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## ARaS QA/QC Checklist for Architectural Team

Project Name	Hesperia	Prepared By:		Reviewed By:	
Project Start Date	January 14, 2019	Name:		Name:	
Project Completion Date:	April 15, 2019	Title:		Title:	
		Date:		Date:	

### General

Questions		YES	NO	N/A	Responsible Party
1	Have the original files sent by the customer been saved under the Team Drive and the Server Folder	x			Alex Laguna

### Files

Questions		YES	NO	N/A	Responsible Party
1	Have the latest architectural drawings been downloaded and posted into our collaborations site?	x			Alex Laguna

### Revit File

Questions		YES	NO	N/A	Responsible Party
1	Is the Revit file in 2019 version? If not, has it been converted and saved in the Server?				
2	Does it match the approved master architectural drawings provided?				
3	Do all walls have all features and materials listed such as structures and finished materials? If not, has the customer been notified.				
4	Do window and door families have the material features defined and categorized accordingly? If not, has the customer been notified.				
5	Roof and floor material defined? If not, has the customer been notified.				
6	Are all of the architectural features completed ? (No walls overlapping with each other. No duplicate walls. No corners and/or intersections of the walls completely closed. No walls going through doors and/or windows. If not, has the customer been notified.				
7	Do all the spaces have room codes? If not, has the customer been notified.				

### Architectural /ARaS Drawings

Questions		YES	NO	N/A	Responsible Party
1	Does the ceiling grid exist?		x		
2	If no grid exist , has it been generated for all the floors?	x			

3	Has the RCP been run?	x		Michael Corredor
4	Has the RCP been approved?	x		michael Corredor
5	SA grill size correct?	x		michael Corredor
6	RA grill size correct?	x		michael Corredor
7	SA grill plotted correctly meaning serving the right area?	x		Michael Corredor
8	RA grill plotted correctly meaning serving the right area?	x		michael Corredor
9	Is pre and post VAV duct sizing decreasing with velocity?	x		michael Corredor
10	Are all duct sizes even numbers ?	x		Nathaly Parra
11	Is the incoming duct to the VAVs smaller than the outgoing duct?	x		michael Corredor
12	Are all duct sizes been noted in the drawings?	x		michael Corredor
13	Any missing or disconnected RAs?		x	Nathaly Parra
14	Any missing or disconnected SAs?		x	Nathaly Parra
15	Has the shaft size been calculated?	x		milller vaca
16	Does the routing and orientation of the shaft match the architectural drawings?	x		milller vaca
17	Has the shaft been labeled?		x	milller vaca
18	Have you check that the exhaust fan does not go under the duct?	x		milller vaca
19	Have you check that the duct does not go through the shaft?	x		milller vaca
20	Have you label all of the exhaust fans as EF-1, EF-2 etc in the mechanical roof?	x		Sebastian Carreno doing some changes in the routing of the exhaust fan
21	Have you check that the return grills that need sound booths have been properly plotted (CLASS, CONFR, CONSR, EXNEG, EXROM, EXNA, GROUP, INJCT, OBSRM, OBSRV, OEXPO, OGENL, OGNEL, OPROV, PHARM, PRGEN, PTEDU, PTPRP, TEAMA, WROPT and WRORT		x	requested Revit File of sound booths to be used in Hesperia
22	Have you check if the split systems have been plotted correctly for the Med Prep, TER and ELECT rooms ?	x		ARaS is not plotting this type of equipment.
23	Have you check the distance between the VAV and the main duct to be 6 feet?	x		Sara, Nataly y Sebastian
24	Is the plenum downstream to the VAV box?	x		Sebastian Carreno
25	Are we meeting the 4' rule meaning, is the bottom of the plenum flat?	x		Sebastian Carreno
26	Do the location of the AHUs match the architectural/mechanical drawings ?	x		Sara Bello
27	Has the CFM balancing per room and zone been performed, verified and corrected if needed ?	x		Nataly Parra
28	Have the shapes of the ducts been checked and corrected if needed?	x		Nataly Parra
29	Are the exhaust ducts connected and run through the shaft?		x	Sebastian Carreno is fixing
30	Has the Navis Model been generated?		x	Waiting for project to be completed
31	Are the CFMs listed in the Diffusers ?		x	Juan Camilo Avila. In progress.
32	Has the total CFM for each floor been generated to validate ductwork sizing?	x		Sara Bello
33	Is ARaS plotting HVAC equipment correctly according to the Room Code Database?		x	Split systems not working correctly. Juan Camilo needs to check the code
34	Have you check that return grills are not on top of the walls?	x		RCP was approved

35	Have the VAVs been labeled correctly (VAV 1-01, VAV 1-02 then the second floor VAV 2-01, VAV 2-02, etc)	x			Sara, Nataly y Sebastian
36	Do Return and Supply Grills have the correct symbols?	x			Sara, Nataly y Sebastian
37	Have you check that the ducts do not cross the steel?	x			Sebastian Carreno
38	Have you check that the ducts do no run on top of the walls?	x			Sebastian Carreno
Plumbing					
Questions		YES	NO	N/A	Responsible Party
1	Have you verify that all plumbing fixtures been classified as part of the plumbing system? (toilets, sinks, drinking fountains, bathtubs, laboratories, etc)				
2	Do architectural drawings and/or Revit File show location of plumbing equipment such as Boilers, Tanks. etc?				
3	Have you use the points of connection for the domestic water provided by the customer ?				
4	Have you use the points of connection for the gas systems provided by the customer ?				
5	Have you use the points of connection for the waste systems provided by the customer ?				
6	Is the location of the water and sewer lines as they enter the building according to the preliminary site plan provided by our client?				
7	What is the the sewer elevation at both the POC and at the clean out location? Does it match what the customer provided us?				
8	What is the water meter GPM and Pressure? Does it match what the customer provided us?				
9	Where is the domestic hot water heater located at? Does it match what the customer provided us? move				
10	Where is the domestic water pump located at? Does it match what the customer provided us? move				
11	Has the natural gas load noted on each piece of equipment?				
12	Are CW and HW lines running to the sink 3/4"?				
13	Are CW lines running to the toilets 1 1/2"?				
14	Was the HWR(Hot Water Return) called out on the loops?				
15	Was the HWS (Hot Water Supply) call out on the loop?				
16	What is the location of the riser? Has the riser been labeled on all the needed floors (Riser Up and Riser Down?				
17	What is the size of the riser? How was it calculated? How is the size of the riser transitioned?				
18	Was the riser called out along with the sizes?				
19	How was the sizing of the plumbing lines calculated?				
20	Are toilets showing on all of the drawings?				
21	Was the Plumbing 3D drawing (Isometric Drawing) generated?				
22	Was the mechanical piping (Hydronics) generated (VAV to Boiler) for each floor?				
23	Was the mechanical piping run between the ceiling and the drop ceiling?				
24	Are the mechanical piping and the domestic water connections at a 90 degree angle?				
25	Does the mechanical piping follow the walls?				
26	Was the supply and return system develop for the mechanical piping?				
27	Was the domestic water system develop for each floor?				
28	Was the supply and return system develop for the domestic water system?				

[illegible]

[1] Use Sara's Example  
-Victoria Sanchez