

Project Checklist - page 1 of 2

Project: JHS 259 Brooklyn Addition
 Address: 7301 Fort Hamilton Parkway
 LLW #: 41423
 Design #: _____
 Architect: Mount Vernon Group Architects

Submission(Check one):

SD	DD	60%	100%	Const
	✓			

Date: 8/8/2008

Reviewer : _____
 Reviewer Sign Off: _____

Anticipated/
 Documented***:
 Enter 1, or
 Enter 0 if NP
 Leave Blank if Not
 Feasible/Not
 Pursued

Design Phase
 Construction
 Phase

Leave Blank if Pursued
 Enter 1 if Not Feasible or
 Additional Credit Not Pursued:

LEED Reference	CHPS Reference	NYC GSG Credit Name	Required For all Projects	Required if Feasible*	Optional Credits**	Design Phase	Construction Phase	Leave Blank if Pursued Enter 1 if Not Feasible or Additional Credit Not Pursued:
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Site			10 Points						
Site Selection	SS Pr 1	S 1.1R	Construction Activity Pollution Prevention	NP				0	
	SS 1	S 1.2R	Site Selection	1			1		
	1.1.7	S 1.3	Sustainable Site & Building Layout		1				
	SS 2	S 1.4	Development Density & Community Connectivity		1				
	1.1.2	S 1.5R	Joint Use of Facilities, Community Access	NP				0	
	SS 3	S 1.6	Brownfield Redevelopment		1			1	
Transportation	SS 4.1	S 2.1	Alternative Transportation, Public Transportation Access		1		1		
	SS 4.3/SS 4.4	S 2.2R	Alternative Transportation, Fuel-Efficient Vehicles/Parking	1			1		
Minimize Impact on Site	SS 5.1	S 3.1	Site Development, Protect or Restore Habitat		1			1	
	SS 5.2	S 3.2	Site Development, Maximize Open Space		1			1	
Stormwater Design	SS 6.2	S 4.1	Stormwater Design, Quality Control		1			1	
Outdoor Lighting	SS 8	S 5.1R	Light Pollution Reduction	1			1		
			Totals:	3	7		6	0	4

Water			5 Points					
Outdoor Systems	WE 1.1	W 1.1R	Water Efficient Landscaping, Reduce by 50%	1			1	
	WE 1.2	W 1.2R	Water Efficient Landscaping, No Potable Use or No Irrigation	1			1	
Indoor Systems	WE 3.1	W 2.1R	Water Use Reduction, 20% Reduction	1			1	
	WE 3.2	W 2.2R	Water Use Reduction, 30% Reduction	1			1	
	ID 1.1	W 2.3R	Water Use Reduction, 40% Reduction	1			1	
			Totals:	5	0		5	0

Energy			3 Points						
Commissioning	EA Pr 1/EA 3	E 1.1R	Enhanced Commissioning	1				1	
	EA Pr 3/EA 4	E 1.2R	Refrigerant Management	1			1		
Verification	EA 5	E 2.1R	Measurement & Verification	1				1	
	3.3.5	E 2.2R	Energy Management System Controls, HVAC and Hot Water	NP			0		
Energy Efficiency	EA Pr 2	E 3.1R	Minimum Energy Performance	NP			0		
HVAC Optimization	3.1.2	E 4.1R	HVAC System Sizing, Avoid Oversizing	NP			0		
			Totals:	3	0		1	2	0

Materials			8 Points						
Efficient Material Use	MR Pr 1	M 1.1R	Storage & Collection of Recyclables	NP			0		
	MR 1.1	M 1.2	Building Reuse, Maintain 75% of Existing Walls, Floors & Roof		1			1	
	MR 1.2	M 1.3	Building Reuse, Maintain 95% of Existing Walls, Floors & Roof		1			1	
	MR 1.3	M 1.4	Building Reuse, Maintain 50% of Interior Non-Structural Elements		1			1	
	MR 2.1	M 1.5R	Construction Waste Management, Divert 50% from Disposal	1				1	
	MR 2.2	M 1.6	Construction Waste Management, Divert 75% from Disposal		1			1	
Sustainable Materials	MR 4.1	M 2.1R	Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	1				1	
	MR 5.1	M 2.2R	Regional Materials, 10% Extracted, Processed & Manuf. Regionally	1				1	
	4.1.1	M 2.3R	Wallboard & Roof Deck Products, Mold Resistance	NP				0	
	7.2.3	M 2.4R	Low-Mercury Lighting, Reduce Mercury Waste	1			1		
			Totals:	4	4		1	4	3

Project Checklist - page 2 of 2

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Submission(Check one):

SD	DD	60%	100%	Const
	<input checked="" type="checkbox"/>			

Address: 7301 Fort Hamilton Parkway

Date: 8/8/2008

LLW #: 41423

Design #: _____

Reviewer : _____

Architect: Mount Vernon Group Architects

Reviewer Sign Off: _____

Anticipated/
Documented***:
Enter 1, or
Enter 0 if NP
Leave Blank if Not
Feasible/Not
Pursued

Leave Blank if Pursued
Enter 1 if Not Feasible or
Additional Credit Not Pursued:

LEED Reference	CHPS Reference	NYC GSG Credit Name	Required For all Projects	Required if Feasible*	Optional Credits**	Design Phase	Construction Phase	Additional Credit Not Pursued
Indoor Environmental Quality								
17 Points								
IAQ Post-occupancy	EQ Pr 1/EQ2	Q 1.1R	Minimum IAQ Performance / Increased Ventilation	1		1		
	5.4.8	Q 1.2R	Air Flow Stations, Outside Air Intakes	1		1		
IAQ Pre-occupancy	EQ 3.1	Q 2.1R	Construction IAQ Management Plan, During Construction	1			1	
	EQ 3.2	Q 2.2R	Construction IAQ Management Plan, Before Occupancy	1			1	
Low-Emitting Materials	EQ 4.1	Q 3.1R	Low-Emitting Materials, Adhesives & Sealants	1			1	
	EQ 4.2	Q 3.2R	Low-Emitting Materials, Paints & Coatings	1			1	
	EQ 4.3	Q 3.3R	Low-Emitting Materials, Carpet Systems	1				1
	EQ 4.4	Q 3.4R	Low-Emitting Materials, Comp Wood & Agrifiber Products	1			1	
Pollution Source Control	EQ 5	Q 4.1R	Indoor Chemical & Pollutant Source Control	1		1		
	5.3.5	Q 4.2R	Electric Ignition Stoves	NP		0		
	6.2.4	Q 4.3R	Provide HEPA Vacuums	NP		0		
Controllability of Systems	EQ 6.1	Q 5.1R	Controllability of Systems, Lighting	1		1		
	EQ 6.2	Q 5.2R	Controllability of Systems, Thermal Comfort	1		1		
Thermal Comfort	EQ 7.1	Q 6.1R	Thermal Comfort, Comply with ASHRAE 55-2004	1		1		
Lighting and Views	EQ 8.1	Q 7.1	Daylight & Views, Daylight 75% of Spaces		1			1
	EQ 8.2	Q 7.2	Daylight & Views, Views for 90% of Spaces		1			1
	5.2.1	Q 7.3	Visual Performance, Artificial Direct-Indirect Lighting		1	1		
Acoustics	ID 1.2	5.5.1	Minimum Acoustical Performance		1	1		
	SCA	Q 8.2	Sound Isolation for Special Spaces		1	1		
	SCA	Q 8.3	Acoustic Windows		1			1
Totals:				12	6	9	5	4

Additional Credits								
12 Points								
Required for All	ID 2.1	A 1.1R	LEED® Accredited Professional	1		1		
Optional - Green Roofs	SS 7.2	A 2.1	Heat Island Effect, Roof			1		1
	SS 6.1	A 2.2	Stormwater Design, Quantity Control			1		1
Optional - Energy	EA 1.1	A 3.1	Optimize Energy Performance (new 10.5%, Existing 3.5%)			1		1
	EA 1.2	A 3.2	Optimize Energy Performance (new 14%, Existing 7%)			1		1
	EA 1.3	A 3.3	Optimize Energy Performance (new 17.5%, Existing 10.5%)			1		1
	EA 1.4	A 3.4	Optimize Energy Performance (new 21%, Existing 14%)			1		1
	ID 1.4	A 3.5	Renewable Energy			1		1
Optional - Materials	MR 4.2, 5.2	A 4.1	Additional Sustainable Materials			1		1
Optional - IEQ	ID 1.3	WA 3.2	Low-Emitting Materials, Furniture			1		1
	5.1.3	A 5.2	Daylight in Classrooms			1		1
Optional - Education	ID 1.4	A 6.1	Building as Educational Tool			1		1
Totals:				1	0	11	1	0
Summary Totals:						23	11	22
Grand Totals						34		

SCA Credit Letter prefix indicates credit section (S, W, E, M, Q, A)

Name : first number indicates the category within the section

second number indicates the specific credit within the section category

Suffix "R" is added for credits that are required of all projects

* Projects required to achieve all "feasible" credits that are possible for a particular project

** Projects may only pursue optional "Additional" section credits with permission from SCA

*** At Schematic, DD and 60% submissions enter anticipated design and construction credits.

At 100% Submission enter documented design credits and anticipated construction credits.

NP : To be consistent with LEED, the NYC Green Schools Rating System assigns no point value to credits based prerequisites.

NYC Green Schools Rating System	Credits Required for all Projects (with no Point Value)	Credits Required for all Projects	Credits Required if Feasible*	Optional Credits**	Total Number of Available Credit Points
Totals	9 NP	28	17	11	56
THIS PROJECT	9	27	7	0	34



Credit Compliance Narratives

Project: JHS 259 Brooklyn Addition
Address: 7301 Fort Hamilton Parkway
LLW #: 41423
Design #: _____

Date: August 08, 2008
Architect: Mount Vernon Group, Inc.
Submission: Design Development
Reviewer: _____
Reviewer Sign Off: _____

Site Credits

Site Selection

S 1.1R Construction Activity Pollution Prevention

This credit is feasible because the project construction disturbance is less than one (1) acre of land, and, as a result the Erosion and Sedimentation Control Plan will be completed by the Contractor per the Project Specifications. In addition, the project site is exempt from GP-02-01 because the site drains into the New York City combined sewer system, a MS4 as defined under 40 CFR Section 122.32, and is tributary to a combined sewer overflow.

For S1.1R, the SCA design standards are;

- SS 02200

S 1.2R Site Selection

No credit submittal is required.

S 1.3 Sustainable Site & Building Layout

No credit submittal is required.

S 1.4 Development Density & Community Connectivity

No credit submittal is required.

S 1.5R Joint Use of Facilities, Community Access

This credit is feasible by providing a new lobby/entrance that will facilitate isolating potential community spaces after hours from the building proper. Also locating administrative offices off this lobby with limited obstructive views will facilitate a safe and secure design. The community currently uses the existing playground that promotes recreation activities around the community.

For S1.5R, the SCA design standards are:

- DR 1.3.1.1, 1.3.5.1.

S 1.6 Brownfield Redevelopment

No credit submittal is required.

Transportation

S 2.1 Alternative Transportation, Public Transportation Access

No credit submittal is required.

S 2.2R Alternative Transportation, Fuel-Efficient Vehicles/Parking

This credit is feasible by implementing Option 1 – Provide no new parking. The current site is primarily used as a play yard for programmatic recreational space.

Minimize Impact on Site

S 3.1 Site Development, Protect or Restore Habitat

This credit is NOT feasible because the existing site being developed is a paved play area and is used only for programmatic recreational space. The only existing natural area on the site is in the

front of the building facing Fort Hamilton Parkway. The existing natural area is man-made and covers 6,736 S.F. or 14% of the site open space. This natural area is not being developed. The new construction actually adds 614 S.F. of planted area, which brings the total planted area to 15%. None of these planted areas qualifies as a natural habitat.

S 3.2 Site Development, Maximize Open Space

This credit is NOT feasible due to site limitations, programmatic need for recreational space and the proposed vegetated open space is less than the minimum required.

Site Area	87,282 S.F.
<u>Building Footprint</u>	<u>- 38,712 S.F.</u>
Open Space	48,570 S.F. multiply by 25%
Required vegetated open space	12,142 S.F. (minimum)
Proposed vegetated open space	7,350 S.F.

Stormwater Design

S 4.1 Stormwater Design, Quality Control

This credit is NOT feasible for this project. The site is served by a combined sewer and is not required to comply with SPDES. Compliance with this credit would require installation of a stormwater treatment system to reduce the suspended solids in run-off from the site, installation of such a system is beyond the scope of this project. The SCA has not directed the design team to institute any special measures to comply with this credit such as green roofs or permeable pavement.

Outdoor Lighting

S 5.1R Light Pollution Reduction

The interior lighting requirement for this credit will be met by turning off, automatically, all non emergency lighting systems during non-school hours. The lighting design will include the systems required to achieve this operation automatically (Programmable Lighting control Panels). The exterior lighting requirements for the credit will be met by designing building mounted fixtures in the addition that do not exceed a maximum initial luminance of 0.20 horizontal and vertical at the site boundary. Lighting zone LZ3 applies to this project.

Water Credits

Outdoor Systems

W 1.1R Water Efficient Landscaping, Reduce by 50%

See response to W1.2R below.

W 1.2R Water Efficient Landscaping, No Potable Use or No Irrigation

Compliance with this credit will be achieved by not installing an irrigation system and providing native or adapted plants that are drought tolerant. **Maintenance** hose bibs will be provided for temporary irrigation.

Indoor Systems

W 2.1R Water Use Reduction, 20% Reduction

Compliance with this credit will be achieved with the implementation of all New York City SCA Standard Specifications and Plumbing Design Requirements for dual flushometer toilets, high water efficiency urinals, low water flow shower heads, and metered faucets. Domestic water use calculations provided to the NYC SCA during the development of the NYC Green Schools Guide demonstrated that, for new buildings, the domestic water use reduction will be above 40% when utilizing the above referenced plumbing fixtures.

For W2.1R: The SCA design standards are;

- DR 6.1.16
- SS 15400

W 2.2R Water Use Reduction, 30% Reduction

Compliance with this credit will be achieved by implementing the same practices as those described for credit W2.1R.

W 2.3R Water Use Reduction, 40% Reduction

Compliance with this credit will be achieved by implementing the same practices as those described for credit W2.1R.

Energy

Commissioning

E 1.1R Enhanced Commissioning

This credit modification of the SCA Standard School Commissioning Matrix, indicating which standard specification section are incorporated into the design and provides additional specification sections when there are any non-standard specification section on this specific project. The Design team will issue this document.

For E1.1R: The SCA design standards are;

- S01650 Reference to this section will be incorporated into all sections

E 1.2R Refrigerant Management

The existing building does not contain any refrigerant because it is a non-air conditioned structure. All refrigerants in the newly expanded portion of the building use non-cfc based refrigerants.

The central air conditioning system for the new addition, and for the new library in the existing building, will consist of rooftop units that utilize refrigerant R-407C or R-410A and split heat pump units that utilized refrigerant R-410A.

For E1.2R: The SCA design standards are;

- SS 11400, 15783, 15853, 15854

Verification

E 2.1R Measurement & Verification

The BMS System for the new addition will measure/monitor gas consumption by the hot water boilers rooftop HVAC units, new kitchen gas consumption and individual electrical power consumption by rooftop HVAC units and lighting panels, and other such items per standard SCA design.

For E2.1R: The SCA design standards are;

- DR 6.2.20
- SS 15970, 15973, 15985
- SD 15970 BMS Control Diagrams

E 2.2R Energy Management System Controls, HVAC and Hot Water

The new addition will be provided with Building Management System (BMS) that will be connected to the NYC DOE Wide Area Intranet Network (WAN). This connection allows complete monitoring and control of the school's MEP system from both the local BMS station in the Custodian's Office as well as the DOE central monitoring and controls station located at 44-46 Vernon Blvd., Long Island City, NY".

For E2.2R: The SCA design standards are;

- DR 6.2.20
- SS 15970, 15973, 15985
- SD 15970 BMS Control Diagrams

Energy Efficiency

E 3.1R Minimum Energy Performance

The HVAC design for the new addition will utilize rooftop HVAC units, hot water perimeter heating, gas-fired hot water condensing boilers and non-fan powered VAV boxes as required by the NYC Schools Green Guidelines and SCA standards.

For lighting, occupancy motion sensors will be provided for control of lights in offices, and the power densities for lighting layouts will be design to comply with the New York City SCA electrical Design Requirement 7.2.1.

The energy model applied to prototypical new school buildings during the development of the NYC Green School Guide, demonstrated that the new school will achieve total energy cost savings in excess of 20% over ASHRAE 90.1-1999.

For E3.1R: The SCA design standards are;

- SS 08524, 15517, 15540, 15565, 15783, 15970, 15973, 15930, 15985, 16500.
- SD 04200 and 15970
- DR 1.3.1.10, 1.4.1, 4.2.1, 6.2.20, 6.2.0, 6.2.3, 6.2.4, 6.2.9, 6.2.11.

HVAC Optimization

E 4.1R HVAC System Sizing, Avoid Oversizing

The new HVAC Systems for the addition will not be oversized except when required to optimize energy efficiency operation of system.

Materials Credits

Efficient Material Use

M 1.1R Storage & Collection of Recyclables

This credit is feasible by providing an accessible area dedicated to the collection and storage of non-hazardous materials.

For M1.1R: The SCA design standards are:

- DR 1.3.1.2, 1.3.1.8, 1.3.5.01.
- SS 11172.

M 1.2 Building Reuse, Maintain 75% of Existing Walls, Floors & Roof

This credit is NOT feasible because the work on the existing building is not sufficient to warrant pursuit of this credit.

M 1.3 Building Reuse, Maintain 95% of Existing Walls, Floors & Roof

This credit is NOT feasible. See M1.2 for credit interpretation.

M 1.4 Building Reuse, Maintain 50% of Interior Non-Structural Elements

This credit is NOT feasible. See M1.2 for credit interpretation.

M 1.5R Construction Waste Management, Divert 50% from Disposal

This credit is feasible by requiring Contractor to develop a construction waste management plan and to record the amount and type of construction waste diverted/recycled. The existing building structure or non-structural items are anticipated to be re-used in quantities; therefore, S02060 is not applicable.

For M1.5R, the SCA design standards are;

- SS G01015, G01524, S02070.

M 1.6 Construction Waste Management, Divert 75% from Disposal

This credit is feasible, see M1.5R for credit interpretation.

Sustainable Materials

M 2.1R Recycled Content, 10% (post-consumer + ½ pre-consumer)

This credit is feasible by using materials with recycled content such that the sum of post-consumer recycled content plus one-half of pre-consumer recycled content constitutes at least 10% of the total value of the materials in the project.

For M2.1R, the SCA design standards are;

- SS 03300, 04200, 05120, 07212, 08524, 09310, 09510, 09650, 09680

M 2.2R Regional Materials, 10% Extracted, Processed & Manuf. Regionally

This credit is feasible by using building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% the total materials value.

For M2.2R, the SCA design standards are:

- SS 02200, 02900, 03300, 04200, 05120, 08524, 09260

M 2.3R Wallboard & Roof Deck Products, Mold Resistance

This credit is feasible by selecting materials for exterior envelope construction that are resistant to mold.

For M2.3R, the SCA design standards are:

- SS 06100, 07212, 07250, 09260, 09900.

M 2.4R Low-Mercury Lighting, Reduce Mercury Waste

The new lighting fixtures for the school will be specified with low mercury content in compliance with New York City SCA master specification 16501 for interior building lighting.

Indoor Environmental Quality Credits

IAQ Post-occupancy

Q 1.1R Minimum IAQ Performance / Increased Ventilation

The ventilation system for the new addition will be designing to provide 30% more outdoor air ventilation than the ASHRAE Standard 62.1-2004 requirements, with the exception of the cafeteria area. For that space, the ventilation system will comply with the minimum ASHRAE 62.1-2004 requirements, which exceed DOB ventilation rates.

For Q1.1R: The SCA design standards are;

- DR 6.2.0, 6.2.9, 6.2.1, 6.2.3, 6.2.4.
- SS 01500, 15853, 15854, 15985, 15992, 15993.

Q 1.2R Air Flow Stations, Outside Air Intakes

The new central ventilation system (rooftop HVAC units) addition will be provided with air flow measuring stations at the outside air intakes in order to measure/monitor the outside air supplied to the school. Data for outside air measurement will be available for verification at the school level through the BMS system schools operating console in the Custodian's Office or through the DOE centralized host control station for Automatic Temperature Control of Schools in NYC.

For Q1.2R: The SCA design standards are;

- DR 6.2.0, 6.2.1, 6.2.3, 6.2.4, 6.2.9.
- SS 15970, 15985.

IAQ Pre-occupancy

Q 2.1R Construction IAQ Management Plan, During Construction

The construction of the new addition will follow the Sheet Metal and Air Conditioning Contractors National Association (SMACNA) IAQ Guidelines for Occupied Buildings Under Construction, 1995 version, Chapter 3.

For Q2.1R: The SCA design standards are;

- SS 01550, 01560, 15891, 15853, 15854.

Q 2.2R Construction IAQ Management Plan, Before Occupancy

The building shall be purged as described in 15985 and other GSG references. The contractor will be required to operate the new central ventilation system of the addition prior to occupancy of the school using either of two procedures as outlined in the Green School Guide. The contractor (mechanical) shall during construction indicate which method to be used, shall calculate for all spaces the time required to accomplish the chosen method, and shall allocated the required time in the construction schedule as a separate and unique task. Note that the volume of outside and indoor temperature and humidity conditions will be measured/monitored/trended by the BMS system.

For Q2.2R: The SCA design standards are;

- SS 01550, 15985

Low-Emitting Materials

Q 3.1R Low-Emitting Materials, Adhesives & Sealants

This project will comply with the requirements of this credit by incorporating SCA standard specification section G01600 Material and Equipment. Requirements for documentation of complaint products are integrated throughout the SCA standard specifications.

Non-SCA standard specifications developed for this project products will be reviewed for compliance with these requirements and submission documentation will be required consistent with the SCA standard specification section.

For Q3.1R, The SCA design standards are:

- SS G01600, 07900, 15401, 15440, 15891, 15501.

Q 3.2R Low-Emitting Materials, Paints & Coatings

This project will comply with the requirements of this credit by incorporating SCA standard specification section G01600 Material and Equipment. Requirements for documentation of compliant products are integrated throughout the SCA standard specifications.

Non-SCA standard specifications developed for this project products will be reviewed for compliance with these requirements and submission documentation will be required consistent with the SCA standard specification sections.

Q 3.3R Low-Emitting Materials, Carpet Systems

This credit is NOT feasible because there are no carpet in the building.

Q 3.4R Low-Emitting Materials, Comp Wood & Agrifiber Products

This credit is feasible by using composite wood and agrifiber products used on the interior of the building that contain no added urea-formaldehyde resins.

For Q3.4R, the SCA design standards are;

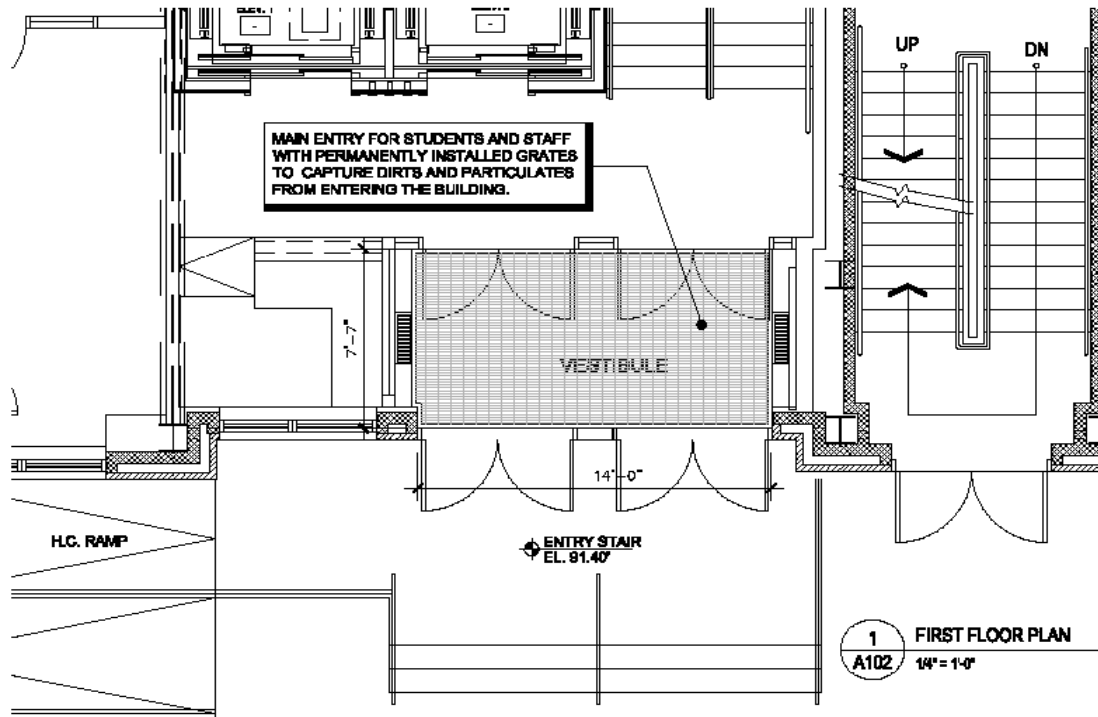
- SS 06100, 06200, 06410, 08210, 09590, 10100, 10415, 10652, 12302, 12345, 12710, 12761
- SD 06200, 06410

Q 4.1R Indoor Chemical & Pollutant Source Control

Specifically an entryway foot grille will be provided per 12485 and the central rooftop HVAC units for the new addition will be provided with filters that have an Efficiency Reporting Value (MERV) of 13. In addition, Science rooms, janitors' closets, copy rooms, and storage rooms will be provided with exhaust systems that will maintain those areas under negative air pressure and, therefore, prevent the outflow of room contaminants into other areas of the school.

For Q4.1R, the SCA design standards are;

- DR 1.3.4.1, 6.2.0, 6.2.28, 6.2.8
- SS 12485



Q 4.2R Electric Ignition Stoves

This credit is feasible by specifying electric ignition gas fired cooking appliances along with the installation of carbon monoxide detectors in the kitchen.

For Q4.2R: The SCA design standards are;

- DR 6.2.17
- SS11400

Q 4.3R Provide HEPA Vacuums

This credit is feasible by specifying High Efficiency Particulate Arresters vacuums.

Q 5.1R Controllability of Systems, Lighting

Compliance with this credit is achieved by providing lighting control switches for each classroom, key operated switches for assembly spaces (i.e. student dining area), occupancy sensors for lighting control in individual offices and storage rooms.

For Q5.1R: The SCA design standards are;

- DR 7.2.1
- SS 16140, 16145
- SD Room Planning Std

Q 5.2R Controllability of Systems, Thermal Comfort

All individual classrooms, offices, and assembly areas in the addition will be provided with individual thermostats for temperature controls.

For Q5.2R: The SCA design standards are;

- DR 6.2.0, 6.2.1, 6.2.3, 6.2.4.
- SS 15970, 15985

Thermal Comfort

Q 6.1R Thermal Comfort, Comply with ASHRAE 55-2004

The new HVAC system for the addition will be designed to comply with the New York City SCA HVAC Design Requirements 6.2.9, 6.2.22, and 6.2.28 in order to provide the thermal comfort requirements of ASHRAE 55-2004.

For Q6.1R: The SCA design standards are;

- DR 6.2.0, 6.2.1, 6.2.3, 6.2.4, 6.2.9, 6.2.22, 6.2.28.
- SS 15970, 15985

Lighting and Views

Q 7.1 Daylight & Views, Daylight 75% of Spaces

This credit is NOT feasible because the square footage associated with the portions of rooms or spaces does not meet the minimum illumination requirements. See attached Daylight Calculation Form.

For Q7.1, the SCA design standards are;

- DR 1.3.1.1
- SS 08800, 12500

Q 7.2 Daylight & Views, Views for 90% of Spaces

This credit is feasible by providing direct line of sight to the outdoor environment via vision glazing between 2'-6" and 7'-6" above finish floor for building occupants in 90% of all regularly occupied areas. Regularly occupied areas do not include storage rooms, mechanical rooms or circulation areas. See attached Views Calculation Form

For Q7.2, the SCA design standards are;

- DR 1.3.1.1

Q 7.3 Visual Performance, Artificial Indirect Lighting

All classrooms will be provided with new pendant mounted direct-indirect lighting fixtures with high efficiency T-8 fluorescent lamps. The use of this type of lighting fixture will reduce lighting power density (LPD) and, therefore, use less energy while delivering a better quality of light to the space.

For Q7.3: The SCA design standards are:

- DR 7.2.1
- SS 16500, 16501

Q 8.1 Minimum Acoustical Performance

Q8.1 establishes minimum acoustical performance requirements for classrooms including:

1. Unoccupied reverberation times;
2. Sound isolation performance of constructions; and,
3. Sound isolation from exterior noise sources.
4. Background noise levels associated with HVAC systems;

Ostergaard Acoustical Associates has reviewed and analyzed the 100% documents for the IS-259K Addition classrooms for compliance with the four above requirements. The goal of this effort was to identify those measures necessary to achieve good acoustics as well as meeting the acoustical requirements of Q8.1 and SCA Design Requirements 1.3.1.9 on Architectural Acoustics and 6.2.25, HVAC Acoustical standards. The results of these analyses and recommendations are described in detail in Ostergaard letter reports of 25 March 2008 on architectural acoustics and 1 April 2008 on HVAC noise control and New York City Noise Code Compliance. Incorporation of the report recommendations will result in full compliance with Q8.1. Resulting sound levels in classrooms are designed to meet the 35 dBA requirement.

Q 8.2 Sound Isolation for Special Spaces

Ostergaard Acoustical Associates has reviewed and analyzed the 100% documents concerning sound isolation of special spaces in the IS-259K Addition. The goal of this effort was to identify those measures necessary to meet the acoustical requirements of Q8.2 and SCA Design Requirements 1.3.1.9 on Architectural Acoustics. Particular emphasis was placed on the sound isolation aspects of the new music teaching areas. Incorporation of recommendations in the 25 March 2008 Ostergaard letter report will result in full compliance with Q8.2.

Q 8.3 Acoustic Windows

This credit is NOT feasible because the site has not been reported to be subject to transportation or aircraft noise requiring special acoustic windows.

Additional Credits

A 1.1R LEED® Accredited Professional

This credit is feasible by including the following principal participant to the project team:
Arnel Catalan, AIA, LEEDAP of Mount Vernon Group Architects, Inc.

See attached LEEDAP Certification.

Optional - Green Roofs

A 2.1 Heat Island Effect, Roof

This credit is not pursued.

A 2.2 Stormwater Design, Quantity Control

This credit is not pursued.

Optional - Energy

A 3.1 Optimize Energy Performance (new 10.5%, Existing 3.5%)

This credit is not pursued.

A 3.2 Optimize Energy Performance (new 14%, Existing 7%)

This credit is not pursued.

A 3.3 Optimize Energy Performance (new 17.5%, Existing 10.5%)

This credit is not pursued.

A 3.4 Optimize Energy Performance (new 21%, Existing 14%)

This credit is not pursued.

A 3.5 **Renewable Energy**

This credit is not pursued.

Optional - Materials

A 4.1 **Additional Sustainable Materials**

This credit is not pursued.

Optional - IEQ

A 5.1 **Low-Emitting Materials, Furniture**

This credit is not pursued.

A 5.2 **Daylight in Classrooms**

This credit is not pursued.

Optional - Education

A 6.1 **Building as Educational Tool**

This credit is not pursued.

End



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Division 2 - Sitework												
02100	Site Preparation											
02200	Earthwork											
02200A	Earthwork (Flow-through Turf AF)											Not Used on this Project
02200B	Earthwork (Float Drain Turf / Natural Grass AF)											Not Used on this Project
02201	Earthwork											Not Used on this Project
02250	Foundation and Other Change Adjustments											Not Used on this Project
02360	Pile Foundations											Not Used on this Project
02511	Asphaltic Concrete Paving											
02512	Porous Asphalt Paving											Not Used on this Project
02513	Sidewalk and Street Paving											
02514	Porous Asphalt Pavement Test Strip											Not Used on this Project
02515	Unit Pavers											
02516	Exposed Porous Asphalt Paving											Not Used on this Project
02521	Concrete Curbs and Pavements											Not Used on this Project
02531	Resilient Surfacing											Not Used on this Project
02532	Resilient Surface - Porous Base											Not Used on this Project
02533	Colored Athletic Wearing Surface											Not Used on this Project
02540	Synthetic Turf											Not Used on this Project
02580	Track / Court/ Playground Markings											Not Used on this Project



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02711	Wall Subdrainage Systems											Not Used on this Project
02721	Trench Drains											Not Used on this Project
02722	Precast Conc CB/Detention Basins/MH											
02723	Storm Drainage Systems											
02724	Underdrain System - Asphalt Paving											Not Used on this Project
02725	Underdrain System for Skinned Areas											Not Used on this Project
02831	Chain Link Fences and Gates											
02860	Early Childhood Playground Equipment											Not Used on this Project
02862	Outdoor Game Equipment											Not Used on this Project
02870	Site and Street Furnishings											Not Used on this Project
02900	Landscaping											
Division 3 - Concrete												
03005	Concrete Work											Not Used on this Project
03100	Concrete Formwork											
03200	Concrete Reinforcement											
03200A	Concrete Reinforcement (Epoxy)											Not Used on this Project
03300	Cast-In-Place Concrete											
03610	Grouting											
03733	Concrete Repair Work											Not Used on this Project



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03740	Migrating Corrosion Inhibitor											Not Used on this Project
Division 4 - Masonry Systems:												
04200	Unit Masonry											
04250	Terra Cotta											Not Used on this Project
04270	Glass Unit Masonry											Not Used on this Project
04420	Exterior Cut Stone											Not Used on this Project
04435	Cast Stone											
04510	Masonry Cleaning											Not Used on this Project
04510A	Masonry Cleaning (SHPO)											Not Used on this Project
04520	Masonry Restoration											Not Used on this Project
04520A	Masonry Restoration (SHPO)											Not Used on this Project
04700	Simulated Masonry											Not Used on this Project
Division 5 - Metals:												
05120	Structural Steel											
05121	Structural Steel											Not Used on this Project
05170	Support System For Suspended Ceilings											Not Used on this Project
05210	Open Web Steel Joist, K-Series											Not Used on this Project
05220	Longspan Steel Joists, LH-Series											Not Used on this Project
05230	Steel Joist Girders											Not Used on this Project
05300	Metal Deck											



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05500	Metal Fabrications											
05580	Sheet Metal Fabrications											Not Used on this Project
05700	Ornamental Metal											Not Used on this Project
05710	Steel Stairs											
05810	Prefabricated Expansion Joint Covers											
Division 6 - Wood & Plastics:												
06100	Rough Carpentry											
06200	Finish Carpentry											
06410	Custom Casework											
Division 7 - Thermal & Moisture Protection												
07110	Sheet Membrane Waterproofing											
07115	Sheet Membrane Waterproofing FDNS											
07120	Fluid-Applied Waterproofing Plazas											
07147	Crystalline Waterproofing											Not Used on this Project
07160	Bituminous Damproofing											
07211	Perimeter Foundation Insulation											
07212	Miscellaneous Building Insulation											
07250	Sprayed Fire Resistive Materials											
07270	Firestopping/Smoke Seals											
07272	Fluid-Applied Membrane Air Barrier, Vapor Retarding											Not Used on this Project



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07314	Slate Shingles											Not Used on this Project
07510	Built-Up Bituminous Roofing											
07560	Fluid-applied Protected Membrane Roofing											Not Used on this Project
07561	Fluid-applied Protected Membrane Roofing (Planted Type II)											Not Used on this Project
07600	Flashing and Sheet Metal											
07610	Sheet Metal Roofing											Not Used on this Project
07720	Roof Accessories											
07820	Metal Framed Skylights											Not Used on this Project
07900	Joint Sealers											
Division 8 - Doors & Windows												
08110	Steel Doors and Frames											
08210	Wood Doors											
08305	Access Doors											
08330	Coiling Doors, Grilles and Shutters											Not Used on this Project
08510	AL. Windows - Projected/Casement/Pivot/PIV											Not Used on this Project
08521	AL. Dbl-Hung Windows - New											Not Used on this Project
08522	AL. Dbl-Hung Windows - Repl											Not Used on this Project
08524	Aluminum Projected Windows											
08610	Replacement Wood Windows											Not Used on this Project
08662	Security Screens/Barriers											



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08710	Finish Hardware											
08730	Thresholds, Weatherstripping and Seals											
08800	Miscellaneous Glazing											
08920	Aluminum Curtain Walls											Not Used on this Project
Division 9 - Finishes												
09205	Furring and Lathing											
09210	Plaster											
09260	Gypsum Board Assemblies											
09310	Ceramic Tile											
09410	Terrazzo - Portland Cement											Not Used on this Project
09510	Acoustical Ceilings											
09590	Wood Flooring											
09626	Resilient Athletic Flooring											Not Used on this Project
09650	Resilient Flooring											
09680	Carpet											Not Used on this Project
09705	Resinous Flooring											Not Used on this Project
09800	Special Coatings											Not Used on this Project
09860	Graffiti Resistant Coatings											Not Used on this Project
09900	Painting											



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Division 10 - Specialties												
10100	Visual Display Boards											
10151	Toilet Compartments											
10160	Factory-Painted Steel Toilet Compartments											Not Used on this Project
10185	Plastic Shower and Dressing Compartments											Not Used on this Project
10214	Stationary Metal Wall Louvers											Not Used on this Project
10270	Access Flooring											Not Used on this Project
10350	Flagpole											Not Used on this Project
10400	Identifying Devices											
10415	Bulletin Boards, Display Boards, Display Cabinets and Cases											
10505	Metal Lockers											Not Used on this Project
10522	Fire Extinguishers and Cabinets											
10605	Wire Mesh Work											Not Used on this Project
10652	Folding Panel Partitions											Not Used on this Project
10655	Accordion Folding Partitions											Not Used on this Project
10675	Metal Storage Shelving											Not Used on this Project
10720	Window Guards											Not Used on this Project
10810	Toilet and Bath Accessories											
10830	Mirrors											Not Used on this Project
10840	Grab Bars											Not Used on this Project



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Division 11 - Equipment												
11061	Platform Curtains, Auditorium Window Curtains, Projection											
11172	Waste Handling Equipment											Not Used on this Project
11400	Food Service Equipment											
11450	Domestic Type Equipment											Not Used on this Project
11452	Culinary Arts Lab Equipment											Not Used on this Project
11460	Unit Kitchen											Not Used on this Project
11480	Gymnasium Equipment											Not Used on this Project
11500	Shop Equipment											Not Used on this Project
11600	Laboratory Equipment											
Division 12 - Furnishings												
12302	Manufactured Wood Casework											
12345	Soapstone											Not Used on this Project
12485	Foot Grilles											
12500	Window Shades											Not Used on this Project
12501	Chain and Clutch Operated Window Shades											
12545	Draperies											Not Used on this Project
12710	Fixed Audience Seating											
12761	Wood Bleachers											Not Used on this Project



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Division 13 - Special Construction												
13120	Steel Bleachers											Not Used on this Project
13031	Walk-In Trash Refrigerator											Not Used on this Project
Division 14 - Conveying Systems												
14120	Electric Dumbwaiter											Not Used on this Project
14211	Geared Traction Passenger Elevators											Not Used on this Project
14240	Hydraulic Passenger Elevators											
14250	Hydraulic Passenger Elevators											
14315	Hydraulic Sidewalk Elevators											Not Used on this Project
14316	Geared Traction Sidewalk Elevators											Not Used on this Project
14420	Vertical Wheelchair Lift											
14510	Escalators											Not Used on this Project
Division 15 - Mechanical (Plumbing & Drainage)												
15401	Supplemental Genl Requirements											
15403	Vibration Isolation and Seismic Controls											
15410	Plumbing Piping											
15411	Hangers and Supports											
15412	Valves											
15413	Insulation (P & D)											
15414	Tests											



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15415	Drainage											
15416	Gas Piping System											
15417	Cold Water Supply											
15418	Hot Water Supply											
15431	Tags, Charts and Identification											
15432	Miscellaneous											
15440	Plumbing Fixtures											
15451	Water Heaters											
15453	Pumping Apparatus and Tanks											
15456	Dry Standpipe System											Not Used on this Project
Division 15 - Mechanical (HVAC)												
15501	Basic Heating, Ventilating and Air Cond. Sys.											
15502	HVAC Identification											
15503	Vibration Isolation and Seismic Controls, HVAC Systems											
15504	Vibration Isolation											Not Used on this Project
15510	HVAC Piping											
15511	Valves (HVAC)											
15512	Piping Insulation (HVAC)											



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15513	Equipment Insulation (HVAC)											
15514	Ductwork Insulation											
15515	Hydronic Specialties											
15516	Water Treatment for Steam Boilers											Not Used on this Project
15517	Water Treatment for Hydronic Systems											
15525	Steam and Condensate Specialties											Not Used on this Project
15540	HVAC Pumps											
15555	Fire-Tube Boilers (Steam)											Not Used on this Project
15556	Cast-Iron Boilers											Not Used on this Project
15557	Fire-Tube Boilers (Hot Water)											Not Used on this Project
15559	Flexible-Water Tube Boilers (Steam)											Not Used on this Project
15560	Flexible-Water Tube Boilers (Hot Water)											Not Used on this Project
15565	Hot Water Condensing Boilers											
15570	Boiler Accessories											Not Used on this Project
15575	Breeching, Chimney and Stacks											
15580	Feedwater Equipment											Not Used on this Project
15590	Emergency Generator System - Accessories											
15592	Equipment (For Steam Piping) For Burner / Pumping											Not Used on this Project
15593	Equipment (For Hot Water Boilers) For Burner / Pumping											Not Used on this Project



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15594	Fuel Storage Equipment											Not Used on this Project
15595	Gas Leak/Carbon Monoxide Detection Equipment											
15610	Gas-Fired Duct Furnaces											Not Used on this Project
15650	Split Air Cooled Chillers											Not Used on this Project
15660	Packaged Modular Outdoor Chiller											Not Used on this Project
15670	Plate Heat Exchangers											Not Used on this Project
15756	Converters											Not Used on this Project
15781	Packaged Heating and Cooling Units											Not Used on this Project
15783	Split Heat Pump System											
15792	Coils											Not Used on this Project
15835	Convectors											
15836	Unit Heaters/Cabinet Heaters											
15838	Fan Coil Units											Not Used on this Project
15852	Air Handling Units											Not Used on this Project
15853	Custom Packaged Rooftop Heating and Cooling Units (Variable)											
15854	Custom Packaged Rooftop Heating and Cooling Units (Constant)											
15855	Online Unit-Cooled Rooftop Heating and Cooling Units											Not Used on this Project
15857	Unit Ventilator											Not Used on this Project
15858	Windows Air Conditioners											Not Used on this Project



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15860	Centrifugal Fans											
15864	Propeller Fans											Not Used on this Project
15865	Axial Flow Fans											Not Used on this Project
15872	Gravity Roof Ventilator											Not Used on this Project
15885	Air Filters											Not Used on this Project
15891	Metal Ductwork											
15910	Duct Accessories											
15915	Dampers											
15930	Variable Air Terminals											
15931	Pan-Powered variable Air Volume (VAV) Terminal Units											Not Used on this Project
15940	Air Outlets and Inlets											
15970	LonWorks BMS/DDC W/School Console											
15971	Stand-Alone DDC-Only (LonWorks)											Not Used on this Project
15972	Temperature Control System (Pneumatic)											Not Used on this Project
15973	Facility Management Systems Integration											
15980	Thermometers and Gauges											
15985	Sequence of Operations											
15990	Fire Pumps/Sprinkler Booster Pumps											
15991	Sprinkler Work											
15992	Cleaning and Testing											



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15993	Balancing of Systems											
Division 16 - Electrical												
16010	Genl Provisions for Electrical Work											
16020	Temporary Light and Power											
16120	Wiring Systems											
16130	Raceways, Fittings, Supporting Devices, Boxes and Accessories											
16140	Wiring Devices											
16145	Lighting Control Devices											
16231	Emergency Generator System											
16289	Transient Voltage Surge Suppression											
16420	Service Entrance Equipment											
16425	Switchboards											
16441	Enclosed Switches											
16450	Grounding and Bonding											
16460	Transformers											Not Used on this Project
16470	Panelboards											
16471	Audiovisual and Television Studio Dimming System											Not Used on this Project
16472	Science Laboratory Power Units											
16475	Overcurrent Protective Devices, Circuit Breakers and Fuses											
16480	Motors, Motor Control Centers, Starters, and Control Equipment											



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16500	Interior Building Lighting											
16501	Lamps, Ballasts and Accessories											
16503	Vibration Isolation and Seismic Controls, Electrical Systems											
16520	Illuminated Exit Sign and Emergency Lighting Fixtures											
16530	Site/Security Lighting											
16670	Lighting Protection											
16701	Auxiliary Signal Systems											
16720	Fire Detection and Alarm System											
16721	City Fire Alarm System											Not Used on this Project since the existing system will be used.
16724	Intrusion Alarm System											
16725	Telephone and Intercom Cabling System											
16726	Intercom System for Holding Areas and Elevators											
16727	Data Cabling System											
16728	Fiber Optic Cabling System											
16770	Sound, Intercom and Teacher Activated Security System											
16771	Projection System											This is used for the Auditorium
16780	TV Distribution System											
16783	Video Surveillance (IPDVS) Cabling System											
16791	Self-Corrective Clock System											
16792	Wireless Clock System											Not Used on this Project



SCA Total Building Commissioning Document Verification Matrix

JHS-259K_Addition

LLW# 41423

7301 Fort Hamilton Parkway, Brooklyn, NY

TECHNICAL SPECIFICATION SECTIONS		CONTRACT REQUIREMENTS										NOTES
		Shop Dwgs & Submittals Approved	Substitutions Approved	FID QA/QC Inspection Sign-Offs	Controlled Inspection & NCN Issues Completed	Test Verifications Completed 120 Hr. Ops; TCC/FMSI & other Funct. Perf. Tests	Warranties & Guarantees Provided	Indexed O/M Manuals Rec'd.	Custodian / Staff Training Completed	Code Inspection Sign-offs Plumbing; F/A; DOB; DOT; etc.	Cx. Package Prepared for DSF	
16855	Heat Trace Cable System											Not Used on this Project