TEXAS
SCHOOL
FOR THE
DEAF
1996

Report Summary
Facility Condition Assessment

Texas School for the Deaf

PARSONS

Texas Building and Procurement Commission

August 2012

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Abstract

Executive Summary

Many Texas agencies are coping with aging facilities, outdated building system technologies and ever-evolving agency mission requirements. While new construction funding is significant, there are even greater expenditures needed to fund the accumulated backlog of essential repairs and renovations to existing facilities and infrastructure. This funding is critical to provide the quality of services that Texas citizens deserve and to adapt existing facilities to each agency's changing demographics and programmatic needs.

The Texas School for the Deaf (TSD) is no exception. TSD serves as a special public school for students who have a hearing impairment. It is a statewide resource to parents of these children and professionals who serve them. Students, ages 6 through 21, who are deaf or hearing impaired, including those with additional disabilities, gain their primary education at TSD.

TSD initiated a comprehensive facility condition assessment in April 2006 and a subsequent update in February 2012 of their main campus including 544,831 gross square feet in 47 state owned buildings. The total current cost of addressing the backlog of repair and renovation costs in these buildings has increased from approximately $19,255,000 in April 2006 to $39,272,934 in 2012. As shown below, these costs reflect, to a great extent, the aging condition of the TSD campus.

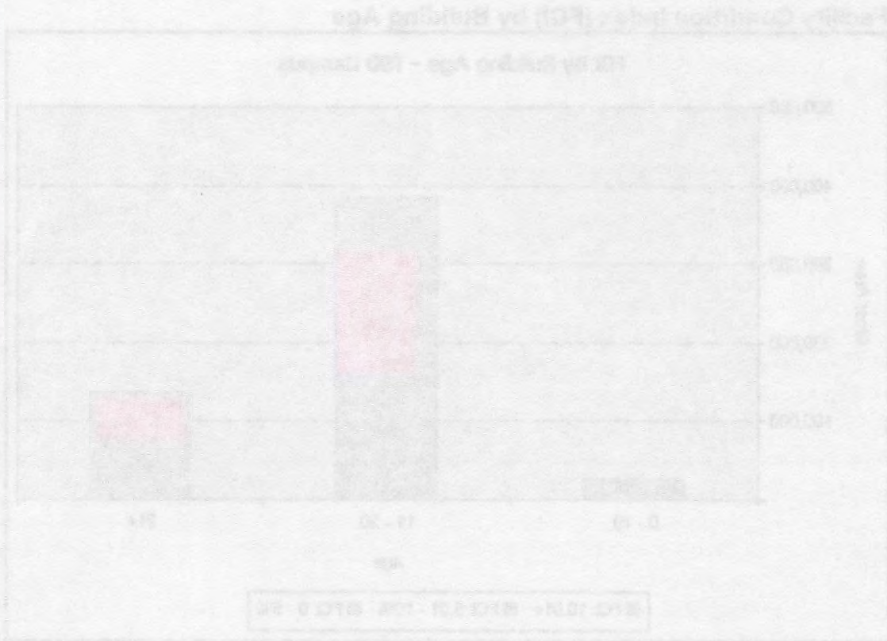### Facility Condition Index (FCI) by Building Age
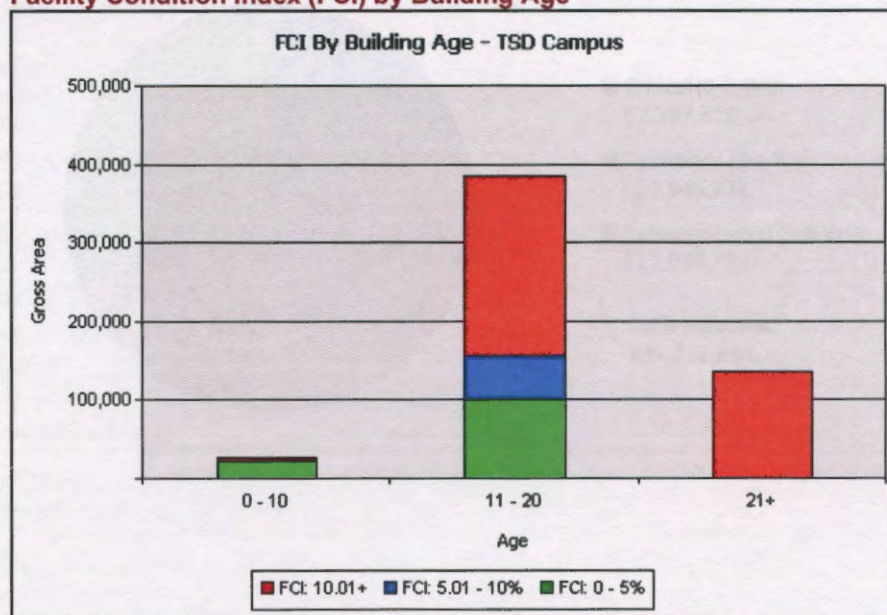
An FCI above 10% is considered poor by many owner associations.

This report identifies current backlog capital renewal funding needed to repair and maintain the assessed buildings to meet their current functional

requirements. It is also a tool to prioritize funding requirements over the next 10-20 years to maintain and renew facilities. The report identifies materials and systems that are currently broken, missing or building elements that are no longer adequate to support a facility's current use.

Facility Condition Index (FCI) by Gross Building Area

FCI By Gross Area - TSD

- FCI: <5% (122,075 SF)
- FCI: 5%-10% (50,002 SF)
- FCI: >10% (374,290 SF)
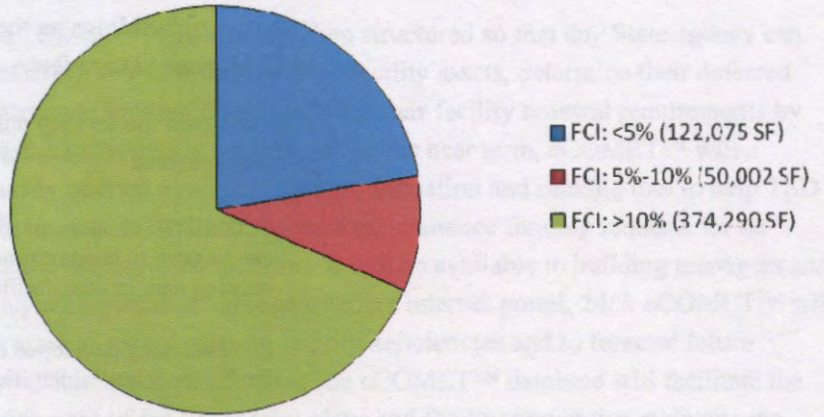
Current Deficiencies by Priority

Current Deficiencies By Priority

- Critical (0-2 Yrs): $7,287,870
- Necessary (2-4 Yrs): $19,946,272
- Recommended (5-8 Yrs): $12,038,792

Total Estimate: $39,272,934
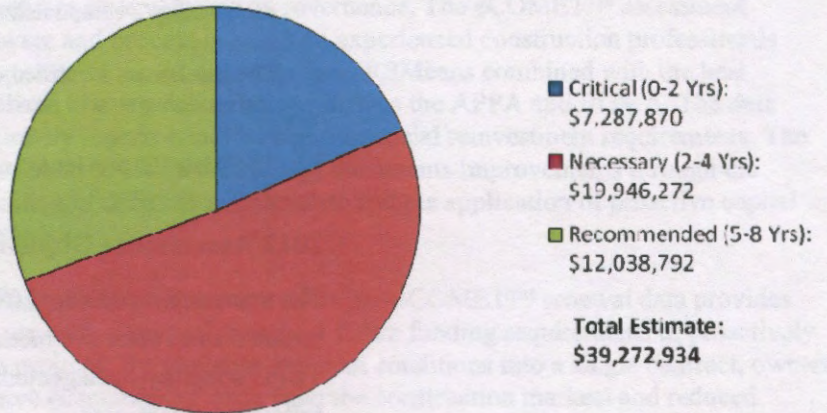
Background and Objectives

Purpose of the TSD Assessment

In February 2012, the Texas School for the Deaf (TSD) contracted with Parsons to conduct a Level 2 (L2) comprehensive condition assessment of 47 state owned buildings on the Austin TSD campus containing approximately 544,831 gross square feet.

TSD initiated the facility condition assessment by Parsons for the following primary reasons:

- eCOMET™ assessment software provides current facility condition data that can be used to support funding decisions that will reduce deferred maintenance backlog and, in turn, facility recapitalization program.

- Professionally developed correction cost budgets were developed for each facility deficiency identified.

- Deficiencies were assigned a priority based upon current industry prioritization practices. The assessment software and process developed by Parsons supports these practices as the current backlog of renewal and deferred maintenance items are reduced over a multi-year timeframe.

- The Facility Condition Index (FCI), Extended Facility Condition Index (EFCI) and a Recapitalization Rate (RR) for each building are ranking tools developed to quantify each buildings' current condition and future funding requirements.

- The assessment developed forecasts for the renewal of building systems through each facility's component life-cycle analysis.

- The assessment identified current deficiencies and predicts future deficiencies and by doing so will provide a basis for purchasing facility capital renewal.

- To update the previous assessment that was provided in 2006

2012 Assessment Objectives

The assessment software eCOMET™ and the assessment process were initiated as an effective method to evaluate the technology's application to TBPC's facility management of the TSD campus. The work achieved the following objectives:

1. Reviewed relevant existing building data, including prior assessments, reports or other facility information at 47 TSD buildings and site.

2. Completed a building inventory and assessment of facility conditions.

    a. Residential/Dormitories

    b. Educational Facilities

    c. Health Facility

    d. Administration/Support Facilities, etc.

3. Developed a comprehensive facilities condition assessment database and Condition Management Estimation Technology (eCOMET™) software that included a facility condition index ranking method.

4. Demonstrated and trained TSD facilities management personnel to access facilities assessment database using the internet web-based software eCOMET™.

The eCOMET™ database has been structured so that any State agency can use eCOMET™ to inventory their facility assets, determine their deferred maintenance funding needs and plan their facility renewal requirements by using the software via the internet. In the near term, eCOMET™ will primarily operate as an objective prioritization and ranking tool to help TSD guide capital renewal and deferred maintenance funding requests for its managed State-owned facilities. It will be available to building managers and agency administrators through a secure internet portal, 24/7. eCOMET™ will help users to record existing facility deficiencies and to forecast future renewal funding requirements. The eCOMET™ database will facilitate the development of facility master plans and facility preventive maintenance programs.

TSD Assessment Benefits

The Comet software and the TSD facility condition assessment process provide potential significant benefits to TSD adminstrators:

• Increased credibility—TSD obtains their funds from at least one, sometimes several levels of governance. The eCOMET™ assessment software and process is based on experienced construction professionals using state of the art cost data from RSMeans combined with the best practices of owner associations such as the APPA and BOMA. The data accurately reports conditions and financial reinvestment requirements. The assessment software technology documents improvements through the reduction of deferred maintenance and the application of proactive capital renewal.

• Prioritized procurement savings—eCOMET™ renewal data provides owners with statistically derived future funding requirements to proactively plan projects. By grouping deficient conditions into a single contract, owners receive economies of scale from the construction markets and reduced internal soft costs.

• Leveled procurement—Procurement leveling is the strategic timing of purchases. eCOMET™'s project definition capabilities identifies horizontal procurement opportunities (grouping contracts by trade) or bundling deficiencies vertically (grouping contracts by building). Forward procurement of near term building systems that will expire is another possibility to level out work load and funding needs.

- Ranked funding needs—eCOMET™ reports the relative condition of buildings using a ratio of needed repairs (NR) over replacement value (RV) for the facility condition index (FCI). This ratio index sorts facilities into a potential list of "worst first." The Extended FCI evaluates facility condition index at any point in the future to reflect the impact of renewal and repair funding.

These and other eCOMET™ ranking tools provide an objective determination of future funding needed across an agency's entire real estate holdings.

- Automated budget and schedule tools—eCOMET™'s cost data is derived directly from the most current RSMeans cost database, updated automatically each year. eCOMET™ assigns priorities to each deficiency to determine its urgency. These features enhance the determination on when repair and renovation work is scheduled to be done in a multi-year renovation program. Priorities can be set to determine which projects will be done within limited funding and which projects will be deferred based on available funding

Repair and Rehabilitation Priority Projects Summary for LAR 14/15

TSD retained Parsons in the spring of 2012 to conduct another facility assessment, resulting in identified needs totaling $39.5 million. TSD has taken the facility assessment report and pared the identified needs down to those that are most urgent and/or present life safety code issues, resulting in a demand of $5,214,000. $707,680 of that demand is included in our base request for FY 14/15, resulting in this exceptional item of $4,506,320.

Table 1: Repair and Rehabilitation Priority

	LIFE SAFETY PRIORITIES	Amount
1)	Fire Alarm Panels	$330,000
2)	Fire Suppression Systems in Server & Records Rooms	$65,000
3)	Security System Upgrade	$250,000
	Site:	
4)	Campus Electrical Distribution System Repairs	$850,000
5)	Recondition Boilers & Chillers in Central Plant	$625,000
6)	Water Line and Gas Line Repairs	$100,000
7)	Roof Replacement & Repair	$1,470,000
	LIFE SAFETY PRIORITIES TOTAL	**$3,690,000**

	MOST URGENT NEEDS	
8)	Energy Efficient Residential Window & Lighting Replacement	$450,000
9)	Seeger Gym Bleachers	$170,000
10)	Replace Fan Coil Units in High School Dorms	$280,000
11)	Landscape Sprinkler System Repairs & Maintenance	$134,000
12)	Carpet/Flooring Replacement	$200,000
13)	Foundation Repair	$40,000
14)	Air Conditioning/Heating Systems	$250,000
	MOST URGENT NEED TOTAL	**$1,524,000**

	LIFE SAFETY AND URGENT NEED TOTAL	**$5,214,000**
	Less Base R&R	(707,680)
	GRAND TOTAL	**$4,506,320**

Table 2: Summary of repair costs by Priority

Bldg	Priority 1A	Priority 1B	Priority 2	Priority 3	Total
	Critical 0-12 months	Trending Critical Years 1-2	Necessary Years 2-4	Recommended Years 5-8	
500 Central Administration	$0	$9,902	$720,481	$1,427,763	$2,158,145
501 Gymnasium High School	$55,679	$314,148	$2,652,682	$1,894,473	$4,916,983
503 Cafeteria Central	$8,278	$56,173	$4,577	$30,603	$99,632
504 Deaf Smith Center	$0	$37,995	$114,939	$312,610	$465,543
505 Elementary SND School Bldg	$0	$14,388	$6,082	$3,830	$24,299
506 Security/Guard House	$0	$2,142	$329	$618	$3,089
507 Boiler Plant	$6,391	$310,189	$132,736	$42,683	$491,999
508 Business Services	$0	$387,059	$372,355	$469,304	$1,228,718
509 Heritage Center	$10,755	$4,290	$1,619	$211,177	$227,841
510 Maintenance Offices	$0	$75,225	$97,093	$163,570	$335,888
511 Maintenance Transport Shop	$0	$54,656	$1,059	$335,614	$391,328
512 Central Plant Chilling	$154,361	$90,451	$1,182,504	$48,228	$1,475,544
513 Ford Bldg/ CTE Vocational	$0	$24,967	$484,434	$66,747	$576,149
514 Kleburg Building	$4,307	$533,443	$226,504	$162,985	$927,239
515 Koen Hall Dorm	$31,023	$432,524	$198,769	$469,960	$1,132,276
516 Lewis Hall Dorm	$21,151	$79,391	$333,324	$593,710	$1,027,575
517 Gymnasium Middle School	$512,640	$218,005	$1,750,159	$165,403	$2,646,207
518 Natatorium Gym Pool	$0	$167,318	$313,777	$1,294,751	$1,775,846
519 Upper School HS MS	$39,641	$219,686	$537,336	$1,519,528	$2,316,191
521 T 1 ERCOD	$43,974	$2,208	$31,907	$89,098	$167,187
522 T2 Records Admin/Assess	$2,384	$24,233	$23,747	$78,156	$128,521
523 T-3 Human Resources	$0	$17,264	$68,093	$56,050	$141,408
524 Brick Residence Empl Hsg	$2,793	$69,613	$56,575	45,266	$174,246
525 Superintendents Residence	$44,728	$61,623	$103,168	$21,143	$230,662
526 Special Needs Girl Dorm	$0	$26,118	$12,882	$117,818	$156,818
527 Special Needs Boys Dorm	$11,424	$31,286	$192,685	$36,005	$271,400
528 Transitional Apts	$1,143	$0	$117,129	$3,801	$122,073
529 Transitional Apts	$0	$0	$109,322	$6,840	$116,162
530 Transitional Apt	$0	$0	$107,612	$6,840	$114,452
531 Transitional Apts	$0	$0	$107,612	$3,801	$111,413
532 Transitional Apts	$0	$0	$116,728	$6,840	$123,568
533 Transitional Apts	$0	$0	$190,367	$6,840	$197,207
542 Transformer House	$0	$0	$1,063	$1,630	$2,693
544 Auditorium	$26,046	$0	$244,994	$1,649,037	$1,920,077
564 Cottage Student Housing	$133,526	$5,589	$476,293	$539,065	$1,154,474
565 Cottage Student Housing	$240,126	$5,589	$1,115,500	$0	$1,361,215
566 Cottage Student Housing	$240,126	$5,589	$1,173,516	$0	$1,419,230
567 Cottage Student Housing	$240,126	$7,309	$1,174,793	$0	$1,422,228
568 Cottage Student Housing	$240,022	$34,038	$1,146,344	$0	$1,420,404
569 Cottage Student Housing	$274,532	$34,038	$1,146,344	$0	$1,454,914
570 Cottage Student Housing	$266,915	$34,038	$1,146,344	$0	$1,447,297
5705 Health Center	$175,798	$7,497	$15,422	$0	$198,718
5706 Middle School Boys Dorm	$0	$8,149	$5,486	$46,738	$60,373
5707 Middle School Girls Dorm	$0	$31,457	$3,791	$20,789	$56,037

Bldg	Priority 1A	Priority 1B	Priority 2	Priority 3	Total
	Critical 0-12 months	Trending Critical Years 1-2	Necessary Years 2-4	Recommended Years 5-8	
5708 Elementary Dorm	$4,066	$15,300	$2,489	$13,679	$35,533
5709 Information Center/Grd Hs	$0	$0	$217	$0	$217
5714 Concession Stand/Restroom	$14,167	$4,334	$4,749	$10,138	$33,389
TSD Site	$0	$1,024,523	$1,920,339	$65,661	$3,010,523
Totals	$2,806,122	$4,481,748	$19,946,272	$12,038,792	$39,272,934
Priority Totals	$7,287,870		$19,946,272	$12,038,792	$39,272,934

Notes for summary of repair costs by Priority

For simplicity, site infrastructure costs for each building were excluded from this table.

1. Priority 1A & Priority 1B represent items that are broken, missing or inadequate for their intended use and as such threaten the health, safety or welfare of their occupants.

2. Priority 2 represents items that have expired, support short term additional use and utility, but should be repaired or replaced within the next few years.

3. Priority 3 items are expired systems that are still functioning, but are within the last few years of useful life.

10-year Facility Renewal Forecast

An integral part of this report is a look toward the future. Having identified today's needs, a forecast of future system depreciation was prepared and is included in the Facility Renewal Summary outline. Renewal costs of buildings' component systems, e.g., roofs, walls, plumbing systems, electrical systems, statistically average about 2.75% of buildings' total replacement values each year over a 100 year estimated building life.

If the funding need is deferred, the funding needed for that year's renewal estimate is forecasted to grow on average approximately 3% each year due to cost inflation or escalation. For reference purposes, unfunding future deficiencies and future renewals over the next 10 years would result in a forecast of FCI=40.2% factor.

10 Year Future facility renewal forecast

Renewal Year	Order of Magnitude Renewal Amount
2013	$1,011,276
2014	$4,054,799
2015	$284,102
2016	$1,964,857
2017	$2,909,814
2018	$660,128
2019	$336,232
2020	$2,156,571
2021	$3,919,928
2022	$20,707,169
Total	**$38,004,877**