

“The 2% Rule”

**Joint Legislative Committee
on School Construction Funding**

December 12, 2007

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OSPI TAC 2% Rule Committee

Carter Bagg – ESD 112 (formerly with OSPI)

Bill Chaput – Hutteball & Oremus Architecture (CEFPI)

Kelly Gregg – North Franklin S.D. (WAMOA)

David Huffman – Richert and Assoc. (AIA, CSI)

Kas Kinkead – Cascade Design Collaborative (ASLA)

Fred Long – Kent S.D. (WASBO)

Forrest Miller – Lake Washington S.D. (IFMA)

Nancy Moffett – North Kitsap S.D. (WASA)

WAC 392-347-023 “The 2% Rule”

The State Board of Education (SBE) passed this regulation in 1991:

- It applies only to school facilities accepted by the school district board of directors (I.E., new construction) after January 1, 1993.
- These facilities shall not be eligible for state funds for modernization for thirty years (it had previously been twenty years for buildings prior to that time).
- Also for these post 1992 buildings, for the fifteen years prior to seeking state modernization funding, the total (for the 15 years) annual expenditures for maintenance of plant and equipment must be at least two percent of the annual determined replacement value (OSPI’s Area Cost Allowance).
- Since the first year these buildings would be eligible for modernization funding is 2023, the first year maintenance expenses would need to be documented is 2008.

WAC 392-347-023 “The 2% Rule”

- If the total annual expenditures are at least one-and one-half percent, but not a full 2%, the allowable square foot cost of modernization will be reduced by 7-1/2%.
- For total annual expenditures between 1% and 1-1/2%, the allowable cost will be reduced by 15%.
- For total annual expenditures between 1/2% and 1%, the reduction would be 22-1/2%
- For total annual expenditures of less than 1/2%, the building would be ineligible for state modernization funding.
- For New-in-Lieu replacement of the existing building, the minimum expenditure is 2%.

WAC 392-347-023 "The 2% Rule" "Committing to the Cost of Ownership"

- Ownership time horizon
- Labor prices
- Energy prices
- Materials prices
- Distances between buildings in inventory

While the M&R component of the cost of ownership will vary from building to building, it is possible to develop a consistent relationship between this component and characteristics of an inventory of buildings. A variety of such relationships are in use to estimate average levels of the cost of M&R. Typical maintenance expenditure per square foot is frequently used as a yardstick for determining what an appropriate level of M&R budgeting should be, but such a measure is insufficiently sensitive to either external financial conditions or building characteristics. The relationship is better stated in terms of an annual percentage of the inventory's current replacement value.

Based on experience and judgment, the committee proposes that the appropriate level of M&R spending, based on the average, in the range of 2 to 4 percent of current replacement value of the inventory.¹² The specific percentage for any inventory will depend on such factors as the age of the buildings in the inventory, the type of construction (permanent vs. temporary), the level of use of the buildings, the structure of the maintenance organization, and the climate. However, the relationship between M&R requirements and the current replacement value of single buildings may vary widely and for any one building may be outside the proposed range.

This 2 to 4 percent range is most valid as a budget guide for a large inventory of buildings and over time periods of several years. A small town or school district may find that a severe winter, or an older building nearing the time that a substantial renovation is warranted, temporarily raises annual M&R costs above this normal range. Such a jurisdiction may also find that past decisions to reduce construction expenditures now have, as a consequence, higher M&R costs. However, even with small inventories the 2 to 4 percent rule of thumb may be applied over a longer period of time, such as 5 to 10 years.

A reliable estimate of the current replacement value of a building or an inventory is a necessary element of this budgeting rule. Current replacement value can be determined in several ways. The simplest approach estimates what it would cost in any given year to construct or purchase each building in the inventory. Another approach applies escalation factors to the original

¹² This rule is based on the committee's combined judgment.

acquisition cost of the buildings in the inventory. Some agencies have developed computer programs to perform such calculations and to provide a replacement value for the total inventory year. There may be substantial uncertainties in these estimates particularly among the older stock of public buildings (some than 100 years old). Each agency must evaluate its own inventory and develop the best approach for determining its replacement value.

If an inventory of buildings receives an adequate level M&R funding, a steady-state situation should exist where inventory would remain in a service condition that would not decline nor improve and a backlog of deferred deficiencies would not develop.¹³

However, if a backlog exists, it is unlikely to be reduced expenditures limited to the 2 to 4 percent level. Further deterioration will occur if the backlog is not reduced, and the ultimate cost of correcting the deficiencies will increase. The committee proposes that a second element of the total M&R budget be recognized--funds required to reduce the backlog. The budget then includes the routine M&R components, which constitute part of the cost of ownership, and the backlog reduction component, which is determined by the physical condition of the inventory.

Assessing the size of the backlog that develops when M&R neglected requires a condition assessment. A condition assessment is an evaluation of the degree of accumulated deterioration inferred from diagnostic observations and tests.¹⁴

Condition assessment, at its simplest, is a monitoring activity applied regularly as a part of a good M&R program. System materials are inspected on a planned schedule to determine they are sound and functional. Standards must be available as a basis for determining when systems or materials are deviating from their anticipated condition to spot potential problems before they become critical. Condition assessment is also a

¹³ This expectation depends on effective use of M&R funds which requires adequate management and staff capability. See Chapter 5.

¹⁴ The general field of building diagnostics is still relatively young and evolving (BRB, 1985). Most diagnostic assessments undertaken because of specific observable failures or performance problems, not for the broad assessment of backlog, are not the province of the committee. This broader assessment is in ways analogous to medical diagnostics that may alert a physician to a patient's potential problems or help assess the extent of problems.

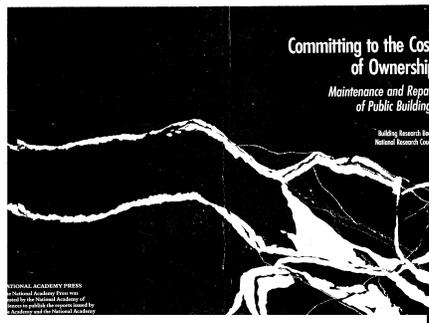
committee's use.⁵ The following definitions are meant to be simple while conveying important principles that the committee wishes to emphasize in this report:

Cost of ownership of a building is the total of all expenditures an owner will make over the course of the building's service lifetime. How these expenditures are measured and reported may vary from owner to owner, depending on such factors as whether the owner is a private individual, business enterprise, or a public agency as well as relevant accounting procedures and current tax laws. Regardless of the specific accounting methods, the cost of ownership will generally include not only planning, design, and construction but also maintenance, repairs, replacements, alterations, and normal operations such as heating, cooling, and lighting as well as ultimate disposal. A building owner should recognize at the outset that the cost of ownership is not fully paid when construction is complete or when a building is purchased but instead continues for many years. Failure to recognize this can lead to short-sighted decisions that increase the overall cost of ownership.

A building's service lifetime is the period of years over which the building provides shelter and an environment supportive of the activities it houses. Buildings can have lifetimes that last centuries, although parts of the building may change greatly during that period. Building owners, designers, and managers generally make decisions about maintenance, repairs, operations, and alterations with an assumed design service life in mind, typically between 10 and 30 years.

Maintenance is the upkeep of property and equipment, work necessary to realize the originally anticipated useful life of a fixed asset. Maintenance includes periodic or occasional inspection; adjustment, lubrication, and cleaning (nonjanitorial) of equipment; replacement of parts; painting; resurfacing; and other actions to assure continuing service and to prevent breakdown. Maintenance does not prolong the design service life of the property or equipment, nor does it add to the asset's value.

⁵ The subcommittee consulted the following sources to develop its definitions, which the full committee accepted: (1) Webster's Seventh Collegiate Dictionary, (2) DuPont's Cost Accounting Procedures Manual, (3) OMB Circular A-87, (4) ASTM Standard Terminology of Building Construction, (5) Public Health Service Facilities Manual, and (6) Indian Health Service Facilities Manual.



However, lack of maintenance can reduce an asset's value by leading to equipment breakdown, premature failure of a building's subsystems, and shortening of the asset's useful service lifetime.

Repair is work to restore damaged or worn-out property to a normal operating condition. Repairs are curative, while maintenance is preventative.

Replacement of an item that is part of the permanent investment of plant and equipment is an exchange or substitution of one fixed asset for another having the capacity to perform the same function. Replacement may arise from obsolescence, cumulative effect of wear and tear throughout the anticipated service lifetime, premature service failure, or destruction through exposure to fire or other hazard. In contrast to repair, replacement generally involves a complete identifiable item of investment (i.e., a major building component or subsystem). When major building subsystems fail, a building owner may sometimes have a choice of repair or replacement of that subsystem. Replacement is typically funded in maintenance and repair budgets.

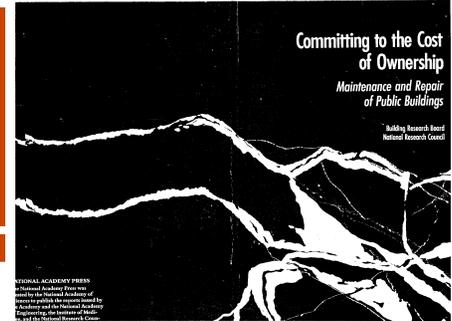
Deficiencies occur when maintenance and repair tasks are not performed in a timely manner. Deficiencies may or may not have immediately observable physical consequences, but when allowed to accumulate uncorrected, they inevitably lead to deterioration of performance, loss of asset value, or both. An accumulation of such uncorrected or deferred deficiencies is a backlog that represents a liability (in both physical and financial terms) for a building. When a backlog is permitted to exist from year to year, some deficiencies in it may threaten public health or safety or result in major long-term economic losses. Such deficiencies are critical and require urgent attention. Until deficiencies reach this state of urgency, building owners and the public at large may fail to recognize or may choose to ignore the problem, but it remains a problem nevertheless, a problem of continuing proportions.

Operations encompass those activities related to a building's normal performance of the functions for which it is used. The costs of utilities, janitorial services, window cleaning, rodent and pest control, and waste management are generally included within the scope of operations and are not maintenance.

Alterations are work performed to change the interior arrangements or other physical characteristics of an existing facility or installed equipment so that it can be used more effectively for its currently designated purpose or adapted to a new use. Alterations may include work referred to as improvement, conversion, remodeling, and modernization but are not maintenance.

WAC 392-347-023 “The 2% Rule”

“Committing to the Cost of Ownership”



1. “The appropriate level of M(aintenance) & R(epar) spending should be, on average in the range of 2 to 4 percent of current replacement value of the inventory.”
2. “Maintenance is the upkeep of property and equipment, work necessary to realize the originally anticipated useful life of a fixed asset”
3. “Operations encompass those activities related to a building’s normal performance for which it is used. The costs of utilities, janitorial services, window cleaning, rodent and pest control, and waste management are generally included within the scope of operations and are **not** maintenance.”

WAC 392-347-023 “The 2% Rule”

New Language adopted by the State Board of Education in March, 2001

WAC 180-33-023 2% Rule version 2aa

WAC 180-33-023 State assistance in post 1992 facilities.

State assistance for modernization of school facilities accepted by the school district board of directors after January 1, 1993, shall be limited according to the following conditions:

(1) A school facility shall be ineligible for state assistance if the total expenditures for maintenance of plant and equipment for that facility during the fifteen-year period immediately preceding the project application was below one-half of one percent of the total of the annually determined building replacement values during the same period;

(2) The allowable cost per square foot used to determine the amount of state assistance in any modernization project where the total expenditures for maintenance of plant and equipment for that facility during the fifteen-year period immediately preceding the project application was at least one-half but less than two percent of the total of the annually determined building replacement values during the same period shall be reduced as follows:

(a) The allowable cost per square foot shall be reduced by twenty-two and one-half percent where the above expenditure is at least one-half but less than one percent;

(b) The allowable cost per square foot shall be reduced by fifteen percent where the above expenditure is at least one but less than one and one-half percent;

(c) The allowable cost per square foot shall be reduced by seven and one-half percent where the above expenditure is at least one and one-half but less than two percent;

(3) No reduction in the allowable cost per square foot shall be applied to any modernization project where the total expenditures for maintenance of plant and equipment for that facility during the fifteen-year period immediately preceding the project application was two percent, or greater, of the total of the annually determined building replacement values during the same period;

(4) A district shall not be allowed to replace a school facility through new construction in lieu of modernization under WAC 180-33-042 where the total expenditures for maintenance of plant and equipment for that facility during the fifteen-year period immediately preceding the project application was below two percent of the total of the annually determined building replacement values during the same period.

(5) For the purpose of this section “maintenance of plant and equipment” shall be general fund expenditures charged to maintenance and operations activities 61-supervision and 64-maintenance and capital projects fund expenditures charged to type code 22-remodeling and 42-capital improvements as defined in the Accounting Manual for Public School Districts.

[Statutory Authority: RCW 28A.525.020.] 91-12-058, § 180-33-023, filed 6/5/91, effective 7/6/91.]

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WAC 392-347-023 “The 2% Rule”

New Language adopted by the State Board of Education in March, 2001

“(5) For the purpose of this section ‘maintenance of plant and equipment’ shall be general fund expenditures charged to maintenance and operations activities 61 (supervision) and 64 (maintenance) and capital projects fund expenditures charged to type code 22 (remodeling) and 42 (capital improvements) as defined in the *Accounting Manual for Public School Districts*.”

WAC 392-347-023 “The 2% Rule”

North Kitsap S.D. Compliance Exercise – DISTRICT WIDE

| <u>Match Eligible Schools</u> | <u>Square Footage</u> | <u>2007 ACA</u> | <u>2% Amount</u> | <u>Expenditures</u> see notes | <u>Shortfall</u> |
|-------------------------------|-----------------------|-----------------|--------------------|----------------------------------|--------------------|
| Vinland Elementary | 56,234 | \$154.22 | \$173,448 | \$67,011 | \$106,437 |
| Gordon Elementary | 49,080 | \$154.22 | \$151,382 | \$55,434 | \$95,948 |
| District Wide | 942,083 | \$154.22 | \$2,905,760 | \$1,215,276 | \$1,690,484 |

Note: Expenditures = Square Foot Average of Total Budget allocated to each school.

As per WAC 392-346-023 (5), only 61 and 64 are applied to this amount.

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WAC 392-347-023 “The 2% Rule”

Spokane S.D. Compliance Exercise – MIDDLE SCHOOL CASE STUDY

Annual Expenditures for Maintenance Worksheet

Example - for illustrative purposes only

| Site: | Glover Middle School | | | | | | | | | | |
|-----------------------|---|------------------------|------------------------|-------------------------|-------------------------|-----------------------|------------------------|----------------------------|-----------------------|--------------------|-----------------------|
| Year Built: | 1958 | | | | | | | | | | |
| Sq Ft: | 108,040 | | | | | | | | | | |
| Fiscal Year Beginning | Area Cost Allowance for that year \$/sf | Replacement Cost (ACA) | 2% of Replacement Cost | Activity 61 Supervision | Activity 64 Maintenance | General Fund Subtotal | Activity 22 Renovation | Activity 42 Capital Improv | Capital Fund Subtotal | Annual Total | % of Replacement Cost |
| 1996 | 94.17 | \$10,174,127 | \$203,483 | \$29,926 | \$41,607 | \$71,533 | \$80,934 | \$1,326 | \$82,260 | \$153,793 | 1.51% |
| 1997 | 97.09 | \$10,489,604 | \$209,792 | \$24,196 | \$43,797 | \$67,993 | \$85,193 | \$1,396 | \$86,589 | \$154,582 | 1.47% |
| 1998 | 99.61 | \$10,761,864 | \$215,237 | \$26,680 | \$52,743 | \$79,423 | \$4,053 | \$2,367 | \$6,420 | \$85,843 | 0.80% |
| 1999 | 101.21 | \$10,934,728 | \$218,695 | \$25,876 | \$50,661 | \$76,537 | \$132,921 | \$3,217 | \$136,138 | \$212,675 | 1.94% |
| 2000 | 103.64 | \$11,197,266 | \$223,945 | \$28,615 | \$42,192 | \$70,807 | \$109,049 | \$0 | \$109,049 | \$179,856 | 1.61% |
| 2001 | 106.72 | \$11,530,029 | \$230,601 | \$30,439 | \$29,593 | \$60,032 | \$94,750 | \$0 | \$94,750 | \$154,782 | 1.34% |
| 2002 | 110.32 | \$11,918,973 | \$238,379 | \$27,889 | \$104,023 | \$131,912 | \$13,969 | \$0 | \$13,969 | \$145,881 | 1.22% |
| 2003 | 125.32 | \$13,539,573 | \$270,791 | \$21,492 | \$41,513 | \$63,005 | \$58,200 | \$0 | \$58,200 | \$121,205 | 0.90% |
| 2004 | 129.81 | \$14,024,672 | \$280,493 | \$24,436 | \$20,298 | \$44,734 | \$271,475 | \$131,982 | \$403,457 | \$448,191 | 3.20% |
| 2005 | 141.95 | \$15,336,278 | \$306,726 | \$24,932 | \$73,458 | \$98,390 | \$463,804 | \$18,936 | \$482,740 | \$581,130 | 3.79% |
| 2006 | 154.22 | \$16,661,929 | \$333,239 | \$19,010 | \$86,489 | \$105,499 | \$3,143 | \$0 | \$3,143 | \$108,642 | 0.65% |
| | | | \$2,731,381 | \$283,491 | \$586,375 | \$869,865 | \$1,317,491 | \$159,224 | \$1,476,715 | \$2,346,580 | 1.68% |

WAC 392-347-023 “The 2% Rule”

What activities should be allowed?

There are a number of maintenance activities that are routinely undertaken by school district custodial and/or grounds staff, which currently will not be included in the allowable total.

- Painting, water repellants, and anti-graffiti coatings
- Sanding, screening, and sealing of wood flooring systems
- Adjusting or tightening hardware and fixtures
- Sanitary sewer and grease trap maintenance
- Cleaning gutters, roof drains, and overflows
- Replacement of lamp ballasts
- Repair of irrigations systems and controls

WAC 392-347-023 “The 2% Rule”

What activities should be allowed? (cont.)

There are a number of custodial activities that although not currently classified as maintenance, do extend the life of the building systems or finishes. These activities directly contribute to a well-kept, safe, and healthy environment, and show good stewardship of the public tax dollar.

- Application of concrete sealer and floor finish
- Extraction or bonnet cleaning of carpet
- Sanding and re-finishing of wood floors
- Flushing, filling, and treatment of hydronic systems

WAC 392-347-023 “The 2% Rule”

What activities should be allowed? (cont.)

There are Risk Management activities that we believe should be included in the cost of maintaining school buildings.

- Security alarm systems
- Closed circuit television (CCTV)
- Keyless entry systems

There are Grounds activities that are included in the original cost of the building (ACA).

- *Storm water mitigation controls*
- *Fencing*
- *Play equipment*
- *Sidewalks, driveways, and parking lots*

WAC 392-347-023 "The 2% Rule"

Kent S.D. Compliance Exercise – ELEMENTARY CASE STUDY

"2% Rule" Compliance Analysis Exercise

Annual Expenditures for Maintenance Worksheet

Example - For Illustrative Purposes Only - Cells Shaded Yellow Are Calculated/Estimated

Crestwood Elementary
Total Sq. Ft. - 49,635

Original Construction - 1980
OSPI Sq. Ft. - 48,035

| Fiscal Year Beginning | Year to Mod/N/L Grant | Area Cost Allowance for that year \$/sf | Replacement Cost (ACA) | 2% of Replacement Cost | Activity 61 Supervision | Activity 63 & 64 Custodial Ops. & Maintenance | General Fund Subtotal | Activity 22 Renovation | Activity 42 Energy Capital Improv. | Capital Fund Subtotal | Annual Total | % of Replacement Cost |
|-----------------------|-----------------------|---|------------------------|------------------------|-------------------------|---|-----------------------|------------------------|------------------------------------|-----------------------|--------------------|-----------------------|
| 1995 | 15 | 91.94 | \$4,416,338 | \$88,327 | \$2,687 | \$17,306 | \$20,083 | \$221,092 | | \$221,092 | \$241,175 | 5.46% |
| 1996 | 14 | 94.17 | \$4,523,456 | \$90,469 | \$2,742 | \$18,312 | \$21,053 | \$46,087 | | \$46,087 | \$67,140 | 1.48% |
| 1997 | 13 | 97.09 | \$4,663,718 | \$93,274 | \$2,797 | \$19,275 | \$22,073 | \$74,662 | | \$74,662 | \$96,735 | 2.07% |
| 1998 | 12 | 99.61 | \$4,784,766 | \$95,695 | \$2,855 | \$45,198 | \$48,040 | \$228,883 | | \$228,883 | \$276,923 | 5.79% |
| 1999 | 11 | 101.21 | \$4,861,622 | \$97,232 | \$2,883 | \$16,232 | \$19,115 | \$49,324 | | \$49,324 | \$68,439 | 1.41% |
| 2000 | 10 | 103.64 | \$4,978,347 | \$99,567 | \$2,913 | \$20,247 | \$23,159 | \$3,402 | | \$3,402 | \$26,561 | 0.53% |
| 2001 | 9 | 106.72 | \$5,126,295 | \$102,526 | \$2,942 | \$11,104 | \$14,046 | | | \$0 | \$14,046 | 0.27% |
| 2002 | 8 | 110.32 | \$5,299,221 | \$105,984 | \$2,972 | \$17,153 | \$20,125 | | | \$0 | \$20,125 | 0.38% |
| 2003 | 7 | 125.32 | \$6,019,746 | \$120,395 | \$3,002 | \$25,960 | \$28,962 | | \$3,500 | \$3,500 | \$32,462 | 0.54% |
| 2004 | 6 | 129.81 | \$6,235,423 | \$124,708 | \$3,032 | \$6,148 | \$9,180 | \$128,985 | | \$128,985 | \$138,165 | 2.22% |
| 2005 | 5 | 141.85 | \$6,818,568 | \$136,371 | \$3,093 | \$20,290 | \$23,383 | \$2,168 | | \$2,168 | \$25,551 | 0.37% |
| 2006 | 4 | 154.77 | \$7,434,377 | \$148,688 | \$3,154 | \$21,304 | \$24,459 | \$68,918 | | \$68,918 | \$93,377 | 1.26% |
| 2007 | 3 | 159.41 | \$7,657,408 | \$153,148 | \$3,218 | \$22,370 | \$25,587 | \$68,918 | | \$68,918 | \$94,506 | 1.23% |
| 2008 | 2 | 164.20 | \$7,887,131 | \$157,743 | \$3,282 | \$23,488 | \$26,770 | \$68,918 | | \$68,918 | \$95,688 | 1.21% |
| 2009 | 1 | 169.12 | \$8,123,744 | \$162,475 | \$3,348 | \$24,662 | \$28,010 | \$68,918 | | \$68,918 | \$96,929 | 1.19% |
| 15 Yr. Total | | | \$88,830,162 | \$1,776,603 | \$44,918 | \$309,127 | \$354,044 | \$1,030,277 | \$3,500 | \$1,033,777 | \$1,387,821 | 1.56% |

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WAC 392-347-023 "The 2% Rule"

Kent S.D. Compliance Exercise – MIDDLE SCHOOL CASE STUDY

"2% Rule" Compliance Analysis Exercise

Annual Expenditures for Maintenance Worksheet

Example - For Illustrative Purposes Only - Cells Shaded Yellow Are Calculated/Estimated

Mattson Middle School

Total Sq. Ft. - 95813 (Nov. 1999)

Original Construction - 1981

OSPI Sq. Ft. - 95,896

| Fiscal Year Beginning | Year to Mod/N/L Grant | Area Cost Allowance for that year \$/sf | Replacement Cost (ACA) | 2% of Replacement Cost | Activity 61 Supervision | Activity 63 & 64 Custodial Ops. & Maintenance | General Fund Subtotal | Activity 22 Renovation | Activity 42 Energy Capital Improv. | Capital Fund Subtotal | Annual Total | % of Replacement Cost | |
|-----------------------|-----------------------|---|------------------------|------------------------|-------------------------|---|-----------------------|------------------------|------------------------------------|-----------------------|--------------|-----------------------|-------|
| 1996 | 15 | 94.17 | \$9,030,526 | \$180,611 | \$5,473 | \$18,312 | \$23,785 | \$726,507 | | \$726,507 | \$750,292 | 8.31% | |
| 1997 | 14 | 97.09 | \$9,310,543 | \$186,211 | \$5,585 | \$19,275 | \$24,861 | \$218,853 | | \$218,853 | \$243,714 | 2.62% | |
| 1998 | 13 | 99.61 | \$9,552,201 | \$191,044 | \$5,899 | \$50,301 | \$56,000 | \$488,972 | | \$488,972 | \$544,972 | 5.71% | |
| 1999 | 12 | 101.21 | \$9,705,634 | \$194,113 | \$5,757 | \$59,576 | \$65,333 | | | \$0 | \$65,333 | 0.67% | |
| 2000 | 11 | 103.64 | \$9,938,661 | \$198,773 | \$5,815 | \$48,262 | \$54,077 | | | \$0 | \$54,077 | 0.54% | |
| 2001 | 10 | 106.72 | \$10,234,021 | \$204,680 | \$5,874 | \$27,557 | \$33,431 | | | \$0 | \$33,431 | 0.33% | |
| 2002 | 9 | 110.32 | \$10,579,247 | \$211,585 | \$5,933 | \$79,954 | \$85,887 | \$95,095 | | \$95,095 | \$180,982 | 1.71% | |
| 2003 | 8 | 125.32 | \$12,017,667 | \$240,354 | \$5,993 | \$41,889 | \$47,882 | | | \$0 | \$47,882 | 0.40% | |
| 2004 | 7 | 129.81 | \$12,448,260 | \$248,965 | \$6,053 | \$37,642 | \$43,695 | \$179,752 | | \$179,752 | \$223,447 | 1.80% | |
| 2005 | 6 | 141.95 | \$13,612,437 | \$272,249 | \$6,174 | \$20,290 | \$26,464 | | \$150,489 | \$150,489 | \$176,953 | 1.30% | |
| 2006 | 5 | 154.77 | \$14,841,824 | \$296,836 | \$6,298 | \$21,304 | \$27,602 | \$177,900 | \$207,500 | \$385,400 | \$413,002 | 2.78% | |
| 2007 | 4 | 159.41 | \$15,287,079 | \$305,742 | \$6,424 | \$22,370 | \$28,794 | | | \$0 | \$28,794 | 0.19% | |
| 2008 | 3 | 164.20 | \$15,745,691 | \$314,914 | \$6,552 | \$23,488 | \$30,041 | | | \$0 | \$30,041 | 0.19% | |
| 2009 | 2 | 164.20 | \$15,745,691 | \$314,914 | \$6,552 | \$23,488 | \$30,041 | | | \$0 | \$30,041 | 0.19% | |
| 2010 | 1 | 169.12 | \$16,218,062 | \$324,361 | \$6,683 | \$24,662 | \$31,346 | | | \$0 | \$31,346 | 0.19% | |
| 15 Yr. Total | | | | \$152,303,810 | \$3,046,076 | \$77,631 | \$470,220 | \$547,851 | \$1,887,079 | \$357,989 | \$2,245,068 | \$2,792,919 | 1.83% |

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Kent S.D. Compliance Exercise – SENIOR HIGH CASE STUDY

"2% Rule" Compliance Analysis Exercise

Annual Expenditures for Maintenance Worksheet

Example - For Illustrative Purposes Only - Cells Shaded Yellow Are Calculated/Estimated

Kentwood Senior High School

Total Sq. Ft. - 182,302

Original Construction - 1981

OSPI Sq. Ft. - 176,131

| Fiscal Year Beginning | Year to Mod/N/L Grant | Area Cost Allowance for that year \$/sf | Replacement Cost (ACA) | 2% of Replacement Cost | Activity 61 Supervision | Activity 63 & 64 Custodial Ops. & Maintenance | General Fund Subtotal | Activity 22 Renovation | Activity 42 Energy Capital Improv. | Capital Fund Subtotal | Annual Total | % of Replacement Cost |
|-----------------------|-----------------------|---|------------------------|------------------------|-------------------------|---|-----------------------|------------------------|------------------------------------|-----------------------|--------------------|-----------------------|
| 1996 | 15 | 94.17 | \$16,588,256 | \$331,725 | \$10,053 | \$93,334 | \$103,387 | \$1,299,790 | \$1,325,133 | \$2,624,923 | \$2,728,310 | 16.45% |
| 1997 | 14 | 97.09 | \$17,100,559 | \$342,011 | \$10,258 | \$98,248 | \$108,504 | \$384,410 | | \$384,410 | \$492,914 | 2.88% |
| 1998 | 13 | 99.61 | \$17,544,409 | \$350,888 | \$10,488 | \$88,751 | \$79,218 | \$680,897 | | \$680,897 | \$760,115 | 4.33% |
| 1999 | 12 | 101.21 | \$17,826,219 | \$356,524 | \$10,573 | \$111,633 | \$122,207 | | | \$0 | \$122,207 | 0.69% |
| 2000 | 11 | 103.64 | \$18,254,217 | \$365,084 | \$10,680 | \$73,704 | \$84,384 | | | \$0 | \$84,384 | 0.46% |
| 2001 | 10 | 106.72 | \$18,796,700 | \$375,934 | \$10,788 | \$50,132 | \$60,920 | | | \$0 | \$60,920 | 0.32% |
| 2002 | 9 | 110.32 | \$19,430,772 | \$388,615 | \$10,897 | \$59,843 | \$70,740 | \$489,667 | \$28,919 | \$518,586 | \$589,326 | 3.03% |
| 2003 | 8 | 125.32 | \$22,072,737 | \$441,455 | \$11,007 | \$253,289 | \$264,298 | \$5,989 | | \$5,989 | \$270,285 | 1.22% |
| 2004 | 7 | 129.81 | \$22,883,565 | \$457,271 | \$11,118 | \$106,568 | \$117,688 | \$270,293 | | \$270,293 | \$387,979 | 1.70% |
| 2005 | 6 | 141.95 | \$25,001,795 | \$500,036 | \$11,341 | \$103,417 | \$114,758 | | | \$0 | \$114,758 | 0.46% |
| 2006 | 5 | 154.77 | \$27,259,795 | \$545,196 | \$11,567 | \$108,588 | \$120,155 | | | \$0 | \$120,155 | 0.44% |
| 2007 | 4 | 159.41 | \$28,077,589 | \$561,552 | \$11,799 | \$114,017 | \$125,816 | | | \$0 | \$125,816 | 0.45% |
| 2008 | 3 | 164.20 | \$28,919,916 | \$578,398 | \$12,035 | \$119,718 | \$131,753 | | | \$0 | \$131,753 | 0.46% |
| 2009 | 2 | 164.20 | \$28,919,916 | \$578,398 | \$12,035 | \$119,718 | \$131,753 | | | \$0 | \$131,753 | 0.46% |
| 2010 | 1 | 169.12 | \$29,787,514 | \$595,750 | \$12,275 | \$125,704 | \$137,979 | | | \$0 | \$137,979 | 0.46% |
| 15 Yr. Total | | | \$279,734,529 | \$5,594,891 | \$142,584 | \$1,361,239 | \$1,503,823 | \$3,131,048 | \$1,354,052 | \$4,485,098 | \$5,988,921 | 2.14% |

WAC 392-347-023 “The 2% Rule”

TAC 2% Rule Committee “Ah Hah”

- The 2% Rule as it is currently envisioned will not work!
- If the 2% Rule is implemented without modification it will be a disaster for the vast majority of school districts across the state.
 - Difficulties and use of resources to track allowable expenditures.
 - Numerous districts will be penalized when they are unable to achieve the required 2% threshold.
 - An even greater burden will be placed upon local communities to fund necessary school construction, expansion, and modernization.

WAC 392-347-023 “The 2% Rule”

Kent, North Kitsap, and Spokane S.D. Observations:

- Cost tracking necessary to determine compliance is relatively complex. Without CMMS, reasonably accurate data would be extremely difficult to obtain. Mid-sized districts may be the most difficult.
- Database architecture and accounting parameters of OSPI’s data system will need to be well thought out in advance to produce valid results.
- Eligible maintenance activities undertaken by custodial staff are most often not included in allowable activities, but should be.
- Practices, procedures, and systems need to be developed to accommodate capture of essential data; particularly for eligible Custodial activities. Staff awareness and training must also be included.
- Other applicable expenditures such as grounds and security should also be considered for inclusion in allowable expenditures.

WAC 392-347-023 “The 2% Rule”

TAC 2% Rule Committee Discussion Questions:

- What was the original intent of the 2% Rule?
- Is that original intent still viable and desirable?
- Since the 2% Rule is not believed to be effective in providing the desired outcome, what changed or modifications could/should be made?
- Maintain – to provide for the upkeep and support of; to keep in the appropriate condition or operation. (*Websters Dictionary*)

WAC 392-347-023 “The 2% Rule”

TAC 2% Rule Committee Discussion Questions (Cont.):

- Is the last 15 years before modernization or replacement the appropriate time to track maintenance expenditures?
- Should there be a “modifier” if a district extends the useful life of a facility beyond the required 30 years?
- Will adding appropriate portions of custodial, grounds, and security activities enable districts to generally meet the 2% Requirement?
- Is 2% the right number?
- 2% of what? Area Cost Allowance times square footage, State match (which would be ACA times area times Match Ratio), full replacement value, etc.?

WAC 392-347-023 “The 2% Rule”

TAC 2% Rule Committee Discussion Questions (Cont.):

- Should design enhancements incorporated during construction, and which could potentially reduce maintenance costs over the life of the facility, be included in the 2% calculation. If not, they would tend to work against achieving compliance.

Example: Ground or water coupled hydronic systems eliminate boiler or reduce their capacity, and typically also eliminate chillers or cooling towers, as well as the related maintenance liability from this equipment – however, they add significantly to the to the initial cost.

- Is there a better way to meet the original intent?

WAC 392-347-023 “The 2% Rule”

Ultimate Goals of TAC 2% Rule Committee:

- Proving accountability of school facility maintenance – demonstrate that school districts are properly maintaining the public’s investment in school facilities to OSPI and the Legislature.
- Ensuring that appropriate and realistic expenditures that maintain the school district’s and state’s investment in the facility are allowed as part of the two percent requirement.
- Determine the requirements of accounting for the allowable expenditures, or otherwise tracking and determining what an appropriate level of maintenance would entail.
- Providing a recommended implementation time line and procedures.

WAC 392-347-023 “The 2% Rule”

Alternatives:

- **Tweak the 2% Rule:** Modify various parameters of the current rule to enable district’s to meet the requirement, without watering it down to the point where it becomes meaningless and will not be seen by the Legislature as the safeguard it was intended to be.
 - Add appropriate expenditures to allowable categories
 - Allow Activity 63 to count toward attaining 2% threshold
 - Utilize Actual Replacement Value and a reduced percentage
 - Utilize a district average maintenance expenditure, instead of a building specific expenditure
 - Combination(s) of the above
- **Expenditures Tied to Funding:** Control and ensure maintenance expenditures through dedicated funding.

WAC 392-347-023 “The 2% Rule”

Alternatives (cont.):

- **Maintenance Plans:** Develop a program of Maintenance Plans that would stipulate the resources available to a particular district, track historic maintenance expenditures and levels of deferred maintenance, provide data on expected replacement cycles for major building systems, and give projections of future resource needs. Such plans would be used to monitor the district’s long-term ability and commitment to maintaining their structures. Possibly using the existing Building Condition Evaluation process and reporting protocol.
- **Audit / Accountability Review:** Utilize the State Auditor’s new performance audit process, or a similar review process, to determine whether district’s are adequately managing the public’s investment in their facilities.
- **Incentive Program:** Reward districts that attain greater than 30 years life from their school building.

WAC 392-347-023 “The 2% Rule”

In Closing:

- We do not yet know the answers... yet!
- We know that the 2% Rule as currently envisioned will not be attainable, and therefore will not work...
- The TAC has recommended that OSPI delay implementation of the 2% Rule until January of 2008.
- We plan to have a final recommendation to OSPI in the first half of the coming year.

“The 2% Rule”

OSPI School Facility Technical Advisory Committee

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