due to the demographics of the community, the Burton Street neighborhood has been identified as an Environmental Justice population that has experienced recurring impacts. With an Environmental Justice designation, NCDOT can provide additional mitigation opportunities to lessen the burden of the project on the Burton Street neighborhood.

The Burton Street Community Association (BSCA) with the assistance of the Asheville Design Center developed the 2010 Burton Street Community Plan. The goal of the plan initially was to outline projects to mitigate the planned widening of I-26 along the eastern boundary of the neighborhood, but the scope of the plan expanded to include a variety of community goals. The Burton Street Community Plan was accepted, but not approved as an official city neighborhood plan by the Asheville City Council.

In 2016 the City of Asheville began updating its Comprehensive Plan. In an effort to ensure the inclusion of a Burton Street neighborhood plan in the comprehensive plan update, the City of Asheville Planning and Urban Design Department requested that a neighborhood planning component be added to NCDOT's mitigation planning process for the Burton Street neighborhood.

To address and remedy the anticipated impacts to the Burton Street Community as a result of the I-26 improvements, a community driven Neighborhood and Mitigation Strategies (NMS) Plan project was initiated by NCDOT. The goal of the NMS plan project was to develop a Burton Street Neighborhood plan that would be adopted by the City and that includes a list of mitigation strategies to be implemented by NCDOT.

INTRODUCTION

Burton Street Neighborhood Plan Purpose

The Burton Street Neighborhood Plan was developed by NCDOT, in partnership with the Burton Street Community Association, to address potential impacts resulting from the I-26 Connector project and current community concerns, enhance the quality of life of the Burton Street community and to preserve the strong sense of community among Burton Street residents.

INTRODUCTION

Plan Development Process

Community Open House #1

The two-session open house was held on Monday, January 15, 2018. Burton Street residents were introduced to the Neighborhood and Mitigation Strategies Plan (NMS) project and provided feedback on community priorities and concerns. A total of forty-one residents attended the two sessions. Thirty-one comments were received via mail, email, paper and online survey during the 30-day comment period.

Stakeholder Group Meeting

A small group meeting was held on Monday, January 15, 2018. Burton Street community businesses and organizations were introduced to the Neighborhood and Mitigation Strategies Plan (NMS) project and provided feedback on their specific concerns and issues surrounding the I-26 Connector project and the Burton Street community.

Community Open House #2

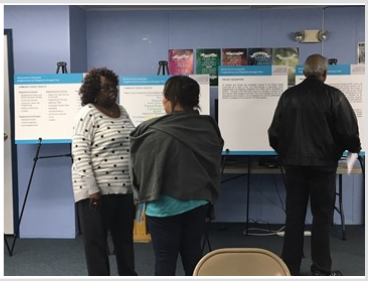
A community open house was held on Tuesday, March 20, 2018. Burton Street residents were provided an opportunity to review the results from the January 15th survey and provided feedback on the draft neighborhood vision, themes and community goals. Twenty-eight residents were in attendance. Three comments were received via mail, email, paper and online survey during the 25-day comment period.

Based on the community feedback provided during the Burton Street community open houses, stakeholder group meeting and online community survey, a neighborhood vision, as well as plan themes, community goals and strategies were developed. These components served as the framework for the draft Burton Street Neighborhood Plan.

Community Meeting #3

A community meeting was held on Monday, April 30, 2018 to present the Draft Burton Street Neighborhood Plan. Thirty four residents were in attendance. Burton Street residents were provided with a 21-day review and comment period following the meeting to provide feedback on the proposed plan draft. Sixteen comments were received via mail, email, paper and online survey during the review period. An additional 104 form letter comments were received outside of the official comment collection process. The priorities identified in these comments were consistent with those submitted during the official comment process.



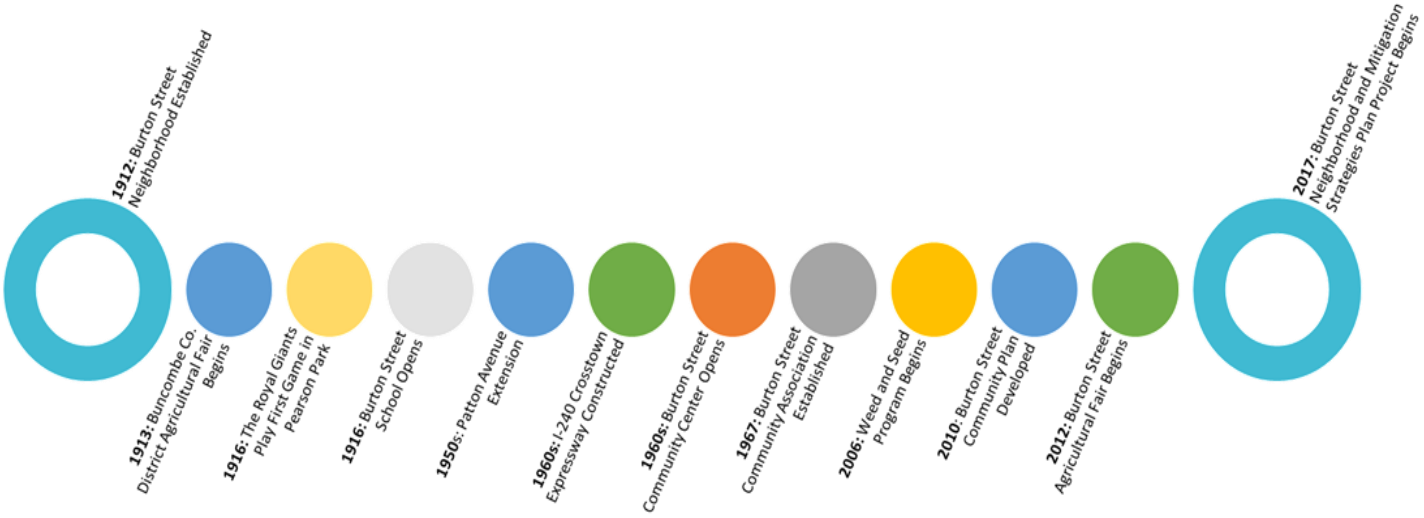



BURTON STREET HISTORY

Founded in 1912 by civic leader E.W. Pearson, the Burton Street neighborhood was established as an African-American neighborhood in one of the first parts of West Asheville to be subdivided. Burton Street was originally named Buffalo Street but was changed in the late 1920s to honor Asheville's founder John Burton. The original area, extending east to Argyle Lane and just north of Smith Mill Creek, was primarily wooded and comprised of small family farms where residents grazed livestock. The once considered rural area began to change rapidly as the population increased and community churches, stores, and a school were built.

The Burton Street neighborhood continued to grow and thrive until the 1950s when the first of many road improvement projects encroached upon the neighborhood, ultimately changing the character of the community. The extension of Patton Avenue into West Asheville in the early 1950s resulted in a loss of land in the Burton Street neighborhood's northern boundary, residential displacement, and the culverting of Smith Mill Creek. Construction of the I-240 Cross-town Expressway served as the second major encroachment into the neighborhood. Originally constructed in the 1960s, I-240 was the first major highway system to enter this residential region. Its creation displaced residents and bisected the Burton Street neighborhood, severing Wilmington Street which had connected the Burton Street and Westwood Place community. Post construction of I-240, the Burton Street's eastern boundary that originally extended to Argyle Lane was redefined as I-240.

During the 1970s and 1980s founding families of the neighborhood left the area or passed away, leaving homes to be abandoned, sold or rented to newcomers. With the turnover in residents came a decrease in community cohesion, and the vacant school, abandoned homes and uncared for rental property left a sense of emptiness within a once vibrant neighborhood. The absence of a tight community network contributed to the growing influx of drug use and drug dealing during the late 1980s into the 1990s. In the early 2000s drug activity and other crime persisted in and around the Burton Street community until neighborhood residents initiated efforts to take back their neighborhood through community activism. In 2006 the Burton Street community was the beneficiary of funding from the Weed and Seed program, a City of Asheville initiative awarded by the U.S. Department of Justice to eradicate crime and drug problems while bolstering positive community initiatives. The initiative provided funding for increased policing in the Burton Street neighborhood and improvements including community center renovations, small home repairs, community cleanups, the installation of speed bumps and stop signs, a neighborhood entrance sign, and programing including drug abuse treatment resources, mentoring, arts education, and afterschool programs.



BURTON STREET HISTORY

E.W. Pearson Sr.
Burton St. Community Center Mural

E.W. Pearson Sr.

E. W. Pearson Sr. was born in 1872 in Glen Alpine, NC. After serving as a Buffalo Soldier in the U.S. Army, Pearson moved to Asheville in 1906 where he used his real estate training from his studies in Chicago to create subdivisions for African-Americans in West Asheville, including the Burton Street neighborhood. In addition to his numerous real estate developments, Pearson established many businesses, organizations and community resources in West Asheville including Pearson Real Estate, Mountain City Mutual Insurance Company, Grocery and Confectionary Company, and Pearson Park. E.W. Pearson made many other contributions to the city of Asheville, Buncombe County and beyond. He organized Asheville's first African American semi-pro baseball team, the Asheville Royal Giants (1916), which played at Pearson Park in West Asheville. Pearson founded the area's first regional Agricultural Fair (1913-1947), and organized North Carolina's first chapter of the NAACP (1933), as well as several fraternal and other civic groups. His tireless work to improve the quality of life for African Americans ultimately garnered him the title the "Black Mayor of West Asheville". Pearson died in 1946 in Asheville at the age of 74.

Burton Street School

Source: Heritage of Black Highlanders Collection, UNC Asheville Ramsey Library

Burton Street School (1916-1965)

The Burton Street school (originally the Buffalo Street school) was established in 1916 as school for African-Americans in West Asheville. The original school was a two-room building that had two teachers and one principal and accommodated 120 students through grade six. A second building was erected in 1928 to accommodate additional students and consisted of four classrooms, an auditorium, a lunchroom, a library and a principal's office. Integration left the Burton Street school sitting vacant, so in the late 1960s, the site was turned into the Burton Street Community Center and park by the City of Asheville.


THE COLORED PEOPLE
ARE HOLDING A FAIR
At West Asheville—Organiz...
AGRICULTURAL
FAIR JUBILEE
SET FOR FALL
Negro Group To Stress Victory Gardens On 30th Anniversary.
The Buncombe county district negro agricultural fair will observe a home coming jubilee September the 30th year of ... opened today

Buncombe County District Agricultural Fair

Source: North Carolina Humanities Council

Agricultural Fair

The Buncombe County District Agricultural Fair was established in 1913 by E.W. Pearson to celebrate the fall harvest. The first fair was held in Pearson Park in West Asheville. The Fair grew in size and numbers, drawing as many as 10,000 people of all races to become a regional event until its end in 1947. The Agricultural Fair was revived in 2012 by the Burton Street Community Association to celebrate the upstanding citizens of the past who maintained the vibrant spirit of the Burton Street neighborhood. The Burton Street Agricultural Fair is held annually at the Burton Street Community Center park.

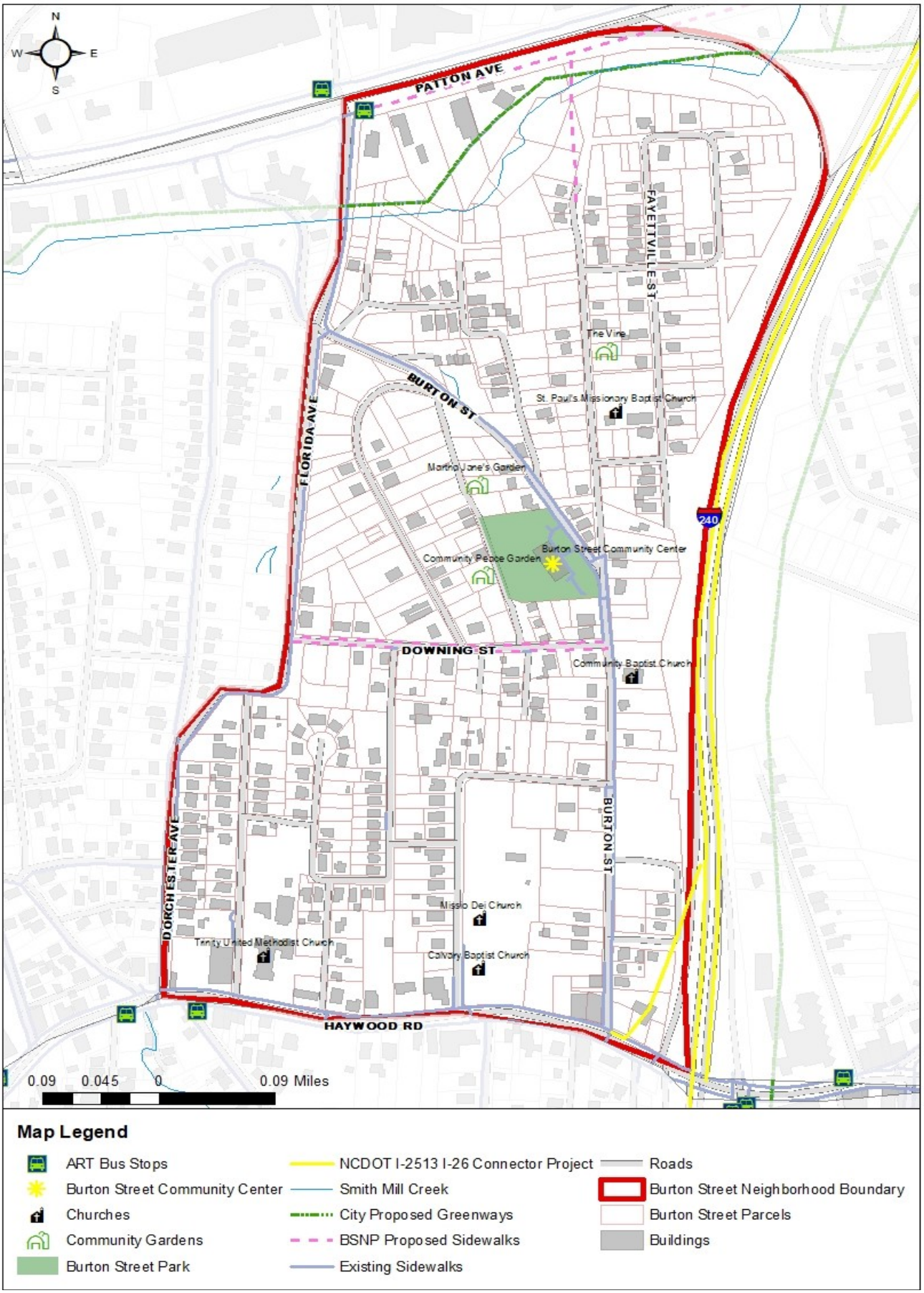
EXISTING CONDITIONS

Neighborhood Boundaries

The Burton Street neighborhood is located in west Asheville, in the southwest corner of the Patton Avenue interchange of I-240. It is generally defined by Patton Avenue to the north, I-240 to the east, Haywood Road to the south, and Florida Avenue/ Dorchester Avenue to the west. While Haywood Road is the physical southern boundary, churches and businesses along Haywood Road do not identify as being a part of the Burton Street neighborhood. (Figure 1: Neighborhood Map)

EXISTING CONDITIONS

Figure 1: Neighborhood Map



EXISTING CONDITIONS

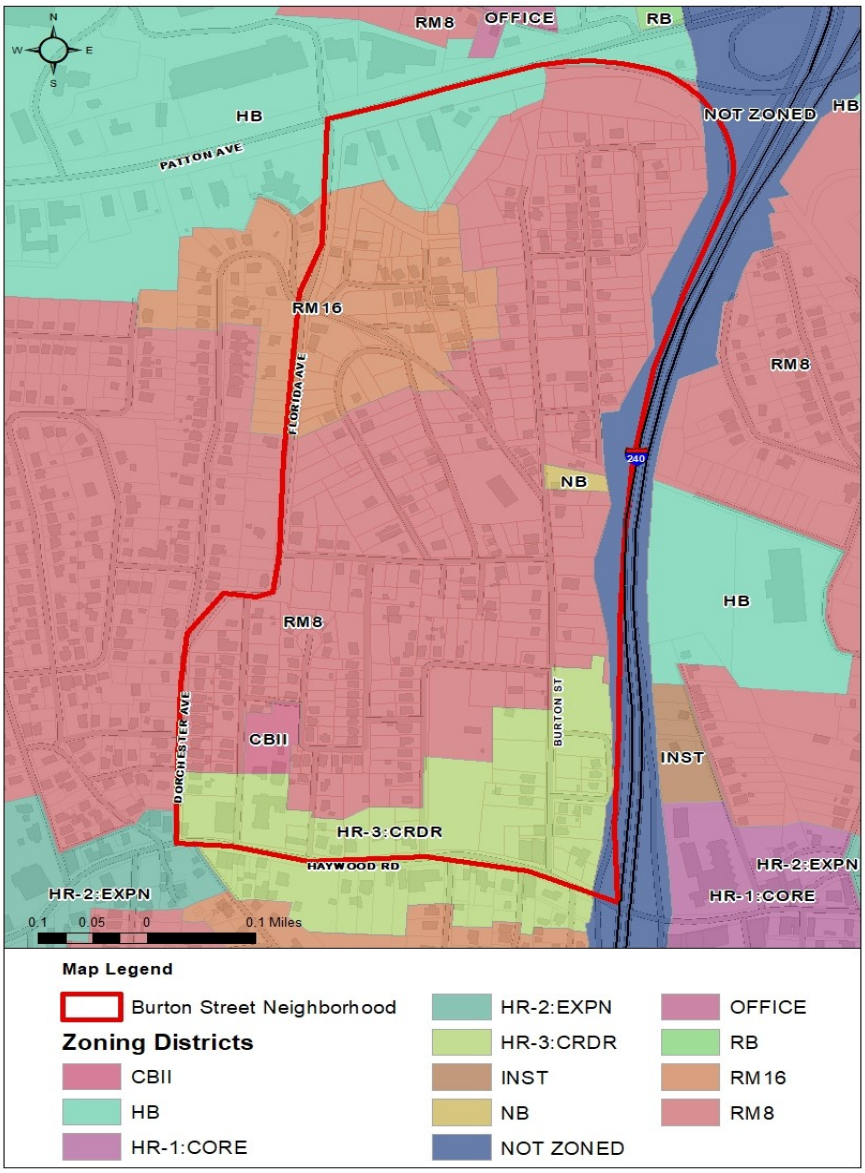
Land Use

The neighborhood contains a mix of older single and multifamily duplex housing with recently constructed infill single family housing, and mixed commercial along the northern and southern boundary.

Zoning

The Burton Street neighborhood is primarily zoned as medium density multi-family (RM8) which permits a full range of medium density multi-family housing types along with single-family detached and attached residences. High density multi-family (RM16) zoning which permits a full range of high density multi-family housing types along with limited institutional, public and commercial uses appropriate within high density residential areas is located within the northwest area of the neighborhood near the Florida Avenue and Burton Street intersection. The northern border with Patton Avenue is classified as highway business (HB), and the southern border along Haywood Road is classified as the HR-3 Corridor and is a part of the Haywood Road Form District, which focuses on residential and office uses and encourages pedestrian activity.

Figure 2: Burton Street Zoning Map



LOCAL AREA PLANS

Burton Street Community Plan, 2010

The Burton Street Community Plan was developed in 2010 by the Asheville Design Center and Western North Carolina Alliance in collaboration with the Burton Street Community Association. The goal of the plan initially was to outline projects to mitigate the planned widening of I-26 along the eastern boundary of the neighborhood, but the scope of the plan expanded to include a variety of community goals pertaining to improving community cohesion, neighborhood infrastructure, the creation of community spaces, and to guide residential and economic development. The Burton Street Community Plan was accepted, but not approved as an official city neighborhood plan by the Asheville City Council.

City of Asheville Greenway Master Plan Update, 2013

The City of Asheville *Parks, Recreation, Cultural Arts and Greenway Master Plan*, adopted in 2009, creates a vision and guideline for the development of parks, greenways, recreation and cultural arts services within the city over a 10 to 15 year period. In 2013 the City developed and adopted a Greenway Master Plan as an update to the 2009 plan to address the need for a comprehensive greenway development plan and potential I-26 Connector project impacts to the proposed greenway network. The Plan includes a list of adopted greenway corridors and proposed greenways requiring in depth studies to determine their exact alignment. Smith Mill Creek is listed as a proposed greenway beginning at Falconhurst Park and travels eastward along the creek through the Burton Street neighborhood to the French Broad River, approximately 1.75 miles, with a connection to the West Asheville Greenway.

City of Asheville Haywood Road Form-Based Code, 2017

The City of Asheville *Haywood Road Form-Based Code*, adopted in 2017, was developed to implement the former adopted Haywood Road Corridor Charette Report and Haywood Road Vision Plan. The Code's purpose is to guide growth and development, improve walkability, and enhance multimodal transportation options along the 2.5 mile stretch of Haywood Road from the French Broad River to Patton Avenue in West Asheville. The Code addresses historic preservation, economic development, and issues pertaining to transportation and streetscapes, zoning and land use, neighborhoods and safety. The HR-3 Corridor sub-district applies to all property located within the Haywood corridor from I-240 to Dorchester Avenue along the southern boundary of the Burton Street neighborhood. The HR-3 Corridor provides a green frontage along Haywood Road to provide relief from the urban areas of the Core and Expansion sub-districts, and allows for a variety of uses, with a focus on residential and office uses.

City of Asheville Living Asheville Comprehensive Plan, 2018

The City of Asheville *Living Asheville Comprehensive Plan* provides a framework to help guide the pattern of development, land use policies, development decisions and investments in public infrastructure throughout the city for the next 10 to 20 years. The Plan's goal is to "help guide decision-making with respect to the key ongoing challenges and opportunities of fostering a livable and affordable built environment, ensuring harmony with the natural environment, growing a resilient economy, promoting interwoven equity, ensuring a healthy community, and bolstering responsible thinking at the regional scale."

LOCAL AREA PLANS

City of Asheville Living Asheville Comprehensive Plan, 2018 continued...

The Plan categorizes the Burton Street neighborhood as Traditional Neighborhood on its Future Land Use map. Traditional neighborhood emphasizes a range of housing types including smaller scale multifamily residential 'missing middle' housing. This classification prioritizes infrastructure additions and completed facilities where they may be lacking, such as sidewalks that connect to parks, commercial centers and nearby transit stops, along with continued maintenance, in addition to street lighting, stormwater facilities, street trees and parks and greenways among other community infrastructure.

The portion of the Patton Avenue corridor bordering the Burton Street neighborhood is categorized as a transit-supportive Urban Corridor with an Urban Center located near the intersection of Patton Avenue and Florida Avenue. Urban Corridors encourage transit-supportive zoning and small area planning that includes strategies for enhancing the streetscapes for pedestrians, bicyclists and transit. Urban Centers encourage mixed-use development, higher density residential development, affordable housing, and street networks that emphasize placemaking features such as wider sidewalks, crosswalks, and building standards for new construction, that connect to and benefit the surrounding community. The portion of the Haywood Road corridor bordering the Burton Street neighborhood is categorized as a transit-supportive Traditional Corridor. Traditional Corridors encourages a main street pattern of development, transit-supportive zoning, and small area planning with a focus on improving streetscapes for pedestrians, bicyclists, and transit.

BURTON STREET NEIGHBORHOOD

Burton Street Community Overview

Today, the Burton Street neighborhood is a diverse community comprised of residents of all races and ages, founding families, and newcomers. Burton Street is a cohesive community with strong ties among residents and to its neighborhood institutions. These connections along with its dedicated, active community members have allowed Burton Street to overcome many challenges including crime and drug infestation, gentrification, lack of basic services, loss of land and natural resources and residential displacement to become a model of resiliency for other neighborhoods.

Burton Street Community Association

The Burton Street Community Association (BSCA), established in 1967 as the Burton Street Advisory Board, was formed for the purpose of promoting the educational, social, economic and cultural welfare of its members, improving the neighborhood through democratic citizen participation and involvement in activities which affect their everyday lives. Today, the BSCA is governed by a four-member board and comprised of Burton Street residents and serves as the advocates and voice of the Burton Street neighborhood.

BURTON STREET NEIGHBORHOOD

Community Resources

The Burton Street neighborhood has a number of community resources including three churches, a community center, two parks, a community garden, and a peace garden with art installations and history exhibits.

Community Baptist Church

Community Baptist Church

Community Baptist Church was built in 1925 on the site of the former Wilson AME church established in 1888.

St. Paul MB Church

St. Paul Missionary Baptist Church

St. Paul MBC was established in 1914 under the leadership of Mrs. Jennie McMickens as the first African-American Baptist church in West Asheville. Since its inception, St. Paul's has been a fixture of the Burton Street neighborhood and greater Asheville area. St. Paul's many community contributions include its support of Burton Street's preservation and revitalization efforts, community-wide Alcoholics Anonymous classes, after school programs, community garden, and community meeting space.

Burton Street Community Center

Burton Street Community Center

The City of Asheville Burton Street Community Center features an auditorium, game room, billiard room, weight room, a commercial kitchen, and provides programming for youth and seniors. The park surrounding the center features two basketball courts, a playground, and a play field used for community events.

Burton Street Community Peace Garden

Burton Street Community Peace Garden

Located on Bryant Street, the Burton Street Community Peace Garden was established in 2003 by community activist and organizer DeWayne Barton as a peaceful response to the war on drugs and the war in Iraq. The garden includes art installations, flower and produce gardens, a greenhouse, pavilion and outdoor classroom, stage, fire pit, and history exhibits. The garden serves as a community gathering space, provides training and educational opportunities for neighborhood youth, and produce delivery to neighborhood seniors. Since its inception, three additional produce garden sites have been developed within the neighborhood. Garden maintenance is provided by Mr. and Mrs. Barton, community youth, and other volunteers.

BURTON STREET NEIGHBORHOOD

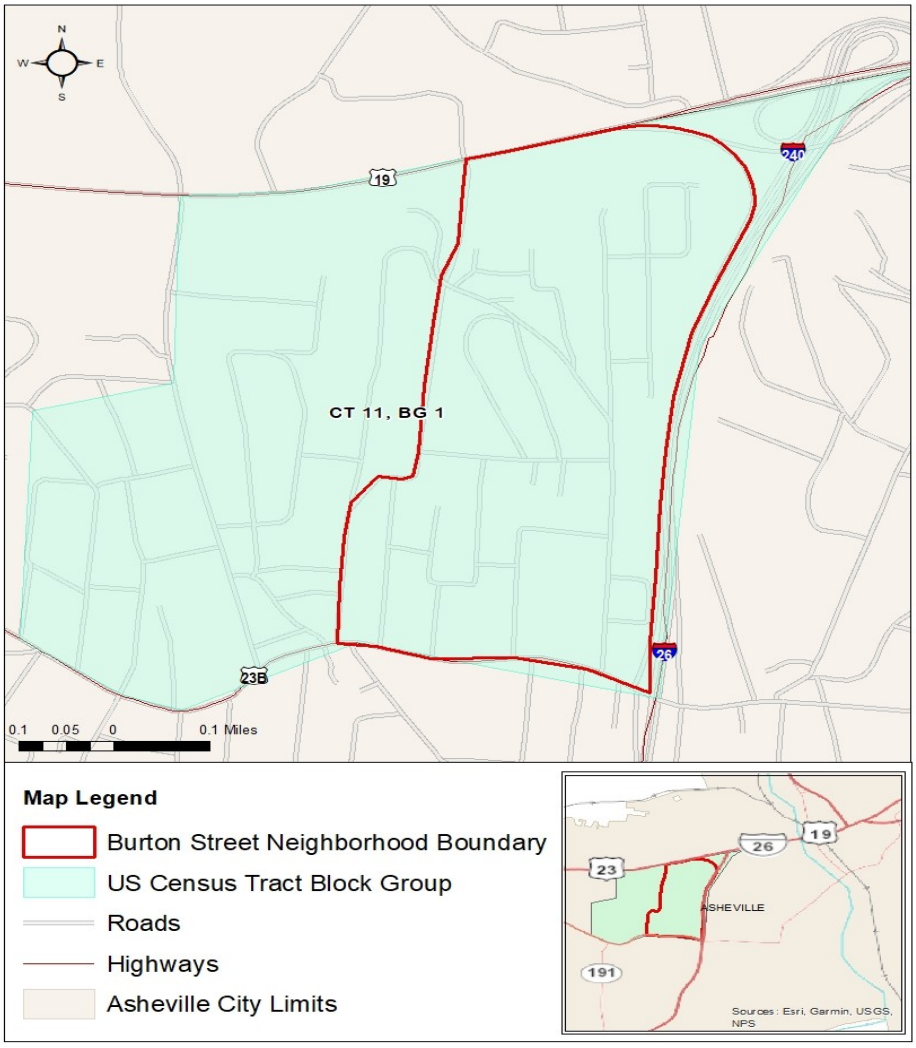
Demographic Data Trends

The Burton Street neighborhood comprises approximately one half of U.S. Census Bureau, Census Tract 11, Block Group 1. According to American Community Survey (ACS) 2016 (5-year estimates) data, 14.0 percent of residents in Census Tract 11, Block Group 1 are African-American and 11.9 are Hispanic, compared to 6.3 and 6.3 percent in Buncombe County. Poverty levels in this block group (15.0 percent) are higher than the County (9.1 percent), however, median household income is slightly higher ($48,603) compared to the County ($46,902).

According to 2010 Census data, in Census Tract 11, Block Group 1, 38.4 percent of residents were African-American (6.4 percent in Buncombe County), and 7.6 percent were Hispanic (6.0 percent in Buncombe County). Poverty levels in this block group (21.2 percent) were higher than in the County (15.6 percent), and the median income was lower at $31,950 as compared to $44,321 in the County. New home construction in the Burton Street neighborhood area has likely attributed to the shift in the demographic makeup of the area.

Since 2010 total housing units in the block group have slightly declined from 717 to 638 in 2016. Vacancy rates have also declined from 7.4 percent in 2010 to 5.5 percent in 2016. Owner occupancy rates have increased since 2010 from 53.6 percent to 72.3 percent in 2016.

Figure 3: Demographic Study Area Map



THE BURTON STREET NEIGHBORHOOD PLAN
THEMES, GOALS AND STRATEGIES

NEIGHBORHOOD PLAN

Burton Street Neighborhood Vision

The Burton Street Community is a diverse and welcoming neighborhood that celebrates and preserves its unique history and culture and is a model for sustainability through a strong community association; green, affordable development; local economic activity; and a safe, walkable network of streets, parks and productive gardens.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

The Burton Street community strives to be a sustainable neighborhood with complete, sufficient and inclusive infrastructure, affordable housing, and walkable access to transit and neighborhood-oriented commercial development. Development that is context sensitive, environmentally friendly, that preserves existing neighborhood character and celebrates its cultural heritage and historic resources is essential to maintaining a strong sense of place. Future development must be determined in a predictable, equitable manner, and built on a foundation of community collaboration and engagement to ensure that it reflects the needs and aspirations of the Burton Street community.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.1: Encourage Responsible Growth and Development

The Burton Street neighborhood has experienced a renewed interest due to its proximity to downtown Asheville, surrounding commercial corridors, and affordable housing. Gentrification is a prominent influence, and as outside investment increases affordability for existing residents diminishes. And increased demand for higher density development and recent infill is changing the physical character of the neighborhood. The following strategies are critical to preserving the character and affordability of the Burton Street neighborhood.

Strategy 1: Support design standards and policies that aim to preserve or enhance neighborhood character such as community design recommendations and/ or a Neighborhood Conservation Overlay District

Strategy 2: Engage residents and other community stakeholders in plans for new development, capital improvements, amenities and other neighborhood planning efforts

Compatibility with Living Asheville Comprehensive Plan

Goal 1: Encourage Responsible Growth

- Promote clear and effective communication between city residents at all stages of development to ensure development responds to the needs and goals of affected residents.
- Create a program to develop corridor and small area plans at the community level.

Goal 3: Promote Great Architecture and Urban Design to Enhance Placemaking

- Encourage public and neighborhood engagement when shaping design decisions for their neighborhoods.

Goal 7: Celebrate the Unique Identity of Neighborhoods Through Placemaking

- Develop a palette of design recommendations for neighborhoods that focus on major character defining elements and allow neighborhoods to select the appropriate elements for their community and apply them on a voluntary basis for new construction and additions.
- Continue to support contextually appropriate infill development and a variety of housing types.
- Protect distinct neighborhood characteristics using zoning tools, such as conservation overlay districts and compatible infill development.

Goal 32: Improve Community Involvement in Decision-Making

- Conduct inclusive outreach and public engagement when preparing studies and carrying out other city initiatives that affect communities. Through all outreach exercises, promote education about planning topics in plain spoken, lay language and in understandable terms as an integral component of feedback solicitation.

Goal 34: Create a More Formal Neighborhood Planning Process

- Develop a palette of design recommendations for neighborhoods that focus on major character defining elements and allow neighborhoods to select the appropriate elements for their neighborhood and apply them on a voluntary basis for new construction and additions.
- Explore city overlays and optional neighborhood incentives (e.g. affordable housing minimums) to be discussed as part of community planning as a tool for implementing neighborhood planning ideas.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.2: Make Streets More Walkable and Comfortable

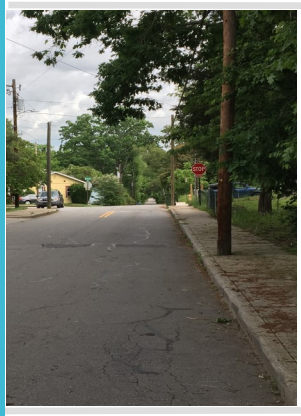
Most streets in the Burton Street neighborhood lack sidewalks, and the few existing sidewalks are narrow and are obstructed by utility poles. As a result, pedestrians are required to walk along the narrow neighborhood streets, often impeded by parked cars, flooded intersections, and overgrown shrubbery. Flooding and standing water is a constant issue throughout the Burton Street neighborhood due to limited stormwater drainage infrastructure. The following strategies are essential to creating a safe and comfortable environment for school children, the elderly, disabled and other pedestrians and bicyclists in the Burton Street neighborhood.

Strategy 1: Improve existing sidewalks to meet ADA design standards

Strategy 2: Enforce neighborhood no parking regulations where appropriate

Strategy 3: Expand and improve existing stormwater infrastructure to minimize flooding

Strategy 4: Maintain trees and vegetated areas along public rights-of-way



Compatibility with Living Asheville Comprehensive Plan

Goal 5: Make Streets More Walkable, Comfortable and Connected

- Add pedestrian infrastructure at street crossings on major streets and where there are high volumes of traffic and pedestrians.
- Work to eliminate gaps in the city-wide sidewalk network and especially where sidewalks tie in to greenways.
- Prioritize construction in underserved communities that have no sidewalks, as well as within designated growth areas as depicted on the Preferred Growth Scenario Map.
- Continue to retrofit sidewalks citywide to meet requirements in the Americans with Disabilities Act (ADA) and to achieve universal design.
- Ensure pedestrian facilities are equitably provided across geographic areas and all neighborhoods.

Goal 16 Create and Promote the Infrastructure to Attract Jobs

- In coordination with other service providers, maintain and make enhancements to existing infrastructure, including roads, sidewalks, signage, public parking, stormwater, sewer, water, and sanitation. Continue to strategically invest in and maintain aging infrastructure and expand transportation and utility networks, especially in underserved communities, innovation districts, near anchor institutions and in other growth areas identified in the Preferred Growth Scenarios section of Living Asheville. Ensure new development meets current infrastructure guidelines.

Goal 25 Encourage Naturalized Stormwater Management Techniques

- Support stormwater maintenance and capital improvement programs so that existing infrastructure can be maintained and improved and new infrastructure can be constructed using current technology and best practices, including green infrastructure.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.3: Increase Neighborhood Connectivity

There is a lack of sidewalks throughout the Burton Street neighborhood. Additionally, direct travel connections within the neighborhood are limited due to a lack of connectivity between neighborhood roads and high number of dead-end streets. This makes pedestrian travel between destinations within the community and to commercial corridors difficult and time inefficient. The following strategies are essential to creating a well-connected pedestrian network that provides shorter, direct travel throughout the Burton Street neighborhood.

Strategy 1: Improve pedestrian connections between community resources by installing a sidewalk on Downing Street per agreement of property owners

Strategy 2: Improve sidewalk connections between commercial corridors, and include a pedestrian path from Buffalo Street to Patton Avenue that will connect to future greenway

Compatibility with Living Asheville Comprehensive Plan

Goal 5: Make Streets More Walkable, Comfortable and Connected

- Add pedestrian infrastructure at street crossings on major streets and where there are high volumes of traffic and pedestrians.
- Eliminate gaps in the city-wide sidewalk network and especially where sidewalks tie in to greenways.
- Ensure pedestrian facilities are equitably provided across geographic areas and all neighborhoods.

Goal 15: Provide Resources to Connect Businesses and Workforce

- Improve physical accessibility to employment opportunities through transit, pedestrian infrastructure, and greenway expansion.

Goal 19: Facilitate Real Estate Development that Maximizes Public Benefit

- Establish accessible and well-connected commercial nodes (corridors, town centers).

Goal 35: Increase Access to Opportunities for All

- Encourage accessibility between neighborhoods with complete streets, sidewalks, trails and greenways.

Goal 39: Enhance and Celebrate Asheville's Unique Places and Destinations

- Increase connectivity between Downtown and other urban centers within the city through bike routes, greenways, sidewalks and transit, and improve linkages through placemaking, heritage wayfinding and other promotional materials.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.4: Improve Access to Transit

Currently there are two transit stops located outside the neighborhood that serve the Burton Street neighborhood. Due to their location at the western boundary of the neighborhood on the north and south commercial corridors, it takes approximately 16 minutes or more to reach a stop from any of the primary neighborhood destinations. And reaching these stops on foot is difficult due to the lack of sidewalks, road conditions, and lack of direct travel routes throughout the neighborhood. Additionally, there are no sidewalks along the south side of Patton Avenue between transit stops and commercial destinations. Additional transit stops, and sidewalks are needed along transit routes accessed by the neighborhood and within the neighborhood between transit stops and neighborhood destinations to improve access to transit for the Burton Street neighborhood.

Strategy 1: Evaluate opportunities for new transit stops, such as near Burton Street and Haywood Road

Strategy 2: Install a sidewalk along Patton Avenue to connect pedestrian path and transit stop

Compatibility with Living Asheville Comprehensive Plan

Goal 10: Improve Transit Service

- Provide viable public transportation options for work commuting for residents of lower income neighborhoods and neighborhoods with a high percentage of affordable housing.
- Ensure transit service is meeting the needs of those who depend on it most, especially disadvantaged or marginalized communities.

Goal 15: Provide Resources to Connect Businesses and Workforce

- Improve physical accessibility to employment opportunities through transit, pedestrian infrastructure, and greenway expansion.

Goal 19: Facilitate Real Estate Development that Maximizes Public Benefit

- Support value creation through placemaking and public transportation.

Goal 35: Increase Access to Opportunities for All

- Ensure neighborhood facilities such as transit facilities, parks and city services are ADA compliant and universally accessible.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.5: Celebrate Burton Street's Unique Identity

The Burton Street neighborhood's rich history and cultural heritage is the foundation of its strong sense of place, and its special events and community resources add to its unique identity. The following strategies are key to establishing and celebrating the unique identity of the Burton Street neighborhood.

Strategy 1: Participate in community dialogue and identify potential strategies to honor history and contributions of the African American community in the Burton Street neighborhood

Strategy 2: Install bus shelters and other improvements at transit stops located near Burton Street. Consider neighborhood specific designs if feasible

Compatibility with Living Asheville Comprehensive Plan

Goal 3: Promote Great Architecture and Urban Design to Enhance Placemaking

- Enhance educational programming relating to Asheville's historic architectural character. Prioritize programs that address the contribution of minority groups to Asheville's architectural heritage and which document heritage that was lost through urban renewal.

Goal 7: Celebrate the Unique Identity of Neighborhoods Through Creative Placemaking

- Encourage "soft" neighborhood design interventions to celebrate local identity, including street sign toppers, banners, and special events.

Goal 8: Elevate the Arts and Cultural Sectors to Strengthen and Preserve Heritage and History

- In partnership with others, participate in community dialogue and identify potential strategies to honor history and contributions of the African American community in Asheville.
- Work with the African American Heritage Commission to develop community oriented artistic heritage wayfinding which could include a partnership with neighborhoods through soft neighborhood design interventions.
- Continue to inclusively engage community members in policy decisions regarding public art and heritage.
- Partner with NCDOT on creative placemaking efforts, and work with them to promote contextually sensitive design decisions in historical neighborhoods.

NEIGHBORHOOD PLAN

Theme 1: A Livable Built Environment

Goal 1.6: Preserve and Promote Burton Street's History and Culture

The recent influx of newcomers to the Burton Street neighborhood and continued loss of historic resources and longtime residents due to transportation and redevelopment projects has caused a concern that the neighborhood's rich history will be lost over time. The following strategies are necessary to ensure that Burton Street's history and African-American culture are preserved and promoted for years to come.

Strategy 1: Install Burton Street community gateway signs at both the northern (Florida Avenue) and southern (Burton Street) neighborhood entrances

Strategy 2: Install historic markers throughout the neighborhood

Strategy 3: Incorporate a history mural on proposed I-26 Connector sound wall if built

Compatibility with Living Asheville Comprehensive Plan

Goal 3: Promote Great Architecture and Urban Design to Enhance Placemaking

- Work with artists and regional art and architecture students to help improve the quality of the built environment.

Goal 8: Elevate the Arts and Cultural Sectors to Strengthen and Preserve Heritage and History

- Continue to support the identification, stewardship and preservation of historic properties and districts including features of the public realm. Pursue their historic designation as appropriate.
- Devote particular attention to the preservation of areas with historic value to communities of color.
- Continue to inclusively engage community members in policy decisions regarding public art and heritage.

Goal 39: Enhance and Celebrate Asheville's Unique Places and Destinations

- Devote marketing resources to celebrating Asheville's unique places outside of Downtown, including West Asheville, the River Arts District, Biltmore Park, and others.

Theme 2: A Healthy Community

The Burton Street community strives to be a stable, economically and socially healthy neighborhood that fosters the physical health and well-being of its residents through the provision of accessible parks and green spaces; opportunities for social interaction, personal education and development; and a safe environment.

NEIGHBORHOOD PLAN

Theme 2: A Healthy Community

Goal 2.1: Increase Neighborhood Housing Stability

New infill development in the Burton Street neighborhood along with an increase in citywide housing values has created barriers to homeownership for existing residents and significantly reduced housing affordability in the Burton Street neighborhood. Since 2000, median home values in the Burton Street area have tripled from $81,700 to $245,300 in 2016. And Burton Street residents have seen an approximate 54.5 percent on average increase in taxable property value between 2016 and 2017. The median year of homes built in the Burton Street neighborhood is 1950, with 45.3 percent of homes built in 1939 or earlier. Investment is needed to improve and maintain the existing aging housing stock to minimize redevelopment and preserve affordability. The following strategies are critical to stabilizing the escalating real estate tax burden on existing residents and increasing housing affordability in the Burton Street neighborhood.

Strategy 1: Establish and implement programs to reinvest into current residential properties

Strategy 2: Stabilize property tax rates by promoting affordability by design principles in new development

Compatibility with Living Asheville Comprehensive Plan

Goal 7: Celebrate the Unique Identity of Neighborhoods Through Creative Placemaking

- Preserve neighborhood identity with the development and maintenance of housing that is affordable to a wide-range of income levels.
- Explore options for housing rehabilitation and neighborhood stabilization.

Goal 13: Increase and Diversify the Housing Supply

- Promote affordability by design principles and educate the public on these techniques.
- Establish a program for monitoring housing availability for low to very low-income households based on resident demographics and other metrics such as location and distribution.

Goal 14: Promote the Development and Availability of Affordable and Workforce Housing

- Continue to explore community land trust models to support community development and long-term housing affordability.
- Promote and support homeownership assistance programs and services, as well as community development initiatives/assistance programs.

Goal 33: Prioritize Investments Equitably and Fairly Across Neighborhoods

- Ensure that historically marginalized or disadvantaged communities are better incorporated in broader Citywide investment strategies. Empower the City's new Equity Manager with a voice in ensuring this percolates across departments.
- Encourage policies that ensure each neighborhood is providing affordable housing and other public services, where contextually appropriate.

NEIGHBORHOOD PLAN

Theme 2: A Healthy Community

Goal 2.2: Enhance and Preserve Community Resources

The Burton Street neighborhood has an active community center and a robust community garden network. The Burton Street Community Center serves as a hub for all community-related events and activities. However, additional center investments and programming is needed to support the evolving needs of the Burton Street community. The following strategies are critical to the provision of equitable access to healthy food, education and recreational opportunities for Burton Street residents.

Strategy 1: Improve community center infrastructure by including additional parking, a computer lab, center Wi-Fi, create additional community meeting space, and improve existing outdoor basketball courts and playground

Strategy 2: Expand community center programming, to include year-round programs for youth, and educational and vocational training for youth and adults

Strategy 3: Expand community center programming to include produce processing and preservation, nutrition education, and community farmers market/ stand to enhance the community garden program

Compatibility with Living Asheville Comprehensive Plan

Goal 18: Promote Social Equity and Paths to Upward Economic Mobility

- Encourage partners to promote job placement and workforce development services in disadvantaged communities. Provide career path mentoring across all skill and education levels, especially for those living in poverty.
- Work with anchor institutions and flagship employers to develop programs and resources to facilitate capacity building for community leaders in disadvantaged communities and to promote upward economic mobility.
- Encourage community partners to link working-family and single-parent households with affordable childcare support services and afterschool programs and explore strategies to expand preschool access.
- Develop and leverage partnerships and support programs and initiatives that aim to reduce the achievement gap in schools.

Goal 21: Promote Access to Well-Maintained Parks and Open Space for All

- Strengthen park programming citywide and develop unique programs that fit with neighborhood character to ensure new and existing park amenities are in line with neighborhood needs and demographics. Seek out improved engagement strategies to ensure the programming needs of neighborhoods are met equitably.
- Promote community gardens as part of parks design and programming to encourage social interaction and healthy food choices

Goal 32: Improve Community Involvement in Decision-Making

- Maximize public accessibility and utility of existing meeting centers. Over time, create more community meeting spaces by encouraging developers to supply privately owned public space as part of large projects.

Goal 33: Prioritize Investments Equitably and Fairly Across Neighborhoods

- Work with neighborhoods to prioritize community-level improvements.
- Ensure each neighborhood has access to designated indoor and outdoor community gathering spaces.

NEIGHBORHOOD PLAN

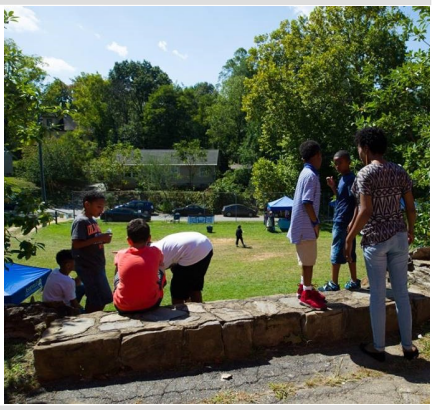
Theme 2: A Healthy Community

Goal 2.3: Improve Access to Parks and Greenspace

Greenspace and community gathering space is limited in the Burton Street neighborhood. Additional parks and open spaces that accommodate all ages is needed to support community events and activities, and to promote healthy living for all Burton Street residents.

Strategy 1: Construct a new park and community gathering space at Smith Mill Creek that will include an access point to the future greenway

Strategy 2: Conduct a feasibility study to consider a future Smith Mill Creek greenway through the Burton Street neighborhood



Compatibility with Living Asheville Comprehensive Plan

Goal 11: Build Out the Greenway Network

- Improve quality standards for greenway development in accordance with best practices.
- Where feasible, link greenways to transit nodes, employment, shopping, schools, parks, and other greenways so that they can be used as a practical alternative to vehicular transportation.

Goal 21: Promote Access to Well-Maintained Parks and Open Space for All

- Foster racial equity in parks and recreation planning and programming, and support policies and programs that aim to close the achievement gap within marginalized neighborhoods.
- Encourage the preservation and improvement of green spaces, lots, parks, gardens, natural waterways and sensitive ecological areas throughout the city.
- Develop more pocket and neighborhood-scale parks citywide within walking distances (quarter mile to half mile) of residences, especially in areas where residents do not currently have access to a park.
- Monitor spending on park maintenance and development to ensure spending is equitable across neighborhoods.
- Enhance neighborhood engagement in the design and maintenance of parks.
- Ensure all city parks are safe and secure and accessible to all levels of ability.

Goal 31: Promote General Health and Wellness

- Promote accessibility to parks and open spaces to encourage their use for health, wellness and recreation. Promote health and wellness activities and programs in these amenities.

Goal 35: Increase Access to Opportunities for Everyone

- Encourage accessibility between neighborhoods with complete streets, sidewalks, trails and greenways.
- Ensure neighborhood facilities such as transit facilities, parks and city services are ADA compliant and universally accessible.

NEIGHBORHOOD PLAN

Theme 2: A Healthy Community

Goal 2.4: Minimize Neighborhood Crime

Like most urban neighborhoods, Burton Street has experienced on-going issues with neighborhood crime. While the Burton Street community has overcome its history of drug infestation, public safety and security continues to be a priority for the Burton Street neighborhood. The following strategies are key to minimizing crime in the Burton Street neighborhood.

Strategy 1: Establish a neighborhood watch program

Strategy 2: Increase police presence and patrolling throughout neighborhood

Goal 2.5: Increase Pedestrian Safety

The lack of adequate pedestrian facilities, poor road conditions and speeding cars that use Burton Street as a cut through route to commercial corridors makes pedestrian activity in the Burton Street neighborhood dangerous. Additionally, the lack of sidewalks and pedestrian crossings along the commercial corridors makes it difficult for pedestrians to safely access transit stops and area businesses. The following strategies are critical to improving pedestrian safety in and around the Burton Street neighborhood.

Strategy 1: Implement traffic calming measures on Burton Street and Florida Avenue including improved speed bumps, and consistent speed limits throughout the neighborhood

Compatibility with Living Asheville Comprehensive Plan

Goal 5 Make Streets More Walkable, Comfortable and Connected

- Coordinate with NCDOT to increase pedestrian comfort and safety along arterial roadways through various design strategies and best practices.
- Create and implement street traffic calming strategies in suitable locations where traffic speeds impact the pedestrian environment.

Goal 29 Enhance the Safety of the Public Realm

- Continue to implement and monitor the citywide program for street calming strategies to enhance safety in select locations in conjunction with NCDOT as applicable.
- Increase enforcement, education and awareness of safety-related regulations to enhance safety for pedestrians, bicyclists and automobiles.
- Coordinate policies for roadway and public realm safety with the needs of local safety officials.
- Construct pedestrian facilities that enhance pedestrian safety, such as crosswalks, pedestrian signals, traffic signals, traffic calming and pedestrian refuge islands, for users of all abilities.

Goal 30 Ensure Public Safety Citywide

- Invest in best practices to ensure public safety citywide. Provide services equitably and fairly throughout the city.
- Continue to implement community-oriented policing models.

NEIGHBORHOOD PLAN

Theme 2: A Healthy Community

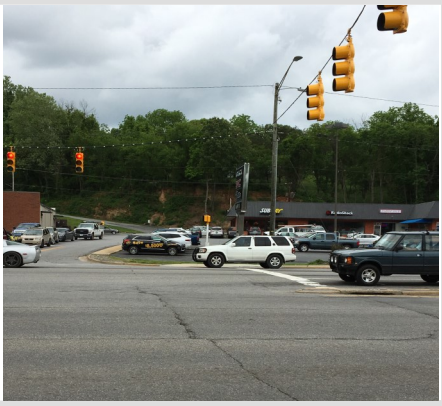
Goal 2.6: Enhance Safety of the Public Realm

There are a limited number of streetlights throughout the Burton Street neighborhood. This, in addition to the heavy tree cover throughout the neighborhood, and intersections with sharp turns or blind corners creates hazardous conditions for motorist traveling the neighborhood at night. And due to the high traffic volumes and configuration of the Florida Avenue and Patton Avenue intersection, navigating, entering and exiting the neighborhood is difficult for motorist. The following strategies are necessary to reduce opportunities for automobile and pedestrian conflicts and increase the overall safety of the Burton Street neighborhood.

Strategy 1: Conduct an assessment of streetlight needs at intersections, dead end streets and cul de sacs throughout the neighborhood

Strategy 2: Improve the Florida Avenue and Patton Avenue intersection by adding pavement markings, and left turn signals





THE BURTON STREET NEIGHBORHOOD PLAN
NCDOT MITIGATION

NCDOT MITIGATION

I-26 Connector Project Summary

The North Carolina Department of Transportation (NCDOT) is proposing improvements to upgrade the I-240 corridor from south of the I-26/I-40/I-240 interchange through the I-240 interchange with US 19-23-74A/Patton Avenue west of the French Broad River so that I-240 can be redesignated as I-26. The Draft Environmental Impact Statement (DEIS) for the I-26 Connector was approved in October 2015. The DEIS analyzed three sections, Sections C, A, and B. Section C included four detailed study alternatives, Alternatives A-2, C-2, D-1, and F-1. Section A included the I-240 Widening Alternative. And Section B included four detailed study alternatives, Alternatives 3, 3-C, 4, and 4-B. In May 2016, Alternative F-1 in Section C, I-240 Widening Alternative in Section A, and Alternative 4-B in Section B were selected as the least environmentally damaging practicable alternative (LEDPA) for the proposed project.

Section A is the widening of existing I-240 from a four-lane freeway to an eight-lane freeway between the I-26/I-40/I-240 interchange and a point just south of the Patton Avenue interchange. Alternative 4B was developed to separate the local Patton Avenue traffic from the I -240 through-traffic, and to minimize the footprint of the design. The Section A Widening and Section B Alternative 4-B will directly impact the Burton Street neighborhood.

Due to the anticipated project impacts to the Asheville community, NCDOT has held numerous meetings with community stakeholders since the project's inception. Beyond the traditional Citizens Informational Workshops, public hearings, and small group meetings, NCDOT has incorporated feedback from several community committees and/or organizations. In 2007 the Burton Street neighborhood was one of five neighborhoods that was identified for additional outreach.

I-26 Impacts Summary

Some residential and business relocations are anticipated within the Burton Street Community as a result of the Section A Widening Alternative. The anticipated number of relocations resulting from Section A include 71 residential, 14 business and one religious institution relocation.

Additionally, Burton Street would experience impacts primarily due to increased noise levels, physical intrusion from the roadway, reduced community cohesion and neighborhood stability, and temporary construction effects. Potential difficulties associated with finding replacement housing within financial means is also anticipated. In Section A, access to Burton Street is proposed to become a right-in/right-out only facility from Haywood Road as a result of an interchange modification at Haywood Road and I-26. Due to the modifications to the Haywood Road interchange, it may be more difficult to access the Burton Street neighborhood and an increase in traffic on Baker Avenue may occur as motorist will likely use it as an alternative to turn left from the neighborhood to Haywood Road.

Burton Street would experience impacts primarily attributed to increased noise levels, physical intrusion, and temporary construction impacts as a result of Section B Alternative 4-B. Additionally, right of way acquisitions related to Sections A and B may affect the amount of parking available for businesses along Burton Street and will result in the displacement of Community Baptist Church.

Burton Street has been identified as a neighborhood that has been impacted by previous transportation-related projects and has the potential to experience recurring impacts from the I-26 Connector project that are considered to be high and adverse.

NCDOT MITIGATION

I-26 Mitigation Strategies

Due to the demographics of the community, Burton Street has been identified as an Environmental Justice population which has experienced recurring impacts, due to having a minority population and/or low-income population that meets the appropriate criteria within Buncombe County to be designated as such. With an Environmental Justice designation, NCDOT can provide additional mitigation opportunities to lessen the burden of the project that other communities are not subject to receive.

To address and remedy the anticipated impacts to the Burton Street Community as a result of the I-26 improvements, the following mitigation strategies will be implemented by NCDOT:

1.2.1 - Improve Existing Sidewalks to Meet ADA Design Standards
1.3.1 - Improve Pedestrian Connections Between Community Resources by Installing a Sidewalk on Downing Street per Agreement of Property Owners
1.3.2 - Improve Sidewalk Connections Between Commercial Corridors, and Include a Pedestrian Path from Buffalo Street to Patton Avenue That will Connect to Future Greenway
1.4.1 - Evaluate Opportunities for New Transit Stops, Such as Near Burton Street and Haywood Road
1.4.2 - Install a Sidewalk along Patton Avenue to Connect Pedestrian Path and Transit Stop
1.5.2 - Install Bus Shelters and Other Improvements at Transit Stops Located Near Burton Street. Consider Neighborhood Specific Designs if Feasible
1.6.3 - Incorporate a Burton Street History Mural on Proposed I-26 Connector Sound Wall if Built
2.2.1 - Improve Community Center Infrastructure by Including Additional Parking
2.3.1 - Construct a New Park and Community Gathering Space at Smith Mill Creek that will Include an Access Point to the Future Greenway
2.6.2 - Improve the Florida Avenue and Patton Avenue Intersection by Adding Pavement Markings and Left Turn Signals

And per the request of the City of Asheville, NCDOT will increase the tree canopy within the interstate buffer along the Burton Street neighborhood where possible.

THE BURTON STREET NEIGHBORHOOD PLAN IMPLEMENTATION

IMPLEMENTATION

Burton Street Community Priorities

During the draft plan comment review period, Burton Street residents were asked to rank the top five plan strategies that they would like to see implemented first. The following strategies were listed as the top priorities of the Burton Street Community:

2.2.1 - Improve Community Center Infrastructure by Including Additional Parking, a Computer Lab, Center Wi-Fi, Creating Additional Community Meeting Space, and Improving Existing Outdoor Basketball Courts and Playground
1.2.1 - Improve Existing Sidewalks to Meet ADA Design Standards
1.1.1 - Support Design Standards and Policies That Aim to Preserve or Enhance Neighborhood Character
2.2.2 - Expand Community Center Programming to Include Year-round Programs for Youth, and Educational and Vocational Training for Youth and Adults
2.3.1 - Construct a New Park and Community Gathering Space at Smith Mill Creek that will Include an Access Point to the Future Greenway
1.6.2 - Install Historic Markers Throughout the Neighborhood
1.6.1 - Install Burton Street Community Gateway Signs at the Northern (Florida Ave.) and Southern (Burton St.) Neighborhood Entrances
2.1.1 - Establish and Implement Programs to Reinvest into Current Residential Properties
2.1.2 - Stabilize Property Tax Rates by Promoting Affordability by Design Principles in New Development

IMPLEMENTATION

Implementation Plan

The following strategies were submitted to the North Carolina Department of Transportation and the City of Asheville for approval. The agency responsible for funding and leading implementation is identified for each strategy.

Implementation of the strategies contained in the plan are subject to available funding and resources by the implementing or coordinating agency.

IMPLEMENTATION

Implementation Plan

THEME 1		Implementing Agency	
	STRATEGY	CoA	NCDOT
1.1.1	Support Design Standards and Policies That Aim to Preserve or Enhance Neighborhood Character	X	
1.1.2	Engage Residents and Other Community Stakeholders in Plans for New Development, Capital Improvements, Amenities and Other Neighborhood Planning Efforts	X	
1.2.1	Improve Existing Sidewalks to Meet ADA Design Standards		X
1.2.2	Enforce Neighborhood No Parking Regulations Where Appropriate	X	
1.2.3	Expand and Improve Existing Stormwater Infrastructure to Minimize Flooding	X	
1.2.4	Maintain Trees and Vegetated Areas Along Public Rights-of-Way	X	
1.3.1	Improve Pedestrian Connections Between Community Resources by Installing a Sidewalk on Downing Street per Agreement of Property Owners		X
1.3.2	Improve Sidewalk Connections Between Commercial Corridors, and Include a Pedestrian Path from Buffalo Street to Patton Avenue That will Connect to Future Greenway		X
1.4.1	Evaluate Opportunities for New Transit Stops, Such as Near Burton Street and Haywood Road		X
1.4.2	Install a Sidewalk along Patton Avenue to Connect Pedestrian Path and Transit Stop		X
1.5.1	Participate in Community Dialogue and Identify Potential Strategies to Honor History and Contributions of the African American Community in the Burton Street Neighborhood	X	
1.5.2	Install Bus Shelters and Other Improvements at Transit Stops Located Near Burton Street. Consider Neighborhood Specific Designs if Feasible		X
1.6.1	Install Burton Street Community Gateway Signs at the Northern (Florida Ave.) and Southern (Burton St.) Neighborhood Entrances	X	
1.6.2	Install Historic Markers Throughout the Neighborhood	X	
1.6.3	Incorporate a Burton Street History Mural on Proposed I-26 Connector Sound Wall if Built		X

IMPLEMENTATION

Implementation Plan Continued

THEME 2		Implementing Agency	
	STRATEGY	CoA	NCDOT
2.1.1	Establish and Implement Programs to Reinvest into Current Residential Properties	X	
2.1.2	Stabilize Property Tax Rates by Promoting Affordability by Design Principles in New Development	X	
2.2.1	Improve Community Center Infrastructure by Including Additional Parking, a Computer Lab, Center Wi-Fi, Creating Additional Community Meeting Space, and Improving Existing Outdoor Basketball Courts and Playground	X	X Parking lot
2.2.2	Expand Community Center Programming, to Include Year-round Programs for Youth, and Educational and Vocational Training for Youth and Adults	X	
2.2.3	Expand Community Center Programming to Include Produce Processing and Preservation, Nutrition Education, and Community Farmers Market/ Stand to Enhance the Community Garden Program	X	
2.3.1	Construct a New Park and Community Gathering Space at Smith Mill Creek that will Include an Access Point to the Future Greenway		X
2.3.2	Conduct a Feasibility Study to Consider a Future Smith Mill Creek Greenway Through the Burton Street Neighborhood	X	
2.4.1	Establish a Neighborhood Watch Program	X	
2.4.2	Increase Police Presence and Patrolling Throughout Neighborhood	X	
2.5.1	Implement Traffic Calming Measures on Burton Street and Florida Avenue Including Improved Speed Bumps and Consistent Speed Limits Throughout the Neighborhood	X	
2.6.1	Conduct an Assessment of Streetlight Needs at Intersections, Dead End Streets and Cul de Sacs Throughout the Neighborhood	X	
2.6.2	Improve the Florida Avenue and Patton Avenue Intersection by Adding Pavement Markings and Left Turn Signals		X

IMPLEMENTATION

Agency Coordination

North Carolina Department of Transportation

NCDOT will coordinate with the City of Asheville, and the Burton Street Community Association whenever neighborhood engagement and input is necessary to the project planning process. The following strategies will require coordination between NCDOT and the City of Asheville for implementation:

1.3.2 - Improve Sidewalk Connections Between Commercial Corridors, and Include a Pedestrian Path from Buffalo Street to Patton Avenue that will Connect to Future Greenway

NCDOT will coordinate with the City of Asheville for the construction of the pedestrian path and sidewalks. The City of Asheville will be responsible for all future maintenance of the pedestrian path and all sidewalks constructed as a result of this plan.

1.5.2 - Install Bus Shelters and Other Improvements at Transit Stops Located Near Burton Street. Consider Neighborhood Specific Designs if Feasible.

NCDOT will coordinate with the City of Asheville to determine appropriate design accommodations for the proposed bus shelters.

2.2.1 - Improve Community Center Infrastructure by Including Additional Parking

NCDOT will coordinate with the City of Asheville to construct additional parking at the Burton Street Community Center to support the implementation of strategy 2.2.1. The City will be responsible for all remaining infrastructure improvements included in this strategy.

The City of Asheville

The following strategies will require coordination between the City of Asheville and NCDOT for implementation:

1.4.1 - Evaluate Opportunities for New Transit Stops, Such as Near Burton Street and Haywood Road

The City of Asheville will coordinate with NCDOT to complete a feasibility study to identify opportunities for the implementation of new transit stops near Burton Street on Haywood Road.

2.5.1 - Implement Traffic Calming Measures on Burton Street and Florida Avenue Including Improved Speed Bumps and Consistent Speed Limits Throughout the Neighborhood

The City of Asheville will coordinate with NCDOT once an improvement plan is developed for additional funding support for its implementation.

The City of Asheville will coordinate with the Burton Street Community Association to engage and inform residents of all plans for strategy implementation.

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