

December 1, 2021

VIA E-MAIL

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Re: I-526 East Lowcountry Corridor Improvements Project

Dear Ms. Riley,

On behalf of the South Carolina Coastal Conservation League and Charleston Moves, the Southern Environmental Law Center submits these comments on the Planning and Environmental Linkages Study (“PEL”) materials for the I-526 East Lowcountry Corridor Project (“LCC EAST project”). Through PEL, SCDOT has defined the LCC EAST purpose to “improve travel time reliability & reduce congestion along I-526 from Virginia Avenue in North Charleston to US 17 in Mount Pleasant.”¹

Our groups have also been engaging in the Draft Environmental Impact Statement (“EIS”) for the I-526 West Lowcountry Corridor Project² (“LCC WEST”) and the Draft Supplemental EIS for the I-526 Mark Clark Extension³ (“Mark Clark Extension”). We look forward to continued engagement on the LCC EAST project as it advances into the NEPA scoping phase.

¹ *LCC EAST Public Information Meeting Handout*, SCDOT (October 2021), https://www.526lowcountrycorridor.com/wp-content/uploads/2021/10/526-EAST-PIM2-Handout_2021-10-11.pdf

² As part of the LCC WEST project, SCDOT has recommended widening I-526 from four to eight lanes from Paul Cantrell Boulevard to I-26 and to make improvements at the I-26/I-526 interchange as well as other interchanges along I-526 from West Ashley through North Charleston.

³ The Mark Clark Extension is a proposed four-lane parkway which would join with I-526 in West Ashley and extend into Johns Island and James Island. The recommended alternative for the Mark Clark Extension, Alternative G, includes a multi-use path along the entire 9.5-mile length of the roadway.

I. SCDOT Must Seriously Consider Alternatives Other than Widening.

At this phase, SCDOT has not meaningfully analyzed alternatives to meet their purpose and need other than widening in proximity to the existing corridor.⁴ With a \$4 billion price tag associated with the LCC EAST proposal, roughly \$308 million per mile, it is crucial that less costly and potentially more effective alternatives are thoroughly assessed. Before selecting a preferred alternative, the agency must consider whether more modest structural improvements, in combination with Transportation Demand Management (“TDM”) (e.g., mass transit, bicycle and pedestrian paths, managed lanes, and other strategies), would meet the purpose and need.

A. *Multimodal and TDM solutions should not be deferred to an uncertain future date.*

Though SCDOT names connectivity and multimodal opportunities as two of seven goals for LCC EAST,⁵ the PEL study does not consider nonstructural alternatives such as multimodal transportation and TDM. SCDOT has stated that the LCC EAST and LCC WEST projects are the last possible opportunity to widen I-526, and that, if completed, the eight-lane roadway will still be over capacity at peak hours. According to the State Highway Induced Frequency of Travel (“SHIFT”) calculator,⁶ adding 13 miles of interstate in Charleston will generate 57-85 million *additional* vehicle miles traveled per year. This induced demand means that within 20 years of project completion, the entire interstate may be congested to levels before the widening, even outside of peak hours. Drivers will face the same traffic (or worse) after LCC East is built, and both taxpayers and the environment will be far worse off. Multimodal solutions are therefore needed to address future congestion, and should be developed in tandem with the proposed widening to ensure compatibility, reduce redundant design and construction, and allow for learning and adaptation over time.

We expect SCDOT to take concrete steps now, before completion of the LCC WEST and LCC EAST projects, to develop and expand TDM in this system that will take advantage of technological upgrades to I-526. We believe the most pragmatic approach is a combination of investing in “robust express bus service” and park-and-rides for Corridor G (stretching along the current I-526 route from West Ashley to Mount Pleasant), as recommended by the BCD Council of Government’s (“BCDCOG”) Regional Transit Framework Plan; investing in bike-ped linkages to facilitate safe connections from the I-526 multimodal river crossings to destinations (employment hubs, retail centers and neighborhoods) along the corridor; and incorporating Transit Systems Management and Operations (TSMO) options, including managed lanes,

⁴ The traffic projections in the virtual public meeting materials do not provide substantive detail to support SCDOT’s traffic projections and travel time estimations. In order for the public to meaningfully engage with this process, SCDOT must show their math on the traffic projections and other calculations used to justify the selection and screening of alternatives.

⁵ LCC EAST Handout, *supra* note 1, at 2.

⁶ *State Highway Induced Frequency of Travel Calculator*, ROCKY MOUNTAIN INSTITUTE, <https://shift.rmi.org/>.

enhanced lane markings and traveler information postings, and reserving shoulders for buses-only during rush hour. These strategies need to be carried through the planning process now and integrated into project design, not after the corridor reaches an unsatisfactory level of service yet again.

Regional transportation plans, including the RTFP and LRTP, provide a roadmap for implementing such an express bus service on I-526, while the Lowcountry Rapid Transit Line, the region’s largest ever investment in transit, will intersect I-526 at Rivers Avenue with stations proposed at Remount Road and Mall Drive, providing connectivity to a potential bus route along I-526.⁷ It is not enough for the LCC EAST project to simply include shoulders wide enough to accommodate future bus lanes—SCDOT must demonstrate a commitment to mass transit in the near-term, in line with its letter vowing more effective and expanded transit services.

B. SCDOT should fund and construct complete bicycle and pedestrian facilities as a core component of the LCC EAST project.

SCDOT has committed to providing a 14-foot multi-use path over all river crossings in the I-526 Lowcountry Corridor project, including the crossings of the Cooper and Wando Rivers for the LCC EAST project. While a positive design feature, these river crossings are isolated from other safe multi-use infrastructure. SCDOT must offer a genuine mobility alternative for residents and commuters, and thus reduce congestion on I-526, by connecting to a larger bicycle and pedestrian (“bike-ped”) path along the entire proposed LCC EAST and LCC WEST corridor. This is also part of a larger TDM strategy.

SCDOT identifies multimodal transportation, including bike-ped, as one of seven goals in the PEL study.⁸ While the LCC EAST alternatives do not currently integrate multimodal transportation throughout the corridor, the goal outlined by SCDOT is consistent with the overwhelming will of Charleston communities. Regional transportation plans have long prioritized bike-ped accommodations on I-526. The WalkBike Berkeley-Charleston-Dorchester (“BCD”) plan—developed in 2017 by municipalities, agencies, and stakeholders such as the City of Charleston, the Town of Mount Pleasant, and the City of North Charleston—recommends a shared use path along I-526 (from Paul Cantrell Boulevard to 3,350 feet east of Virginia Avenue) for Phases 1 and 2 of implementation.⁹ The BCDCOG adopted the recommendation in its 2040 Long-Range Transportation Plan (“LRTP”), which contemplates that path construction would coincide with an I-526 roadway project such as the proposed widening.¹⁰ Per the LRTP, this complementary approach would create funding efficiencies by avoiding redundant design and

⁷ See <https://lowcountryrapidtransit.com/about.html>.

⁸ LCC EAST Handout at 2. (Multimodal: Enhance movement through the corridor through other modes such as carpool, transit, walk, or bike.)

⁹ *WalkBike BCD*, BCDCOG (2017), Appendix D at 2, 12, <https://www.walkbikebcd.com/>.

¹⁰ *LRTP Chapter 3: Pedestrian and Bicycle Mobility*, BCDCOG, at 106–08, <https://www.bcdcog.com/transportation/planning/long-range-transportation-plan/>.

construction. It is important to note that SCDOT participated in development of the WalkBike BCD plan and did not express opposition to the shared use path or indicate that it would be unlawful, unfeasible, or otherwise inadvisable.

Per the SCDOT February 4, 2021 Departmental Directive 28 on Complete Streets,

All Department projects that are currently in the project development phase at the effective date of this Directive should be reviewed to determine if multimodal accommodations should be incorporated into the proposed project based on the guidance above [pages 2-3 of Directive]. It is the Department's intent to quickly adapt these new guidelines to existing projects in the project development pipeline, short of requiring new permits or additional right of way impacts where right of way has already been secured from landowners.

Far from solely a recreational asset, a shared use path along I-526 has the potential to materially improve connectivity and mobility in the region and thus advance the purpose and need of the LCC EAST project and the goals of SCDOT's Departmental Directive. The BCDCOG's Regional Transit Framework Plan ("RTFP") identifies I-526 as having high current and future residential, commercial, and employment densities, as well as a high density of transit-reliant communities. As such, the corridor is identified as a priority transit route. Transit access, complemented by bike-ped accommodations, would offer residents and workers in the area a mobility alternative that would relieve congestion on the interstate highway. Recognizing the bike-ped path's utility, the BCDCOG, municipalities, and other stakeholders have continuously pushed for its inclusion in both the LCC EAST and LCC WEST projects. In September and October 2020, the BCDCOG and CHATS Transportation Policy Committee, adopted resolutions requesting that "SCDOT and FHWA include connected bicycle, pedestrian and public transit infrastructure in the design, funding and installation of both the LCC EAST and WEST projects."¹¹

II. The Major Impacts to Wetlands, Floodplains, and Other Resources Must Be Appropriately Avoided, Minimized, and Mitigated.

Each of the "reasonable alternatives" considered in the PEL study, aside from the No Build alternative, would inflict massive damage to wetland and floodplain resources. The seven alternatives considered by SCDOT propose a range of 167 acres to 179 acres of wetland impacts.¹² Additionally, each alternative would impact at least two public park facilities and require dozens of residential and commercial relocations.¹³

As a threshold matter, nearly 170 acres of destroyed wetlands is an unacceptable

¹¹ *Lowcountry Corridor Resolution*, BCDCOG (September 28, 2020).

¹² LCC EAST Handout at 6.

¹³ *Id.*

“minimum” impact, particularly for a mere 13 miles of roadway. Due to the enormous scale of the proposed impacts, SCDOT must work to further avoid and minimize damages to the ecosystem and community resources. Additionally, these impacts cannot be considered in isolation; the LCC EAST impacts represent just a portion of damages associated with planned updates and expansions of the I-526 corridor. The cumulative impacts of the LCC EAST, LCC WEST, and Mark Clark Extension projects pose a disastrous threat to the Charleston Harbor watershed, and these cumulative damages must be thoroughly considered by SCDOT.

A. Ensure the Least Damaging Practicable Alternative is selected.

As proposed, the project will have significant wetland impacts; therefore, this project must comply with the Clean Water Act Section 404(b)(1) Guidelines (the “Guidelines”). 33 C.F.R. § 320.4(a)(1). The Guidelines provide significant protection to wetlands, and the degradation or destruction of wetlands “is considered to be among the most severe environmental impacts covered by these Guidelines.” 40 C.F.R. § 230.1(d). The Guidelines state that the Corps may not permit a discharge of dredged or fill material if there is a less damaging “practicable alternative,” or if the discharge will “cause or contribute to significant degradation of the waters of the United States.” *Id.* § 230.10(a), (c).

In applying the practicable alternative standard, the Corps must consider the project’s “basic purpose.” *See id.* § 230.10(a)(3). If the project’s basic purpose is not water dependent, the Guidelines apply a presumption that a practicable alternative with less adverse environmental impact on wetlands exists. *Id.* SCDOT’s stated project purpose is not water dependent. 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 purpose.” *Id.* § 230.10(a)(2). Where a discharge is proposed for a wetland or other special aquatic site, all practicable alternatives to the proposed discharge that do not involve a discharge to the wetland “are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.” *Id.* § 230.10(a)(3). The burden is on SCDOT to rebut the presumption by “clearly demonstrat[ing]” that a less damaging practicable alternative is not available. *See id.*

SCDOT is required to take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States. *See* 40 C.F.R. § 230.91(c)(2). In this early project stage, it is crucial that SCDOT evaluate all possible alternatives that would further avoid and minimize impacts to wetlands, including alternative alignments, port barging, and multimodal transportation solutions.¹⁴

¹⁴ Additionally, under each of the alternatives considered, a significant amount of land would be converted from pervious to impervious surface, generating new runoff. In general stormwater modeling practice, on average 15% of water that falls on pervious surfaces will result in runoff, whereas 90% of water that falls on impervious surfaces will generate runoff. SCDOT must incorporate low-impact development stormwater control methods into the LCC-

Given the significant public benefits wetlands provide, SCDOT must avoid wetland impacts to the greatest extent possible. Coastal wetland systems, such as those that this project will fill, provide important wave buffering and flood retention services for coastal communities and should be protected to maintain these hazard mitigation services.¹⁵ An assessment following Hurricane Sandy found that coastal wetlands helped affected states avoid \$625 million in direct damages during the storm.¹⁶ The Houston area lost 4 billion gallons worth of flood retention after losing 5.5 percent of its freshwater wetlands between 1992 and 2010.¹⁷ Charleston's Church Creek basin lost 24 percent of its wetland area from 1996 to 2010, and the community's flooding woes became a recurring problem over that time period. Maintaining existing wetlands so that they continue to provide natural flood storage and storm buffering helps avoid taxpayer-funded flood control projects in the future. In light of the stronger storms and sea level rise the South Carolina coast is already experiencing due to climate change, it is crucial to preserve wetlands and their services to the greatest extent possible.¹⁸

B. SCDOT Must Consider the Cumulative Impacts of LCC East, LCC West, and the Mark Clark Extension.

The LCC EAST impacts represent just a portion of damages associated with proposed updates and expansions of the I-526 corridor. As proposed, the 9.7-mile LCC WEST recommended preferred alternative would impact 48.3 acres of wetlands and 3,634 feet of freshwater streams, require 113 property relocations (including 81 residential displacements and 17 commercial displacements), and cost \$1.43 billion. The 9.5-mile Mark Clark Extension is projected to cost about \$772 million (in 2019 dollars; the final cost will likely be much higher), destroy over 31 acres of wetlands, and impact 7,486 feet of freshwater streams, marine tributaries, and tidal ditches.

Combined, these three projects would damage nearly 250 acres of wetlands within the Cooper River and Stono River watersheds surrounding Charleston Harbor. This is an enormous

EAST design in order to mitigate for this additional runoff and the associated increase in pollution. See https://www.bhamgov.org/A1_Runoff%20Potential.pdf and <https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/SPU/SPU%20-%20BMP%20Manual%20Documents/BMPMan-Ch03-SWCals-20090616-DWQ-SPU.pdf>.

¹⁵ See W.J. Mitsch et al., *Ecosystem services of wetlands*, 11 INT'L J. OF BIODIVERSITY SCI., ECOSYSTEM SERVS. & MGMT., no. 1, at 1–4 (2015),

<https://www.tandfonline.com/doi/full/10.1080/21513732.2015.1006250?scroll=top&needAccess=true>; A. Bullock & M. Acreman, *The role of wetlands in the hydrological cycle*, HYDROLOGY AND EARTH SYS. SCI., no. 3, at 358–89 (2003), <https://hal.archives-ouvertes.fr/hal-00304786/document>; M. Acreman & J. Holden, *How wetlands affect floods*, 33 WETLANDS, no. 5, at 773–86 (2013), <https://link.springer.com/article/10.1007/s13157-013-0473-2>.

¹⁶ S. Narayan et al., *The value of coastal wetlands for flood damage reduction in the Northeastern USA*, SCIENTIFIC REPORTS, at 1 (2017), <https://www.nature.com/articles/s41598-017-09269-z>.

¹⁷ J.S. Jacob et al., *Houston area freshwater wetland loss, 1992-2010*, (2015), <http://tcwp.tamu.edu/files/2015/06/WetlandLossPub.pdf>.

¹⁸ U.S. Global Change Research Program, *Precipitation Change in the United States*, CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT (2017).

loss and is further justification for SCDOT to complete additional avoidance and minimization of wetland resources in each of these projects. Considering these cumulative impacts, we urge SCDOT to reduce wetland damages through alternative modes of transportation, described above, that could significantly reduce project impacts.

III. SCDOT Must Show its Work to the Public and Account for Induced Effects

SCDOT has not disclosed any models or traffic data to substantiate its bold claims about traffic benefits from adding lanes to LCC East. Without demonstrating to the public that road widening will, in fact, serve the project purpose, there is no point in proceeding to the NEPA process. Reduced traffic does not automatically flow from road expansion—indeed, the opposite is quite often the case.

SCDOT’s traffic models typically ignore the established concepts of induced development and traffic that tend to follow highway builds in congested urban areas. These phenomena swallow-up increased capacity with increased road usage, leaving drivers in the same traffic as before the new road build and taxpayers and the environment much worse off. As Professor Susan Handy explains, “adding capacity decreases travel time, in effect lowering the ‘price ’of driving; and when prices go down, the quantity of driving goes up. Induced travel counteracts the effectiveness of capacity expansion as a strategy for alleviating traffic congestion”¹⁹

By contrast, the increased congestion predicted on I-526 East without the build alternatives may have several positive effects on land use and transportation patterns that must be accounted for. For example, increased congestion can induce business and labor growth closer to residential areas, which minimizes commutes in the long run and makes maximal use of existing infrastructure. Increased congestion on I-526 East may also channel residential and business growth towards the Lowcountry Rapid Transit Line and away from sprawled developments serviced or created by an I-526 East expansion. Channeling residential and business growth towards mass transit systems would combat sprawl, decrease reliance on inefficient single-user vehicles, reduce vehicle miles traveled and greenhouse gas emissions, make maximal use of existing infrastructure, and avert the myriad of ecological harms that would flow from expanding I-526 East. “No build” options, including mass transit and fostering more concentrated development, offer real solutions to Charleston’s traffic problems; “build” options typically offer illusory benefits.

In short, SCDOT must disclose the data and methodology behind its traffic predictions, and fully account for induced traffic and development sprawl for all “build” and “no build” alternatives.

¹⁹ Susan Handy, *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion* at 1, Nat’l Ctr. for Sustainable Transp. (Oct. 2015) <https://escholarship.org/uc/item/58x8436d>.

IV. Conclusion

We respectfully request that, as SCDOT advances the LCC EAST project to the NEPA phase, the agency consider building TDM, multimodal solutions into the project and seek to avoid and minimize harm to surrounding communities and wetlands. In addition, pursuant to the Clean Water Act and state law, the SCDOT must ensure that impacts to wetlands and other waters are appropriately avoided, minimized, and, lastly, mitigated. Thank you for your consideration of these comments.

Sincerely,



Christopher K. DeScherer
South Carolina Office Director



Jenny Brennan
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