



Summary – Phase I

The Purpose of the visit to Dominick’s Steakhouse in Scottsdale, AZ was to take preliminary airflow measurements of the HVAC, exhaust, and kitchen ventilation systems. Mechanical Drawings were provided, but significant deviations exist between the plans and actual system installation. After the summary, contents of the report include pictures, asset pages with test data, and then the marked up floor plan. Specific notes are in the tables below for each unit regarding the condition of the equipment. The general notes below pertain to overall condition or status of the HVAC System. The issue section describes areas of specific concern in more detail. Contact Will Turnbough w/ National TAB for any further questions: will@nationaltab.com 314-954-6244

General Notes

1. All WSHP/RTUs are operating in Fan Auto and managed by controls company (AZ Control Specialists). Typically, supply fans run continuously during occupied hours (when hood exhaust is operational) to maintain building pressurization.
2. Kitchen Exhaust Hoods (HD-1 and HD-2) are not controlled by Hood Switch. Respective fans (KEF-1 and MAU) appear to run 24/7, only controlled by roof disconnect.
3. Dishwasher exhaust (HD-3) and its respective fan is not operating. The fan is functional but has no controls in the space below and can only be operated by roof disconnect.
4. Return Grills Serving WSHPs and RTUS were found dirty, recommend they are cleaned.
5. Access to interior WSHPs is very limited. On those ducted for Outside air, the manual OA damper is not, or not easily, accessible.
6. Several multispeed WSHPs are low on airflow; ductwork and units themselves not easily accessible. We were unable to verify filter condition or speed setpoint on several of these units.
7. WSHP-1 and WSHP-2 returns are all centrally located creating a significant draft to their location (beverage preparation area-Liquor Storage) when they are operational.
8. The Wine room is served by several units. Due to limited access, unable to determine exact routing of installed WSHP / Chillers. Per controls company / facilities tech, there is a red wine chiller, white wine chiller, and a large and a small WSHP. It only appeared one WSHP (WSHP-5) was ducted to the supply diffusers in dining space. Other units appeared ducted into wine chiller racks.
9. Un-ducted WSHP installed above walk-in cooler in liquor storage. Unit has power, but was not observed to be operating and was not listed as visible by controls company.

Unit Specific Notes:

***WSHPs and RTUS should typically perform at 350-400 cfm/ton for performance and efficiency.

RTUs /WSHPs

Unit	Area Served	Tons	CFM/Ton	Notes
WSHP-1	UPPER DINING	20	268	Located on Roof, coil / blower wheel in need of cleaning. Manual OA inlet fully closed.



				Dining room diffusers feed wall plenum-see issue.
WSHP-2	BAR	20	334	Located on Roof, coil / blower wheel in need of cleaning. Manual OA inlet fully closed.
WSHP-3	2 nd Floor Private Dining	3	458	Located in neighboring tenant space. Return pulls from ceiling plenum in that space.
WSHP-4	Front kitchen	5	365	Return Filter found clogged initially. Not Listed on original plans.
WSHP-5	Wine Room	3	480	Very limited access, unclear on exact duct routing as wine chillers are also mounted above this space. Possibly Served by second WSHP. Controls company listed Small and Large Wine units, only one appeared ducted to diffusers in space.
WSHP-6	South Dining	3	407	Not listed on original plans.
WSHP-7	Private Dining	3	266	
WSHP-8	Lobby / RR	5	320	
WSHP-9	Rear Kitchen	5	339	Missing Electrical Panel Cover / Unit Label
WSHP-10	South Dining Host Wall	?	831 total cfm	Unable to access unit to determine model / tonnage. Not listed on original Plans.
RTU-1	Stairwell	3	385	Return Filters found dirty, removed for testing. Recommend replacement.
RTU-2	Pool South	5	462	Cooling not operational at time of Visit. Service company called. Discharges through 3 grilles, air not distributed.
RTU-3	Pool North	5	454	Discharges through 3 grilles, air not distributed.

Exhaust Fans / MAU

Unit	Area Served	CFM	Notes
KEF-1	HD-1 and HD-2	7,214	No control in space. Fan appears to operate 24/7. Only Roof disconnect controls operation.
KEF-2	HD-3	1026	Not operating. No controls in space. Only Roof Disconnect controls. Powered on to measure, left off at disconnect.
Common Building Exhaust	Restrooms / Beverage Area	0	Fan does not appear operational. Recommend



			consulting Building management.
MAU	HD-1 and HD-2	4617	No Control in space. Fan appears to operate 24/7. Roof Disconnect controls operation.

Specific Areas of Concern:

1. Office Space:

The managers office is located at the top of a stairwell located in the rear of the kitchen. The space is fully enclosed in hard ceiling and walls. There are no pass-throughs or ventilation save two small supply grilles ducted from WSHP-4, which serves the kitchen space diagonally below. These grilles supply 401 cfm to the office space. A portable AC unit is also installed in the office and is exhausting its heat into the ceiling plenum of the kitchen below. The stereo system and other computers / electronics systems located in the office generate a significant amount of heat. Adding a transfer fan, or ducting returns to this office (if possible), could help alleviate some of the comfort issues it experiences. As is, the heat in the office has nowhere to go. The portable AC unit is only moving heat from the office, into the kitchen space, which is then being supplied back into the office through WSHP-4.

2. Pool Room:

The pool dining room / bar was not listed on the original plans. This space struggles to achieve a comfortable temperature during hot days and is sometimes closed for dining on particularly hot days. The space has a shallow reflecting pool positioned in the center of the room as well as a removable roof. It does not appear insulated or sealed sufficiently from the exterior environment. Two 5-ton Carrier RTUs serve the space through 3 grilles each, discharging from a supply drop box at one end of the pool. There are also numerous split systems mounted on the walls. A rear dining room on the pool level is served by WSHP-3, which is located in and pulls air from the neighboring tenant's space. This unit appears to be operating sufficiently. The two carrier RTUS were found to be high on airflow, operating at or above 450 cfm/ton. We recommend these units are slowed to sufficiently cool the air. The South Pool RTU (RTU-2) was not operating cooling during our visit and a service call was made.