TOPIC 3: LEVERAGING CREATIVE FUNDING AND PARTNERSHIPS

NOCoE – Innovative Procurement and Contracting Peer Exchange May 2021

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MAY 2021

MINNESOTA CAV CHALLENGE: HOW 'MINNOVATION'' INSPIRED VALUES-BASED PARTNERSHIPS

Minnesota Office of Connected and Automated Vehicles







DESTINATIONCA

- Launched in October 20 18 and resulted in 16 awards and 7 fully-negotiated contracts
- Winner of the 2019 National Cronin Award for Procurement Excellence, the 2020 AASHTO Innovation Award and the 2021WTS Innovation Award
- Notable projects include Rochester autonomous shuttle pilot, fiber optic feasibility study, Smart Snelling connected vehicle corridor, and autonomous trucks
- Partnering with new entities: economic development, IT, counties, medical centers, cities, tech industry and new voices in innovation
- Saved 2M+ in RFP resources and 200+ hours of staff time

www.mndot.gov/automated/cavchallenge DEPARTMENT OF (511) Connected and Automated Vehicles Connect with u CAV Challenge request for proposals Sign up for con vehicle updates to improve transportation for all Minnesotans. mated Vehicle (CAV) technology is advancing rapidly. CAVs can save lives and Contact provide better access to transportation, jobs and health care, making communities safer, and more equitable. To harness these rapidly-evolving technologies to solve transportation challenges, an Lisa Havelka 651-234-700. re and flexible approach to working with industry and communities was create V Challenge is a new, open and rolling procurement process that fosters innovation. Public and opose CAV solutions to improve safety, efficiency, equity, outreach a ons Minnesota as a destination for CAV and innovatio

CAV Challenge website

 Why Minnesota?

 Minnesota is the first state to create this new and innovative approach to advance CAV. With strong commitment from state ladder, 12.5 million is invested each year to seek innovative ideas to test and deally program the state interaction of the source of the vectors partners to Minnesota to lawring exponentiatis, including:

 • Winter weathers Help Inductory solve winter weather challenges thru testing at its MinRAD facility.

 • Other weathers Help Inductory solve winter weather challenges thru testing at its MinRAD facility.

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 • Other approximate, including:

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 • Dedicated faulting: MinOT ad existence algorithmat fluoring towards advancing mobility solutions

 • Investoria: Minonesota is one to trying new ideas.

 • Testing experimes: MinOT back existence in the most advanced connected vehicle corridors in the



BENEFITS AND OPPORTUNITIES

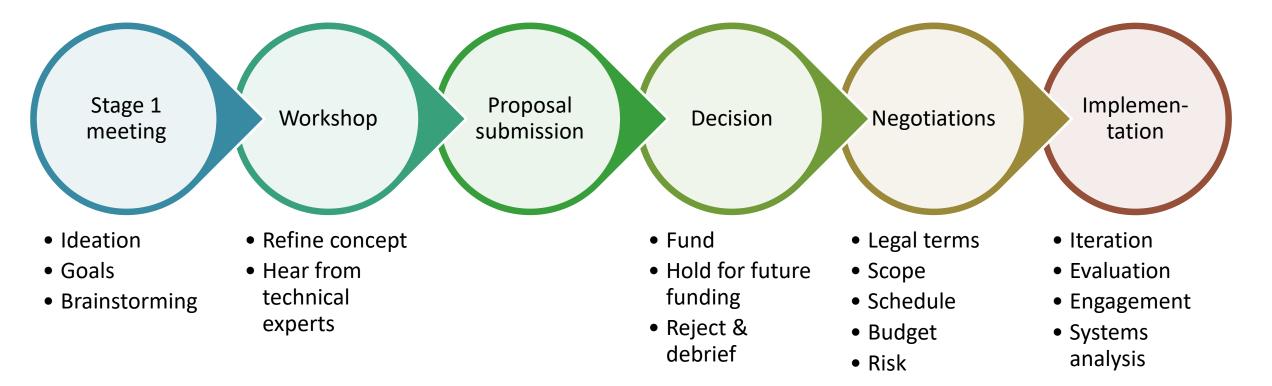
- RFP open for an indefinite amount of time (open, rolling)
- Open to wide variety of CAV solutions
- Ability to talk with vendors
- Protect trade secrets
- Contract with partners that meet our goals
- Hear from new and unique voices and industries

- Fair and open competition
- Consistent requirements for vendors
- Rules and guidelines are clear to vendors
- Subjective and objective criteria
- Systematic approach to vendor selection
- Proposals evaluated against documented goals in RFP
- Same team scores all proposals
- Technical experts evaluate proposals within their field of expertise









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WHEN TO USE CHALLENGE-BASED RFPS

- Ideas seeking new outside partners
- Flexible timelines; not urgent
- Open to ideation and brainstorming
- You can pose a problem to solve or define broad goals for vendors to meet
- Requirements are:
 - Unknown
 - Hard to define
 - Rapidly changing
- Innovation





WHAT WE HEARD FROM PARTICIPANTS

- Really like the ability to speak confidentially
- Use workshops to brainstorm ideas and hear reactions from technical experts
- Make the process crystal clear
- Leverage the virtual environment for online meetings, tools, and proposal submissions
- Make the decision process, timelines and criteria clear
- Clearly state your goals and prioritize them in the RFP

Example showing how project goals match with Minnesota goals

CAV Goal	Project Deliverable	How Deliverable Meets
		CAV Goal
CAV Strategic Plan	1 Level 4 AV	Public will have the ability
Recommendation 58 -	demonstration held in	to interact with technology.
Conduct public	Northern Minnesota for 1	
demonstrations throughout	week	
Minnesota		

Risk assessment and strategy example

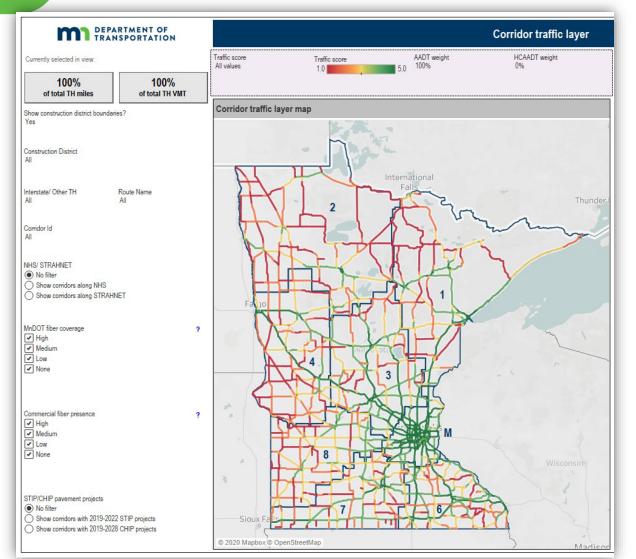
Risk	Description	Likelihood	Owner	Mitigation Strategy
Category				
Safety	Vehicle technology may not	Medium	Applicant,	Develop safety plan and
	work properly and may stop		technology sub-	emergency communications
	abruptly		consultant	plan







FIBER OPTIC STUDY & PARTNERSHIP



Traffic layer - Daily traffic volumes to prioritize investment where most traffic is

Opportunity layer – Connect state assets
 (cameras, buildings, signals, traffic data collectors) to prioritize corridors that connect cameras, sensors and buildings.

((<u>*</u>))

Commercial layer – Shows private sector plans to build to prioritize investment based on private interest.



Combined – Shows all the layers to prioritize different corridors.



GIS overview of Minnesota traffic volumes



AUTONOMOUS MAINTENANCE

SELF-DRIVING TRUCKS WITH 'CRASH CUSHIONS' TO PROTECT WORKERS





CONNECTED VEHICLE CORRIDORS

SMARTPHONE AND IN - VEHICLE TECHNOLOGIES CAN WARN DRIVERS AND AVOID COLLISIONS





TRAVELER INFO



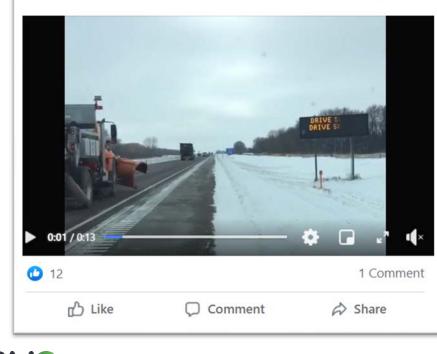
DESTINATIONCAV

Minnesota Department of Transportation January 22 · ③

Our snowplows and maintenance vehicles on I-35 are testing technology to boost safety. Once they drive by a digital highway sign, it will warn motorists that a slow-moving vehicle is ahead on the road.

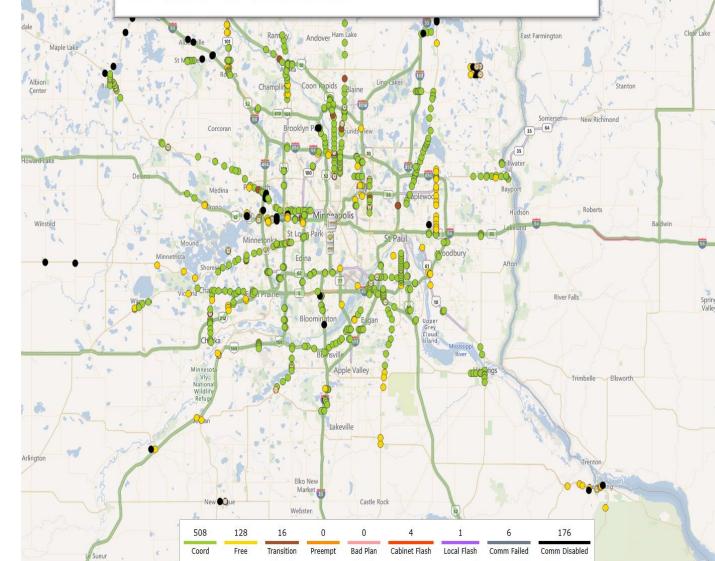
More details: mndot.gov/news/2021/01/22-d6-i35.html

Please note that the sign does not flicker in person. It appears to flicker in the video because of the way the camera captured the LED lights.



MnDOT turns to digital signs to warn drivers about snowplows

The goal is to help reduce rear-end crashes involving snowplows and motorists.



TOP 10* LESSONS LEARNED

- 1. Begin with the end in mind
- 2. Equity must be addressed explicitly
- 3. Prioritize the priorities
- 4. Workshop ideas
- 5. Use design thinking and human-centered design
- 6. Protect IP and trade secrets
- 7. Technology is a means to an end
- 8. Create interdisciplinary teams
- 9. Performance measures and accountability
- 10 Seek feedback
- 11. Advertise your program
- 12 Manage expectations



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Using Small Contracts to Advance Contracting Equity TSMO – NOCoE Innovative Procurement and Contracting Peer Exchange

May 14, 2021

Advancing Equity Office

Mary Schmidt, Director

Equity: *Impact* we seek to create by making our contracting and procurement more inclusive of diverse businesses

3 principles to make every contract a catalyst for individual prosperity and community vitality



Less is more



Use your leverage



Keep it simple

Every contract or purchase is an opportunity to advance equity and drive our economy

Building a diverse contractor pool: Leveling the playing field, remedying for past discrimination

One Minnesota approach to governing: "Give everyone a seat at the table. Bring racial, economic and geographic equity to public policy and decisions."

Governor Tim Walz, January 2019

Disadvantaged Business Enterprises DBE -- 730 certified in MN - Fed certification

Level the playing field for women and minority-owned small businesses to give them a fair opportunity to perform USDOT-assisted contracts; remedy ongoing discrimination and continuing effects of past discrimination.

Targeted Group Business TGB – Over 1,400 in MN – State certification

Create broader opportunities for women, persons with a substantial physical disability or specific minorities to contract with the state and remedy effects of past discrimination

Veteran-Owned Business VET – 130 in MN – State/VA certification

Increase opportunities for veteran-owned small businesses to contract with the state

Economically Disadvantaged (ED) – State certification

Business located or owner resides in one of 40 counties certified as labor surplus area or low-income

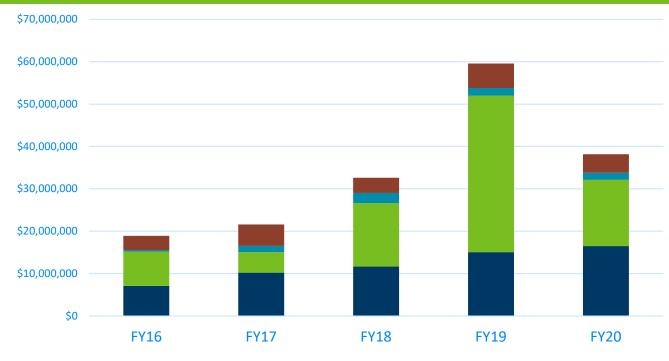
Why get certified?

TGBs, Vets, EDs may be eligible for up to 6% preference Name in the applicable directory



6/28/2021

MnDOT has awarded \$171 million in Prime Contracts to underutilized businesses



■ P/T ■ Construction ■ Maint ■ Goods

FY	P/T	Construction	Maint	Goods	
FY16	\$7,078,118	\$8,108,212	\$366,485	\$3,368,082	\$18,920,897
FY17	\$10,209,681	\$4,836,072	\$1,485,046	\$5,057,211	\$21,588,010
FY18	\$11,646,348	\$14,967,375	\$2,422,858	\$3,591,519	\$32,628,100
FY19	\$15,061,125	\$36,978,715	\$1,754,678	\$5,779,470	\$59,573,988
FY20	\$16,481,421	\$15,629,891	\$1,666,792	\$4,385,451	\$38,163,555
					<u>\$170,874,550</u>

P/T consultant contracts awarded to under-utilized businesses, related to traffic safety, management

Professional Technical Consultants

- Corridor Studies
- Work Zone and TMP Travel Demand Forecasting
- Seatbelt study/survey for baseline on behavior and counts
- Signing Design/plans
- Electrical Plans
- Traffic Control Plans

Use Equity Select (Equity Direct Selection) for firms not in Prequalification Program

- Purpose: Create opportunities for under-utilized businesses to do work with state agencies and reduce contracting disparity
- Rolled out 2017 Selection/procurement method available to all state agencies
- Allows to hire a consultant from a TGB, Vet or ED without advertisement or multiple quotes
- Max \$25k per contract/PO
- Can also be used to purchase goods not on state contract

MnDOT's Equity Selection (ES) Method Usage

18 ES contracts with 12 firms in FY20= \$364,188 including 7 firms not in the Prequal Program

Opportunity to demonstrate and acquire experience that helps our industry

16C.16 DESIGNATION OF PROCUREMENTS FROM SMALL BUSINESSES.

Subd. 6. Purchasing methods.

(b) The commissioner may award a contract for goods, services, or construction directly to a small business or small targeted group business without going through a competitive solicitation process up to a total contract award value, including extension options, of \$25,000.

Quick Call Multi-award

- \$25,000-100,000 professional/technical services contract
- Invite 3-6 bidders
- Able to award more than 1 bidder
- Solicit bids from TGBs, DBEs, Vets and EDs
- Allows to award without advertisement
- Allow to hire firms not in prequal program

Leverage: Be selective of those capable but need to prove it.

Working directly with small businesses to construct and maintain MnDOT infrastructure

What's a Negotiated Contract?

- State statute 161.32 subd. 2
- Max value \$250,000
- Must be state funds
- No advertisement
- Obtain two quotes
- Simplified plans, lots of photos
- Lump sum payment

Leverage: Always invite under-utilized to quote!

	FY19	FY20
Number of NMCs awarded	109	119
Value of NMCs awarded	\$6,373,763	\$8,349,930
Number (%) awarded to Underutilized businesses	56 (51.3%)	62 (52.1%)
Value(%) awarded to Underutilized businesses	\$2,569,091 (40.3)	\$3,894,428 (46.6%)



FY20 Contractor Demographics 11 Black - performed \$1.42 m 2 Asian - \$292,000 2 Latino - \$38,000 2 Indigenous - \$518,924 3 Vet - \$368,330 4 Low income - \$461,459 10 women (3 POC) - \$1,651,331

State Statute 161.32(subd.2)

https://www.revisor.mn.gov/statutes/cite/161.32

Subd. 2. Direct negotiation.

In cases where the estimated cost of construction work or maintenance work does not exceed \$250,000, the commissioner may enter into a contract for the work by direct negotiation, by obtaining two or more quotations for the work, and without advertising for bids or otherwise complying with the requirements of competitive bidding if the total contractual obligation of the state for the directly negotiated contract or contracts on any single project does not exceed \$250,000. All quotations obtained shall be kept on file for a period of at least one year after receipt of the quotation.

Examples of NMCs traffic safety, sign, management

Install post mounted DMSs on I35 near Iowa border Traffic management \$74,000 / \$15,00

Install DMS's and guardrail for pavement system Traffic management, safety \$85,000

Install fiber cable, power cables and sensors on Lafayette Bridge Electrical \$50,000

Install signing structure and Dynamic message sign on TH 52. Connect to the existing RTMC system Electrical \$150,000

Install reflectorized panels to stop signposts D2, D4, D6, D8 Safety Multiple NMCs. \$350k

Multiple stop sign upgrades Traffic, safety \$83,550 Remove changeable message insert and static sign, replace with new sign and changeable message sign insert and install conduit Electrical \$45,000

Upcoming TSMO NMCs

Road Weather Information Systems Installation of Towers Roadway entrances to sites Concrete foundations for towers Striping, grinding, pavement markings Guardrail Anti-icing systems repair





How did we accelerate our contracting with under-utilized businesses

- ✓ Use statutory authority
- ✓ Right-size contracts: less than \$150,000
- ✓ "Incentive" funds of encouragement
- $\checkmark\,$ Simplify docs and processes
- ✓ Demystify the spec book
- ✓ Outreach to small businesses
- ✓ Be transparent to build credibility
- ✓ Variety matters
- ✓ Track results so know progress and gaps
- ✓ Consider wider marketplace
- ✓ Collaborate
- $\checkmark\,$ Office to advise and drive results







Let's make every public works project a catalyst for individual prosperity and community vitality

Let's share and learn from each other! What barriers are you facing when trying to hire small businesses? What's been your experience with small contracts? Are you able to pursue small, simplified contracts with federal funds?



Advancing Equity Office

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Advancing contracting and procurement ideas to improve economic outcomes for all Minnesotans

THANK YOU

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