

# 2022-2023 ANNUAL REPORT



**BUILD AMERICA CENTER**

INNOVATIVE FINANCING AND DELIVERY  
OF TRANSPORTATION INFRASTRUCTURE

# A MESSAGE FROM OUR DIRECTOR

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Dear friends and colleagues,

I am delighted to present the 2022/23 Annual Report for the Build America Center (BAC), a year of significant accomplishments and impact. This report showcases our empowering localities initiative, training and outreach activities, partnership building, and research contributions.

In the 2022-2023 fiscal year, BAC developed and delivered over 35 technical assistance activities, including webinars, workshops, and consultations. The BAC also hosted several seminars and conferences in FY 22-23, bringing together transportation professionals, researchers, and industry leaders to exchange knowledge and ideas. The highlight of our events were the two CFO Forums, virtual gatherings that attracted over 75 financial officers from 30 state DOTs.

Partnership building is at the core of BAC's work. We continued to strengthen our relationships with key stakeholders, such as the Federal Highway Administration (FHWA), Build America Bureau, state DOTs, and industry associations. We also established new partnerships with non-profit organizations, private entities, and international agencies.

The BAC's research contribution in FY 22-23 was significant, with several publications and reports on cutting-edge topics in transportation. Our research was focused in three main areas: innovative financing, alternative project delivery, and sustainable and equitable transportation. We developed one standard and best practice, four white papers and one web tool (BIL Launchpad), which is widely used by localities to identify federal grant opportunities.

Thank you for your continued support and interest in the Build America Center and its activities.

Sincerely,

**Qingbin Cui**

**Director, Build America Center**



## OUR MISSION

The Build America Center (BAC) will mobilize the use of innovative financing, funding, project delivery, procurement, and contracting solutions to foster new approaches to transportation infrastructure development and delivery through the creation of a knowledge hub, spurring innovation with cutting edge research, collaborative partnerships, and the development of an academy to deliver innovative education and training plus tailored technical assistance.



# BAC 2022 YEAR IN REVIEW



35



State and local governments plus non-profit organizations

7



BIL Grant awards, 7 BIL applications under review

6



Peer exchanges, forums, and workshops

2



Tools

5



Research Projects

4



Best Practice Guides & White Papers

13



Seminars, webinars, & conference talks

\$53



Million grants covers SS4A, SMART, TCP, Low/No Emission and more BIL programs

# 2022-23 RESEARCH

The Build America Center is building a research program that serves transportation professionals and community research needs as well as advancing the frontier of project delivery and infrastructure finance knowledge. The Center uses its expertise, strength, and deep understanding of project finance and delivery to develop practice-oriented research.

## IN FY 22-23, THE FOLLOWING RESEARCH WAS COMPLETED:

Risk Allocation and Sharing  
in Transportation P3s:  
State of Practice Report

Guidebook on Estimating  
Costs for Capital for Value  
for Money Assessments

Lesson Learned from  
Unsuccessful P3s

RESEARCH  
PROJECTS

Generally Accepted Value for Money  
Analysis Principles ("Blue Book")

Estimating Expected Rate of Return  
on Private Financing



“President Biden’s Bipartisan Infrastructure Law provides a historic level of funding for transportation. We can expand that positive impact by bringing together the best of the public sector and private industry to leverage the investment for beneficial projects.”

–Pete Buttigieg, Secretary, U.S. Department of Transportation



# BIL LAUNCHPAD

**An online resource dedicated to providing local public agencies information to accelerate their grant funding applications.**

A complementary resource to the [DOT Navigator](#).

## Services Offered:



### NAVIGATE FUNDING OPPORTUNITIES

Search the database of all transportation related Notice of Funding Opportunities (NOFOs) under the Bipartisan Infrastructure Law (BIL) for competitive and discretionary programs.



### PLAN AHEAD FOR YOUR GRANT APPLICATION

View historical NOFO timelines to understand the typical timeframe and application window of targeted funding programs to plan ahead.



### MATCH YOUR PROJECT TO SUCCESSFUL AWARDS

Improve a grant application by learning from previous applications and successful awards similar to your potential project.



### GET HELP FROM THE BUILD AMERICA CENTER

View the resources available to support your grant application and/or request technical assistance from the BAC.



### BUILD PARTNERSHIPS IN THE COMMUNITY FORUM

A communications platform for public agencies to bundle projects, build partnerships and solicit consulting services.

# EMPOWERING LOCALITIES INITIATIVE

Providing resources, tools, and expertise to help identify and implement innovative solutions to the transportation challenges they face. Assistance provided is tailored to the specific needs and priorities of each community, and has been implemented in close partnership with local leaders and stakeholders.

Assisted with 7 grant applications with



## Supported Organizations:

**2** State DOTs 

**9** Counties, cities, and local governments 

**9** Non-profits, Universities, Communities 

## Types of BIL Support

- ▶ Funding Strategy
- ▶ Program Analysis
- ▶ BIL Application Planning
- ▶ Project Identification Scoping
- ▶ Fundability Review
- ▶ Benefit Cost Analysis
- ▶ Climate Impact Analysis
- ▶ Justice 40 Review and Analysis
- ▶ Application Development
- ▶ Application Review
- ▶ Data Cleansing and Analysis and more

“Our hope is that, through the Build America Center, we can provide a way for smaller agencies to get the help that they need, as well as benefiting states that have not used federal financing in the past. For those that are unfamiliar with the process, it can seem complex. We hope, through the Center’s activities, to make it clearer to them.”

—Patrick DeCorla-Souza, P3 Program Manager, Build America Bureau and FHWA Center for Innovative Finance Support



# TECHNICAL ASSISTANCE HIGHLIGHT



**BIL Program**  
SMART Grant Program FY22



**Project Lead**  
North Central Regional Planning Commission (NCRPC) Beloit, Kansas



## Project Location

Sedgwick County, Saline County, Cowley County, and Cloud County, Kansas

## Description

This project will improve transportation efficiency and safety by planning and prototyping smart technologies and systems in several disadvantaged communities. Specifically, the project focuses on the development of a prototype GIS-based platform that integrates local infrastructure assets information to provide innovative data, monitor asset condition, and inform technological solutions and comprehensive decision-making processes. An innovative feature of the project is the application of drone technology for bridge inspection and condition evaluation activities.



**BIL funding strategy planning**



**Requirement analysis and management**



**Project development and scoping**

## Technical Assistance Provided by the BAC



**Data gathering and analysis**



**Application narrative support**



**Quality control and application review**

“The BAC staff were easy to work with, listened to our needs and were very responsive. They helped us to interpret the NOFO funding descriptions so we could understand what projects we could submit. The BAC was invaluable in providing the data and data sources that we needed for the application; plus, they even assisted with interpreting the data and providing it in the format we needed. NCRPC could not have submitted this grant application without the assistance from the BAC. They had the knowledge, expertise and extra hands we needed to submit a competitive application!”

**-Deb Ohlde, Strategic Development Advisor,  
North Central Regional Planning Commission, Kansas**



“There’s a **large amount** of private equity out there that is looking for infrastructure projects to invest in, but they have to be the **right projects**. They’ve got to be **structured well**, with **good governance**, and that raises a whole host of questions that need to be researched.”



## RESEARCHER HIGHLIGHT: MICHAEL GARVIN, VIRGINIA TECH

*BAC’s Eastern Region Director is drawing attention to the need for appropriate risk allocation in P3 projects.*



The success of an infrastructure project depends on a multitude of often complex decisions taken by stakeholders - decisions on finance, delivery methods, timelines, choice of vendors, risk allocation, and more. Michael J. Garvin, Professor of Civil and Environmental Engineering at Virginia Tech and Director of the Build America Center’s (BAC) Eastern Region, has dedicated his career to examining these decisions and their ramifications.

Of particular interest to him has been the emergence of public private partnerships (P3s) as a finance and delivery method. Revenue-strapped state governments need ways to finance major projects without tax hikes and private companies seek investment opportunities. If managed properly, P3s can be a win-win.

In order to succeed, sufficient project preparation is critical. The public owner must understand the risks involved and not transfer more risk to the private partner than it can manage. The project must be marketable and likely to deliver a return on investment. Vendor contracts must be written in a way that prevents cost overruns. The possibility of delays and disruptions—not uncommon in large-scale construction projects—must be factored in. P3s are often dealing with many third parties and if they’re not co-operating or not performing, what do you do? Who shoulders that risk? The impact can be especially serious because it can affect the entire project’s financial structure.

Risk allocation is the main focus of current work Garvin is undertaking for the BAC. He and his graduate students completed a state-of-practice report that examines the issue with respect to 26 projects in the U.S. transportation sector in which P3 was used. Gaining insights about risk allocation is important because companies may be deterred from entering into P3s if they perceive that too much of the risk burden is being placed on them.

Gavin and the BAC are expected to play a crucial role in helping states and municipalities implement the resources made available through the Infrastructure Investment and Jobs Act, including through the utilization of innovative project finance and delivery methods such as P3s. Congress agreed on appropriations that can fund a wide variety of infrastructure projects and it’s vitally important now that these funds are allocated properly to regions and communities. The BAC is supporting this effort through technical assistance, webinars, forums, and peer exchanges, as well as through educational activities.



**“WE ARE NOT JUST HERE TO DO RESEARCH FOR ITS OWN SAKE, BUT TO HELP SHAPE THE FUTURE.”**

# BAC FY22/23 PERFORMANCE SUMMARY

## RESEARCH REPORTS

- ▶ Build America Center (2023). VfM Assessment General Principles (“Blue Book”)
- ▶ Andrea Arciniegas, Sasha Page, Wim Verdouw, Yu Wang, Jim Ziglar (2023). Guidebook on Estimating Costs of Capital for Value for Money Assessments
- ▶ Sam Labi and Deepak Benny (2023). Estimating and Identifying Local Matching Funds for new BIL Grants
- ▶ Michael Garvin (2023). Risk Allocation and Sharing in Transportation P3s: State of Practice Report
- ▶ Baabak Ashuri and Ayush Aggarwal (2023). White Paper on Describing the Need for Developing a Decision Support Tool to Assist Transportation Agencies, Especially Those with Local Governments and Small Communities, in Their Efforts to Fulfill the Various Compliance Requirements of the IJJA Grant

## TOOL DEVELOPMENT TO SUPPORT BIL IMPLEMENTATION

- ▶ BIL Launchpad, <https://billaunchpad.com/> BIL Launchpad provides customized information on available funding, interactive technical support, data on successful awards, and essential resources. With this platform, localities can accelerate their grant application process and access the necessary tools to enhance their transportation infrastructure.
- ▶ Excel-based Benefit Cost Analysis Template. The provided template aligns with the 2023 USDOT’s Benefit-Cost Analysis Guidance for Discretionary Grant Programs. It serves as a tool for localities to conduct their benefit-cost analysis, using the most recent parameters in a uniform format. The consistent format not only simplifies the application review process, but also ensures that all analyses comply with the current standards set by the USDOT.

## BIL TECHNICAL ASSISTANCE

- ▶ BIL Grant Programs Navigation: Washington county, MD, Anne Arundel County, White Horse Community, PA, Alaska DOT LTAP, AK, US Virgin Island, and non-profit organizations including National Association of Minority Contractors and National Association Minority Consulting Engineers and others
- ▶ SS4A Program Support: Anne Arundel County, MD; Northwest Louisiana Council of Governments, LA; City of Salisbury, MD
- ▶ SMART Program Support: North Central Regional Planning Commission, KS
- ▶ Thriving Communities Program Support: North Central Regional Planning Commission, KS
- ▶ RAISE Program Support: City of Lakeview, OR; Montgomery county, MD
- ▶ Bus Facilities and Low/No Emission Program: Anne Arundel County, MD; University of Maryland
- ▶ Data Support and Technical Assistance Resources: National League of Cities, Wisconsin DOT, Indiana LTAP
- ▶ Charging and Fueling Infrastructure Program: Montgomery County, MD, Maryland Clean Energy Center
- ▶ Regional Infrastructure Accelerator Program: Louisiana Governor’s Office, Montgomery County, MD
- ▶ Multimodal Project Discretionary Grant (Mega/INFRA/Rural programs): Oklahoma City, OK

## CAPACITY BUILDING AND OUTREACH

- ▶ Build Infrastructure Better Symposium, College Park, Maryland, April 11., 2022. 140+ attendees
- ▶ CFO Forum on How State DOTs Identify Matching Funds for New Federal Funding, Virtual forum on September 21, 2022, 75+ attendees
- ▶ SANDAG value capture training Workshop, November 8-10, 2022, San Diego, CA, 15+ attendees
- ▶ Webinars on IJJA Opportunities for Small Disadvantaged Businesses on September 20, 2022, 20+ attendees from DBE companies
- ▶ BAC Technical Assistance, Panel session on July 14, 2022 ARTBA P3 conference
- ▶ CASE Webtool training workshop for Michigan DOT on October 25, 2022
- ▶ CFO Forum on Budgeting Under High Inflation, Virtual forum on May 9, 2023, 85+ attendees
- ▶ American Infrastructure Investment Forum at Stanford University on April 19-20, 2023, 60+ attendees
- ▶ Project Bundling Workshop in Salina, Kansas on June 1, 2023, 30+ attendees
- ▶ BAC Webinar: Risk Management for Transportation Projects: Challenges and Opportunities, April 28, 2023
- ▶ BAC Webinar: Equity Analysis at the Project Level, May 25, 2023
- ▶ BAC Webinar: 10 Tips for Putting a Successful Federal Grant Application Together, June 14, 2023
- ▶ 10+ conference talks

# PARTNERSHIPS



# LOOKING AHEAD

## Empowering Localities



- BIL LaunchPad Maintenance
- Critical Path to Success Episodes
- Compliance Navigator
- Targeted Technical Assistance

## Technical Assistance



- Infrastructure Forum (NGA)
- CFO Forum
- EV Infrastructure Contracting Exchange
- State Resources for Locality Support

## Research



- TOD and Value Capture
- P3 Risk Allocation Guide and Tool
- Crowdfunding for EV Infrastructure
- Electric Vehicle (EV) Fee Structures Design and Tool

## Capacity Building



- BIL Program White Papers
- Innovative Financing Insights (IFI) Video Series
- edX P3 Certificate Program
- Modernizing Infrastructure Seminars

### PROPOSED RESEARCH TOPICS

- Comparing and contrasting P3 Comprehensive Agreements with TOD Development Agreements
- Phase 2: Risk Allocation and Sharing in P3 Agreements: Guidebook and Toolkit
- Transportation Megaproject Restructuring and Renegotiation – Purple Line Restructuring
- Electric Vehicle (EV) Fee Structures Design and Tool
- Crowdfunding Approach to Delivering Equitable EV Infrastructure
- Green Financing in Delivering Transportation Projects

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