DETAILED CONTROL TABLE FOR MECHANICAL PROJECT AND PROJECT ADDITIONS

PROJECT NAME

NO	CHECKED CALCULATION/REPORT/PROJECT
EVALUATION SUMMARY	
NO	**PROJECT FILE NAME**
1	
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ASSESSMENT DETAILS	
1	**TS 825 LOCAL BUILDING INSULATION CODE – THERMAL INSULATION PROJECT REPORT**
1.1	Is the insulation project prepared?
1.2	Which software was used to prepare insulation report?
1.3	Is city information selected correctly in the insulation project?
1.4	Is the usage function of building selected correctly in the insulation report?
1.5	Is gross volume of building entered correctly in the insulation project?
1.6	Are the above grade wall's material layers and thicknesses entered correctly in the insulation project?
1.7	Are the roof's material layers and thicknesses entered correctly in the insulation project?
1.8	Are the slab-on-grade's material layers and thicknesses entered correctly in the insulation project?
1.9	Are the below grade wall's material layers and thicknesses entered correctly in the insulation project?
1.10	Are the window's properties selected correctly in the insulation project?
1.11	Are the exterior doors' properties selected correctly in the insulation project?
1.12	Do materials used in the insulation project involve risk of unused for application (in terms of thickness, weight, procurement availability)?
1.13	Are the window areas according to directions entered correctly to calculate heat gain from solar energy (window areas will be checked for at least one direction)?
1.14	Has the condensation calculation been made? Are the condensation graphics suitable?
1.15	Is inequality of Q<Q' provided in "annual heating energy requirement calculation chart" table in Annex-J?
1.16	Do the U values in Annex-I "building's specific heat loss calculation chart" comply with the U values requirements for that climate zone?
1.17	Is the thermal insulation report suitable for calculating heat loss and preparing insulation application projects?
2	**HEAT LOSS CALCULATION**
2.1	Has heat loss calculation been done?
2.2	Which software was used to calculate heat loss?
2.3	Is the city and outdoor temperature selection made correctly in heat loss calculation?
2.4	Are zone set point temperatures used in heat loss calculation suitable?
2.5	Do U values of exterior walls in heat loss calculation comply with insulation report?
2.6	Do U values of below grade walls in heat loss calculation comply with insulation report?
2.7	Do U values of windows in heat loss calculation comply with insulation report?
2.8	Do U values of roof in heat loss calculation comply with insulation report?
2.9	Do U values of below grade walls in heat loss calculation comply with insulation report?
2.10	Do U values of exterior door in heat loss calculation comply with insulation report?
2.11	Have building envelope elements' areas been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.12	Have directions been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.13	Have increase rates been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.14	Is infiltration included in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.15	Has infiltration ∑axl value been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.16	Has infiltration R value been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.17	Has infiltration H value been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.18	Has infiltration Ze value been entered correctly in heat loss calculation (it will be checked %5 of total zone numbers with randomly selection)?
2.19	Has 10% safety factor been added to results in heat loss calculation?
2.20	Has a summary table containing results and showing all spaces together been prepared in heat loss calculation?
3	**HEAT GAIN CALCULATION**
3.1	Has heat gain calculation been done?
3.2	Which software was used to calculate heat gain?
3.3	Is the city and outdoor temperature selection made correctly in heat gain calculation?
3.4	Have building envelope elements' areas been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.5	Has space height been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.6	Has lighting load in space been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.7	Has operation profile for lighting loads in spaces been defined in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.8	Has electrical equipments' load been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.9	Has operation profile for electrical equipment loads in spaces been defined in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.10	Has the number of people in spaces been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.11	Has operation profile for people loads in spaces been defined in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.12	Have other loads and possible latent heat loads in spaces been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.13	Has operation profile for other loads and latent heat loads in spaces been defined in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.14	Do U values of windows in heat gain calculation comply with insulation report?
3.15	Have the shading coefficients of windows been entered in heat gain calculation and is this value compatible with the product to be used?
3.16	Have directions, areas and numbers of windows been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.17	Do U values of exterior walls in heat gain calculation comply with insulation report?
3.18	Have directions, areas and numbers of above grade walls been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.19	Do U values of exterior door in heat gain calculation comply with insulation report?
3.20	Have directions, areas and numbers of exterior doors been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.21	Do U values of roof in heat gain calculation comply with insulation report?
3.22	Have areas and numbers of roof been entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.23	Have areas and numbers of skylights entered correctly in heat gain calculation (it will be checked %5 of total zone numbers with randomly selection)?
3.24	Has infiltration been entered in heat gain calculation?
3.25	Has floor been entered in heat gain calculation?
3.26	Has indoor air temperature been entered in heat gain calculation?
3.27	Has 10% safety factor been added to results in heat gain calculation?
3.28	Has a summary table containing results and showing all spaces together been prepared in heat gain calculation?

DETAILED CONTROL TABLE FOR MECHANICAL PROJECT AND PROJECT ADDITIONS

PROJECT NAME

NO	CHECKED CALCULATION/REPORT/PROJECT
4	**HEATING PROJECT SHEETS (DRAWINGS)**
4.1	Are existing boilers still being used?
4.2	If a new boiler is used, is the boiler type chosen suitable for project?
4.3	Can new boiler/boilers be transported horizontally/vertically to boiler room or mechanical room? Are door sizes, corridor widths suitable for transport?
4.4	Are boiler capacities and heat load compatible between them?
4.5	Have heat loads of equipment such as radiators, fancoils, air handling units, unit heaters and water heaters in zones been included in general total?
4.6	Is the boiler layout suitable?
4.7	Is layout of other equipment in boiler room appropriate (expansion tanks, collectors, pumps, etc.)?
4.8	Can maintenance and repair activities be carried out easily when considering layout in boiler room?
4.9	If there is an active operation of more than one boiler, is there a separate connection between boiler pipelines and supply/return collectors?
4.10	Is there any cogeneration or trigeneration system throughout the project?
4.11	If there is a cogeneration or trigeneration system throughout the project, is the relevant line that should be integrated into heating system included in projects?
4.12	If there is a cogeneration or trigeneration system throughout the project, is the relevant line that should be integrated into heating system correctly designed?
4.13	Is needed to control heating line with different zones?
4.14	Is the heating line designed as primary and secondary with separate pumps?
4.15	Are the primary line pumps located in correct position?
4.16	Is the flow rate of primary line pump/pumps suitable?
4.17	Has pressure loss calculation been made for primary line pump/pumps?
4.18	Is pressure loss calculation made for primary line pump/pumps suitable?
4.19	Are the secondary line pumps located in correct position?
4.20	Is the flow rate of secondary line pump/pumps suitable?
4.21	Has pressure loss calculation been made for secondary line pump/pumps?
4.22	Is pressure loss calculation made for secondary line pump/pumps suitable?
4.23	If there is a cogeneration or trigeneration system throughout the project, are the pumps of relevant line that should be integrated into heating system included in projects?
4.24	If there is a cogeneration or trigeneration system throughout the project, have the pump flow rates of relevant line that should be integrated into heating system been calculated?
4.25	If there is a cogeneration or trigeneration system throughout the project, are the pump flow rates of relevant line that should be integrated into heating system appropriate?
4.26	If there is a cogeneration or trigeneration system throughout the project, have the pump pressure loss calculations been made for relevant line that should be integrated into heating system?
4.27	If there is a cogeneration or trigeneration system throughout the project, are the pump pressure loss calculations of relevant line that should be integrated into heating system appropriate?
4.28	Has three-way valve been used between boiler inlet and outlet?
4.29	Has three-way valve been used under secondary line pumps?
4.30	Have the boiler inlet and outlet valves, strainers, check valves, armatures been used in right places and in sufficient numbers?
4.31	Has a calculation been made for collector diameters?
4.32	Are collector diameter calculations suitable?
4.33	Are there discharge valves on the collectors?
4.34	Are there manometers and thermometers on each collector?
4.35	Are pipe diameters compatible and correct with pressure loss calculations?
4.36	If a hydraulic separator is used, has a hydraulic separator calculation been made?
4.37	Is hydraulic separator calculation suitable?
4.38	Have expansion tanks calculations been made?
4.39	Are the calculations made for expansion tanks suitable?
4.40	It will be appropriate not to use a cut-off valve at expansion tank inlet for safety. Is there a cut-off valve at the inlet of expansion tanks?
4.41	Have calculations been made for safety valves?
4.42	Are the calculations made for safety valves suitable?
4.43	Are there safety valve/valves in boiler expansion tank(s)?
4.44	Are there safety valve/valves in secondary line expansion tank(s)?
4.45	Is heating circuit temperature regime suitable?
4.46	Is there any domestic hot water usage?
4.47	Has domestic hot water boiler calculation been made?
4.48	Is the number of hot water need points used in domestic hot water boiler calculation correct?
4.49	Will new domestic hot water boiler/boilers be used?
4.50	Can new domestic hot water boiler/boilers be transported horizontally/vertically to boiler room or mechanical room? Are door sizes, corridor widths suitable for transport?
4.51	Has the domestic hot water boiler recirculation circuit been planned?
4.52	Is the domestic hot water boiler recirculation pump flow suitable?
4.53	Has pressure loss calculation been made for domestic hot water boiler recirculation pump?
4.54	Is the pressure loss calculation made for domestic hot water boiler recirculation pump suitable?
4.55	Is there a safety valve at domestic hot water boiler cold water inlet?
4.56	Has an analysis been made for thermal expansions in pipelines between buildings or in horizontal/vertical pipelines within the building?
4.57	Have expansion compensators calculations been made for thermal expansions?
4.58	Are the calculations made for thermal expansions suitable?
4.59	If there will be thermal expansion analysis, is there a fixed and sliding console application in this scope?
4.60	Is there an automatic filling unit in project?
4.61	Is there water conditioning for boiler feed water?
4.62	Is there a chemical protection system for the heating circuit?
4.63	Does the natural gas installation need to be changed?
4.64	Is there a natural gas installation project?
4.65	Has the natural gas installation project been prepared by a licensed company from local gas distribution organization?
4.66	Is there a bottom-top ventilation calculation of boiler room?
4.67	Do boiler room bottom and top ventilation calculations comply with the standards of local gas distribution organization?
4.68	Are the existing flue need to be renewed?
4.69	Has boiler flue calculation been made?
4.70	Has the flue project been prepared?
4.71	Is the calculation used in flue project suitable?
4.72	Does the flue project comply with the standards of local gas distribution company?
4.73	Have pipe insulation thicknesses been determined?
4.74	Are the insulation thicknesses in line with the standards?
4.75	Are the coatings to be made on insulation defined in projects?
4.76	Are there air cylinder in boiler room and points where the air collection potential of installation is high?
4.77	Are the air separating purgers located in suitable places?
4.78	Is there an air separator and sediment separator on the primary circuit?
4.79	Are piping console details included in the projects?
4.80	Wall transition details of piping included in the projects?
4.81	Are discharge valves added to riser installations?
4.82	Is there a balancing valve or ball valve with drain in the column installations?
4.83	Do radiators in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?

DETAILED CONTROL TABLE FOR MECHANICAL PROJECT AND PROJECT ADDITIONS

PROJECT NAME

NO	CHECKED CALCULATION/REPORT/PROJECT
4.84	Have thermal loads over radiators been written correctly (must be checked in accordance with planned temperature regime)?
4.85	Has detail drawing of radiator connections been prepared?
4.86	Is the radiator connection detail suitable?
4.87	Will radiator pipelines be retrofit?
4.88	If radiator pipelines are to be changed, has installation project been prepared?
4.89	Is there an underfloor mobile pipe application in radiator installation?
4.90	If there is an underfloor mobile pipe application in radiator installation, is the test definition that specific to installation included in notes?
4.91	If there is an underfloor mobile pipe application in radiator installation, are the mobile collectors defined correctly in project?
4.92	Is there a section (or whole project) where new radiator piping is designed as an underfloor mobile installation?
4.93	If new radiator piping is designed as underfloor mobile installation, is the existing screed thickness thick enough to hide pipe?
4.94	If new radiator piping is designed as an underfloor mobile installation, is it possible to make demolition works and renovations on existing floor?
4.95	Do fancoil units in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?
4.96	Have thermal loads over fancoil units been written correctly (must be checked in accordance with planned temperature regime)?
4.97	Has detail drawing of fan coil unit connections been prepared?
4.98	Is the fancoil unit connection detail suitable?
4.99	Will fancoil unit pipelines be retrofit?
4.100	If fancoil unit pipelines are to be changed, has installation project been prepared?
4.101	Do unit heaters in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?
4.102	Have thermal loads over unit heater been written correctly (must be checked in accordance with planned temperature regime)?
4.103	Has detail drawing of unit heater connections been prepared?
4.104	Is the unit heater connection detail suitable?
4.105	Will unit heater pipelines be retrofit?
4.106	If unit heater pipelines are to be changed, has installation project been prepared?
4.107	Is there any air handling unit (ahu) to be changed?
4.108	Has air handling unit heating coil capacity calculation been made?
4.109	Is air handling unit heating coil capacity calculation appropriate?
4.110	Do air handling units in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?
4.111	Has detail drawing of air handling unit connections been prepared?
4.112	Has detail drawing of air handling unit connections been prepared?
4.113	Is the air handling unit connection detail suitable?
4.114	Are pipeline projects prepared in case of air handling unit pipelines be retrofit?
4.115	Are there suitable ventilation gaps for devices to be placed in suspended ceilings and closed sections?
4.116	Have the inspection holes for devices to be placed in suspended ceilings and closed sections been added into projects?
4.117	Will hot water be produced from solar energy?
4.118	Has a simulation for hot water from solar energy been made?
4.119	Is there a suitable area for determined collector assembly?
4.120	Is the area designed for collectors statically suitable?
4.121	If area is not statically suitable, has solution been developed and a construction plan created?
4.122	Is the solar pipe circuit properly connected with domestic hot water boiler/boilers?
4.123	Has flow rate been calculated for solar energy pump/pumps?
4.124	Is flow rate calculation made for solar energy pump/pumps suitable?
4.125	Has pressure loss calculation been made for solar energy pump/pumps?
4.126	Is pressure loss calculation made for solar energy pump/pumps suitable?
4.127	Has a safety valve calculated for solar energy circuit?
4.128	Is safety valve calculation made for solar energy circuit suitable?
4.129	Has an expansion tank calculation been made for solar energy pump?
4.130	Is the expansion tank calculation suitable for the solar energy pump?
4.131	Are solar energy circuit pipeline diameters suitable?
4.132	Has an appropriate insulation definition been made for solar energy circuit pipeline?
4.133	Is there a column diagram?
4.134	Are the equipment labels and capacities in plans and column diagram compatible?
4.135	Are the column diagram and pipe diameters in plans compatible?
4.136	Is there a system schematic diagram?
4.137	Are the equipment labels and capacities in plans and schematic diagram compatible?
4.138	Are the pipe diameters in plans and schematic diagram compatible?
4.139	Is there any legend on the project?
4.140	Are the projects compatible with the project legend?
4.141	Are there any notes on project?
4.142	Are the plans, column diagram and flowchart compatible with the notes on the project?
4.143	Is there a letterhead on the project?
4.144	Has project name on letterhead been defined correctly?
4.145	Has the floor information on letterhead been defined correctly?
4.146	Has the scale information on letterhead been defined correctly?
4.147	Is the revision information on letterhead correctly defined?
4.148	Has date on letterhead been defined correctly?

DETAILED CONTROL TABLE FOR MECHANICAL PROJECT AND PROJECT ADDITIONS

PROJECT NAME

NO	CHECKED CALCULATION/REPORT/PROJECT
5	**COOLING PROJECT SHEETS (DRAWINGS)**
5.1	Are existing chiller(s) still being used?
5.2	If new chiller(s) are used, is the type of chiller(s) selected suitable for project?
5.3	If new chiller(s) are used, does the efficiency of selected chiller(s) meet project expectation?
5.4	Is new chiller(s) transported horizontally/vertically to the assembly area, are openings/gaps suitable for transportation, is there a suitable crane area?
5.5	Are existing cooling tower(s) still being used?
5.6	If new cooling tower(s) are used, is the type of cooling tower(s) selected suitable for project?
5.7	Is new cooling tower(s) transported horizontally/vertically to the assembly area, are openings/gaps suitable for transportation, is there a suitable crane area?
5.8	Are chiller(s) capacities and heat load compatible?
5.9	Are cooling tower(s) capacities and heat loads compatible?
5.10	Are heat loads of equipment such as fancoils and air handling units included in general total?
5.11	Are existing VRV outdoor unit(s) still being used?
5.12	If new VRV outdoor unit(s) are used, is the type of VRV outdoor unit(s) selected suitable for project?
5.13	If new VRV outdoor unit(s) are used, does the efficiency of selected VRV outdoor unit(s) meet project expectation?
5.14	Is new VRV outdoor unit(s) transported horizontally/vertically to the assembly area, are openings/gaps suitable for transportation, is there a suitable crane area?
5.15	Is the placement of VRV outdoor unit(s) appropriate?
5.16	Is the placement of the chiller group(s) appropriate?
5.17	Is the placement of the cooling tower(s) appropriate?
5.18	Is layout of other equipment in mechanical room for dedicated chiller(s) appropriate (expansion tanks, collectors, pumps, etc.)?
5.19	Can maintenance and repair activities be carried out easily when considering layout in mechanical room?
5.20	If there is an active operation of more than one chiller, is there a separate connection between chiller pipelines and supply/return collectors?
5.21	Is there any trigeneration system throughout the project?
5.22	If there is a trigeneration system throughout the project, is the relevant line that should be integrated into cooling system included in projects?
5.23	If there is a trigeneration system throughout the project, is the relevant line that should be integrated into cooling system correctly designed?
5.24	Are the cooling tower pump(s) located in correct position?
5.25	Is the flow rate of cooling tower pump(s) suitable?
5.26	Has pressure loss calculation been made for cooling tower pump(s)?
5.27	Is pressure loss calculation made for cooling tower pump(s) suitable?
5.28	Has the evaporator cooling circuit been designed with separate primary and secondary pumps for systems with tower circuit?
5.29	Is there a need to be controlled refrigeration circuit (evaporator side) with different zones?
5.30	Is the cooling line (evaporator side) designed as primary and secondary with separate pumps?
5.31	Are the primary line pumps located in correct position?
5.32	Is the flow rate of primary line pump/pumps suitable?
5.33	Has pressure loss calculation been made for primary line pump/pumps?
5.34	Is pressure loss calculation made for primary line pump/pumps suitable?
5.35	Are the secondary line pumps located in correct position?
5.36	Is the flow rate of secondary line pump/pumps suitable?
5.37	Has pressure loss calculation been made for secondary line pump/pumps?
5.38	Is pressure loss calculation made for secondary line pump/pumps suitable?
5.39	If there is a trigeneration system throughout the project, are the pumps of relevant line that should be integrated into cooling system included in projects?
5.40	If there is a trigeneration system throughout the project, have the pump flow rates of relevant line that should be integrated into cooling system been calculated?
5.41	If there is a trigeneration system throughout the project, are the pump flow rates of relevant line that should be integrated into cooling system appropriate?
5.42	If there is a trigeneration system throughout the project, have the pump pressure loss calculations been made for relevant line that should be integrated into cooling system?
5.43	If there is a trigeneration system throughout the project, are the pump pressure loss calculations of relevant line that should be integrated into cooling system appropriate?
5.44	Has two-way motorized valve (or combined balance valve) been used in chiller(s) inlet or outlet?
5.45	Have the chiller inlet and outlet valves, strainers, check valves, armatures been used in right places and in sufficient numbers?
5.46	Has a calculation been made for collector diameters?
5.47	Are collector diameter calculations suitable?
5.48	Are there discharge valves on the collectors?
5.49	Are there manometers and thermometers on each collector?
5.50	Are pipe diameters compatible and correct with pressure loss calculations?
5.51	If a buffer tank is used, has a buffer tank calculation been made?
5.52	Is the buffer tank calculation suitable?
5.53	Have the shrinkage tanks calculations been made?
5.54	Are the calculations made for shrinkage tanks suitable?
5.55	It will be appropriate not to use a cut-off valve at the inlet of shrinking tank for safety. Is there a cut-off valve at the inlet of shrink tanks?
5.56	Have calculations been made for safety valves?
5.57	Are the calculations made for safety valves suitable?
5.58	Are there safety valve/valves in primary line shrinkage tank(s)?
5.59	Are there safety valve/valves in secondary line shrinkage tank(s)?
5.60	Is cooling circuit temperature regime suitable?
5.61	Has an analysis been made for thermal expansions in pipelines between buildings or in horizontal/vertical pipelines within the building?
5.62	Have expansion compensators calculations been made for thermal expansions?
5.63	Are the calculations made for thermal expansions suitable?
5.64	If there will be thermal expansion analysis, is there a fixed and sliding console application in this scope?
5.65	Is there an automatic filling unit in project?
5.66	Is there water conditioning for feed water?
5.67	Is there a chemical protection system for the cooling circuit?
5.68	Have pipe insulation thicknesses been determined?
5.69	Are the insulation thicknesses in line with the standards?
5.70	Are the coatings to be made on insulation defined in projects?
5.71	Are there air cylinder in mechanical room dedicated to chiller(s) and points where the air collection potential of installation is high?
5.72	Are the air separating purgers located in suitable places?
5.73	Are piping console details included in the projects?
5.74	Are wall transition details of piping included in the projects?
5.75	Are discharge valves added to riser installations?
5.76	Is there a balancing valve in the column installations?
5.77	Do fancoil units in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?
5.78	Have thermal loads over fancoil units been written correctly (must be checked in accordance with planned temperature regime)?
5.79	Has detail drawing of fancoil unit connections been prepared?
5.80	Is the fancoil unit connection detail suitable?
5.81	Will fancoil unit pipelines be retrofit?
5.82	If fancoil unit pipelines are to be changed, has installation project been prepared?
5.83	Is there any air handling unit (ahu) to be changed?
5.84	Has air handling unit cooling coil capacity calculation been made?
5.85	Is air handling unit cooling coil capacity calculation appropriate?
5.86	Have thermal loads over air handling unit been written correctly (must be checked in accordance with planned temperature regime)?

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NO	**CHECKED CALCULATION/REPORT/PROJECT**
5.87	Has detail drawing of air handling unit connections been prepared?
5.88	Is the air handling unit connection detail suitable?
5.89	Will air handling unit pipelines be retrofit?
5.90	If air handling unit pipelines are to be changed, has installation project been prepared?
5.91	Are there suitable ventilation gaps for devices to be placed in suspended ceilings and closed sections?
5.92	Have the inspection holes for devices to be placed in suspended ceilings and closed sections been added into projects?
5.93	Has fcu drainage piping been designed?
5.94	Are fcu drainage piping diameters suitable?
5.95	Has air handling unit drainage system been designed?
5.96	Are air handling unit drainage pipe diameters suitable?
5.97	Do VRV indoor units in spaces meet the calculated heat load (must be checked in accordance with planned temperature regime)?
5.98	Have thermal loads over VRV indoor units been written correctly (must be checked in accordance with planned temperature regime)?
5.99	Has detail drawing of VRV indoor unit connections been prepared?
5.100	Is the VRV indoor unit connection detail suitable?
5.101	Is there a VRV pipeline currently?
5.102	If there is a VRV pipeline, will any modifications be made to VRV pipelines?
5.103	If VRV indoor pipelines are to be changed, has installation project been prepared?
5.104	Has new VRV piping plan been designed?
5.105	Is new VRV piping plan suitable?
5.106	Has a flowchart been created for vrv?
5.107	Has VRV drainage piping been designed?
5.108	Are pipe diameters of VRV drainage appropriate?
5.109	Is pipe insulation for VRV drainage system defined in project, is insulation thickness suitable?
5.110	Are there new split air conditioners or multi split air conditioners in projects?
5.111	Are new split or multi split air conditioner capacities suitable?
5.112	Do new split or multi split air conditioner capacities meet the heat loads?
5.113	Has new split or multi split air conditioner outdoor unit been positioned properly?
5.114	Are project indoor units' capacity suitable?
5.115	Have project indoor units been located in the right place?
5.116	Is there a column diagram?
5.117	Are the equipment labels and capacities in plans and column diagram compatible?
5.118	Are the column diagram and pipe diameters in plans compatible?
5.119	Is there a system schematic diagram?
5.120	Are the equipment labels and capacities in plans and schematic diagram compatible?
5.121	Are the pipe diameters in plans and schematic diagram compatible?
5.122	Is there any legend on the project?
5.123	Are the projects compatible with the project legend?
5.124	Are there any notes on the project?
5.125	Are the plans, column diagram and flowchart compatible with the notes on the project?
5.126	Is there a letterhead on the project?
5.127	Has project name on letterhead been defined correctly?
5.128	Has the floor information on letterhead been defined correctly?
5.129	Has the scale information on letterhead been defined correctly?
5.130	Has the revision information on letterhead been defined correctly?
5.131	Has date on letterhead been defined correctly?
6	**VENTILATION PROJECT SHEETS (DRAWINGS)**
6.1	Is there an air flow rate calculation for new air handling unit(s)?
6.2	Is the air flow rate calculation suitable for new air handling unit(s)?
6.3	Is there a pressure loss calculation for new air handling unit(s)?
6.4	Is the pressure loss calculation suitable for new air handling unit(s)?
6.5	Has an appropriate filter definition been made for new air handling unit(s)?
6.6	Has a appropriate heat recovery unit been selected for new air handling unit(s)?
6.7	Has a direct coupled fan/motor drive system been selected for new air handling unit(s)?
6.8	Has a high efficiency motor been selected for new air handling unit(s)?
6.9	Have correct damper motors been defined for new air handling unit(s)?
6.10	If existing air ducts are to be used for new air handling units, are the cross-sections of existing air ducts suitable?
6.11	Is heating coil selected for new air handling unit(s) the same as capacity in heating project?
6.12	Is cooling coil selected for new air handling unit(s) the same as capacity in cooling project?
6.13	Is the placement of new air handling unit(s) suitable?
6.14	Is new air handling unit(s) transported horizontally/vertically to the assembly area, are openings/gaps suitable for transportation, is there a suitable crane area?
6.15	Is there a technical maintenance distance according to the location of the new air handling unit(s), can doors of air handling unit be opened 90°?
6.16	Can fresh air intake be provided appropriately depending on location of new air handling unit(s)?
6.17	Can exhaust blows be made properly according to location of new air handling unit(s)?
6.18	Has shutter definition been made for fresh air and exhaust inlets of new air handling unit(s)?

DETAILED CONTROL TABLE FOR MECHANICAL PROJECT AND PROJECT ADDITIONS PROJECT NAME	
NO	**CHECKED CALCULATION/REPORT/PROJECT**
6.19	Are existing fans that will only be replaced by motors or belts have been placed?
6.20	Has old and new motor plate information of existing fans that will be only motor replacement been added in projects?
6.21	Is new motor information of existing fans that will be only motor replacement suitable with current fan flow and pressure?
6.22	Has old and new belt information of the existing fans that will only be belt replacement been added in projects?
6.23	Are the cross-section, speed and flow information of new ventilation ducts included in projects?
6.24	Are cross section, speed and flow information of new ventilation ducts appropriate?
6.25	Has insulation definition been made in projects for new ventilation ducts?
6.26	Have the connection details of new ventilation ducts to existing grilles and diffusers been drawn?
6.27	Have the dimensions of plenum boxes for new grilles and diffusers been specified in projects?
6.28	Are the dimensions of plenum boxes suitable for new grilles and diffusers?
6.29	Have flow, velocity and cross section information of new grilles and diffusers been included in projects?
6.30	Are flow rate, velocity and cross section values of new grilles and diffusers suitable?
6.31	Is there a new VAV/CAV/Laminar flow unit?
6.32	If there is a new VAV/CAV/Laminar flow unit, have selection and calculations been made?
6.33	If there is a new VAV/CAV/Laminar flow unit, is selection and calculations appropriate?
6.34	Have dimensions of plenum box been included in projects for the concealed ceiling type fancoil units that will be newly installed?
6.35	Have plenum box sleeve dimensions for concealed ceiling type fancoil units to be installed in new projects been included in projects?
6.36	Has plenum box insulation information been included in projects for concealed ceiling type fancoil units that will be newly installed?
6.37	Have diffuser dimensions been included in projects for concealed ceiling type fancoil units that will be newly installed?
6.38	Has inspection cover been included in projects for the concealed ceiling type fancoil units that will be newly installed?
6.39	Have dimensions of the suction grille for concealed ceiling type fancoil units to be installed in the projects been included in projects?
6.40	Have flexible air duct sizes been included in projects for concealed ceiling type fancoil units that will be newly installed?
6.41	Is there a column diagram (only in buildings that new duct installation made)?
6.42	Are the equipment labels and capacities in plans and column diagram compatible (only in buildings that new duct installation made)?
6.43	Are the column diagram and cross sections, air flow rates in plans compatible (only in buildings that new duct installation made)?
6.44	Is there a system schematic diagram?
6.45	Are the equipment labels and capacities in plans and schematic diagram compatible?
6.46	Are the duct diameters in plans and schematic diagram compatible?
6.47	Is there any legend on the project?
6.48	Are the projects compatible with the project legend?
6.49	Are there any notes on the project?
6.50	Are the plans, column diagram and flowchart compatible with the notes on the project?
6.51	Is there a letterhead on the project?
6.52	Has project name on letterhead been defined correctly?
6.53	Has the floor information on letterhead been defined correctly?
6.54	Has the scale information on letterhead been defined correctly?
6.55	Has the revision information on letterhead been defined correctly?
6.56	Has date on letterhead been defined correctly?
7	**PLUMBING PROJECT SHEETS (DRAWINGS)**
7.1	Is the domestic water booster being changed?
7.2	Has flow rate been calculated for new water booster?
7.3	Is flow rate calculation made for new water booster suitable?
7.4	Has a pressure loss calculation been made for new water booster?
7.5	Is pressure loss calculation made for new water booster suitable?
7.6	Is efficiency of new water booster pump and motor suitable?
7.7	Is there a need to renovation of installation with replacing new water booster?
7.8	Are the pipes, valves and equipment installed for new water booster suitable in terms of type and diameter?
7.9	Is there any hot water production from solar energy?
7.10	If there is domestic hot water from solar energy, is it properly integrated into cold water, hot water and recirculation circuit?
7.11	If there is domestic hot water from solar energy, are cold water, hot water and recirculation circuit pipe diameters suitable?
7.12	If there is domestic hot water from solar energy, has volume calculation been made for domestic hot water storage tank to be used?
7.13	If there is domestic hot water from solar energy, has a thermal capacity calculation been made for domestic hot water storage tank to be used?
7.14	If there is domestic hot water from solar energy, are domestic hot water storage tanks and accessories to be used properly designed?
7.15	Are there recirculation pump(s)?
7.16	Has flow rate been calculated for recirculation pump(s)?
7.17	Is flow rate calculation made for recirculation pump(s) suitable?
7.18	Has pressure loss calculation been made for recirculation pump(s)?
7.19	Is pressure loss calculation made for recirculation pump(s) suitable?
7.20	Is recirculation pump(s) inlet and outlet equipment (valve, check valve, etc.) suitable in type and diameter?
7.21	Is there a column diagram?
7.22	Are the equipment labels and capacities in plans and column diagram compatible?
7.23	Are the column diagram and pipe diameters in plans compatible?
7.24	Is there a system schematic diagram?
7.25	Are the equipment labels and capacities in plans and schematic diagram compatible?
7.26	Are the pipe diameters in plans and schematic diagram compatible?
7.27	Is there any legend on the project?
7.28	Are the projects compatible with the project legend?
7.29	Are there any notes on the project?
7.30	Are the plans, column diagram and flowchart compatible with the notes on the project?
7.31	Is there a letterhead on the project?
7.32	Has project name on letterhead been defined correctly?
7.33	Has the floor information on letterhead been defined correctly?
7.34	Has the scale information on letterhead been defined correctly?
7.35	Has the revision information on letterhead been defined correctly?
7.36	Has date on letterhead been defined correctly?
8	**OTHER**
8.1	
8.2	