



West Virginia Parkways Authority
P. O. Box 1469
3310 Piedmont Road
Charleston, WV 25325-1469

Re: Consulting Engineers Report for the West Virginia Parkways, Economic Development and Tourism Authority and Related Certification

Gentlemen:

In connection with its Consulting Engineer's Report (the "Report"), HNTB Corporation ("HNTB"), Consulting Engineer for the West Virginia Parkways Authority (the "Authority") hereby certifies HNTB's estimates of needs as set forth in the Report, including its estimates of the following:

(1) Operating Expenses and Renewal and Replacement requirements for the West Virginia Turnpike for fiscal years 2020 through 2050, as set forth more particularly in Table 1. Table is attached hereto and made part of this letter and certification as if set forth in full herein;

(2) the Renewal and Replacement requirements for the West Virginia Turnpike assuming adoption by the Authority of the new toll schedule recommended by the Authority's Traffic Engineer, CDM Smith, in its 2018 Revenue Bond Study (the "CDM Smith Study"), as set forth particularly in Table 2 of the Study, which Table is attached hereto and made a part of this letter and certification as if set forth in full herein; and

(3) the minimum capital amounts necessary, in our professional engineering opinion, to allow us to certify today that the West Virginia Turnpike is being operated and maintained in a sound and economical manner consistent with sound management practices and principles and that it is being kept in good repair, working order and condition, as set forth particularly in Table 3 of the Study, which Table is attached hereto and made a part of this letter and certification as if set forth in full herein.

As more particularly discussed in the 2018 Revenue Bond Study, HNTB has estimated and hereby certifies both the Renewal and Replacement requirements for the West Virginia Turnpike for fiscal years 2020 through 2050 under the proposed toll schedule and assuming the adoption by the Authority of the new toll schedule recommended by CDM Smith. The HNTB Consulting Engineers Report is attached hereto and made a part of this letter and certification as if set forth in full herein.

HNTB further hereby certifies its estimates of Operating and Capital Needs for fiscal years 2020 through 2050, as set forth in Tables 1 and 3, respectively, of its Report. Capital Needs set forth in Table 3 of the Report are, in the professional engineering opinion of HNTB, the amounts necessary in order for the Authority to address needed repairs so as to allow HNTB to certify that the Authority will be able to satisfy the Good Repair Covenant under the Indenture in fiscal years 2019 through 2050.

Very truly yours,

Randolph T. Epperly, Jr., P.E.
Vice President

RTE/sde

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HNTB Corporation
Consulting Engineer's Report

Table No. 1

Year	Estimated Operating Expenses (In thousands)
2019	\$43,093
2020	43,955
2021	44,834
2022	45,731
2023	46,645
2024	47,578
2025	48,530
2026	49,500
2027	50,490
2028	51,500
2029	52,530
2030	53,581
2031	54,652
2032	55,746
2033	56,860
2034	57,998
2035	59,158
2036	60,341
2037	61,548
2038	62,779
2039	64,034
2040	65,315
2041	66,621
2042	67,954
2043	69,313
2044	70,699
2045	72,113
2046	73,555
2047	75,026
2048	75,794
2049	76,570
2050	77,353

HNTB Corporation
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Table No. 2

Year	Estimated Renewal & Replacement Requirements (In thousands)
2019	\$16,988
2020	18,350
2021	18,202
2022	18,167
2023	18,396
2024	18,898
2025	19,683
2026	20,215
2027	20,632
2028	21,192
2029	23,303
2030	24,304
2031	27,582
2032	25,466
2033	26,436
2034	28,029
2035	27,238
2036	27,976
2037	27,715
2038	28,468
2039	29,243
2040	30,460
2041	31,282
2042	32,129
2043	33,002
2044	33,900
2045	34,826
2046	35,522
2047	36,233
2048	36,595
2049	36,961
2050	37,331

Table No. 3

HNTB Corporation
Consulting Engineer's Report

Year	Capital Needs
2019	\$52,200
2020	34,882
2021	33,748
2022	46,640
2023	48,520
2024	50,868
2025	34,543
2026	52,579
2027	36,646
2028	37,746
2029	38,878
2030	40,044
2031	41,246
2032	42,483
2033	50,758
2034	45,070
2035	46,422
2036	47,815
2037	49,249
2038	50,727
2039	52,249
2040	61,816
2041	55,431
2042	57,094
2043	58,806
2044	60,571
2045	62,388
2046	64,259
2047	75,187
2048	64,242
2049	65,329
2050	66,281