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Newton Public Schools

Evaluation of the NPS Custodial, Cleaning and Light Repairs / Maintenance Program

Provided By: Core Management Services

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Newton Public Schools – Custodial Evaluation

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Executive Summary

Introduction

In May of 2015, Newton Public Schools (NPS) issued a public bid process (RFQ #052015) in which the successful consulting company was asked to perform a custodial evaluation for efficiencies and improvements. NPS selected Core Management Services (Core) to provide the independent evaluation of its custodial program. Core's scope of work includes an assessment of the in-house organization, an evaluation of the outsourcing model and the identification of opportunities for improving the efficiency and effectiveness of the program.

Methodology

During the assessment, Core focused on five primary activities: 1-collecting and analyzing current program documentation; 2-conducting a site visit with stakeholder interviews; 3-determining current quality levels; 4-comparing current staffing to a professional workload; and, 5-benchmarking the current program's metrics against in-house and outsourced industry standards.

Site visits and teleconferences were conducted to discuss collected documentation, to review building usage and area types, to verify floor surfaces, and to obtain a more complete picture of the activities required at NPS facilities. The site visits and quality inspections were conducted during the weeks of June 1 and June 8, 2015. In total, 18 schools (includes the Ed Center) were visited during this timeframe. Per the scope of work, Core did not include Cabot, Horace Mann, Lincoln-Eliot, and Zervas schools, as they will be taken out of service in the near future.

The site visits included baseline quality measurements to determine the effectiveness of the cleaning program in place. The baseline results may be used to measure future results against current performance, as well as to compare NPS' cleaning quality against other schools and national standards.

Other major activities included:

- Review of the current cleaning specification and service "runs"
- Staffing analysis
- Analysis of the current collective bargaining agreement
- Review of supplies, equipment and chemicals
- Training and safety program review
- Organizational structure recommendations
- Evaluation of current custodial expertise
- Cost saving opportunities
- Principal surveys

Findings

Throughout this report, Core has followed the format provided by Newton Public Schools in responding to project requirements. Independent of the individual project requirements, the Core assessment team has identified six major findings:

1. Core performed independent custodial quality inspections at each school. Overall, the schools are not currently being cleaned to minimum acceptable quality standards for K-12 districts. *For more detail, see Deliverables A, B, E and I, and Exhibits A, B and F*

2. The per-employee cost and benefit structure is much higher than the private sector. Cost savings associated with outsourcing may be as high as $1,078,000 per year, depending on the variables and assumptions. These savings do NOT include any additional savings from OPEB and pension. *For more detail, see Deliverables F, G and H*

3. The program can stay in-house and improve by implementing specification changes (reductions) and improved management tools – cost savings are not likely under this scenario. *For more detail, see Deliverables E, F, I, J, K, L and M*

4. The custodial organization is somewhat under-resourced. The program currently has 71 FTE (full time equivalents) performing cleaning and related tasks (for the 18 schools that were evaluated) but requires 80.5 FTE, not including floaters. *For more detail, see Deliverables C and D, and Exhibits C and D*

5. The program can be outsourced to increase staffing levels and to save money. The outsourcing model results in a greater capacity for absentee replacement. *For more detail, see Deliverables F, G and H*

6. The program lacks best-practices regarding documentation, cleaning specifications, training and standardization. These items may be addressed by implementing a supervisory or quality control coordinator position. *For more detail, see Deliverables E, F, I, J, K, L and M*

In summary, the current NPS custodial program is more expensive per custodian compared to the outsourcing option, and is delivering inadequate and inconsistent cleanliness levels.

A Final Executive Summary Note

It has been a pleasure working with Newton Public Schools' custodial management stakeholder groups to complete this report. We would like to thank all contributors for their efforts to ensure that the process proceeded as scheduled.

Project Objectives

In May of 2015, Newton Public Schools (NPS) issued a public bid process (RFQ #052015) in which the successful consulting company was asked to perform a custodial evaluation for efficiencies and improvements. Newton Public Schools ("NPS") awarded the contract to Core Management Services to provide the independent Custodial Evaluation and set of recommendations for reviewing and improving the performance of its custodial program. In total, the project included 18 schools, totaling 1,905,175 square feet. The full list of schools is provided below:

Elementary Schools	**Sq. Ft.**
Bowen	64,935
Burr	54,167
Carr	47,244
Countryside	65,000
Franklin	56,764
Mason-Rice	39,000
Memorial-Spaulding	68,775
Peirce	35,600
Underwood	43,300
Ward	38,000
Williams	41,700
Middle Schools	**Sq. Ft.**
Bigelow	92,500
Brown	146,000
Day	152,990
Oak Hill	96,200
High Schools	**Sq. Ft.**
North High	410,000
South High	383,000
Other	**Sq. Ft.**
Ed Center	70,000
TOTAL	**1,905,175**

Per the scope of work, Core did not include Cabot, Horace Mann, Lincoln-Eliot, and Zervas schools, as they will be taken out of service in the near future.

To facilitate the assessment, Core utilized a *co-development* process to ensure that NPS' objectives were met, meaning that input was received and reviewed from multiple stakeholders in the process (principals, assistant principals, teachers, custodians and facilities staff).

Core Management Services used its industry expertise to:

1. Inventory, inspect, interview, survey, categorize, and analyze included schools. This included an evaluation of NPS' current custodial practices, including procedures, products and equipment used. Core has benchmarked NPS' performance and staffing against industry standards and best-in-class performers. *For more detail, see Deliverables A, B, C, D, E, F, I, J, K, L and M*

2. Provide custodial workloads detailing tasks and frequencies and associated custodial specifications to achieve an efficient, effective, best-in-class cleaning program. *For more detail, see Deliverables C, D, I and J*

3. Provide findings related to the management, labor utilization and productivity, accountability and control, organization and current methods, and training. *For more detail, see Deliverables C, D, E, F, G, H and L*

4. Design a set of Program Improvement / Implementation Recommendations for use by NPS as a blueprint to improve the efficiency and management of the program. *For more detail, see Deliverables E, F, I, J, K, L and M*

Work Performed

Data and Document Collection and Analysis

Core collected the following key documents to assess the current custodial program and make proper recommendations:

- Reported square footage information
- Number of buildings
- Location of buildings
- Current work assignments (service “runs”) and staffing breakdowns

In addition to the above information, Core collected the additional documentation to ensure the consideration of all possible factors when providing recommendations:

- Management contacts
- Non-custodial duties or tasks expected of staff
- Equipment list
- Supply list
- Wage and benefit information
- Union contract
- Overtime costs

Core collected some of this documentation before arriving at NPS. Collection of this information prior to the site visit allowed senior Core consultants an overview of potential project-related issues.

Management Survey

As part of Core’s commitment to co-development, senior consultants met with NPS principals, assistant principals, teachers, facilities team and senior custodians to clarify goals and objectives related to the custodial program. Core also conducted follow up calls to ensure adequate communication between parties.

Site Visit and Teleconferences

Site visits and teleconferences were conducted to discuss collected documentation, to review building usage and area types, to verify floor surfaces, and to obtain a more complete picture of the activities required at NPS facilities. The site visits and quality inspections were conducted by two of Core’s consultants, Anthony Maione and Jeff Edelstein, during the weeks of June 1 and June 8, 2015. In total, 18 schools (includes the Ed Center) were visited during this timeframe.

Baseline Quality Measurements

As mentioned, the site visits included baseline quality measurements to determine the effectiveness of the cleaning program in place. The baseline results may be used to measure future results against current performance, as well as to compare NPS' cleaning quality against other schools and national standards.

Cleaning Specification Development

Information gathered during the facility survey and analysis was categorized and input into custodial workloading software. Information included in the specification: required services for each space, frequency of services for each space, equipment requirements to perform tasks, number of employees necessary for each space and/or service-hours required per building to accomplish designated tasks.

The cleaning specification includes task and frequency sets that represent the most appropriate cleaning program design, using NPS' current custodial program as the foundation of the specification.

Workload Summary Development

Core developed custodial workloads to determine the appropriate service requirements for NPS. Service frequencies, equipment requirements, full-time employees ("FTE's"), and service-hour requirements were each considered.

Environmentally-Focused Program Development

The goal of environmentally-focused programs and processes is to utilize the safest and most user-friendly products available. Core has recommended processes that are in compliance with U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) rating system, the most standardized and accepted green cleaning program in our industry. Currently, NPS' custodial program is following approximately 25% to 35% of green cleaning protocol, but it is not well-documented and difficult to determine an exact percentage.

Software Recommendation

Core is providing software recommendations to NPS that will enhance productivity of their custodial program. Software improvements include: inspection software, training, building drawings and square footage categorization.

Outsourcing Study

Per the project's scope of work, Core performed an outsourcing study to determine the cost, staffing and cultural implications of an outsourcing model. This model is explained in detail in Deliverables F and H.

Project Findings and Deliverables

A. Site Visits, Current Quality Standards and Customer Satisfaction

Site Visits

Core Management Services' personnel visited all 18 schools during the weeks of June 1 and June 8, 2015. In each case, Core met with the senior custodian (day shift), as well as an administrator of the school (typically the principal). Other on-site activities included baseline quality inspections, tours of the schools, and question-and-answer sessions with the senior custodians.

Anthony Maione (Vice President) and Jeff Edelstein (Sr. Consultant) performed the site visits. Paul Anastasi (Facilities Operations Manager) guided Core for most of the site visits. When Paul was unavailable, another member from the facilities team (Dave Stickney) guided Core. Below is the schedule that was followed:

6/10/2015

- Memorial-Spaulding
- Countryside
- Ed Center
- Ward

6/11/2015

- South High
- Bowen
- Mason-Rice
- Carr

6/17/2015

- Brown
- Oak Hill
- Williams
- Peirce

6/18/2015

- Day
- Underwood
- Bigelow

6/19/2015

- North High
- Burr
- Franklin

Site Visit Template

Core designed an information collection template that was used and completed for each site visit. A blank copy of the template is included as Exhibit A.

Baseline Quality Audit Results

The following pages illustrate the cumulative results of the baseline quality inspections performed by Core Management. The inspections were performed during daytime hours during the weeks of June 1 and June 8, 2015. Core inspected representative area types within a cross-section of the buildings.

Combined Quality Score - All Schools and Buildings: 82.84%

For K-12 districts, 85% widely accepted as the minimum acceptable quality score. For example, whenever Core establishes a performance-based custodial contract, 85% is used as the minimum threshold; any Quality Success Percentage score below 85% triggers a financial penalty.

NPS' baseline quality score as measured by Core (82.84%) is below the 85% minimum, and equates to roughly an overall APPA level 3 to 3.25 (APPA stands for Association of Physical Plant Administrators, see www.appa.org). APPA is a widely-used custodial quality scale, with 1 being the best score and 5 being the lowest score. The 85% threshold roughly equates to an APPA level 2.5.

The next page includes a visual description of the NPS quality score and how it relates to the threshold.

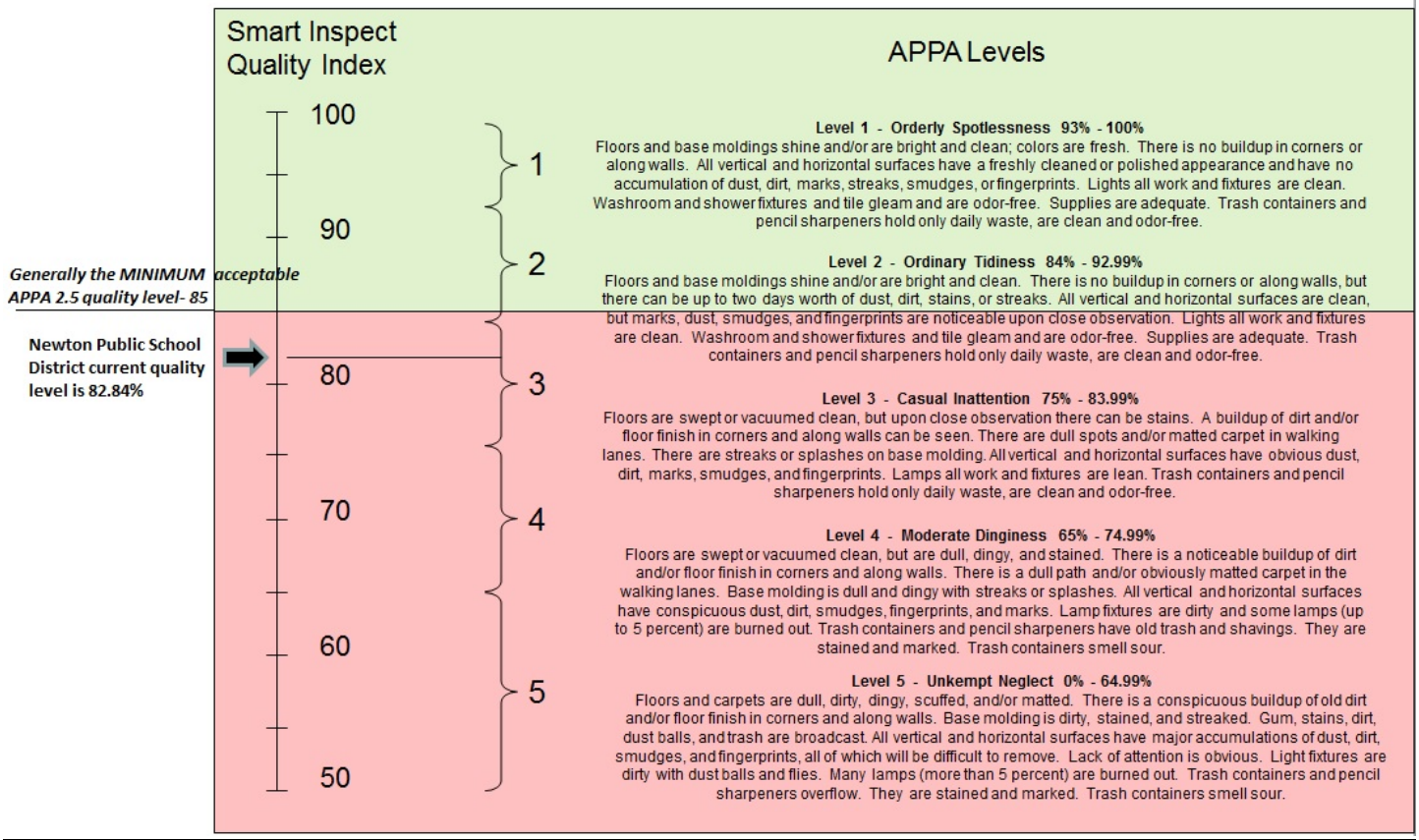
Exhibit B of this report includes additional quality reports, including reports for each individual building that was inspected. NPS may access its customized website to view every quality report in greater detail, if desired. Contact Core's Nate Jackson at njackson@coreamerica.com or 1-800-772-6352 x313 for access.

Comparison to Peer Institutions

The chart below compares NPS against other K-12 districts that Core has recently inspected. These comparison schools represent a variety of geographical areas Massachusetts (Boston area), Florida, Texas, Kansas and Kentucky.

	Client A	Newton Pub Schools	Client B	Client C	Client D	Client E
Smart Inspect Quality Scores	75.01%	82.84%	88.03%	89.32%	88.68%	88.85%

Custodial Quality Measurement Conversion Chart



Score Summary – All Schools and Buildings

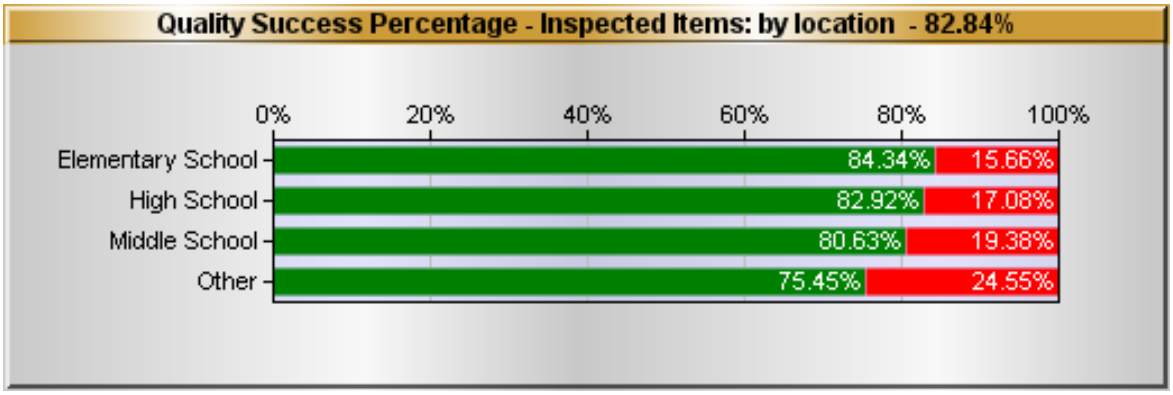
Elementary Schools	
Building	**QSP (%)**
Combined	**84.34**
Bowen Elementary	89.04
Burr Elementary School	84.42
Carr Elementary School	80.80
Country Elementary School	86.26
Franklin Elementary School	75.71
Mason-Rice Elementary School	83.42
Memorial-Spaulding Elementary	88.89
Peirce Elementary School	81.55
Underwood Elementary School	81.00
Ward Elementary School	86.51
Williams Elementary School	85.22

Junior High Schools	
Building	**QSP (%)**
Combined	**80.63**
Bigelow Middle School	80.73
Brown Middle School	78.69
FA Day Middle School	82.64
Oak Hill Middle School	81.90

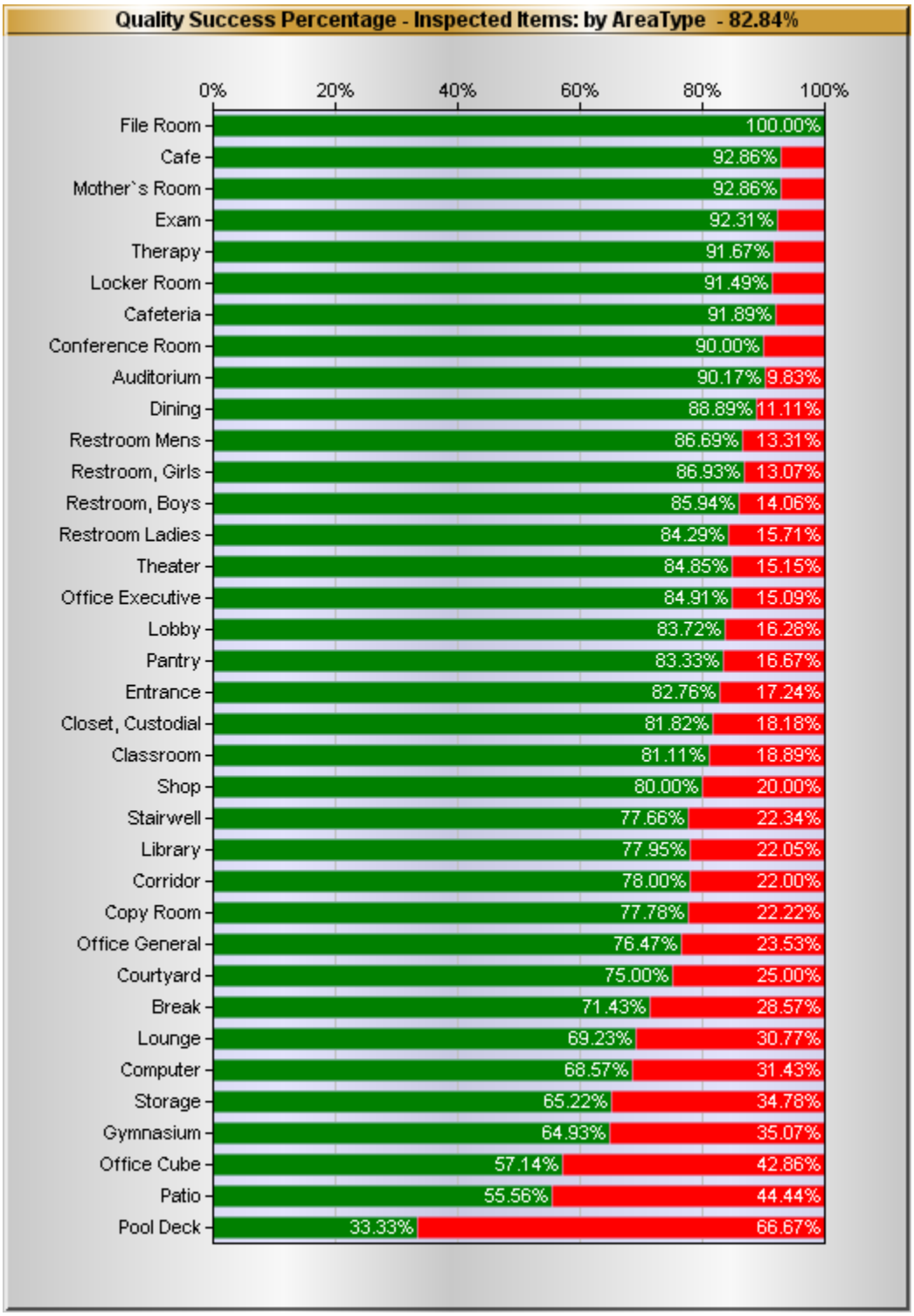
Senior High Schools	
Building	**QSP (%)**
Combined	**82.92**
Newton North High School	84.51
Newton South High School	81.44

Other Buildings	
Building	**QSP (%)**
Ed Center/Admin	75.45

Quality Score by School Type



Quality Score by Area Type



B. Surveys of Administration

During the site visits, Core met with the schools' principals (in a couple cases, Core met with other administrators, as the principals were not available). See Exhibit A for a copy of the template Core used to document its interviews with administration.

Below is a summary of Core's observations, based on an aggregation of the completed site visit forms:

1) Core was able to interview 15 of the 18 schools visited. All participants were candid and forthcoming with issues, concerns and praise in regards to the custodial staff

2) To the question "How would you grade your custodial staff?" Core received the following responses:

Letter Grade for Custodial Program	# of Principals Assigning this Grade
A	3
A -	3
B +	3
B	1
B -	3
C	2

3) To the question "Please describe three major issues, if any", the majority discussed lack of window cleaning, lack of dusting, bathroom cleanliness, exterior maintenance and consistency of service.

4) Most of the principals were aware of the impact to the level of service provided when substituting three hours for an absent custodian's eight hour shift

5) Most of the principals were aware that due to the utilization of the school buildings during the summer months, the window for getting the schools 100% ready for the new school year is condensed.

6) A number of principals voiced concern that due to weekend use of the school buildings by outside entities, the schools, specifically the classrooms, were often left disorganized and dirty for Monday morning.

7) All of the schools had a reliable system in place to keep the custodial staff informed of special events, either through email, weekly newsletter, face to face, telephone or a combination of all of the above.

8) All of the principals acknowledged that their Day Senior Custodians spent a good deal of their time performing non-cleaning functions. It was also indicated that these functions were a necessary part of the Senior Custodian's responsibility. This was verified during the Senior Custodian interviews. This *could* be a problem for schools with only one custodian during the day

9) To the question "Does your custodial staff appear professional, in uniform, trained and ready to perform their duties?" most said custodial staff is not in uniform and the overall consensus is that there is a lack of consistency.

10) To the question "Will your staff go the extra mile to make sure the school is clean, safe and healthy?" the responses were about half "yes", half "no."

11) Almost all of the principals cited the inability to get work orders completed timely as a major concern. The scope of the consulting project did not include a review of the work order maintenance

12) To the question "Do you receive any feedback, whether positive or negative, from parents, faculty, students or staff regarding the cleaning at your school?" most replied that there is not much feedback (they stated that if there is feedback, the feedback is usually negative).

13) To the question "Do you feel your school is 100% ready to go in September?" about half of the principals answered "yes".

14) Most of the principals had an issue regarding the separation of responsibility between City of Newton and the custodial department, especially concerning the cleaning of the exterior areas of the school grounds. They did not have a definitive guideline relating to where the custodians' responsibility ends and City's begins.

C. Staffing Analysis

Workloading Methodology

NPS' Task and Frequency Sets (Specifications)

Core Management Services has compiled a task and frequency set (Cleaning Specification) for NPS' buildings (see Exhibit C). The specification combines NPS' current or existing standards with K-12 best-practices. "Best-practices" combine Core's experience with similar districts with various standards, such as APPA (Assoc. of Physical Plant Administrators) and ISSA (International Sanitary Supply Association).

In the cleaning specification, each task has an associated frequency shown to its right. Frequencies indicate how many times per year each task is performed. For example, tasks performed daily (Monday – Friday) during the school year have a frequency of 190. Tasks performed daily (Monday – Friday) year-round have a frequency of 260.

An Explanation of the Workload Reports

Each cleaning task included in NPS' task and frequency set (see Exhibit C) has an associated production rate. For example, dust mopping requires, on average, 6.5 minutes per thousand square feet. Core uses these industry standard production rates (as defined by APPA, ISSA, etc.) in conjunction with each area's net cleanable square footage, to produce a custodial workload. This workload yields the optimal amount of time (or labor) that it takes to perform each cleaning task, as well as the optimal amount of labor to clean the schools/buildings in each group. Additionally, the workload takes into account the collective bargaining agreement's language regarding break times and clean-up time.

- The Staffing Summary indicates the optimal amount of full-time equivalents (FTE's) to clean the NPS schools and buildings.
- The Distribution Summary is similar to the Staffing Summary, except it indicates the optimal amount of labor broken down into *yearly hours* instead of FTE's.

These reports yield average production rates and predictable times needed to complete the necessary tasks in each area - given the various circumstances. Exhibit D of this report contains the Staffing Summaries and Distribution Summaries for each individual school and building that was within the scope of this study.

Workload Summary

The tables below summarize Core's custodial staffing workloads, comparing them to NPS' current staffing levels. As the table indicates, Core's workload total is higher than NPS' current staffing levels.

		# of Custodial FTE		
Site Name	Square Footage	Current	Core Workload	Core Workload - Rounded
Bowen	64,935	2.50	3.08	3.00
Burr	54,167	2.00	2.57	2.50
Carr	47,244	2.00	2.24	2.00
Countryside	65,000	2.50	3.08	3.00
Franklin	56,764	2.50	2.69	2.50
Mason-Rice	39,000	2.00	1.85	2.00
Mem-Spaulding	68,775	2.50	3.26	3.00
Pierce	35,600	1.50	1.69	2.00
Underwood	43,300	2.00	2.05	2.00
Ward	38,000	2.00	1.80	2.00
Williams	41,700	1.50	1.98	2.00
Elementary Total	**554,485**	**23.00**	26.27	**26.00**

		# of Custodial FTE		
Site Name	Square Footage	Current	Core Workload	Core Workload - Rounded
Bigelow	92,500	4.00	4.58	4.50
Brown	146,000	5.50	7.24	7.00
Day	152,990	5.50	7.58	7.50
Oak Hill	96,200	4.00	4.77	5.00
Middle Total	**487,690**	**19.00**	24.17	**24.00**

		# of Custodial FTE		
Site Name	Square Footage	Current	Core Workload	Core Workload - Rounded
North High	410,000	13.50	14.54	14.50
South High	383,000	13.00	13.59	13.50
High School Total	**793,000**	**26.50**	28.13	**28.00**

		# of Custodial FTE		
Site Name	Square Footage	Current	Core Workload	Core Workload - Rounded
Ed Center	70,000	2.50	2.69	2.50
Ed Center Total	**70,000**	**2.50**	2.69	**2.50**
Total Assigned Custodian	**1,905,175**	**71.00**	81.26	**80.50**
Project/Floaters		3.50	8.00	8.00
Total All		**74.50**	89.26	**88.50**

D. Staff Scheduling/Shifts and Labor Utilization

NPS' current staffing structure:

Elementary Schools

- 1 Senior Custodian on days
- 1 to 1.5 Junior Custodians on evenings

Middle Schools

- 1 Senior Custodian and 1 Junior Custodian on days
- 1 Senior Custodian and 1 to 2.5 Junior Custodians on evenings

High Schools

- 1 Senior Custodian and 2 to 4 Junior Custodian on days
- 1 Senior Custodian and 3 Junior Custodians on evenings
- 1 Senior Custodian and 4 to 5 Junior Custodians on nights

This staffing structure, in terms of shift utilization, is consistent with K-12 best-practices. Schools require both daytime custodians (emergencies, "as requested" services, portering, some cleaning), plus a (sometimes) larger group of evening and night custodians to perform the majority of the cleaning duties, projects, restorative duties and event support.

Absenteeism Rate: 17.1%

Data from the 2014-2015 school year indicates that the total annual absenteeism for NPS custodians was approximately 3,600 days, or 28,000 hours. This equates to about 14.5 full-time equivalent custodians ("FTE"). The resulting absenteeism rate is therefore 14.5 / 85 = 17.1%. These absenteeism numbers include sick time, vacation, bereavement, personal time, workman's comp, and FMLA. The numbers do NOT include paid holidays.

Currently, NPS covers for absenteeism with overtime hours. An absent custodian's 8 hour shift is often covered with 3 hours of overtime.

E. Analysis of Service Organization and Levels of Expertise

NPS' custodial service organization includes many proud, professional and diligent employees. The employees Core interviewed (primarily day shift Senior Custodians) demonstrated a high level of care and concern for their schools and for the students, faculty and visitors.

That being said, the overall level of organizational custodial expertise appears to be inconsistent. For example, the cleaning specification lacks industry best-practices and detail, and does not appear to be consistently understood by the custodians. The service assignment "run sheets" were found to be outdated, and in some cases they have not been changed or reviewed for many years.

The district provides the organization with top tier supplies and equipment, yet some of the most useful pieces of equipment (backpack vacuums, for example) remain unused.

Overall, the custodial organization is not structured in a way that is conducive to technical expertise being routinely shared with the custodians. Ideally, there would be a quality control coordinator, training, or supervisory staff member(s) to assist the custodians with training, procedural improvements, consistency, documentation, etc. This position(s) would report to the Facilities Operations Manager, or possibly directly to the Chief of Operations.

In summary, the custodial organization includes long-tenured staff members that know a great deal about their trade. Yet a lack of consistency, standards, time and attention to detail have resulted in an organization that would benefit from a renewed focus on expertise and training.

F. Analysis of Management Structure with Organizational Options

In-house Option: Analysis

The current in-house program includes a Chief of Operations, a Facilities Operations Manager, a Custodial Admin/Scheduler, and a group of 80 to 85 senior and junior custodians.

Deliverable C (Staffing Analysis) indicates that NPS would benefit from additional custodial staff, based on K-12 staffing standards (see Core's workload vs. NPS current staffing levels).

Additionally, Core's analysis reveals that NPS' in-house organizational structure is lacking one or two positions at the supervisory or "specialist" level (quality control coordinator, for example). It has already been stated that the custodial organization would benefit from improved consistency, quality inspections, attention to detail, training and standard documentation. These improvements can be implemented by the addition of a supervisory, training or quality control coordinator position (these positions are typically non-union).

For example, NPS may create North Supervisor and South Supervisor positions. These positions could be responsible for training, quality audits, service run documentation, scheduling support, work order coordination, faculty surveys, etc. Another option would be to create one supervisor position (responsible for ALL schools) and one quality control coordinator. The quality control coordinator would be responsible for developing and implementing a consistent training program, inspections, service run re-design, ATP (adenosine triphosphate) testing, chemical and equipment testing/repairs, etc.

Of course, each of the recommendations stated above (hiring additional custodians, creating a new supervisory or quality control coordinator position) would *increase* the cost of the custodial program. To decrease the cost of the custodial program, while remaining in-house, NPS has the following options:

1. Eliminate custodial positions through attrition (perhaps beginning with the floaters)
2. Reduce the cleaning specification (e.g. teachers now have to empty their own trash, or dump trash into centrally located bins)
3. Negotiate more economical wages and benefits with the union

Options 1 and 2 would likely result in a less clean, less healthy environment and a greater issue with absentee replacement. Option 3 may be difficult to implement.

Outsource Option: Analysis

Overview

The outsourcing option is an approach which requires a great deal of careful deliberation and planning if it is to be successfully implemented. Outsourcing of the custodial services typically entails relinquishing the management, training, supervision, oversight and execution of the cleaning tasks to an outside firm.

The employees who perform these duties today are currently part of the school district's organization and most are part of the community as well. The decision to outsource their jobs to a professional cleaning firm will likely be met with resistance from the affected employees as well as from others in the school district and community.

For this reason, this option should be considered primarily when it presents as the best value ***and*** produces enough program costs savings or other improvements to warrant the amount of effort it will take to overcome the resistance. School districts select this option when they feel that it best helps them refocus on their core mission of providing the best possible education at the greatest value. They then reason that allowing a professional custodial firm to provide the cleaning will provide enough savings or improvements to help them with their efforts to reinvest in their own core competencies.

Outsourcing Options and Likely Variations

For the outsourcing analysis, this report assumes that the outsourced custodians would earn wages and benefits similar to those at the nearby Public Schools of Brookline. If the cleaning contractor is successful at operating under a CBA similar to the one in place at the Public Schools of Brookline, they will be in a position to provide more cleaning hours for less money. The cost per employee under the Brookline outsourced model is $43,158 for part-time custodians and $55,268 for full-time custodians, or a weighted average of $48,246. The comparable current NPSCA cost for one full-time equivalent custodian is $65,197 (this cost includes wages, taxes and benefits; see Section H pages 30 and 31 for a detailed calculation). This difference in costs will allow the contractor to increase staffing levels while lowering costs.

Using the Brookline outsourced model for wage and benefit assumptions, the outsourcing option creates cost savings, while increasing the available service hours. Details below:

Outsource ALL Custodial Services and Oversight

In this scenario, all 85 custodians are outsourced to a cleaning company. The benefits of this model are the cost savings and the fact that the entire district would be serviced by one (outsourced) custodial organization. However, outsourcing may present significant transitional challenges, and the lack of any in-house custodians can result in a real or perceived loss of internal control. Note that some of the cost savings would be offset if the contractor added additional staff (recommended).

Description	Cost Savings / Increase
85 Outsourced Custodians x $16,951 weighted average wage differential (approx.)	$1,440,835 savings
Savings attributed to shift differential, OT coverage rates, longevity pay and other benefits	$250,000 savings
Supervision	Already included in wage differential above
13% contractor markup for profit / overhead	$612,780 increase
Supplies, chemicals and equipment	No net change
Total Cost Savings	**$1,078,055 annual savings**

Pension and OPEB Considerations

These savings do NOT include any additional savings from OPEB and pension.

Outsourcing Alleviates Absenteeism

NPS' most recent absenteeism data suggests that each year, 3,600 days (or 28,000 hours) are lost due to vacation, sick time, family leave, workman's comp, etc. (does not include holidays). NPS uses overtime to replace some of these hours (oftentimes an NPS custodian receives 3 hours of overtime to fill-in for an absent custodian's 8 hour shift). Although this methodology helps alleviate some of the absenteeism (about 30%, or 8,400 hours), it's expensive and does not cover the majority of the absent work hours.

A contractor, on the other hand, would have an absentee-replacement workforce that normally covers for at least 50% of the absent workforce, or 14,000 annual hours. Compared to the in-house methodology, a contractor's absentee replacement program gives the district at least an additional 5,600 hours per year. However, the actual difference would be even greater than 5,600, since an outsourced model would result in significantly less than 28,000 total absentee hours (an outsourced custodian receives significantly less paid holidays, sick days, personal days and vacation days than an NPS custodian).

The additional custodial hours provided by the contractor would help NPS make up some of its custodial staffing shortage and quality gaps, at a lower cost than the current program (the contractor would avoid overtime rates for absentee replacement). Cleaning quality should improve, provided that the additional custodial workers are effective and well-managed.

Additional Outsourcing Considerations

Maintain the Current Wage and Benefit Structure

This outsourcing analysis assumed that the outsourced custodians would earn wages and benefits similar to the outsourced custodians at the nearby Public Schools of Brookline. However, one option is for NPS to outsource the cleaning services, yet keep the employees at the same hourly rate and benefit level as they currently receive. In this scenario, the savings are likely to be minimal as the contractor is not likely to be in a position to reduce staffing levels to perform the specifications. However, the contractor may succeed in negotiating some wage and or benefit reductions to produce some savings.

NPS Supplements the Outsourcing Model

The outsourced cleaning company may be in a better position to operate under a non-NPS CBA, such as the outsourcing agreement currently in place at the Public Schools of Brookline, if they were given an extended transition period in which to implement the savings. This can be achieved by supplements (decreasing) from the school district over the period of a few years, for example. Once the extended transition period has passed, the contractor will be in a position to provide the savings while providing additional cleaning hours for less money.

Pros and Cons of the In-house vs. Outsource Options

In-house Programs

Strengths

In-house custodial programs provide several benefits – generally relating to the school district's cultural issues. These considerations must be weighed against the program weaknesses when deciding upon the ultimate cleaning organizational design. In-house programs provide the following benefits:

- Internal Control – Many in-house managers feel that they have more control over employees if they belong to the same organization
- Program stability – In-house programs tend to attract and retain more long-term employees
- Sense of community – Individuals that are employed by the school are more likely to have a sense of belonging to the community
- Program continuity – Long-term employees provide a program with more consistency and continuity

Challenges

There are three key challenges relating to in-house cleaning organizations:

- Human Resource Management – In-house programs require a large HR commitment to perform the activities associated with managing the in-house workforce
- Cost – In-house programs may become more expensive due to pay rates, benefit rates, employee issues, grievances, program history, slower production rates, etc.
- Inflexibility – When the cleaning organization is part of the larger client organization, it tends to be more inflexible

In-house Summary

Keeping the organization in-house and implementing program improvements is most desirable when one or more of the following conditions exist:

- Low labor cost per hour
- Organization is understaffed or rightsized
- Strong management team in place
- Quality is good
- Custodial program is flexible
- Best-practices are documented and followed

Outsourced Programs

Strengths

Outsourced cleaning programs provide key benefits - generally related to cost and program flexibility. Outsourced programs provide the following features:

- Cost Savings – Contractors tend to have more latitude in workloading, compensation packages and supplies and equipment buying leverage
    - Immediate – Most organizations that outsource cleaning experience an initial savings
    - Continuous – Because contractors have more built-in flexibility, they have an ability to leverage that flexibility to provide additional savings when challenged
- Flexibility – Vendors tend to have fewer obstacles dealing with problem employees or program requirements
- Focus on Core Competency – by outsourcing custodial services, a K-12 district can better focus on its core competency of education
- Enhanced Back-up Support – a contractor oftentimes has greater flexibility and options for absentee coverage
- Area / Regional Operational Support – a well-established contractor can draw on its area or regional operations team to help support the program, especially during emergencies and major transitions

Challenges

The challenges associated with outsourced cleaning programs are generally related to the real or perceived lack of a sense of continuity and community by the various customer stakeholder groups.

- Employees are not part of the client organization – There may be a perception that they are less committed to the organization's success
- Perceived or real loss of control of the hiring process - As HR becomes one step removed, members of the client organization may not feel as comfortable with the hiring process
- Perceived or real loss of control of the communication process – Increasing the number of organizations on site can create challenges to effective communication
- Outsourced programs may present cost control issues due to additional billing for "extra" services that would have been easily handled for little or no cost by in-house organization

Outsourced Summary

Outsourcing custodial services is most desirable when one or more of the following conditions exist:

- High labor/benefit cost per hour
- Overstaffed organization
- Current staff is inflexible
- Strong collective bargaining agreement
- Poor management team in place
- Poor quality

Issues Affecting Cost-Savings Outcomes

There are many variables, constraints and assumptions which will need to be identified to accurately predict the outcome of an outsourcing event related to the custodial program. The following variables affect the outsourcing outcome:

- Wages and benefits
  - Will the contractor be required to provide the same wage and benefit package as the custodians are previously receiving from NPS? Will they be able to bid the program as non-union? SEIU?
  - Will NPS subsidize wages and/or benefits for a certain number of years to ease the transition?
- Minimum staffing levels
  - Will the school district set minimum staffing levels for certain buildings?
- Supervision
  - Will the contractor be required to maintain the school district's current supervisory framework, or be given the flexibility to propose an entirely new supervisory structure?
- Equipment
  - Will the contractor be proposing all new equipment, or will they be allowed to purchase the existing equipment?
- Supplies
  - Will the school district provide cleaning supplies and chemicals, or will the contractor be expected to provide these items as part of the fixed price?

G. Analysis of Revenue, Expenses and Budgets

The following analysis was conducted from information provided by various departments at NPS. The wages and some of the benefits are based on last year's data. All calculations are based on a total of 85 employees across the district (for this analysis, Core included the two maintenance workers and the pony driver since the benefit and insurance data included those positions).

The net overtime paid is based on operating overtime.

CATEGORY	ANNUAL CO	COMMENTS
Wages		
Senior Custodians (31)	$1,714,756	Wage schedule provided by NPS
Custodians (54)	$2,655,244	Average wage $23.64 X 2,080 hrs, includes floaters
Shift Differential, All Custodians	$214,835	
Operating Overtime	$437,046	
Total Wages	**$5,021,881**	
Payroll Taxes, Insurance & Benefits		
Medicare (1.45%)	$72,817.27	
Workers Compensation	$350,000	
Unemployment Insurance	$9,720	
Health Care	$1,026,027	
Uniform Cost (per CBA)	$46,750	$550 x 85 uniforms
Total Payroll Related Costs	**$1,505,314**	
TOTAL ALL COSTS	**$6,527,195**	

The above does not include mileage and longevity payments, as Core could not estimate the cost of these items. Core also omitted the cost of supplies and equipment.

H. Analysis of Current Collective Bargaining Agreement

Overview

The objective way to analyze the existing CBA, which, as an aside, expired June 30, 2014, is to compare the agreement with similar CBA's, wages and benefits in the Boston market. To this end, Core has compared the NPS agreement with the NPS Custodian Association to the outsourced (union) custodial labor costs currently in place at the Public Schools of Brookline, MA.

1. For comparison purposes, Core compared the cost of a full time and part time cleaner under both agreements, to include wages, FICA, FUI, SUI, Workers Compensation, Unemployment Insurance, Health Care, Pension and other costs mandated by the respective labor agreements

2. Under the NPSCA agreement, Core has utilized the Building Custodian III wage category as this most closely represents an employee whose main responsibility is performing cleaning services

3. The Brookline data includes 2015-2016 wages and benefits for both part time and full time custodians, plus the additional cost for a working supervisor. Core has used this information to approximate the comparable outsourcing cost model that would exist at NPS, if the outsourcing option were to be exercised

Calculating Annual Cost for an NPS Custodian

The following analysis is based on the existing NPSCA agreement which expired June 30, 2014. Core used the Building Custodian III category, as it mirrors the duties of a traditional cleaning employee. Costs do not include the annual longevity increment, which ranges from $1,050 to $2,100 per year. Sick, vacation and leave of absence replacement cost is limited to three hours per day coverage at overtime rate and is based on the minimum vacation and sick days per the CBA. These costs are not included in the annual "cost per custodian" calculation, but they contribute to higher costs in an in-house program vs. an outsourced program. Core has also not included the cost of up to four days' pay for employees utilizing four or fewer sick days.

CATEGORY		ANNUAL COST	COMMENTS
Wage Related			
Hourly Wage	$	22.91	
Annual Wage	$	47,653	Average wage $22.91 X 2,080 hours
Total Wages	**$**	**47,653**	
Payroll Taxes, Insurance & Benefits			
Medicare (1.45%)	$	691	
Workers Compensation	$	4,118	$350,000 / 85 employees
Unemployment Insurance	$	114	$9,720 / 85 employees
Health Care	$	12,071	$1,026,027 / 85 employees
Uniform Allowance	$	550	per the CBA
Total Payroll Related Costs	**$**	**17,544**	
TOTAL ALL COSTS - NPSCA Custodian	**$**	**65,197**	

Calculating Annual Cost for an Outsourced Custodian

The following analysis is based on the outsourced union rates from the Public Schools of Brookline (2015-2016 data).

CATEGORY		ANNUAL COST - Jul 2015 - Jun 2016
Wage Related		
Hourly Wage	$	17.70
Annual Wage	$	36,816
Total Wages	**$**	**36,816**
Payroll Taxes, Insurance & Benefits		
Payroll Taxes and Insurance @ 14.4%	$	5,302
Health Care (does not apply to part-time custodians)	$	12,080
Retirement Benefit	$	1,040
Total Payroll Related Costs	**$**	**18,422**
TOTAL ALL COSTS - Part-Time Outsourced Custodian	**$**	**43,158**
TOTAL ALL COSTS - Full-Time Outsourced Custodian	**$**	**55,238**

Overall Custodial Cost Comparison: NPSCA vs. Outsourced Labor

CATEGORY	NPSCA	Outsourced Labor
Annual Cost per Full-Time Equivalent Custodian	$65,197	$43,158 (part-time) to $55,238 (full-time)
Car Allowance (Sr's, floaters, splits only)	$720-$840/year	N/A
Uniform Allowance	$550/year	Employer must provide
Paid Holidays	15 + 2 half-days	11
Sick Days	15 minimum after 1 year, with accumulation	6
Leave of Absence with Pay	5 days	1 personal day
Longevity Pay	$1,050 - $2,100	N/A
Vacations	15 - 25 days	5 - 20 days
Floaters / Replacements	Limit 10, must be part of NPSCA	No limitations
Shift Differential	10% annual wage	N/A
Wash-up Time and Breaks	3 at 15 minutes each	N/A
Special Event Coverage, per event	3 hour of OT minimum	N/A
Sick, Vacation and Leave Replacement	Primarily 2 to 3 hours of OT per day, with some usage of floater assistance at straight time	Built-in flexibility to use straight time floater pool, rather than OT

Note: For the "Annual Cost for a Full-Time Equivalent Custodian" category, the NPSCA model represents a weighted average of Junior Custodians and Senior Custodians. The Outsourced model does not include Supervisors. A Working Supervisor's annual wages would be approximately $7,250 higher than the wages of a Custodian.

I. Analysis of Custodial Standards

The following are Core's observations and comments based on a review of the current cleaning specification.

1. The language in custodial duty outlines (known as "runs") is vague and often incomplete in outlining expected cleaning duties, especially when dealing with the exterior of the school immediately outside of the school building. The exterior cleaning issue was noted by many of the principals. There is no single, true "standard" or specification that lists the tasks, frequencies and expected outcomes for each area type

2. Custodians are very set in their "runs" (assignments). For example, Core learned that one school reduced its custodial staff at least one year ago, yet the remaining staff continue to adhere to their original "runs", despite the change in staffing

3. The current system of runs is limiting in that there appears to be no cross utilization of employee skills and does not foster a "team" spirit

4. The utilization of the schools on weekends without proper custodial support often leaves the schools in less than appropriate appearance on Monday mornings

5. As verified during Core's site inspections, there appears to be little, if any, dusting of furniture, desks, shelves, sills, stairwell ledges, etc.

6. The schools all appeared to have a more than sufficient amount of quality equipment and supplies on hand to perform the required duties in a professional manner. All schools are equipped with proper chemical dispensing systems, along with Kaivac machines

7. "Green/ Healthy" cleaning methods are generally not followed. Examples: existence of non-hepa filtered vacuums; no color-coded micro fiber cleaning cloths; open waste containers; standing water left in mop buckets; unlabeled spray bottles (OSHA violation); no ATP testing or formal quality inspections; lack of well-documented training

8. There is an absence of window cleaning at all the schools, except entry doors

9. There is no standard quality inspection program. Informal visual "walk through's" are performed occasionally by various stakeholders, but there is no technology or paper form being utilized for inspections

J. Analysis of Operational Procedures, Standards and Technology

Deliverable I discusses Core's assessment of NPS' standards and procedures. Therefore, this section will focus on technology.

Regarding cleaning equipment, NPS has already purchased many of the industry's latest technology offerings (backpack vacuums, Kaivac machines, and chemical proportioning systems). Not all of these pieces of equipment are regularly used and adopted by the custodians, sometimes due to time constraints. Core recommends that NPS explore additional custodial equipment and supply technology, such as the NeverStrip floor finish (www.neverstrip.com), and Tennant's chemical-free, ionized water cleaning system (Orbio).

NPS is utilizing the School Dude system for work orders, permits, communication, snow removal, etc. This is a good system that is used by many high performing K-12 districts across the U.S.

NPS would benefit from technology improvements in the following areas:

- Quality inspections. There are many apps and web-based solutions on the market today (Orange QC, CleanTelligent, Smart Inspect)
- CAD drawings of all schools
- Detailed net cleanable square footage calculation, broken down by building, floor, room, area type and floor covering. Restroom fixture counts should also be established
- Training modules. NPS may have the option to receive these for free through its equipment and/or chemical provider

K. Reporting Mechanisms

As stated in Deliverables I and J, NPS has some custodial documentation and reports (service "runs", org charts, School Dude, financial data, scheduling), yet there are some key reporting and technology features that are lacking. NPS should focus on the following reports and documentation:

- Quality inspection reports (e.g. inspect each school, each quarter)
- Training documentation (topics, dates, attendees, etc.). At least 8 hours per custodian per year
- Equipment log, including purchase date, model number, serial number, condition, location, and maintenance notes
- A standard cleaning specification (tasks, frequencies and desired outcomes for each area type in a school)
- Standard procedure list (segmented by daily, interim and restorative tasks)
- Green cleaning policy (consistent with U.S. Green Building Council LEED standards)

L. Analysis of Human Resource Functions, Training and Safety

Human Resources

The facilities group day to day responsibility for Human Resources seems to be primarily focused on managing the need for replacement workers to cover for sick days, personal days and vacations. The other prime responsibility appears to be managing the CBA insofar as job postings, discipline, managing overtime, etc. are concerned.

Training and Safety

Training and safety are inter-related functions as safety training, worker safety, OSHA requirements, proper use of equipment and products are all part of the same bucket of tasks.

Overall, the findings indicate that safety training needs to be improved. Core witnessed numerous instances of wet floor work being performed during hours when students and staff were present without the use of caution/wet floor signs. Core also noticed large cleaning equipment left in the open hallways, primarily because of the lack of storage space. Although the storage situation is out of the custodian's control, the custodial department can still reduce the risk of student or faculty injury by following proper storage protocol and standards.

Core also noted spray bottles filled with product, unlabeled, both in the custodial closets and attached to mop buckets (OSHA violation). There were "unauthorized" cleaning products in custodial closets, apparently brought in by the custodial staff.

There is a question as to whether or not replacement workers are adequately prepared or trained to take on a new temporary responsibility. There is a need for standardization of all the cleaning equipment and chemicals, including floor machines, vacuums and cleaning products so that any cleaner going to any school is familiar with the tools of his/her trade.

The "runs" need to be clearly defined so that any replacement employee can be handed a set of clear directions and can then be expected to perform the tasks professionally.

NPS should strive for at least eight hours of documented training per custodian, per year. NPS should consider offering its custodians and supervisors additional training resources to improve training variety and to broaden the knowledgebase at NPS – especially with the implementation of organizational change. Green cleaning is an important topic, along with the following (for custodians): Floor care – basic / intermediate / advanced, Carpet care – basic / intermediate / advanced, Restroom care, Dusting and spot cleaning, Waste removal, Window cleaning and Safety.

NPS may also consider special training programs for Senior Custodians: Cleaning math (production rates, workloading), Program design, Training techniques, Effective communication, Motivating service workers and Quality management.

New employees should be assigned to work with long-term employees for their first two to four weeks, helping them to assimilate into the custodial program as fast as possible. However, this should not be relied upon to replace hands-on or direct training from the Senior Custodian.

NPS should consider talking with its supply and equipment vendors about training opportunities. Many of the cleaning chemical and equipment manufacturers (Spartan, Tennant, Hillyard, 3M, etc.) offer free training resources, if the client purchases their products.

Finally, Core recommends that NPS explore the CMI (Cleaning Management Institute) "Train the Trainer" program. This program is classroom based, usually lasting for 2 to 3 days, wherein a small group of "trainers" are taught and certified. These "trainer" employees (usually supervisors and head custodians) are then given the tools and resources to, in turn, teach and train the rest of the department, even certifying their fellow custodians via a final exam.

NPS should begin reviewing these training options and identify one or two training curriculums that may fit its culture and needs.

Exhibits

Exhibit A: Site Visit Templates

Newton Public Schools

Custodial Assessment Project

School: _____

Date / Time: _____

Principal: _____

Principal Interview Questionnaire

1) If you had to give the custodial staff a grade, A-F, what would it be?

2) What are your 3 major issues, if any, with the custodial staff?

3) Are there any special circumstances or issues at your school that require special attention?

4) If you had a wish list, what would change, add or delete from the cleaning services at your school?

5) Do you receive any feedback, negative or positive, from faculty, staff, students or parents regarding the housekeeping at your school?

6) Is your custodial staff often pulled from regular duties to perform non-custodial functions?

7) From your observation, does the custodial staff appear professional, in uniform, trained and ready to perform their designated tasks?

8) Do you feel the staff will go the extra mile to make sure the school environment is clean, safe and healthy for the students, faculty and staff?

9) How is the need for services or changes in the schedule due to special events communicated to your custodial staff? Is the staff accommodating to these requests?

10) When you return to the building after the summer recess, does the school appear to be in 100% ready to go condition?

Other Info

1) Verify current staffing level (what shifts? How are they organized in the school?)

2) Take photos of equipment/chemicals and jot down notes about each (are they “green”? high efficiency?)

3) Note any unique challenges at each school

4) What are the “non-custodial” duties, and how much time do they average per week or per season (light maintenance, athletic event coverage, etc.)

5) Perform a smart inspect audit, and write down any specific notes from the audit

6) Restroom fixture count (if available)

7) Does the team feel the school is over or understaffed already?

8) What does Facilities think about the quality levels at this school?

9) Describe the weekend duties of the custodians in this school

10) Describe the summer duties of the custodians in this school

Exhibit B: Quality Inspection Results (Detailed)

Objective

The primary objective of this Executive Summary is to report the results of the third-party janitorial quality inspection and audit performed by Core Management Services (Core) during the week of June 15th 2015.

Background

The inspection, using the Smart Inspect quality inspection app, was performed as a random audit of all schools.

Consistent with APPA recommendations (APPA stands for Association of Physical Plant Administrators, see www.appa.org), an independent third party was selected to conduct the janitorial audit. Jeff Edelstein, an inspector from Core Management Services (www.coreamerica.com), audited representative cleanable square footage during normal business hours. Core randomly picked spaces to be audited. Additionally, per APPA suggestions, the auditor looked beyond any messy accumulation since the last routine cleaning. Core Management Services is a custodial consulting company that performs objective third party inspections for over 40 million square feet across the United States each year.

For K-12 districts, 85% is widely accepted as the minimum acceptable quality score. For example, whenever Core establishes a performance-based custodial contract, 85% is used as the minimum threshold; any Quality Success Percentage score below 85% triggers a financial penalty.

NPS' baseline quality score as measured by Core (82.84%) is below the 85% minimum, and equates to roughly an overall APPA level 3 to 3.25 (APPA stands for Association of Physical Plant Administrators, see www.appa.org). APPA is a widely-used custodial quality scale, with 1 being the best score and 5 being the lowest score. The 85% threshold roughly equates to an APPA level 2.5.

The next page includes a visual description of the NPS quality score and how it relates to the threshold.

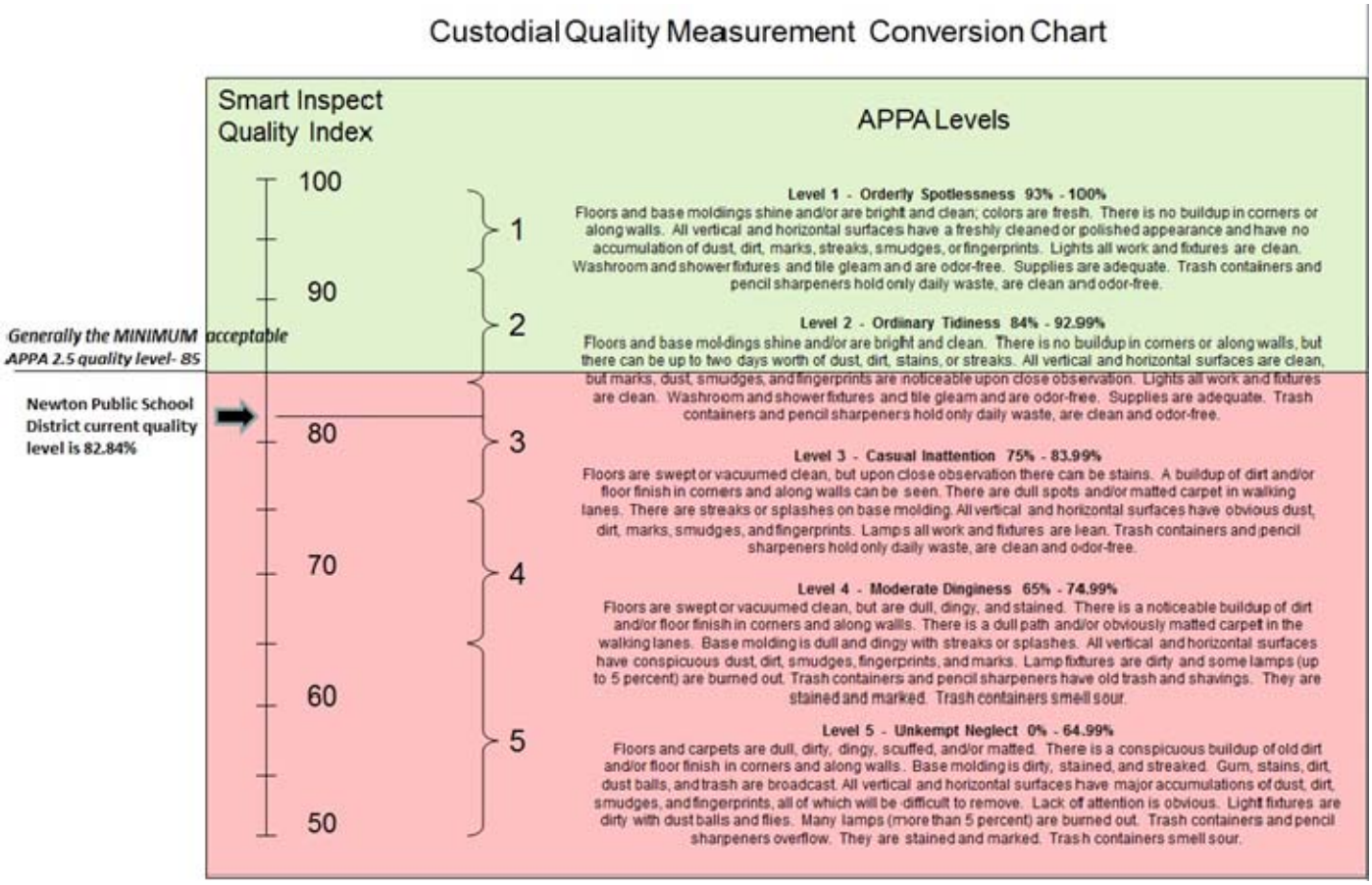
Overall Score

The Smart Inspect™ audit resulted in an overall combined score of **82.84%.**

Dates

Core Inspector: Jeff Edelstein

Dates: Weeks of June 1 and 8, 2015



Score Summary

Elementary Schools	
Building	**QSP (%)**
Combined	**84.34**
Bowen Elementary	89.04
Burr Elementary School	84.42
Carr Elementary School	80.80
Country Elementary School	86.26
Franklin Elementary School	75.71
Mason-Rice Elementary School	83.42
Memorial-Spaulding Elementary	88.89
Peirce Elementary School	81.55
Underwood Elementary School	81.00
Ward Elementary School	86.51
Williams Elementary School	85.22

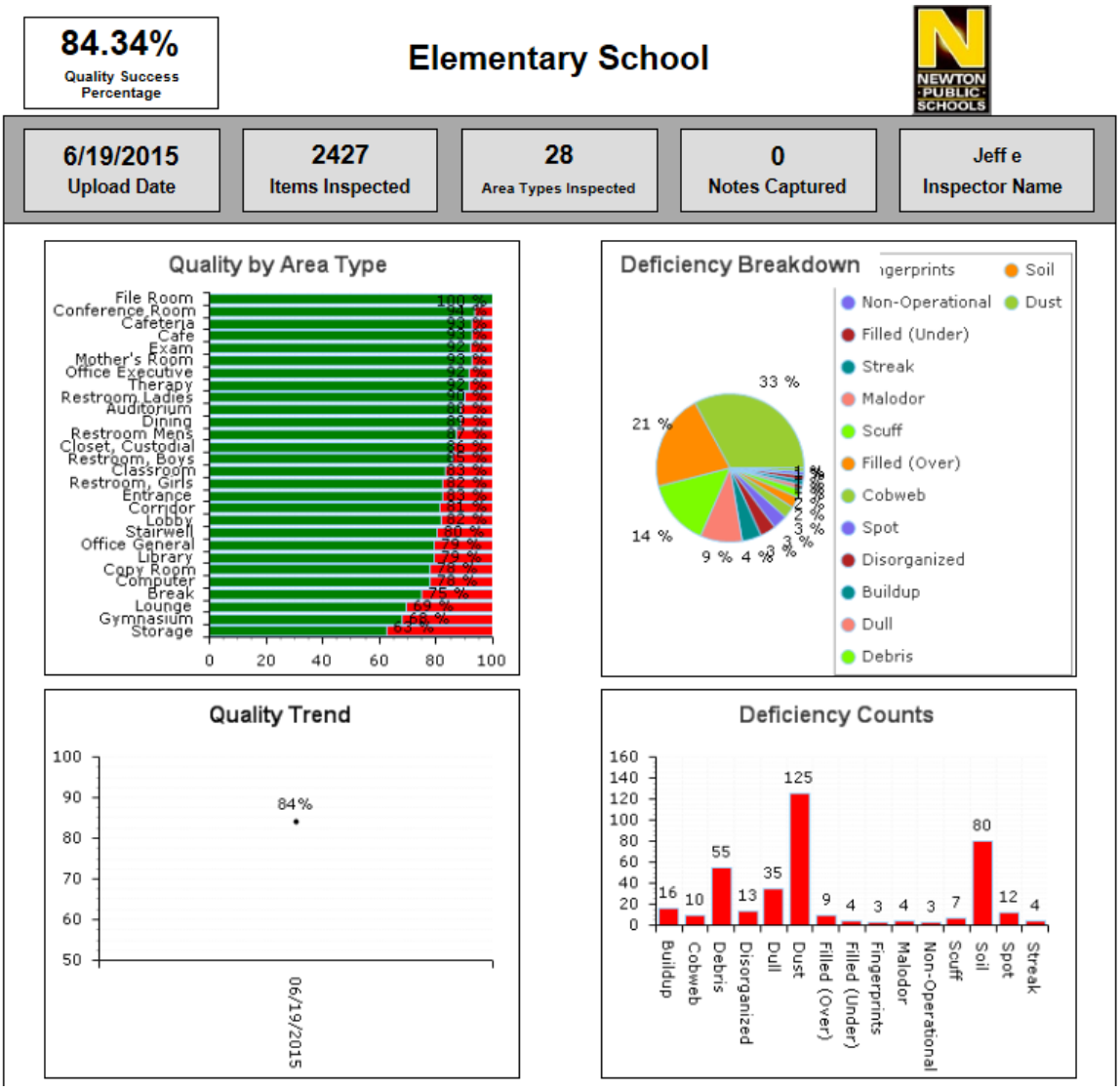
Junior High Schools	
Building	**QSP (%)**
Combined	**80.63**
Bigelow Middle School	80.73
Brown Middle School	78.69
FA Day Middle School	82.64
Oak Hill Middle School	81.90

Senior High Schools	
Building	**QSP (%)**
Combined	**82.92**
Newton North High School	84.51
Newton South High School	81.44

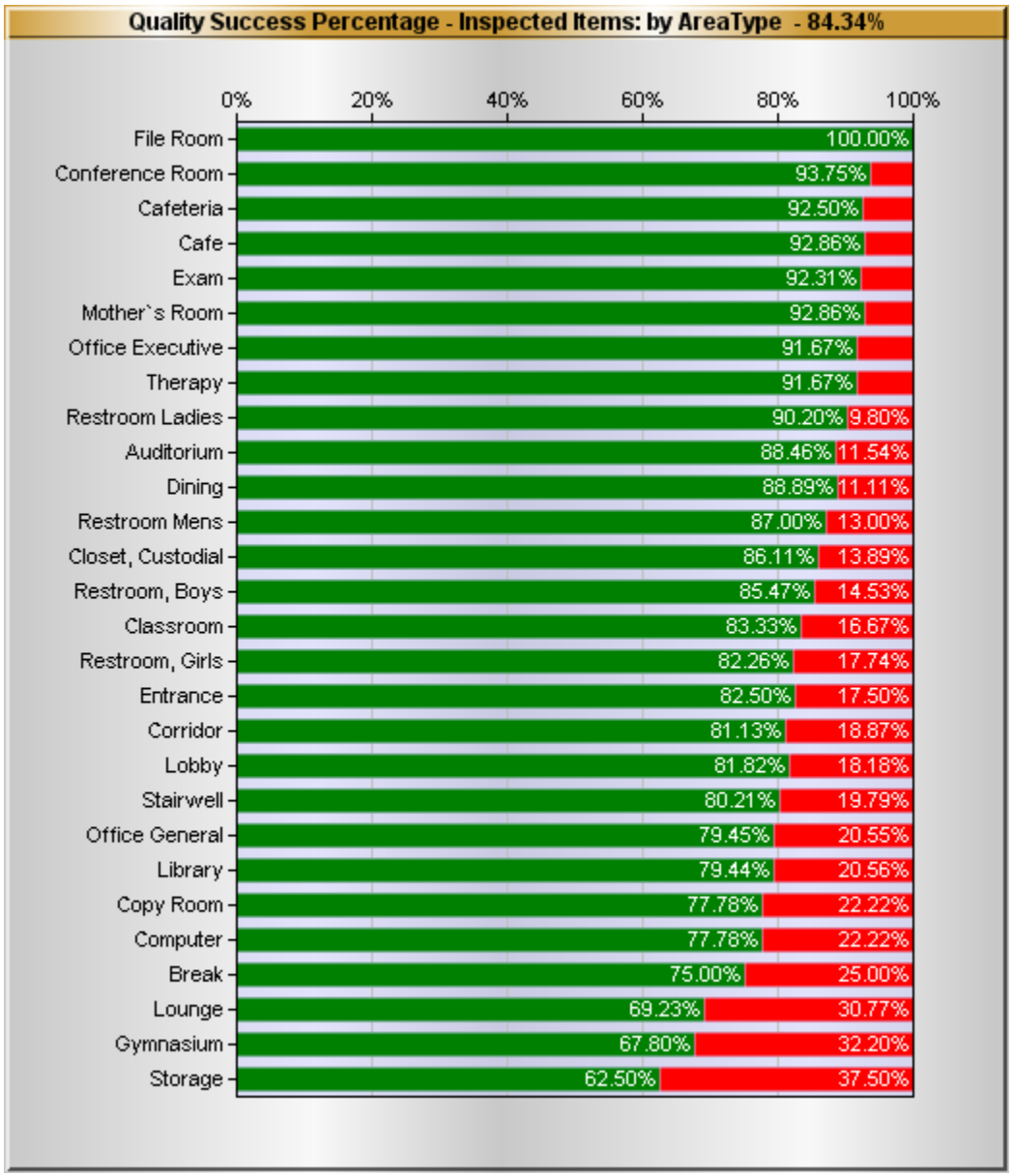
Other Buildings	
Building	**QSP (%)**
Combined	**75.45**
Ed Center/Admin	75.45

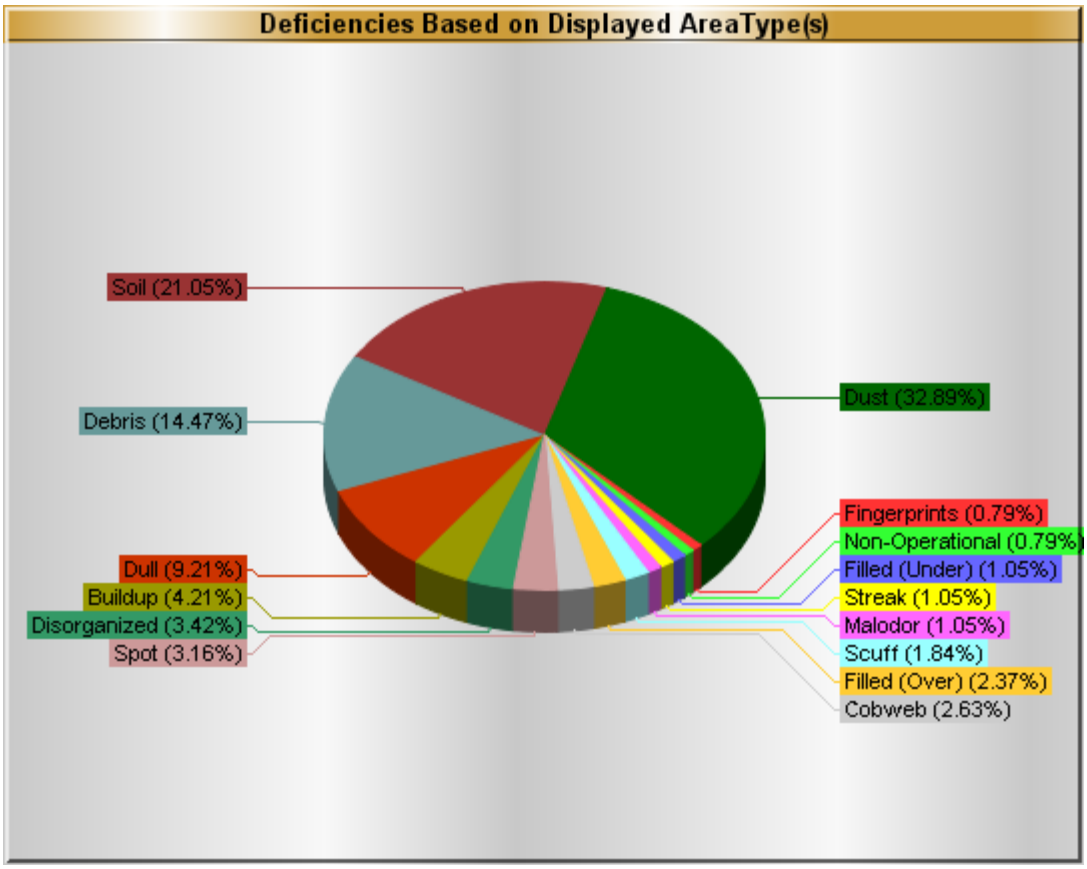
ALL BUILDINGS COMBINED
-Elementary Schools-

Dashboard Summary – By Area Type



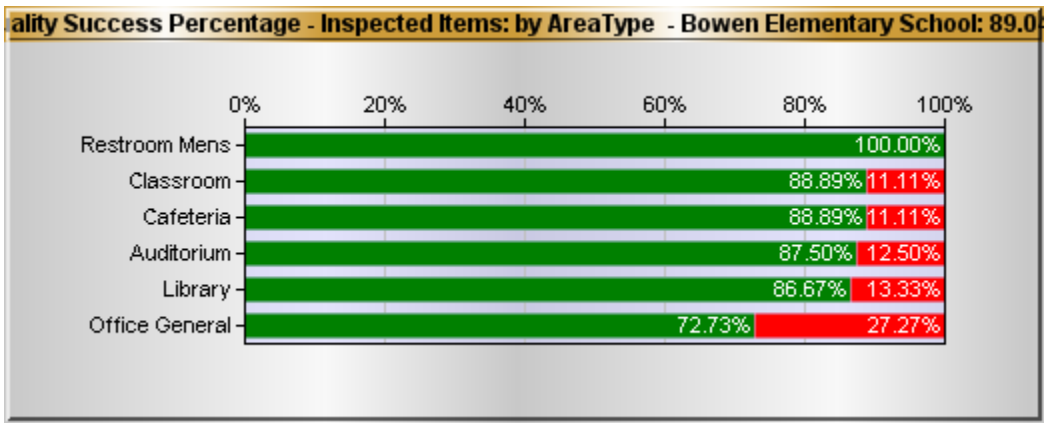
All Buildings Combined (Elementary) – by Area Type

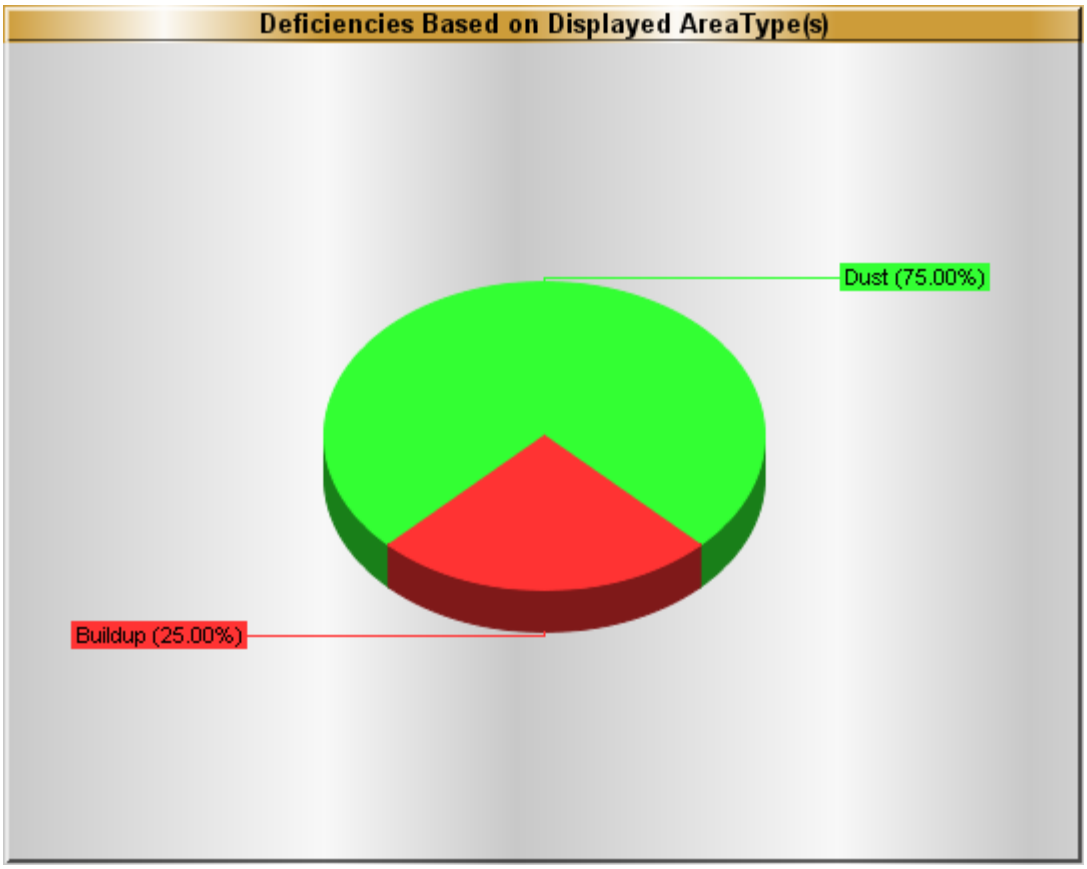



Deficiencies Based on Displayed AreaType(s)
Soil (21.05%)
Debris (14.47%)
Dust (32.89%)
Fingerprints (0.79%)
Non-Operational (0.79%)
Filled (Under) (1.05%)
Streak (1.05%)
Malodor (1.05%)
Scuff (1.84%)
Filled (Over) (2.37%)
Cobweb (2.63%)
Dull (9.21%)
Buildup (4.21%)
Disorganized (3.42%)
Spot (3.16%)

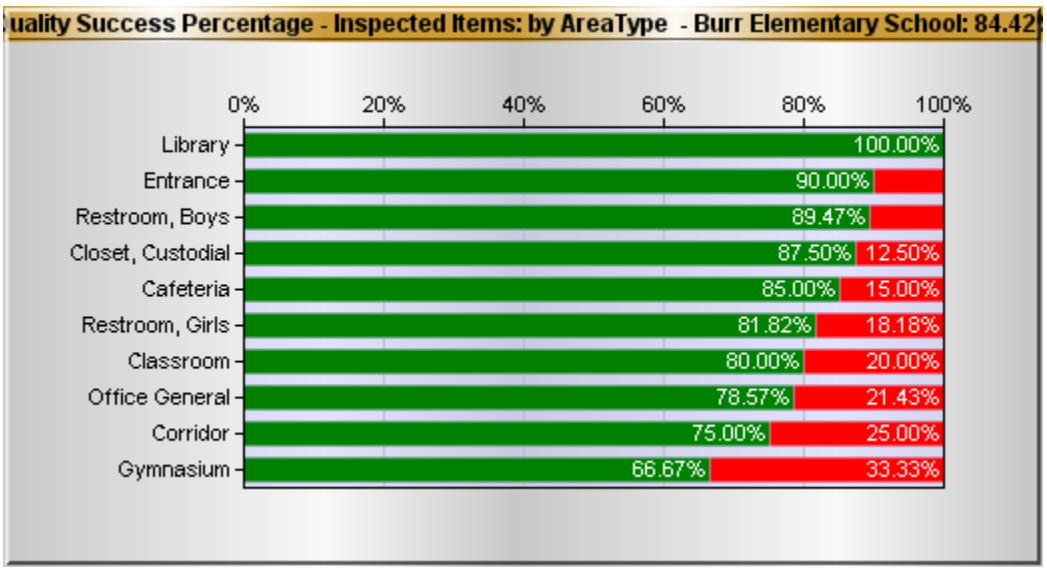
INDIVIDUAL BUILDINGS

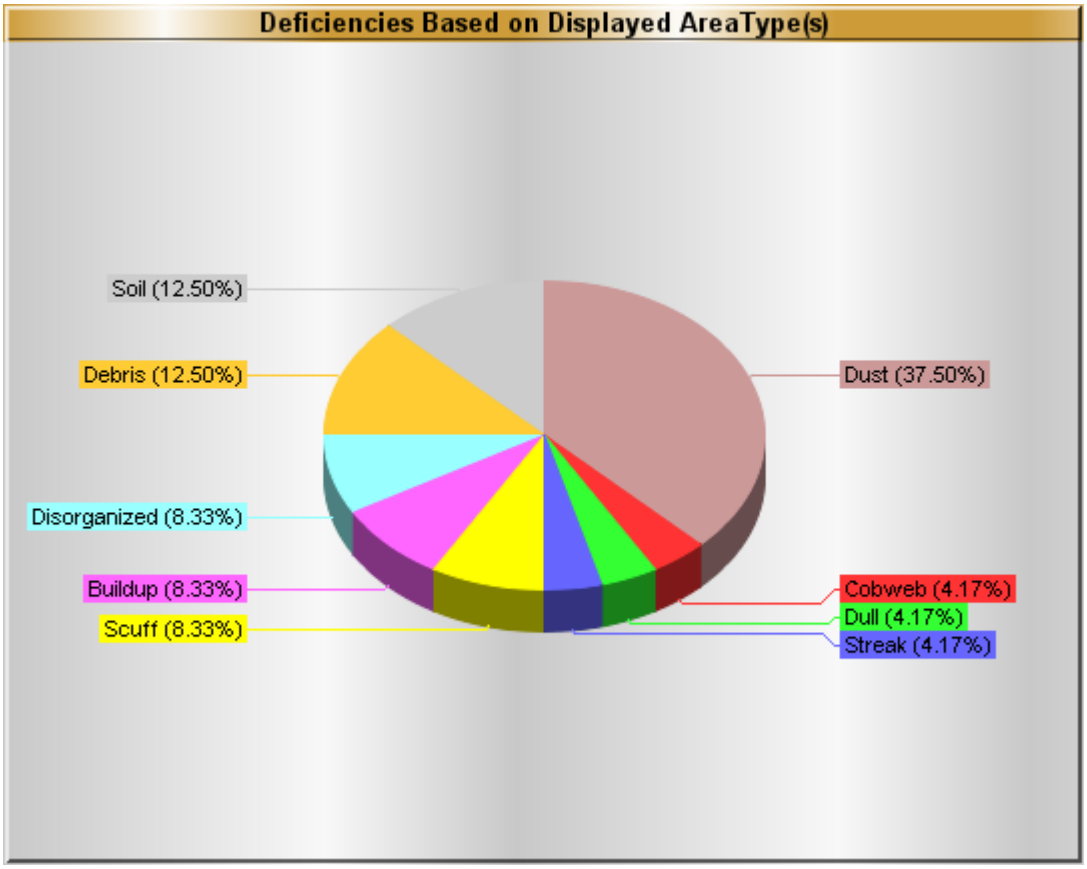
Bowen Elementary School



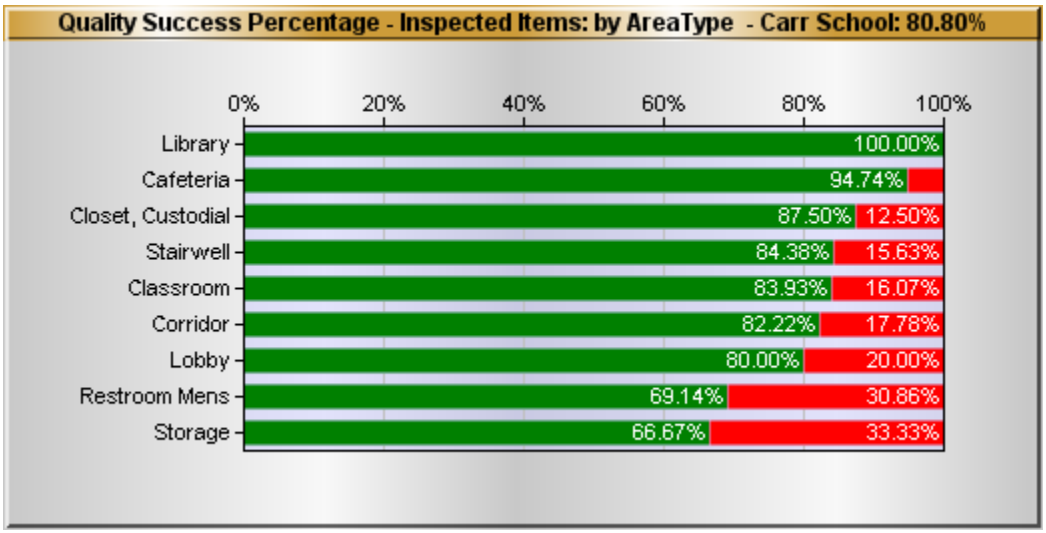


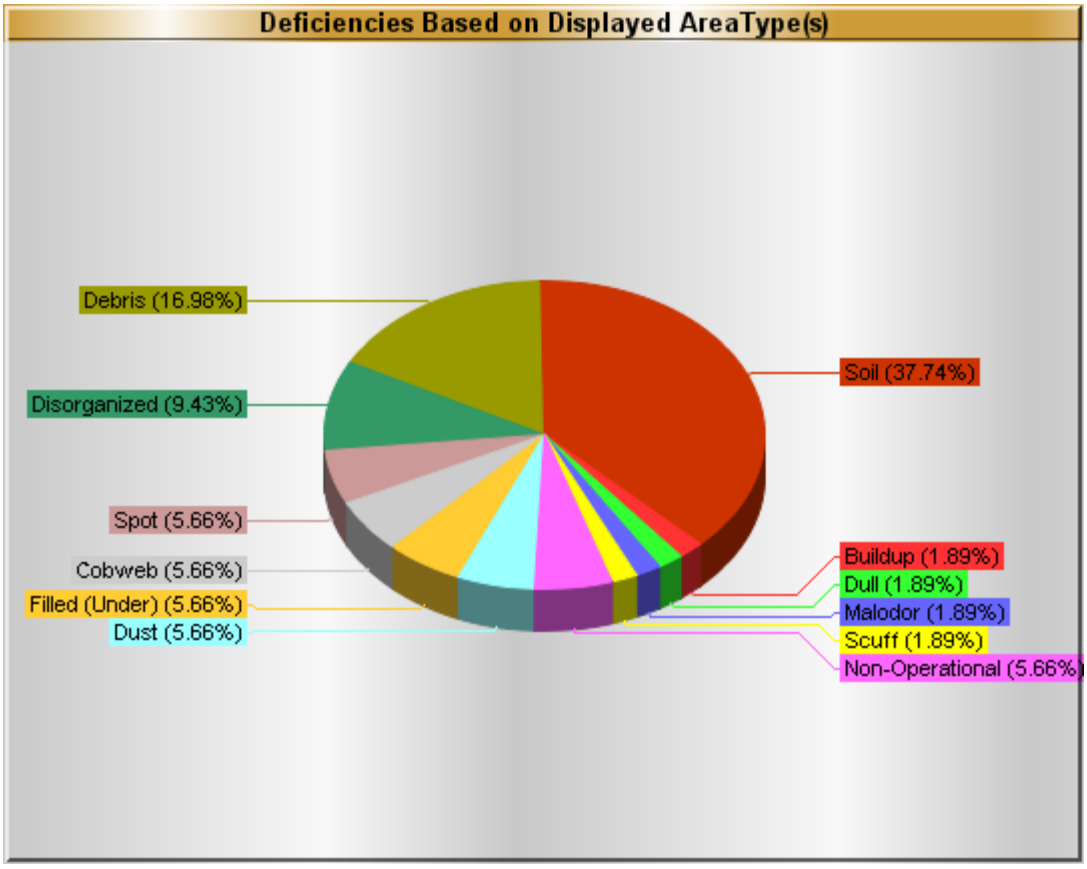
Burr Elementary School



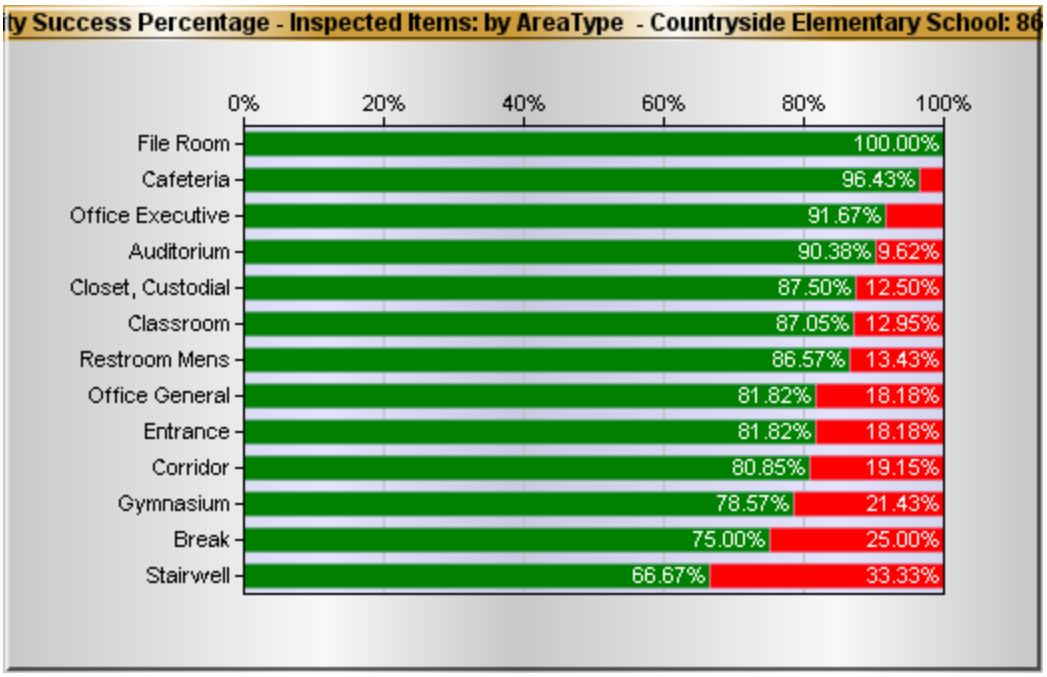


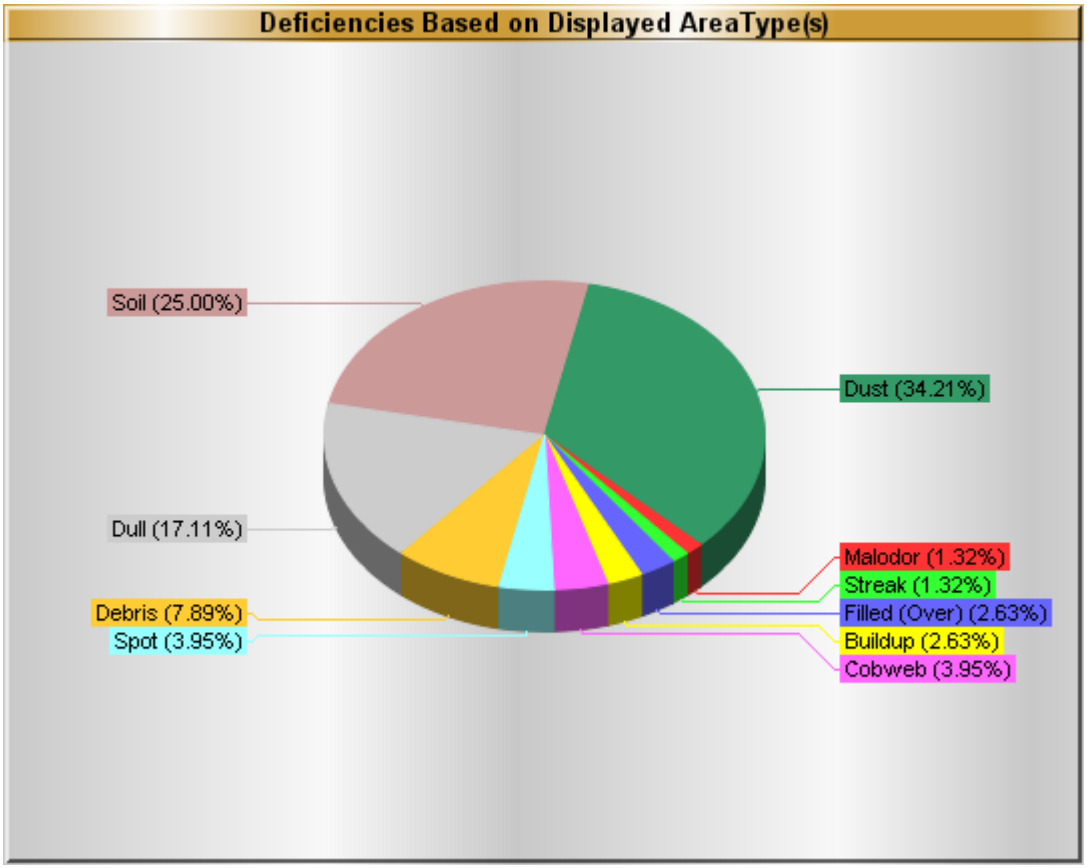
Carr School


Quality Success Percentage - Inspected Items: by AreaType - Carr School: 80.80%
0%
20%
40%
60%
80%
100%
Library
100.00%
Cafeteria
94.74%
Closet, Custodial
87.50%
12.50%
Stairwell
84.38%
15.63%
Classroom
83.93%
16.07%
Corridor
82.22%
17.78%
Lobby
80.00%
20.00%
Restroom Mens
69.14%
30.86%
Storage
66.67%
33.33%

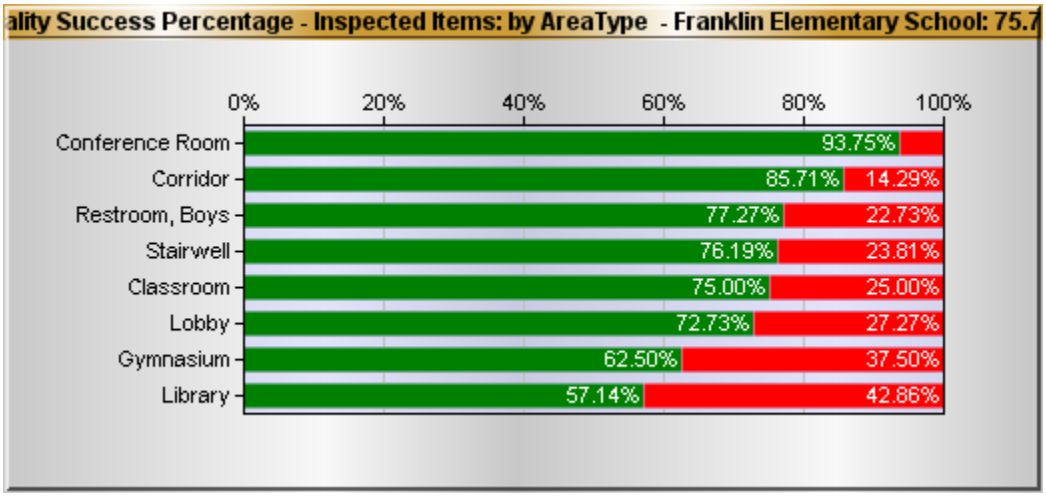

Deficiencies Based on Displayed AreaType(s)
Debris (16.98%)
Disorganized (9.43%)
Spot (5.66%)
Cobweb (5.66%)
Filled (Under) (5.66%)
Dust (5.66%)
Soil (37.74%)
Buildup (1.89%)
Dull (1.89%)
Malodor (1.89%)
Scuff (1.89%)
Non-Operational (5.66%)

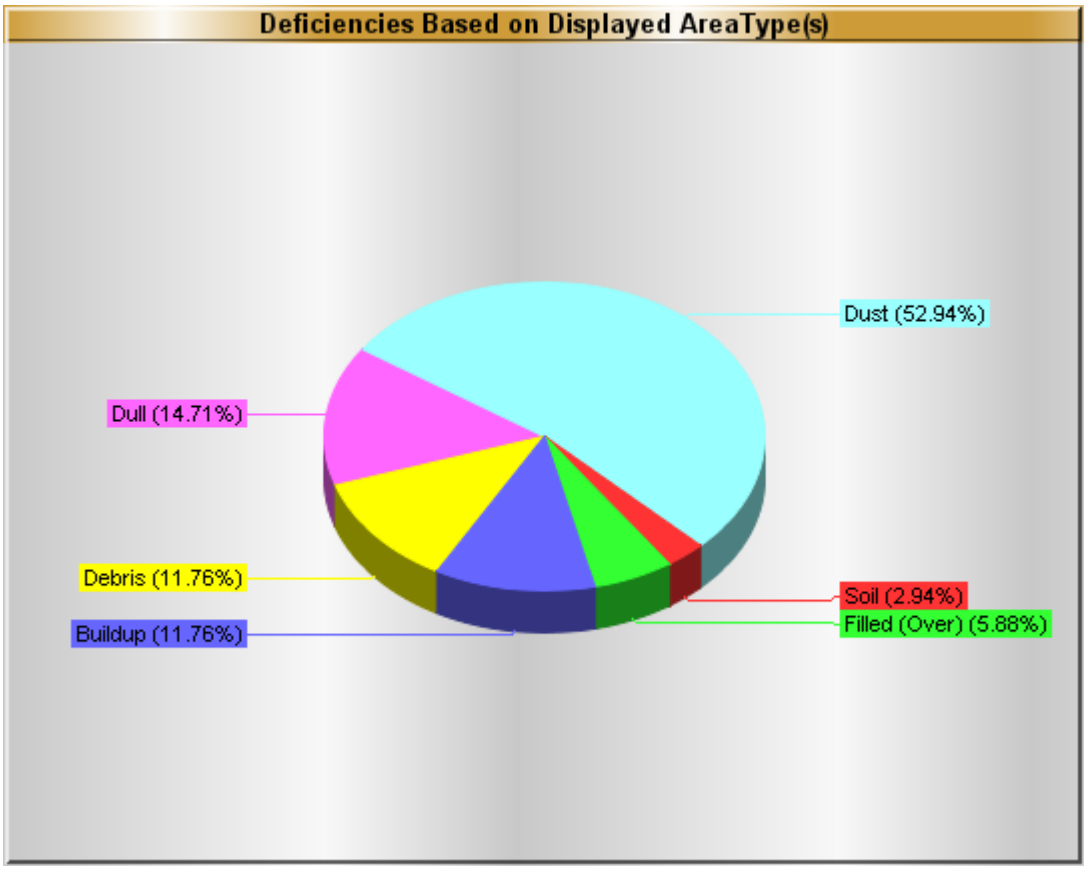
Countryside Elementary School



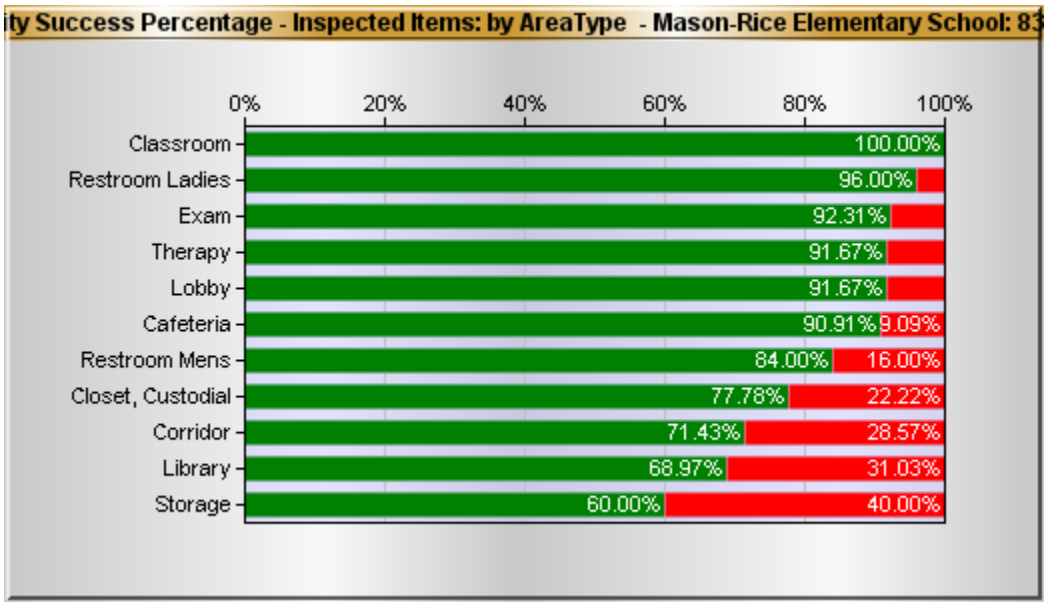


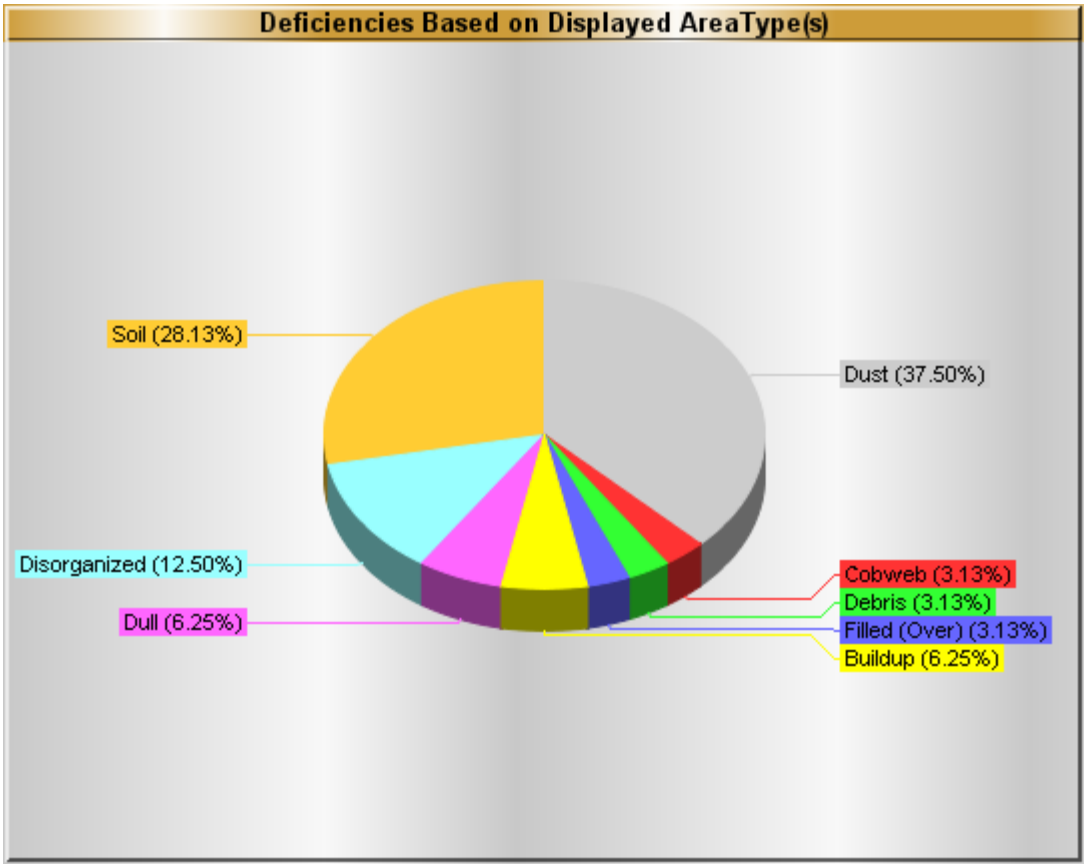
Franklin Elementary School



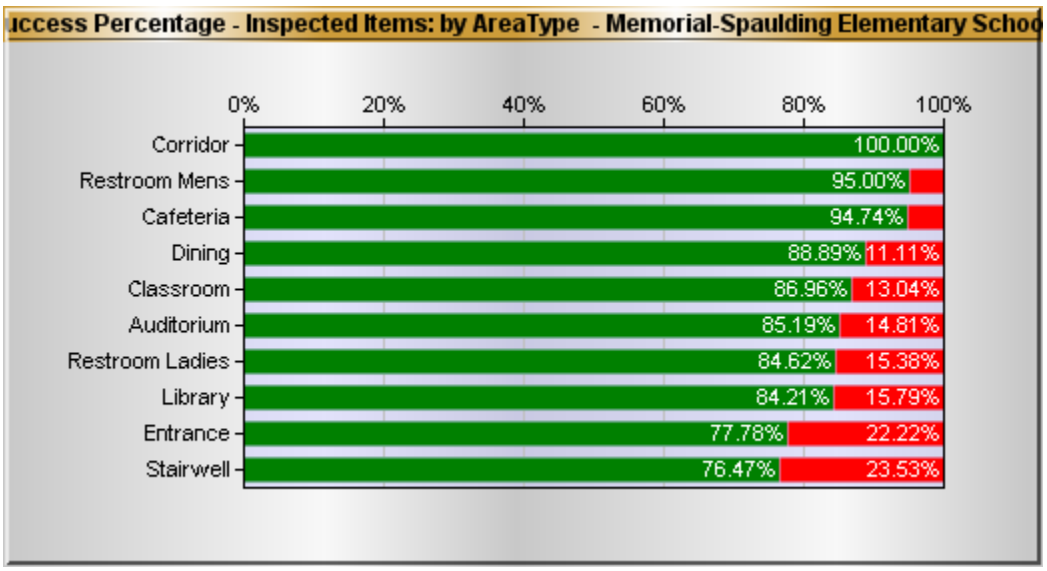


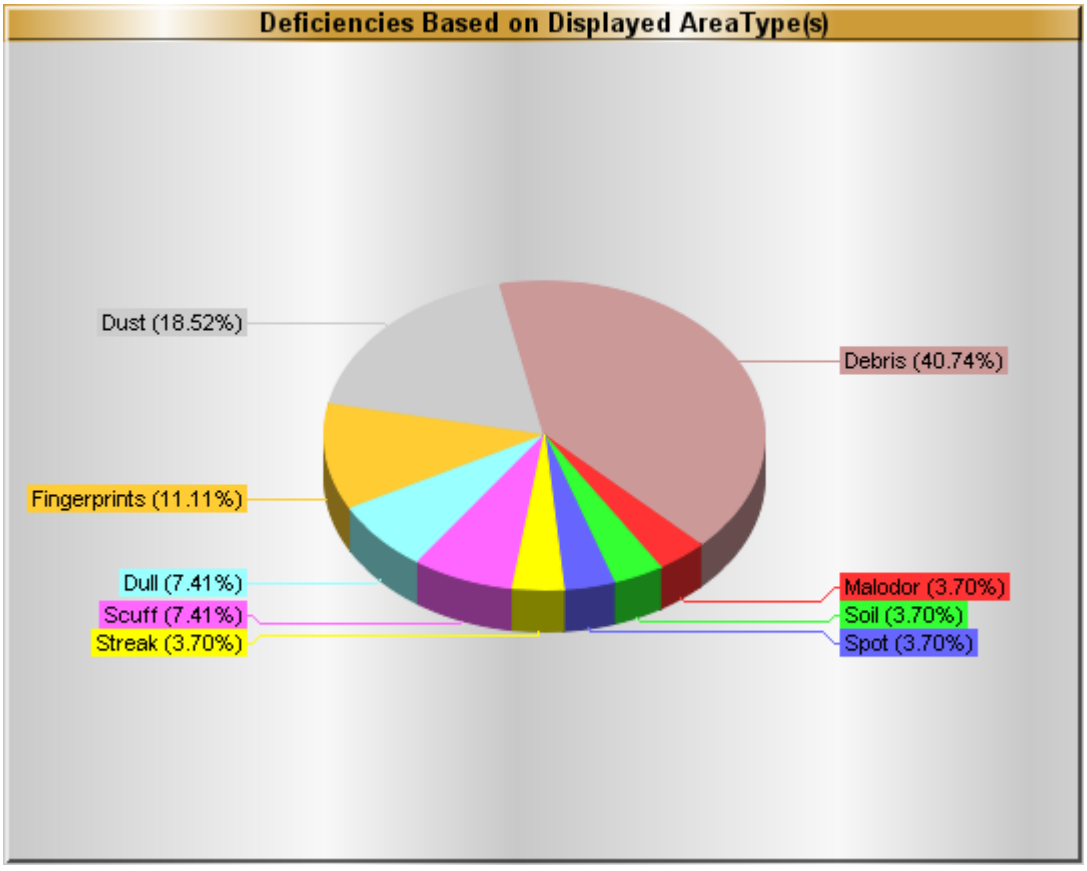
Mason-Rice Elementary School



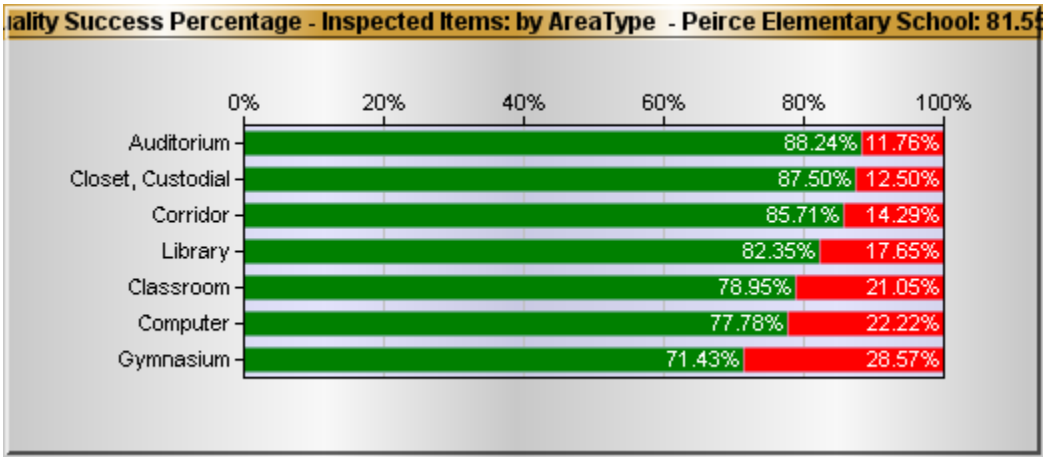


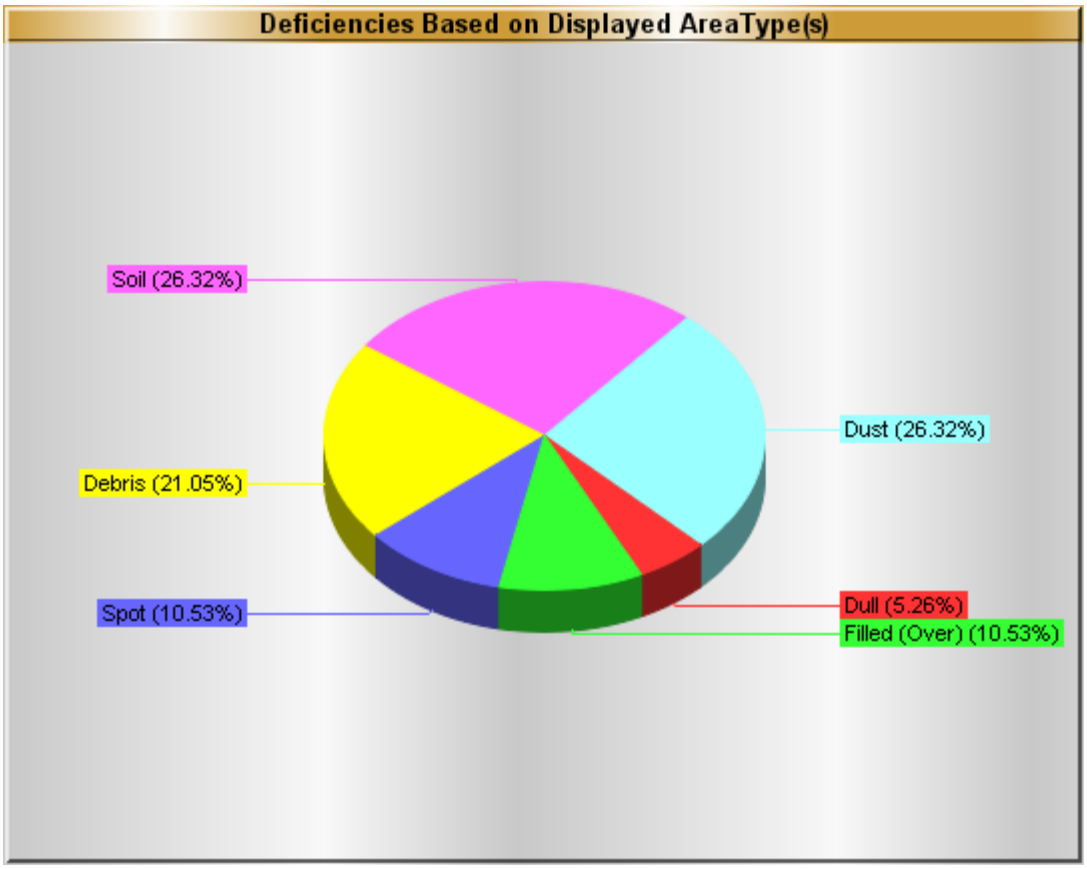
Memorial-Spaulding Elementary



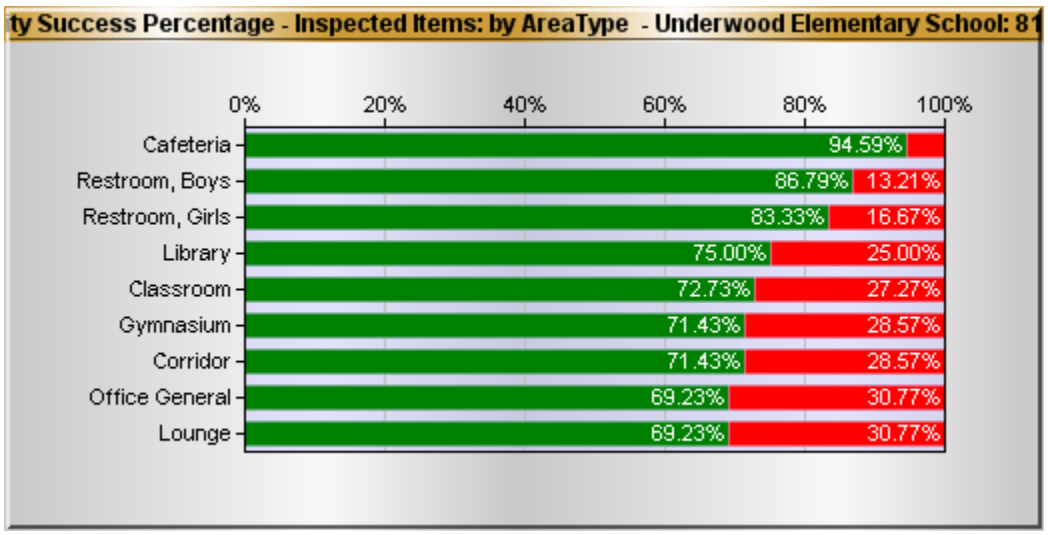


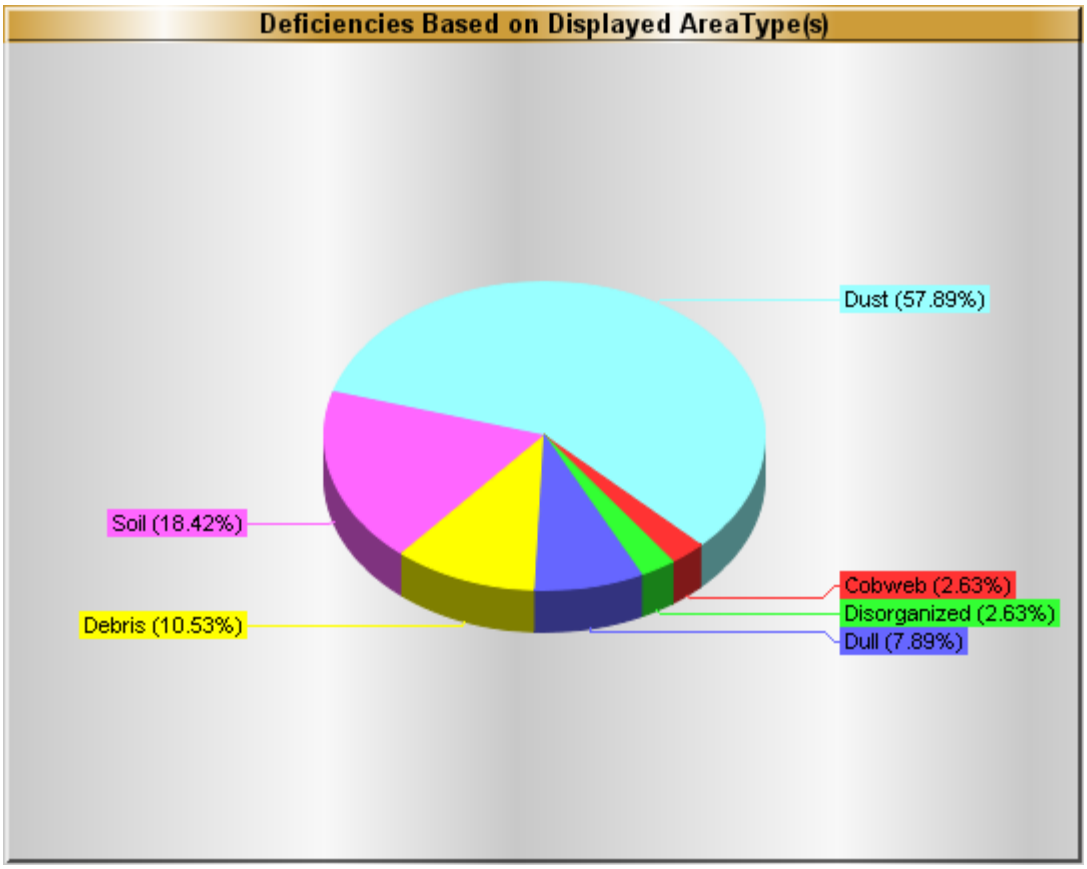
Peirce Elementary School



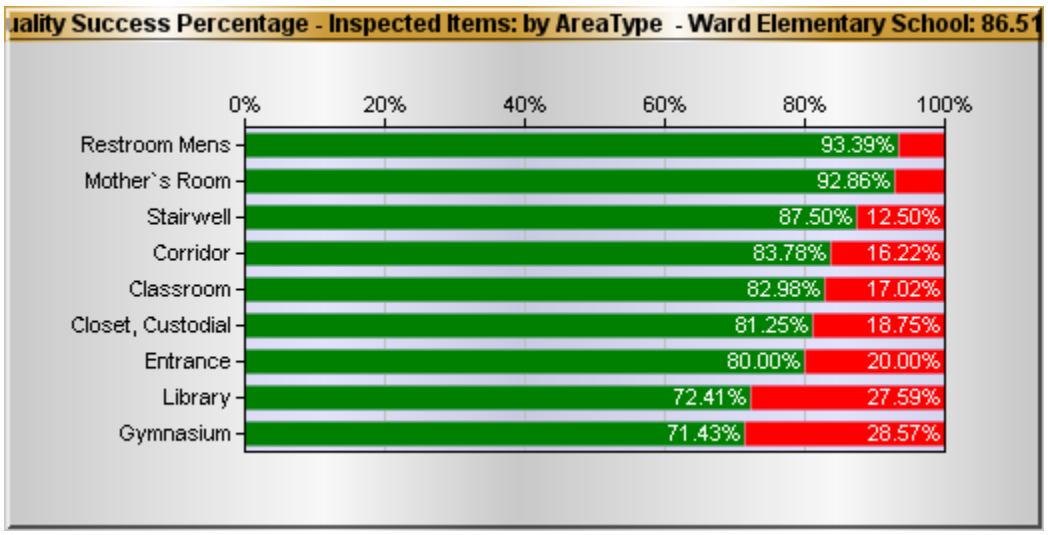


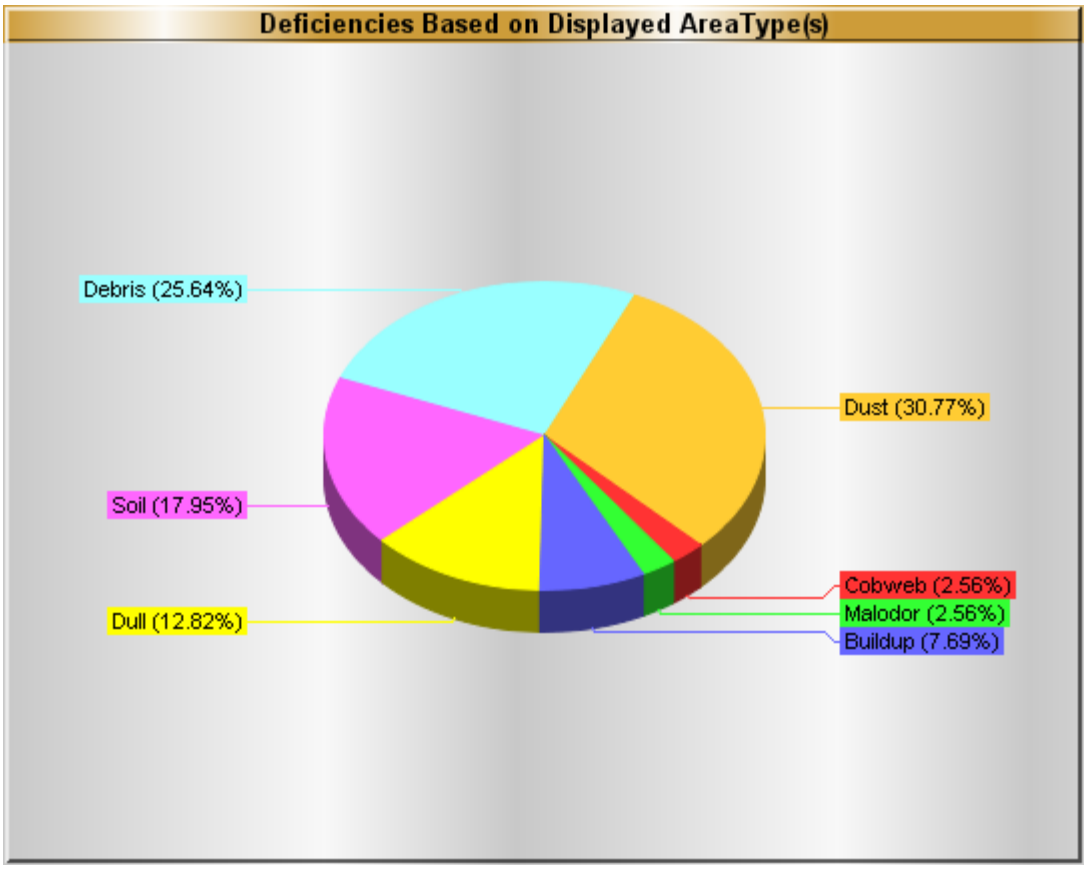
Underwood Elementary School



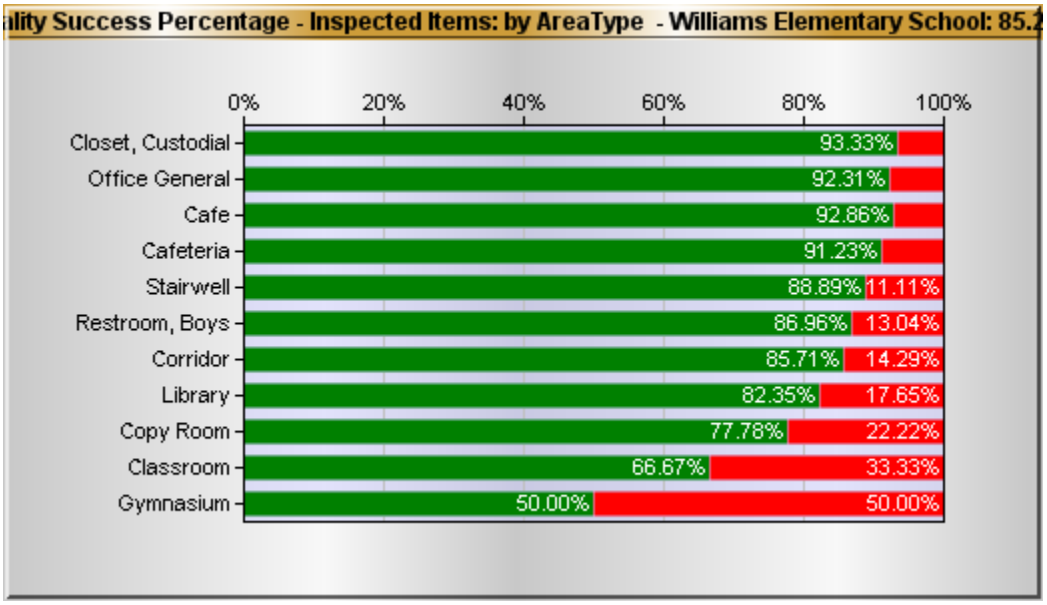


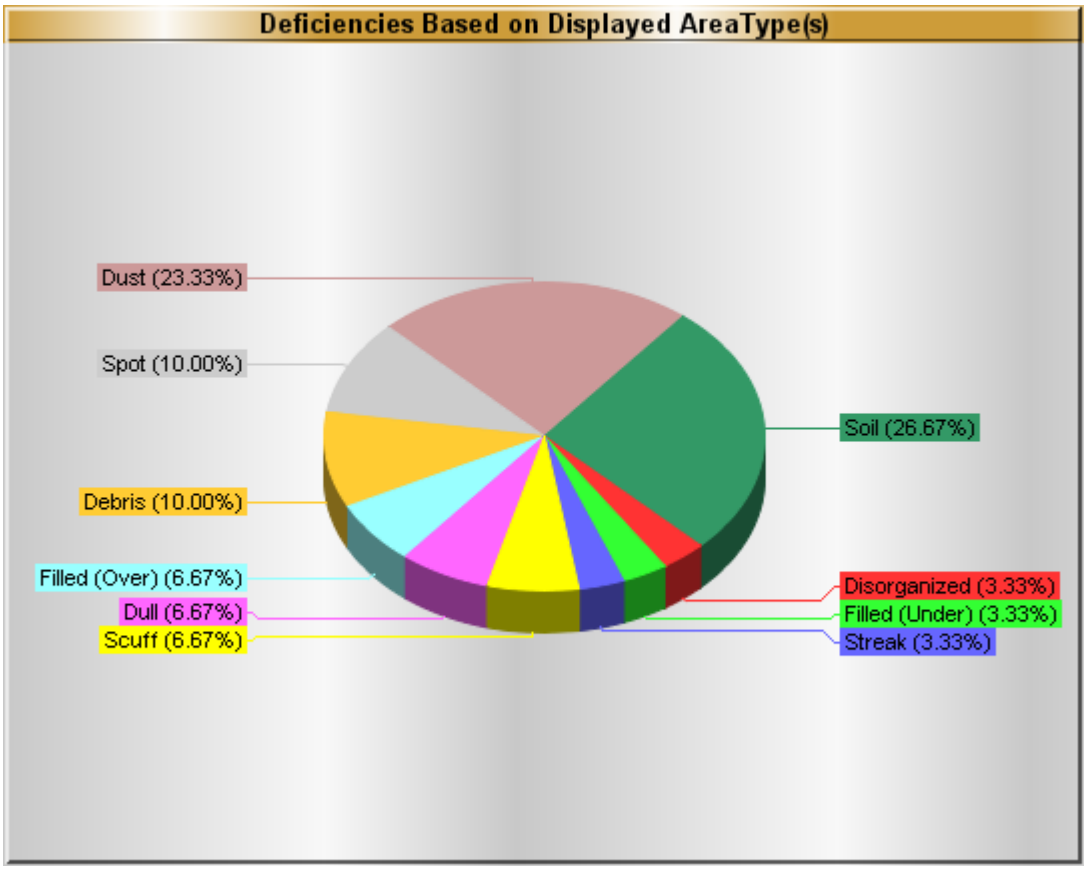
Ward Elementary School





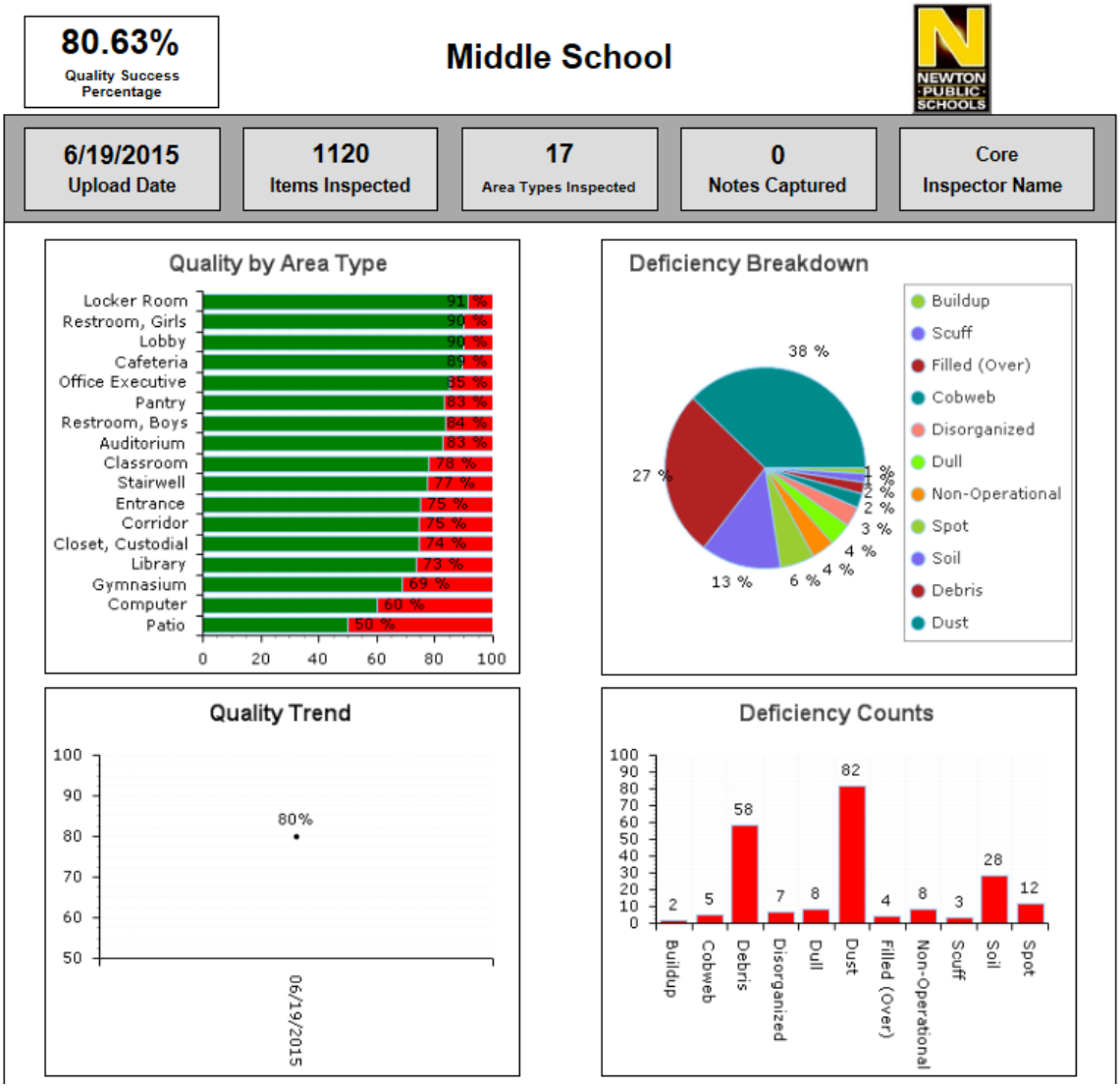
Williams Elementary School



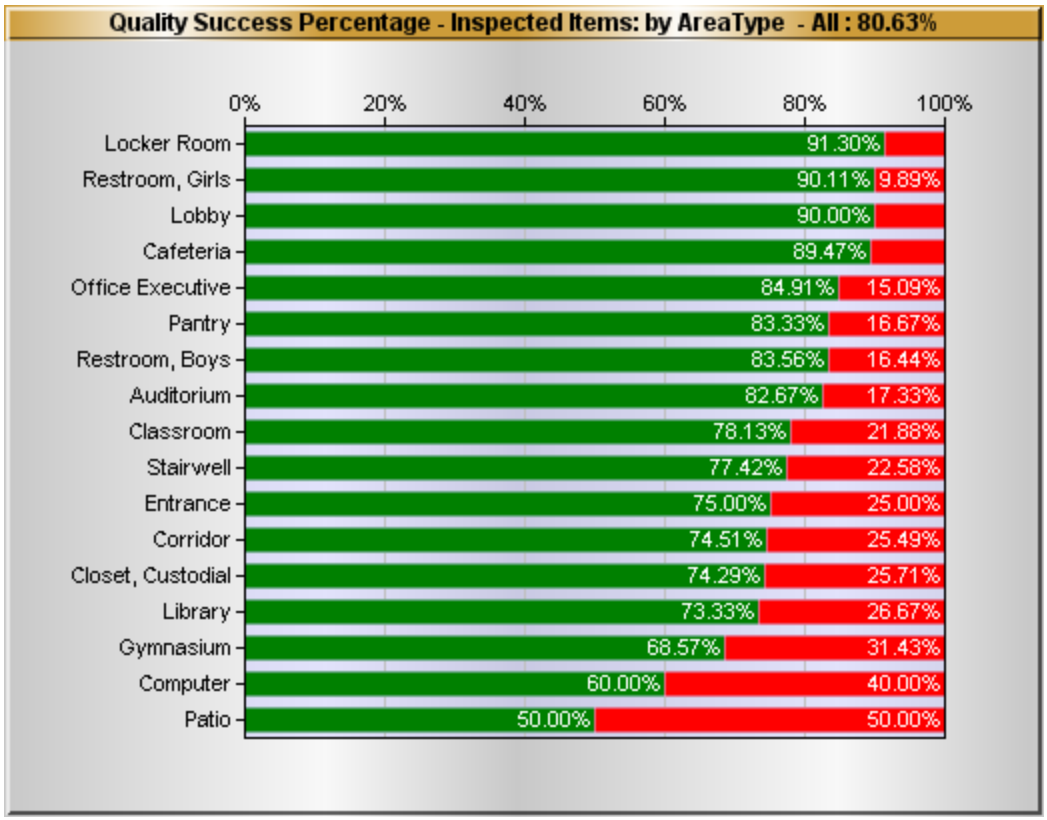


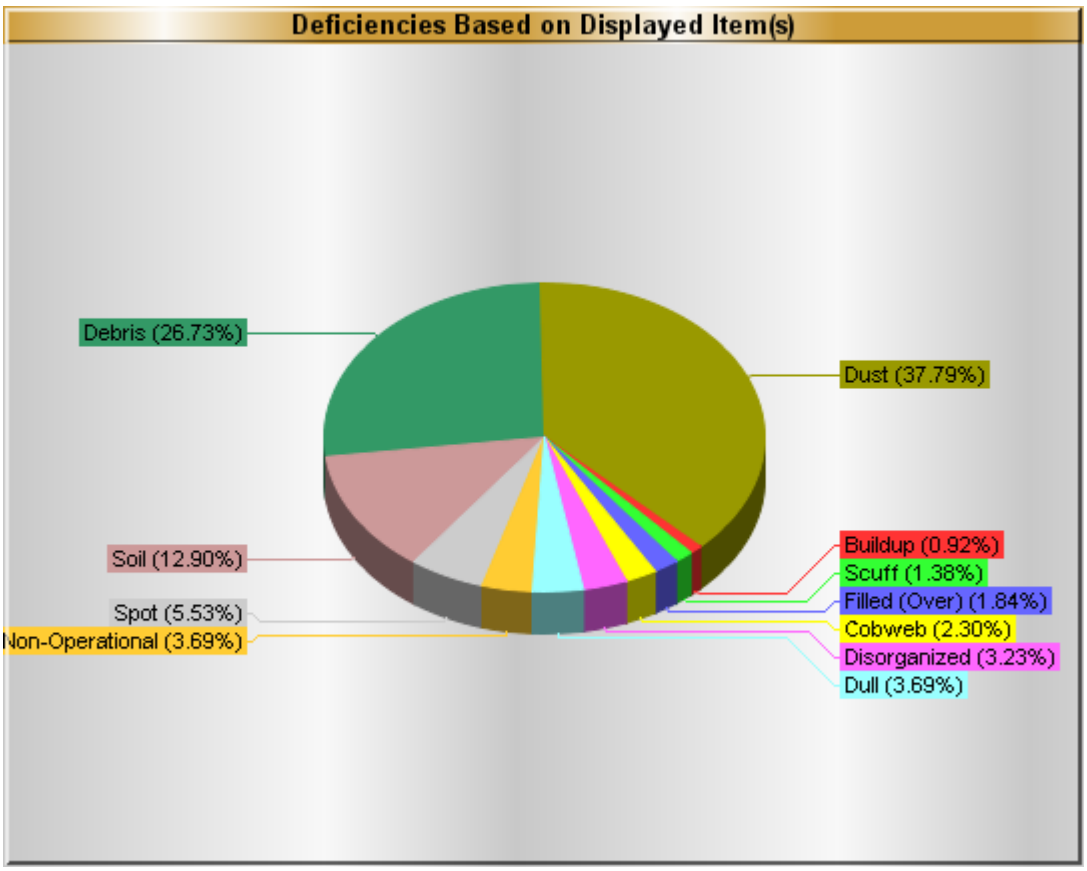
ALL BUILDINGS COMBINED
– Junior High Schools-

Dashboard Summary – By Area Type



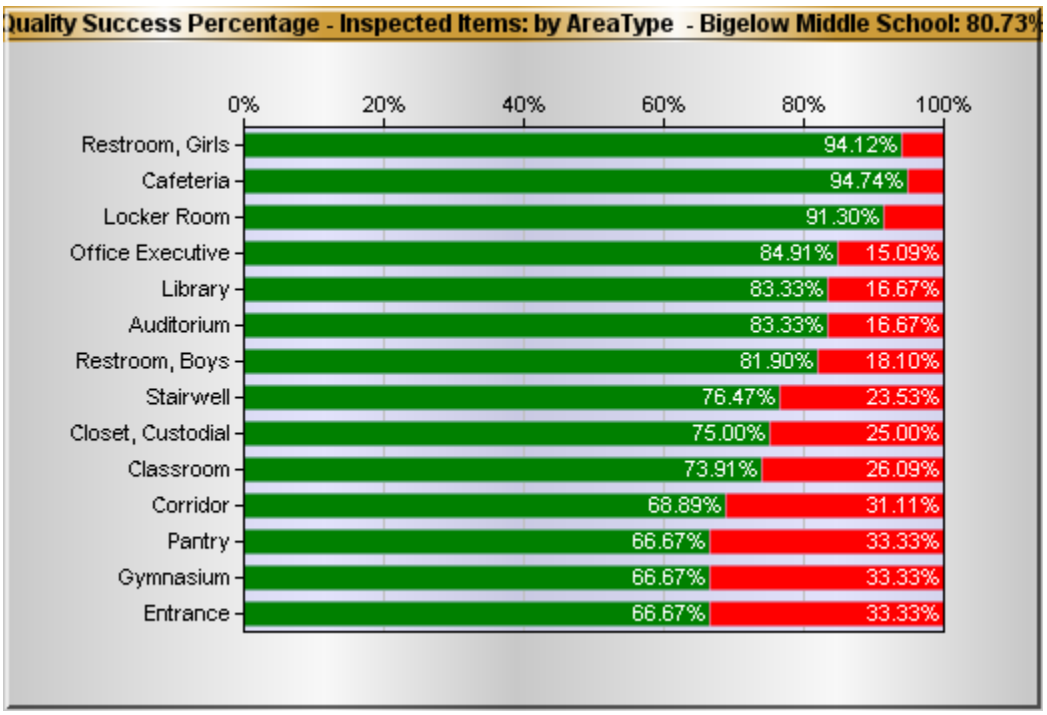
All Buildings Combined (Junior High) – by Area Type

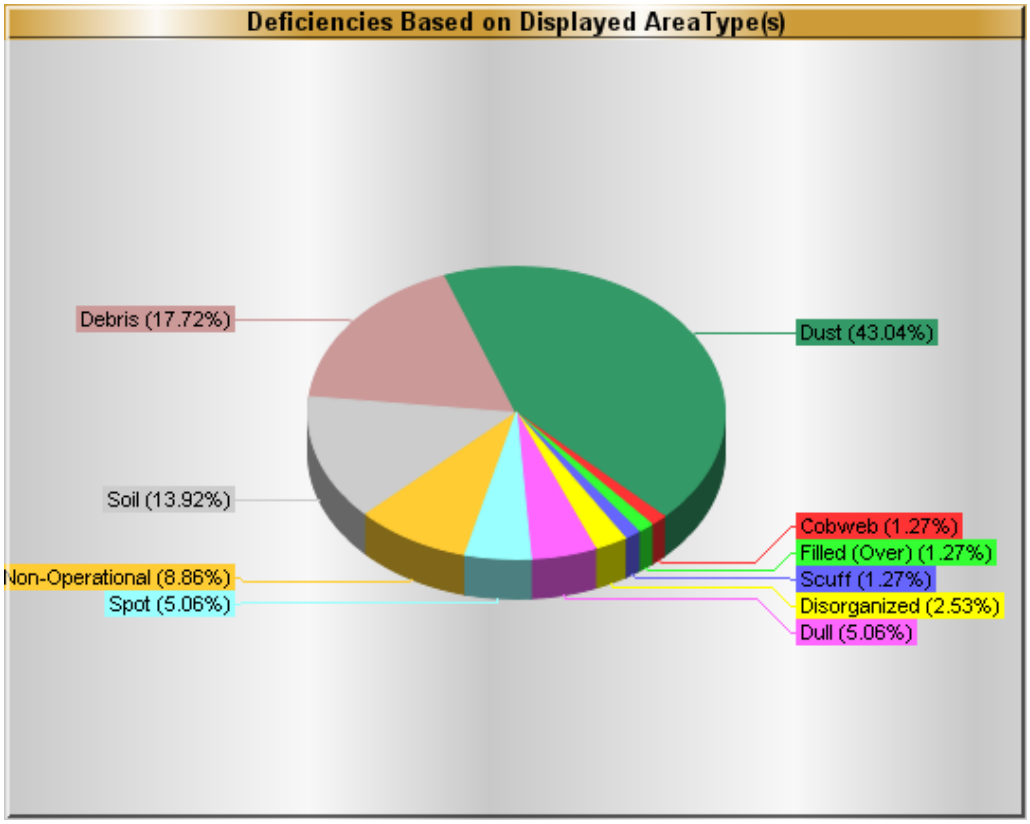



Deficiencies Based on Displayed Item(s)
Debris (26.73%)
Dust (37.79%)
Soil (12.90%)
Spot (5.53%)
Non-Operational (3.69%)
Buildup (0.92%)
Scuff (1.38%)
Filled (Over) (1.84%)
Cobweb (2.30%)
Disorganized (3.23%)
Dull (3.69%)

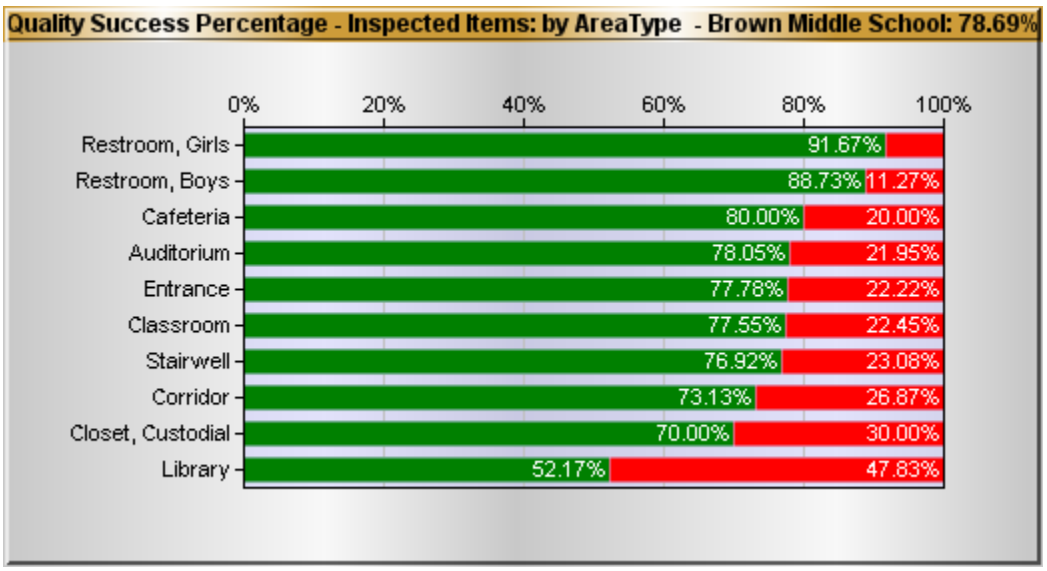
INDIVIDUAL BUILDINGS

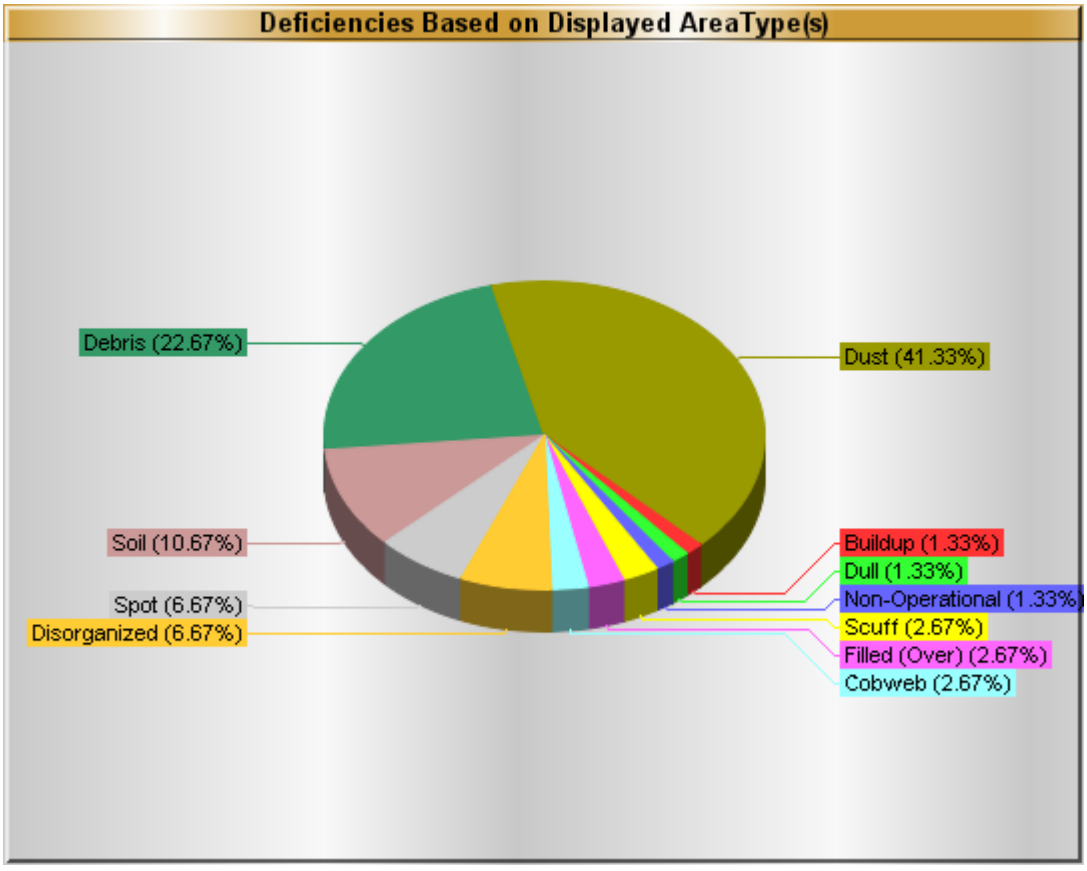
Bigelow Middle School



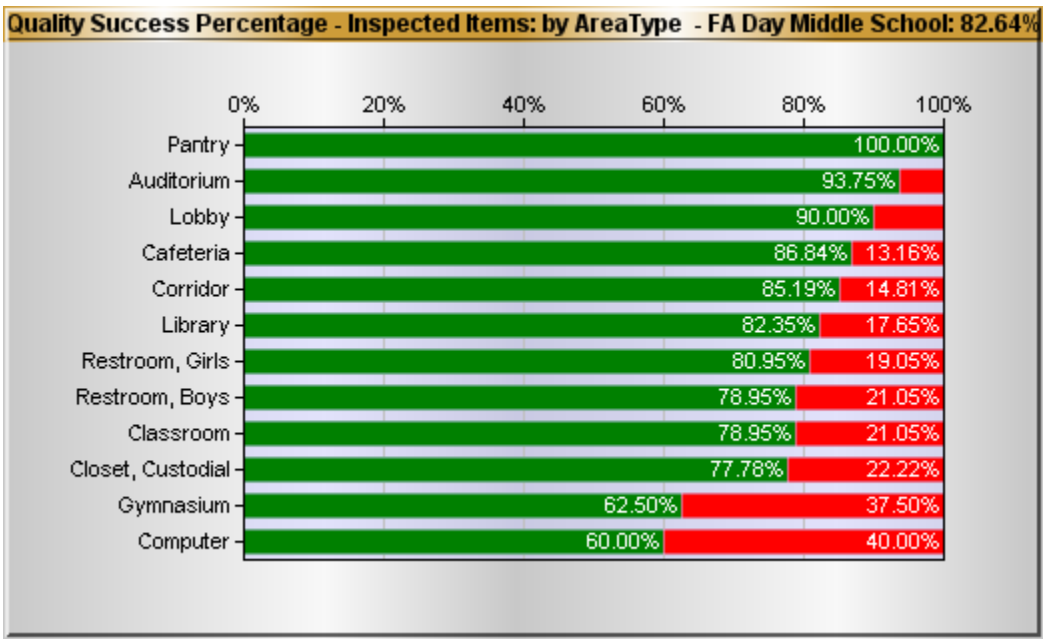


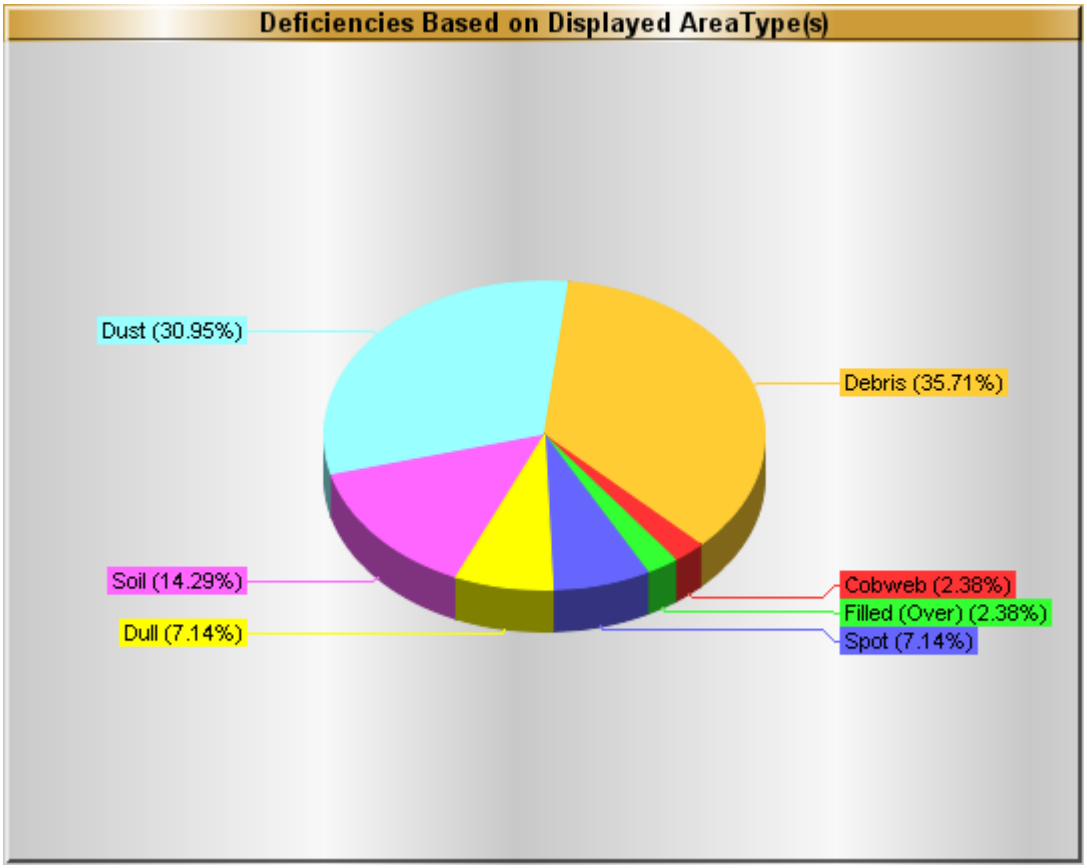
Brown Middle School



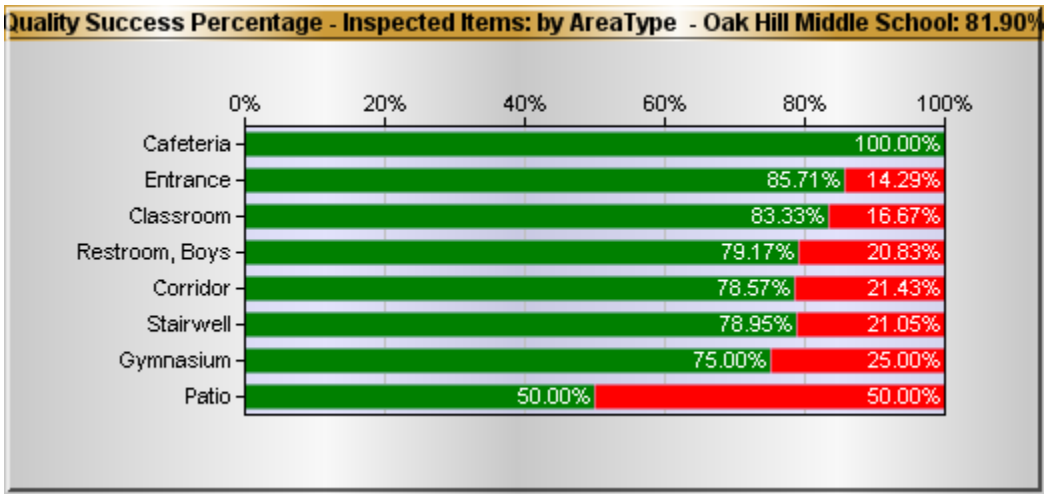


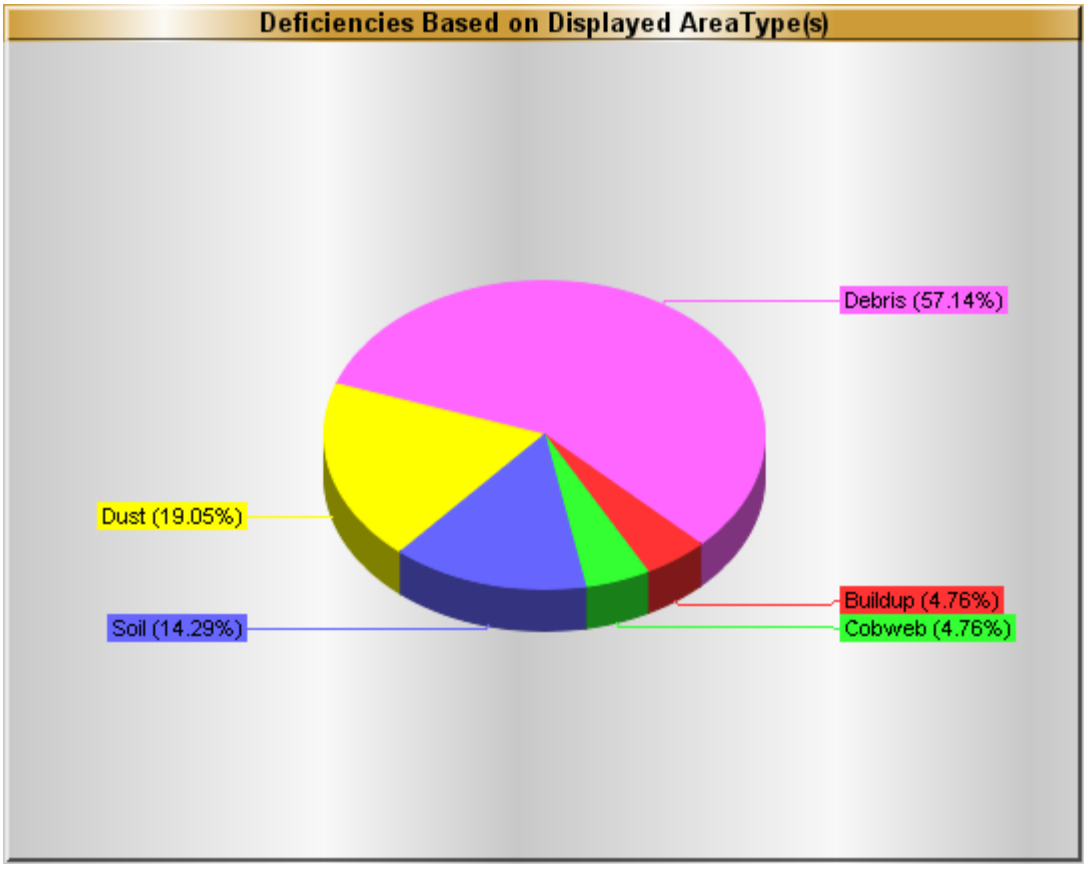
FA Day Middle School





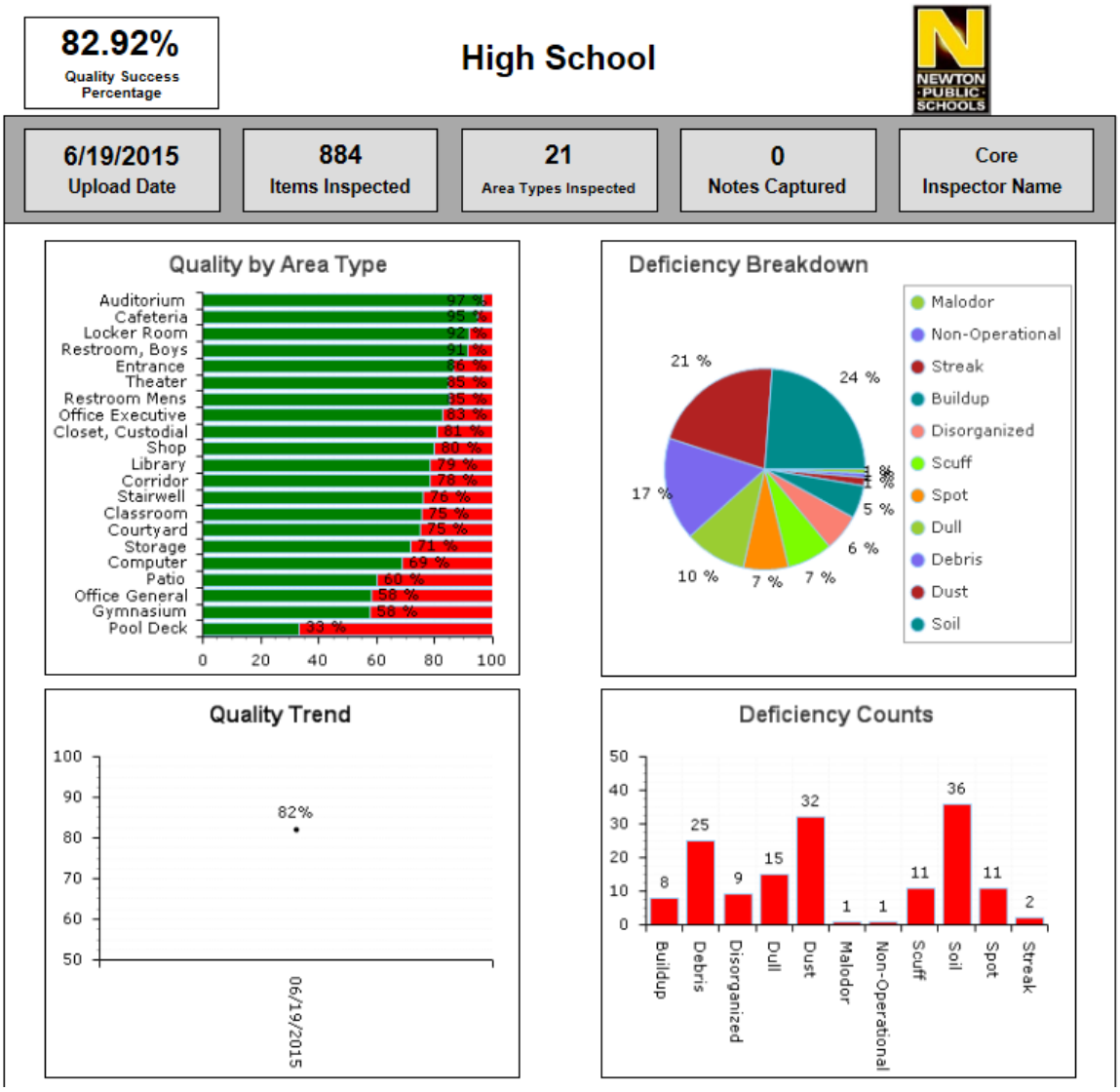
Oak Hill Middle School



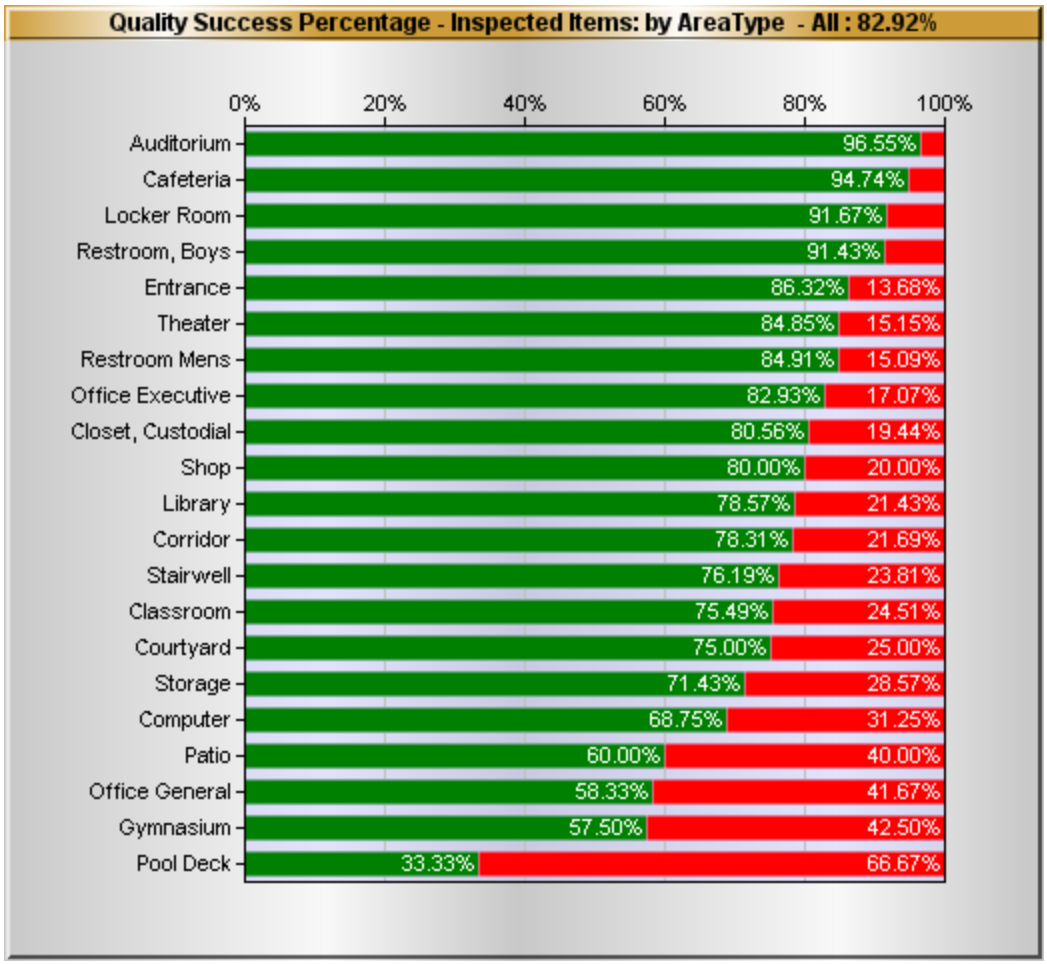


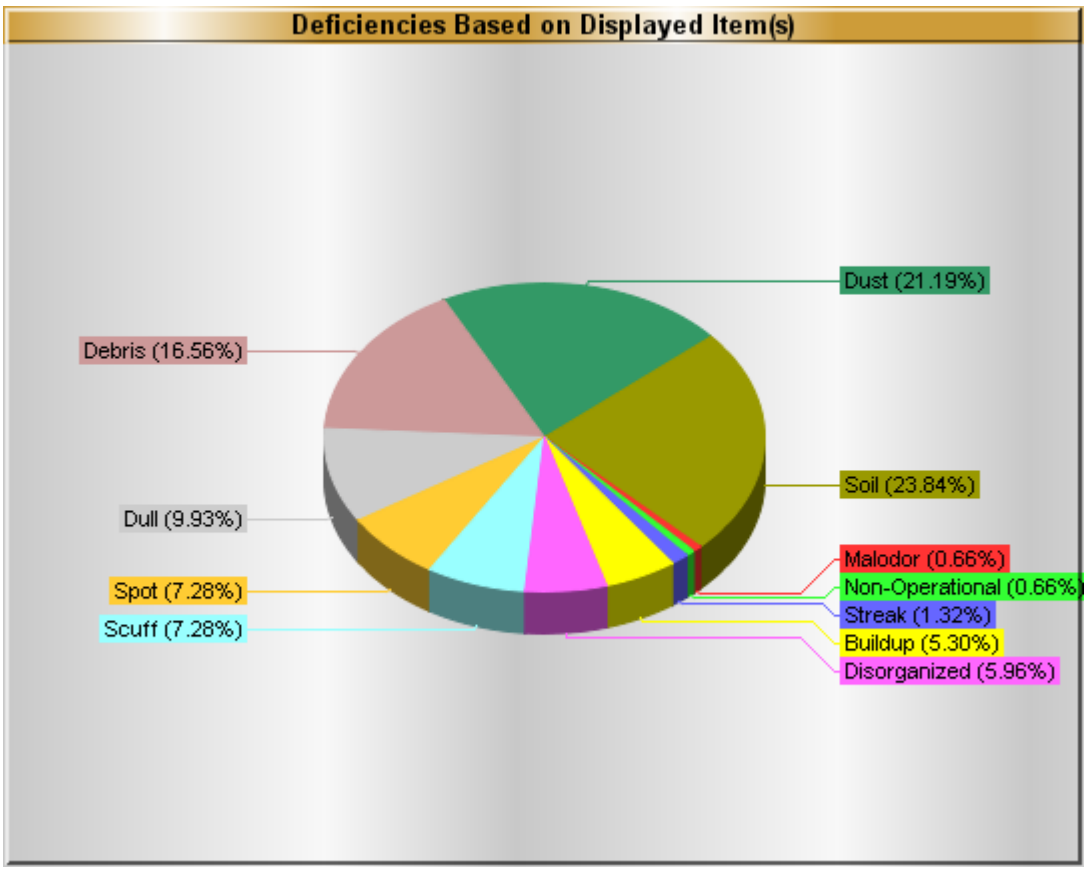
ALL BUILDINGS COMBINED
-Senior High Schools-

Dashboard Summary – By Area Type



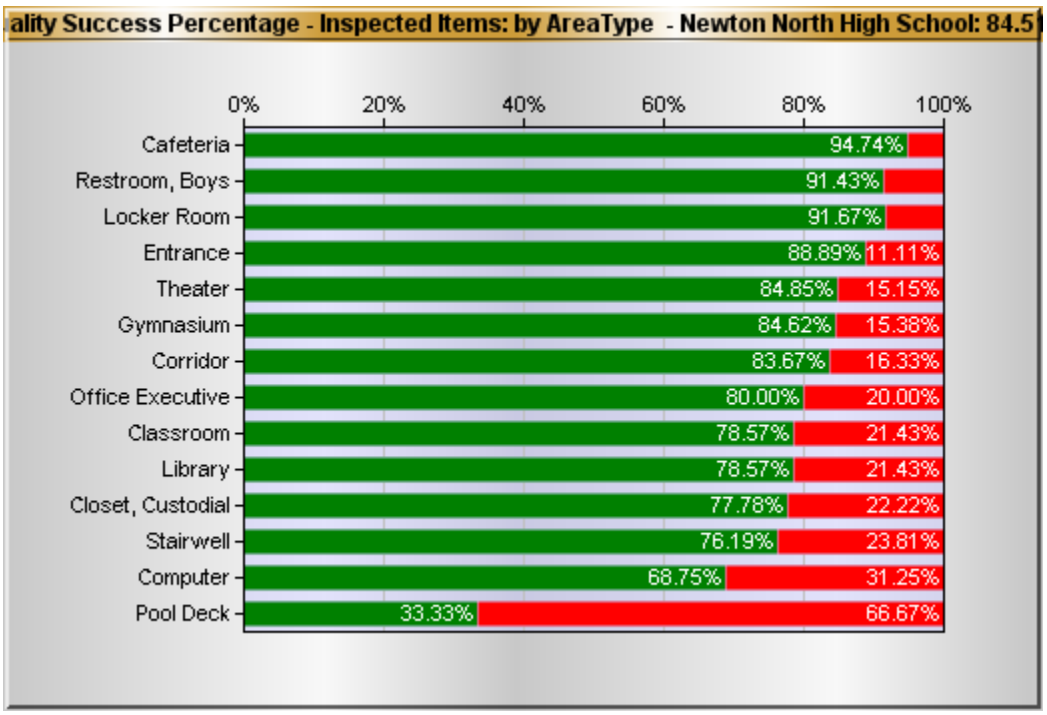
All Buildings Combined (Senior High) – by Area Type

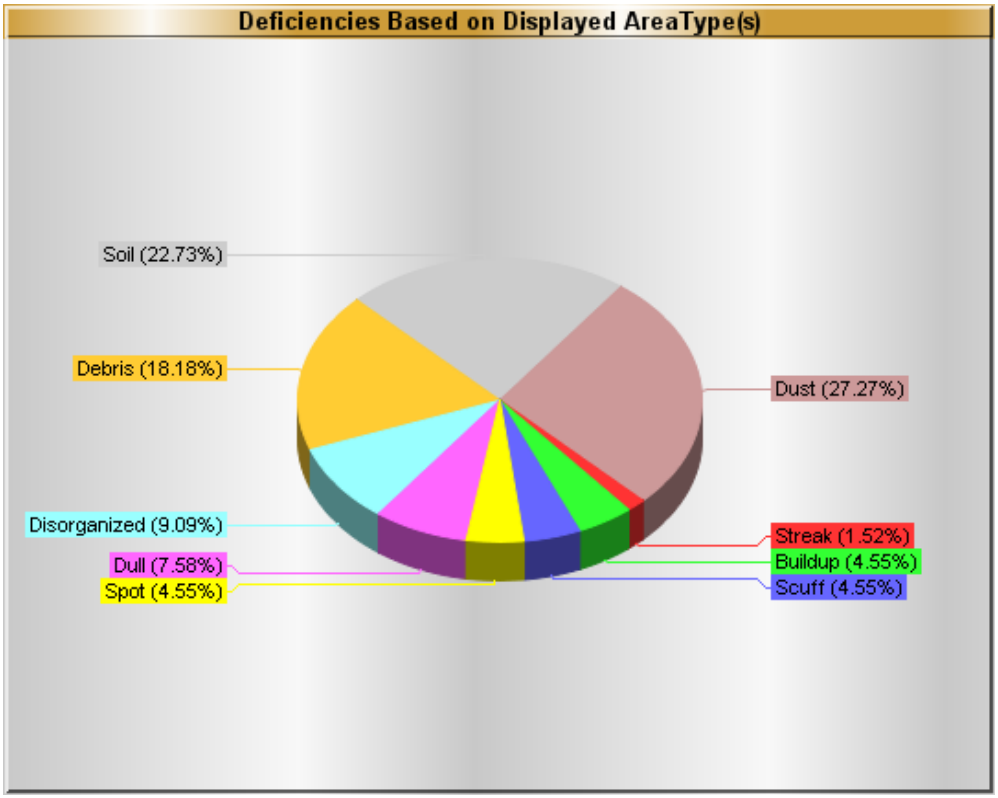



Deficiencies Based on Displayed Item(s)
Dust (21.19%)
Debris (16.56%)
Soil (23.84%)
Dull (9.93%)
Malodor (0.66%)
Non-Operational (0.66%)
Spot (7.28%)
Streak (1.32%)
Scuff (7.28%)
Buildup (5.30%)
Disorganized (5.96%)

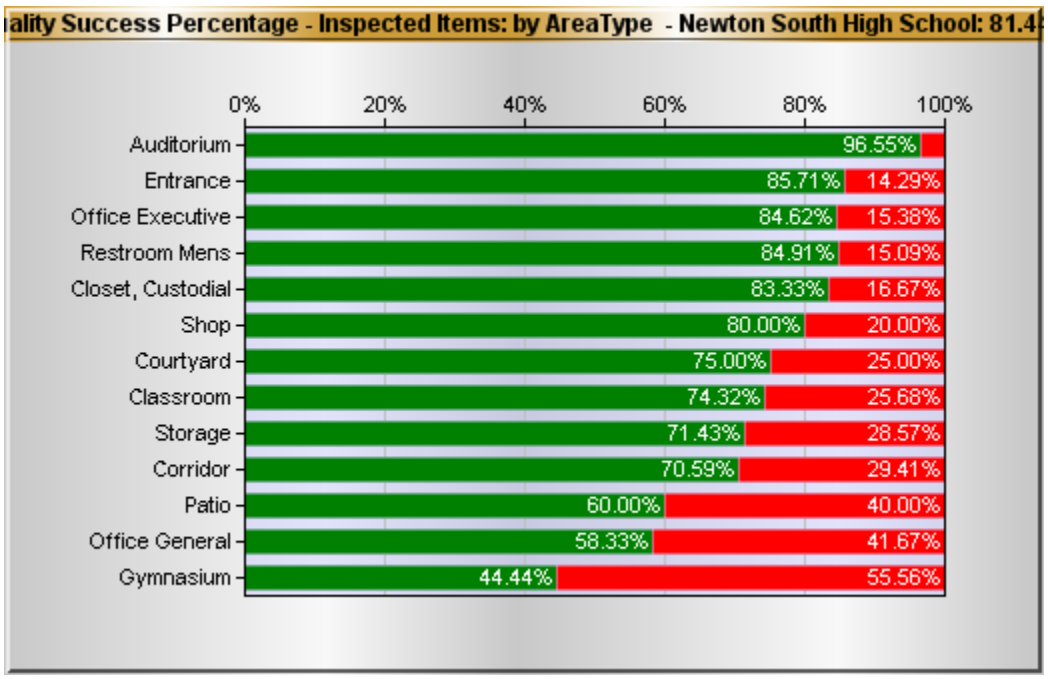
INDIVIDUAL BUILDINGS

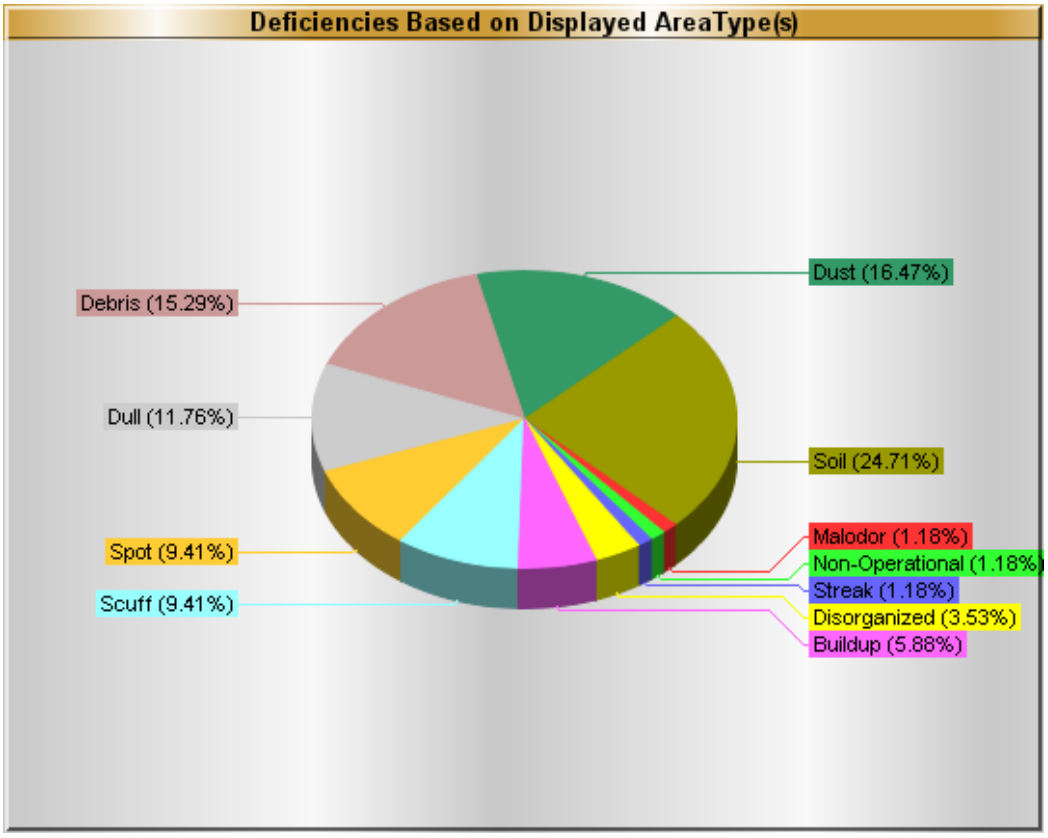
Newton North High School





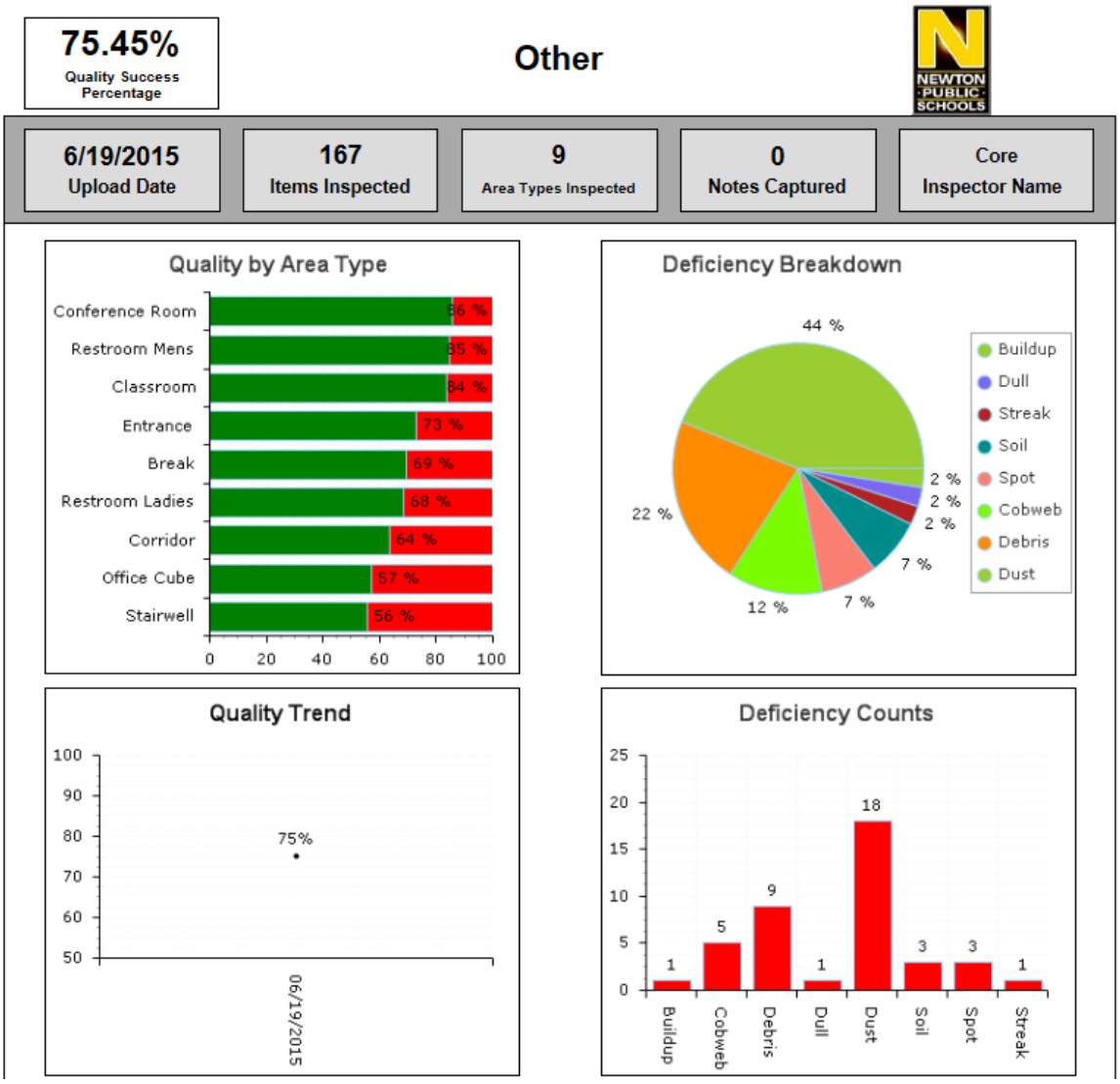
Newton South High School



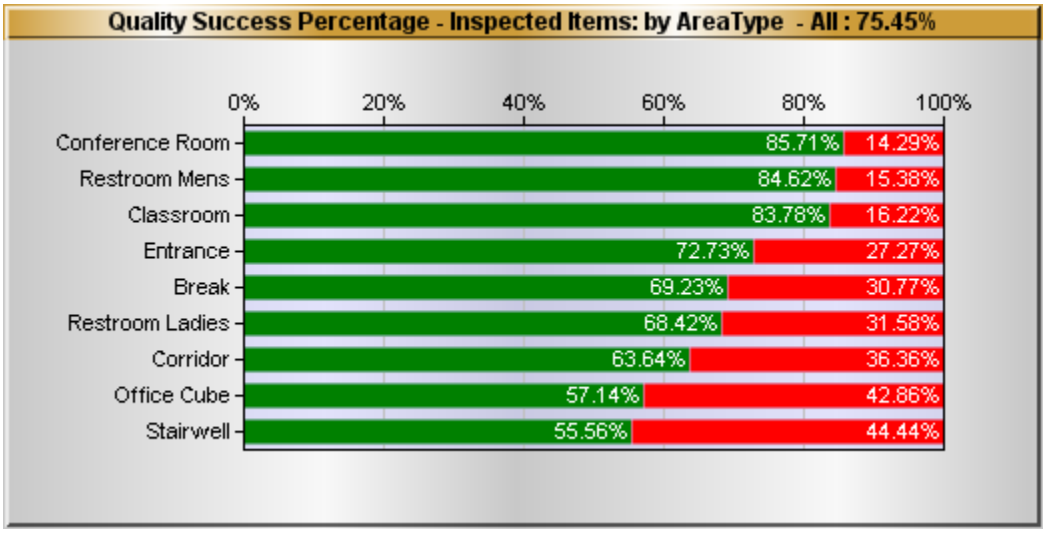


ED CENTER

Dashboard Summary – By Area Type



Ed Center – by Area Type



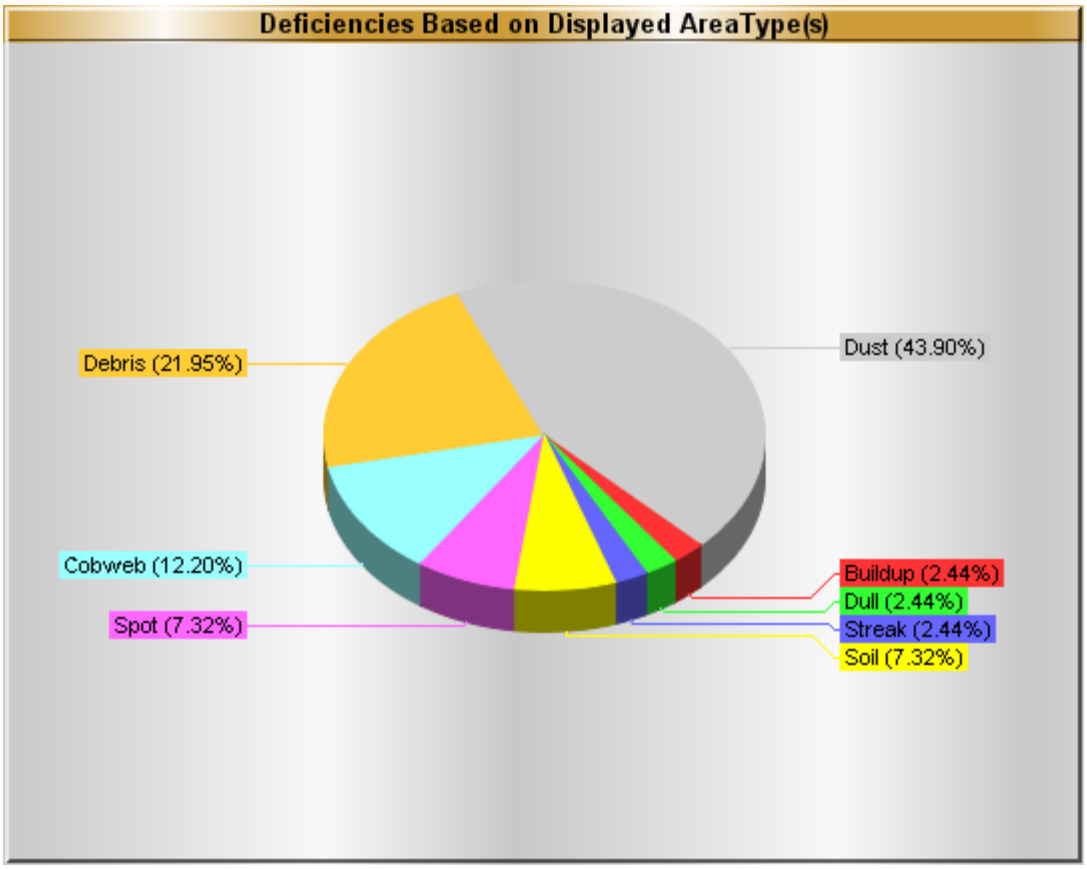

Deficiencies Based on Displayed AreaType(s)
Debris (21.95%)
Dust (43.90%)
Cobweb (12.20%)
Spot (7.32%)
Buildup (2.44%)
Dull (2.44%)
Streak (2.44%)
Soil (7.32%)

Exhibit C: Cleaning Specification

Newton Public Schools

BEST-PRACTICE CLEANING SPECIFICATION

Includes NPS' best-practice tasks and frequencies for each area type.

Frequency Chart	
Examples of Frequency Required	**Annual Frequency**
Three times per day	780
Five day service (daily)	260
Five day service (daily) – Classroom / In-Session Areas	190
Four times weekly	208
Four times weekly – Classroom / In-Session Areas	152
Weekly	52
Weekly – Classroom / In-Session Areas	38
Semi-Monthly	24
Monthly service	12
Quarterly service	4
Semi-Annual service	2
Yearly service	1

Newton Public Schools

Best-Practices Cleaning Specification

Cafeteria, Dining

Task Description	Annual Frequency
Empty cafeteria trash, replace liners and tie-off at corners, clean obvious food from exterior of containers.	780
Damp wipe tables to remove debris and soil.	780
Dust mop floors with a water-based chemically treated dust mop.	260
Damp mop or autoscrub to remove soils.	260
Spot clean carpet using approved carpet spotting equipment and supplies.	260
Fully vacuum all carpeted areas from wall to wall.	260
Dust areas above shoulder level and below knee level.	52
Dust window treatments including horizontal and vertical blinds.	12
Dust or vacuum air vents to remove loose dust, soil and cobwebs.	4
Hot water extract using a walk behind unit	4
Damp wipe light fixture exteriors to remove stains, dust and cobwebs.	2
Wash walls using approved cleaner.	2
Machine scrub and recoat floors using approved floor finish.	2
Completely strip and refinish floors, apply three coats of approved floor finish and buff.	1
Fully clean interior and exterior windows.	1

Circulation Areas

Task Description	Annual Frequency
Empty general and recyclable trash, replace liners when soiled or torn. Spot clean as required. Remove trash to designated area.	260
Clean and polish drinking fountains.	260
Dust furniture and spot clean all horizontal and vertical surfaces including interior glass.	260
Clean door glass and other adjacent glass areas.	260
Spot clean carpet using approved carpet spotting equipment and supplies.	260
Fully vacuum all carpeted areas from wall to wall including edges.	260
Vacuum carpeted matting at or near entrance doors.	260

Clean elevator walls, doors, floors, ceiling and stainless steel.	260
Sweep or dust mop stairs, damp mop, dust vertical and horizontal surfaces and spot clean.	260
Dust mop floors with a water-based chemically treated dust mop.	260
Damp mop or autoscrub floors to remove soil, streaks and spots.	260
Dust areas above shoulder level and below knee level.	38
Burnish finished floor using electric burnisher. Restore as required.	38
Dust or vacuum air vents to remove loose dust, soil and cobwebs.	12
Dust window treatments including horizontal and vertical blinds.	12
Damp wipe light fixture exteriors to remove stains, dust and cobwebs.	1
Damp wipe trash containers to remove soil and stains.	1
Completely strip and refinish floors, apply three coats of approved floor finish and buff.	1
Hot-water extract carpeted areas using approved equipment and supplies.	1

Classroom, Labs, Media, Auditorium

Task Description	Annual Frequency
Spot clean interior partition and door glass.	190
Empty general and recyclable trash, replace liners when soiled or torn. Spot clean as required. Remove trash to designated area.	190
Dust and spot clean horizontal and vertical surfaces.	190
Clean counters and stainless steel sinks using approved cleaner.	190
Dust mop floors with a water-based chemically treated dust mop.	190
Spot clean carpet using approved carpet spotting equipment and supplies.	190
Spot mop floors to remove visible dirt and spills.	152
Vacuum carpeted traffic lanes and spot vacuum personal work spaces.	152
Dust areas above shoulder level and below knee level.	38
Damp mop floors to remove dirt and spills.	38
Fully vacuum all carpeted areas from wall to wall.	38
Dust window treatments including horizontal and vertical blinds.	4
Dust or vacuum air vents to remove loose dust, soil and cobwebs.	4
Dust light fixtures to remove exterior dust and cobwebs.	1
Damp wipe trash containers to remove soil and stains.	1
Wash and disinfect non-fabric furniture.	1
Completely strip and refinish floors, apply three coats of approved floor finish and buff.	1
Hot-water extract carpeted areas using approved equipment and supplies.	1

Grounds

Task Description	Annual Frequency
Police grounds for debris.	260
Sweep exterior areas adjacent to building entrances.	52

Gymnasium, All Purpose

Task Description	Annual Frequency
Spot clean all horizontal and vertical surfaces.	260
Empty general and recyclable trash, replace liners when soiled or torn. Spot clean as required. Remove trash to designated area.	260
Spot clean mirrors to remove fingerprints and smudges.	260
Spot clean carpet using approved carpet spotting equipment and supplies.	260
Fully vacuum all carpeted areas from wall to wall.	260
Apply approved disinfectant to exercise equipment contact surfaces, wipe dry.	260
Remove dust and debris from hard floors.	260
Dust below knee level.	52
Dust exercise equipment.	52
Damp mop or autoscrub floors.	52
Damp wipe trash containers to remove soil and stains.	12
Dust or vacuum air vents to remove loose dust, soil and cobwebs.	4
Hot-water extract carpeted areas using approved equipment and supplies.	4
Dust light fixtures to remove exterior dust and cobwebs.	1
Refinish gym floors using approved supplies and equipment.	1

Non-Cleaning Duties

Task Description	Annual Frequency
Provide daily support as directed by the principal to include opening, closing, flag raising, set-up, tear-down, event support, etc.	260

Offices, Nurse, Break, Vending

Task Description	Annual Frequency
Empty general and recyclable trash, replace liners when soiled or torn. Spot clean as required. Remove trash to designated area.	260
Spot clean carpet using approved carpet spotting equipment and supplies.	260
Spot mop floors to remove visible dirt and spills.	208
Using a backpack, spot vacuum carpets to remove visible dirt, dust and debris.	208
Spot clean telephones and sanitize receivers.	52
Dust furniture and spot clean all horizontal and vertical surfaces.	52
Dust areas above shoulder level and below knee level.	52
Dust mop floors with a water-based chemically treated dust mop.	52
Damp mop floors to remove dirt and spills.	52
Fully vacuum all carpeted areas from wall to wall.	52
Dust or vacuum air vents to remove loose dust, soil and cobwebs.	4
Dust window treatments including horizontal and vertical blinds.	4
Dust light fixtures to remove exterior dust and cobwebs.	1
Shampoo fabric furniture to remove soil and stains.	1
Damp wipe trash containers to remove soil and stains.	1
Vacuum fabric furniture.	1
Completely strip and refinish floors, apply three coats of approved floor finish and buff.	1
Hot-water extract carpeted areas using approved equipment and supplies.	1

Restrooms, Locker Rooms

Task Description	Annual Frequency
Police restrooms; remove debris, spot clean fixtures, mirrors and floors, replenish supplies.	780
Perform all daily cleaning procedures; apply germicidal cleaner to all fixtures, refill/clean dispensers, empty trash/replace liners, spot clean mirrors, walls, horizontals and partitions, wipe fixtures clean, sweep and mop floors with germicidal cleaner.	260
Clean and disinfect shower walls, fixtures, and other surfaces.	260
With a germicidal cleaner, completely damp wipe restroom partitions including high/low areas.	52
Wash walls with germicidal cleaner.	9
Machine scrub floors with germicidal cleaner.	9
Damp wipe trash containers to remove soil and stains.	9
Dust or vacuum, and damp wipe, air vents to remove loose dust, soil and cobwebs.	9
Damp wipe light fixture exteriors to remove stains, dust and cobwebs.	1

Storage, Mech., Dock, Custodial Room

Task Description	Annual Frequency
Spot mop floors to remove visible dirt and spills.	260
Clean custodian room sinks and floors, organize shelves and inspect equipment.	260
Dust mop or sweep hard surface floors.	24
Dust areas above shoulder level and below knee level.	4
Pressure wash hard surface floors.	4
Dust light fixtures to remove exterior dust and cobwebs.	1

Exhibit D: Custodial Workloads

Note: The workloads below represents the amount of custodial labor needed to maintain a best-practice cleaning specification (based on NPS current specification as a foundation). Non-working supervisors and managers are NOT included in these figures.

Elementary Schools

Staffing Summary

		FTEs @ 7.25 hours per day			
Area	Sq Ftg	Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	27,724	1.25	0.03	0.10	1.38
Classroom, Labs, Media, Auditorium	299,421	4.07	1.16	0.42	5.65
Circulation Areas	88,717	2.37	0.32	0.13	2.82
Grounds	-	0.64	0.18	0.00	0.82
Non-Cleaning Duties	-	7.72	0.00	0.00	7.72
Offices, Nurse, Break, Vending	38,813	0.53	0.32	0.07	0.92
Restrooms, Locker Rooms	16,634	5.85	0.25	0.00	6.10
Storage, Mech., Dock, Custodian	83,176	0.66	0.11	0.09	0.86
Totals	554,485	23.09	2.37	0.81	26.27

Distribution Summary - Yearly Service Hours

		Yearly Service Hours			
Area	Sq Ftg	Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	27,724	2,354.61	60.53	182.99	2,598.14
Classroom, Labs, Media, Auditorium	299,421	7,674.95	2,179.11	785.20	10,639.26
Circulation Areas	88,717	4,466.39	594.42	240.40	5,301.22
Grounds	-	1,209.00	338.00	0.00	1,547.00
Non-Cleaning Duties	-	14,560.00	0.00	0.00	14,560.00
Offices, Nurse, Break, Vending	38,813	1,007.64	604.37	132.88	1,744.89
Restrooms, Locker Rooms	16,634	11,028.33	477.23	1.11	11,506.67
Storage, Mech., Dock, Custodian	83,176	1,253.51	216.26	169.49	1,639.25
Totals	554,485	43,554.43	4,469.92	1,512.07	49,536.43

Middle Schools

Staffing Summary

Area	Sq Ftg	FTEs @ 7.25 hours per day Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	24,384	1.13	0.03	0.09	1.25
Classroom, Labs, Media, Auditorium	238,968	3.58	1.01	0.36	4.95
Circulation Areas	58,522	1.67	0.15	0.07	1.89
Gymnasium, All Purpose	34,138	0.69	0.03	0.02	0.74
Grounds	-	0.54	0.12	0.00	0.66
Non-Cleaning Duties	-	7.17	0.00	0.00	7.17
Offices, Nurse, Break, Vending	34,138	0.48	0.30	0.07	0.85
Restrooms, Locker Rooms	24,384	5.44	0.37	0.00	5.81
Storage, Mech., Dock, Custodian	73,156	0.66	0.10	0.09	0.85
Totals	487,690	21.36	2.11	0.70	24.17

Distribution Summary - Yearly Service Hours

Area	Sq Ftg	Yearly Service Hours Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	24,384	2,128.57	53.24	166.16	2,347.96
Classroom, Labs, Media, Auditorium	238,968	6,740.02	1,911.82	684.20	9,336.03
Circulation Areas	58,522	3,146.27	279.42	140.47	3,566.16
Gymnasium, All Purpose	34,138	1,292.59	64.79	36.46	1,393.84
Grounds	-	1,014.00	234.00	0.00	1,248.00
Non-Cleaning Duties	-	13,520.00	0.00	0.00	13,520.00
Offices, Nurse, Break, Vending	34,138	907.02	561.32	125.61	1,593.94
Restrooms, Locker Rooms	24,384	10,251.58	699.58	1.63	10,952.79
Storage, Mech., Dock, Custodian	73,156	1,236.14	190.21	166.90	1,593.24
Totals	487,690	40,236.19	3,994.38	1,321.43	45,551.96

High Schools

Staffing Summary

Area	Sq Ftg	FTEs @ 7.25 hours per day Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	23,790	1.18	0.03	0.10	1.31
Classroom, Labs, Media, Auditorium	348,920	5.20	1.46	0.57	7.23
Circulation Areas	126,880	3.46	0.34	0.17	3.97
Gymnasium, All Purpose	103,090	1.78	0.07	0.08	1.93
Grounds	-	0.37	0.11	0.00	0.48
Non-Cleaning Duties	-	6.34	0.00	0.00	6.34
Offices, Nurse, Break, Vending	47,580	0.66	0.43	0.09	1.18
Restrooms, Locker Rooms	39,650	4.55	0.60	0.00	5.15
Storage, Mech., Dock, Custodian	103,090	0.36	0.14	0.04	0.54
Totals	793,000	23.90	3.18	1.05	28.13

Distribution Summary - Yearly Service Hours

Area	Sq Ftg	Yearly Service Hours Daily Tasks	Interim Tasks	Restorative Tasks	Total
Cafeteria, Dining	23,790	2,225.08	51.94	197.22	2,474.25
Classroom, Labs, Media, Auditorium	348,920	9,799.30	2,752.55	1,080.86	13,632.70
Circulation Areas	126,880	6,523.63	640.35	316.07	7,480.04
Gymnasium, All Purpose	103,090	3,360.02	128.01	160.12	3,648.15
Grounds	-	693.33	208.00	0.00	901.33
Non-Cleaning Duties	-	11,960.00	0.00	0.00	11,960.00
Offices, Nurse, Break, Vending	47,580	1,248.17	812.45	176.43	2,237.06
Restrooms, Locker Rooms	39,650	8,580.00	1,137.56	2.64	9,720.20
Storage, Mech., Dock, Custodian	103,090	677.89	268.03	74.63	1,020.55
Totals	793,000	45,067.42	5,998.89	2,007.97	53,074.28

Ed Center

Staffing Summary

Area	Sq Ftg	FTEs @ 7.25 hours per day Daily Tasks	Interim Tasks	Restorative Tasks	Total
General Use - Classroom, Office	49,000	1.25	0.11	0.08	1.44
Circulation Areas	10,500	0.38	0.02	0.01	0.41
Grounds	-	0.03	0.01	0.00	0.04
Non-Cleaning Duties	-	0.26	0.00	0.00	0.26
Restrooms, Locker Rooms	3,500	0.43	0.05	0.00	0.48
Storage, Mech., Dock, Custodian	7,000	0.05	0.01	0.00	0.06
Totals	70,000	2.40	0.20	0.09	2.69

Distribution Summary - Yearly Service Hours

Area	Sq Ftg	Yearly Service Hours Daily Tasks	Interim Tasks	Restorative Tasks	Total
General Use - Classroom, Office	49,000	2,358.03	211.68	158.82	2,728.53
Circulation Areas	10,500	708.50	44.42	25.00	777.92
Grounds	-	60.67	26.00	0.00	86.67
Non-Cleaning Duties	-	485.33	0.00	0.00	485.33
Restrooms, Locker Rooms	3,500	814.67	100.42	0.23	915.32
Storage, Mech., Dock, Custodian	7,000	90.13	18.20	7.81	116.14
Totals	70,000	4,517.33	400.72	191.86	5,109.91

Exhibit E: Smart Inspect Information

Smart Inspect
Web-Based Inspection and Auditing System

Introduction

The Smart Inspect™ was designed specifically for organizations that are faced with the challenge of standardizing systems and managing quality across a diverse and complex portfolio.

The web-based platform provides an easy-to-configure, easy-to-learn system which uses handheld data collection devices (such as a smart phone, tablet or an iPad) and ties together the organization's continuous improvement efforts on one manageable website. No software is required and no IT costs are incurred by the client organization.

The Smart Inspect system was designed by Core Management Services, the world leader in custodial and facility maintenance continuous improvement consulting. Core offers a variety of inspection and auditing program options. In each case, Core provides the education, training, and program support for the selected program.

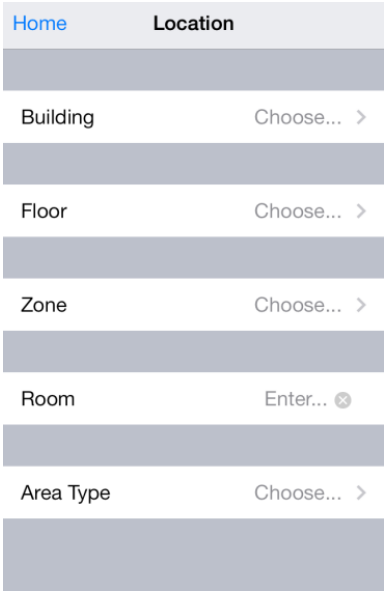
Program Tools

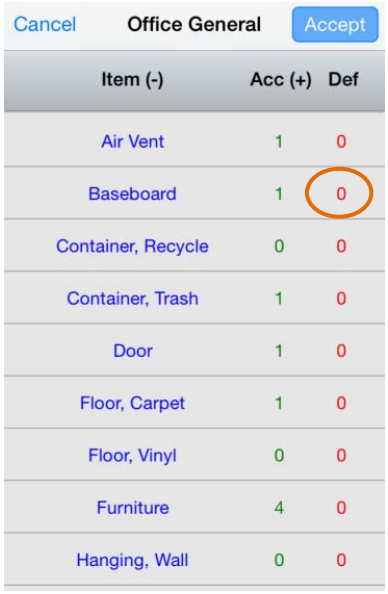
Data collection for each Smart Inspect program option is performed on devices such as smart phones, handhelds or tablets (for instance, the iPhone, iPod Touch or iPad). Each device is configured with the Smart Inspect data collection software. The software enables the device to interact with a customized configuration file to collect inspection data and write the data to the device. Each configuration includes variables such as: building, floor, zone, item, and attribute data specific to areas within the scope of this project.

During the inspection, the inspector can take photographs to document quality deficiencies or maintenance issues.

Automated Data Collection

Disciplined data collection screens use defaults to facilitate a fast and simple inspection process. Smart Inspect users typically only need 20 minutes of training before they are ready to perform their first inspection.





One Website – Many Features

Web-based and Email Reporting

The Smart Inspect quality platform produces a Quality Success Percentage (QSP) as its key metric. The QSP can be expressed many ways and in many different formats. The web-based platform allows the user to view and print from many report types, including: the "Quality Report," the "Deficiency Report" and the "Quality Trend Report." Reports are also sent automatically via email whenever a quality inspection is completed.

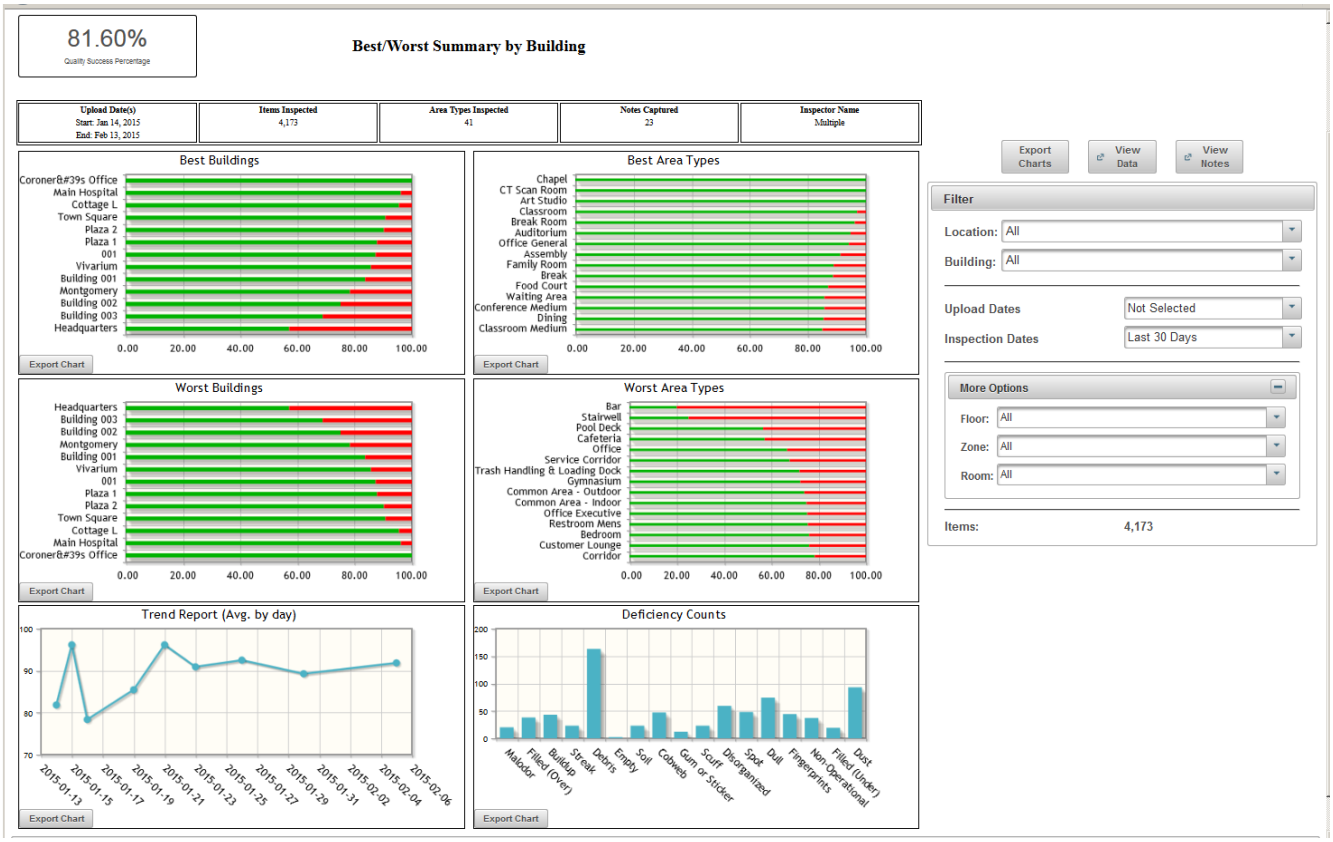
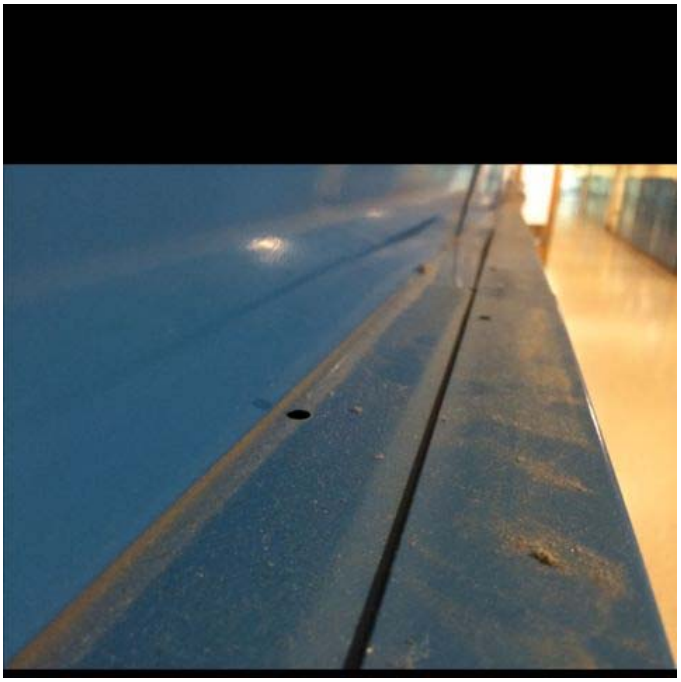



Exhibit F: Deficiency Photos from Quality Inspections