

# Roof Inspection Report

Prepared for:

Mr. Greg Boettger  
Bellevue Schools  
&  
Mr. Ralph Gladbach  
GP Architecture, LLC.

Prepared by:

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6728 W. 153<sup>rd</sup> Street  
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## Project Location

Wake Robin School  
700 Lincoln Road  
Bellevue, NE 68005

**Facility:** Wake Robin School  
700 Lincoln Road  
Bellevue  
Nebraska  
68005  
U.S.A.



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**Date of Last Inspection:** Mar 22, 2017



**Type of building:** School

**Type of Neighborhood:** Residential

## Roof Section List

Photo	Section / Name / Year Installed	Size / Height	Roof Type	Condition Index / *RCI / ASLR(Yrs)	Estimated Replacement Value
	Roof A A 1984	11,601 sq. ft. 28 ft.	(EPDM) Ethylene-Propylene-Diene-Monomer Roofing	Poor 33 0(Yrs)	\$185,616.00
	Roof B B 1992	6,384 sq. ft. 28 ft.	(EPDM) Ethylene-Propylene-Diene-Monomer Roofing	Urgent 20 0(Yrs)	\$102,144.00
	Roof C C 1984	3,330 sq. ft. 12 ft.	(EPDM) Ethylene-Propylene-Diene-Monomer Roofing	Poor 33 0(Yrs)	\$53,280.00

## Roof Section List Continued...

Photo	Section / Name / Year Installed	Size / Height	Roof Type	Condition Index / *RCI / ASLR(Yrs)	Estimated Replacement Value
	Roof D D 1984	730 sq. ft. 12 ft.	(EPDM) Ethylene-Propyl ene-Diene-Mon omer Roofing	Poor 33 0(Yrs)	\$11,680.00
	Roof E E 1992	3,650 sq. ft. 20 ft.	(EPDM) Ethylene-Propyl ene-Diene-Mon omer Roofing	Poor 33 0(Yrs)	\$58,400.00
<b>25,695</b>					<b>\$411,120.00</b>
*RCI Rating 0 -100 where 100 is excellent					

## Recommendation Summary

Section ID	Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Budget Amount
Roof A	2017	Replacement	Yes	Capital	High	\$185,616
Roof B	2017	Replacement	Yes	Capital	Urgent	\$102,144
Roof C	2017	Replacement	Yes	Capital	High	\$53,280
Roof D	2017	Replacement	Yes	Capital	High	\$11,680
Roof E	2017	Replacement	Yes	Capital	High	\$58,400
<b>\$411,120</b>						

### Capital Budgets - 5 Years

Section ID	2017	2018	2019	2020	2021
Roof A	\$185,616	\$0	\$0	\$0	\$0
Roof B	\$102,144	\$0	\$0	\$0	\$0
Roof C	\$53,280	\$0	\$0	\$0	\$0
Roof D	\$11,680	\$0	\$0	\$0	\$0
Roof E	\$58,400	\$0	\$0	\$0	\$0
	<b>\$411,120</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

### Total Budgets - 5 Years

Section ID	2017	2018	2019	2020	2021
Roof A	\$185,616	\$0	\$0	\$0	\$0
Roof B	\$102,144	\$0	\$0	\$0	\$0
Roof C	\$53,280	\$0	\$0	\$0	\$0
Roof D	\$11,680	\$0	\$0	\$0	\$0
Roof E	\$58,400	\$0	\$0	\$0	\$0
	<b>\$411,120</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Roof Name:** A**Roof Size:** 11,601 sq. ft.**Est. replacement Cost:** \$ 185,616.00**Existing System Type:** (EPDM) Ethylene-Propylene-Diene-Monomer Roofing**Year Installed:** 1984**Assessed Service Life Remaining (Years) :** 0**Height:** 28 Ft.**Slope:** 1/4" per ft.**Interior Sensitivity:** Normal**Drainage:** Adequate**Currently Leaking?** No**History of Leaking?** Yes**Drainage and Leak Details:** Roof Section A slopes to the interior and drains to three (3) primary roof drains.

No recent leaks were reported on this roof section at the time of inspection.






## Existing Roof System Construction

Layer Type	Description	Method Of Attachment
Deck	Gypsum	Poured - In - Place
Base sheet	Fiberglass Base	Nailed
Membrane	BUR - Multiply	Hot Asphalt
Surfacing	Gravel	Hot Asphalt
Insulation	Expanded Polystyrene (EPS)	Laid - In -Place
Cover board	Fiberboard - 1"	Mechanically Fastened
Membrane	EPDM	Cold Adhesive

## Overall Core Condition

One (1) sample was taken on the 1964 construction portion of the roof area, which revealed two (2) roof systems in place. The deck is a poured in place gypsum decking. The original roof system consists of a multiply BUR system with a gravel surfacing. That roof system was later covered with an air-expanded polystyrene insulation board, which appears to be part of a tapered insulation system, and one (1) layer of 1" wood fiber cover board. The membrane is a fully-adhered, .060 mil Firestone EPDM. The wood fiber cover board was deteriorated at the core cut location. An under view of the 1969 addition to the building revealed the same type of form board used as the 1964 constructed area. The cover board appears to have been attached used toggle bolts through the gypsum decking.

## Core Photos

Photos	Date	Description
	Mar 22, 2017	Deck Underside
	Mar 22, 2017	Membrane stamp
	Mar 22, 2017	Roof System Core

## Overall Roof Inspection Assessments

Date	Inspection Type	Inspecting Company	Inspector
Mar 22, 2017	Phase 1 Roof Inspection	Roofing Solutions, Inc.	Garry Hendrickson

Roof Section A refers to the low slope roof system over the main part of the two (2) story portion of the Wake Robin School facility. The roof is an approximately thirty-three (33) year old, fully-adhered, .060 mil EPDM. The exterior perimeter sides of the roof areas are a raised roof edge where the roof membrane terminates with a metal roof edging. There is no raised roof divider in place between the B-1 and A roof areas; the EPDM membrane runs continuously through the area. This roof section includes a lower roof area at the SW side of the building as well.

Defects and conditions found during the inspection include the following:

- Open laps observed in the repair material laps
- Accumulation of debris observed around the drain strainers
- Past coating repairs observed to the roof membrane laps
- Low flashing height observed on one (1) fan curb

Overall, the roof system is in poor condition due to its age and the deteriorated nature of the roof system. Given the observed conditions, it is our opinion comprehensive repairs in an effort to extend the life of the system would be neither feasible nor cost effective. We recommend the roof be replaced. There was no warranty information available for this roof section at the time of inspection.

## Recommendations Details

Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Quotation \$
2017	Replacement	Yes	Capital	High	\$185,616

RSI recommends a complete tear-off of existing roof system and the installation of a new twenty (20) year design life roof system. We further recommend the replacement of all perimeter coping cap and projection details per SMACNA Architectural Sheet Metal Manual.

**\$185,616**



**Roof Name:** B**Roof Size:** 6,384 sq. ft.**Est. replacement Cost:** \$ 102,144.00**Existing System Type:** (EPDM) Ethylene-Propylene-Diene-Monomer Roofing**Year Installed:** 1992**Assessed Service Life Remaining (Years) :** 0**Height:** 28 Ft.**Slope:** 1/4" per ft.**Interior Sensitivity:** Normal**Drainage:** Adequate**Currently Leaking?** No**History of Leaking?** Yes**Drainage and Leak Details:** Roof Section B slopes to the interior and drains to four (4) primary roof drains.

No recent leaks were reported on this roof section at the time of inspection.





## Existing Roof System Construction

Layer Type	Description	Method Of Attachment
Deck	Metal	Spot Attached
Insulation	Expanded Polystyrene (EPS)	Laid - In -Place
Cover board	Fiberboard - .5" (1/2")	Mechanically Fastened
Membrane	EPDM	Cold Adhesive

## Overall Core Condition

One (1) core sample was taken on the B-2 roof area, which is part of the 1992 addition portion of the roof area. The deck is a factory primed steel decking. The insulation is air-expanded polystyrene insulation, which appears to be part of a tapered insulation system, with one (1) layer of 1/2" wood fiber cover board. The membrane is a fully-adhered, .060 mil Firestone EPDM. The wood fiber cover board was deteriorated at the core cut location. An under view of the 1974 addition to the building revealed the same type of steel decking. Due to age difference of the 1974 addition, there may be an addition roof system in place on that portion of the roof area.

**Core Photos**

Photos	Date	Description
	Mar 22, 2017	Deck Underside
	Mar 22, 2017	Roof System Core

## Overall Roof Inspection Assessments

Date	Inspection Type	Inspecting Company	Inspector
Mar 22, 2017	Phase 1 Roof Inspection	Roofing Solutions, Inc.	Garry Hendrickson

Roof Section B refers to the low slope roof system over the southern part of the two (2) story portion of the Wake Robin School facility. The roof is an approximately twenty-five (25) year old, fully-adhered, .060 mil EPDM. The exterior perimeter sides of the roof areas are a raised roof edge where the roof membrane terminates with a metal roof edging. There is no raised roof divider in place between the B-1 & B-2 roof areas and at the A roof area. The EPDM membrane runs continuously through the areas with a raised roof edge detail between the B-1 & B-2 roof areas where the roof slope changes.

Defects and conditions found during the inspection include the following:

- Open laps observed in the repair material laps
- High roof system attachment anchors observed
- Most of the EPDM membrane is no longer adhered and loose on the B-2 roof area
- One (1) torn EPDM pipe boot flashing observed
- Past coating repairs to the B-1 roof membrane laps
- Open and loose EPDM flashing laps observed
- One (1) damaged skylight lens observed

Overall, the roof system is in urgent condition due to the unadhered roof membrane, along with its age and general deteriorated nature of the roof system. Given the observed conditions, it is our opinion comprehensive repairs in an effort to extend the life of the system would be neither feasible nor cost effective. We recommend the roof be replaced. There was no warranty information available for this roof section at the time of inspection.

## Recommendations Details

Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Quotation \$
2017	Replacement	Yes	Capital	Urgent	\$102,144

RSI recommends a complete tear-off of existing roof system and the installation of a new twenty (20) year design life roof system. We further recommend the replacement of all perimeter coping cap and projection details per SMACNA Architectural Sheet Metal Manual.

**\$102,144**

**Roof Name:** C**Roof Size:** 3,330 sq. ft.**Est. replacement Cost:** \$ 53,280.00**Existing System Type:** (EPDM) Ethylene-Propylene-Diene-Monomer Roofing**Year Installed:** 1984**Assessed Service Life Remaining (Years) :** 0**Height:** 12 Ft.**Slope:** 1/4" per ft.**Interior Sensitivity:** Normal**Drainage:** Adequate**Currently Leaking?** No**History of Leaking?** Yes**Drainage and Leak Details:** The C roof areas slope to the eave edges and drain to an external guttering.

No recent leaks were reported on this roof section at the time of inspection.





## Existing Roof System Construction

Layer Type	Description	Method Of Attachment
Deck	Metal	Spot Attached
Insulation	Perlite	Hot Asphalt
Insulation	Urethane insulation board	Hot Asphalt
Membrane	BUR - Multiply	Hot Asphalt
Surfacing	Gravel	Hot Asphalt
Insulation	Expanded Polystyrene (EPS)	Laid - In -Place
Cover board	Fiberboard - 1"	Mechanically Fastened
Membrane	EPDM	Cold Adhesive

## Overall Core Condition

One (1) core sample was taken on both the C-1 and C-2 roof areas, each of which revealed two (2) roof systems in place. The deck is a factory primed steel decking. The original roof system consists of one (1) layer of 1" perlite board, one (1) layer of 1" urethane insulation and a multiply BUR system with a gravel surfacing. That roof system was later covered with an air-expanded polystyrene insulation, which appears to be part of a tapered insulation system, and one (1) layer of 1" wood fiber cover board. The membrane is a fully-adhered, .060 mil Firestone EPDM. The wood fiber cover board was deteriorated at both core cut locations.

## Core Photos

Photos	Date	Description
	Mar 22, 2017	Core cut #1
	Mar 22, 2017	Core cut #2
	Mar 22, 2017	Membrane stamp

## Overall Roof Inspection Assessments

Date	Inspection Type	Inspecting Company	Inspector
Mar 22, 2017	Phase 1 Roof Inspection	Roofing Solutions, Inc.	Garry Hendrickson

Roof Section C refers to the low slope roof system over the singlestory portion of the 1974 addition at the Wake Robin School facility. The roof is an approximately thirty-three (33) year old, fully-adhered, .060 mil EPDM. The exterior perimeter sides of the roof areas consist of a flat or raised roof edge where the roof membrane terminates with a metal roof edging. The common walls with the E roof area are flashed up 8" with the same type of EPDM membrane which extends under a surface mounted metal counter flashing. The common walls with the D roof area are flashed in the same manner as the other walls where the membrane flashing extends under a metal slip flashing which is set under the metal roof edging for the D roof area.

Defects and conditions found during the inspection include the following:

- Open laps observed in the repair material laps
- Past coating repairs to the roof membrane lap
- Low flashing height observed on one (1) fan curb

Overall, the roof system is in poor condition due to its age and the deteriorated nature of the roof system. Given the observed conditions, it is our opinion comprehensive repairs in an effort to extend the life of the system would be neither feasible nor cost effective. We recommend the roof be replaced. There was no warranty information available for this roof section at the time of inspection.

## Recommendations Details

Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Quotation \$
2017	Replacement	Yes	Capital	High	\$53,280

RSI recommends a complete tear-off of existing roof system and the installation of a new twenty (20) year design life roof system. We further recommend the replacement of all perimeter coping cap and projection details per SMACNA Architectural Sheet Metal Manual.

**\$53,280**

**Roof Name:** D**Roof Size:** 730 sq. ft.**Est. replacement Cost:** \$ 11,680.00**Existing System Type:** (EPDM) Ethylene-Propylene-Diene-Monomer Roofing**Year Installed:** 1984**Assessed Service Life Remaining (Years) :** 0**Height:** 12 Ft.**Slope:** 1/4" per ft.**Interior Sensitivity:** Normal**Drainage:** Adequate**Currently Leaking?** No**History of Leaking?** Yes**Drainage and Leak Details:** Roof Section D slopes to the corner of the area and drains to a single primary roof drain.

No recent leaks were reported on this roof section at the time of inspection.





## Existing Roof System Construction

Layer Type	Description	Method Of Attachment
Deck	Gypsum	Poured - In - Place
Base sheet	Fiberglass Base	Nailed
Membrane	BUR - Multiply	Hot Asphalt
Surfacing	Gravel	Hot Asphalt
Insulation	Expanded Polystyrene (EPS)	Laid - In -Place
Cover board	Fiberboard - 1"	Mechanically Fastened
Membrane	EPDM	Cold Adhesive

## Overall Core Condition

One (1) core sample revealed two (2) roof systems in place. The deck is a poured in place gypsum decking. The original roof system consists of a multiply BUR system with a gravel surfacing. That roof system was later covered with an air-expanded polystyrene insulation, which appears to be part of a tapered insulation system, and one (1) layer of 1" wood fiber cover board. The membrane is a fully-adhered, .060 mil Firestone EPDM. The wood fiber cover board was deteriorated at the core cut location.

## Core Photos

Photos	Date	Description
	Mar 22, 2017	Deck Underside
	Mar 22, 2017	Roof System Core



## Overall Roof Inspection Assessments

Date	Inspection Type	Inspecting Company	Inspector
Mar 22, 2017	Phase 1 Roof Inspection	Roofing Solutions, Inc.	Garry Hendrickson

Roof Section D refers to the low slope roof system over the single-story portion of the 1964 construction at the Wake Robin School facility. The roof is an approximately thirty-three (33) year old, fully-adhered, .060 mil EPDM. The exterior perimeter sides of the roof areas are a raised roof edge where the roof membrane terminates with a metal roof edging.

Defects and conditions found during the inspection include the following:

- Open laps observed in the repair material laps
- Past coating repairs to the roof membrane lap
- One (1) detached flue cap observed
- One (1) abandoned pipe penetration observed

Overall, the roof system is in poor condition due to its age and the deteriorated nature of the roof system. Given the observed conditions, it is our opinion comprehensive repairs in an effort to extend the life of the system would be neither feasible nor cost effective. We recommend the roof be replaced. There was no warranty information available for this roof section at the time of inspection.

## Recommendations Details

Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Quotation \$
2017	Replacement	Yes	Capital	High	\$11,680

RSI recommends a complete tear-off of existing roof system and the installation of a new twenty (20) year design life roof system. We further recommend the replacement of all perimeter coping cap and projection details per SMACNA Architectural Sheet Metal Manual.

**\$11,680**

**Roof Name:** E**Roof Size:** 3,650 sq. ft.**Est. replacement Cost:** \$ 58,400.00**Existing System Type:** (EPDM) Ethylene-Propylene-Diene-Monomer Roofing**Year Installed:** 1992**Assessed Service Life Remaining (Years) :** 0**Height:** 20 Ft.**Slope:** 1/4" per ft.**Interior Sensitivity:** Normal**Drainage:** Adequate**Currently Leaking?** No**History of Leaking?** Yes**Drainage and Leak Details:** Roof Section E slopes from a central ridge line towards the NW and SE and drains to an external guttering.

No recent leaks were reported on this roof section at the time of inspection.





## Existing Roof System Construction

Layer Type	Description	Method Of Attachment
Deck	Tectum	Laid - In -Place
Base sheet	Fiberglass Base	Nailed
Thermal barrier	3/4" Perlite	Hot Asphalt
Membrane	BUR - Multiply	Hot Asphalt
Insulation	Expanded Polystyrene (EPS)	Laid - In -Place
Insulation	Polyisocyanurate	Mechanically Fastened
Membrane	EPDM	Cold Adhesive

## Overall Core Condition

One (1) core sample revealed two (2) roof systems in place. The deck is a tectum panel decking. The original roof system consists of one (1) layer of .75" perlite and a multiply BUR system. That roof system was later covered with 1" layer of air-expanded polystyrene insulation and one (1) layer of 1.5" polyisocyanurate insulation. The membrane is a fully-adhered, .060 mil Firestone EPDM. The insulation appears to be attached using toggle bolts through the tectum panel decking.

## Core Photos

Photos	Date	Description
	Mar 22, 2017	Deck Underside
	Mar 22, 2017	Roof System Core

## Overall Roof Inspection Assessments

Date	Inspection Type	Inspecting Company	Inspector
Mar 22, 2017	Phase 1 Roof Inspection	Roofing Solutions, Inc.	Garry Hendrickson

Roof Section E refers to the low slope roof system over the gymnasium at the Wake Robin School facility. The roof is an approximately twenty-five (25) year old, fully-adhered, .060 mil EPDM. The exterior perimeter sides of the roof areas are a flat or raised roof edge where the roof membrane terminates with a metal roof edging.

Defects and conditions found during the inspection include the following:

- Open laps observed in the repair material laps
- Past coating repairs to the roof membrane lap

Overall, the roof system is in poor condition due to its age and the deteriorated nature of the roof system. Given the observed conditions, it is our opinion comprehensive repairs in an effort to extend the life of the system would be neither feasible nor cost effective. We recommend the roof be replaced. There was no warranty information available for this roof section at the time of inspection.

## Recommendations Details

Budget Year	Activity Type	Action Item ?	Allocation	Urgency	Quotation \$
2017	Replacement	Yes	Capital	High	\$58,400

RSI recommends a complete tear-off of existing roof system and the installation of a new twenty (20) year design life roof system. We further recommend the replacement of all perimeter coping cap and projection details per SMACNA Architectural Sheet Metal Manual.

**\$58,400**

Photos and Deficiencies



<b>Defect Code:</b>	<b>3</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Open lap in field membrane.					
Repair: Clean lap of all dirt and close seam. Overlay edge of affected seam with strip-in of new membrane of like material. Extend a minimum of 4" in all directions past seam edges and repair areas.					



<b>Defect Code:</b>	<b>22</b>	<b>Quantity:</b>	<b>3</b>	<b>Priority:</b>	<b>First Year</b>
Description: Debris, trash, construction materials, HVAC equipment, filters, motors, etc. on roof surface.					
Repair: Remove all trash and debris from roof. Clean and inspect surfaces and repair any damages to the membrane or flashings.					



<b>Defect Code:</b>	<b>24</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Evidence of past problem and previous repair.					
Repair: Investigate for chronic leak problems and repair any areas that are suspect.					



<b>Defect Code:</b>	<b>40</b>	<b>Quantity:</b>	<b>1</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Low flashing height.					
Repair: Raise flashing height to a minimum of 8" above finished roof surface. Provide appropriate termination of flashings with metal copings or counterflashings. Provide a compression bar termination of flashings to concrete or block surface if flashings cannot be maintained at 8" minimum height.					

Photos and Deficiencies



<b>Defect Code:</b>	<b>3</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Open lap in field membrane.					
Repair: Clean lap of all dirt and close seam. Overlay edge of affected seam with strip-in of new membrane of like material. Extend a minimum of 4" in all directions past seam edges and repair areas.					



<b>Defect Code:</b>	<b>10</b>	<b>Quantity:</b>	<b>Random</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Tented membrane at fastener.					
Repair: Remove fasteners that are loose or not flush with the substrate. Remove underlying substrate materials including insulation and coverboard and replace with matching materials of similar thicknesses to provide for a smooth flush surface.. Install new fasteners and plates per manufacturer's recommendations for system type and apply new membrane repair materials of similar type, gauge, and plies as existing roof system.					



<b>Defect Code:</b>	<b>18</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Unadhered membrane or inadequate membrane attachment.					
Repair: At unadhered areas, cut open membrane and readhere to substrate with manufacturer's approved adhesive. At areas with missing securement, provide securement in the form of screws and plates installed a maximum of 12" O.C. Overlay repaired areas with new membrane of similar gauge, type, and plies and extend repairs a minimum of 4" past cut areas or edges of plates.					



<b>Defect Code:</b>	<b>23</b>	<b>Quantity:</b>	<b>Under 10 LF</b>	<b>Priority:</b>	<b>First Year</b>
Description: Physical damage to membrane including cuts, holes, tears, scrapes, scuffs, or abrasions.					
Repair: Apply repair membrane over damaged area, extending repair material a minimum 6" past damage.					

Photos and Deficiencies



Defect Code:	24	Quantity:	Widespread	Priority:	Monitor
Description: Evidence of past problem and previous repair.					
Repair: Investigate for chronic leak problems and repair any areas that are suspect.					



Defect Code:	45	Quantity:	Widespread	Priority:	Monitor
Description: Open flashing lap					
Repair: Open loose lap area and clean thoroughly. Prime and reseam or reweld lap per the manufacturer's requirements. Strip-in defective lap with mimum 6" wide membrane on single ply systems or 6" wide fabric and mastic three-course application on asphalt systems. Regranulate or coat flashing repairs.					



Defect Code:	88	Quantity:	1	Priority:	First Year
Description: Skylight defect/cracked/deteriorated					
Repair: Remove and replace affected components.					

Photos and Deficiencies



Defect Code:	3	Quantity:	Widespread	Priority:	Monitor
Description: Open lap in field membrane.					
Repair: Clean lap of all dirt and close seam. Overlay edge of affected seam with strip-in of new membrane of like material. Extend a minimum of 4" in all directions past seam edges and repair areas.					



Defect Code:	24	Quantity:	Widespread	Priority:	Monitor
Description: Evidence of past problem and previous repair.					
Repair: Investigate for chronic leak problems and repair any areas that are suspect.					



Defect Code:	40	Quantity:	1	Priority:	Monitor
Description: Low flashing height.					
Repair: Raise flashing height to a minimum of 8" above finished roof surface. Provide appropriate termination of flashings with metal copings or counterflashings. Provide a compression bar termination of flashings to concrete or block surface if flashings cannot be maintained at 8" minimum height.					



Photos and Deficiencies



<b>Defect Code:</b>	<b>3</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Open lap in field membrane.					
Repair: Clean lap of all dirt and close seam. Overlay edge of affected seam with strip-in of new membrane of like material. Extend a minimum of 4" in all directions past seam edges and repair areas.					



<b>Defect Code:</b>	<b>24</b>	<b>Quantity:</b>	<b>Widespread</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Evidence of past problem and previous repair.					
Repair: Investigate for chronic leak problems and repair any areas that are suspect.					



<b>Defect Code:</b>	<b>52</b>	<b>Quantity:</b>	<b>1</b>	<b>Priority:</b>	<b>First Year</b>
Description: Missing rain cap, rain collar, or hood.					
Repair: Install rain cap, hood, or collar and secure and seal to pipe.					



<b>Defect Code:</b>	<b>56</b>	<b>Quantity:</b>	<b>1</b>	<b>Priority:</b>	<b>Monitor</b>
Description: Abandoned and obsolete equipment.					
Repair: Monitor for leaks. Check systems are abandoned and disconnected and will not be used in the future. Remove abandoned equipment and repair deck at scheduled roof replacement.					

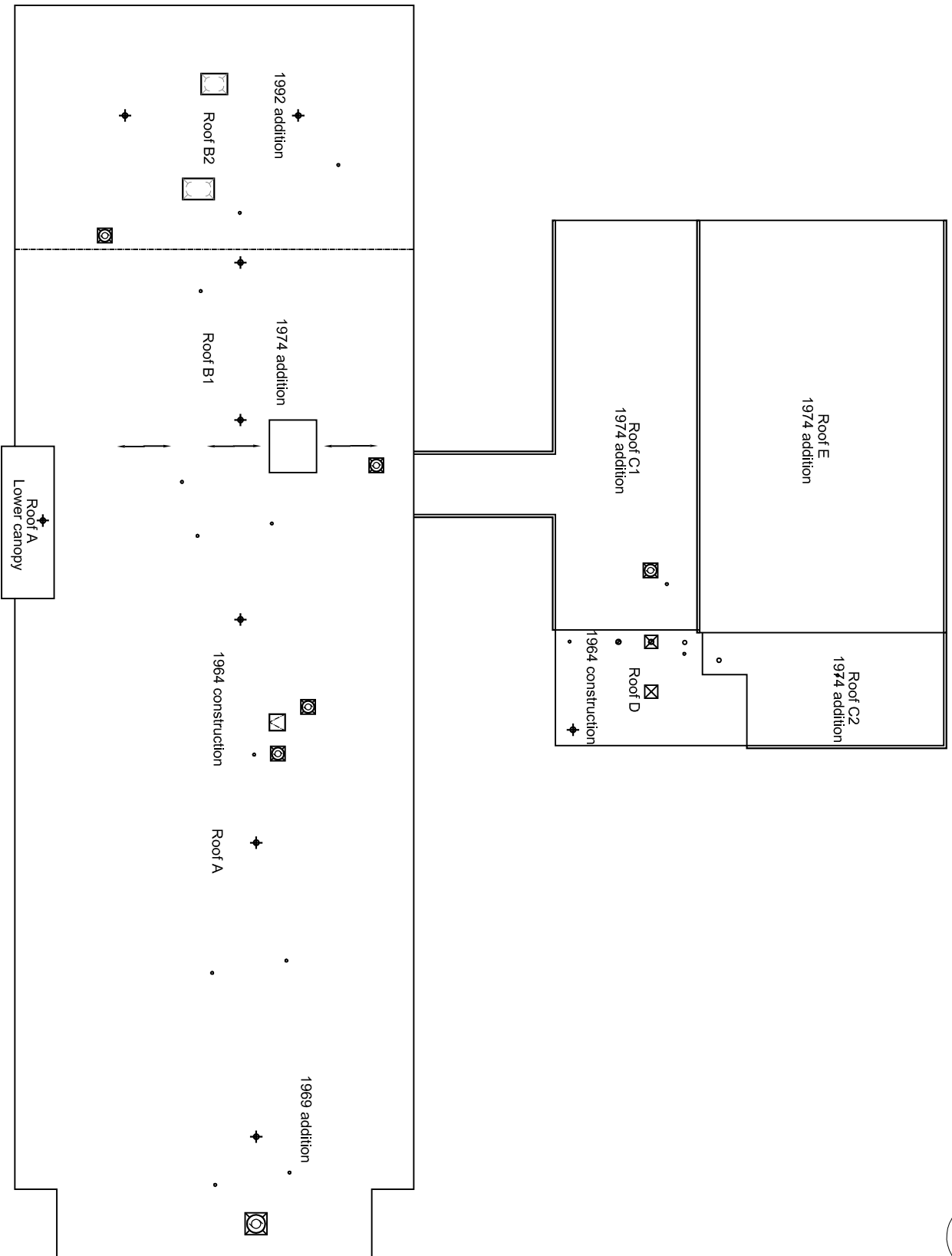
Photos and Deficiencies



Defect Code:	3	Quantity:	Widespread	Priority:	Monitor
Description: Open lap in field membrane.					
Repair: Clean lap of all dirt and close seam. Overlay edge of affected seam with strip-in of new membrane of like material. Extend a minimum of 4" in all directions past seam edges and repair areas.					



Defect Code:	24	Quantity:	Widespread	Priority:	Monitor
Description: Evidence of past problem and previous repair.					
Repair: Investigate for chronic leak problems and repair any areas that are suspect.					



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Project Name:

**Wake Robin School**

Project Address:

**700 Lincoln Road  
 Bellevue, NE 68005**

Sheet Number:  
**01 of 01**

Date:  
**03/22/2017**

Drawn By:  
 GH

Project Number:  
**00-000000**

Sheet Title:  
**Site Plan**

- DRAWING LEGEND**
- ⊕ DRAIN
  - ⊖ OVERFLOW
  - ⊗ SCUPPER
  - ⊞ HVAC UNIT
  - ⊠ CURB
  - ⊡ SATELLITE
  - ⊟ PITCH PAN
  - PIPE
  - SLEEPER
  - ⊞ SKYLIGHT
  - ⊞ EXHAUST FAN
  - ⊞ CONDENSER ON SLEEPERS
  - ⊞ DEFECT NOTE
  - ⊞ CONSTRUCTION NOTE
- N.I.C. NOT IN CONTRACT  
 U.N.O. UNLESS NOTED OTHERWISE



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 Deficiency Legend
 

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Defect #	<b>FIELD MEMBRANE AND ROOF SURFACE</b>
1	Description: Deteriorated or missing sealant at counterflashing, termination bar, sealant lip, metal flashing, expansion joint, etc.
2	Description: Fishmouth in field or flashing seam.
3	Description: Open lap in field membrane.
4	Description: Dry lap edge.
5	Description: Buckling or ridging of membrane.
6	Description: Split in membrane.
7	Description: Wrinkle in membrane.
8	Description: Surface erosion.
9	Description: Membrane deterioration.
10	Description: Tented membrane at fastener.
11	Description: Blister in field membrane or flashing.
12	Description: Alligatoring of asphalt surfacing.
13	Description: Tar boils/blueberries.
14	Description: Displaced ballast.
15	Description: Ponding of water.
16	Description: Blocked drain, scupper, or downspout.
17	Description: Missing or damaged drain/scupper strainer
18	Description: Unadhered membrane or inadequate membrane attachment.
19	Description: Unadhered insulation or inadequate insulation attachment.
20	Description: Displaced insulation
21	Description: Loose walkway pad or deteriorated paver.
22	Description: Debris, trash, construction materials, HVAC equipment, filters, motors, etc. on roof surface.
23	Description: Physical damage to membrane including cuts, holes, tears, scrapes, scuffs, or abrasions.
24	Description: Evidence of past problem and previous repair.
25	Description: Membrane slippage
26	Description: Membrane shrinkage
27	Description: Missing or damaged membrane protection layer at sleeper, antenna, satellite sled, blocking, pipe stand, paver, etc.
28	Description: Reported leak location
29	Description: Missing, loose, or broken shingles
30	Description: Open or missing tile eave stop.
31	Description: Missing or open mortar joints at the ridge or hip.
32	Description: Broken or missing tile.
33	Description: Loose, displace, or unsecured tiles.

## Deficiency Legend

Defect #	FLASHINGS AND PENETRATIONS
40	Description: Low flashing height.
41	Description: Missing or inadequate flashing attachment.
42	Description: Loose or unadhered flashings.
43	Description: Weathered and deteriorated flashing
44	Description: Bridged flashing
45	Description: Open flashing lap
46	Description: Split in flashing
47	Description: Racked flashings
48	Description: Missing termination
49	Description: Missing counterflashing
50	Description: Missing pipe flashing.
51	Description: Leaking or damaged gutters/downspouts.
52	Description: Missing rain cap, rain collar, or hood.
53	Description: Open lead flashing.
54	Description: Fallen or loose backer rod.
55	Description: Deteriorated or shrunken pitch pan filler.
56	Description: Abandoned and obsolete equipment.
57	Description: Expansion joint deficiencies.
58	Description: Inadequate or nonconforming membrane flashing detail.
	<b>METALWORK AND MISCELLANEOUS</b>
70	Description: Open joint in metal flashing.
71	Description: Open or missing joint cover.
72	Description: Signage penetration not sealed properly.
73	Description: Improper sheet metal detail.
74	Description: Inadequate coverage of metal flange.
75	Description: Inadequate attachment of metal flashings.
76	Description: Inadequate transition flashings.
77	Description: Grease or other contaminants exhausted or vented onto roof surface.
78	Description: Leaking or damaged gutters/downspouts.
79	Description: Cracks in walls.
80	Description: Broken, plugged, or disconnected condensate line.
81	Description: Displaced antenna, sign, bracing, support, strap, etc.
82	Description: Open or deteriorated wall joint.
83	Description: Efflorescence.
84	Description: Deck deflection
85	Description: Vegetation growth.
86	Description: Corrosion or rust
87	Description: Mechanical defect
88	Description: Skylight defect/cracked/deteriorated
89	Description: Missing wall covering or cladding materials.

Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof A\_2017-03-22



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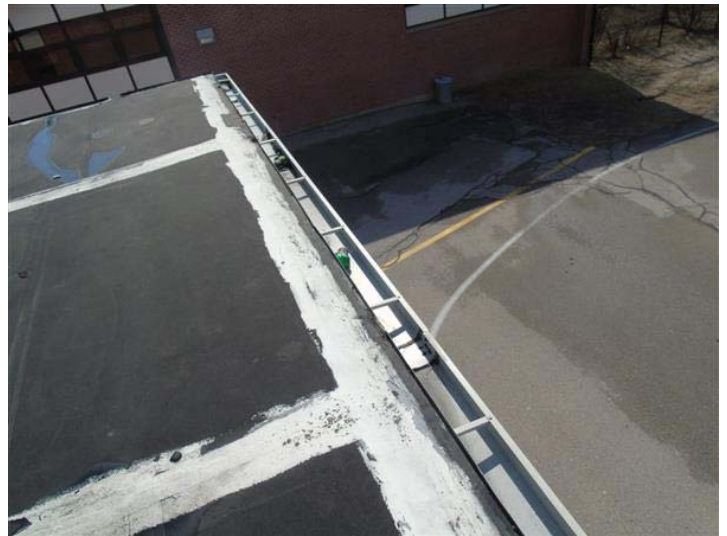


Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof C-1\_2017-03-22





Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof C-1\_2017-03-22



Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof C-1\_2017-03-22



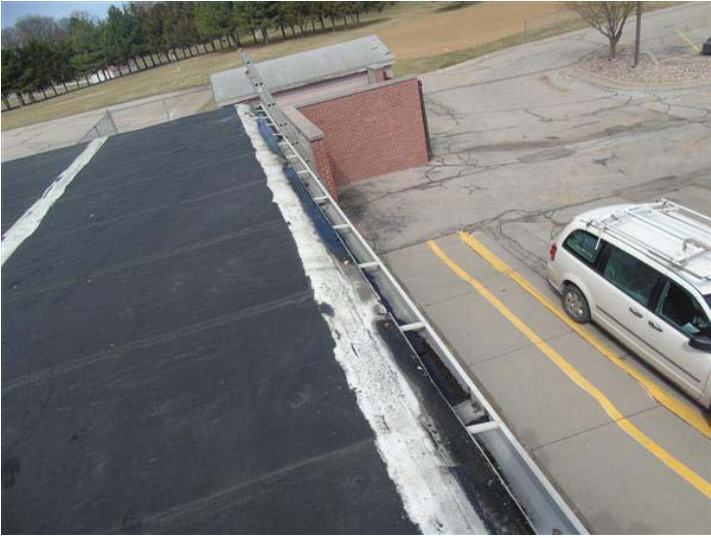
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Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof C-2\_2017-03-22



Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof C-2\_2017-03-22





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Ph 1 Roof Inspection\_Roof D\_2017-03-22



Wake Robin School\_Bellevue, NE  
Ph 1 Roof Inspection\_Roof D\_2017-03-22





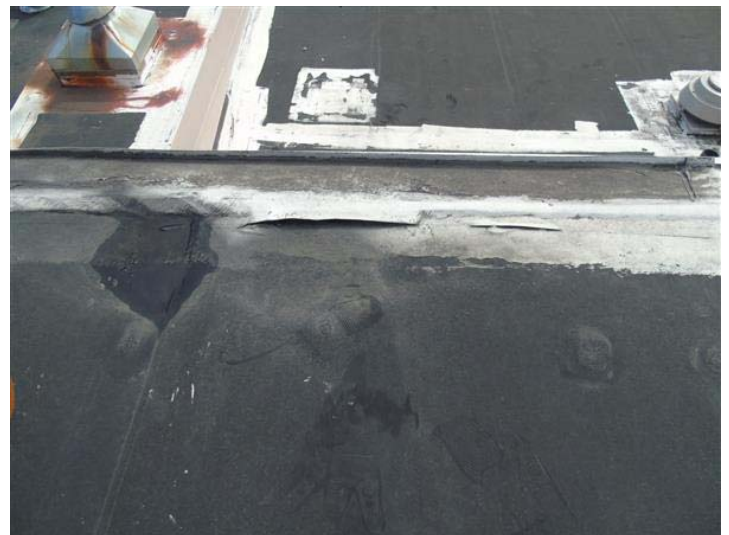
Wake Robin School\_Bellevue, NE  
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