

# Requirement Detail

by Asset Name and Category

**GRANT**

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: NE Parking Lot		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2007	<b>Total Estimated Cost:</b>	11,800
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	NE Parking Lot	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Damaged pavement areas need repair.

**PHOTOS**

**ACTION DESCRIPTION**

Repair damaged pavement areas.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: Northeast Parking Lot		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2009	<b>Total Estimated Cost:</b>	23,600
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	NE Parking Lot	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Pavement will need overlay in 3-5 years.

**PHOTOS**

**ACTION DESCRIPTION**

Overlay NE parking lot.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: South Bus Drive Loop		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2012	<b>Total Estimated Cost:</b>	23,600
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	South Bus Loop Drive	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Pavement will need overlay in 6-10 years.

**PHOTOS**

**ACTION DESCRIPTION**

Overlay Bus Drive Loop in 6-10 years.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: South Bus Loop Drive		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2007	<b>Total Estimated Cost:</b>	4,720
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	South Bus Drive Loop	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Pavement surface needs crack seal and seal coat.

**PHOTOS**

**ACTION DESCRIPTION**

Crack seal and seal coat the south bus drive loop.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: Southwest Parking Lot		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2012	<b>Total Estimated Cost:</b>	47,200
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	SW Parking Lot	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Parking lot will need an overlay in 6-10 years. Also needs curbing installed.

**PHOTOS**

**ACTION DESCRIPTION**

Install new curbing around SW parking lot and overlay parking lot.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant - Parking  
**Asset Number:** 470b

<b>Requirement Name</b>	Vehicular Paving: North Gravel Areas		
<b>Linked System</b>	Parking Lots	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Paving and Surfacing	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	59,000
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	North Gravel Areas	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Gravel areas north of building should be paved in future.

**PHOTOS**

**ACTION DESCRIPTION**

Pave gravel areas north of building.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Sidewalks  
**Asset Number:** 470c

<b>Requirement Name</b>	Pedestrian Paving: Sidewalks	<b>Inspection Date</b>	08/01/2006
<b>Linked System</b>	Pedestrian Paving	<b>Finish Date</b>	-
<b>Prime System</b>	Paving and Surfacing	<b>Status</b>	Open
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Inspec	<b>Total Estimated Cost:</b>	9,440
<b>Action Date</b>	08/01/2007	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Sidewalks at Site		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Several areas of damaged concrete sidewalk at site.

**PHOTOS**

**ACTION DESCRIPTION**

Replace damaged areas of concrete sidewalk at site.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant - Site  
**Asset Number:** 470d

<b>Requirement Name</b>	Site: Basketball Court and Fence	<b>Inspection Date</b>	08/01/2006
<b>Linked System</b>	Site Improvements	<b>Finish Date</b>	-
<b>Prime System</b>	Playing Fields	<b>Status</b>	Open
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Inspe	<b>Total Estimated Cost:</b>	14,160
<b>Action Date</b>	08/01/2009	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Basketball Court		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Court will need overlay; 4'-high chain link fence needs replacement.

**PHOTOS**

**ACTION DESCRIPTION**

Overlay basketball court and replace 4'-high chain link fence.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Accessibility

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Interior Construction: Accessibility		
<b>Linked System</b>	Interior Construction	<b>Inspection Date</b>	11/12/2006
<b>Prime System</b>	Interior Construction	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	JQP Inc.	<b>Actual Cost</b>	0
<b>Action Date</b>	11/12/2009	<b>Total Estimated Cost:</b>	17,471
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Interior	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

This requirement includes accessibility issues encountered while you move through the school. Items include: providing elevator or ramp, adding/modifying handrails (only if the level is not served by an elevator or other accessible route), widening doors, replacing door hardware, eliminating protruding hazards and all permanent room identification signage as well as directional signage (adding signs, replacing signs and relocating signs).

**PHOTOS**



Interior Construction: Accessibility

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**ACTION DESCRIPTION**

Make necessary modifications to correct accessibility issues as needed.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Accessibility

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Plumbing: Accessibility	<b>Inspection Date</b>	11/12/2006
<b>Linked System</b>	Plumbing	<b>Finish Date</b>	-
<b>Prime System</b>	Plumbing	<b>Status</b>	Open
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	JQP Inc.	<b>Total Estimated Cost:</b>	18,788
<b>Action Date</b>	11/12/2009	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Plumbing throughout		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

This requirement includes accessibility issues in toilet rooms, locker/shower rooms and drinking fountains. All requirements for upgrading a toilet or locker/shower room are included in this category, even if they are not plumbing (i.e. relocating stall partitions to provide 60 in. wide stall, relocating toilet paper dispenser or grab bars, etc.). Items include: replacing drinking fountains, raising/lowering toilets, installing grab bars, relocating toilet paper or towel dispensers, adding handheld shower wands, and providing 60 in. wide fully compliant toilet stalls.

Note: the actual cost to complete work in toilet rooms may be increased by a decision to do work beyond what is required for accessibility, such as re-tiling, replacing all fixtures, replacing all stall partitions, etc.

**PHOTOS**



Plumbing: Accessibility

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**ACTION DESCRIPTION**

Upgrades as needed to meet plumbing accessibility requirements.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Air and Water Quality

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC - Dehumidification Chiller and Piping Mains		
<b>Linked System</b>	Chilled Water Distribution	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Chilled Water Distribution	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	335,946
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Grant Elementary School has no means of dehumidification. Without dehumidification capabilities, these spaces cannot meet ASHRAE 55-1992 space design conditions.

**PHOTOS**



HVAC - Dehumidification Chiller and Piping Mains

**ACTION DESCRIPTION**

Addition of an air cooled chiller, pumps, and insulated chilled water pipe distribution system. Chiller to be screened for appearance purposes.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Air and Water Quality

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Add Dehumidification to the 1991/1993 Additions		
<b>Linked System</b>	Cooling Generating Systems	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Cooling Generating Systems	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	178,770
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	All Floors - 1991/1993 Additions	<b>Annual Energy/Ops Savings \$</b>	307
<b>Savings Description</b>	Energy savings will be generated by using heat exchangers to recover exhaust air energy in order to pre-condition make-up air. In addition, each classroom occupancy controls will reduce ventilation rates and control the lighting to save energy when rooms are not in use. Additional energy will be consumed to provide dehumidification during the cooling months.		

**REQUIREMENT DESCRIPTION**

The air handling unit serving all three floors of classrooms have no means of dehumidification. Without dehumidification capabilities, these spaces cannot meet ASHRAE 55-1992 space design conditions. As part of this upgrade, the new mechanical system will incorporated heat recovery and classroom occupancy / CO2 controls to save energy.

**PHOTOS**



HVAC: Add Dehumidification to the 1991/1993 Additions

**ACTION DESCRIPTION**

Addition of a dehumidification coil to the air handling unit serving the classrooms for the 1991/1993 Additions via modification and internal closed cell AHU liner. The supply duct would be externally insulated in mechanical rooms and  
*All Costs in USD.*

above ceilings. Upgrade the controls system. Test and Balance and Commissioning of the air handling system.

VAV boxes with hot water reheat coils would be added to the ductwork in the classrooms. New acoustical tile ceilings would be installed. New lighting as well.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Air and Water Quality

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Provide Negative Pressure in Crawlspace/Tunnels		
<b>Linked System</b>	Exhaust Ventilation Systems	<b>Inspection Date</b>	07/15/2006
<b>Prime System</b>	Exhaust Ventilation Systems	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	07/15/2007	<b>Total Estimated Cost:</b>	27,494
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	1918 and 1982 Crawlspace/Tunnel	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The tunnels have dirt floors and if not under negative pressure can transfer odors to the floors above due to the pipe and duct penetrations. The tunnels are also present opportunity for mold growth.

**PHOTOS**



HVAC: Provide Negative Pressure in Crawlspace/Tunnels

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**ACTION DESCRIPTION**

Install exhaust fans and outdoor air intakes as required to ventilate tunnels, as well as maintain negative pressure.

One of the crawlspaces is already exhausted, but the remaining crawlspace is wet and requires more exhaust in two planned locations.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Air and Water Quality

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Service Tunnels: Floor Vapor Barrier	<b>Inspection Date</b>	08/01/2006
<b>Linked System</b>	Other Site Construction	<b>Finish Date</b>	-
<b>Prime System</b>	Service and Pedestrian Tunnels	<b>Status</b>	Open
<b>Priority</b>	5- Recommendations/ Improvements	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Inspec	<b>Total Estimated Cost:</b>	8,260
<b>Action Date</b>	-	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	1918 Building		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Exposed dirt areas contributing to air quality issues.

**PHOTOS**



Service Tunnels: Floor Vapor Barrier

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**ACTION DESCRIPTION**

Install poly vapor barrier over exposed earth areas.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Ceiling Finishes: Replace All Suspended Acoustical Board Ceilings		
<b>Linked System</b>	Ceiling Finishes	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Ceiling Finishes	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	236,519
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building Except Gymnasium and 91/93 Addition	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing suspended 2 X 4 acoustical tile ceiling panels severely sagged.

**PHOTOS**



Ceiling Finishes: Replace All Suspended Acoustical Board Ceilings

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**ACTION DESCRIPTION**

Existing suspended ceiling tiles are sagging, remove and replace existing grid and tiles in entire building except for 91/93 addition. 40120 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Equipment and Furnishings: Replace Countertops		
<b>Linked System</b>	Equipment and Furnishings	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Equipment and Furnishings	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	65,313
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Classrooms 1918 Portion	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Replace all plastic laminate countertops on steel cabinets in 1918 portion.

**PHOTOS**



Equipment and Furnishings: Replace Countertops

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**ACTION DESCRIPTION**

Remove existing plastic laminate countertops and replace with new. 391 L.F.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Floor Finishes: Refinish Gymnasium Wood Floor		
<b>Linked System</b>	Floor Finishes	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Floor Finishes	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2009	<b>Total Estimated Cost:</b>	15,164
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Gymnasium 1918 Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing gym floor needs to be refinished and have new court markings.

**PHOTOS**



Floor Finishes: Refinish Gymnasium Wood Floor

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**ACTION DESCRIPTION**

Existing floor to be sanded, re-finished with new game markings. 2894

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Floor Finishes: Replace All Carpet		
<b>Linked System</b>	Floor Finishes	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Floor Finishes	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	80,712
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing carpet is worn and in need of replacement

**PHOTOS**



Floor Finishes: Replace All Carpet

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**ACTION DESCRIPTION**

Remove existing carpet and replace with new. 11000 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Interior Doors: Replace Classroom Entry Doors		
<b>Linked System</b>	Interior Doors	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Interior Doors	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2009	<b>Total Estimated Cost:</b>	69,419
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing plastic laminate doors are severely chipped.

**PHOTOS**



Interior Doors: Replace Classroom Entry Doors

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**ACTION DESCRIPTION**

New wood doors with glass light to be installed in existing frames, complete with new hardware. 53 Doors

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Site Improvements: General Landscaping	<b>Inspection Date</b>	10/03/2006
<b>Linked System</b>	Site Improvements	<b>Finish Date</b>	-
<b>Prime System</b>	Site Improvements	<b>Status</b>	Open
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Northern Lights Landscaping	<b>Total Estimated Cost:</b>	5,950
<b>Action Date</b>	10/03/2007	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Property around facility		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

There are negative slope areas around the facility bringing drainage towards the facility instead of away from the facility. There are lawn areas around the immediate building requiring restoration.

**PHOTOS**

**ACTION DESCRIPTION**

Correct negative slope around foundations by installing soil and sod. Restore lawn at stressed and/or non existing lawn areas around immediate building by installing soil and sod.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Appearance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Wall Finishes: Painting	<b>Inspection Date</b>	08/03/2006
<b>Linked System</b>	Wall Finishes	<b>Finish Date</b>	-
<b>Prime System</b>	Wall Finishes	<b>Status</b>	Open
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Fern, Bob	<b>Total Estimated Cost:</b>	121,768
<b>Action Date</b>	08/03/2012	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Entire Building		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Re-paint all interior wall surfaces within classrooms including wood trim and cabinet refinishing

**PHOTOS**



Wall Finishes: Painting

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**ACTION DESCRIPTION**

Re-paint all interior wall surfaces including wood trim and cabinet re-finishing

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

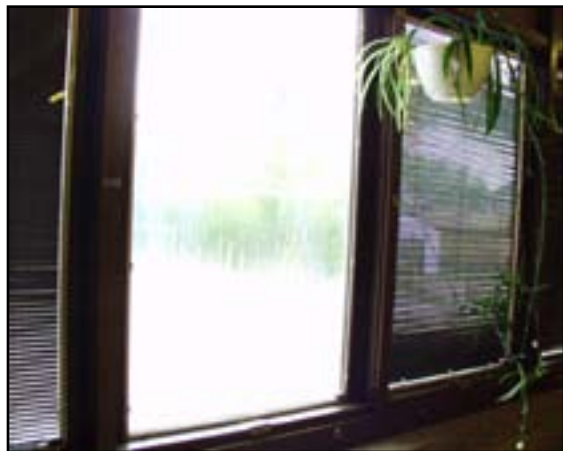
**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Exterior Windows: Replace Existing Windows		
<b>Linked System</b>	Exterior Windows	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Exterior Windows	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2012	<b>Total Estimated Cost:</b>	597,906
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building	<b>Annual Energy/Ops Savings \$</b>	3,154
<b>Savings Description</b>	Energy savings generated from improved window insulation values and reduced infiltration.		

**REQUIREMENT DESCRIPTION**

Existing metal clad wood windows are beginning to show age. Some insulated glass units are falling.

**PHOTOS**



Exterior Windows: Replace Existing Windows

-

**ACTION DESCRIPTION**

Remove existing windows and replace with new aluminum windows with insulating glass. 5500 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Replace Ventilation All Floors 1918 and 1982 Building		
<b>Linked System</b>	Air Distribution Systems	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Air Distribution Systems	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	07/12/2009	<b>Total Estimated Cost:</b>	2,235,628
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	All Floors - 1918 Building and 1982 Addition	<b>Annual Energy/Ops Savings \$</b>	1,229
<b>Savings Description</b>	Energy savings will be generated by using heat exchangers to recover exhaust air energy in order to pre-condition make-up air. In addition, each classroom occupancy controls will reduce ventilation rates and control the lighting to save energy when rooms are not in use. Additional energy will be consumed to provide dehumidification during the cooling months.		

**REQUIREMENT DESCRIPTION**

The 88 year old ventilation system has exceeded the recommended useful life expectancy and currently poorly distributes ventilation air.

A booster fan was added for the 1982 Addition Library, but fails to provide proper ventilation.

Ventilation air is introduced to the ceiling plenum and supplies through egg crate diffusers.

Ceiling space lends itself well to retrofit.

**PHOTOS**



HVAC: Replace Ventilation All Floors 1918 and 1982 Building

-

**ACTION DESCRIPTION**

Replacement of the existing ventilation system with a modern ventilation system consisting of air handling units with energy recovery, duct distribution systems, variable air volume boxes with hot water reheat coils, and hot water finned tube radiation.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Interior Doors: Replace Folding Doors		
<b>Linked System</b>	Interior Doors	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Interior Doors	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	4,711
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Doors between cafeteria and gymnasium 1982 addition	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing building doors in poor condition and need to be replaced.

**PHOTOS**



Interior Doors: Replace Folding Doors

-

**ACTION DESCRIPTION**

Remove existing doors and install new folding doors

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Lighting Equipment: Occupancy Sensors		
<b>Linked System</b>	Lighting Equipment	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Lighting Equipment	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Ruud, Mark	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2012	<b>Total Estimated Cost:</b>	8,848
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement</b>	Classrooms	<b>Annual Energy/Ops</b>	-
<b>Location</b>		<b>Savings \$</b>	
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The existing classroom occupancy sensors are single technology sensors and will need replacement in the mid term future. Dual technology sensors offer improved performance.

**PHOTOS**

**ACTION DESCRIPTION**

Remove and replace existing classroom occupancy sensors with dual technology occupancy sensors.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Plumbing: Replace Underground Sanitary Sewer Lines		
<b>Linked System</b>	Plumbing	<b>Inspection Date</b>	11/29/2006
<b>Prime System</b>	Plumbing	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	82,600
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	All Building Areas 35 Years or Older	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Underground sanitary sewer lines require replacement due to tree roots, pipe degradation, and pipe damage due to ground shifting over time.

**PHOTOS**

**ACTION DESCRIPTION**

Replace the underground sanitary sewer lines with new.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Roof System: Replace Roof	<b>Inspection Date</b>	08/01/2006
<b>Linked System</b>	Roofing	<b>Finish Date</b>	-
<b>Prime System</b>	Roofing	<b>Status</b>	Open
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Inspec	<b>Total Estimated Cost:</b>	47,818
<b>Action Date</b>	08/01/2009	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	82
<b>Requirement Location</b>	Entire Building		
<b>Savings Description</b>	Energy savings generated from improved roof insulation.		

**REQUIREMENT DESCRIPTION**

Roof system beyond rated service life. Includes roof Areas 3,4, and 5.

**PHOTOS**



Roof System: Replace Roof

-

**ACTION DESCRIPTION**

Replace the EPDM roof. Sequence work with roof-level wall restoration.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Beyond Rated Life

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Site Furnishings: Playground Upgrade / Replacement		
<b>Linked System</b>	Site Furnishings	<b>Inspection Date</b>	10/03/2006
<b>Prime System</b>	Site Furnishings	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Earl F. Anderson	<b>Actual Cost</b>	0
<b>Action Date</b>	10/03/2009	<b>Total Estimated Cost:</b>	60,593
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Facility Grounds	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Playground equipment was installed in 1996. It does have an ADA component, but partially missed. The amount of equipment is not very adequate for the existing school population.

**PHOTOS**



Site Furnishings: Playground Upgrade / Replacement

-

**ACTION DESCRIPTION**

Replace existing playground with new equipment to meet needs of enrollment. Replace surface material with district standard and replace edging as needed.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Building Code

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Elevators and Lifts: Elevator Repair	<b>Inspection Date</b>	08/28/2006
<b>Linked System</b>	Elevators and Lifts	<b>Finish Date</b>	-
<b>Prime System</b>	Elevators and Lifts	<b>Status</b>	Open
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Schindler Elevator Corp.	<b>Total Estimated Cost:</b>	64,770
<b>Action Date</b>	08/28/2009	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	1918 Building		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Work required falls into three categories: Code Compliance A17.3, Life Safety Issues and Product Upgrades.

**PHOTOS**

**ACTION DESCRIPTION**

Upgrade elevators for code compliance, life safety issues and product upgrades.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Building Code

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Add Exhaust Hood to Dishwasher	
<b>Linked System</b>	Exhaust Ventilation Systems	<b>Inspection Date</b> 07/12/2006
<b>Prime System</b>	Exhaust Ventilation Systems	<b>Finish Date</b> -
<b>Priority</b>	6- Does Not Meet Current Codes/Standards	<b>Status</b> Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b> 0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b> 16,520
<b>Funding Year</b>	-	<b>Funding Type</b> -
<b>Requirement Location</b>	Kitchen - 1982 Addition	<b>Annual Energy/Ops Savings \$</b> -
<b>Savings Description</b>	-	

**REQUIREMENT DESCRIPTION**

The existing dishwasher does not have an exhaust hood as required by the 2000 International Mechanical Code. Exhausting the dishwasher steam is critical in maintaining proper indoor air quality in the kitchen.

**PHOTOS**



HVAC: Add Exhaust Hood to Dishwasher

-

**ACTION DESCRIPTION**

Add a Type II hood and dishwasher exhaust fan with the required externally insulated aluminum ductwork. Installation to comply with the 2000 International Mechanical Code.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Building Code

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Replace Kitchen Grease Exhaust Hood		
<b>Linked System</b>	Exhaust Ventilation Systems	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Exhaust Ventilation Systems	<b>Finish Date</b>	-
<b>Priority</b>	6- Does Not Meet Current Codes/Standards	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	24,308
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Kitchen - 1982 Addition	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The existing grease exhaust hood does not appear to be exhausting the code required air for an island hood application. This hood should be replaced with a code compliant grease exhaust hood and fan.

**PHOTOS**



HVAC: Replace Kitchen Grease Exhaust Hood

-

**ACTION DESCRIPTION**

Replace the existing grease exhaust hood and fan and grease duct with 2000 International Mechanical Code compliant kitchen grease hood exhaust system.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Building Code

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Interior Doors: Replace Vestibule Doors		
<b>Linked System</b>	Interior Doors	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Interior Doors	<b>Finish Date</b>	-
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2006	<b>Total Estimated Cost:</b>	52,935
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	All Vestibules	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing vestibule doors are original and do not have required safety glazing installed.

**PHOTOS**



Interior Doors: Replace Vestibule Doors

-

**ACTION DESCRIPTION**

Existing vestibule door, sidelights and frame to be removed and replaced with new aluminum system.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Capacity

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Electrical Distribution: Insufficient Capacity		
<b>Linked System</b>	Electrical Service and Distribution	<b>Inspection Date</b>	08/16/2006
<b>Prime System</b>	Electrical Service and Distribution	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	08/16/2012	<b>Total Estimated Cost:</b>	16,048
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing Branch Panels are lacking capacity for additional circuits. Panels must be added to accommodate circuits needed for additional receptacles in classrooms.

**PHOTOS**



Electrical Distribution: Insufficient Capacity

-

**ACTION DESCRIPTION**

Provide two new 200 amp feeders and panels to help carry the extra load of additional receptacles throughout the building.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Capacity

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Add Cooling Capability to Computer Lab and IT Data Room		
<b>Linked System</b>	Cooling Generating Systems	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Cooling Generating Systems	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	07/12/2007	<b>Total Estimated Cost:</b>	133,930
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	IT Data Room Located in Library Office - 1982 Addition	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

This Computer Lab and IT Data room gets hot, which could cause technology equipment failure.

**PHOTOS**



HVAC: Add Cooling Capability to IT Data Room

-

**ACTION DESCRIPTION**

Provide a fan coil with a DX cooling coil with full economizer capability to utilize free cooling when outdoor conditions allow.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Capacity

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Wiring Devices: Insuficient Receptacles		
<b>Linked System</b>	Branch Wiring Devices	<b>Inspection Date</b>	07/21/2006
<b>Prime System</b>	Branch Wiring Devices	<b>Finish Date</b>	-
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	07/21/2012	<b>Total Estimated Cost:</b>	40,002
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

With rapid advances in technology, additional receptacles may be required in 6 to 10 years. The Addition of receptacles will require additional electrical panels.

**PHOTOS**



Wiring Devices: Insuficient Receptacles

-

**ACTION DESCRIPTION**

Provide two additional 20 amp receptacles per classroom. Also provide new electrical panels to feed additional receptacles.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Ceiling Finishes: Replace Gymnasium Ceiling		
<b>Linked System</b>	Ceiling Finishes	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Ceiling Finishes	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	13,587
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Gymnasium 1918 Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing ceiling has missing 12 X 12 acoustical tiles entire ceiling should be replaced.

**PHOTOS**



Ceiling Finishes: Replace Gymnasium Ceiling

-

**ACTION DESCRIPTION**

Existing ceiling to be removed, new direct applied ceiling tile to be installed. 2964 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Exterior Walls: Wall Restoration		
<b>Linked System</b>	Exterior Walls	<b>Inspection Date</b>	08/01/2006
<b>Prime System</b>	Exterior Walls	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Inspec	<b>Actual Cost</b>	0
<b>Action Date</b>	08/01/2009	<b>Total Estimated Cost:</b>	607,700
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Deteriorated roof-level and grade-level walls and chimney.

**PHOTOS**



Exterior Walls: Wall Restoration

-

**ACTION DESCRIPTION**

Tuck pointing, spot brick replacement, joint sealant replacemen, new chimney cap, and mics. items. Sequence work with reroofing at Areas 2-5.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Fittings: Replace Mirrors At Toilet Room Alcoves		
<b>Linked System</b>	Fittings	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Fittings	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2009	<b>Total Estimated Cost:</b>	1,109
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement</b>	Boys and girls toilet alcoves all three floors	<b>Annual Energy/Ops</b>	-
<b>Location</b>	1918 building	<b>Savings \$</b>	
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing mirrors are in poor condition and reflective surfacing is coming off.

**PHOTOS**



Fittings: Replace Mirrors At Toilet Room Alcoves

-

**ACTION DESCRIPTION**

Remove existing mirrors and replace with new metal framed mirrors.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Fittings: Replace Toilet Partitions	<b>Inspection Date</b>	08/03/2006
<b>Linked System</b>	Fittings	<b>Finish Date</b>	-
<b>Prime System</b>	Fittings	<b>Status</b>	Open
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Fern, Bob	<b>Total Estimated Cost:</b>	23,600
<b>Action Date</b>	08/03/2012	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Toilet Rooms 1918 Portion		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Replace all toilet partitions within boys and girls toilets in 1918 portion

**PHOTOS**

**ACTION DESCRIPTION**

Remove existing partitions and replace with new plastic floor mounted partitions.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Floor Finishes: Replace Quarry Tile		
<b>Linked System</b>	Floor Finishes	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Floor Finishes	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	1,062
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Vestibule adjacent to room # 116	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing quarry tile has a large crack through it.

**PHOTOS**



Floor Finishes: Replace Quarry Tile

-

**ACTION DESCRIPTION**

Remove existing floor tile, repair crack in substructure and replace quarry tile floor and base.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Ductwork Cleaning	<b>Inspection Date</b>	11/29/2006
<b>Linked System</b>	Air Distribution Systems	<b>Finish Date</b>	-
<b>Prime System</b>	Air Distribution Systems	<b>Status</b>	Open
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Schumacher, Russ	<b>Total Estimated Cost:</b>	23,600
<b>Action Date</b>	11/29/2012	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Building Wide		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Clean the duct systems that are not replaced by the indoor air quality upgrade.

**PHOTOS**

**ACTION DESCRIPTION**

Clean ductwork that is not replaced due to indoor air quality upgrades.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Deferred Maintenance

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Plumbing: Replace Lavatory Wash Fountains		
<b>Linked System</b>	Plumbing Fixtures	<b>Inspection Date</b>	07/11/2006
<b>Prime System</b>	Plumbing Fixtures	<b>Finish Date</b>	-
<b>Priority</b>	6- Does Not Meet Current Codes/Standards	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	53,100
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The six lavatory wash fountains are in need of constant maintenance and most leak water. These wash fountains have exceeded the recommended useful life.

**PHOTOS**



Plumbing: Replace Lavatory Wash Fountains

-

**ACTION DESCRIPTION**

Replace six wash fountains with new wash fountains with infrared mixing stations.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Energy and Operational Efficiency

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Controls: VendingMiser Vending Machine Controls		
<b>Linked System</b>	Controls and Instrumentation	<b>Inspection Date</b>	10/04/2006
<b>Prime System</b>	Controls and Instrumentation	<b>Finish Date</b>	-
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Status</b>	Open
<b>Inspector Name</b>	Ruud, Mark	<b>Actual Cost</b>	0
<b>Action Date</b>	10/04/2006	<b>Total Estimated Cost:</b>	826
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Vending Machines	<b>Annual Energy/Ops Savings \$</b>	91
<b>Savings Description</b>	VendingMiser controls cycle power to the vending machine during unoccupied times to save energy.		

**REQUIREMENT DESCRIPTION**

Install VendingMiser controls on vending machines.

**PHOTOS**

**ACTION DESCRIPTION**

-

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Energy and Operational Efficiency

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Boiler Room Upgrades	<b>Inspection Date</b>	07/12/2006
<b>Linked System</b>	Heat Generating Systems	<b>Finish Date</b>	-
<b>Prime System</b>	Heat Generating Systems	<b>Status</b>	Open
<b>Priority</b>	4- Mid Term Needs (6-10 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Schumacher, Russ	<b>Total Estimated Cost:</b>	131,688
<b>Action Date</b>	07/12/2012	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Boiler Room - 1918 Building		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The existing boilers have exceeded the recommended useful life expectancy. Both existing boilers have fuel oil backup. The smaller one should be replaced with two high efficiency hot water boilers to increase the efficiency of the boiler plant.

**PHOTOS**



HVAC: Boiler Room Upgrades

-

**ACTION DESCRIPTION**

Keep the larger boiler (which carries the entire building in the winter) and install two high efficiency condensing boilers for increased boiler efficiency.

Install primary circulating pump for the large existing remaining boiler.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Energy and Operational Efficiency

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Lighting: Lighting Retrofit	<b>Inspection Date</b>	09/20/2006
<b>Linked System</b>	Lighting Equipment	<b>Finish Date</b>	-
<b>Prime System</b>	Lighting Equipment	<b>Status</b>	Open
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Ruud, Mark	<b>Total Estimated Cost:</b>	46,437
<b>Action Date</b>	09/20/2006	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	3,475
<b>Requirement Location</b>	Entire Facility		
<b>Savings Description</b>	Energy savings generated through more efficient lighting technology.		

**REQUIREMENT DESCRIPTION**

Lighting project consists of the following:

- 1) Retrofit/Replace 34w T12 fixtures with 25w T8 lighting
- 2) Relamp 32w T8 lamps with 25w T8 lamps
- 3) Replace HID lighting with T8 lighting fixtures
- 4) Replace Incand. lighting with Fluorescent
- 5) Upgrade exit signs with LED technology
- 6) Gym Occupancy Sensors

**PHOTOS**

**ACTION DESCRIPTION**

-

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Energy and Operational Efficiency

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Plumbing: Add Domestic Water Heat Exchanger		
<b>Linked System</b>	Plumbing	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Plumbing	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	35,046
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Boiler Room - 1918 Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Provide a hot water to hot water for domestic hot water. This will allow for an interruptible natural gas rate.

**PHOTOS**



Plumbing: Add Dometic Water Heat Exchanger

-

**ACTION DESCRIPTION**

Provide a new hot water to domestic hot water heat exchanger and all required piping and controls.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Energy and Operational Efficiency

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Plumbing: Water Conservation Upgrades		
<b>Linked System</b>	Plumbing Fixtures	<b>Inspection Date</b>	09/21/2006
<b>Prime System</b>	Plumbing Fixtures	<b>Finish Date</b>	-
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Status</b>	Open
<b>Inspector Name</b>	Ruud, Mark	<b>Actual Cost</b>	0
<b>Action Date</b>	09/21/2006	<b>Total Estimated Cost:</b>	20,283
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	806
<b>Savings Description</b>	Reduce water and sewer usage using new low flow devices.		

**REQUIREMENT DESCRIPTION**

Replace / Retrofit standard flow flush valves and faucets with low flow devices.

**PHOTOS**

**ACTION DESCRIPTION**

-

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Life Safety

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Lighting Equipment: Exterior Lighting	<b>Inspection Date</b>	09/19/2006
<b>Linked System</b>	Lighting Equipment	<b>Finish Date</b>	-
<b>Prime System</b>	Lighting Equipment	<b>Status</b>	Open
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Ruud, Mark	<b>Total Estimated Cost:</b>	17,004
<b>Action Date</b>	09/19/2006	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Exterior		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The existing exterior lighting for this facility is getting old and the light levels and coverage for adequate safety is a concern.

**PHOTOS**

**ACTION DESCRIPTION**

Replace and add exterior fixtures as needed to improve light levels and coverage.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Life Safety

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Superstructure: Construct Second Exit From Boiler Room		
<b>Linked System</b>	Superstructure	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Superstructure	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	08/03/2007	<b>Total Estimated Cost:</b>	32,804
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Boiler Room 1918 Building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing boiler room has only one exit, second exit required.

**PHOTOS**



Superstructure: Construct Second Exit From Boiler Room

-

**ACTION DESCRIPTION**

Construct second exit from boiler room to exterior or exit passage.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Occupant Security

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Access Control		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Security and Detection Systems	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2009	<b>Total Estimated Cost:</b>	23,600
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Doors need ability to be locked down with access allowed only to authorized people. Also doors without card readers should be monitored for unauthorized access.

**PHOTOS**



Communication and Security: Access Control

**ACTION DESCRIPTION**

Install 6 proximity card readers at main entry doors for both public and personal  
 And add magnetic door contacts to all other exterior doors on a alarm system.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Occupant Security

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communications and Security: CCTV		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	11/30/2006
<b>Prime System</b>	Communications and Security	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	11/30/2007	<b>Total Estimated Cost:</b>	67,142
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

There are currently no cameras located in the school. Cameras would add an increased security throughout the school which is becoming more critical.

**PHOTOS**

**ACTION DESCRIPTION**

Provide cameras throughout school. Camera locations provided by ISD 709.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Occupant Security

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Fire Alarm Systems: Outdated System		
<b>Linked System</b>	Fire Alarm Systems	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Fire Alarm Systems	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2009	<b>Total Estimated Cost:</b>	48,616
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Fire alarm systems are old analog system. System is prone to malfunctions and is very hard to identify exact area of alarm. It is also difficult to troubleshoot and find malfunctions.

**PHOTOS**



Fire Alarm Systems: Outdated System

-

**ACTION DESCRIPTION**

Replace fire system with a fully addressable fire system.  
 This will allow for quick response to exact alarm device  
 And allow for better maintenance and safety

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Cabling Upgrade		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	08/15/2006
<b>Prime System</b>	Local Area Networks	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	The Westlund Group	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	86,966
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing building cabling has older categories of cabling.

**PHOTOS**



Communication and Security: Cabling Upgrade

-

**ACTION DESCRIPTION**

Replace old and mixed telephone/data cabling with up to date category 6 or 6A. Add basic wireless coverage. Add high bandwidth Fiber Optic Cabling between wiring closet and lab. Standardize quantity of phone and data in classroom and offices.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Clock System		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Clock and Program Systems	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2009	<b>Total Estimated Cost:</b>	25,960
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Master clock systems no longer keep clocks in time. Most are only used for running the bells. Atomic clocks may not receive a signal through the brick buildings. Many clocks do not work at all.

**PHOTOS**



Communication and Security: Clock System

**ACTION DESCRIPTION**

Install new wireless master clock system. The main clock receives the GPS signal for exact time and then sends signal to other clocks in facility. This will allow for accurate time and less tardiness between classes.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Public Address and Sound System		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Intercommunication and Paging System	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2009	<b>Total Estimated Cost:</b>	19,588
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

PA system is 25+ years old but is still functional.  
 There are no speakers located in hallways or commons areas.

**PHOTOS**



Communication and Security: Public Address and Sound System  
 -

**ACTION DESCRIPTION**

Update paging head end with new system and amplifier  
 And install speakers where needed.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Telephone System Upgrade		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	08/15/2006
<b>Prime System</b>	Telephone Systems	<b>Finish Date</b>	-
<b>Priority</b>	1- Currently Critical (Immediately)	<b>Status</b>	Open
<b>Inspector Name</b>	The Westlund Group	<b>Actual Cost</b>	0
<b>Action Date</b>	08/15/2006	<b>Total Estimated Cost:</b>	3,894
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The telephone system should be upgraded to the new District standard of CISCO VOIP. The telephone system should include port for access to the Paging/Intercom system. The Paging/Intercom system should be modified to allow access from the new telephone system.

**PHOTOS**

**ACTION DESCRIPTION**

Install a new CISCO phone system. Add paging interface. Remove old system after installation of new.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communication and Security: Video/TV Distribution Upgrade		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	08/15/2006
<b>Prime System</b>	Television Systems	<b>Finish Date</b>	-
<b>Priority</b>	3- Necessary - Not Yet Critical (3-5 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	The Westlund Group	<b>Actual Cost</b>	0
<b>Action Date</b>	08/15/2009	<b>Total Estimated Cost:</b>	26,609
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Analog Broadcast TV Signals are required by the FCC to be turned off in the Spring of 2009.

**PHOTOS**

**ACTION DESCRIPTION**

Install new TV Distribution System capable of digital signals in all classrooms and administrative areas as required.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Communications and Security: Sound System Upgrades		
<b>Linked System</b>	Communications and Security	<b>Inspection Date</b>	08/15/2006
<b>Prime System</b>	Classroom Sound Systems	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	The Westlund Group	<b>Actual Cost</b>	0
<b>Action Date</b>	08/15/2007	<b>Total Estimated Cost:</b>	120,714
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The 1st Grade Classrooms have Audio Enhancement systems. The Gymnasium Sound System is extremely hard to hear, virtually non existent and un-usable.

**PHOTOS**

**ACTION DESCRIPTION**

- Add audio enhancement systems to Classrooms.
- Replace Gymnasium sound system.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Controls and Instrumentation: BAS and Controls Upgrade		
<b>Linked System</b>	Controls and Instrumentation	<b>Inspection Date</b>	07/08/2006
<b>Prime System</b>	Building Automation Systems	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Schmidt, Brian	<b>Actual Cost</b>	85,000
<b>Action Date</b>	07/08/2007	<b>Total Estimated Cost:</b>	88,500
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire building	<b>Annual Energy/Ops Savings \$</b>	1,735
<b>Savings Description</b>	Energy saving through optimization and repairs of existing control system.		

**REQUIREMENT DESCRIPTION**

Upgrade existing, outdated BAS to new Web-based BAS and tie to new District-wide BAS network. This will allow for central monitoring and control of all buildings from the Facilities Management building.

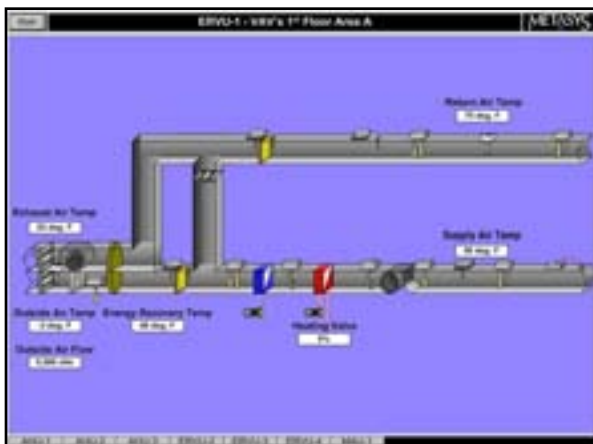
Upgrade existing pneumatic controls (old technology) to new Direct Digital controls.

Upgrade/replace existing temperature control valves, dampers, and actuators. The majority are beyond rated life and many are disconnected and not functioning, thus not operating as energy efficiently as possible.

Replace existing temperature control air compressor and air dryer with new and repair control air line leaks. This will improve the energy efficiency of the existing control system.

The existing controls shall be recommissioned to verify proper sequence of operation and optimize energy efficiency. Additional control and monitoring points shall also be added to the BAS system to optimize HVAC system performance.

**PHOTOS**



Controls and Instrumentation: BAS and Controls Upgrade

**ACTION DESCRIPTION**

Upgrade existing BAS to new web based to tie to District-wide BAS network. Add additional monitoring and control points to optimize BAS system.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Emergency Power Distribution: Generator Backup		
<b>Linked System</b>	Emergency Light and Power Systems	<b>Inspection Date</b>	09/19/2006
<b>Prime System</b>	Emergency Light and Power Systems	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Crotteau, Paul	<b>Actual Cost</b>	0
<b>Action Date</b>	09/19/2007	<b>Total Estimated Cost:</b>	97,940
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Exterior near Electrical Room	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

School currently has no backup power system to be used during a power failure. To keep students in school during power outage sufficient lighting must be maintained along with necessary life safety systems.

**PHOTOS**



Emergency Power Distribution: Generator Backup

-

**ACTION DESCRIPTION**

Install transfer switch and generator to feed distribution system during a power outage. Generator will be sized to handle the full building demand.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Equipment and Furnishings: Construct Computer Workstations		
<b>Linked System</b>	Equipment and Furnishings	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Equipment and Furnishings	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	28,792
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Computer Room 209	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing computer workstations are of average quality and do not meet District standards.

**PHOTOS**



Equipment and Furnishings: Construct Computer Workstations

-

**ACTION DESCRIPTION**

Remove existing workstations and replace with new.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

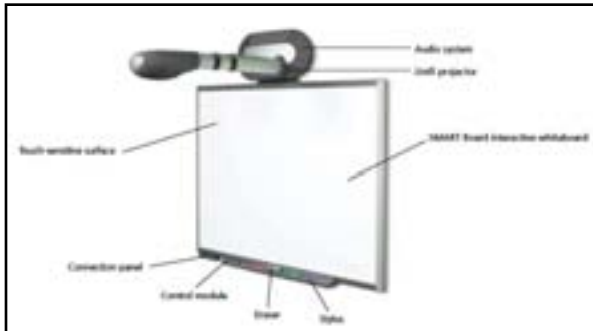
**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Equipment and Furnishings: Visual Systems (Smart Boards)		
<b>Linked System</b>	Equipment and Furnishings	<b>Inspection Date</b>	08/15/2006
<b>Prime System</b>	Audio-visual Equipment	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	The Westlund Group	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	324,500
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Entire Facility	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Site has no Smart Boards installed. One Smart Boards is on order.

**PHOTOS**



Equipment and Furnishings: Visual Systems (Smart Boards)

-

**ACTION DESCRIPTION**

Install additional Smart Boards.

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Fittings: Replace Existing Blackboards and Tackboards		
<b>Linked System</b>	Fittings	<b>Inspection Date</b>	08/03/2006
<b>Prime System</b>	Fittings	<b>Finish Date</b>	-
<b>Priority</b>	5- Recommendations/ Improvements	<b>Status</b>	Open
<b>Inspector Name</b>	Fern, Bob	<b>Actual Cost</b>	0
<b>Action Date</b>	-	<b>Total Estimated Cost:</b>	49,510
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	All classrooms entire building	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing blackboard and tackboards are in need of replacement to modernize and bring up to district standard.

**PHOTOS**



Fittings: Replace Existing Blackboards and Tackboards

-

**ACTION DESCRIPTION**

Existing blackboards and tackboards are in need of replacement to modernize and bring up to district standards. 2700 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	Floor finishes: Install Concrete Slab	<b>Inspection Date</b>	08/03/2006
<b>Linked System</b>	Floor Finishes	<b>Finish Date</b>	-
<b>Prime System</b>	Floor Finishes	<b>Status</b>	Open
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Actual Cost</b>	0
<b>Inspector Name</b>	Fern, Bob	<b>Total Estimated Cost:</b>	14,632
<b>Action Date</b>	08/03/2007	<b>Funding Type</b>	-
<b>Funding Year</b>	-	<b>Annual Energy/Ops Savings \$</b>	-
<b>Requirement Location</b>	Basement level storage area 1918 building		
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

Existing storage area has a dirt floor. A concrete slab should be installed to make room functional.

**PHOTOS**



Floor finishes: Install Concrete Slab

-

**ACTION DESCRIPTION**

Existing soils to be releveled/compacted with vapor barrier and 4" reinforced concrete slab installed over. 1400 SQFT

**District:** Duluth Public Schools  
**Facility:** Grant Elementary School  
**Category:** Upgrades

**Asset Name:** Grant Elementary School  
**Asset Number:** 470

<b>Requirement Name</b>	HVAC: Add Propylene Glycol to Heating System		
<b>Linked System</b>	Hot Water Distribution	<b>Inspection Date</b>	07/12/2006
<b>Prime System</b>	Hot Water Distribution	<b>Finish Date</b>	-
<b>Priority</b>	2- Potentially Critical (1-2 Yrs)	<b>Status</b>	Open
<b>Inspector Name</b>	Schumacher, Russ	<b>Actual Cost</b>	0
<b>Action Date</b>	07/12/2007	<b>Total Estimated Cost:</b>	45,902
<b>Funding Year</b>	-	<b>Funding Type</b>	-
<b>Requirement Location</b>	Building Wide	<b>Annual Energy/Ops Savings \$</b>	-
<b>Savings Description</b>	-		

**REQUIREMENT DESCRIPTION**

The heating system currently serving the air handling units does not contain glycol, which creates the opportunity for heating coil freeze up.

**PHOTOS**



HVAC: Add Propylene Glycol to Heating System

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**ACTION DESCRIPTION**

Add Propylene Glycol into the entire heating system to prevent coil freeze up.