# ROOF SURVEY REPORT

789 ABC CROSSING LANE ♦ MONEY, GEORGIA

Prepared for

corporation





# 789 ABC CROSSING LANE MONEY, GEORGIA

### 1.00 ABSTRACT

At the direction of Mr. Cash Ryder of ZYX Corporation, Inc., Mr. Ron Hart, President of Hart Consulting Group, Inc., inspected the existing roof condition at 789 ABC Crossing Lane in Money, Georgia on December 14<sup>th</sup>, 2006. Weather conditions at the time were cloudy with temperatures in the low 50's.

### 2.00 EXECUTIVE SUMMARY

The existing roof system at the above referenced facility is an 18-year-old ballasted EPDM system in poor condition. With the average useful life of this system in this region being 13-15 years with repairs, this roof system is nearing the end of its useful service life. The following deficiencies were observed:

- Membrane shrinkage and failing flashings were found throughout.
- The edge metal detail has stress due to membrane shrinkage.
- The large HVAC duct has some hail damage and has moisture infiltration. The duct should be sealed with an elastomeric repair and coating to prevent further water infiltration.

The membrane will continue to shrink, stressing all flashings and seams and creating ongoing leak problems. To avoid the problematic situation, the roof system should be replaced in the next 18 to 24 months.

## 3.00 ROOF CONSTRUCTION

**Roof Size:** 34.500 ft<sup>2</sup>

Surface: River rock ballast

**Membrane:** 45-mil non-reinforced EPDM

**Roof Insulation:** 2.5" Polyisocyanurate

Base Flashing: EPDM

Metal Components: Termination bar, edge metal and counterflashing

**Expansion Joints:** None

Drainage: Slope to roof drains

Warranty: None

### 4.00 OBSERVATIONS

4.01 SURFACE: Fair

**Comments:** The ballast is evenly distributed to cover all membrane.

Recommendations: Please refer to Section 5.00 - Conclusions and Recommendations of this report.

4.02 FIELD MEMBRANE: Poor

**Comments:** Membrane shrinkage is evident at all edge details and penetrations.

Recommendations: Please refer to Section 5.00 - Conclusions and Recommendations of this report.

4.03 BASE/WALL FLASHINGS: Poor

**Comments:** Membrane shrinkage is evident at all flashings with repairs evident.

Recommendations: Please refer to Section 5.00 - Conclusions and Recommendations of this report.

4.04 METAL COMPONENTS: Fair

**Comments:** The metal components are in fair condition and should perform until roof replacement.

Recommendations: Please refer to Section 5.00 - Conclusions and Recommendations of this report.

4.05 DRAINAGE: Good

**Comments:** This roof has adequate slope to facilitate water removal.

**Recommendations:** None at this time.

### 5.00 CONCLUSIONS AND RECOMMENDATIONS

The 18-year-old ballasted EPDM should be replaced in the next 18 to 24 months. The system shows membrane shrinkage with stressing seams and flashings at edge details and all penetrations. The membrane will continue to shrink causing stress at all penetrations and edge details with subsequent leaks.



## 6.00 BUDGET INFORMATION

2006 Immediate Repairs Repair hail damage, apply elastomeric repair and coating to large duct	\$1,200
2007 Maintenance, Repair and Inspection	\$2,000
2008 Anticipated Roof Replacement Ballasted EPDM with 10 year warranty; 34,500 ft² x \$3.50 per ft²	\$120,000
2009 Maintenance, Repair & Inspection 2010 Maintenance, Repair & Inspection 2011 Maintenance, Repair & Inspection 2012 Maintenance, Repair & Inspection 2013 Maintenance, Repair & Inspection 2014 Maintenance, Repair & Inspection 2015 Maintenance, Repair & Inspection	\$1,050 \$1,100 \$1,150 \$1,200 \$1,250 \$1,300 \$1,350
2016 Maintenance, Repair & Inspection	\$1,400



# PHOTO ESSAY

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PHOTO # 1 SITE VERIFICATION



PHOTO #'s 2 & 3 ROOF OVERVIEW





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PHOTO #'s 4, 5 & 6 ROOF OVERVIEW



Columbus, Ohio + Jacksonville, Florida





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PHOTO # 7
ROOF OVERVIEW







PHOTO #'5 8 & 9 CRACKS IN THE BRICK FACADE AND DAMAGED MORTAR JOINTS



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CRACKS IN THE BRICK FACADE AND DAMAGED MORTAR JOINTS







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# PHOTO #'s 11 & 12

THE BASE FLASHINGS AND EDGE METAL HAVE STRESS DUE TO MEMBRANE SHRINKAGE





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PHOTO #'s 13, 14 & 15

THE BASE FLASHINGS AND EDGE METAL HAVE STRESS DUE TO MEMBRANE SHRINKAGE



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PHOTO #'s 16 & 17

THE BASE FLASHINGS AND EDGE METAL HAVE STRESS DUE TO MEMBRANE SHRINKAGE





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PHOTO #'s 18 & 19 HAIL DAMAGE IS ALLOWING WATER INFILTRATION INTO THE HVAC DUCT



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