REPORT OF THE DEPARTMENT
OF GENERAL SERVICES

Surveys for Asbestos of All State-Owned Buildings and All Public Schools

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

Senate Document No. 27

COMMONWEALTH OF VIRGINIA
RICHMOND
1989

COMMONWEALTH of VIRGINIA

DEPARTMENT OF GENERAL SERVICES

WENDELL L. SELDON
DIRECTOR

209 9th STREET OFFICE BUILDING
RICHMOND, VIRGINIA 23219
(804) 786-3311

December 30, 1988

TO: Members of the General Assembly

I am pleased to provide you with a summary of the surveys for asbestos of all State-owned buildings and all public schools as required by Section 2.1-526.17 of the Code of Virginia.

Included in the surveys is a categorization of the risk to human health posed by the materials discovered during the surveys and the estimated cost to abate the hazard in each building. The estimates include the cost of removing the asbestos-containing materials and reinsulation if necessary. Design and consulting fees are not included.

The survey of State-owned buildings was carried out by a consulting firm using standards developed by the Department of General Services. Over 5,900 State-owned buildings were surveyed which included approximately 65 million square feet of space. Due to the volume of the report, it would be impractical to include the entire report. We are, therefore, including excerpts of Sections II and VIII of the Executive Summary and composite cost estimates for removal of friable asbestos-containing materials. The survey results and cost estimates are currently under review by the Department of General Services.

The Survey of Public Schools was carried out following the requirements of the Federal Asbestos Hazard Emergency Response Act (AHERA). The report identifies all friable and nonfriable asbestos-containing building materials and rates their potential risk to human health. A total of 1024 schools, which includes 3283 buildings, were included in the survey. A copy of the report from the Department of Education with estimated costs of asbestos removal is included in pages 7 through 11.

The Department of General Services and the Department of Education will be glad to provide additional information.

Respectfully,

Wendell L. Seldon

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COMMONWEALTH OF VIRGINIA
STATEWIDE EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

Hall-Kimbrell Environmental Services was retained by the Commonwealth of Virginia, Department of General Services, to conduct a general assessment of specified state owned buildings used and operated by 108 agencies around the state. The purpose of these inspections was to identify, quantify, sample, and differentiate into priority levels, all accessible, friable and potentially friable materials suspected of containing asbestos.

Between September 28, 1987 and August 26, 1988, representatives of Hall-Kimbrell Environmental Services inspected 5,915 buildings under the authorization of 108 state agencies around the Commonwealth of Virginia, concentrating on accessible, friable and potentially friable materials suspected of containing asbestos. The total gross square footage of all buildings surveyed is 64,894,286 square feet.

Reports were provided to the Department of General Services which contained all initial inspection data as well as laboratory analysis of all bulk samples taken during inspections and budgetary cost estimates for the removal and replacement of all materials determined to contain asbestos. A comprehensive report was provided for each state agency.

As part of the reporting process, Hall-Kimbrell made specific recommendations as to the course of action each agency should take to begin minimizing and eventually eliminate the hazards presented by asbestos containing materials. One of the most useful tools now available to the state agencies in their efforts to control their asbestos is the value assigned to each area representing its Priority Level classification.

During building inspections each area determined by site analysis to contain materials suspected of containing asbestos was assigned numeric values representing friability, present condition of the material, exposure and accessibility of the material, and the proximity of the material to an air plenum. These values, as well as the average asbestos content of all asbestos containing materials in each area, were then formulated to produce a numeric value representing each area's potential for exposure.

Based on the exposure potential value, Hall-Kimbrell has prioritized all areas into one of four levels. These priority levels are used to express numerically the potential for exposure of asbestos-containing materials within their environment and to assist in the understanding of a specific area's need for corrective action relative to other areas in the building. The priority level can also be used as a tool in implementing a phased abatement program. Priority Level 1 areas are those which

present the highest potential for fiber release and should be considered first during initial abatement project planning. Priority Level 2 areas represent an increased exposure potential, however not as severe as Priority Level 1. Priority Level 3 and 4 areas have decreasingly lower exposure potentials. A more comprehensive discussion of priority level determination can be found in section V. of this report.

All assigned priority levels are subject to change as a result of any alterations or modifications of the area which could affect the condition of the asbestos-containing materials, such as renovation or destruction.

Hall-Kimbrell recommends the removal of all Priority Level 1 materials present during phase 1 of a phased abatement program. Priority Level 2 materials should be carefully analyzed to determine what, if any, repairs need to be made immediately. These and all other materials should be repaired as necessary and monitored under a stringently implemented operations and maintenance plan until they can be removed during future phases of abatement.

As a vital segment of the general assessment report, Hall-Kimbrell has provided budgetary estimates for the removal of all asbestos-containing materials and their replacement with similar asbestos free products. These estimates were provided for each individual material, each area in which the materials exist, each building and finally total cost for the removal and reinsulation of all asbestos-containing materials found throughout the agency. The following is the estimated construction costs for the removal and reinsulation of all materials found to contain asbestos throughout all buildings included in the survey.

Priority Level 1 -	$15,559,468
Priority Level 2 -	$19,140,813
Priority Level 3 -	$61,482,592
Priority Level 4 -	$ 9,811,970
Total -	$105,994,843

These estimates are for removal and reinsulation only, and do not include architectural/engineering fees, air monitoring, contingency, or reimbursable expenses. For specific material, area, and building estimates, as well as specific material estimates throughout the facility, please refer to the spreadsheet section of this report. The Hall-Kimbrell fee scale for architectural/engineering and management is attached to provide an understanding of the approximate cost of these services. This chart is used in estimating the cost of Hall-Kimbrell projects and will vary among other firms.

The costs associated with air monitoring and construction management during the course of an abatement project can be calculated at approximately 11% of the total construction costs. Again, this is the scale Hall-Kimbrell uses to estimate removal project

costs in assessment reports. Hall-Kimbrell's air monitoring fees are negotiable, depending on the size of the project, and may differ from other firms.

VIII. SYNOPSIS OF ANTICIPATED ABATEMENT COST

The spreadsheets included in each report contain a breakdown of the budgetary cost estimated for each material, a total for each area, a subtotal for each building, and finally, a grand total for removal of all asbestos-containing materials and replacement with non-asbestos-containing materials of equivalent or better quality.

The estimated abatement cost is budgetary in nature, since there are many variables which will affect the final construction estimate. Once it has been decided which materials to address, either totally or in a phased program, a final estimated construction cost can be determined based on variables such as time frame for construction, type of replacement material chosen, occupancy during abatement, and size of project chosen. All budgetary estimates are based on the removal option and replacement with non-asbestos-containing material. This option has been chosen because it usually represents a maximum expenditure, in the short run, that the owner would be making, as opposed to other temporary forms of abatement such as encapsulation or enclosure. Encapsulation is a temporary measure which will seal and, therefore, retard fiber release for only a limited period of time. However, the materials remain in the building and must be monitored periodically under an operations and maintenance program. If, however, the study identifies select areas for which we would recommend encapsulation, enclosure, rewrapping or other forms of temporary abatement, specific comments and recommendations will be included. There are no standard cost-estimating guidelines that can be used in this report to establish those estimates, since there are numerous variables that affect the final cost.

When attempting to provide a synopsis of the various options available in making an abatement decision, only general options or alternatives can be addressed, since there are many combinations of areas and materials which could be used in any one abatement project. Historically, most building owners have chosen one of two types of projects:

1. Removal and Replacement of All Asbestos-Containing Materials: This option is the most costly in the short run and may be the most difficult to pursue, considering the possible magnitude of the project, the associated funds which must be appropriated, and the difficulty of moving building occupants to allow for abatement of all materials in one project. However, this

option will eliminate the asbestos exposure potential and any problems associated with the presence of asbestos-containing materials (ACM).

2. A Phased Abatement Program by Priority: In most cases, the most prudent decision is to remove the asbestos-containing materials on a phased basis, beginning with all the Priority Level 1 materials or a combination of the Priority Level 1 and Priority 2 materials. This option would allow the Commonwealth of Virginia or the individual agency to expend the initial funds on those areas which present the most severe exposure potential.

   Exposure from any asbestos-containing material which remains should be minimized under an operations and maintenance plan until such time as those materials and be removed. In many cases, building owners will actually gear a phased abatement program to the priority level, so that Priority Level 1 materials are slated for removal the first year, Priority Level 2 materials will be addressed in the second year or second phase, Priority Level 3 materials in the third year or third phase, and so on.

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COMMONWEALTH OF VIRGINIA PRIORITIZED COST ESTIMATES FOR REMOVAL / REINSULATION

USING AGENCY NAME AND NUMBER		PRIORITY 1	PRIORITY 2	PRIORITY 3	PRIORITY 4	TOTAL COST
123	DEPARTMENT OF MILITARY AFFAIRS	$70,253	$4,687	$920,411	$1,968	$997,319
127	OFFICE OF EMERGENCY SERVICES	$0	$0	$35,392	$0	$35,392
146	SCIENCE MUSEUM OF VIRGINIA	$0	$0	$26,690	$0	$26,690
154	DIVISION OF MOTOR VEHICLES	$129,600	$507	$32,817	$0	$162,924
156	DEPARTMENT OF STATE POLICE	$560	$23,126	$319,235	$26,128	$369,049
182	VIRGINIA EMPLOYMENT COMMISSION	$0	$0	$0	$0	$0
194	DEPARTMENT OF GENERAL SERVICES	$13,329	$719,389	$3,826,840	$168,580	$4,728,138
203	WOODROW WILSON REHABILITATION CENTER	$43,090	$20,880	$146,290	$13,044	$223,304
204	COLLEGE OF WILLIAM AND MARY	$2,604,963	$2,552,155	$1,629,469	$75,287	$6,861,874
206	VIRGINIA COMMONWEALTH UNIVERSITY	$459,152	$1,139,369	$903,684	$331,258	$2,833,463
207	UNIVERSITY OF VIRGINIA	$2,365,436	$1,125,409	$6,072,474	$1,068,360	$10,631,679
208	VIRGINIA POLYTECHNIC INSTITUTE	$91,007	$699,956	$16,897,887	$3,134,829	$20,823,679
209	UVA MEDICAL CENTER - BLUE RIDGE HOSPITAL	$45,943	$127,062	$363,822	$174,390	$711,217
210	TRUCK AND ORNAMENTALS RESEARCH STATION	$43,065	$0	$78,866	$4,656	$126,587
211	VIRGINIA MILITARY INSTITUTE	$243,631	$542,367	$1,356,366	$170,638	$2,313,002
212	VIRGINIA STATE UNIVERSITY	$304,167	$1,538,674	$2,006,464	$179,565	$4,028,870
213	NORFOLK STATE UNIVERSITY	$146,916	$490,634	$311,885	$72,494	$1,021,929
214	LONGWOOD COLLEGE	$193,006	$591,399	$525,764	$87,662	$1,397,831
215	MARY WASHINGTON COLLEGE	$90,945	$704,156	$1,235,920	$67,327	$2,098,348
216	JAMES MADISON UNIVERSITY	$171,755	$123,565	$1,890,718	$125,774	$2,311,812
217	RADFORD UNIVERSITY	$4,176,805	$779,784	$1,127,172	$323,200	$6,406,961
218	VIRGINIA SCHOOL FOR THE DEAF AND BLIND	$0	$8	$878,351	$50,764	$929,123
219	VIRGINIA SCHOOL AT HAMPTON	$193,881	$451,186	$360,436	$137,490	$1,142,993
221	OLD DOMINION UNIVERSITY	$635,297	$1,502,181	$481,334	$409,074	$3,027,886
236	VIRGINIA COMMONWEALTH UNIVERSITY	$327,349	$29,850	$1,758,305	$20,047	$2,135,551
241	RICHARD BLAND COLLEGE	$0	$0	$22,315	$48,576	$70,891
242	CHRISTOPHER NEWPORT COLLEGE	$0	$5,067	$416,812	$51,977	$473,856
246	CLINCH VALLEY COLLEGE	$0	$0	$1,915,752	$253,115	$2,168,867
247	GEORGE MASON UNIVERSITY	$868,863	$115,373	$644,902	$5,032	$1,634,170
263	REHABILITATION CENTER FOR THE BLIND	$0	$0	$12,324	$0	$12,324
265	WILLIAM & MARY - ASSOCIATED RESEARCH CAMPUS	$0	$0	$0	$0	$0
268	INSTITUTE OF MARINE SCIENCE	$4,580	$5,510	$15,585	$175	$25,850
275	NEW RIVER COMMUNITY COLLEGE	$0	$0	$7,576	$44,456	$52,032
276	SOUTHSIDE VIRGINIA COMMUNITY COLLEGE	$0	$422,400	$4,644	$0	$427,044
277	PAUL D. CAMP COMMUNITY COLLEGE	$0	$0	$0	$0	$0
278	RAPPAHANNOCK COMMUNITY COLLEGE	$0	$0	$10,160	$0	$10,160
279	DANVILLE COMMUNITY COLLEGE	$0	$0	$29,596	$6,448	$36,044
280	NORTHERN VIRGINIA COMMUNITY COLLEGE	$110,665	$532,900	$722,627	$22,032	$1,388,224
282	PIEDMONT VIRGINIA COMMUNITY COLLEGE	$0	$0	$0	$0	$0
283	J. SARGENT REYNOLDS COMMUNITY COLLEGE	$0	$0	$17,396	$0	$17,396
284	EASTERN SHORE COMMUNITY COLLEGE - MELFA	$0	$0	$6,493	$0	$6,493
285	PATRICK HENRY COMMUNITY COLLEGE	$0	$0	$8,160	$576	$8,736
286	VIRGINIA WESTERN COMMUNITY COLLEGE	$34,170	$1,280	$92,125	$25,134	$152,709
287	DABNEY S. LANCASTER COMMUNITY COLLEGE	$0	$0	$7,728	$92,400	$100,128
288	WYTHEVILLE COMMUNITY COLLEGE	$0	$0	$43,271	$18,627	$61,898
290	JOHN TYLER COMMUNITY COLLEGE	$0	$21	$3,456	$8,208	$11,685
291	BLUE RIDGE COMMUNITY COLLEGE	$0	$0	$21,445	$288	$21,733
292	CENTRAL VIRGINIA COMMUNITY COLLEGE	$0	$0	$4,704	$3,600	$8,304
293	THOMAS NELSON COMMUNITY COLLEGE	$0	$0	$20,444	$0	$20,444
294	SOUTHWEST VIRGINIA COMMUNITY COLLEGE	$0	$0	$18,755	$7,276	$26,031
295	TIDEWATER COMMUNITY COLLEGE	$39,624	$44,160	$37,936	$0	$121,720
296	VIRGINIA HIGHLANDS COMMUNITY COLLEGE	$0	$0	$17,724	$16,418	$34,142
297	GERMANNA COMMUNITY COLLEGE	$0	$0	$1,920	$2,688	$4,608
298	LORD FAIRFAX COMMUNITY COLLEGE	$0	$0	$0	$0	$0
299	MOUNTAIN EMPIRE COMMUNITY COLLEGE	$0	$0	$3,010	$0	$3,010
301	AGRICULTURE AND CONSUMER SERVICES	$0	$0	$46,286	$0	$46,286
402	MARINE RESOURCES COMMISSION	$17,550	$0	$9,881	$0	$27,431
403	COMMISSION OF GAME AND INLAND FISHERIES	$16,250	$10,672	$90,398	$2,160	$119,480
404	DIVISION OF FORESTRY	$11,360	$21,928	$46,945	$4,928	$85,161
407	PORT AUTHORITY	$214,646	$59,085	$103,036	$0	$376,767
409	DEPARTMENT OF MINES, MINERALS, AND ENERGY	$0	$0	$0	$0	$0
417	GUNSTON HALL	$0	$4,160	$0	$0	$4,160

COMMONWEALTH OF VIRGINIA PRIORITIZED COST ESTIMATES FOR REMOVAL / REINSULATION

USING AGENCY NAME AND NUMBER		PRIORITY 1	PRIORITY 2	PRIORITY 3	PRIORITY 4	TOTAL COST
418	DIVISION OF PARKS AND RECREATION	$34,880	$0	$19,810	$0	$54,690
425	JAMESTOWN FOUNDATION	$0	$960	$0	$2,160	$3,120
501	DEPARTMENT OF HIGHWAYS AND TRANSPORTATION	$28,951	$175,012	$1,077,973	$323,388	$1,605,324
601	DEPARTMENT OF HEALTH	$0	$0	$35,565	$1,680	$37,245
702	COMMISSION FOR THE VISUALLY HANDICAPPED	$0	$35,430	$3,360	$5,760	$44,550
703	CENTRAL STATE HOSPITAL	$825,252	$1,756,075	$607,178	$72,804	$3,261,309
704	EASTERN STATE HOSPITAL	$262,405	$802,890	$802,742	$23,229	$1,891,266
705	SOUTHWESTERN STATE HOSPITAL	$85,531	$584,360	$771,970	$3,292	$1,445,153
706	WESTERN STATE HOSPITAL	$20,511	$40,888	$3,256,736	$1,143,471	$4,461,606
707	CENTRAL VIRGINIA TRAINING CENTER	$161,023	$230,394	$1,167,519	$380,066	$1,939,002
708	DEJARNETTE CENTER FOR HUMAN DEVELOPMENT	$24,408	$8,267	$183,722	$6,560	$222,957
709	POWHATAN / JAMES RIVER CORRECTIONAL CENTER	$0	$90,282	$508,366	$160,792	$759,440
710	STATE PENITENTIARY	$182,638	$0	$55,733	$24,000	$262,371
711	BUREAU OF INDUSTRIAL ENTERPRISES	$0	$0	$29,500	$0	$29,500
712	BON AIR LEARNING CENTER	$3,840	$38,854	$99,440	$3,120	$145,254
713	BEAUMONT LEARNING CENTER	$0	$118,672	$244,400	$0	$363,072
714	BARRETT LEARNING CENTER	$0	$0	$160	$191,669	$191,829
715	HANOVER LEARNING CENTER	$38,694	$89,595	$168,512	$0	$296,801
716	CORRECTIONAL CENTER FOR WOMEN	$0	$12,432	$718,831	$50,197	$781,460
717	SOUTHAMPTON CORRECTIONAL CENTER	$30,411	$253,915	$87,911	$0	$372,237
718	BLAND CORRECTIONAL CENTER	$0	$13,795	$1,628,364	$0	$1,642,159
723	SOUTHEASTERN VIRGINIA TRAINING CENTER	$0	$0	$2,838	$1,392	$4,230
724	CATAWBA MENTAL HOSPITAL	$32,880	$0	$452,745	$8,401	$494,026
725	NORTHERN VIRGINIA TRAINING CENTER	$0	$0	$122,980	$0	$122,980
726	SOUTHSIDE VIRGINIA TRAINING CENTER	$52,039	$64,860	$11,960	$2,640	$131,499
727	VIRGINIA TREATMENT CENTER FOR CHILDREN	$10	$5	$23,260	$110	$23,385
728	VIRGINIA MENTAL HEALTH INSTITUTE	$0	$0	$29,777	$15,936	$45,713
729	PIEDMONT GERIATRIC HOSPITAL	$3,292	$12,809	$347,813	$89,444	$453,358
730	BRUNSWICK CORRECTIONAL CENTER	$0	$0	$0	$0	$0
731	STAUNTON CORRECTIONAL CENTER	$55,323	$78,516	$337,984	$26,250	$498,073
735	HALFWAY HOUSE	$0	$0	$0	$0	$0
737	ST. BRIDES CORRECTIONAL CENTER	$475	$0	$2,090	$0	$2,565
738	SOUTHWEST VIRGINIA TRAINING CENTER	$0	$0	$7,219	$6,493	$13,712
741	APPALACHIAN LEARNING CENTER	$0	$0	$115,931	$0	$115,931
743	OAKRIDGE LEARNING CENTER	$0	$0	$0	$0	$0
744	MECKLENBURG CORRECTIONAL CENTER	$0	$0	$100,835	$0	$100,835
745	NOTTOWAY CORRECTIONAL CENTER	$0	$0	$0	$0	$0
747	MARION CORRECTIONAL CENTER	$0	$0	$97,354	$11,987	$109,341
749	BUCKINGHAM CORRECTIONAL CENTER	$0	$0	$0	$0	$0
754	AUGUSTA CORRECTIONAL CENTER	$0	$0	$0	$0	$0
757	WESTERN REGIONAL FIELD UNITS	$21,200	$149,625	$266,662	$0	$437,487
759	NORTHERN REGIONAL FIELD UNITS	$27,783	$21,543	$138,250	$0	$187,576
760	EAST CENTRAL REGIONAL FIELD UNITS	$0	$15,470	$157,442	$0	$172,912
761	SOUTHEAST REGIONAL FIELD UNITS	$64	$29,314	$2,480	$0	$31,858
841	DEPARTMENT OF AVIATION	$0	$0	$0	$0	$0
999	ALCOHOLIC BEVERAGE CONTROL BOARD	$0	$127,950	$207,182	$480	$335,612
TOTAL FOR ALL STATE AGENCIES		$15,559,468	$19,140,813	$61,482,592	$9,811,970	$105,994,843

COMMONWEALTH of VIRGINIA
DEPARTMENT OF EDUCATION
P.O. BOX 6Q
RICHMOND 23216-2060

December 27, 1988

Mr. Wendell L. Seldon, Director
Department of General Services
209 Ninth Street Office Building
Richmond, VA 23219

Re: Report of Estimated Costs to Remove Asbestos in Public Schools

Dear Mr. Seldon:

In response to the requirements in § 2.1-526.17 of the Code of Virginia, I am enclosing for your use a consolidated report of the estimated costs to abate the risks of asbestos in all public school buildings in Virginia. The report is compiled from inspections conducted under the Federal Asbestos Hazard Emergency Response Act (AHERA) and submitted to the Department of Education for review. The original act called for schools to submit their management plan reports by October 12, 1988. The act was amended in July of 1988 to allow schools to request a deferral of the October 12, 1988 submittal date to May 9, 1989. Approximately 34% of the public schools were granted deferrals under this law.

The enclosed report includes the estimated cost for the removal of all friable and non-friable asbestos containing building material and the replacement of that material where required, in a 1989 time frame. The figure does not include the costs for design/consulting fees or for air monitoring for final air clearance laboratory fees that are associated with each abatement project. It should be pointed out that a large percentage of the removal costs is associated with the removal of non-friable materials, such as floor tile, and most schools will postpone the removal of that material indefinitely as long as the material is maintained. The estimated costs are derived from the information contained in management plans submitted for 1024 schools that comprise 3283 buildings plus the projected estimate for those buildings whose reports will be submitted by May 9, 1989. We anticipate entering into our computer all information concerning costs to remove asbestos in each area of each building by mid-1989, and a more detailed printout will be available at that time.

If you have any questions concerning this report. Please contact Mr. David L. Boddy, Associate Director, Energy and Facilities Services at 225-2035.

Sincerely,

S. John Davis
Superintendent of Public Instruction

SJD/st

Enclosure(s)

cc: The Honorable Donald J. Finley
Mr. M. E. Cale
Mr. David L. Boddy
Mr. Charles W. Callan

27-Dec-88 EST. COST OF ASBESTOS REMOVAL IN VA. PUBLIC SCHOOLS

COUNTY/CITY	NUMBER OF SCHOOLS	NUMBER OF BUILDINGS	TOTAL COST
ALBERMALE	20	51	$2,313,500
ALLEGHANY HIGHLANDS	11	38	$1,229,600
AMELIA	3	15	$715,200
AMHERST	11	17	$1,373,720
APPOMATTOX	4	13	$413,500
ARLINGTON	33	46	$18,761,147
AUGUSTA	21	97	$3,839,000
BEDFORD	15	55	$2,216,800
BLAND	5	15	$544,713
BOTETOURT	10	18	$1,341,800
BUCHANAN	19	108	$2,916,490
BUCKINGHAM	7	23	$489,840
CARROLL	16	34	$948,884
CHARLES CITY	4	27	$712,950
CHARLOTTE	6	22	$913,750
CHESTERFIELD	53	177	$39,165,530
CLARKE	5	7	$36,490
CRAIG	3	8	$266,950
CULPEPER	7	11	$2,017,550
CUMBERLAND	1	19	$161,000
DINWIDDIE	10	36	$1,585,600
FAUQUIER	14	39	$3,663,124
FLOYD	5	15	$1,212,650
FLUVANNA	7	10	$1,136,125
FRANKLIN	14	38	$3,448,803
FREDERICK	12	16	$262,440
GOOCHLAND	5	7	$91,510
GRAYSON	13	25	$1,735,575
GREENE	4	11	$449,500
GREENSVILLE	6	49	$946,046
HALIFAX	16	60	$3,068,400
HANOVER	13	18	$1,131,285
HENRICO	50	203	$7,301,020
HENRY	21	72	$3,533,600
HIGHLAND	2	8	$676,000
ISLE OF WIGHT	6	49	$666,700
KING GEORGE	4	19	$826,060
LANCASTER	3	24	$435,800
LOUISA	5	10	$952,175
LUNENBURG	6	33	$1,275,000
MADISON	5	17	$944,000
MECKLENBURG	11	26	$1,494,000
MIDDLESEX	4	22	$161,040
MONTGOMERY	16	24	$3,366,675
NELSON	8	31	$953,000
NORTHAMPTON	8	30	$1,593,555
NORTHUMBERLAND	4	22	$260,434

27-Dec-88 EST. COST OF ASBESTOS REMOVAL IN VA. PUBLIC SCHOOLS

COUNTY/CITY	NUMBER OF SCHOOLS	NUMBER OF BUILDINGS	TOTAL COST
NOTTOWAY	7	30	$464,440
ORANGE	6	16	$741,124
PATRICK	7	20	$1,045,560
PITTSYLVANIA	24	113	$3,914,885
POWHATAN	4	9	$217,000
PRINCE EDWARD	5	14	$774,500
PRINCE GEORGE	10	47	$599,805
PRINCE WILLIAM	43	87	$3,323,971
RAPPAHANNOCK	2	3	$129,499
RICHMOND	3	16	$424,538
ROCKBRIDGE	11	13	$5,744,680
RUSSELL	17	52	$1,939,316
SCOTT	15	19	$1,902,360
SOUTHAMPTON	7	37	$100,800
SPOTSYLVANIA	14	70	$931,792
STAFFORD	14	38	$1,367,122
TAZEWELL	23	63	$3,729,040
WASHINGTON	19	68	$3,077,830
WISE	18	72	$1,608,112
YORK	15	40	$1,994,865
SUB TOTAL	790	2542	$157,579,770

27-Dec-88 EST. COST OF ASBESTOS REMOVAL IN VA. PUBLIC SCHOOLS

COUNTY/CITY	NUMBER OF SCHOOLS	NUMBER OF BUILDINGS	TOTAL COST
BRISTOL	7	13	$1,178,844
COLONIAL HEIGHTS	6	18	$226,630
COVINGTON	4	5	$513,500
DANVILLE	16	48	$3,535,380
FALLS CHURCH	3	6	$343,217
FREDERICKSBURG	4	9	$952,200
GALAX	3	8	$376,420
HAMPTON	34	42	$9,031,000
HARRISONBURG	5	17	$1,940,000
HOPEWELL	7	22	$2,517,160
NORTON	2	3	$20,000
PORTHSMOUTH	30	109	$7,769,000
RADFORD	4	17	$525,522
STAUNTON	8	10	$1,322,170
VIRGINIA BEACH	68	327	$12,708,623
WILLIAMSBURG	7	37	$1,284,900
WINCHESTER	6	8	$83,760
SOUTH BOSTON	2	6	$454,500
FRANKLIN	3	8	$214,000
LEXINGTON	2	4	$312,250
SALEM	6	7	$123,825
POQUOSAN	3	12	$426,500
MANASSAS PARK	4	5	$967,506
SUB TOTAL:	234	741	$46,826,907
GRAND TOTAL:	1024	3283	$204,406,677

89 Divisions reporting - Total Cost to Remove	$204,406,677
46 Divisions with Deferrals - Estimated cost to remove	$134,198,299
135 Divisions	$338,604,976