

DESCRIPTION OF PROPOSED WORK AT 273 COMMONWEALTH AVENUE FOR JOE FINDER & MICHELE SOUDA

Setting and Need:

We are hoping you will allow us to place a small (suit-case sized) Mitsubishi a/c splitter condenser in front of our car (in our parking space). Our parking space is in a corner and there is no view from the street or alley into it. Please refer to below photo and look to the right of the Jeep with white hard top.



Please note that Photo right below is taken from Gloucester Street where you cannot see the corner of the building where we would place the condenser.



Our condo unit is at the back and bottom of a 4+ story building on Commonwealth Ave consisting of 10 condo units. Our condo becomes stifling in the summer and there is no cross-breeze for any relief because we do not have a "floor-through" and we're down too low to the ground for much air movement. The cars in the parking area just outside our unit seem to decrease the flow of air.

Proposed Work:

We desperately need to place a small, no larger than suitcase-sized splitter a/c condenser for our condo at the bottom and back of our building, and out of sight. The small suit-cased sized condenser could sit in our own parking space in an out-of-sight corner, on the ground, on a small and low mounting pad, and enclosed by a decorative wooden structure resembling, for

example, a decorative planter.

We would follow any directions from you regarding the enclosure for it. To further guarantee the hiddenness of the unit, our rarely used car (*the green jeep*) would block any potential view of even the decorative enclosure.



There would be no view of the condenser from passersby on the alley or the side street. (*Please refer to photo below, taken from Gloucester Street*).



The proposed condenser would be a <u>small Mitsubishi unit</u>. (*Please see below spec sheets*).

M-SERIES

SUBMITTAL DATA: MSY-GL24NA-U1 & MUY-GL24NA-U1



Job Name:

System Reference:





ACCESSORIES:

Indoor Unit

- □ Condensate Pump (BlueDiamond X87-711/721; 115/230V)
 □ Condensate Pump (Sauermann Si30-115/230; 115/230V)
 □ Anti-Allergy Enzyme Filter (MAC-408FT-E)
 □ Drain Pan Level Sensor (DPLS2)

- Outdoor Mounting Pad (ULTRILITE1)
 Drain Pan Heater (MAC-642BH-U)
 3-1/4" Mounting Base (Pair) (DSD-400P)
 Drain Pan Socket (MAC-851DS)
 Air Outlet Guide (MAC-86SG-E)
 Wall Mounting Bracket (QSWB2000M-1)

Controls

- Wireless Controller (MHK1)
 Wired Remote Controller PAR-32MAA (Requires MAC-333IF-E)
 Wireless Interface for kumo cloud™ (PAC-USWHS002-WF-1)
 Thermostat Interface (PAC-US444CN-1)

SPECIFICATIONS:

Cooling ¹	Btu/h / W	22,500 / 1,800	
Capacity Rang	e	Minimum	Maximum
Cooling ¹	0	tu/h 8,200	31,400

¹ Cooling | Indoor: 80° F(27° C)DB / 67° F(19° C)WB; Outdoor: 95° F(35° C)DB / 75° F(24° C)WB' Rating Conditions per AHRI Standard:

Cooling ²	ling ² 90° F (32° C) DB / 67° F (19° C) DB			
Operating Condito	ns (Outdoor Intake Air Temp.) (Max./ Min.)			
Cooling ²	115° F (46° C) DB / 14° F (-10° C) DB			

² Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

AHRI Efficiency F		
SEER	20.5	
Energy Star*	Yes	

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

Electrical Power Requirements	208 / 230V, 1-Phase, 60 Hz
Minimum Circuit Ampacity (MCA)

1 / 17.1

Indoor Unit				
Blower Motor (ECM)	F.L.A.	0.76		
Blower Motor Output	W	55		
SHF / Moisture Removal		0.75 / 5.1 pt./h		
Field Drainpipe Size O.D.	In.(mm)	5/8 (15)		

Outdoor Unit				
Compressor		DC INVERTER-driven Twin Rotary		
Fan Motor (ECM)	F.L.A.	0.93		

Airflow Rate (Quiet - Lo - Med - Hi - Super Hi)				
Indoor (Cooling)	DRY		388-469-544-628-738	
	WET	CFM	347-420-487-562-661	
Outdoor			1,769 / 1,701	

Sound Pressure Level (Quiet - Lo - Med - Hi - Super Hi)					
Indoor	Cooling	dB(A)	34-41-45-49-53		
Outdoor	Cooling	OB(A)	55		

External Dimensions				
Indoor (H x W x D)	In.(mm)	12-13/16 x 43-5/16 x 9-3/8 (325 x 1,100 x 238)		
Outdoor (H x W x D)		34-5/8 x 33-1/16 x 13 (880 x 840 x 330)		

Net Weight			
Indoor	I be (be)	37 (17)	
Outdoor	Lbs.(kg)	119(54)	

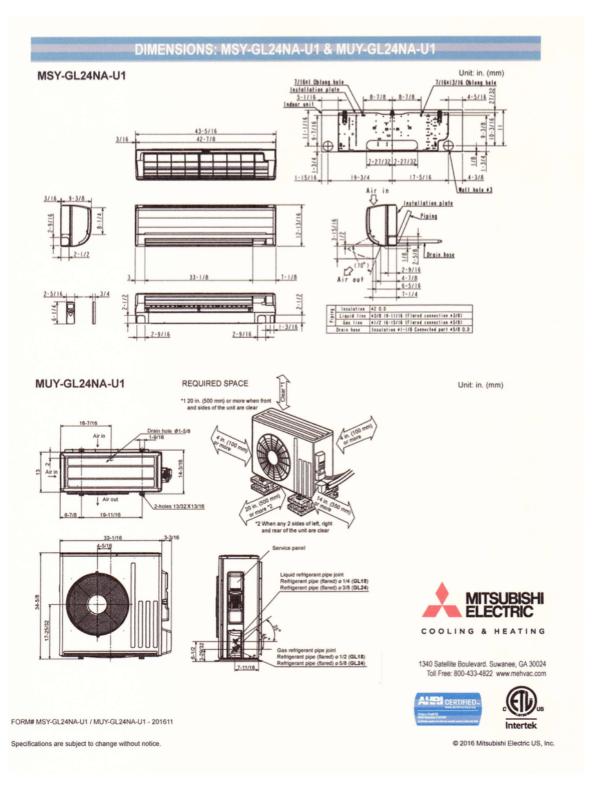
External Finish		
Indoor	Munsell 1.0Y 9.2 / 0.2	
Outdoor	Munsell No. 3Y 7.8 / 1.1	

R410A; 4 lb. 3 oz.

Refrigerant Piping (Flared)				
Liquid (High Pressure)	1-11	3/8 (9.52)		
Gas (Low Pressure)	In.(mm)	5/8 (15.88)		
Max. Total Refrigerant Pipe Length (Height Diff.)	Et (m)	50 (15)		
Max. Total Refrigerant Pipe Length (Length.)	Ft (m)	100 (30)		

Α

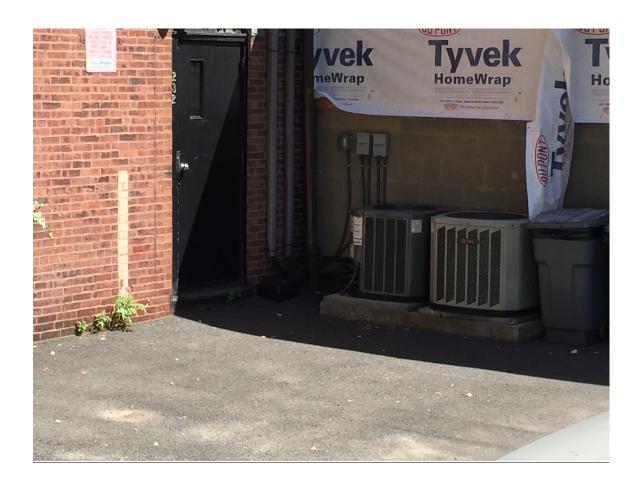
Indoor / Outdoor

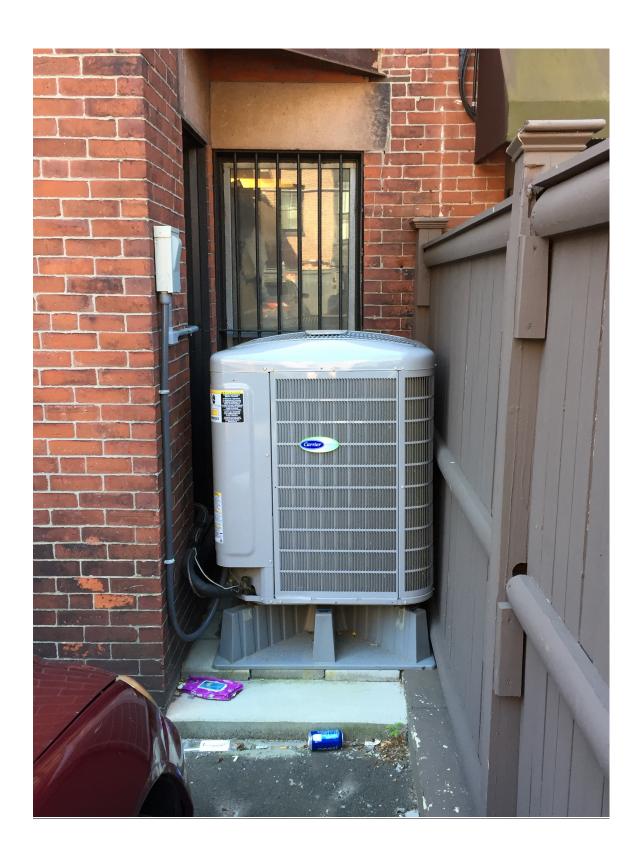


We've seen so many condensers--most much larger than ours would be-behind buildings on the several blocks surrounding our block. Many of these condensers are not only much larger than ours but not covered at all. (Please see photos).















Necessity:

After much on-line and on-the-ground and-in-person research we realize that in order provide adequate a/c the optimal choice is to use a splitter. This prevents having to use unsightly window units that are all too visible from not only the alley but also from Gloucester Street. The condenser we propose would, again, sit outside, down low, and would be hidden.

With your permission we could install a splitter a/c (which I believe to some extent <u>functions</u> as central a/c because there are no ugly units in windows). Central a/c is the gold standard for cooling, we know, but the condenser would need to be much larger and noisier. Also, window units would be an interruption of our building's beautiful lines. And, given our condo's layout, we would need to use at least two to three window units.

The Roof Option--We Don't Have One:

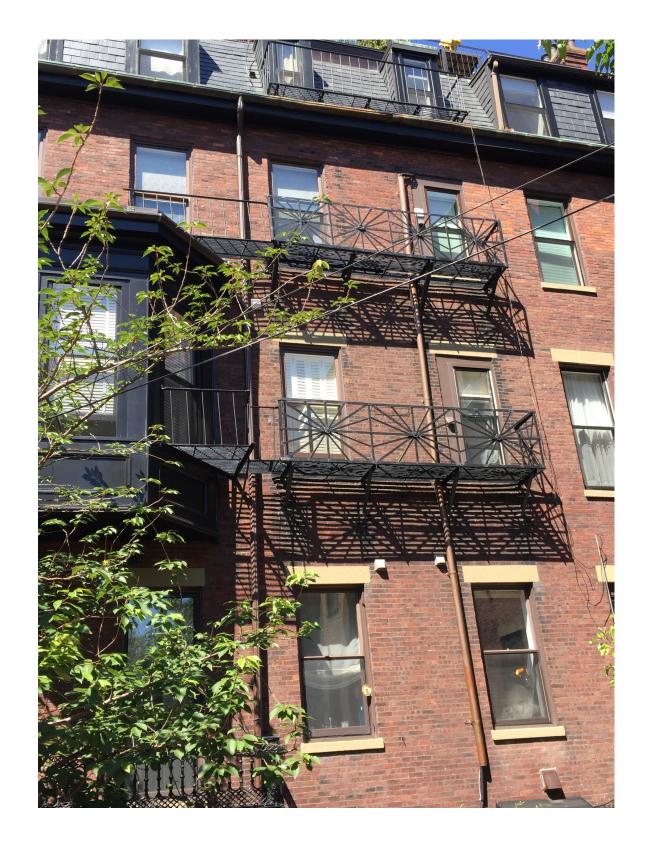
Ours is a building of 10 units and <u>only one unit has been able to have central a/c</u> and that is the condo on the top floor of our building, close enough to the roof for an a/c condenser there to work properly and have its piping be less obtrusive and less disruptive of other condo unit owners.

Only one other unit, (at the front bottom of our bulding,) has a non-window a/c and that is an a/c splitter whose condenser is <u>below ground level</u> with a suit-case sized condenser/compressor hugging the unit's outer wall, below grade. It makes very little sound.

Other unit owners have needed to place unsightly a/c units in windows at both the front or back of our building. Our first choice would be-- and we have explored --having a central a/c or splitter system that might be powered by a condenser on our building's roof, but the roof is several flights above (ours is a 4+ story building) and we've been told by every HVAC person we've talked with that it would be impossible to feasibly cool our condo by running a duct/pipe from the roof to our unit because the distance would be far in excess of the 50 foot maximium required by manufacturers and would be prohibitive.

Even if the distance between our unit and rooftop condenser allowed for the a/c's operation (and, again, it does not), it would require a very long vertical

enclosure on the back exterior of our building, running all the way from the roof to the ground. This would be a very conspicuous visual impairment to our building. (*Please see below photo which illustrates this point in a nearby building.*)



The Option to Run the Ducting and Piping on the Interior of the Building—There is none:

There is no way to run the piping/ducting on the inside of our building . because it wouldn't be allowed: the owners of condo units between us and the roof will not give permission to disrupt the interiors of their own units with our piping.

We've tried to find another way of running the ducting/piping on the inside of our building by looking for plumbing or electrical chases that might allow for passing our pipes through, but there is nothing near enough or large enough to allow for such passage. All interior options have been exhausted and unavailable, which is perhaps why only one unit in our building has ever been able to have central a/c.

How the Splitter A/C Would be Installed:

Again, the small condenser would either sit on a small, low platform in our own parking space, at the front of the space, and hidden by our car, surrounded by a decorative enclosure or attached to the wall of our building, also hidden by our car. We would place the unit where you choose. The piping required to effect this a/c's function would be only a fraction of what would be necessary in a vertical run between roof and ground if that were even possible. We could place the piping tightly alongside another horizontal enclosure to decrease its visibility. (Please see the photo below of the back of our building, showing the black horizontal encasement.)



We could bring the pipes about 4 feet up and then about 20 feet over to our unit. The HVAC person would then drill a hole through the brick and into our unit so that the remainder of any vertical run would be inside our condo. Whatever exterior piping there is would be enclosed in a copper or black encasement (in keeping with other enclosures on the back of our building and the surrounding buildings) and could hug the black horizontal encasement that is already there. (Please see photo #10 which illustrates the black horizontal casing that travels from the far right corner of our parking spot over the building's rear door and continuing to the window with the orange ladder in it. This is our unit where the pipes would enter and end.)

The installation would be done by Mr. Arthur Dubois of "A and D Sheet Metal," 51 Farwell Street, Waltham, MA 02453. Mr. Dubois has installed many central and splitter a/c units in the Back Bay and he assures me that the Mitsubishi unit we could use is very quiet. He says it's barely audible. I've been assured of that by more than one HVAC person and more than one neighbor.

The Cost of the Project:

So far the estimated cost is anywhere between \$5000 and \$8000. This cost should include not only the Mitsubishi system itself, but the electrical parts and labor to install it.