



Smith Engineering & Associates, LLC
354 Bartlett Circle NE
Cleveland, TN 37312
(919) 270-3227

307794

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January 11, 2024

Mr. Martin Oberman (Chairman)
Surface Transportation Board
395 E Street S.W.
Washington, DC 20423-0001

RE: Docket No. EP 774 (Sub-No. 1), Request for Nominations for Candidates for Membership on the Passenger Railroad Advisory Committee (PRAC)

Dear Mr. Oberman:

I currently serve as the President of **Smith Engineering & Associates, LLC (dba SEA)** and would like to nominate myself for PRAC. I am requesting the opportunity to serve in the role of **At-Large Representative (Consulting- Commuter Rail Planning/Design)** for a term of three years.

I have over 27 years of transportation planning, design, and project management experience and have been involved in multiple large scale commuter rail projects. These projects are as follows:

Alberta Province – HSR Feasibility & Marketing Study

Role in Project: Prime Consultant

Client: Integrated Travel Research and Development, Inc.

Construction Fee: \$20M

Project Description: Write a feasibility and marketing study that examines the need for high speed rail between Calgary and Edmonton, Alberta along the CPKC corridor. If deemed feasible, SEA will include a review for a Calgary to Shelby, MT route that allows for passenger interchange with AMTRAK. Tasks include: ridership study, o/d study, station siting, review of existing track infrastructure, fare box study, trans cad model update, and more. *SEA recently applied for a \$10M infrastructure grant for IT. If awarded, IT will be purchasing rolling stock by Aug/Sept '24 to begin pilot operations within the 4th quarter of this year.*

TTA HSR Project

Role in Project: Transportation Engineer II

Client: Triangle Transit Authority

Construction Fee: \$880M

Project Description: Plan and design for TTA sections 1-5 connecting Chapel Hill, Durham, and Cary to downtown Raleigh, NC. The project utilized existing NCRR ROW with double tracking required throughout the corridor. Tasks included: EIS, ridership and farebox study, station/platform design, at grade crossing study and design, MOW track design, and more.

CATs North Corridor Project

Role in Project: Transportation Engineer II

Client: Charlotte Area Transit

Construction Fee: Unknown

Project Description: Plan and design for the North Corridor Commuter Rail Project connecting Matthews, NC and all points in between to downtown Charlotte, NC. The project utilized existing NS ROW and trackage. Tasks included: station/platform design, at grade crossing study and design, siding track design, and more.

ARC Tunnel Project

Role in Project: Lead Transit Engineer/PM

Client: AMTRAK, LIRR, NJT, PATH, and MTA

Construction Fee: \$13B

Project Description: Access to the Regions Core (ARC Tunnel) project was to design two new tunnels underneath US1/9 and the Hudson River going to the new 2nd Ave Subway Station. It also included a major upgrade at Secaucus Station to remove the need for Main Line, Bergen County Line, and Pascack Valley Line transfers. Project was taken over and renamed by AMTRAK (Gateway Project).

In conclusion, I look forward to serving as both a member and representative for PRAC where I will have the capacity to assist in all of our nation's passenger rail endeavors. If you have any questions or require additional information, please call me at (919) 270-3227, or at smith.eng.assc@gmail.com.

Very Truly Yours,

Smith Engineering & Associates, LLC



Brian P. Smith, PE, PTOE, PMP
President

Attachments: IT Nomination Letter, Resume, Firm Statement of Capabilities

Brian P. Smith, PE, P. Eng, PTOE, PMP

T: (919) 270-3227

E: brian_52376@yahoo.com

Title:

President

Years of Experience:

27 yrs

Education:

M.S.— *Transportation Design & Operations*, University of Memphis, In Process
Airport Planning & Design
Highway Design
Traffic Operations
Transportation Policy/Funding

B.S.— *Civil Engineering*, North Carolina State University, 5/2001

Professional Registrations:

Professional Engineer-VA
VA-0444848 (inactive)
Professional Engineer-NC
NC-38990 (inactive)
Professional Engineer-GA
GA-048961 (active)
Professional Engineer-TN
TN-111352 (active)
Professional Engineer-MS
MS-20232 (active)
Professional Engineer-TX
TX- 122960 (active)
Professional Engineer-LA
LA- 40842 (active)
Professional Engineer Canada-
P.Eng (perm) 100170413

Professional Certification:

CSX/NS Training for RR/R/W
Encroachment
Professional Traffic Operations
Engineer (PTOE)
Advanced Workzone Training
(VA/FHWA)
Project Management
Professional (PMP)

Objective:

To serve in a role as a VP of Infrastructure. This is a role that fully utilizes my engineering design and project management experience.

Experience:

Smith Engineering & Associates, (8/2010 to current) Cleveland, TN

Position-President/ PM

Researching & writing proposals for RFP's.
Selecting teaming partners and/or teaming with other partners.
Developing relationships with various state, municipal, and private clients.
Engineering prequalified in TN, GA, and TX.
First DBE firm in the history of TDOT to make it to TDOT Commissioner for a vote.
Shortlisted on 4 TDOT projects in 2022 as a prime.

TRC Engineers, Inc.- (10/2017 to 2/2020) Jackson, MS, Position-Office Practice Lead

Served as Office Practice Lead, supervised a staff of 3, 1 engineer and 2 technicians, and generated \$82k in project work within 2 yrs, \$500k in planning studies, and another \$60M in construction costs. Created innovative methods to generate design work and market a new firm to MS.

IMS Engineers- (2/2016 to 6/2017) Jackson, MS, Position-Regional Manager

Served as Regional Manager, supervised a staff of 7, 2 engineers and 5 technicians, and generated \$225k in project work.
Obtained 12 pre-certifications for the firm with TxDOT.
Served as the Deputy Pgm for the City of Jackson 1% and oversaw the TIGER projects.
Created Claiborne County Port Master Plan.

Warnock & Associates, LLC, (3/2015 to 1/2016) Canton, MS

Position-Transportation Manager

Created marketing information for firm.
Created new rules concerning charging to admin time that generated the firm in excess of 15k within one week.
Responsible for the firm getting prequalified with the capital city.
Determined 2 strategic pursuits and was shortlisted on one.
Generated over 250k in revenue within an 8 month period.
Created new discipline for firm, Traffic Engineering and relative tasks.
Supervised a staff of 7, 2 engineers, and 5 technicians.

ICA/Florence & Hutcheson, (3/2011 to 10/2012) Hernando, MS

Position- Sr. Transportation Engineer/PM

Supervising and reviewing the work of a remote staff of over 13 individuals.
Reviewing Traffic Control, Signing and Marking, Traffic Modeling, & Signal Plans
Reviewing Roadway, Storm water, Site, E&S, and Utility Plans.

URS, (11/07 to 8/2010) Richmond, VA, Position- Sr. Transp. Eng/PM

Managed a staff of 12, 7 engineers and 5 cadd techs.
Researching to find applicable RFP's to appropriate skills per office.
Determining Go-No Go using URS RFP criteria.
Reviewing, writing detailed scopes of work, and determining man hours.

Brian P. Smith, PE, P. Eng, PTOE, PMP

T: (919) 270-3227

E: brian_52376@yahoo.com

Training:

AASHTO Green Book
LMS Project Management
Oracle & Primavera
Microstation v8i
OPENROADS
Autoturn
ARCVIEW GIS
AaSidra
SYNCRO
ASCE Dam/Levee Safety

Design Specialties:

Complex Interchange Design
Urban Freeway Design
Traffic Control
Traffic Analysis/Modeling
Signal Design

Key Qualifications:

Project Management
Rail Design
Traffic Engineering
Roadway/Interchange Design
River Container Port Design
Utility/Site/Civil Design

Professional Affiliations:

COMTO
Institute of Transportation
Engineers (ITE)
American Society of Civil
Engineers (ASCE)
American Society of Highway
Engineers (ASHE)

URS, (11/07 to 8/2010) Richmond, VA, Position- Sr. Transp. Eng/PM (cont.)

Signing contract documents from the client for RFP's won.
Creating written supplements, and invoices to clients using ORACLE.
Managed man hours used on projects with ORACLE.
Managed project schedules using Primavera.
Managed various design projects thru construction administration.

AECOM/DMJM Harris, (11/06 to 11/07) Islin, NJ, Position- Project Eng. III

AASHTO Green Book Checking/reviewing subcontractors and work done in house.
Training & instructing staff on various projects.
Serving as a technical lead on two major projects.
Performed design work on multiple projects under the supervision of a PM.
Supervised a staff of 4 cadd techs.
Managed various disciplines and held coordination meetings.

Parsons Brinckerhoff, (6/04 to 11/06) Raleigh, NC, Position- Eng. II

Designed various projects and created engineers estimates.
Supervised two cadd techs and attended project kickoffs.
Responsible for specifications and quantities on one major rail project.
Addressed client comments and recommendations.

NCDOT-Roadway Design, (6/01 to 6/04) Raleigh, NC, Position- Eng. I

Interned, COOP-ed, and was on the NCDOT Training Program ('94 to '00).
Designed various interstates, and interchanges within NC.
Created final roadway plans and engineers estimate.

NCDOT-Signals/Geometrics & Congestion Management (9/00 to 6/01), Position- Tech III

Designed & modeled over 13 different intersections in NC.
Created engineers estimates for these intersections.
Performed spot safety studies and crash analysis at intersections.
Provided safety recommendations for intersections.

Addendum-Work & Project Experience-Available upon Request

NCEES has verified all work history and a copy of this NCEES report can be provided via NCEES records division.

Brian P. Smith, PE, P. Eng, PTOE, PMP

T: (919) 270-3227

E: brian_52376@yahoo.com

Work Experience (Addendum):

Project Management Experience

Mr. Smith has experience performing the duties of a pm/deputy pm. His project management duties have included, writing scopes of work, determining man hour estimates, determining engineering costs, invoicing, determining percent complete, client and contractor interaction/meetings, conducting site evaluations, plan checking, and response to client's comments. Managed, directed, and instructed a staff of 13 design engineers and 4 cadd technicians on various transportation projects. Mr. Smith has also written and reviewed various contract documents, special provisions, and created numerous special design drawings for roadway projects. He has worked with FHWA and state agencies on addressing key project problems. Mr. Smith has tracked construction progress/scheduling, reviewed sub consultant agreements, written and reviewed contract modifications and change orders, and has negotiated cost/fee proposals from sub consultants.

Site/Civil/Roadway Design Experience

Mr. Smith is an experienced transportation engineer. His roadway design duties have included writing survey requests, determining typical sections, laying out alignments and designing various types of interchanges and roadway facilities. Mr. Smith also has experience in calculating sight distance, determining superelevations, calculating quantities, using MicroStation to create plan sheets, and using COGO and GEOPAK to aid in determining earthwork quantities. He has used design software packages such as MicroStation, COGO, GEOPAK, and INROADS to assist in developing accurate design plans. He has experience in using past and current versions of established design guidelines, such as the AASHTO-Green Book and Roadway Construction Standards, Roadway Specifications, and Roadway Design Manuals published by DOTD, MDOT, NCDOT, FDOT, VDOT, NJDOT, NJTA and NYSDOT. Mr. Smith also uses the training he has received, such as AASHTO Green Book training, MicroStation v8, GEOPAK (basic and intermediate) training, GEOPAK Drainage, and INROADS (intermediate) training to keep current on design standards and technologies. Specialty areas of Mr. Smith's experience include interchange design, roadway widening, and bridge replacement design projects.

Traffic Engineering Experience

Mr. Smith has also developed experience in traffic engineering, including traffic signal design (incorporating phasing, timing, loop locations, turning radius, stop bar locations, pedestrian crossings, turning lanes, and storage lengths), roundabouts and "superstreet" intersections. He has used innovative congestion management and ITS techniques in optimizing operational effectiveness of intersections. His signing and pavement marking experience has included the production of signing and pavement marking plans, locating existing signs and pavement markings as well as creating and determining the placement of new signs and pavement markings. Mr. Smith's experience with traffic control has included the creation of traffic control plans, determining the location of traffic control devices, creating onsite and offsite detours, and developing traffic control phasing notes. He has used relevant guides in his traffic control experience, including the NCDOT- Traffic/Signal Design Guide, DOTD, NCDOT, VDOT, and NYSDOT WorkZone Safety Manuals, MUTCD 2003, and the Highway Capacity Manual (HCM). Mr. Smith has analyzed numerous transportation facilities using traffic analysis software packages such as Synchro, Highway Capacity Software 2000 (HCS), HighCap 2000, Transit 7F, AaSIDRA, and FREEVAL.

Rail Design Experience

Mr. Smith is an experienced rail engineer. His rail design duties have included writing survey requests, determining typical sections, laying out alignments and designing both mainline, spur, and siding facilities. Mr. Smith also has experience in calculating sight distance at grade crossings, determining superelevations, calculating quantities, using MicroStation to create plan sheets, and using COGO and GEOPAK to aid in determining earthwork quantities. He has used design software packages such as MicroStation, COGO, GEOPAK, and INROADS to assist in developing accurate design plans. He has experience in using past and current versions of established design guidelines, such as AREMA, CSX, & NFS.

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Work Experience (Addendum cont.):

Utility Design Experience

Mr. Smith has experience in creating utility construction and utility conflict plans for local municipalities, and state transportation projects. Duties have included but not been limited to the following: creating horiz/vertical alignments for storm sewer and waterlines, preliminary and final plans, estimates, conducting utility owner/stakeholder coordination meetings, creating utility std drawings, reviewing/plan checking utility plans, pipe sizing, and placing fire connections. Reviewed existing sewer video of existing lines to determine which lines required full replacement, rehabilitation using existing lines, or do nothing. Located cleanouts using smoke testing. Software used: MSACCESS, Adobe, MicroStation, and GEOPAK (Utility Pkg).

Port Design Experience

Mr. Smith has experience in planning and design of inland river ports. His specialty is inland river container and railports. He has worked with various agencies such as MDOT, USACE, FHWA, CPKC, USDA, and CCPC.

Project Experience:

Project Experience with Smith Engineering & Associates, LLC; (8/2010 to current) Chattanooga, TN; Position– President

- **UNC-W – Wilmington, NC.** Two year open ended design contract. Maximum contract value **\$500k**.
- **Gas Station TIA- Byram, MS,** Performed traffic counts, TRIP GEN, Signal Warrant, and TIA Studies for private development. Engineering fee: \$25k
- **I-35 Cap Ex Project– Austin, TX,** Project consists of designing a depressed freeway within the CBD. Design is estimated to last 3 years. SEA is subcontracted to address the telecom design. Construction costs \$1.7B; Design Fees: \$170M
- **Austin Public Schools IDIQ– Austin, TX,** Projects consists of upgrading over 108 schools within Austin over the next 3 years. SEA is a subcontractor addressing site/civil and traffic engineering design items. Served as PM. Reviewed site plan and roadway design for the new facility. Contract value: \$2.44B

Project Experience with TRC Engineers; (10/2017 to current) Jackson, MS; Position– Office Practice Lead

- **Chickasaw County Economic Development– Chickasaw County, MS,** Responsible for contract win, management and project direction for 1 technician/grant writer.
- **Madison County Engineering IDIQ- Madison County, MS,** Responsible for contract win, and management.

Project Experience with IMS Engineers; (2/2016 to 6/2017) Jackson, MS; Position– Regional Manager

- **Intersection of Frayser Blvd. @ W. Range Hills Dr.– Memphis, TN,** Project win and served as PM. Conducted and wrote report for a Signal Warrant Study. Engineering contract value **\$5k**.
- **NCBA– Jackson Estates– Jackson, MS,** Project win and served as PM. Designed site plan to prevent runoff onto adjacent properties and reconstructed pavement within parking area. Engineering contract value **\$43k**.
- **Port of Claiborne County– Port Gibson, MS,** Project win and served as PM. Conducted and wrote master plan, conducted feasibility study for the port, and various presentations. Engineering contract value **\$180k**.
- **LA-594 Roadway Improvements– Monroe, LA,** Served as PM. Performed design within INROADS and submitted to DOTD for review. Engineering contract value **\$210k**.
- **City of Jackson-1% Program Management– City of Jackson, MS–** Served as D. PgM for the project and oversaw TIGER grant projects.

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Project Experience (cont.):

Project Experience with Warnock & Associates, LLC; (3/2015 to 1/2016) Canton, MS; Position- Engineering Manager

- **MS22 @ Commerce Dr. – Canton, MS.** Responsible for signal warrant, driveway, and accident studies. Maximum contract value \$385k.
- **MS22 @ King Ranch Rd.- Canton, MS.** Responsible for signal warrant and accident study. Engineering contract value \$10k.
- **Gluckstadt Rd. Congestion Management Study- Gluckstadt, MS.** Responsible for conducting 3 intersection traffic counts, 4 intersection phase changes, new 3 phase signal design, turning lane additions, signal warrant and traffic analysis using SYNCRO, and signal coordination and design for 6 traffic signals. Determined traffic growth rate. Negotiated a MOU or Madison County for MDOT to be responsible for signal operations. In addition signals will be connected using fiber. Created one single alternative to resolve the traffic delays along Distribution Drive. Estimated engineering contract value \$250k.
- **Bozeman Rd Traffic Study- City of Madison, MS.** Responsible for conducting over 16 tmc and 20 or more adt within a two month period. Created a 2015 existing conditions and a 2040 model in SYNCRO. Conducted numerous accident studies along the corridor and determined solutions to preventing future accidents. Estimated engineering contract value **\$125k.**
- **Bozeman Rd Public Hearing Maps- City of Madison, MS.** Responsible for creating 3 various alternatives and the proposed typical section for the Bozeman Rd project. Project was to have 2 new continuous t intersections installed along the corridor. Project is to goto public hearing in late 2016. Estimated engineering contract value **\$500k.**
- **Traffic Impact Study Regulations- Madison County, MS.** Responsible for creating TIA regulations for developers to use within Madison County.
- **Stribling Extension/Church Rd.@ Church Rd/Germantown Rd.- Gluckstadt, MS.** Responsible for conducting a signal warrant and delay study and report for the BOS.
- **Church Rd. @ Calhoun Pkwy- Canton, MS.** Responsible for conducting traffic counts, adt's, signal warrant study, and signing and marking plans. Estimated engineering contract value **\$45k.**
- **Canton City Schools-Canton, MS.** Responsible for the consultant design review of 2 newly designed schools and one wing addition. Construction value **\$30million.**
- **Madison & Leake County Signing & Striping-**Responsible for the design and review of the two OSARC projects.
- **Robinson Springs Rd.-Madison County, MS.-** Responsible for the design and review of the 14 miles of project for the OSARC.
- **Way Rd.,Ben Lockett Rd, Bilbo Rd. Bridges- Madison and Leake Counties, MS.-** Responsible for the design of 3 OSARC bridges.
- **Site Plan Review-Madison County, MS.-** Responsible for numerous residential and commercial site plan reviews.
- **Reunion Pkwy Phase 3 Traffic Study-City of Madison, MS.-** Responsible for the traffic analysis for this proposed stretch of roadway.

Project Experience with ICA/Florence and Hutcheson (4/2011 to 10/2012); Position- Sr. Transp/PM

- **SR 6 Bypass at MS 145- Tupelo, MS.** Responsible for creating final plans for the 10 mile bypass, MS 145, and US 49 Connector, horizontal/vertical alignments, xsc's, and intersection design. Performed all cadd work for related roadway activities.
- **US 49 at Kola Rd. Collins, MS–** Responsible for the re-design of a tapered left turn lane intersection, and the realignment of three side roads. Performed all design disciplines for final plan submission as well as all cadd functions.
- **I-55, Jackson, MS.-** Responsible for directing the generation of the traffic control plans along this 9 mile corridor. Supervised 13 individuals in 6 different offices. Project was submitted on time and under budget.

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E: brian_52376@yahoo.com

Project Experience (cont.):

Project Experience with URS (11/07 to 8/2010); Position-Sr. Transportation Engineer/PM

- **I-95 Corridor Improvements (Ten Bridges)- Richmond, Va.** 60 million dollar construction project with 8 million in consulting fees. I served as Deputy PM and was responsible for plan checking the existing horizontal/vertical information and drainage. Provided detailed recommendations on how to design the project and eliminate design exceptions while bringing the corridor up to current AASHTO Standards. Also plan checked the Traffic Control Plans. This was a bridge replacement project for ten bridges. Project is currently under construction. Project was designed on schedule and under budget.(VDOT).
- **Pole Green Rd. at Bell Creek Rd Intersection Improvements- Hanover, Va.-** 2.1 million dollar construction project with 150k in consulting fees. Served as Deputy PM and was responsible for plan checking the proposed horizontal/vertical information and drainage. Provided a detailed design for the Signing /Marking & Traffic Control Plans using MUTCD as well as a detailed engineers estimate of the proposed project costs. (VDOT/Hanover County).
- **Hanover County Roadway Design-On Call-Hanover, Va.-**Served as PM for this contract for 2.5 years as well as got a recent 2 yrs extension on this contract. **This on call services contract was worth a max. of 2 million dollars in consulting fees over a 2 yrs period and an individual contract amount 250k.** Contract was renewed twice under my direction and supervision.(Hanover County)
- **I-64 Widening, Hampton Roads, Va-**Approximately 11 miles of widening and 8 interchange modifications. Served as the Deputy PM/Technical Lead. Responsible for aiding in the generation of the scope of work, man-hour estimate, and **the total preliminary engineering estimate of almost 9 million dollars for 3 individual alternatives.** (VDOT)
- **Rives Rd. Widening-Petersburg, Va-** 0.70 miles of divided multilane widening with intersection improvements. Served as the Deputy PM/Technical Lead. Responsible for field investigation, aiding in the writing of the rfp based of field findings, and creating 3 alternatives designs to be presented during the shortlist interview. **Estimated engineering fees 350k.** (City of Petersburg, Va)
- **City of Petersburg Signal Coordination-Petersburg, Va-** Approximately 26 signals on 3 to 4 closed loop systems. Served as the Deputy PM/Technical Lead. Responsible for field investigation, and aiding in the writing of the rfp based of field findings. **Estimated engineering fees 850k.** (City of Petersburg, Va)
- **Wallace Creek Rd. Extension Project-Camp Lejuene, Nc.** Responsible for creating multiple horizontal/vertical alignments and cross sections. This project was a design build with **engineering fees of 1 million.** (NAVFAC)
- **US-13 Northampton Blvd/Lakewright East Intersection and I-64 Ramp-G-** Responsible for the preliminary alignment for this project as well as fully designing the Traffic Control Plans for this project.

Project Experience with DMJM HARRIS-Roadway Design Projects (11/06 to 11/07); Position- Project Engineer III

- **Interchange 16W/ NJ 3 Ramp Improvements.** Responsible for toll plaza link design, final hydraulics review, and earth-work calculations (NJTA).
- **Behmer Road Bridge Replacement** Responsible for utility coordination and utility relocation plans (Middlesex County, NJ)
- **US 9 Widening - Peekskill, NY.** Responsible for the development of traffic control plans, signing and pavement markings review (NYSDOT).
- **Access to the Regions Core (ARC).** Responsible for the development of road user cost calculations for the final determination of whether the "Tunnel" would be "cut and cover" or "tunneled" under existing US 9 and US 1. In addition, reviewed and designed roadways to provide access to various properties within the project area. This \$8.2 billion dollar project is the worlds largest design project on record upgrading the Secaucus Transfer Station, NY Penn 34 St Station, and creating the first set of new tunnels underneath the Hudson in over a century. (NJ Transit & Port Authority of NY & NJ)
- **US 1 & 9/ NJ 35 Interchange- Woodbridge, NJ.** Responsible for the development of construction administration solutions to our **nation's oldest interchange.** (NJDOT)

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E: brian_52376@yahoo.com

Project Experience (cont.):

Project Experience with Parsons Brinckerhoff (6/04 to 11/06); Position- Highway Engineer II

- **SR 1002 & SR 3014 at NC 54 (Widening Morrisville-Carpenter Rd to Multilanes).** Responsible for the horizontal and vertical realignment of SR 1002, SR 3014 & NC 54, cross sections, typical sections, slope stakes lines, and quantities. Preliminary, R/W, final plans were created.
- **R-505 US 25 (I-26/US 25 Connector) US 25 near Zirconia to I-26.** Responsible for horizontal and vertical alignments of service roads and Y lines, cross sections, typical sections, slope stakes lines, and quantities.
- **U-3808 Elizabeth Bradey Road Realignment and Widening.** Responsible for the revisions of the horizontal and vertical realignment of Elizabeth Bradey Rd., cross sections, typical sections, slope stakes lines, and quantities.
- **NCDOT-On-Call Projects.** Responsible for creating final plans and final quantities.
- **R-4736, Realign NB exit ramp from I-95 and SR 1833.** Resurface White Line Road and construct a 3 lane connector between White Line Road (SR 1814) and US 421.
- **U-4719, NC 24/87 from NC 210 North to McKenzie Road, from SR 1601 (Chapel Hill Rd) North to SR 1451 (Manchester Rd).** Served as the lead roadway designer. Project cost came within 1.5% of engineers estimate. **Project is now NCDOT's official state signature project for access management** by removing the two way left turning lanes and installing raised grass medians and median U-turns. Project boasts over a 90% reduction in collisions within one year of construction according to NCDOT traffic and Spring Hope, NC police department.
- **NC 97, SR 1400 (Spring Field Rd) to SR 1442 (Deer Run Rd)**
- **NC 111, NC 111 to US 64 Alt**
- **I-95 Interchange Improvements.** Responsible for advising and creating multiple alternatives for 12 interchanges to eliminate ramp/loop spillovers onto I-95 (Florida DOT).
- **U-2412B Greensboro-Highpoint Road (SR 1486/4121) from proposed US 311 Bypass to Hilltop Road (SR 1424) SPUI (Single Point Urban Interchange) Design.** Responsible for designing the horizontal/vertical alignments for the SPUI. Duties also included the final sketch for the structure, auxiliary lanes, gore calculations, shear point diagram, as well as creating cross sections and slope stakes.
- **SRP-Taiwan Radar Facility.** Served as the co-lead roadway designer and developed the civil standards and specifications.
- **TTA HSR Project Sections 5 and 6.** Responsible for the design of various portions of sections 5 and 6, as well as MOW tracks. Performed track drainage, project estimates, and wrote specifications.
- **North Corridor HSR Project (Client CATS).** Responsible for the design of the at grade crossings and closures (horiz/vert, typicals, cross sections), track sidings, track re-alignment, SSD at crossings, at grade signalization (using the exposure index), track and roadway drainage, whistle and mile post locations, station planning locations, and final project estimates.

Project Experience with NCDOT-Roadway Design (6/01 to 6/04); Position-Transportation Engineer I

- **Bridge Replacement Projects:** Responsible for the preliminary horizontal and vertical alignment design, cross sections, and slope stakes lines.
- **B-4025 Bridge #39 over a creek on SR 1925.**
- **B-3504 Bridge #363 over Caraway Creek on SR 1331.**
- **B-3506 Bridge #226 over Richland Creek on SR 2832.**
- **B-4745 Bridge #332 over 20th St. on SR 1725..**
- **B-3628 Bridge #45 over Moon Creek on SR 1306.**
- **U-3302 I-240 (Merrimon Interchange Revision).** Responsible for loop & ramp realignment design. Horizontal and vertical alignments were created. Cross sections and quantities were also created for this project. Preliminary, R/W, final plans were created.

Brian P. Smith, PE, P. Eng, PTOE, PMP

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E: brian_52376@yahoo.com

Project Experience (cont.):

Project Experience with NCDOT-Roadway Design (6/01 to 6/04); Position-Transportation Engineer I (cont.)

- ***R-3307 Drawbridge Replacement/Upgrade US 70 from Radio Island to SR 1303.*** -Responsible for creating traffic breakouts and new traffic patterns while this project is under construction. This project is still in the preliminary/hearing map design stage.
- ***R-2519B US 19E from SR 1186 to Multilane Section West of Spruce Pine.*** Responsible for the preliminary horizontal, vertical alignment, cross sections, and slope stakes lines for ALT 1.
- ***R-2000AC I-540 (Northern Wake Expressway).*** Responsible for quantities and the alignment of the collector distributor.
- ***R-2548A US 64 from NC 45 East of Plymouth.*** Responsible for quantities.
- ***R-2635C I-540 (Western Wake Expressway) South of US 64 to NC 55 North*** Responsible for quantities.

Project Experience with NCDOT-Signals/Geometrics & Congestion Management (9/00 to 6/01); Position- Traffic Technician III

Responsible for designing 13 different signals across the state of North Carolina under the supervision of a Traffic Engineer Supervisor and a Traffic Engineer II. MUTCD was used to determine whether a signal was warranted and the Highway Capacity Manual was used to determine the LOS for roadways, intersections, ramps, and loops. SIDRA (AaSIDRA) was used to come up with rough maximum times for isolated signals and Synchro was used for coordinated signals and max times. NCDOT- Traffic/Signal Design Manual was used to create phasing diagrams for flashers, 2, 3, 4, 6, 8, split, and ped phases. NEMA naming convention was used for loop placement and signal phase diagrams. Signal cost estimates were also created.

Statement of Capabilities



Brian P. Smith, PE, PTOE -
President

CERTIFICATES OF AUTHORITY

TN - EF 6349
MS - EF 27420
GA - PEF 008249
TX - F-23453

DBE CERTIFICATIONS

TN, MS, GA, TX

OTHER CERTIFICATIONS

SBE, MBE, TVA-Valley
Business Presence

DOT ENG. PREQUALS

TN, TX, GA

PROFESSIONAL ARCHITECTURAL / ENGINEERING LICENSES

TN, MS, GA, TX, &
CANADA



CORE COMPETENCIES

Smith Engineering & Associates, LLC (dba. SEA) strives to provide both innovative and efficient engineering solutions to meet the needs of its clients while maintaining uncompromised quality, integrity, and professionalism. With staff backgrounds in economic development, engineering design, and construction, our experience encompasses many aspects of transportation engineering to provide sound options to meet budget, schedule, and feasibility constraints.

With close to 100 years of combined staff experience in traffic and transportation engineering, our staff has the experience to handle the most complex of transportation projects. Some of our services include, but are not limited to the following:

Economic Development

Grant Writing/Funding Assistance
Incentive Creation
Solar and Industrial Siting
Marketing/Feasibility Studies
Economic Impact Studies

Traffic Engineering

Traffic Counts
Traffic Analysis/Modeling
Unconventional Intersection Modelling
Congestion Management
Traffic Studies (O&D, TIA, IJR, etc.)
Signal and ITS Design
Signal Coordination, Timing, and Phasing
Signing and Marking Design
Complex Traffic Control Design
Parking Studies
Lighting Studies
Lighting Analysis/Modeling
Lighting Design (Interchange/Aviation)
Lighting Standard Drawings
Lighting Special Provisions

Electrical Engineering

Electrical Design (Emergency Power)
Electrical Design (Power Plant <250MW)
Substation Design
Transmission Line Design

Freight/Commuter Rail Eng.

Intermodal/Transload Master Plan
MOW and Rail Design
At Grade Crossing Analysis/Design
Inland Rail Port Feasibility Study

Transportation Engineering

Rural/Urban Collector Design
Rural/Urban Arterial Design
Rural/Urban Freeway Design
Complex Interchange Design
Intersection Design
Unconventional Int. Design
Stormwater Design
SWPP Permit
Plan Review/Comment
Erosion Control Design

Utility Engineering

Water Distribution Design
Sewer Collection Design

Marine Engineering

River Port Master Plan
River Port Feasibility Study

Aviation Engineering

Runway Ext./Taxiway Design
Terminal Expansion Design
GEC/Program Manager

Structural Engineering

Structural Plan QA/QC
Structural Building Design
Structural Bridge Design
Retaining Wall Design

Architectural Design

Building Design
Energy Audits
As Built Plan Creation
3d Terrestrial Scanning

Statement of Capabilities

PROFESSIONAL CERTIFICATIONS

PTOE - Professional Traffic Operations Engineer

CSX/NS - Training for RR/ROW Encroachment

ATSSA - Advanced Workzone Training (VA/FHWA)

Project Management Professional (URS/LMS)

NAICS CODES

541310 - Architectural Services

541330 - Engineering Services

541340 - CADD Services

541350 - Energy Audits

541370 - GIS base mapping services

928120 - Economic development assistance

CORPORATE OFFICE

354 Bartlett Circle NE
Cleveland, TN 37312
(919) 270-3227
smith.eng.assoc@gmail.com

**Smith
Engineering &
Associates, LLC**

DIFFERENTIATORS

- Our QA/QC traffic engineering staff has published hundreds of peer review articles related to traffic engineering, highway safety, and highway design. They have also been involved with multiple research projects.
- Our senior transportation engineering staff has designed and/or managed projects ranging from \$15k to \$13B. Many of these projects have turned out to be **“State Signature Projects”**.
- Our traffic and transportation engineering staff is trained, certified, and knowledgeable on the use of various software and field equipment.
- SEA understands that larger projects tend to fall outside of budget. Discuss with us regarding **“funding assistance”** opportunities.
- Is your region, county, or municipality in need of industry? Does your agency desire to increase air, rail, or barge traffic? Discuss with us regarding **“Economic Development Assistance”**.

PAST PERFORMANCE



Private Developer/City of Byram, MS
Traffic Impact Analysis, Conceptual Roadway Design, & Safety Study



Chickasaw County/Egypt, MS
Economic Development/Feasibility Study/Industrial Park-Intermodal Facility Conceptual Layout



December 15, 2023

To whom it may concern,

Integrated Travel Research and Development is a registered non-profit in Montana as well as Alberta, Canada.

Integrated.Travel provides our Letter of Reference for Brian Smith, PE, PTOE, PMP of Smith Engineering and Associates, LLC. We support his application to join the Surface Transportation Board, as a federal advisory committee member.

Smith Engineering and Associates, LLC continues to guide Integrated Travel and complete grant applications to appropriate government authorities in United States and Canada. Our focus is to reintroduce passenger rail between Alberta and Montana and complete the development of a robust regional rail network in Alberta, connecting all communities within the Calgary to Edmonton corridor.

The Non-profit team continues to collaborate with Transport Canada, US DoT, PNWER.org, Big Sky Passenger Rail Authority, AMTRAK and other proponents for the return of passenger rail along the North Coast Hiawatha and between Alberta and Montana's respective National Parks (Yellowstone, Glacier and Banff).

Sincerely yours,

Vern Raincock
Director

engage@integrated.travel

619-995-7670 c / 587-503-5555 o

[Proposed Alberta rail network could create links across province - constructconnect.com](https://constructconnect.com)

Integrated.Travel

PO Box 70065
Airdrie, Alberta, Canada
T4B 0V9

+1 587-503-5555 o