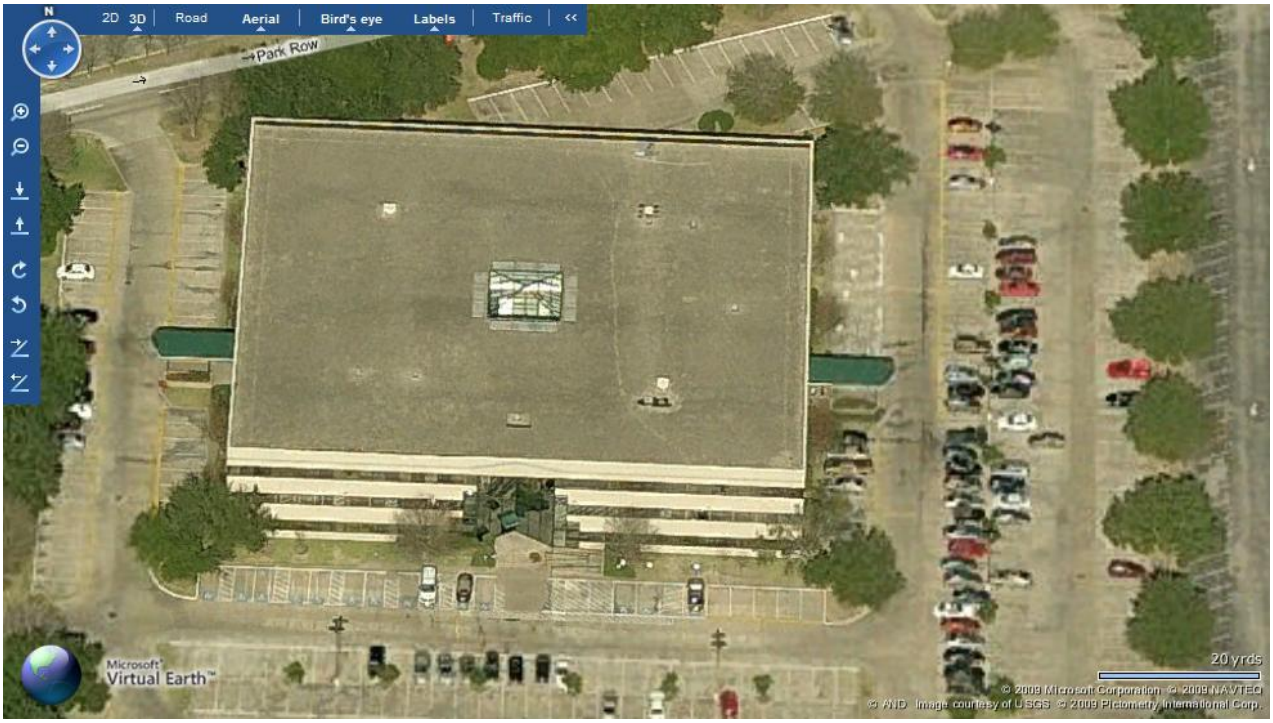
HOUSTON COMMUNITY COLLEGE



KATY CAMPUS
ROOF REPORT

SUBJECT: ROOF SURVEY FOR KATY CAMPUS

The enclosed report is based on our recent inspection of the subject facility. Its purpose is to identify problem areas on the subject roof areas and recommend solutions to these problems.

The roof area survey included:

A. Interior and exterior examination of roof-related sheet metal, parapets, copings, flashings, roof mat, deck system, and penetrations and/or projections through the roof system.
B. Evaluate possible points of water intrusion to substantiate water damage of the interior.
C. Verify edge metal/coping roof top equipment damage by Hurricane Ike.

Based upon the existing conditions of the facility, we are providing recommendations and realistic long term solutions to your roofing problems, taking into consideration suitable alternatives.

We are prepared to provide you with the information necessary to receive quotations for the project from contractors. This would include CAD roof plans and details, specifications, necessary bidding conferences, assistance in contractor and bid evaluations, and follow through of the project to completion. All of these services will be coordinated with your input in order to achieve a completed package to meet your specific requirements.

Sincerely,

Mike Perry

Mike Perry RCI
Building Envelope Consultant

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION AND EXISTING CONDITIONS

The total area covered by this report is approximately 43,290 square feet. Core samples were taken of this facility.

Size and Reported Age:

Roof Area is 43,290 square feet, age unknown

1.00 EXISTING CONDITIONS

1.01 Nomenclature:

Deck: Fluted metal deck system attached to the structural bar joist.

Insulating Fill: Insulating fill two (2) inches in depth
.
Insulating Board: one (1) inch foil faced polyisocyanurate insulation, loose laid.

Membrane: Forty five (45) mil EPDM membrane, mechanically fastened.

Insulation Board: one half inch wood fiber board insulation loose laid.

Membrane: Forty five (45) mil EPDM membrane, mechanically fastened.

Attachment: Mechanically with course grade screw with plate, pattern unknown.

Surfacing: Aggregate used as the surfacing for the roof system. one and one half inch river rock. The application rate of approximately 600 ± pounds per square.

1.02 Specific Conditions:

1.02.1 Deck: Limited observation reveals that the deck appears to be in good condition.

1.02.2 Roof Membrane: The membranes appear to be in good condition visually, however water infiltration has occurred into the facility around the perimeter of the facility. Refer to the infrared photographs

1.02.3 Reported Leaks: It is evident that leakage has occurred to the interior below. There are possible points of entry on the roof around the perimeter of the roof system. In general there are multiple areas in which the water may have entered the facility roof system

1.02.4 Flashing: There are minor areas of flashing that are loose due to the wind flutter caused by the storm. Wind has casued the flashing laps to open. Loose open flashings will allow moisture to enter the roof system and into the facility below.

1.02.7 Sheet Metal: The sheet metal coping is damaged due to the wind uplift. The coping system is loose in several areas which indicate that wind may have lifted and jeopardized the integrity of the coping attachment. The potential for blowing rain to enter is possible.

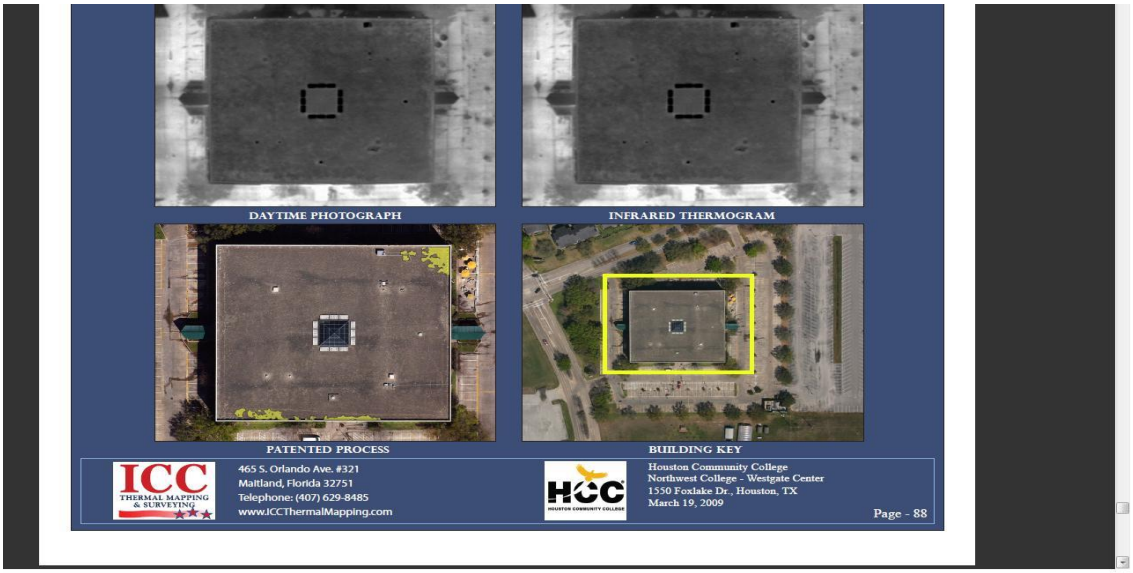
PART 2 – RECOMMENDATIONS

2.01 Recommended Procedures:

Remove and replace both roof systems. Current building codes will allow a third membrane to be installed. Moisture is trapped in between the roof systems. Trapped moisture will cause additional water which may cause excessive weight. Excessive weight may possible be a safety hazard to the students and staff below.

Mitigation procedures to ensure that water infiltration does not occur in future storms,

1) Install secondary overflow drains to the exterior of the facility. Raise all curb units to be minimum of six inches above highest roof level.
2) Caulk seal all the bottom edge of the coping metals to eliminate blowing rain water infiltration.



Yellow areas indicate moisture in the roof system.

Damaged roof top equipment

.

Core cut indicated wet below the first roof.