



## **PROJECT REPORT**

Date: October 25, 2013  
STR Project Number: 13123

### **District Administration Building Assessment**

970 W. Madison Street  
Oak Park, IL 60302

Prepared for:

### **Board of Education of Oak Park Elementary School District 97**

970 W. Madison Street  
Oak Park, IL 60302

## TABLE OF CONTENTS

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001	Summary
002	Key Plan of Work Items
003	Order of Magnitude Estimate

### **1.0 ARCHITECTURAL**

1.1	Code Analysis
1.2	Description of Work Items

### **2.0 ROOFING**

2.1	Roof Survey
2.2	Warranty
2.3	Description of Work Items (Defect List)

### **3.0 STURCTURAL**

3.1	Structural Report
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### **4.0 MECHANICAL**

4.1	Description of Existing Conditions
4.2	Description of Work Items

### **5.0 PLUMBING**

5.1	Description of Existing Conditions
5.2	Description of Work Items

### **6.0 ELECTRICAL**

6.1	Description of Existing Conditions
6.2	Description of Work Items

END OF TABLE OF CONTENTS

**GENERAL**

The purpose of the study is to identify potential code, life-safety, repair and/or maintenance items, and associated costs that should be addressed to allow for continued use of the facility. We have provided below a brief summary for the various disciplines that surveyed the building to observe the existing conditions. Further detailed information may be found in the following pages.

This report does not take into account improvements functionality of the space, nor the efficiency, or lack of efficiency, in the current space layout of offices, cubicles, file storage, etc.

**ARCHITECTURAL SUMMARY**

As part of this assessment, we performed a code analysis of the existing facility against the International Building Code. From a life safety or code related standpoint, there are a few areas requiring attention. There are some egress doors that do not have the proper hardware, and egress corridors that are not constructed of fire rated partitions and the doors in these corridors are not rated.

From a maintenance point of view, the exterior envelope requires attention in a few areas. The north brick masonry wall shows evidence that water is not draining properly the cavity. Therefore we recommend opening the wall to address any flashing issues and tuckpointing in other areas where mortar joints are deteriorating.

The building is relatively accessible. All spaces are accessible either by ramps or alternate routes around steps with the exception of the second floor. At this time we have not included a line item to address this issue due to the complexities of remediating this situation. Should D97 wish to pursue this issue, STR will provide design options and associated estimates. Additionally, door hardware throughout is not accessible. We recommend replacing all knob type hardware with lever type hardware.

Aesthetically, the finishes in all areas are tired. The carpeting is showing wear, the vinyl floor tile in areas is also very worn, and paint throughout requires touching up. We are recommending that all finishes be removed and new finishes be provided throughout. *(Please note that with the HVAC work items, the ceiling will need to be removed and replaced to accommodate work above the ceiling.)*

**ROOFING SUMMARY**

We do not foresee any roof replacements on the building in the next five years. The roof areas do have some defects that require attention. Our consultant estimates these repairs to cost approximately \$8,000 and recommends these repairs be completed in the fall of 2013. However, once taken care of, this roof system should perform to the end of its expected service life of 6-10 years from now.

There is surface cracking that requires monitoring. Our consultant has identified an anticipated yearly roof maintenance budget of \$2,500 to address these areas. *(Please note that this cost is not included in the overall estimate as this is an ongoing maintenance issue.)*

## STRUCTURAL SUMMARY

Overall the building appears to be in good and serviceable condition. If the building were to undergo substantial remodeling including, but not limited to, the addition of new roof top HVAC equipment, a more in depth structural investigation including calculations should be performed. Based on engineering practice at the time of the original construction, typically bowstring trusses are under sized. Although it is reported that the trusses in the southwest portion of the building have been reinforced we recommend that all of the existing trusses and roof framing be analyzed. Reinforcement may need to be added to the trusses to bring them up to current code standards.

## MECHANICAL SUMMARY

The major issues with the heating and cooling systems relate to the age and efficiency of the equipment. With the exception of the boiler, the equipment supplying heating and cooling and ventilation and the controls for these systems is generally in poor condition. Our engineer, CS2 recommends replacing the existing pneumatic control system to a new direct digital control system for better control and energy savings. CS2 has also provided a couple of options for improving the HVAC system – Option 1: replace the air handling unit systems with a more efficient rooftop variable air volume unit system, or Option 2: provide a replacement chilled water system. These options and the pros and cons of each are described below.

**Option 1** – The intent of this option is to replace the entire air handling system and cooling plant. Currently, there is a single zone, constant volume air handling units suspended above the ceilings. Cooling is provided by chilled water generated by the chillers. We suggest (and recommend) replacing the air handling, ductwork, and chillers with a packaged variable air volume (VAV) rooftop unit. This system would include a new heating/cooling VAV rooftop unit, new ductwork, new VAV boxes, new diffusers, new controls, etc.

**Option 2** – The intent of this option is to replace the 2 old water-cooled chillers with 1 new air-cooled chiller. Both of the existing chillers are older and use refrigerants that are on the banned refrigerant list (manufacturers cannot make equipment that uses these refrigerants any longer). You can still purchase the refrigerants, but the majority of it is recycled and getting very expensive. This option does not include replacement for the air handling system. This only replaces the old chillers (hopefully improving reliability and reduce maintenance cost). This option will not improve thermal comfort or provide better control. Zoning will remain the same.

### Advantages to choose Option 1 over Option 2:

- a. Option 1 replaces the entire air handling and cooling system. Reliability of the overall system will be improved.
- b. Option 1 will increase the overall system efficiency.
- c. Option 1 will provide more zones of control, thus providing a more comfortable space. It will reduce the overheating and overcooling of rooms.

### Advantages to choose Option 2 over Option 1:

- a. This option provides more reliability to the existing cooling system (replacing old cooling equipment).

## PLUMBING SUMMARY

The majority of potable water distribution is galvanized piping. Our engineer is recommending that this piping be upgraded to copper. The main water service is missing a backflow preventer. Additionally, thermostatic mixing valves should be provided at all lavatories to prevent sudden increases in water temperature. Otherwise, the storm and sewer piping appear to be in working order with no known issues at this time. The water heaters also appear to be in good condition.

## ELECTRICAL SUMMARY

The electrical system has been found to be in fair condition with a few exceptions. While the electrical service and main distribution panels are older, they have been found to be in fair condition. The panelboards located throughout the building that are over 50 years old should be replaced.

The mechanical and utility spaces are utilizing obsolete T-12 light fixtures. These fixtures should be upgraded with energy saving T-8 or T-5 lamps with electronic ballasts. Additionally, some areas could take advantage of energy saving occupancy sensors, such as toilet rooms.

## ORDER OF MAGNITUDE FOR REMEDIATION

Conditions identified as code, life-safety, repair and/or maintenance items and the work to remediate such conditions are itemized in the enclosed Order of Magnitude Estimate. The total estimated construction cost equals **\$2,575,350**. (This assumed Option 1 is selected for upgrading the HVAC system.)

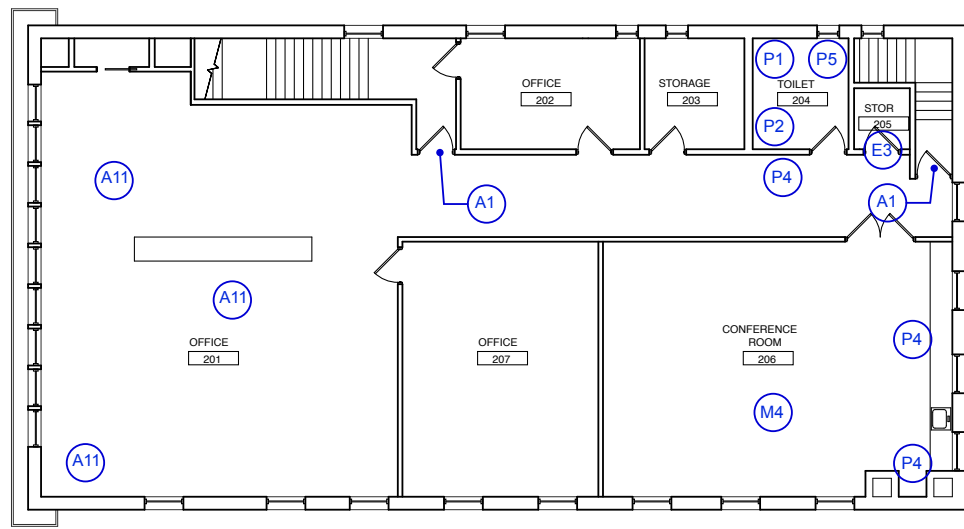
If Option 2 is selected for the replacement of the chillers, then the total cost of construction equals **\$1,387,151**.

*Please note that this is a conceptual order of magnitude estimate. At this time STR has not been engaged to provide design documents or engineering necessary to further define the scope of each problem condition.*

## END OF SUMMARY

## **002 KEY PLAN OF WORK ITEMS**

Each discipline has identified work items necessary to bring the facility up to current code standards as well as general maintenance items to keep the facility in good working order. These items are labeled and located on the attached key plan. The key number for each item is also correlated to the attached order of magnitude estimate.



**2 COMPOSITE SECOND FLOOR PLAN**  
NO SCALE



- (M1) ENTIRE BUILDING
- (M7) ENTIRE BUILDING
- (M8) ENTIRE BUILDING
- (E4) ENTIRE BUILDING
- (E5) ENTIRE BUILDING
- (P8) ENTIRE BUILDING
- (A9) ENTIRE BUILDING
- (A13) ENTIRE BUILDING
- (A17) AT THE ROOF

**KEY NOTE DESCRIPTION OF WORK ITEM**

**MECHANICAL**

- M1** REPLACE AIR HANDLINE SYSTEMS WITH A MORE ENERGY EFFICIENT ROOFTOP VARIABLE AIR VOLUME UNIT SYSTEM
- M2** PROVIDE REPLACEMENT CHILLED WATER SYSTEM (NOT REQUIRED IF ITEM M1 IS COMPLETED)
- M3** PROVIDE A NEW EXHAUST SYSTEM FOR JANITOR'S CLOSET
- M4** PROVIDE A NEW ROOFTOP UNIT TO SERVE CONFERENCE ROOM 206
- M5** PROVIDE A NEW FURNACE OR FAN COIL UNIT TO SERVE BOARD ROOM 115
- M6** PROVIDE A REPLACEMENT HEATING DEVICE TO SERVE VESTIBULE 106
- M7** PROVIDE A NEW DIRECT DIGITAL CONTROL SYSTEM TO BETTER CONTROL THE HVAC DEVICES AND SAVE ENERGY BY NOT RUNNING THE PNEUMATIC AIR COMPRESSOR YEAR ROUND
- M8** PROVIDE MORE CONTROL VALVES FOR MORE TEMPERATURE CONTROL FOR THE OCCUPANTS

**PLUMBING**

- P1** PROVIDE THERMOSTATIC MIXING VALVE AT ALL PUBLIC LAVATORIES TO PREVENT WATER TEMPERATURE FROM EXCEEDING 110 DEGREES AT ALL TOILET ROOMS
- P2** PROVIDE INSULATION WRAP KIT FOR EXPOSED PIPING UNDER LAVATORY AT HC ACCESSIBLE LAVATORIES
- P3** PROVIDE REDUCE PRESSURE ZONE BACKFLOW PREVENTER AT OFFICE 118 FOR THE WATER SERVICE LOCATION

- P4** PROVIDE DUAL CHECK BACKFLOW PREVENTER AT ICE MAKERS AND COFFEE MAKERS
- P5** PROVIDE FLOOR DRAINS AT TOILET ROOMS
- P6** PROVIDE NEW WALL HYDRANT WITH INTEGRAL VACUUM BREAKER AT THE EXTERIOR
- P7** PROVIDE FAUCET WITH VACUUM BREAKER AT JANITOR'S CLOSET
- P8** REPLACE OLD PIPING WITH COPPER PIPING AND PROVIDE NEW BALL VALVES FOR ADEQUATE SHUT-OFF. A DETAILED SURVEY WILL HAVE TO BE PERFORMED TO DETERMINE THE QUANTITY OF PIPING
- P9** REMOVED ABANDONED FIXTURE AND REMOVE UNUSED SECTIONS OF PIPING BACK TO MAINS
- P10** PROVIDE HIGH WATER ALARM FOR SUMP PUMPS

**ELECTRICAL**

- E1** ADD A CEILING MOUNTED SMOKE DETECTOR ADJACENT TO FIRE ALARM CONTROL PANEL IN VESTIBULE 116A
- E2** REPLACE THE PANEL INTERIORS (CIRCUIT BREAKERS AND BUSSING) AT THE OLDER OBSOLETE PANELBOARDS
- E3** RETROFIT LIGHTING FIXTURES WITH T-8 FLUORESCENT LAMPS AND BALLASTS AT THE PRINT SHOP AND STORAGE 111A
- E4** ADD OCCUPANCY SENSORS TO AUTOMATICALLY TURN OFF LIGHTING FIXTURES WHEN NOT IN USE
- E5** REPLACE ALL NON-ADA STROBES AND PROVIDE SYNCHRONIZATION MODULES TO THE SYSTEM.

**ARCHITECTURAL**

- A1** PROVIDE PROPER EGRESS HARDWARE AT THE 2ND FLOOR DOORS LEADING TO THE STAIRS  
ALSO CREATE A VESTIBULE AT THE 1ST FLOOR NORTHWEST EXIT TO ALLOW THE DOOR TO SWING IN THE DIRECTION OF EGRESS AND NOT IMPEDE EXITING FROM THE STAIR; PROVIDE EGRESS HARDWARE
- A2** PROVIDE TACTILE WARNING STRIPS AT THE EDGES AND TOP AND BOTTOM OF RAMP IN OPEN OFFICE 109
- A3** REPLACE DAMAGED WOOD DOOR AT CONFERENCE 104 TO VESTIBULE 106 - ASSEMBLY SHALL BE 1HR RATED  
ALSO PROVIDE MISSING DOOR AT STORAGE 111A TO PRINT SHOP
- A4** ABATE ASBESTOS CONTAINING FLOORING MATERIAL IN STORAGE 111A AND JANITOR'S CLOSET 125
- A5** REPAIR CRACKED GYPSUM BOARD ABOVE DOOR TO OFFICE 119
- A6** PROVIDE FIRE STOPPING AT WALL PENETRATION IN STORAGE ROOM 111A
- A7** REMOVE AND REPLACE RUSTED STOREFRONT DOOR AND DOOR FRAME AT NORTH EAST EXIT INCLUDING REPAIRING THE THRESHOLD
- A8** NOT USED
- A9** REMOVE CARPETING, VINYL FLOOR TILE, VINYL WALL BASE, ETC. AND REPLACE WITH NEW FINISHES.  
PREP ALL SURFACES TO RECEIVE NEW PAINT AND PROVIDE NEW PAINT INCLUDING DOORS AND FRAMES, WALLS, CEILINGS, ETC.
- A10** ADJUST DOOR CLOSER SPEED - CURRENTLY TOO FAST FOR ADA REGULATIONS
- A11** REPLACE CEILING TILES THAT ARE DAMAGED OR STAINED
- A12** REPLACE VINYL BASE THAT IS MISSING OR LOOSE
- A13** THE DOOR HARDWARE AT ALL DOORS IS NOT ACCESSIBLE, PROVIDE LEVER TYPE HANDLES TO MEET ADA REGULATIONS
- A14** TOUCH UP PAINT IS REQUIRED IN CONFERENCE ROOM 104
- A15** PROVIDE MASONRY TUCKPOINTING AND INVESTIGATION OF WATER INFILTRATION THRU TO THE EXTERIOR FACE OF BRICK. PROMINENT ON THE NORTH WALL AS WELL AS THE UPPER PORTIONS OF THE EAST AND WEST WALLS
- A16** REMOVE AND RE-CAULK THE PERIMETER OF EXTERIOR WINDOWS AT WEST AND SOUTH EXTERIOR WALLS. REMOVE AND RECAULK THE JOINT BETWEEN INTERIOR AND EXTERIOR MASONRY WYTHES AT THESE FIRST FLOOR WINDOWS AT WEST AND SOUTH FACADES.
- A17** PROVIDE MISCELLANEOUS ROOF REPAIRS AS OUTLINED IN REPORT
- A18** PROVIDE RATED EGRESS CORRIDORS PER CODE REQUIREMENTS  
UPGRADE CORRIDOR WALLS AND WALLS OF THE BOARD ROOM TO 1 HOUR RATED CONSTRUCTION  
REMOVE AND REPLACE CORRIDOR DOORS TO MEET 1 HOUR CORRIDOR RATING OF B-LABEL  
PROVIDE NEW DOOR AT CORRIDOR LEADING TO VESTIBULE 116 TO ENCLOSE THE 1 HOUR EGRESS CORRIDOR  
UPGRADE WALLS OF BOILER ROOM TO BE 2 HOUR RATED CONSTRUCTION  
REVISE PARTITIONS AND PROVIDE RATED DOOR ASSEMBLIES TO THE NORTH AND SOUTH OF BOARD ROOM 115 IN ORDER TO ACCOMMODATE A CLEAR PATCH OF EGRESS AS WELL AS ACCESSIBILITY CLEARANCES FOR THESE DOORS.

**SCOPE DOCUMENT**

This drawing indicates the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of structural, mechanical, and electrical systems. As Scope Documents, the Drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Construction Documents. on the basis of the general scope indicated or described, the Contractor shall furnish all items required for the proper execution and completion of the Work.

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**PROJECT**

**D97 DISTRICT WIDE CAPACITY STUDY**  
**ADMINISTRATION BUILDING**  
970 Madison Street, Oak Park, IL 60302

**OAK PARK SCHOOL DISTRICT 97**

CLIENT PROJECT NUMBER

STR PROJECT NUMBER  
**13116**

DRAWING DATES

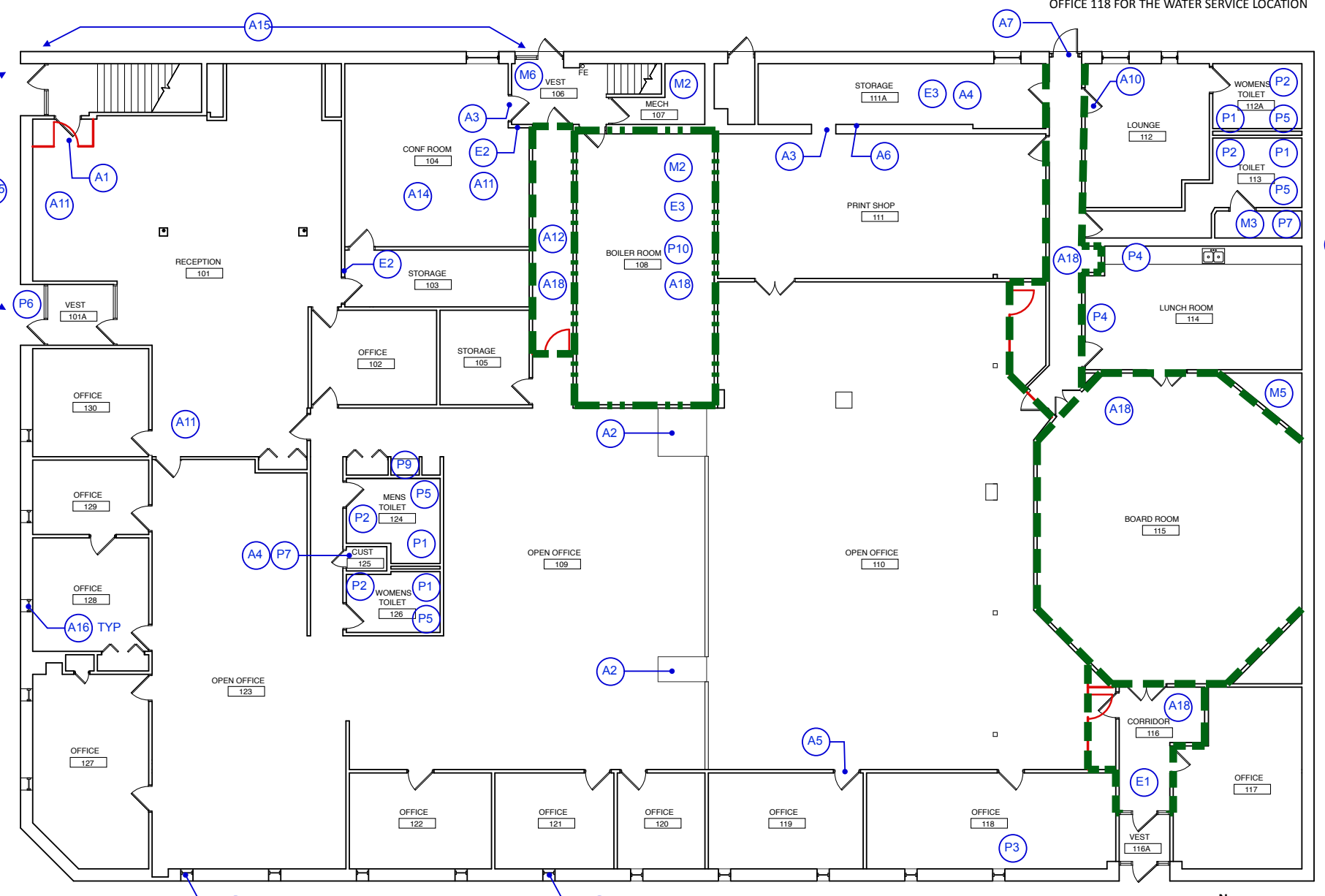
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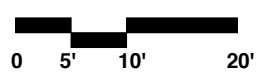
**FIRST AND SECOND WORK ITEM KEY PLAN**

SHEET NUMBER

**1.0**



**1 COMPOSITE FIRST FLOOR PLAN**  
NO SCALE



**GRAPHIC LEGEND**

- PROPOSED NEW PARTITION
- 1HR RATING
- - - 2HR RATING

1/4" = 1' (Actual Size to read at scale)

### **003 ORDER OF MAGNITUDE ESTIMATE**

Included in this section is the itemized Order of Magnitude Estimate providing a conceptual cost of construction for each of the code, life safety, accessibility, and maintenance items identified. At this time STR has not been engaged to provide design documents or engineering necessary to further define the scope of each problem condition; thus the conceptual level estimate.



# ORDER OF MAGNITUDE ESTIMATE

District Office Renovations  
Oak Park, Illinois

**STR** CONSULTING

350 West Ontario Street, Suite 200  
Chicago, Illinois 60654

Client: Oak Park School District 97  
Architect: STR Partners # 13116

October 24, 2013

No.	Description	Quantity	Unit	Unit Price	Amount	Total
M1	Replace Existing HVAC with new VAV System					
1	CS2 - Mechanical Estimate	1	Est.	\$675,000	\$675,000	
2	Related architectural items					
	a. Remove Ceiling and lighting for access	20,009	s.f.	\$2.00	\$40,018	
	b. New ACT ceiling and grid	20,009	s.f.	\$3.75	\$75,034	
	c. Remove or support ceiling mounted items	20,009	s.f.	\$1.00	\$20,009	
	d. Cut and patch roof for unit installation	2	allow	\$4,380.00	\$8,760	
3	Reinforce roof structure for new AH unit	1	allow	\$120,000	\$120,000	
	Subtotal					\$938,821
M2	Alternate - If existing HVAC is retained then the existing Chiller should be replaced.					
M3	Add exhaust fan in JC 125					
1	CS2 - Mechanical Estimate	1	Est.	\$5,500.00	\$5,500	
2	Cut and patch roof for exhaust opening	1	allow	\$1,220.00	\$1,220	
3	Structural framing for opening	1	allow	\$1,680.00	\$1,680	
	Subtotal					\$8,400
M4	Replace Conference Room RTU					
1	CS2 - Mechanical Estimate	1	Est.	\$25,000	\$25,000	
2	Reinforce roof structure for new RTU unit				Included in M1	
3	Ceiling				Included in M1	
	Subtotal					\$25,000
M5	Replace Board Room 115 furnace with fan coil unit					
1	CS2 - Mechanical Estimate	1	Est.	\$15,000	\$15,000	
2	Allowance for fresh air intake (if needed)	1	allow	\$5,000.00	\$5,000	
3	Assume FCU will fit in same space as furnace				Included in M1	
	Subtotal					\$20,000
M6	Replace Cabinet Heater in Vestibule 106					
1	CS2 - Mechanical Estimate	1	Est.	\$1,500	\$1,500	
2	Finishes				Included in Arch work	
	Subtotal					\$1,500
M7	Replace Pneumatic TC system with DDC					
	CS2 - Mechanical Estimate	1	Est.	\$85,000	\$85,000	
2	Finishes				Included in Arch work	
	Subtotal					\$85,000
M8	Add control valves to fin tube system					
	CS2 - Mechanical Estimate	1	Est.	\$15,750	\$15,750	
2	Finishes				Included in Arch work	
	Subtotal					\$15,750

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No.	Description	Quantity	Unit	Unit Price	Amount	Total
P1	Add TMV					
1	CS2 - Mechanical Estimate	8	Est.	\$400	\$3,200	
2	Finishes				Included in Arch work	
	Subtotal					\$3,200
P2	Under-sink ADA pipe wraps					
1	CS2 - Mechanical Estimate	5	Est.	\$150	\$750	
	Subtotal					\$750
P3	Add Back Flow Preventer on incoming water feed					
1	CS2 - Mechanical Estimate	1	Est.	\$12,500	\$12,500	
2	Allowance for fitting valve in space	1	allow	\$5,000.00	\$5,000	
	Subtotal					\$17,500
P4	Check valves for Ice Maker & Coffee					
1	CS2 - Mechanical Estimate	5	Est.	\$500	\$2,500	
	Subtotal					\$2,500
P5	Add Floor Drains in Public Toilets					
1	CS2 - Mechanical Estimate	5	Est.	\$5,500	\$27,500	
2	Patch and repair slab & finishes	1	allow	\$8,000.00	\$8,000	
	Subtotal					\$35,500
P6	Wall hydrant					
1	CS2 - Mechanical Estimate	1	Est.	\$1,000	\$1,000	
2	Coring and patch brick	1	allow	\$250.00	\$250	
	Subtotal					\$1,250
P7	Vacuum breaker at faucets					
1	CS2 - Mechanical Estimate	2	Est.	\$850	\$1,700	
2	Coring and patch brick	1	allow	\$250.00	\$250	
	Subtotal					\$1,950
P8	Replace galvanized plumbing piping					
1	Building S.F. budget	20,009	b/s.f.	\$8.00	\$160,072	
2	Finished and patching				Covered by Arch Finishes	
	Subtotal					\$160,072
P9	Remove abandoned plumbing fixtures					
1	CS2 - Mechanical Estimate	1	Est.	\$1,800	\$1,800	
2	Finishes and patching	1	allow	\$500.00	\$500	
	Subtotal					\$2,300

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No.	Description	Quantity	Unit	Unit Price	Amount	Total
P10	High water alarm for sump pumps					
1	CS2 - Mechanical Estimate	1	allow	\$2,000.00	\$2,000	
	Subtotal					\$2,000
E1	Add smoke detector at FA panel in Vestibule 116A					
1	CS2 - Electrical Estimate	1	Est.	\$500	\$500	
	Subtotal					\$500
E2	Replace panel board interiors CB and bussing					
1	CS2 - Electrical Estimate	1	Est.	\$15,000	\$15,000	
	Subtotal					\$15,000
E3	Retro-fit T12 fixtures with T8 lamps and ballast					
1	Replace fixtures in JC and Storage Rooms	5	each	\$300.00	\$1,500	
	Subtotal					\$1,500
E4	Add occupancy sensors for lighting control					
1	CS2 - Electrical Estimate	1	Est.	\$12,000	\$12,000	
2	Remove ceiling fro access				See M1	
	Subtotal					\$12,000
E5	Replace non-ADA strobes and provide synchronized modules system. Retrofit upgrade to existing system.					
1	CS2 - Electrical Estimate	1	Est.	\$3,500	\$3,500	
2	Remove ceiling fro access				See M1	
	Subtotal					\$3,500
A1	Replace door hardware for egress					
1	Upgrade door hardware for 2nd floor stairway door	2	doors	\$650.00	\$1,300	
2	Add vestibule and egress door at Room 101					
	a. Rated drywall partitions	720	s.f.	\$8.00	\$5,760	
	b. Rated door with panic hardware	1	each	\$2,200.00	\$2,200	
	c. Revise ceiling	1	allow	\$560.00	\$560	
	d. Revised flooring	1	allow	\$560.00	\$560	
	e. Revised lighting & power	1	allow	\$880.00	\$880	
	f. Exit sign and FA modification	1	allow	\$1,260.00	\$1,260	
	g. Paint walls and door	1	allow	\$920.00	\$920	
	h. Demolition	1	allow	\$1,580.00	\$1,580	
	Subtotal					\$15,020

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No.	Description	Quantity	Unit	Unit Price	Amount	Total
A2	Provide tactical warning strips at Ramp					
1	Strip flooring	30	s.f.	\$2.00	\$60	
2	New Tactile Flooring	30	s.f.	\$60.00	\$1,800	
	Subtotal					\$1,860
A3	Replace damaged or missing SCWD doors					
1	Interior SCWD at Vest 106 to 104	1	allow	\$1,200.00	\$1,200	
2	Add door between 111 and 111A	1	allow	\$2,000.00	\$2,000	
	Subtotal					\$3,200
A4	Abate VAT in JC 125 & Storage 111A					
1	Remove tile	299	s.f.	\$8.00	\$2,392	
2	Replacement tile				Covered by Arch Finishes	
	Subtotal					\$2,392
A5	Damage / cracked drywall				Covered by Arch Finishes	
A6	Fire stopping at wall penetration					
1	One pipe penetration	1	allow	\$250.00	\$250	
	Subtotal					\$250
A7	Replace rusted door and frame NE exit	1	allow	\$2,200.00	\$2,200	
1	Replace threshold				Included with door cost	
	Subtotal					\$2,200
A8	Not used				None used	
A9	Allowance for General Finishes					
1	Remove and replace flooring & wall base	20,009	s.f.	\$6.00	\$120,054	
2	Repair & paint walls, doors, & trim	20,009	s.f.	\$6.00	\$120,054	
3	Ceiling				included in M1	
	Subtotal					\$240,108
A10	Adjust door closure speed	16	hours	\$90.00	\$1,440	
	Subtotal					\$1,440
A11	Repair ceiling tile				Included in M1	
A12	Replace vinyl base				Included in A9	
A13	Upgrade door knobs to ADA level handles	26	each	\$250.00	\$6,500	
	Subtotal					\$6,500

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No.	Description	Quantity	Unit	Unit Price	Amount	Total
A14	Paint Conference Room 104				included in A9	
	Subtotal					\$0
A15	Exterior Envelope					
1	Tuck point 50% of north common brick elevation	2,640	s.f.	\$25.00	\$66,000	
2	Allowance to tuckpoint east & west common brick	500	s.f.	\$25.00	\$12,500	
	Subtotal					\$78,500
A16	Re-caulk exterior windows and sills	41	allow	\$410.00	\$16,810	
	Subtotal					\$16,810
A17	Roofing repairs	1	allow	\$8,000.00	\$8,000	
	Subtotal					\$8,000
A18	Rated egress corridors					
1	Upgrade walls to one hour assembly	4,050	s.f.	\$7.00	\$28,350	
2	Upgrade walls to two hour assembly	1,650	s.f.	\$7.00	\$11,550	
3	Demo walls and doors	1	allow	\$1,260.00	\$1,260	
4	New rated walls	480	s.f.	\$8.00	\$3,840	
5	New doors	2	each	\$2,200.00	\$4,400	
6	Revise electrical and lighting	1	allow	\$3,280.00	\$3,280	
7	Remove and replace corridor door with B label	7	each	\$1,650.00	\$11,550	
8	Replace Board Room pair of door with B Label	2	each	\$6,000.00	\$12,000	
9	Painting, ceiling, and finishes				Included in A9 above.	
	Subtotal					\$76,230
					=====	
	Subtotal Construction	20,009	s.f.	\$90.28		\$1,806,503
GC1	General Requirements					
1	General Conditions	10%		\$1,806,503	\$180,650	
2	Contractor Overhead & Profit	8%		\$1,987,153	\$158,972	
3	Contingency	20%		\$2,146,125	\$429,225	
	Total Construction Estimated Cost					<b>\$768,848</b>
					=====	
	Total Construction	20,009	s.f.	\$128.71		\$2,575,350
	The following items are excluded from this estimate - FF&E Work					
	- Special Consultant Fees				- Special hoisting or restricted site access	
	- Legal Fees				- Premium time and overtime labor rates	
	- Utility Company Service Fees				- Hazardous Waste Handling	
	- A/E or Design Fees				- Escalation	



## **1.0 ARCHITECTURAL**

## 1.1 Code Analysis

### SUMMARY

STR has performed as part of this facility assessment a code analysis. As this is an office facility for the District Administration separate from an educational facility, it falls under the Occupancy Classification of Business Group B. The majority of the building is in compliance with the general code requirements with the exception of the corridors, egress doors, and assembly spaces.

Within this Occupancy type, all egress corridors are required to be 1 Hour Rated, including not only partition walls, but also doors and frames with appropriate exit hardware. Additionally, assembly spaces (i.e. the Board Room) shall also be 1 Hour Rated. Therefore, you will see on our Key Plan and in the estimate notes to upgrade egress corridor partitions to the proper rating including any door openings in those corridors and added doors where needed. The Board Room doors will also need to be rated along with the walls that are not adjacent to the corridor.

Please see the Code Summary following this narrative.



# CODE SUMMARY

---

Codes: 2009 International Building Code 2006 (IBC 2009)  
2009 International Energy Conservation Code 2009 (IECC 2009)  
2009 International Fire Code (IFC 2009)  
excluding Chapter 4 29 Ill. Adm. Code 1500 (Joint Rules of the Office of the State Fire Marshal and the Illinois State Board of Education: School Emergency and Crisis Response Plans shall apply instead of Chapter 4  
2009 International Fuel Gas Code (IFGC 2009)  
2009 International Mechanical Code (2009 IMC)  
2009 International Code Council Electrical Code  
1997 Illinois Accessibility Code (1997 IAC)  
shall apply instead of the accessibility provisions set forth in Chapter 11 of IBC  
Illinois Plumbing Code (latest edition)  
shall apply instead of Chapter 35 of IBC  
41 Ill. Adm. Code 120: Boiler and Pressure Vessel Safety

Occupancy Classification: Business Group B

Construction Classification: Type III-B

Fire-Resistance Rating Requirements:

Type III-B	Structural Frame	0 hour (Including columns, girders, trusses)
	Bearing Wall	
	Exterior	2 hour
	Interior	0 hour
	Non-Bearing Walls and Partitions	0 hour
	Floor Construction	0 hour (Including supporting beams and joists)
	Roof Construction	0 hour (Including supporting beams, joists and deck)
	Shaft Enclosures:	1 hour
	Corridors:	1 hour

Vertical Exit Enclosures: 1 hour

Occupant Loads:	Business Areas	100 Gross S.F./Occupant
	Storage/Mech./Equipment	300 Gross S.F./Occupant
	Assembly	
	Concentrated (chairs only –not fixed)	7 Net S.F./Occupant
	Standing Space	5 Net S.F./Occupant
	Un-concentrated (tables and chairs)	15 Net S.F./Occupant

Egress Requirements:

Maximum travel distance: 200 feet




Maximum Common Path of Egress: 75 feet (1014.3)

Maximum dead-end corridor length: 20 feet (1018.4.2)

Number of exits: two exits required over 49 occupants / 3 exits required for 501-1000 occupants

## 1.2 Description of Work Items

STR Partners surveyed the Oak Park District 97 Administration Building on Friday September 27, 2013. Our observations are limited to codes, life safety, and maintenance related issues. The following photos and captions highlight the problem conditions observed during our walk through. These shall work in conjunction with the code related items identified in 1.1.

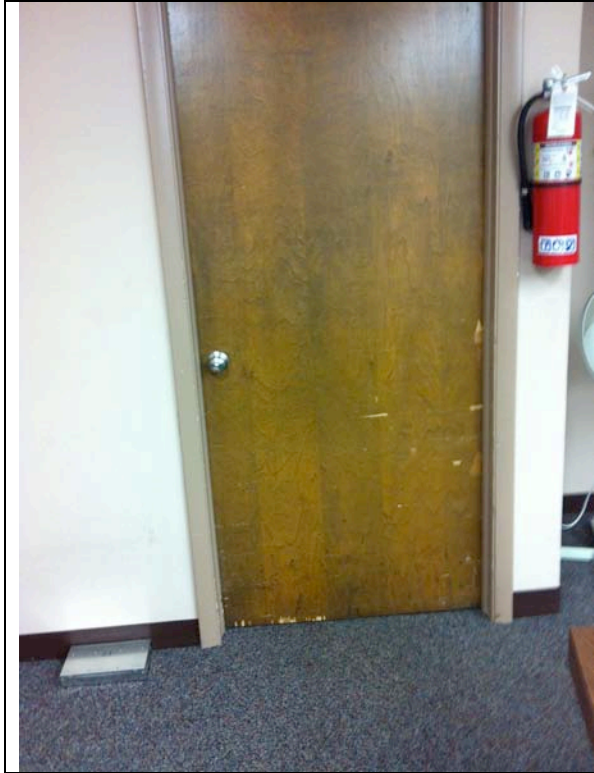
	<p><b>North Exterior Wall:</b> Tuckpointing is required as well as investigation of the flashing and wall assembly to determine if water is draining properly in cavity.</p>
<p>DC82</p> 	<p><b>North Exterior Wall:</b> Tuckpointing is required as well as investigation of the flashing and wall assembly to determine if water is draining properly in cavity.</p>
	<p><b>East Exterior Wall:</b> Tuckpointing is required as well as investigation of the flashing and wall assembly to determine if water is draining properly in cavity.</p>



**Storage Room 111A:**  
Existing penetration through wall is not fire-sealed. Also there is no rated door assembly between the storage room and the Print Shop.



**Exterior Windows – typical West and South:**  
Sealant at the window perimeter and at the joint between inner and outer masonry is failing and should be removed and replaced.



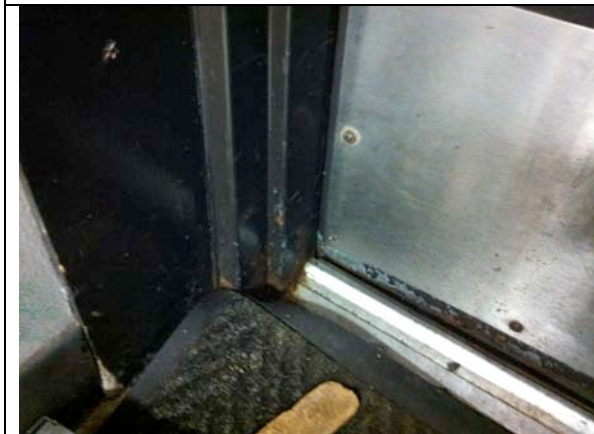
**Conference Room 104:**

This door is damaged and should be replaced with a rated assembly as it leads to an egress Vestibule.



**Northwest Exit Door:**

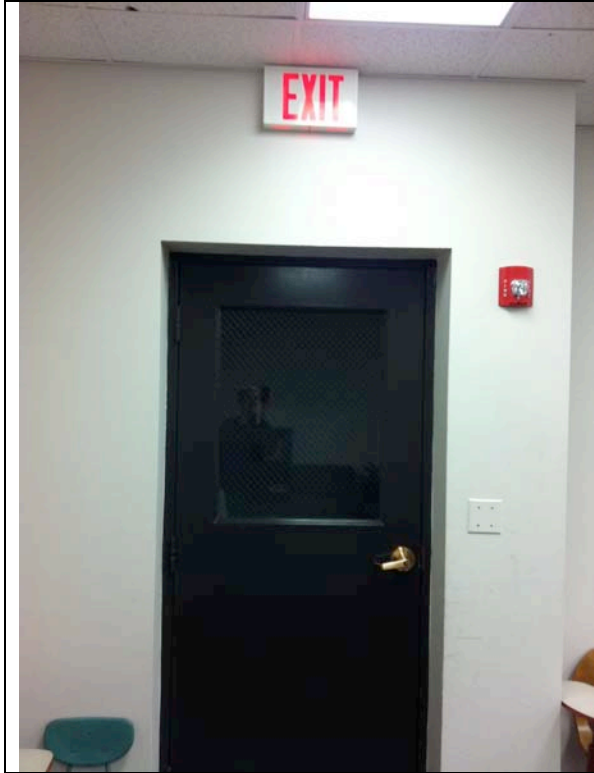
The threshold is deteriorating and the flooring adjacent to the threshold is non-existent.



**Northwest Exit Door:**

Frame and door are rusting.

Also – please note that this egress door does not meet required ADA clearances. However, given the constraints of the adjacent room construction, we have not included this in the estimate.



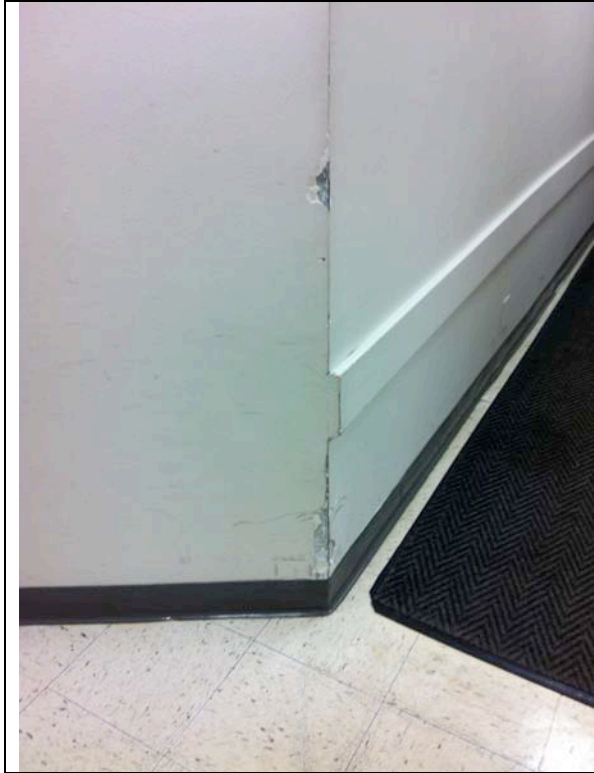
**Door in Reception 101 leading to NE Stair:**  
This door does not swing in the direction of egress. In order to provide proper swing, a small vestibule should be constructed so that the door swings into the stair but does not impede the egress of those exiting the stair.



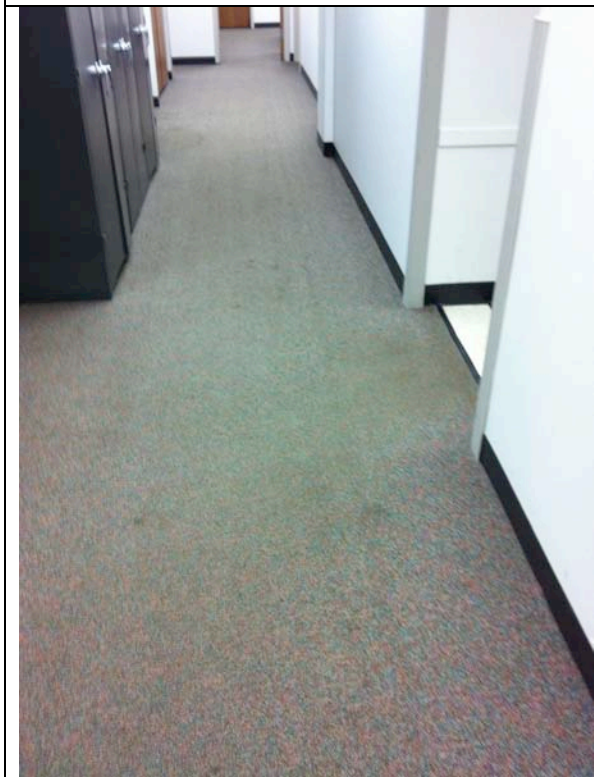
**Typical of All Doors:**  
Door handles do not meet ADA requirements. These knob type handles should be replaced with lever type.



**Open Office 109 – Ramps:**  
A tactile warning strip should be installed at the top and bottom and exposed edges of the ramp. (The height of the rise of the ramp does not require a handrail.)



**Typical Finishes:**  
Painted gypsum board is showing wear requiring touch up paint and patching in several locations.



**Typical Finishes:**  
Carpeting is showing wear with evidence traffic flow and stains and worn down areas.



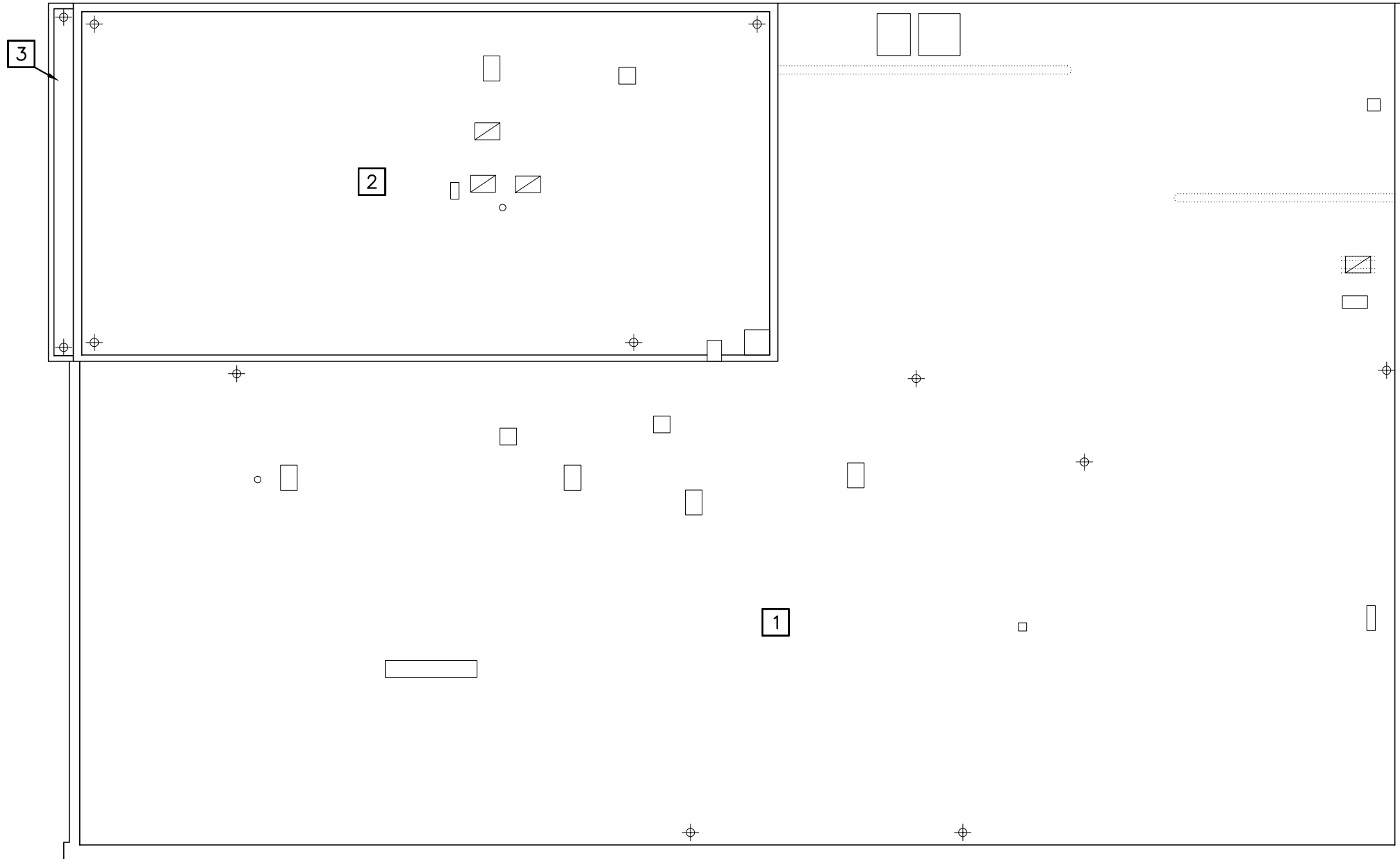
**Typical Finishes:**

Vinyl tile is also showing wear and in need of replacement.



## **2.0 ROOFING**

## **2.1 ROOF SURVEY**



**KEY**

- ROOF AREA DESIGNATION
- ROOF DRAIN
- THRU-WALL SCUPPER
- ROOF EDGE SCUPPER
- GUTTER EDGE
- CURBED OPENING
- H.V.A.C. CURB
- ROOF HATCH
- SKYLIGHT
- CURBED STACK
- CHIMNEY
- PIPE PORTAL CURB
- ROOF LADDER
- PIPE VENT
- SOIL STACK
- SMALL PIPE PENETRATION
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- ABANDONED EQUIPMENT

**AREA SIZES**

AREA NO.	SQ. FT.
1	12,500
2	3,500
3	100
<b>TOTAL</b>	<b>16,100</b>



**STR PARTNERS LLC**  
 350 WEST ONTARIO ST., SUITE 200  
 CHICAGO, ILLINOIS 60654  
 TEL: 312 464 1444 | www.str-seg.com

Oak Park School District 97

10/3/13

Administration Building  
 970 Madison St. - Oak Park, IL

**ROOF PLAN**

Drawn by:  
JS  
 Checked by:  
JS

Sheet No.  
**RP-1**

# ROOF AREA 1 SURVEY

DISTRICT 97 ADMINISTRATION BUILDING:  
970 MADISON STREET  
OAK PARK, IL 60302  
10-21-2013

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<b>SURVEYED BY:</b>	CHRISTOPHER SHIELDS
<b>SURVEY DATE:</b>	09-30-2013
<b>ROOF SIZE:</b>	12,850
<b>ROOF HEIGHT:</b>	15
<b>ROOF ACCESS COMMENT:</b>	BY WINDOW ON SECOND FLOOR
<b>SYSTEM INFORMATION:</b>	WOOD DECK, RED ROSIN; 2.5 RIGID INSULATION; 1/2" WOOD FIBER COVER BOARD; 2PLY FIBERGLASS SHEETS MOD BIT CAP SHEET ALUMINUM COATED.
<b>DERIVED FROM:</b>	OTHER
<b>DATE INSTALLED:</b>	09-08-2003
<b>ROOF MANUFACTURER:</b>	VIRIDIAN
<b>ROOF WARRANTY EXPIRATION</b>	09-08-2018
<b>ROOF WARRANTY NUMBER</b>	34569-39163
<b>MEMBRANE WARRANTY EXPIRATION:</b>	09-08-2018
<b>MEMBRANE WARRANTY NUMBER:</b>	34569-39163
<b>SKYLIGHT MANUFACTURER:</b>	N/A
<b>SKYLIGHT WARRANTY EXPIRATION:</b>	N/A
<b>SKYLIGHT WARRANTY NUMBER:</b>	N/A
<b>CONTRACTOR NAME:</b>	CSR
<b>CONTRACTOR WARRANTY EXPIRATION:</b>	09-08-2008
<b>OTHER WARRANTY:</b>	N/A
<b>SLOPE</b>	LEVEL
<b>SLOPE STRUCTUAL TAPER:</b>	YES
<b>DRAINAGE PRIMARY SYSTEM INTERIOR:</b>	YES
<b>DRAINAGE OVERFLOW SYSTEM NONE:</b>	YES
<b>DRAINAGE DOWNSPOUTS INTERIOR:</b>	YES
<b>COMMENTS:</b>	OVERALL THIS ROOF AREA HAS DEFECTS THAT NEED ATTENTION. ONCE TAKEN CARE OF THIS ROOF SYSTEM SHOULD PERFORM TO THE END OF ITS EXPECTED SERVICE LIFE. THERE IS SURFACE CRACKING OCCURRING AND NEED CLOSE MONITORING.
<b>PROJECTED SERVICE LIFE:</b>	6-10 YEARS

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# ROOF AREA 2 SURVEY

DISTRICT 97 ADMINISTRATION BUILDING:  
970 MADISON STREET  
OAK PARK, IL 60302  
10-21-2013

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<b>SURVEYED BY:</b>	CHRISTOPHER SHIELDS
<b>SURVEY DATE:</b>	09-30-2013
<b>ROOF SIZE:</b>	3,800
<b>ROOF HEIGHT:</b>	25
<b>ROOF ACCESS INFO:</b>	OTHER
<b>ROOF ACCESS COMMENT:</b>	
<b>LADDER HEIGHT:</b>	15
<b>SYSTEM INFORMATION:</b>	WOOD DECK, RED ROSIN; 2.5 RIGID INSULATION; 1/2" WOOD FIBER COVER BOARD; 2PLY FIBERGLASS SHEETS MOD BIT CAP SHEET ALUMINUM COATED.
<b>DERIVED FROM:</b>	OTHER
<b>DATE INSTALLED:</b>	09-08-2003
<b>ROOF MANUFACTURER:</b>	VIRIDIAN
<b>ROOF WARRANTY EXPIRATION</b>	09-08-2018
<b>ROOF WARRANTY NUMBER</b>	34569-39163
<b>MEMBRANE WARRANTY EXPIRATION:</b>	09-08-2018
<b>MEMBRANE WARRANTY NUMBER:</b>	34569-39163
<b>SKYLIGHT MANUFACTURER:</b>	N/A
<b>SKYLIGHT WARRANTY EXPIRATION:</b>	N/A
<b>SKYLIGHT WARRANTY NUMBER:</b>	N/A
<b>CONTRACTOR NAME:</b>	CSR
<b>CONTRACTOR WARRANTY EXPIRATION:</b>	09-08-2008
<b>OTHER WARRANTY:</b>	N/A
<b>SLOPE</b>	LEVEL
<b>SLOPE STRUCTUAL TAPER:</b>	YES
<b>DRAINAGE PRIMARY SYSTEM INTERIOR:</b>	YES
<b>DRAINAGE OVERFLOW SYSTEM NONE:</b>	YES
<b>DRAINAGE DOWNSPOUTS INTERIOR:</b>	YES
<b>COMMENTS:</b>	OVERALL THIS ROOF AREA HAS DEFECTS THAT NEED ATTENTION. ONCE TAKEN CARE OF THIS ROOF SYSTEM SHOULD PERFORM TO THE END OF ITS EXPECTED SERVICE LIFE. THERE IS SURFACE CRACKING OCCURRING AND NEED CLOSE MONITORING.
<b>PROJECTED SERVICE LIFE:</b>	6-10 YEARS

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# ROOF AREA 3 SURVEY

DISTRICT 97 ADMINISTRATION BUILDING:  
970 MADISON STREET  
OAK PARK, IL 60302  
10-21-2013

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<b>SURVEYED BY:</b>	CHRISTOPHER SHIELDS
<b>SURVEY DATE:</b>	09-30-2013
<b>ROOF SIZE:</b>	150
<b>ROOF HEIGHT:</b>	10
<b>ROOF ACCESS INFO:</b>	OTHER
<b>LADDER HEIGHT:</b>	15
<b>SYSTEM INFORMATION:</b>	WOOD DECK, RED ROSIN; TAPERED RIGID INSULATION; 1/2" WOOD FIBER COVER BOARD; 2PLY FIBERGLASS SHEETS MOD BIT CAP SHEET.
<b>DERIVED FROM:</b>	OTHER
<b>DATE INSTALLED:</b>	09-08-2003
<b>ROOF MANUFACTURER:</b>	VIRIDIAN
<b>ROOF WARRANTY EXPIRATION</b>	09-08-2018
<b>ROOF WARRANTY NUMBER</b>	34569-39163
<b>MEMBRANE WARRANTY EXPIRATION:</b>	09-08-2018
<b>MEMBRANE WARRANTY NUMBER:</b>	34569-39163
<b>SKYLIGHT MANUFACTURER:</b>	N/A
<b>SKYLIGHT WARRANTY EXPIRATION:</b>	N/A
<b>SKYLIGHT WARRANTY NUMBER:</b>	N/A
<b>CONTRACTOR NAME:</b>	CSR
<b>CONTRACTOR WARRANTY EXPIRATION:</b>	09-08-2008
<b>OTHER WARRANTY:</b>	N/A
<b>SLOPE</b>	LEVEL
<b>SLOPE STRUCTUAL TAPER:</b>	YES
<b>DRAINAGE PRIMARY SYSTEM INTERIOR:</b>	YES
<b>DRAINAGE OVERFLOW SYSTEM NONE:</b>	YES
<b>DRAINAGE DOWNSPOUTS INTERIOR:</b>	YES
<b>COMMENTS:</b>	OVERALL THIS ROOF AREA HAS DEFECTS THAT NEED ATTENTION. ONCE TAKEN CARE OF THIS ROOF SYSTEM SHOULD PERFORM TO THE END OF ITS EXPECTED SERVICE LIFE. THERE IS SURFACE CRACKING OCCURRING AND NEED CLOSE MONITORING.
<b>PROJECTED SERVICE LIFE:</b>	6-10 YEARS

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Building Owner: **Oak Park School District 97**

Building Name: **Administration Building** Building ID#: \_\_\_\_\_

Building Address: **970 Madison Street. - Oak Park, IL**

Survey Date: **9/30/2013** Surveyed By: **Chris Shields** Project #: **12759**



**Roof Area 1**



**Roof Area 1**



**Roof Area 1**



**Roof Area 1**



**Roof Area 2**



**Roof Area 2**



**Roof Area 2**



**Roof Area 2**



**Roof Area 2**



**Roof Area 3**



**Roof Area 3**



**Roof Area 1**



## **2.2 WARRANTY**

## ROOF MEMBRANE WARRANTY

Building Name	Oak Park Administration Building		
Building Address	970 Madison Street, Oak Park, IL 60302		
Building Owner	Oak Park School District #97		
Roof Identification	Areas A, B, C & D (Per Roof Web Plans)		
Contractor	Cairo & Sons Roofing		
System Type	Modified Bitumen		
Flashing Type	Hot Composition		
Total Sq./Ft. Coverage	15576 Sq. Ft.	Warranty #:	34569-39163
Lin. Ft. Flashing	850 Lin. Ft.		
Completion Date	9/8/2003	Warranty Term	15-Years

Viridian Systems ("Viridian"), warrants to the above-named Building Owner ("Owner") that, provided the existing roof membrane is installed in accordance with original specifications, Viridian will, at Viridian's expense, repair the roofing membrane as necessary to stop any leaks about which Viridian has received written notice during the Warranty Term, subject to the terms and conditions of this Warranty. Owner acknowledges and agrees that such repair will be Owner's sole and exclusive remedy under this Warranty. The issuing of this warranty should in no way be interpreted as Viridian's acceptance of any condition other than the waterproof integrity of the covered membrane material, subject to other terms indicated in this warranty.

The cost of removal or replacement of overburden and all roof system components, except the waterproofing membrane, shall be borne by the Owner, and will be completed by a Viridian approved contractor and with Viridian approved materials.

This Warranty will commence as of the date of signing as indicated below and will extend for the Warranty Term indicated above, subject to the terms and conditions of this Warranty, but this Warranty will become effective only upon Viridian's receipt of full payment of all invoices for services and materials used in connection with inspection and upgrading of the roofing membrane, and any delay in the effective date of this Warranty due to non-payment will not extend the Warranty Term indicated above. This Warranty is not assignable, or transferable, directly or indirectly, as a result of the sale of the premises or otherwise.

### OWNER RESPONSIBILITIES

- \* In the event of a leak in the roofing membrane or flashing membrane system, the Owner will immediately notify Viridian's service agent at 1-800-872-7684, and confirm in writing to Viridian at the address specified above. In order to be eligible for coverage under this Warranty, Viridian must receive written notice of a leak prior to expiration of the Warranty Term.
- \* By notifying Viridian, you authorize Viridian to investigate the cause of the leak or claim. If the investigation reveals that the leak or claim is not covered by this Warranty, you agree to pay an investigation cost of \$500. This Warranty will be cancelled if you fail to pay this cost within 30 days of the receipt of an invoice for it.
- \* The Owner will provide Viridian, or its agent, free access to the building and roof during regular business hours over the Warranty Term.
- \* The Owner will notify the general office of Viridian at the address specified above in writing of any proposed modification, repair or addition, on or through the roof or base flashing for each situation occurring after the completion date on this Warranty prior to the commencement of any proposed modification, repair or addition. Drawings or plans showing the location of the proposed changes must be provided to and approved by Viridian prior to commencing work on any such modification, repair or addition. Any roofing modification, repair or addition must be completed with Viridian material installed by a Viridian approved contractor.
- \* In the event repairs are required which are not covered by this Warranty, Viridian will advise Owner of such repairs and Owner will be required to make such repairs at Owner's expense, using Viridian materials and a Viridian approved contractor. If, within thirty (30) days after Viridian advises Owner of the Non-Warranty required repairs, such required repairs are made as provided in the foregoing sentence, this warranty shall remain in effect for the unexpired portion of the Warranty Term. If Owner does not make the required repairs within such thirty (30) day period, this Warranty shall be automatically terminated without further notice from Viridian.
- \* The Owner will provide Viridian with prior written notice of any changes in the original usage of the building within thirty (30) days prior to implementation of such change in usage. If, in Viridian's sole judgment, Viridian determines that such change in usage would materially and adversely impact the roofing system, this Warranty will terminate unless Owner obtains the prior written consent of Viridian to implement such change in usage and further agrees to take such other action or make such other repairs, additions or modifications to the roofing system as recommended by Viridian in connection with such proposed change in use.
- \* Viridian recommends that Owner participate in the Preventative Maintenance Service Plan offered by Viridian. Contact Viridian for details.

**OWNER ACKNOWLEDGES AND AGREES THAT THE WARRANTY SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND VIRIDIAN HEREBY EXPRESSLY DISCLAIMS ALL OF SUCH OTHER EXPRESS AND IMPLIED WARRANTIES.**

### INSPECTION REQUIREMENTS

OWNER MUST REQUEST, IN WRITING, AN INSPECTION EVERY FIVE YEARS DURING THE WARRANTY TERM. THE INSPECTION REQUEST MAY BE MADE ANYTIME BETWEEN THE SIXTH AND TENTH MONTH OF THE FIFTH YEAR OF THE WARRANTY TERM; THEN EACH FIFTH YEAR ANNIVERSARY THEREAFTER.

UPON RECEIPT OF SUCH REQUEST, VIRIDIAN WILL PROVIDE AN INSPECTION OF THE ROOF SYSTEM TO DETERMINE WHETHER ANY REPAIRS NOT COVERED BY THIS WARRANTY ARE REQUIRED TO MAKE THE SYSTEM ELIGIBLE FOR THE ADDITIONAL FIVE-YEAR CONTINUATION OF THIS WARRANTY, SUBMITTING A DETAILED INSPECTION REPORT TO THE OWNER OUTLINING THE NATURE AND EXTENT OF SUCH REQUIRED REPAIRS.

## 2.3 DESCRIPTION OF WORK ITEMS (DEFECT LIST)

# ROOF SURVEY DEFECT LIST

DISTRICT 97 ADMINISTRATION BUILDING:  
970 MADISON STREET  
OAK PARK, IL 60302  
10-21-2013

**SURVEYED BY:** CHRISTOPHER SHIELDS  
**SURVEY DATE:** 09-30-2013

## REPAIRS: 7 ITEM S TO REPAIR

#1.	DEBRIS BAG AND REMOVE ALL DEBRIS	
#101.	LOOSE SHEET METAL FLASHING REATTACH LOOSE SHEET METAL FLASHING	0 L.F.
#103.	DETERIORATED / MISSING SEALANT REMOVE DETERIORATED SEALANTS AND INSTALL NEW SEALANTS	0 L.F.
#104.	DETERIORATED SURFACE COATING RECOAT SURFACE DETERIORATION OF SHEET METAL TO PREVENT FURTHER OXIDATION	0 S.F.
#510.	PROTECTION PADS DETERIORATED / MISSING INSTALL MISSING PROTECTION PADS	
#529.	MISSING CLAMPING RING FASTENERS INSTALL MISSING CLAMPING RING	
#597.	OTHER INSTALL MISSING CONDUIT SUPPORTS ON ROOF AREA 2	

## MONITOR: 2 ITEM S TO MONITOR

#2.	BLISTER(S) / LOOSE MONITOR AS SIZE EXCEEDS 144SQ. INCHES CUT AND REPAIR	
#9.	WEATHERED SURFACE SURFACE CRACKING IS BEGINING	

**ROOF MAINTENANCE BUDGET FOR  
CURRENT YEAR:** \$8,000.00

**ANTICIPATED YEARLY ROOF MAINT  
BUDGET** \$2,500.00

**RECOMMENDED RE-SURVEY YEAR:** 2015

**WORK CLASSIFICATION:** WARRANTY, PREVENTATIVE

**COMMENT:** THE ROOF AREAS ARE PERFORMING IN FAIR CONDITION. ADDRESS THE NOTED DEFECTS TO MAINTAIN THE EXPECTED SERVICE LIFE.

Building Owner: **Oak Park School District 97**  
Building Name: **Administration Building** Building ID#: \_\_\_\_\_  
Building Address: **970 Madison Street, Oak Park, Illinois**  
Survey Date: **9/30/2013** Surveyed By: **Chris Shields** Project #: **12759**

*Defect Key: First Number: Number represents roof area designation (refer to plan).  
Second Number: Numbered (sequential) defect identified within each roof area.  
Third Number: Number identifying defect type.  
Fourth Number: Number representing an estimate of the defect quantity noted.  
Last Entry: Description of quantity unit - square footage (sf), lineal footage (lf), count (ea), etc.*

**Defect Number: 1.1.103**

**Defect Description:**

Failing sealant remove and install new sealant.



**Defect Number: 1.2.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 1.3.104**

**Defect Description:**

At all damaged surface marks retouch with proper paint to match existing color.



**Defect Number: 1.4.104**

**Defect Description:**

At all damaged surface marks retouch with proper paint to match existing color.



**Defect Number: 1.5.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 1.6.103**

**Defect Description:**

Remove existing sealant and replace with new.



**Defect Number: 1.7.529**

**Defect Description:**

Missing clamping rings at the conduit penetration install clamping rings



**Defect Number: 1.8.510**

**Defect Description:**

Install missing protection pads under wood rails



**Defect Number: 1.9.510**

**Defect Description:**

Install missing protection pads under wood rails



**Defect Number: 1.10.101**

**Defect Description:**

Re-tighten loose sheet metal flashing.



**Defect Number: 2.1.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 2.2.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 2.3.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 2.4.101**

**Defect Description:**

Re-attach loose sheet metal flashing and apply new sealant.



**Defect Number: 2.5.597**

**Defect Description:**

Missing pipe supports for cable. Install new pipe supports





**Defect Number: 2.6.510**

**Defect Description:**

Missing protection pads, install new support rails over protection pads.



**Defect Number: 2.7.529**

**Defect Description:**

Install missing clamping rings and new portal cover.



**Defect Number: 2.8.103**

**Defect Description:**

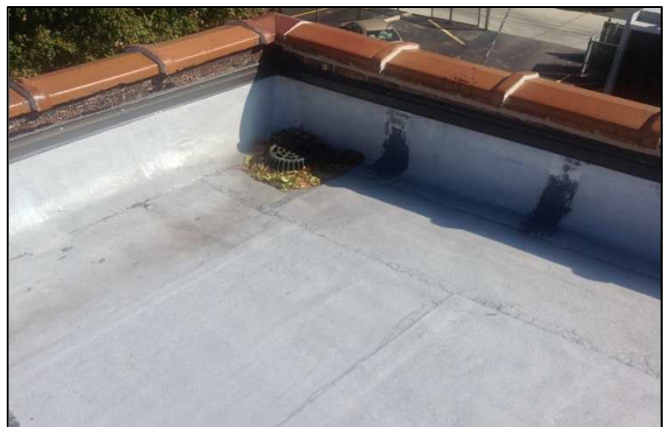
Install missing sealant at opening between wall and coping.



**Defect Number: 2.9.1**

**Defect Description:**

Bag and remove roofing debris.



**Defect Number: 2.10.538**

**Defect Description:**

Trim back tree limbs



## **3.0 STRUCTURAL**

### **3.1 STRUCTURAL REPORT**

October 23, 2013



STR Partners LLC  
350 West Ontario Street  
Suite 200  
Chicago, Illinois 60654

ATTN: Jennifer Costanzo

RE: School District #97  
Administration Building  
Madison and Home Ave  
Oak Park, Illinois

Per the request of STR Partners on September 27, 2013 we visited the referenced building. The purpose of the visit was to observe the overall condition of the building structure. The following is based on visual observations of exposed to view structure. Calculations have not been performed to verify the adequacy of the framing. The following are our observations and recommendations.

The building is a masonry, steel and wood structure. There is a two story portion of the building located in the north west corner. The remainder of the building is one story. The second floor framing consists of steel beams and columns supporting 2x14 framing at 12 inches on center.



Wood Joists and Steel Framing at Second Floor

The roof of the second floor is bow string trusses spanning north south from the exterior north wall to either an interior bearing wall or steel supports.



Bowstring Trusses Above Second Floor



Bowstring Trusses at South West Area

The remainder spaces have wood framed roofs that appear to be supported on exterior masonry bearing walls or steel beams. The roof areas directly south of the two story portion and the area over the print shop are framed with wood bow string trusses. It appears that the trusses are supported on the masonry at the exterior and columns at the interior. The east portion of the roof area appears to be a flat roof, sloped for drainage. That is supported on bearing walls or steel beams.

The bow string trusses that support the mechanical equipment have been reinforced to support the equipment weight. Per the information provided by the District the remainder of the trusses in the south west portion of the building have been reinforced.

The exterior masonry consisting of split faced concrete masonry units, concrete masonry units (cmu) and brick appeared in good condition. There are a minimum of cracks or joint deterioration. It appeared that the two story masonry has been recently tuck pointed.



Exterior Split Face Masonry



East Masonry Wall is in Good Condition

Overall the building appeared to be in good and serviceable condition. It should be noted that if the building is to undergo substantial remodeling including, but not limited to, the addition of new roof top HVAC equipment a more in depth structural investigation including calculations should be preformed. Based on engineering practice at the time of the original construction typically bow string trusses are under sized. Although it is reported that the trusses in the south west

Oak Park School District #97  
Administration Building  
October 23, 2013  
Page 3 of 3

portion of the building have been reinforced we recommend that all of the existing trusses and roof framing be analyzed. Reinforcement may need to be added to the trusses to bring them up to current code standards.

Should you have any questions or require additional information do not hesitate to contact us.

Sincerely,  
**C. E. Anderson & Associates, PC**

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A handwritten signature in black ink, appearing to read "Ch. E. Anderson", with a long horizontal flourish extending to the right.

Charles E. Anderson S.E., R.A.

## **4.0 MECHANICAL**



## 4.1 DESCRIPTION OF EXISTING CONDITIONS MECHANICAL

### A. Description of Existing Conditions

#### 1) Heating System and Distribution:

- a. The main building heating plant consists of two (2) gas fired hot water boilers and associated circulation pumps. The boilers were manufactured by Rite Boiler and are a model 76WG. The input capacity of each boiler is 760,000 BTUH each. The heating plant is located in Boiler Room 108, it is newer and in good condition.
- b. Hot water supply and return piping is routed throughout the building to air handling units, hot water coils, hot water convectors, finned tube radiation, a cabinet unit heater, and a suspended unit heater. The suspended unit heater in Storage Room 111A appears to be abandoned and not operational. There is no individual control for these terminal units (not every office has a thermostat to control the heat). The other hydronic heat terminal units are older and appear to be in fair to poor condition. There is a recessed electric wall heater that is located in Vestibule 106 that is slightly damaged and in poor condition.

#### 2) Ventilating:

- a. Ventilation to the first floor and the majority of the second floor is provided by air handling units located above the ceiling. These air handling units have distribution ductwork routed above the ceilings to ceiling and wall mounted diffusers. These units are older and in fair to poor condition.
- b. Ventilation to Conference Room 206 is provided by a rooftop unit. The rooftop unit currently does not have gas connected to it, but has had a duct mounted hot water coil installed to provide heat to the space. The unit is in poor condition.

#### 3) Air-Conditioning:

- a. Air conditioning for the majority of the building is provided by two water cooled chillers. One of the chillers is located in Boiler Room 108. It is a Carrier model 5H46. The other chiller is located below the stairs in Mechanical Room 107. It is a Copeland model WSH-000-TDC-001. These chillers generate chilled water which is circulated to the air handling unit coils. Both chillers are older and are using obsolete refrigerants (R-12 and R-22) that are not being manufactured any longer. The chillers are in fair to poor condition.
- b. Board Room 115 has a furnace which has a remote air cooled condensing unit providing cooling to the space. This furnace is no longer used for heating. The unit appears to be in poor condition.

- c. There are three rooms that have duct free split systems (a fan coil unit with a remote condensing unit). One room is Office 117, Server Room 207, and the other is Conference Room 206. The both systems appear to be in good condition.
- 4) Gas Service:
  - a. The natural gas service is located along the north side of the building. The gas regulator is located just outside of the exterior Storage Room and the meter in the Storage Room.
- 5) Controls:
  - a. The main control system for the HVAC systems is pneumatic. There is a simplex air compressor located in Boiler Room 108. The pneumatic system controls majority of the building devices with the exception of the standalone equipment such as the duct free split systems, electric heat, and the board room furnace. Direct digital control sensors are located in a few rooms to monitor selective space temperatures. The pneumatic control system is older, obsolete, and in poor condition.

**4.2 DESCRIPTION OF WORK ITEMS  
MECHANICAL**

ITEM I.D.	LOCATION(S) (ROOM No.)	RULE VIOLATED	DESCRIPTION OF THE VIOLATION	RECOMMENDATION TO CORRECT VIOLATION
M1	First and Second Floor Office Areas	PM-603.1	The air handling units are original and beyond their expected service life. System zoning and controls is not desirable for good climate control in the space.	Replace air handling unit systems with a more energy efficient rooftop variable air volume unit system.
M2	Boiler Room 108 and Mechanical Room 107	Recommended	The chillers are older, obsolete, and beyond their useful service life. With age, the equipment becomes unreliable.	Provide replacement chilled water system (1 chiller in lieu of 2 chillers. Also this would not be required if item M1 is selected).
M3	Janitor's Closet	Recommended	Room has stored chemicals and a mop basin which emits objectionable odors.	Provide a new exhaust system for the room.
M4	Conference Room 206	PM-603.1	Rooftop unit does not function as designed by the manufacturer.	Provide a new rooftop unit.
M5	Board Room 115	PM-603.1	The gas fired furnace no longer functions as designed by the manufacturer.	Provide a new furnace or fan coil unit.
M6	Vestibule 106	PM-603.1	The electric wall heater cover is damaged.	Provide a replacement heating device.
M7	Entire Building	Recommended	The control system is pneumatic which is older and obsolete. Older pneumatic systems require the compressor to operate more to compensate for air leakage in the piping system.	Provide a new direct digital control system to better control the HVAC devices and save energy by not running the pneumatic air compressor year round (this price assumes control of a new VAV HVAC system).
M8	Entire Building	Recommended	The finned tube radiation is controlled in larger zones and does not allow for individual control for the offices. This tends to have warmer or cooler rooms depending on the thermostat location.	Provide more control valves for more temperature control for the occupants.

## **5.0 PLUMBING**

**5.1 DESCRIPTION OF EXISTING CONDITIONS  
PLUMBING**

A. Description of Existing Conditions

1) Water Service:

- a. A 2" potable water service enters the building into Office 118. The water services come from the south off of Madison Street. Just outside building located in sidewalk is the curb stop valve box (valve located below ground). This water service is metered but does not have a main backflow preventer.

2) Water Heater:

- a. Domestic hot water heater is supplied from a gas fired, vertical glass lined storage tank with an input of 40,000 BTUH and a storage capacity of 40 gallons. This water heater serves fixtures in Toilet Rooms 124/126, Custodian 125, Toilet Room 204, Storage 205, and Conference Room 206.
- b. A second domestic hot water heater is an electric, vertical glass lined storage tank with input of 2,000 watts and storage capacity of 10 gallons. This water heater serves fixtures in Toilet 112A/113, Janitor's Closet, and Lunch Room 114.

3) Plumbing Piping:

- a. It appears the majority of potable water distribution is galvanized piping.
- b. Storm piping from roof drains (suspended and below floor) appear to be in working conditions. No known issues at this time.
- c. Sanitary piping from fixtures (suspended and below floor) appear to be in working conditions. No known issues at this time.

4) Plumbing Fixtures:

- a. Plumbing fixtures throughout building are in in fair to good condition. All the lavatories do not have thermostatic mixing valves to prevent sudden anticipated water temperatures. Accessible lavatories in public toilet rooms do not have protective pipe wrap under the fixtures.
- b. At two locations the service sinks do not have a faucet with integral vacuum breaker to prevent back siphonage. Lastly at one location a fixture has been removed which creates a section of "dead end" supply piping. This section of "dead end" piping should be removed back to nearest active potable water piping.

**5.2 DESCRIPTION OF WORK ITEMS  
PLUMBING**

ITEM I.D.	LOCATION(S) (ROOM No.)	RULE VIOLATED	DESCRIPTION OF THE VIOLATION	RECOMMENDATION TO CORRECT VIOLATION
P1	Public Lavatories at all Faculty Toilet Rooms	IDPH 890.680(e)	Water temperature at public lavatories exceeds 110 degrees.	Provide thermostatic mixing valve at all public lavatories to prevent water temperature from exceeding 110 degrees.
P2	Handicap Accessible Public Lavatories at Accessible Toilet Rooms	ADA Standards for Accessible Design, Paragraph 4.19.4	ADA lavatories do not have insulation wrap on waste piping, angle stops or supply risers located under lavatory.	Provide insulation wrap kit for exposed piping under lavatory.
P3	Office 118	IDPH 890.1110	Domestic water service does not have a reduce pressure zone backflow preventer.	Provide reduce pressure zone backflow preventer.
P4	Ice Makers/Coffee Makers	IDPH 890.1130(f)(4)	Ice makers/coffee makers do not have any form of backflow prevention.	Provide dual check backflow preventer.
P5	Toilet Room	Recommended	Public toilet rooms do not have floor drains.	Provide floor drains.
P6	Building Exterior	IDPH 890.1140(e)	Exterior wall hydrants do not have vacuum breaker.	Provide new wall hydrant with integral vacuum breaker.
P7	Janitor's Closet	IDPH 890.1130(f)(2)	Faucet does not have a vacuum breaker.	Provide faucet with vacuum breaker.
P8	Throughout Building	IDPH 890.1210(a)	Existing galvanized piping is deteriorating and has excessive amount of rust. Hot and cold galvanized piping is deteriorating and is no longer capable of sustaining potable water at required pressures.	Replace old piping with copper piping and provide new ball valves for adequate shut-off. A detailed survey will have to be performed to determine the quantity of piping.
P9	Abandon Plumbing Fixtures	IDPH 890.1200(c)	Abandon fixtures resulting in sections of unused piping ("dead ends").	Remove abandoned fixture and remove unused sections of piping back to mains.

## **6.0 ELECTRICAL**

## 6.1 DESCRIPTION OF EXISTING CONDITIONS ELECTRICAL

### A. Existing Electrical System

#### 1) Electrical Distribution

- a. The electrical service is located in the first floor electrical room. The service is rated 120/240V. 3 Phase 4 Wire with a high leg ("B" phase) with two (2) 300A. 3 pole sequence main switches. The building has two (2) electrical meters. Only one meter is currently utilized. The electrical service is fed overhead from ComEd pole mounted transformers. The electrical service is old and appears to be in fair condition.
- b. The building main distribution panels are located in the boiler room. These two (2) panels are rated at 400A. each and are fed from 300A. circuit breakers. The electrical distribution panels are old but, appear to be in fair condition.
- c. Lighting and appliance panelboards are located strategically throughout the building. The majority of the panelboards observed are in fair condition with most of them at the end of their service life. The panels which are over 50 years old should be replaced.

#### 2) Emergency Distribution

- a. An emergency stand-by generator is located outdoors directly adjacent to the Boiler Room. The generator is natural gas fired, approximately 75KW manufactured by Generac. The generator was installed in 2011 and is in excellent condition.
- b. The automatic transfer switch and emergency distribution panels are located within the Boiler Room. The emergency distribution panel is rated at 200A. 120/240V. single phase. The loads served from the distribution include: server room, miscellaneous lighting, and select receptacles.

#### 3) Interior Lighting

- a. The majority of the building utilizes energy efficient T-8 fluorescent lamps. Most areas have either been built with or renovated to include T-8 lamps. Areas such as mechanical and electrical rooms and other utility spaces still utilize obsolete T-12 lighting fixtures. The lighting fixtures which utilize T-12 fluorescent lamps should be upgraded with energy saving T-8 or T-5 lamps with electronic ballasts. All incandescent fixtures should be replaced with compact fluorescent lamps.
- b. To help conserve energy, occupancy sensors could be added to each room to assure lighting is turned off when the room is not in use. Toilet room lighting is a prime candidate for occupancy sensors.



- 4) Exterior Lighting
  - a. The exterior building mounted lighting consists of a multiple variety of HID lighting fixtures. These appear to be in good condition.
- 5) Exit and Emergency Lighting
  - a. Exit lighting is located to illuminate the path of egress. The majority of the exit signs have been converted from incandescent to energy efficient LED type. These appear to be in good condition
  - b. The paths of egress are illuminated with dual head emergency lighting units. These appear to be in good condition
- 6) Electrical Receptacles
  - a. Duplex electrical receptacles are located throughout the building. The receptacles appear to be well positioned.
- 7) Fire Alarm System
  - a. The main fire alarm control panel is located in corridor 116. The system is a FCI 7200, fire alarm control panel. The fire alarm system reports alarms via radio transmitter to the central station. A remote annunciator panel is located in the main entry vestibule. The building is protected predominately by smoke detectors. Signaling devices are located in corridors and larger spaces. The signaling devices are ADA type. Pull stations are located at the building exits
  - b. We recommend adding any missing indicating and initiating devices.

**6.2 DESCRIPTION OF WORK ITEMS  
ELECTRICAL**

ITEM I.D.	LOCATION(S) (ROOM No.)	RULE VIOLATED	DESCRIPTION OF THE VIOLATION	RECOMMENDATION TO CORRECT VIOLATION
E1	Vestibule 116A	NFPA 72	Smoke detector at fire alarm control panel missing.	Add smoke detector, ceiling mounted, directly adjacent to fire alarm control panel.
E2	Entire Building	PM-604.3	Several electrical panelboards are older, becoming obsolete and beyond their useful life.	Replace the panel interiors (circuit breakers and bussing).
E3	Print Shop Storage 111A	PM-604.3	Obsolete T-12 fluorescent lamps are used. These lamps are inefficient and no longer manufactured.	Retrofit lighting fixtures with T-8 fluorescent lamps and ballasts.
E4	Entire Building	Recommended	All interior lighting is controlled by manual lighting switches.	Add occupancy sensors to automatically turn off lighting fixtures when not in use.
E5	Entire Building	I.A.C.	The fire alarm visual signaling devices are not synchronized.	Replace all non-ADA strobes and provide synchronization modules to the system.