

**SOLANO COMMUNITY COLLEGE DISTRICT - SOLANO COLLEGE  
ARCHITECTURAL ASSESSMENT REPORT FOR BUILDING 1200**

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## TABLE OF CONTENTS

1. Introduction-Executive Summary
2. California Building Code and Safety Observations
3. Accessibility Compliance Observations
4. California Green Building Standards Code Evaluation
5. Maintenance Observations
6. Future Renovations, Reconstructions, Structural Repairs, Alterations, or Additions
7. Building Code Analysis

Exhibit 1 – Structural Evaluation,  
DASSE, Inc., Dated May 29<sup>th</sup>, 2008

Exhibit 2 – Mechanical Electrical Plumbing & Fire Protection Observations,  
Interface Engineering Inc, Dated July 9<sup>th</sup>, 2008

Exhibit 3 – Green Oaks Academy Fire Protection Act

## **EXECUTIVE SUMMARY**

The purpose of this Report is to assist the College in identifying building code and accessibility concerns as they relate to Building 1200-Little Theater and Music Department at Solano Community College, Fairfield Campus. It is not meant to be a comprehensive nor exhaustive evaluation of the existing building. The Report is based on visual observations by College Staff and tBP/Architecture and a review of DSA (Division of State Architect) approved existing building drawings obtained from DSA archives.

The original building construction documents for Building 1200 were approved by DSA (DSA Application # 35987) dated May 15, 1973. As such, this Report is based on the assumption that the building met the State building code requirements in force at the time of construction. Over the past 35 years, the College has undertaken several additional alterations and reconstruction projects. The following is a list of those projects that were reviewed and approved by DSA. This list was compiled from information obtained from a preliminary DSA meeting and may not reflect all alterations and reconstructions by the College or all alterations and reconstructions approved by DSA.

- Campus wide ADA upgrades to restrooms DSA #43623, approved June 25, 1981  
(Bldg 1200- restrooms # 1246 & 1247)

The observations listed in this Report have been divided into the following four categories :

1. California Building Code and Safety Observations
2. Accessibility Compliance Observations
3. California Green Building Standards Evaluations
4. Maintenance Observations

## California Building Code and Safety Observations

This part of the Report summarizes the architectural and safety observations as they relate to Building 1200.

While the building may have met the California building code applicable when the building was constructed, the following code and safety observations should be addressed. Refer to narrative provided for summary of the items within the table.

NO.	ROOM #	ITEM	RECOMMENDATION	DISTRICT PRIORITY
1	1200	Lobby & Theater seating do not provide equal facilitation	Major Redesign/rennovate required to remove barriers	
2	1210	Control room not accessible	Redesign/rennovate to provide elevator and code compliant egress stair	
3	1203 1204	Restrooms not accessible and insufficient fixture count	Redesign and expand to meet current code requirements	
4	1232 1233 1234 1235 1236 1237	Green room, make up, lockers and restrooms do not have sufficient clearances, no accessible workstations and showers are non ADA compliant	Redesign/rennovate	
5	1227	<ul style="list-style-type: none"> <li>• Stage is not accessible from seating.</li> <li>• Asbestos fire curtain at proscenium needs to be replaced.</li> <li>• Roof smoke hatches need to be replaced.</li> <li>• Existing stage rigging needs to be replaced.</li> <li>• Existing catwalks within ceiling plenum need to be replaced and extended.</li> <li>• Existing asbestos insulation at theater lighting fixtures</li> </ul>	Redesign and engineer Refer to structural, MEP reports. Replace fire curtain Hazmat abatement	
6	1230	Corridor has two sets of overhead fire rated coiling doors that are over 30 years old and should be replaced	Provide new fire rated doors. Refer to Fire protection report.	
7	1238	• Non field act compliant offices and 2 <sup>nd</sup> level constructed in Scene shop.	Remove structure. Design and construct	

		<ul style="list-style-type: none"> <li>• Two level storage for materials is not seismically braced</li> <li>• Insufficient ventilation for occupancy</li> <li>• Non compliant paint mixing, storage and use without approved spray booth</li> </ul>	<p>compliant offices at mezzanine level to provide program space needed.</p> <p>Design engineered material storage and provide seismic bracing as needed.</p> <p>Provide adequate storage and ventilation as required.</p>	
8	1239	<p>Loading dock egress is not accessible.</p> <p>Hand rails at loading dock stair is non compliant</p>	<p>Provide accessible ramp as required.</p> <p>Redesign stairs as needed</p>	
9	1231	<p>Non field act compliant offices appear to have been added to Costume room.</p> <p>Non seismically braced overhead storage added above work stations-hazard</p> <p>No Ventilation provided</p>	<p>Remove non compliant offices and redesign to meet code.</p> <p>Provide seismic bracing.</p> <p>Provide room conditioning/ventilation</p> <p>Relocate existing hot water heater.</p>	
10	1239	<p>Choral does not provide accessible seating at front of built in choral risers.</p> <p>Ramp to access Recording room at the rear is not code compliant</p>	<p>Provide accessible seating at front of choral risers.</p> <p>Relocate recording studio.</p>	
11	1244	<p>Recording studio located at upper level at rear of Choral is not accessible.</p>	<p>Relocate recording studio between Choral and Instrumental for easier access.</p>	
12	1245	<p>Insufficient program space</p> <p>Stair at rear leading to existing Recording studio is non code compliant.</p>	<p>Provide additional program spaces by redesigning existing storage, recording and offices.</p> <p>Remove non compliant stair</p>	
13	1246 1247	<p>Existing restrooms were upgraded in 1981 but do not meet current accessible code requirements.</p> <p>Fixture count insufficient for occupant load per health code</p>	<p>Remodel restrooms for accessibility.</p> <p>Enlarge existing restrooms or add additional restrooms in other portions of the building.</p>	
14	1253	<p>Water fountain in corridor is not accessible</p>	<p>Provide accessible Hi-Lo water fountain and wing walls</p>	
15	1248	<p>Refer to mechanical report</p>	<p>Consider upgrading mechanical equipment for better energy efficiency</p>	



16	1249	Existing piano instruction room is too small for existing program. Water damage noted in ceiling.	Expand room. Replace roof or mechanical equipment	
17	1256-1262	Practice rooms are too small and improperly ventilated for occupancy No accommodation provided for disabled	Redesign and provide modular practice rooms are varying sizes. Provide clearances for disabled access	
18	1264-1268	Non field act compliant remodel. Existing practice rooms removed, resulting in a single large Midi room. Adjacent corridor is supposed to be 1hr fire rated.	Provide design and engineering to comply with field act. Redesign room to provide program required	
19	General	The building is 35 years old and the program has outgrown the capacity of the building. Additional space is needed within the building envelope or as an addition	<ul style="list-style-type: none"> <li>• Provide additional lobby area, offices, accessible ticketing, box office, support facilities, restrooms, storage, and rehearsal, instructional facilities within building.</li> <li>• Provide addition and second floor with elevators and new egress stairs.</li> </ul>	

Refer to Exhibit 1 for written summary of matrix/ table above.

## Accessibility Compliance Observations

This report assumes that the building met state building code requirements at the time of construction in 1973 and during the indicated restroom upgrades in 1981. However, during the development of this Report, some barrier removal elements were identified and should be considered in the Colleges transition plan.

Refer to Table A for accessibility compliance observations.

**TABLE A- ADA/ ACCESSIBLE RELATED ITEMS:**

ADA RELATED ITEMS	ROOM NO.	ROOM NAME	NOTES/ MISC
Non compliant Building Exit Signage	-	Building 1200	<ul style="list-style-type: none"> <li>• 2007 Code requires tactile exit and floor designation signage</li> <li>• See CBC section 1011.3.</li> </ul>
Non compliant Room Signage	All	Building 1200	<ul style="list-style-type: none"> <li>• Does not meet current 2007 code requirements</li> <li>• Occupant load not provided</li> <li>• Signs complying with Section 1117B.5 not provided</li> </ul>
<b>Path of travel:</b>			
Stair hand rail extensions	Loading dock 1245 1238	Exterior stairs at loading dock  Instrumental Shop	<ul style="list-style-type: none"> <li>• Handrail extensions do not comply with 2007 code.</li> <li>• Guardrail &amp; hand rail do not comply at Instrumental and Shop.</li> </ul>
Stair tread contrasting strips	Loading dock 1245 1238	Exterior stairs at loading dock  Instrumental Shop	<ul style="list-style-type: none"> <li>• Exterior stairs need contrasting strips on every tread per 2007 code.</li> <li>• Interior stairs do not have contrasting strip at top and bottom treads per 2007 code</li> </ul>
Elevator	1200 1238	Lobby Shop	<ul style="list-style-type: none"> <li>• None provided to upper levels</li> <li>• No access provided to control room at theater</li> <li>• No access provided to</li> </ul>

			the offices in the Shop on second level
<p>ADA clearance at doors</p> <p>18" at pull side</p> <p>12" at push side</p> <p>5'-0"x5'-0" clear landing at pull side</p>	<p>1201</p> <p>1202</p> <p>1238</p> <p>1244</p> <p>1256 -1267</p>	<p>Store</p> <p>Ticket</p> <p>Shop 2<sup>nd</sup> level</p> <p>Recording</p> <p>Practice rooms</p>	<ul style="list-style-type: none"> <li>• Door has insufficient clearance</li> <li>• Shop 2<sup>nd</sup> level doors have insufficient clearances</li> <li>• Door at stair landing has insufficient clearance</li> <li>• Practice rooms have insufficient clearances</li> </ul>
Exterior of Building	-	<p>General-</p> <p>Paving at different locations leading up to exit doors need to be replaced.</p>	Remove non compliant pavement and provide new paving as needed
<b>Building/ Facility accessibility</b>			
Accessible aisle- 48" min exit aisle	<p>1200</p> <p>1220</p>	<p>Theater lobby</p> <p>Theater</p>	<ul style="list-style-type: none"> <li>• There is no accessible travel route from the lobby into the theater seating.</li> <li>• Accessible seats provided in theater do not comply with code</li> <li>• Accessible seats are not distributed throughout theater as required for the total number of seats.</li> </ul>
<p>Accessible work station</p> <p>- (CBC 1122B) Where fixed workstations are provided 5% and at least one shall be accessible.</p> <p>-Requires knee space 30" wide min, 19" deep min and 27" high. 28"-34" max to work surface.</p>	1232	Make up room	<ul style="list-style-type: none"> <li>• Built in make up counters are not 34" high.</li> </ul>



Accessible Restrooms	1203 1204 1246 1247	Men Women	<ul style="list-style-type: none"> <li>• No accessible stalls provided in theater</li> <li>• Ambulatory stall needs to be upgraded</li> <li>• Accessible stalls in Music dept need to be revised and upgraded to meet current code.</li> </ul>
Accessible showers	1236 1237	Showers- Men Showers- Women	<ul style="list-style-type: none"> <li>• No accessible roll in showers provided</li> <li>• No required benches</li> </ul>
Built in Benches	1234 1235	Lockers -Men Lockers - Women	<ul style="list-style-type: none"> <li>• Insufficient clearances</li> <li>• No wall mounted 24" x 48" bench</li> </ul>
Accessible Stage area	1219 1227	Orchestra Pit Stage	<ul style="list-style-type: none"> <li>• Existing lift is difficult to get to and only provides access from seating area to pit.</li> <li>• No access to stage area</li> <li>• Existing pit cover does not provide level transition between stage and orchestra pit</li> </ul>
Equal Facilitation at Choral, Recording and Instrumental	1238 1244 1245	Choral Recording Instrumental	<ul style="list-style-type: none"> <li>• No provision for accessible/ wheel chair seating at front of choral risers in Choral room</li> <li>• Non compliant ramp to Recording studio</li> <li>• Non compliant stair in Instrumental to Recording studio</li> </ul>
Accessibility at Practice rooms	1256-1262	Practice rooms	<ul style="list-style-type: none"> <li>• Insufficient clearances at small practice rooms</li> </ul>

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## New California Green Building Standards Code Observations

The new California Green building code is effective as of August 1, 2009. The observations below are suggestions for compliance paths for the renovation of the existing building.

Refer to Table C for Green building observations.

**TABLE C- GREEN BUILDING ITEMS:**

ROOM NO.	ROOM NAME	GREEN BUILDING RELATED	MISC
-	General	<ul style="list-style-type: none"> <li>• Improve building insulation in exterior walls and in ceiling cavities</li> <li>• Design to reduce energy consumption by 15%</li> </ul>	<ul style="list-style-type: none"> <li>• Existing building utilizes tilt up construction- little or no exterior wall insulation</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Replace existing roof with low albedo roof to reduce heat island effect</li> </ul>	<ul style="list-style-type: none"> <li>• Existing roof is leaking and assumption is that underlying building insulation is water damaged</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Replace existing mechanical systems with higher efficiency equipment</li> <li>• Provide higher ventilation rates as required</li> <li>• Improve indoor air quality</li> </ul>	<ul style="list-style-type: none"> <li>• Existing scene shop has no effective means of removing particulates from air and is open to rest of building.</li> <li>• Existing paint spray booth is not adequately ventilated. No provision to remove chemicals to exterior.</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Provide day lighting –insulated windows and skylights</li> <li>• Replace existing single glaze store front doors and windows at lobby and entries.</li> </ul>	<ul style="list-style-type: none"> <li>• Existing building has few or no windows.</li> <li>• No skylights</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Replace existing plumbing fixtures with low flow fixtures</li> <li>• Study use of waterless urinals</li> <li>• Install efficient irrigation measures in landscaping surrounding building</li> </ul>	<ul style="list-style-type: none"> <li>• Existing fixtures are as old as the building.</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Provide necessary sun shading at south facing Theater lobby</li> </ul>	<ul style="list-style-type: none"> <li>• No entry canopy</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Replace existing appliances with energy star labeled</li> </ul>	<ul style="list-style-type: none"> <li>• Old appliances</li> </ul>

		<ul style="list-style-type: none"> <li>appliances</li> <li>• Provide new energy star appliances as needed</li> </ul>	
-	General	<ul style="list-style-type: none"> <li>• Provide energy monitoring</li> <li>• Provide building commissioning plan</li> </ul>	<ul style="list-style-type: none"> <li>• None provided</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Improve building acoustics as required</li> </ul>	<ul style="list-style-type: none"> <li>• Acoustics in Music department and Theater should be improved</li> <li>• Acoustic separation necessary on mechanical and plumbing</li> </ul>
-	General	<ul style="list-style-type: none"> <li>• Divert construction debris from landfills and utilize waste management facilities for recycling.</li> </ul>	

*Note: Consider election to pursue LEED certification. California Green Building Standards are assumed to be similar to LEED Silver certified.*

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### Maintenance Observations

It is not the intent of this Report to observe and record maintenance issues in the building. However, during the development of this Report, some maintenance issues were identified and recorded.

Refer to Table B for maintenance observations.

**TABLE B- MAINTENANCE ITEMS:**

ROOM NO.	ROOM NAME	MAINTENANCE RELATED	MISC
-	General	<ul style="list-style-type: none"> <li>• Acoustic ceiling tiles throughout building indicate water damage from possible roof leaks or malfunctioning mechanical equipment.</li> </ul>	
-	General	<ul style="list-style-type: none"> <li>• Not enough storage area.</li> <li>• Not enough shelving or cabinets.</li> <li>• Insufficient room in existing spaces to add more storage required.</li> </ul>	
1228 1230 1238	TV-Control Corridor Shop	<ul style="list-style-type: none"> <li>• Existing overhead coiling fire doors in 35 year old building should be tested and serviced/ replaced as needed.</li> </ul>	
-	General	<ul style="list-style-type: none"> <li>• Interior and exterior vertical faces are in need to new finishes.</li> <li>• Exterior walls have water damage at roof intersections</li> <li>• Replace roof gutters and downspouts as needed</li> <li>• Replace worn carpets as needed</li> <li>• Replace existing lighting</li> </ul>	

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## **Future Renovations, Reconstructions, Structural Repairs, Alterations, or Additions**

The following code sections and acts should be complied with for any renovations, reconstructions, structural repairs, alterations or additions made by the College.

1. 2009 California Administrative Code (CAC) Title 24, Part 1, Section 4-309 Reconstruction or alteration projects in excess of \$25,000 in cost, addresses when reconstruction or alteration projects shall be submitted to Division of State Architect (DSA) for approval. Plans and specifications for any reconstruction or alteration project exceeding \$25,000 in costs shall be submitted to DSA for approval. When the estimated cost of a reconstruction or alteration project exceeds \$25,000 but does not exceed \$100,000, and a licensed structural engineer determines that the project does not include any work of a structural nature, approval of the project plans and specifications by DSA may not be required.
2. Title III of the 1992 Americans with Disabilities Act (ADA) and the 2007 California Building Code (CBC) address the requirements for the removal of barriers to the disabled in existing buildings. The work necessary to comply is typically based on a survey of the existing buildings and then described in a campus transition plan. The transition plan is typically filed with the State, and the barrier removal work is budgeted and completed on an on-going basis. We recommend the College continue to update and complete its campus transition plan.
3. 2007 CBC Section 1134B Accessibility for Existing Buildings, addresses the accessibility requirements for renovations, structural repairs, alterations and additions to existing buildings. All existing buildings, when alterations, structural repairs or additions are made to such buildings, and the total construction cost exceeds the current January 2008 "valuation threshold" of \$119,958.65 (updated again in January 2009), then a minimum of 20% of the construction cost should go toward providing the following access elements in the following order:
  - a. An accessible entrance;
  - b. An accessible route to the altered area;
  - c. At least one accessible restroom for each sex;
  - d. Accessible telephones;
  - e. Accessible drinking fountains; and
  - f. When possible, additional accessible elements such as parking and alarms.
4. 2008 California Green Building Standards Code, addresses the energy, water efficiency, material resource and conservancy requirements for new construction and renovations, structural repairs, alterations and additions to existing buildings. This code is effective as of August 1, 2009:
  - a. Reduce energy consumption by 15%;
  - b. Provide Energy Star labeled appliances;



- c. Provide energy monitoring;
  - d. Provide Building Commissioning Plan;
  - e. Provide 1% on site renewable energy;
  - f. Reduce potable water consumption by 20%.
  - g. Refer to California Green Building Standards for full requirements.
5. The Green Oaks Family Academy Fire Protection Act (along with DSA) addresses when Modernization projects (including "New" buildings on an existing campus) should comply with the following fire protection systems.
- a. Modernization projects less than \$200,000: A manual fire alarm system is required. No requirement for sprinkler protection.
  - b. Modernization projects greater than or equal to \$200,000 and no State funding: A manual fire alarm system is required. No requirement for sprinkler protection.
  - c. Modernization projects greater than or equal to \$200,000 with State funding: An automatic fire detection and alarm throughout area in scope of work. No requirement for automatic sprinkler protection.

This implies that modernization projects to Building 1200 would not require fire sprinkler protection, however, before proceeding, we recommend meeting with DSA to discuss types of modernization projects planned. Changes in occupancy may require fire sprinkler protection. This does not apply to "New" buildings on an existing campus, classified as a Modernization project, as these projects are required to meet current code requirements for automatic sprinkler protection and fire alarm and detection systems. Refer to Exhibit 4.

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## California Building Code and Safety Observations Narrative

Narrative to items in tables provided in Executive summary.

### 1. Theater lobby 1200:

- i.) Existing ticketing booth is not accessible, does not have sufficient clearances and does not provide an accessible counter.
- ii.) Hi-lo water fountain not provided.
- iii.) Existing stair to control room on second level does not meet current code requirements.
- iv.) Doors leading to theater space potentially create a corridor and fire separation of lobby and theater will need to be addressed.
- v.) No elevator provided for access to second level.
- vi.) Existing ramps leading to the theater seating are not accessible and do not have required landing clearances.

### 2. Theater 1220:

- i.) Existing theater does not provide required accessible path of travel from theater lobby to seating area. Existing path of travel requires disabled to travel outside of the building in a circuitous route to seats located at the front of the stage. Does not meet the intent of equal facilitation.
- ii.) Accessible seating is not evenly distributed for the present seat count (363 seats).
- iii.) Existing exit aisle are steep and not accessible. This will require extensive remodeling to obtain the minimum accessible ramps.
- iv.) Existing seats are mainly 19" wide and are too narrow. Recommend replacing with 22" wide seats.
- v.) Existing theater floors are sloped and not stepped. Recommend a full remodel of the existing theater to provide accessible aisles, distributed seating and adequate line of sight.
- vi.) Disabled access to the stage requires exiting the theater building to the exterior and reentering the building and the back of house before entering the stage floor. There is no direct access to the stage from the seating area.
- vii.) Disabled access to the orchestra pit requires a lift located in the orchestra pit which appears to need replacement.
- viii.) Orchestra pit cover should be replaced.

### 3. Theater exterior.

- i.) Existing ramps on the west side of the theater are non compliant. Lower portion of ramp is too steep and insufficient landing length is provided.
- ii.) Hand rails extensions do not appear to comply.

### 4. Green Room and Back of house:

- i.) Make up room has existing built in make up stations that are not 34" high and too shallow to provide adequate knee clearance.
- ii.) No provision for wheelchair make up station

- iii.) No accessible wall mounted bench in locker rooms as required.
- iv.) Showers are not accessible and do not have necessary clearances
- v.) Paving leading from exit doors are not level and have buckled due to tree root intrusion.

5. **Shop 1238:**

- i.) Provide adequate storage for flammable materials and chemicals utilized in the scene shop.
- ii.) Provide anchorage for cabinets over 5'-0" tall and adequate ventilation per code.
- iii.) Provide a paint spray booth with fume hood and proper ventilation. Existing spray booth does not have a fume hood or proper storage.
- iv.) Lack of proper ventilation in scene shop for dust control.
- v.) Material storage does not appear to be engineered. Framing lumber, plywood panels etc are stored on makeshift 2 level wood frame storage. Not seismically braced.
- vi.) No floor containment for paint or other chemicals. No alarms for spills.
- vii.) No secure storage of power tools and other equipment.
- viii.) Inadequate office area. Insufficient room at ground level to provide necessary offices or rooms required.
- ix.) Inadequate signage provided

6. **Shop Offices.** Are non-field act compliant (structural). There does not appear to be any DSA approvals on record for the wood framed two level offices built in the existing Shop. Structure does not appear to be engineered and is not accessible. Existing stairs do not comply with code and no elevator is provided.

7. **Eye/facewash equipment and emergency shower.** The existing Shop (1238) does not have either an eye/facewash or an emergency shower. We recommend the College consult with an Industrial Hygienist and identify the use of all substances in the scene Shop where, during routine operations or foreseeable emergencies, the eyes or the body may be exposed to such substances, and then comply, as required, with the requirements of the California Administrative Code Title 8, § 5162 and OSHA 29 CFR 101-.151. Approximate range of construction cost for an eyewash and faucet combination is estimated at less than \$2,500 and for an emergency eyewash/shower is estimated at around \$6,000.

8. **Exterior fire access.** This project will require fire access review by the local fire department. We believe it is likely that the local fire department will require that the fire tender have access to the front of the theater. Existing sidewalks are not wide enough and probably not engineered to withstand the weight of a fire engine.

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## **Building Code Analysis**

Below is a partial building code analysis for Building 1200. It is not intended to be a complete and exhaustive analysis but to provide general information about the building type and categories it falls under. The rooms that were visually evaluated are listed below in the building summary. Rooms and buildings not listed are not part of the scope of this report.

### **Code analysis- Building 1200**

Mix use Occupancy- Mix use A1, A3, B, & S1

Building Area: 27,357SF (24,940sf first flr + 2,417sf second flr)

Building Height: 2 storey (23'-3" – 55'-2")

Building Construction Type: Appears to be Type III –1Hr sprinklered

Year Built: DSA records indicate 1975

Sprinklers verified visually and indicated in DSA approved existing drawings.

Refer to FPP report by Interface Engineering Inc., dated 7/9/08. Not included in this report.

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