



# MN2050 'State of the Infrastructure' Panel

MPWA Conference

November 19, 2015

# MN2050 Survey



- Panel:
  - Dave Solsrud, MnDOT
  - Sam Paske, Met Council
  - Rick West, Ottertail County
- Today's Format
  - Survey: Overview, interesting, parallel, your help
  - Panel: Their implementation, Survey response
  - Questions

# MN2050 Survey

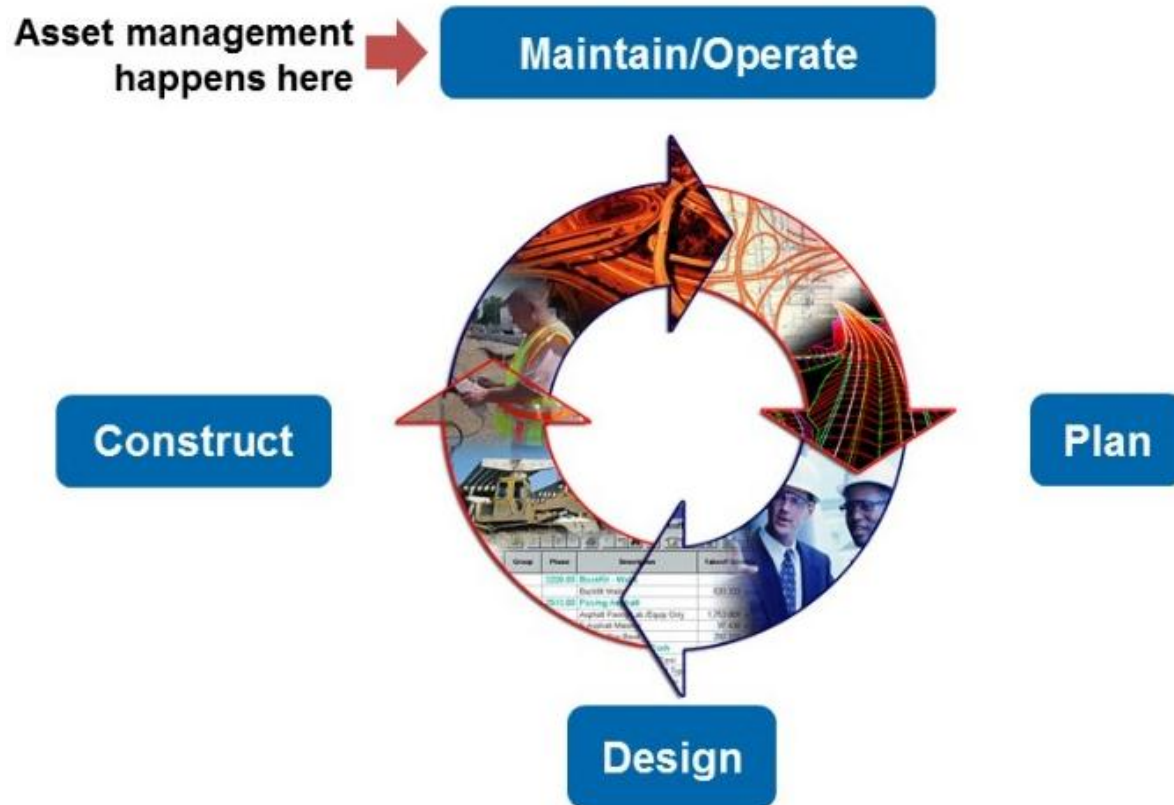


- Who: Team
  - MN2050 Steering Committee; State Aide; Wilder; City, County, State Aide Advisory Team
- Why:
  - MN2050: Public, politicians, professionals
  - Funding: Transportation vs infrastructure
  - ASCE: Report card, infrastructure value
- When:
  - June 2015; Feb/Mar 2016 (Annual)

# MN2050 Survey



- Why: **Engineering Infrastructure Life Cycle**



# MN2050 Survey



- What: Reports
  - Cover letter (1p)
  - Executive summary (2p) – Mayor, Commissioner
  - Report (16 p) – Head engineer, PW director
  - Databook (150 p) - Nerds
- Interesting Findings:

# MN2050 Survey Questions



- How: Responses in Report and Databook

## **AM OVERVIEW**

1. Do you use Asset Management (AM)? – **Page 8** Who participates, leads, and why?
2. **AM Plan?** – **Page 13**
3. GASB34? – **Page 14**
4. ISO 55000? – **Page 15**
5. MAP-21 AM req? – **Page 16**
6. As-built drawings? – **Page 17**
7. Consortium? – **P 18**

## **INDIVIDUAL ASSET INVENTORY TYPES**

8. Which of the following infrastructure assets do you have in your organization? – **Page 19**
10. Roads – **Page 23** Mapped? (GIS/CAD/Both), Inventory (Value, Cond, age, mat size)?, AM system
11. Bridges – **Page 31**
12. Transit – **Page 39**
13. Traffic – **Page 45**
14. Buildings – **Page 53**
15. Water – **Page 61**
16. Sanitary – **Page 69**
17. Storm Sewer – **Page 77**
18. Storm Ponds – **Page 85**
19. Airports – **Page 93**
20. Ports – **Page 100**
21. Rail – **Page 106**
22. Electrical – **P 112**
23. Solid Waste – **Page 120**
24. Natural Gas – **Page 127**

## **AM REFLECTIONS**

- 26A. Success Factors (Ease of use, cost, assets, time ) – **Page 133**; 26B. Effectiveness Rating – **Page 140**
29. Funding Gap – **Page 142**

(Tables showing all AM **tools and systems used** by cities, counties, and state: **Pages 143-147**)



# MN2050 Survey



- Interesting Findings: Report P13
  - Road (Per Capita): \$5892, \$2879, \$5070, \$5380

## Asset management practices of jurisdictions in Minnesota by infrastructure type

Shading key: Green = 50% +    Orange = 25% - 49%    Pink = 0% - 24%

Asset	Jurisdiction	# of this type of jurisdiction who answered this question	# who have this type of asset	Of those who have this type of asset...		
				% with asset	Asset is mapped	Know value of asset
	Smaller cities	88	88	100%	67%	5%
	Larger cities	98	98	100%	99%	24%
	Counties	60	60	100%	88%	29%
	<p><u>\$33,772,624,842</u> is the total value added up from the 34 respondents who answered this question; the per capita value of the roads is <u>\$5,892</u> for smaller cities, <u>\$2,879</u> for larger cities, <u>\$5,070</u> for counties, and <u>\$5,380</u> for state agencies in MN.</p>					
	Smaller cities	88	14	16%	50%	8%
	Larger cities	98	62	63%	79%	7%
	Counties	60	60	100%	84%	22%
	<p><u>\$6,795,864,702</u> is the total value added up from the 16 respondents who answered this question; the per capita value of the bridges is <u>\$1,626</u> for smaller cities, <u>\$221</u> for larger cities, <u>\$267</u> for counties, and <u>\$1,209</u> for state agencies in MN.</p>					
Transit lines	Smaller cities	88	1	1%	0%	0%

# Databook (p 143-147)



Systems Used by Cities, Counties and State Agencies																
	Road	Bridge	Transit	Traffic	Buildings	Drink Water	Waste Water	Storm Sewer	Storm Pond	Airports	Ports	Railways	Electrical	Solid Waste	Natural Gas	Total
No asset management system	52	24	4	64	85	44	47	62	51	6	2	15	14	10	12	492
MS Excel	102	37	1	37	42	57	56	55	40	14	0	0	18	5	2	466
ESRI GIS database	66	21	2	31	21	0	50	54	54	7	0	2	16	4	1	329
Pencil and paper	53	28	1	34	51	31	37	38	20	8	0	0	11	9	2	323
Other system	22	9	0	10	13	9	11	13	10	4	0	0	6	2	1	110
Cartegraph	24	5	0	14	2	13	14	15	12	0	0	0	1	0	0	100
Icon	33	3	0	7	0	49	1	2	1	0	0	0	0	0	0	96
MnDOT SIMS	18	59	1	1	0	0	0	0	0	0	0	1	1	0	0	81
Simple Signs	15	2	0	15	0	0	0	0	0	0	0	1	1	0	0	34
CityWorks	3	0	0	3	2	5	4	5	3	0	0	1	2	0	1	29
Other	5	4	0	2	2	3	1	4	3	2	0	0	2	0	0	28
PubWorks	3	1	0	2	2	1	1	2	1	0	0	0	0	2	0	15
CAD/AutoCAD	4	1	0	0	0	2	2	3	1	0	0	0	2	0	0	15
City Services	2	0	0	1	0	3	4	1	1	0	0	0	1	0	0	13
MapFeeder	2	1	0	1	1	2	2	1	1	0	0	0	1	0	0	12
InfraSeek	3	0	0	1	1	2	2	1	1	0	0	0	0	0	0	11
Element FX	1	1	0	1	0	1	2	2	1	0	0	0	0	0	0	9
Oracle	1	0	0	1	1	0	2	1	1	0	0	0	0	0	0	7
Element XS	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	7
Beehive	1	0	1	1	0	1	1	1	1	0	0	0	0	0	0	6
Other GIS system	1	0	0	2	1	0	0	0	1	1	0	0	0	0	0	6
VueWorks	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	4
Archibus	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Access database	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	4
Pontis	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Arc View	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	4
Infor EAM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
Dbase	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3
SWAMP	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
Agile Assets	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Maximo	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PASER	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mpower Innovations	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
RTVision	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Road Pro	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
IMaint	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Famis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Laserfiche	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
<b>Totals =</b>	<b>425</b>	<b>201</b>	<b>9</b>	<b>234</b>	<b>232</b>	<b>227</b>	<b>240</b>	<b>264</b>	<b>207</b>	<b>42</b>	<b>2</b>	<b>20</b>	<b>76</b>	<b>32</b>	<b>19</b>	<b>2230</b>





# MN2050 Survey



- Interesting Findings:

<b>Assets Managed</b> by Cities, Counties and State Agencies																	
	Road	Bridge	Transit	Traffic	Buildings	Drink Water	Waste Water	Storm Sewer	Storm Pond	Airports	Ports	Railways	Electrical	Solid Waste	Natural Gas	Total	Assets Managed
Small Cities	97	11	1	55	71	92	92	89	54	15	0	7	18	5	9	616	14
Large Cities	187	88	4	112	109	128	139	137	133	19	2	9	54	9	7	1137	15
Counties	132	99	4	64	45	7	5	36	18	8	0	4	4	18	3	447	14
State Agencies	9	3	0	3	7	0	4	2	2	0	0	0	0	0	0	30	7
<b>Totals =</b>	<b>425</b>	<b>201</b>	<b>9</b>	<b>234</b>	<b>232</b>	<b>227</b>	<b>240</b>	<b>264</b>	<b>207</b>	<b>42</b>	<b>2</b>	<b>20</b>	<b>76</b>	<b>32</b>	<b>19</b>	<b>2230</b>	

# MN2050 Survey



- Parallel Findings:
  - Smart City project
  - Low cost, easy to use: Rural Water; Collectors - Maps
  - ASCE utility spec: Existing and new (3D)
  - Permits: Certified plan
- How You Can Help:
  - 2015 survey: Online, read/comment, 'nerd for a day'
  - 2016 survey: 20 minutes
  - Education



# MN2050 'State of the Infrastructure' Panel

MPWA Conference

November 19, 2015