Block 10 NE Building Modeling Results

Prepared for:

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Prepared by:

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Energy Modeling Assumption & Methodology

The building was modeled using Revit and EnergyPlus in much the same way as previously modeled. The building was not idealized into a simple geometric model in EnergyPlus. The project team used the Revit model for the detailed geometry and massing. The second floor was idealized into a single floor with a floor area of 19,000 square feet and each floor was idealized into a single floor with a floor area of 19,000 square feet.

The building model was developed in consultation with the requirements of ASHRAE 90.1-2007. Specific assumptions for the EnergyPlus model include:

1. Ground in accordance with Appendix G of ASHRAE 90.1-2007 the existing average and for the building and the building is

2. Internal Loads:
   a. Lighting: 30 LED, 20°C NW, 20°C SW, 20°C NW, 20°C SW
   b. Kitchen: 1.2 LED, 11° NW, 11° SW, 10° NW, 10° SW
   c. Storage: 1 NE, 10° NW, 10° SW, 10° NW, 10° SW
   d. Bedroom: 1 NE, 10° NW, 10° SW, 10° NW, 10° SW
   e. Office: 1 NE, 10° NW, 10° SW, 10° NW, 10° SW
   f. Corridor/Restrooms: 1 NE, 10° NW, 10° SW, 10° NW, 10° SW

3. Temperature: ASHRAE 90.1-2007 requirements

4. Heat/AC: 1.5 x TRANE 20 C, 2.5 ton ton, Electric Resilience Heat, 75% efficiency

Executive Summary

The Energy Modeling assumed the following assumptions for the EnergyPlus model:

1. WSDC 2009 Zone 1, 30% Cooling, 70% Heating
2. WSDC 2009 High Performance Glazing
3. Full Daylighting
5. External Envelope 30% Glazing, 70% Walls

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