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ESTIMATED USEFUL LIVES FOR CAPITAL ASSETS INFRASTRUCTURE

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The Government Accounting Standards Boards (GASB) Statement 34 allows for reporting a government's infrastructure assets in one of two methods. The Modified Approach or the Depreciation method. The Modified Approach must meet the following two requirements:

- * The government utilizes an asset management system to manage eligible infrastructure assets
- * The government documents that the eligible infrastructure assets are being preserved at or above a condition level established by the government

The Depreciation method involves reporting infrastructure at historical cost and depreciating the assets over their estimated useful life. This article will discuss determining the estimated useful life for various classes of infrastructure assets.

GASB Statement 34 states that the government should estimate useful lives based upon its own experience and plans for the assets. Many states have established estimated lives for various classes of infrastructure through their Department of Transportation and make this information available via the Internet. Other sources of useful lives are professional organizations and the use of consultants. It is important to understand there are variances in estimated useful lives because of variables such as climate, construction materials, normal maintenance programs, etc. The lives identified in this article are "average" lives and are the result of recent GASB 34 implementation studies.

Several asset groupings can be classified as both Land Improvements and Infrastructure. Examples are Parking Lots, Sidewalks, and Pedestrian Paths. A definition frequently used to place an asset in either the Land Improvements account or Infrastructure account is if the asset is outside of, and including, the sidewalk. If it is, the asset is recorded in the Infrastructure Account. Otherwise it is considered a Land Improvement. For example, a Parking Lot adjacent to a building is a Land Improvement but a Parking Lot on a street corner operated by the government for Public Parking is an Infrastructure asset.

Roadways - Information can be reported in detail (curbs, gutters, surface type, guardrails, concrete barriers, etc), by Subsystem (roadway pavement including curbs and gutters), or by Networks (Roadway Network consisting of pavement, curbs, gutters, lighting, guardrails, signage, etc.) From our experience in setting up and reporting infrastructure values, the most common method for reporting roadway infrastructure is by Subsystem. This results in a level of detail sufficient for describing the components of the roadway system and depreciating each component using an estimated life for that particular classification. Although the reporting for GASB 34 is by subsystem the cost of all the sub units in the Subsystem are considered in arriving at the cost. This also simplifies the retirement of infrastructure assets on a going forward basis.

When assigning estimated useful lives for roadways the life is dependent more upon the type of pavement material than the class of road (Local, Connector, Arterial, Major Arterial). The estimated useful life is assigned by type of surface material because the engineering design of roadways with a high Average Daily Traffic (ADT) adjusts for the high traffic volume compared to the engineering design of a roadway with a lower traffic volume. In other words, a concrete Arterial roadway will have the same estimated useful life as a concrete Local roadway. In GASB 34 reporting, roadways are usually reported by type of pavement but sometimes governments want to report by class of roadway i.e. Local, Collector, Arterial or Major Arterial roads. In this case the estimated useful life is weighted taking into account the mix of surface types comprising each class of roadway.

Four factors affect the life assigned to roadways; Subgrade or bearing capacity of the road; the composition of the asphalt or concrete surface; traffic volume (engineered for cars and/or trucks); and the climate conditions such as amount of rain or snow and fluctuation in temperature. The harder the subgrade under the roadway the more likely the roadway will have a longer life. One additional factor to consider when assigning roadway lives is the speed limit. For example, asphalt roads with a slower speed limit have a shorter life than an asphalt road with a high speed limit due the "creeping" quality of asphalt. When arriving at an estimated

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Infrastructure, cont.

life for a roadway it is assumed all normal maintenance is performed to maintain the roadway during its normal life.

Following are "average" lives for roadways:

| | |
|---------------------------------|----------|
| Dirt | 10 years |
| (subject to weather conditions) | |
| Gravel | 15 years |
| (subject to weather conditions) | |
| Concrete | 30 years |
| Asphaltic Concrete | 20 years |
| Brick or Stone | 50 years |

Sidewalks - As with roadways, the climate conditions such as the amount of rain or snow and the fluctuation in temperature affects the life of the sidewalk. The "average" lives for sidewalks depends upon the material:

| | |
|---------------------------------|----------|
| Concrete | 30 years |
| Asphalt | 25 years |
| Brick or Stone | 50 years |
| (subject to weather conditions) | |

Parking Lots

| | |
|----------------------|----------|
| Concrete | 35 years |
| Asphalt | 15 years |
| Gravel | 10 years |
| Brick or Stone | 45 years |

Bridges - Sometimes there is confusion in defining what is a bridge and

what should be considered a culvert. A definition that can be used is if the structure has a 20-foot span or greater it is considered a bridge. If the span is less than 20 feet it is considered a culvert. As with roadways, many State Department of Transportation agencies publish estimated useful life guidelines of Bridges for their States. For GASB 34 reporting we use the following average lives that may be adjusted for the climate and temperature fluctuation.

| | |
|----------------------------|----------|
| Precast Concrete | 40 years |
| Prestressed Concrete | 45 years |
| Steel with Truss | 50 years |
| Steel with out Truss | 45 years |
| Timber/Wood | 30 years |
| Pedestrian Steel | 30 years |
| Concrete | 30 years |
| Wood | 25 years |

Unique bridges such as Suspension Bridges, Cable Staid Bridges, Moveable Bridges (Rotating, Hydraulic, Bascule), and Covered Bridges are evaluated on a case by case basis.

Culverts - Culverts are divided into Major and Small culverts. Major culverts are culverts that have a side area of 35 square feet or greater. Small culverts have a side area less than 35 square feet.

Major:

| | |
|----------------|----------|
| Concrete | 45 years |
|----------------|----------|

(Precast Box, Precast Elliptical, Cast in Place)

| | |
|--|----------|
| Concrete Pre Stress | 40 years |
| Timber Log Treated | 30 years |
| Steel | 30 years |
| (Corrugated Round, Corrugated Bottomless Arch) | |

Small:

| | |
|------------------------|----------|
| Plastic | 25 years |
| Cast Iron | 30 years |
| Metal Corrugated | 30 years |
| Concrete | 40 years |

Road Signage - Although Roadway Signage may not meet GASB's 5% rule most governments report this category, as the information is easily assessable. 10 years

Sewer Lines

| | |
|----------------|----------|
| Concrete | 50 years |
| Brick | 90 years |
| Metal | 40 years |

Traffic Lights - Although Traffic Lights may not meet GASB's 5% rule most governments report this category, as the information is easily assessable.

| | |
|-----------------|----------|
| Mast Arms | 20 years |
| Hung Wire | 15 years |

Street Lighting - Although Street Lighting may not meet GASB's 5% rule most governments report this cate-

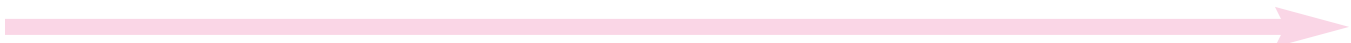
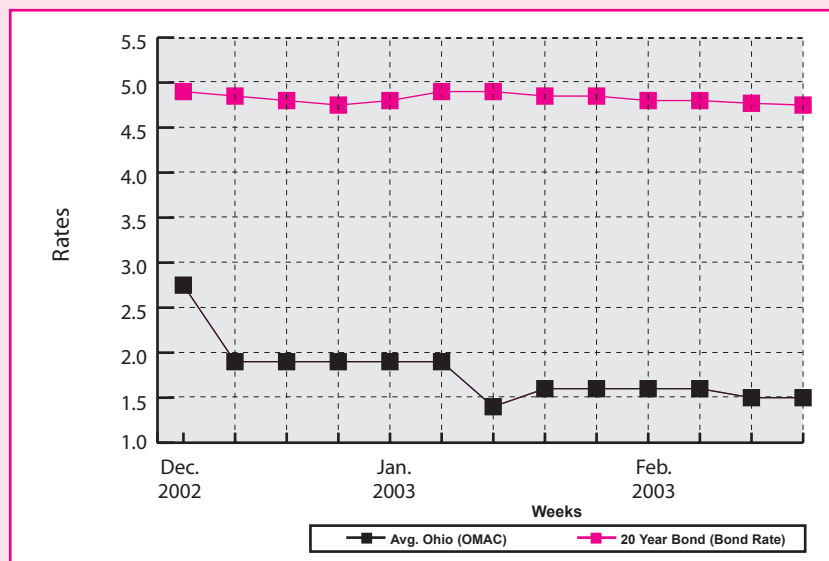
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MARKET UPDATE

GENERAL OBLIGATION

Note and Bond Interest Rates for December thru February

The following graph compares Ohio short-term note rates with the Bond Buyer's 20 year bond index. The short-term rates represent actual rates reported to OMAC by Ohio purchasers and reported on OMAC's weekly calendar.



Infrastructure, cont.

gory, as the information is easily assessable.

| | |
|---------------|----------|
| Concrete..... | 30 years |
| Metal..... | 20 years |
| Wood..... | 15 years |

Storm Drains

| | |
|-----------------------|-----------|
| Plastic..... | 25 years |
| Cast Iron..... | 30 years |
| Metal Corrugated..... | 30 years |
| Concrete..... | 40 years |
| Ditch/Trench..... | 100 years |
| Berms..... | 20 years |

Tunnels - Tunnels can have a variable life expectancy and are determined on an individual tunnel basis.

Alleys

| | |
|-------------------------|----------|
| Concrete..... | 20 years |
| Asphaltic Concrete..... | 20 years |
| Dirt..... | 10 years |
| Gravel..... | 15 years |
| Brick or Stone..... | 50 years |

Man Made Lakes.....100 years

Water Ways/Canals.....100 years

Boat Ramps

| | |
|-----------------------|----------|
| Wood..... | 10 years |
| Concrete/Asphalt..... | 20 years |
| Metal..... | 15 years |

Marinas

| | |
|----------------|----------|
| Piers..... | 50 years |
| Seawalls..... | 50 years |
| Bulkheads..... | 50 years |

Bike/Jogging Paths

| | |
|-----------------------|----------|
| Dirt..... | 10 years |
| Gravel..... | 15 years |
| Concrete..... | 30 years |
| Asphalt..... | 20 years |
| Composite Rubber..... | 7 years |
| Brick of Stone..... | 50 years |

Reservoirs.....50 years

Dams - Dams require individual research but as a general guideline earthen dams have a life of 40 years and concrete dams have a life of 60 years

Airport Runways.....10 years

The above estimated lives are guidelines. The actual life expectancy should be modified based on the experience of the reporting government.

MOVEABLE EQUIPMENT

| | |
|---|----------|
| Athletic Equipment..... | 10 years |
| Appliances/Food Service Equipment..... | 10 years |
| Audio Visual Equipment..... | 7 years |
| Books, Multi Media Materials..... | 5 years |
| Business Machines..... | 7 years |
| Communications Equipment..... | 10 years |
| Computer Software..... | 5 years |
| Contractors/Construction Equipment..... | 12 years |
| Computer Equipment..... | 5 years |
| Fire Department Equipment..... | 12 years |
| Furniture..... | 20 years |
| Grounds, Agricultural Equipment..... | 15 years |
| Lab, Science Equipment..... | 10 years |
| Law Enforcement Equipment..... | 10 years |
| Licensed Vehicles..... | 6 years |
| Machinery and Tools..... | 15 years |
| Musical Instruments..... | 10 years |
| Outdoors Recreational Equipment..... | 15 years |
| Stage and Auditorium Equipment..... | 20 years |
| Custodial Equipment..... | 15 years |
| Photocopiers..... | 5 years |

LAND IMPROVEMENTS

| | |
|--------------------------------|----------|
| Fencing, gates..... | 20 years |
| Landscaping..... | 10 years |
| Outside Sprinkler Systems..... | 25 years |
| Athletic Fields..... | 15 years |
| Golf Courses..... | 20 years |
| Septic Systems..... | 15 years |
| Stadiums..... | 45 years |
| Swimming Pools..... | 20 years |
| Tennis Courts..... | 20 years |
| Fountains..... | 20 years |

| | |
|-----------------------|----------|
| Retaining Walls..... | 20 years |
| Bleachers..... | 20 years |
| Soccer Fields..... | 15 years |
| Running Track..... | 15 years |
| Outdoor Lighting..... | 20 years |

BUILDINGS, BUILDING SERVICES

| | |
|---|----------|
| Buildings - General Permanent Structures..... | 50 years |
| Portable Structures..... | 25 years |

Building Components, Building Services:

| | |
|----------------------------|----------|
| Excavation..... | 50 years |
| Foundation..... | 50 years |
| Frame..... | 50 years |
| Floor Structure..... | 50 years |
| Floor Covering..... | 15 years |
| Carpeting..... | 5 years |
| Computer flooring..... | 10 years |
| Exterior Walls..... | 50 years |
| Roof Cover..... | 10 years |
| Interior Construction..... | 15 years |
| Interior Renovation..... | 10 years |
| Ceiling Finish..... | 10 years |
| Plumbing..... | 20 years |
| HVACV..... | 20 years |
| Electrical..... | 20 years |
| Fire System..... | 25 years |
| Elevators..... | 20 years |

Paul E. Gruenwald is a Vice President and Managing Principal for the Milwaukee Property Appraisal Services Group of American Appraisal Associates, Inc. ("AAA").

Since joining the firm in 1972, Mr. Gruenwald has held various positions involving valuation consulting and system design, and he has served as vice president for a subsidiary of the firm. Prior to his current position, he served as manager of Systems Development.





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CALENDAR

Calendar of Issuer Conferences & Outings for 2003

| NAME | EVENT | DATE | LOCATION |
|---------------|--|--|--|
| GFOA | National Conference Annual Golf Outing Annual Fall Conference | May 18 - 21 July 28 September 16 - 18 | Hilton Hotel New York – New York, New York Dornoch Golf Club – Delaware, Ohio Cincinnati Marriott North, Cincinnati, Ohio |
| MFOA (OML) | Spring Conference Annual Conference Northeast Ohio Golf Outing North-Central Ohio Golf Outing | April 23 - 25 October 1 – 3 TBD August 27 | Embassy Suites – Dublin, Ohio Hyatt Regency Hotel - Cincinnati, Ohio TBD Woussicquet Golf Course – Sandusky, Ohio |
| CCAO | Summer Conference Winter Conference Annual Golf Outing | June 1 – 3 Nov. 30 – Dec. 2 August | Crown Plaza Hotel/Convention Center - Dayton Ohio Hyatt Regency – Columbus, Ohio Wooldridge Golf & Swim Club – Mansfield, Ohio |
| OASBO | Annual Workshop | April 13 – 16 | Hyatt Regency Hotel – Columbus Convention Center |
| OMCA | Spring Conference | April 1 - 3 | Adam's Mark Hotel – Columbus, Ohio |
| OSBA | Conference | November 9 - 12 | Hyatt Regency - Columbus Convention Center |
| NACO | National Conference | July 11 – 15 | Milwaukee, Wisconsin |
| OPFOTP | Ohio Public Finance Officers Training Program CMFA Maintenance Program Golf Outing | June 23 – 27 June 26 – 27 June 25 | Holiday Inn – Hudson, Ohio Holiday Inn – Hudson, Ohio To Be Announced – Hudson, Ohio |
| OMTA | Annual Conference National Conference | October 8 – 10 August 10 – 13 | Hilton Cincinnati Netherland Plaza – Cincinnati Ohio Washington DC – United States |
| CAAO | New & Veteran Auditors Conference Summer Conference Winter Conference | April 7 – 10 June 9 – 12 November 18 - 20 | Hyatt on Capital Square – Columbus, Ohio Quail Hollow – Lake County, Ohio Embassy Suites - Dublin, Ohio |
| BMA | Annual Meeting | April 10 – 11 | Waldorf-Astoria Hotel – New York, New York |
| OPEC | Annual Meeting | TBD | Columbus, Ohio |

CCAO – County Commissioners Association of Ohio – (614) 221-5627
 GFOA – Government Finance Officers Association – (614) 221-1900
 MFOA – Municipal Finance Officers Association of Ohio – (614) 221-4349
 NACO – National Association of Counties – (614) 221-5627
 OASBO – Ohio Association of School Business Officials – (614) 431-9116
 OMCA – Ohio Municipal Clerks Association – (614) 221-4349

OSBA – Ohio School Boards Association – (614) 540-4000
 OMTA – Ohio Municipal Treasurers Association – (440) 885-8812
 CAAO – County Auditor's Association of Ohio – (614) 228-2226
 OPFOTP – Ohio Public Finance Officers Training Program – (330) 672-7148
 BMA – Bond Market Association – (212) 440- 9429
 OPEC – Ohio Public Expenditure Council – (614) 221-7738

If you would like your event highlighted, contact Chris Scott at 1-800-969-6622, or by email at Chris@ohiomac.com