

Accounting for Capital Assets Including General Infrastructure

Indiana LTAP Road School 2013

Purdue University

West Lafayette, Indiana

March 6, 2013

Accounting and Financial Reporting for General Infrastructure

Michael M. Nielsen

Government Fixed Asset Services, Inc.

Chicago, Illinois 60655-1728

nielsen@fixedassetservices.com

773 298 0289

Accounting for General Infrastructure

- ◆ Introduction
- ◆ Accounting Standards relate to the financial reporting of general infrastructure
- ◆ Significant investment
- ◆ Management Issues

Accounting for General Infrastructure

- ◆ Resources of County, City, Town, State, and recent ending balance examples
 - County at \$140 M
 - County at \$500 M
 - City at \$100 M
 - Town at \$15 M

Accounting for General Infrastructure

- ◆ Experience in practice with initial implementation
 - ...is GASB the IRS?
 - ...this is ok and you're making it easy and it's very do-able
 - ...this is pretty good information and we probably should have been doing this all along

Accounting for General Infrastructure

◆ Two basic needs

- Initial implementation
- Annual updating of general infrastructure worksheets

Accounting for General Infrastructure

◆ Importance of decisions and preliminary tasks

- Decisions
- Definitions
- Written policy
- Written procedures

Accounting for General Infrastructure

...a government needs a record of its general infrastructure for financial reporting purposes and this record must be maintained annually as of the fiscal year end to reflect changes (additions and retirements).

Task at Hand...

- ◆ Designing, monitoring, and maintaining an effective, economical, and efficient plan and process for the accounting and reporting of general infrastructure

Task at Hand...

◆ **Designing** capital asset information

- Process includes 'defining' capital vs. expense; repairs vs. improvements; and additions and retirements
- Includes consideration of final format of capital asset information and seeks to be user-friendly

Task at Hand...

◆ **Designing** capital asset information

- Information to include generic asset description, location, department, etc.
- For accounting purposes needs to be auditable
- Information frequency is part of design
- Prospective reporting is part of design
- Database may be in Excel or some other database system
- Reporting mechanism can be on-line input form

Task at Hand...

◆ **Monitoring** capital asset information

- Plan to periodically check integrity of entire database for both property accounting and property control
- An 'iterative process'
- Large assets including general infrastructure may need to verify existence only

Task at Hand...

◆ **Maintaining** capital asset information

- Annual update of information to subsequent fiscal year ends taking into account additions and retirements and adjusting information accordingly
- Decision to be made is choosing the logical person to maintain the integrity at the database – both centrally (point person responsible for annual updates) and departmentally (person in charge of additions and retirements for both the property accounting information and the property control information)

Task at Hand...

◆ **Maintaining** capital asset information

- Centrally (comments)
- Departmentally (comments)
- Responsible person (comments)

What to do in accounting and reporting of general infrastructure

- ◆ Importance of Policy
- ◆ Clearly defining what's going on regarding additions and retirements and repairs and maintenance
- ◆ Tracking and reporting construction-in-progress

Example – creation of a prospective reporting **roadmap** for capital assets

◆ Policies and procedures

- Responsible person
 - ◆ Centrally
 - ◆ Departmentally
- Information required
- Information sources
- Timeframe for completion

Example – defining **capital v. expense**

- ◆ Capital defined
- ◆ Expense defined
- ◆ Specific written examples of each can help (in procedures documentation)
- ◆ Capital to be considered in light of increased capacity or efficiency
- ◆ Repairs and maintenance usually restore an asset to original service potential and does not necessarily comprise an improvement
- ◆ Potential checklist

Example – Capital v. Expense

- ◆ Reference capitalization threshold(s) of, say, \$5,000 (or a higher amount) for furnishings and equipment, \$100,000 for building improvements, and \$250,000 for general infrastructure improvements
- ◆ Concept of improvements vs. maintenance of current service potential (maintain = maintenance)

Example – Capital v. Expense

◆ Common expense items for Roads

- Re-stripe
- Replace culvert
- Replace signage
- Replace guardrail
- Re-surface existing road
- Bridge joint repair
- Replace streetlight

Example – defining asset **additions**

- ◆ Only assets at or above capitalization threshold (a separate and increased amount for building and general infrastructure improvements)
- ◆ Assets must meet written definition and criteria of an improvement
- ◆ Newly constructed assets
- ◆ Level of detail with a view to future maintaining information for reporting future additions and retirements

Example – defining capital asset **'improvement'**

- ◆ 'New' asset defined
- ◆ Increased capacity defined
- ◆ Increased efficiency defined
- ◆ Example from GFOA Capital Asset Seminar
- ◆ An improvement generally extends an asset's estimated useful life beyond the original expectation
- ◆ An extended estimated useful life usually involves a significant alteration or structural change

Example – Improvement

- ◆ Increase capacity – adding new lanes to an existing road
- ◆ Increase efficiency – same size etc., but service provided at less cost (example)

Example – Repair and Maintenance

- ◆ Roads with a \$250,000 capitalization threshold on improvements – does not mean capitalization of re-surfacing because road is still same length and width etc.

Example – defining **retirements** relating to general infrastructure

- ◆ General infrastructure
- ◆ Full retirement
- ◆ Partial retirement (example)
- ◆ Estimates and use of indexes to determine amount of historical cost to retire

Example – Retirements

- ◆ Full retirements are easy
- ◆ Partial retirement means to isolate retired portion and retired percentage of the total asset and retired percentage of the asset's historical cost
- ◆ Partial retirement may take current cost of the replacement asset and index to its estimated historical cost and retire that amount

Example – **construction-in-progress**

- ◆ Bridge – starts at planning and continues on to include design, engineering, environmental, and construction costs, etc.

Original Assistance Manual

◆ Tool

- 2004 IN LTAP GASB 34 Assistance Manual
 - ◆ View toward economies
 - ◆ Inherent efficiencies
 - ◆ Simplicity
 - ◆ Provide direction and help

Original Assistance Manual

◆ Tool

- 2004 IN LTAP GASB 34 Assistance Manual
 - ◆ No other state in the United States prepared an assistance manual
 - ◆ Manual has been used around the country
 - ◆ Facilitates accounting and reporting of general infrastructure
 - ◆ Interest is ease of use and cost benefit
 - ◆ Interest is in updating capability

Original Assistance Manual

◆ Tool

- *two-fold* by design
 - ◆ Implementation
 - What do we have?
 - When did we acquire what we have?
 - What did we pay historically or for donated assets what would we have paid?

Original Assistance Manual

◆ Tool

- *two-fold* by design
 - ◆ Implementation
 - Inventory
 - Aging
 - Lifting
 - Costing

Original Assistance Manual

◆ Tool

- *two-fold* by design
 - ◆ Implementation
 - Depreciation calculations
 - Rights-of-way
 - All functional classes of roads included
 - All classes of infrastructure included
 - Rights-of-way included

Original Assistance Manual

◆ Tool

- *two-fold* by design
 - ◆ Update
 - Additions
 - Deductions
 - Construction-in Progress

2013 Updated Manual

◆ Tool

- 2013 IN LTAP GASB 34 Assistance Manual Revision and Update
 - ◆ New narrative section with annual reporting and updating focus
 - ◆ General infrastructure worksheets with filled-in examples and blank copies for use in accounting and reporting of assets
 - ◆ New and current replacement costs

2013 Updated Manual

◆ Tool

- 2013 IN LTAP GASB 34 Assistance Manual Revision and Update
 - ◆ Supporting documentation for current replacement costs
 - ◆ Updated Consumer Price Index and Deflators through 12-31-12
 - ◆ Recommended Practices of the Government Finance Association

2013 Updated Manual - Worksheet examples

- ◆ Inventory
- ◆ Allocation and aging
- ◆ Costing
- ◆ Depreciation
- ◆ Rights-of-Way

Allocation and aging example

Aging column F

Urban Local Roads Calculations														ROW for Urban Local Roads Calculations				
Road Name	From	To	Length (miles)	Width (ft)	Year Constructed (before 1980 go to middle of decade)	Length x Width (yards ²)	Replacement Cost Total (\$)	* Deflation for Year Constructed	** Historical Total Cost (\$)	Asset Life (years)	*** Annual Depreciation (\$)	Accumulated Depreciation (\$)	Net Book Value (\$)	**** Weighted Average Width of ROW (ft.) (Use 43.4' if value is not known)	ROW Area (Acres)	Total Fair Value per Acre for ROW (\$)	***** Deflation for Year Acquired for ROW (Used CPI-Deflator)	Historical Cost/Fair Value of ROW (\$)
Madson	500E	600E	2.2	20	2003	25,555	\$1,431,091	1.00	\$1,431,091	50	\$28,622	\$57,244	\$1,373,848	43.4	11.6	\$266,687	1.000	\$266,687
Jersey	Union Ch.	Hursh	1.9	22	1999	24,277	\$1,359,537	0.91	\$1,237,178	50	\$24,744	\$148,461	\$1,088,717	43.4	10.0	\$230,321	0.905	\$208,440
Akron	SR 1	Ohio Rd.	3.6	25	2000	52,272	\$2,927,232	0.97	\$2,839,415	50	\$56,788	\$283,942	\$2,555,474	43.4	19.0	\$436,397	0.936	\$408,468
Puff	CR 261	Frosh	0.9	25	1940	13,068	\$731,808	0.09	\$65,863	50		\$65,863		43.4	4.7	\$109,099	0.102	\$11,128
Popp	Sutton	500 E	2.7	22	1965	34,500	\$1,931,973	0.17	\$328,435	50	\$6,569	\$262,748	\$65,687	43.4	14.2	\$327,298	0.175	\$57,113
Deer Track	Manick Rd.	600E	7.9	20	1989	91,766	\$5,138,918	0.72	\$3,700,021	50	\$74,000	\$1,184,007	\$2,516,014	43.4	41.6	\$957,649	0.674	\$645,456
David	Hursh	Frosh	1.5	22	1909	19,166	\$1,073,318	0.03	\$32,200	50		\$32,200		43.4	7.9	\$181,832	0.035	\$6,310
Sunflower	Treelane	600E	6.1	25	2002	88,572	\$4,960,032	0.99	\$4,910,432	50	\$98,209	\$294,626	\$4,615,806	43.4	32.2	\$739,451	0.978	\$723,183
Farmland	100W	SR 34	0.7	22	1954	8,944	\$500,882	0.15	\$75,132	50		\$75,132		43.4	3.7	\$84,855	0.147	\$12,465
Waldron	Treelane	250S	2.7	25	1968	39,204	\$2,195,424	0.17	\$373,222	50	\$7,464	\$276,184	\$97,038	43.4	14.2	\$327,298	0.175	\$57,113
51	SR 40	250S	7.9	22	1975	100,943	\$5,652,810	0.36	\$2,035,012	50	\$40,700	\$1,221,007	\$814,005	43.4	41.6	\$957,649	0.285	\$272,547
Newton	SR1	100W	1.5	20	1974	17,424	\$975,744	0.36	\$351,268	50	\$7,025	\$217,786	\$133,482	43.4	7.9	\$181,832	0.285	\$51,749
Taylor	Frosh	Treelane	6.1	20	1964	70,858	\$3,968,026	0.17	\$674,564	50	\$13,491	\$553,143	\$121,422	43.4	32.2	\$739,451	0.175	\$129,034
Ross	Manick Rd.	Ohio Rd.	0.7	25	1932	10,164	\$569,184	0.06	\$34,151	50		\$34,151		43.4	3.7	\$84,855	0.077	\$6,559

Costing example

Costing columns H, I, J

Urban Local Roads Calculations														ROW for Urban Local Roads Calculations				
Road Name	From	To	Length (miles)	Width (ft)	Year Constructed (before 1980 go to middle of decade)	Length x Width (yards ²)	Replacement Cost Total (\$)	* Deflation for Year Constructed	** Historical Total Cost (\$)	Asset Life (years)	*** Annual Depreciation (\$)	Accumulated Depreciation (\$)	Net Book Value (\$)	**** Weighted Average Width of ROW (ft.) (Use 43.4' if value is not known)	ROW Area (Acres)	Total Fair Value per Acre for ROW (\$)	***** Deflation for Year Acquired for ROW (Used CPI-Deflator)	Historical Cost/Fair Value of ROW (\$)
Madson	500E	600E	2.2	20	2003	25,555	\$1,431,091	1.00	\$1,431,091	50	\$28,622	\$57,244	\$1,373,848	43.4	11.6	\$266,687	1.000	\$266,687
Jersey	Union Ch.	Hursh	1.9	22	1999	24,277	\$1,359,537	0.91	\$1,237,178	50	\$24,744	\$148,461	\$1,088,717	43.4	10.0	\$230,321	0.905	\$208,440
Akron	SR 1	Ohio Rd.	3.6	25	2000	52,272	\$2,927,232	0.97	\$2,839,415	50	\$56,788	\$283,942	\$2,555,474	43.4	19.0	\$436,397	0.936	\$408,468
Puff	CR 261	Frosh	0.9	25	1940	13,068	\$731,808	0.09	\$65,863	50		\$65,863		43.4	4.7	\$109,099	0.102	\$11,128
Popp	Sutton	500 E	2.7	22	1965	34,500	\$1,931,973	0.17	\$328,435	50	\$6,569	\$262,748	\$65,687	43.4	14.2	\$327,298	0.175	\$57,113
Deer Track	Manick Rd.	600E	7.9	20	1989	91,766	\$5,138,918	0.72	\$3,700,021	50	\$74,000	\$1,184,007	\$2,516,014	43.4	41.6	\$957,649	0.674	\$645,456
David	Hursh	Frosh	1.5	22	1909	19,166	\$1,073,318	0.03	\$32,200	50		\$32,200		43.4	7.9	\$181,832	0.035	\$6,310
Sunflower	Treelane	600E	6.1	25	2002	88,572	\$4,960,032	0.99	\$4,910,432	50	\$98,209	\$294,626	\$4,615,806	43.4	32.2	\$739,451	0.978	\$723,183
Farmland	100W	SR 34	0.7	22	1954	8,944	\$500,882	0.15	\$75,132	50		\$75,132		43.4	3.7	\$84,855	0.147	\$12,465
Waldron	Treelane	250S	2.7	25	1968	39,204	\$2,195,424	0.17	\$373,222	50	\$7,464	\$276,184	\$97,038	43.4	14.2	\$327,298	0.175	\$57,113
51	SR 40	250S	7.9	22	1975	100,943	\$5,652,810	0.36	\$2,035,012	50	\$40,700	\$1,221,007	\$814,005	43.4	41.6	\$957,649	0.285	\$272,547
Newton	SR1	100W	1.5	20	1974	17,424	\$975,744	0.36	\$351,268	50	\$7,025	\$217,786	\$133,482	43.4	7.9	\$181,832	0.285	\$51,749
Taylor	Frosh	Treelane	6.1	20	1964	70,858	\$3,968,026	0.17	\$674,564	50	\$13,491	\$553,143	\$121,422	43.4	32.2	\$739,451	0.175	\$129,034
Ross	Manick Rd.	Ohio Rd.	0.7	25	1932	10,164	\$569,184	0.06	\$34,151	50		\$34,151		43.4	3.7	\$84,855	0.077	\$6,559

Depreciation example

Depreciation columns K, L, M, N

Urban Local Roads Calculations														ROW for Urban Local Roads Calculations				
Road Name	From	To	Length (miles)	Width (ft)	Year Constructed (before 1980 go to middle of decade)	Length x Width (yards ²)	Replacement Cost Total (\$)	* Deflation for Year Constructed	** Historical Total Cost (\$)	Asset Life (years)	*** Annual Depreciation (\$)	Accumulated Depreciation (\$)	Net Book Value (\$)	**** Weighted Average Width of ROW (ft.) (Use 43.4' if value is not known)	ROW Area (Acres)	Total Fair Value per Acre for ROW (\$)	***** Deflation for Year Acquired for ROW (Used CPI-Deflator)	Historical Cost/Fair Value of ROW (\$)
Madson	500E	600E	2.2	20	2003	25,555	\$1,431,091	1.00	\$1,431,091	50	\$28,622	\$57,244	\$1,373,848	43.4	11.6	\$266,687	1.000	\$266,687
Jersey	Union Ch.	Hursh	1.9	22	1999	24,277	\$1,359,537	0.91	\$1,237,178	50	\$24,744	\$148,461	\$1,088,717	43.4	10.0	\$230,321	0.905	\$208,440
Akron	SR 1	Ohio Rd.	3.6	25	2000	52,272	\$2,927,232	0.97	\$2,839,415	50	\$56,788	\$283,942	\$2,555,474	43.4	19.0	\$436,397	0.936	\$408,468
Puff	CR 261	Frosh	0.9	25	1940	13,068	\$731,808	0.09	\$65,863	50	\$65,863	\$65,863	\$65,863	43.4	4.7	\$109,099	0.102	\$11,128
Popp	Sutton	500 E	2.7	22	1965	34,500	\$1,931,973	0.17	\$328,435	50	\$6,569	\$262,748	\$65,687	43.4	14.2	\$327,298	0.175	\$57,113
Deer Track	Manick Rd.	600E	7.9	20	1989	91,766	\$5,138,918	0.72	\$3,700,021	50	\$74,000	\$1,184,007	\$2,516,014	43.4	41.6	\$957,649	0.674	\$645,456
David	Hursh	Frosh	1.5	22	1909	19,166	\$1,073,318	0.03	\$32,200	50	\$32,200	\$32,200	\$32,200	43.4	7.9	\$181,832	0.035	\$6,310
Sunflower	Treelane	600E	6.1	25	2002	88,572	\$4,960,032	0.99	\$4,910,432	50	\$98,209	\$294,626	\$4,615,806	43.4	32.2	\$739,451	0.978	\$723,183
Farmland	100W	SR 34	0.7	22	1954	8,944	\$500,882	0.15	\$75,132	50	\$75,132	\$75,132	\$75,132	43.4	3.7	\$84,855	0.147	\$12,465
Waldron	Treelane	250S	2.7	25	1968	39,204	\$2,195,424	0.17	\$373,222	50	\$7,464	\$276,184	\$97,038	43.4	14.2	\$327,298	0.175	\$57,113
51	SR 40	250S	7.9	22	1975	100,943	\$5,652,810	0.36	\$2,035,012	50	\$40,700	\$1,221,007	\$814,005	43.4	41.6	\$957,649	0.285	\$272,547
Newton	SR1	100W	1.5	20	1974	17,424	\$975,744	0.36	\$351,268	50	\$7,025	\$217,786	\$133,482	43.4	7.9	\$181,832	0.285	\$51,749
Taylor	Frosh	Treelane	6.1	20	1964	70,858	\$3,968,026	0.17	\$674,564	50	\$13,491	\$553,143	\$121,422	43.4	32.2	\$739,451	0.175	\$129,034
Ross	Manick Rd.	Ohio Rd.	0.7	25	1932	10,164	\$569,184	0.06	\$34,151	50	\$34,151	\$34,151	\$34,151	43.4	3.7	\$84,855	0.077	\$6,559

Rights-of-Way example

Rights-of-Way columns O, P, Q, R, S

Urban Local Roads Calculations														ROW for Urban Local Roads Calculations				
Road Name	From	To	Length (miles)	Width (ft)	Year Constructed (before 1980 go to middle of decade)	Length x Width (yards ²)	Replacement Cost Total (\$)	* Deflation for Year Constructed	** Historical Total Cost (\$)	Asset Life (years)	*** Annual Depreciation (\$)	Accumulated Depreciation (\$)	Net Book Value (\$)	**** Weighted Average Width of ROW (ft.) (Use 43.4' if value is not known)	ROW Area (Acres)	Total Fair Value per Acre for ROW (\$)	***** Deflation for Year Acquired for ROW (Used CPI-Deflator)	Historical Cost/Fair Value of ROW (\$)
Madson	500E	600E	2.2	20	2003	25,555	\$1,431,091	1.00	\$1,431,091	50	\$28,622	\$57,244	\$1,373,848	43.4	11.6	\$266,687	1.000	\$266,687
Jersey	Union Ch.	Hursh	1.9	22	1999	24,277	\$1,359,537	0.91	\$1,237,178	50	\$24,744	\$148,461	\$1,088,717	43.4	10.0	\$230,321	0.905	\$208,440
Akron	SR 1	Ohio Rd.	3.6	25	2000	52,272	\$2,927,232	0.97	\$2,839,415	50	\$56,788	\$283,942	\$2,555,474	43.4	19.0	\$436,397	0.936	\$408,468
Puff	CR 261	Frosh	0.9	25	1940	13,068	\$731,808	0.09	\$65,863	50		\$65,863		43.4	4.7	\$109,099	0.102	\$11,128
Popp	Sutton	500 E	2.7	22	1965	34,500	\$1,931,973	0.17	\$328,435	50	\$6,569	\$262,748	\$65,687	43.4	14.2	\$327,298	0.175	\$57,113
Deer Track	Manick Rd.	600E	7.9	20	1989	91,766	\$5,138,918	0.72	\$3,700,021	50	\$74,000	\$1,184,007	\$2,516,014	43.4	41.6	\$957,649	0.674	\$645,456
David	Hursh	Frosh	1.5	22	1909	19,166	\$1,073,318	0.03	\$32,200	50		\$32,200		43.4	7.9	\$181,832	0.035	\$6,310
Sunflower	Treelane	600E	6.1	25	2002	88,572	\$4,960,032	0.99	\$4,910,432	50	\$98,209	\$294,626	\$4,615,806	43.4	32.2	\$739,451	0.978	\$723,183
Farmland	100W	SR 34	0.7	22	1954	8,944	\$500,882	0.15	\$75,132	50		\$75,132		43.4	3.7	\$84,855	0.147	\$12,465
Waldron	Treelane	250S	2.7	25	1968	39,204	\$2,195,424	0.17	\$373,222	50	\$7,464	\$276,184	\$97,038	43.4	14.2	\$327,298	0.175	\$57,113
51	SR 40	250S	7.9	22	1975	100,943	\$5,652,810	0.36	\$2,035,012	50	\$40,700	\$1,221,007	\$814,005	43.4	41.6	\$957,649	0.285	\$272,547
Newton	SR1	100W	1.5	20	1974	17,424	\$975,744	0.36	\$351,268	50	\$7,025	\$217,786	\$133,482	43.4	7.9	\$181,832	0.285	\$51,749
Taylor	Frosh	Treelane	6.1	20	1964	70,858	\$3,968,026	0.17	\$674,564	50	\$13,491	\$553,143	\$121,422	43.4	32.2	\$739,451	0.175	\$129,034
Ross	Manick Rd.	Ohio Rd.	0.7	25	1932	10,164	\$569,184	0.06	\$34,151	50		\$34,151		43.4	3.7	\$84,855	0.077	\$6,559

The end

- ◆ Summary
- ◆ Conclusion
- ◆ Questions
- ◆ Comments
- ◆ Additional Information

Accounting for Capital Assets Including General Infrastructure

Michael M. Nielsen
Government Fixed Asset Services, Inc.
Chicago, Illinois 60655-1728
nielsen@fixedassetservices.com
773 298 0289