



PROJECT INFORMATION

Building Type: Historical Retrofit
Project Type: Restaurant
Year of Install: 2018
Number of Floors: 1
Number of Zones: 11
Climate Zone: 2A
Climate Type: Hot, Humid
Square Footage: 5,500
Mechanical Contractor:
 Nick Olivia Jr.,
 Nick's Heating & Air Conditioning
Daikin Sales Representative:
 Allen Laird,
 Mid-South Equipment
 Sales & Services LLC
 Mark Maricelli,
 Commercial Sales Manager
 Daikin North America LLC

CHALLENGE

Provide seamless integration of a new heating, cooling, and outside air ventilation system, all controlled with a single, central controller. The HVAC system must maintain comfort with the required ventilation, to a space that varies in occupancy, and a cooling demand dependent on kitchen activity. The system must be installed into the historical structure without lowering the ceiling, allowing designers to keep their aesthetic vision, using decorative wood paneling on the ceiling.

SOLUTION

Individual Daikin products came together to form a larger solution tailored to One Thirteen's unique needs. The Daikin VRV and DVS system, controlled by an iTM were minimally invasive to the historic building, preserving its integrity and providing the desired ease of central control.

Located in the heart of downtown Hammond, and new to the Southern Louisiana culinary scene is the One Thirteen restaurant. This "new American cuisine" serves a fusion of tastes incorporating eclectic flavors from Latin America and Asia against the Cajun backdrop. What makes One Thirteen restaurant unique is that 90 percent of the food is cooked in a wood-fired brick oven on a variety of wood types that gives the food these distinct flavors.

The Rubio Enterprise Restaurant Group chose a historical building on N. Oak Street, in Hammond, Louisiana, designed by architectural legend John Desmond in the 1960s, as the ideal site for this new community offering. The group aimed to keep the historical design of the building while creating a place of excitement for their guests to come together and enjoy delicious food in a mid-century modern setting. Bringing this vision to life

included collaborating with Nick Olivia Jr. of Nick's Heating & Air Conditioning and Daikin North America LLC (Daikin) manufacturer representative, Mid-South Equipment Sales & Service LLC, to overcome a few heating and cooling challenges.

The One Thirteen restaurant required a special level of attention to the thermal comfort provided for guests and staff due to the high temperature cooking equipment, varying occupancy, and building layout. The open flame, wood-burning oven is the centerpiece of One Thirteen's kitchen and the desired visibility came with some considerations regarding the HVAC system. Saul Rubio, owner of restaurant One Thirteen, wanted to ensure optimal comfort for his guests which meant keeping tight control over temperature fluctuations, integrating fresh air directly into the building, and using proper ventilation techniques to remove smoke and odor. Meeting these needs was accomplished with high-efficiency equipment from Daikin that included 33-tons of Daikin VRV IV air-cooled outdoor condensing units, 7 VRV 4-way ceiling cassette indoor units, 16.5-tons of ductless single and multi-zone outdoor condensers, 7 wall-mounted indoor ductless units, and a 5-ton Dedicated Ventilation System (DVS). The DVS is Daikin's new Dedicated Outside Air System (DOAS) Air Handling Unit (AHU) designed for seamless integration with Daikin's VRV air-cooled heat

recovery outdoor units and control systems that provide conditioning of 100% outside ventilation air into the restaurant. One Thirteen proudly operates the first DVS unit sold after launching in 2018. Since then successful installs have been all over the commercial spectrum ranging from educational facilities to sporting arenas.

Daikin's indoor unit portfolio offers a wide range of functionality and aesthetic variability to help restaurant owners achieve the desired look and feel in their space. Historically, ranch style buildings of the 1960s had low ceilings, and Nick Olivia Jr. understood the importance

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of installing low profile indoor units that would keep the open feel to the front of house area of the restaurant so they would not hang below and interfere with the decorative wood panel ceiling. The 4-way ceiling cassette units accomplished this need and were installed throughout the dining areas. 3/4 ton wall-mounted indoor units were used in the restroom areas where occupancy is irregular and the fan coil can sense patrons and adjust the temperature as needed, only when the space is occupied. This intelligent eye feature saves owners money by not conditioning empty areas.

The outdoor units were placed on the rooftop where the low sound levels will not disturb neighbors even in close proximity. The entire Daikin solution is controlled using Daikin's *intelligent Touch Manager (iTM)* central controller and a *BACnet™* client adapter, allowing the *iTM* to function as a mini Building Management System (BMS). The *iTM* BMS provides restaurant management with easy monitoring and control of all Daikin products to ensure a comfortable dining experience. This mini BMS can also control other building equipment, such as lighting, if desired. Daikin's *iTM* central controller was

a great solution for the restaurant which gives management a wide range of control that comes at a lower price point than most traditional central controllers.

The success of the retrofit project at One Thirteen restaurant was in large part due to the collaboration between Nick's Heating and Air Conditioning and Daikin manufacturing representative Allen Laird, who provided on-going support for the project. Saul Rubio, with Rubio Enterprise Restaurant Group, was happy to be the inaugural site for Daikin's DVS due to his confidence in Daikin's quality and access to local support for project stakeholders.



DAIKIN EQUIPMENT

- (1) 10-ton REYQ VRV IV Heat Recovery
- (2) 10-ton RXYQ VRV IV Heat Pump
- (1) 3-ton RXTQ VRV IV S-Series Heat Pump
- (2) 1.5-ton 2MXS Multi-Split Heat Pump
- (5) 3-ton NV Series Heat Pump
- (1) 10-ton DVS Dedicated Outside Air System
- (5) 3-ton FTX NV Series Wall Mount Unit
- (2) 3/4-ton FTXS Wall Mount Unit
- (7) 3-ton FXUQ 4-way Ceiling Cassette
- (3) BRC Navigation Controller
- (1) DCM *intelligent Touch Manager (iTM)*
- (1) DCM BACnet Client

ADDITIONAL INFORMATION

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operating cost, or energy efficiency rating that is available from your retailer. Actual savings and costs will vary. Cost and savings statements are applicable solely to the installation indicated. For additional information please contact the installing contractor, distributor or factory representatives.

THANK YOU




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