MECHANICAL MANDATORY MEASURES — Part 1 of 2 — MECH-MM

PROJECT NAME: Del Mar High School — DATE: 1/29/2009

DESCRIPTION		Designer	Enforcement
Equipment and Systems Efficiencies			
☐ §111	Any appliance for which there is a California standard established in the Appliance Efficiency Regulations will comply with the applicable standard.		
☐ §115(a)	Fan type central furnaces shall not have a pilot light.		
☐ §123	Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC equipment, shall be insulated in accordance with Standards Section 123.		
☐ §124	Air handling duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of the 2001 CMC Standards.		
Controls			
§122(e)	Each space conditioning system shall be installed with one of the following:		
☐ §122(e)1A	Each space conditioning system serving building types such as offices and manufacturing facilities (and all others not explicitly exempt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an accessible manual override that allows operation of the system during off-hours for up to 4 hours. The time switch shall be capable of programming different schedules for weekdays and weekends and have program backup capabilities that prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or		
☐ §122(e)1B	An occupancy sensor to control the operating period of the system; or		
☐ §122(e)1C	A 4-hour timer that can be manually operated to control the operating period of the system.		
☐ §122(e)2	Each space conditioning system shall be installed with controls that temporarily restart and temporarily operate the system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.		
☐ §122(g)	Each space conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided with isolation devices, such as valves or dampers, that allow the supply of heating or cooling to be setback or shut off independently of other isolation areas; and shall be controlled by a time control device as described above.		
☐ §122(a&b)	Each space conditioning system shall be controlled by an individual thermostat that responds to temperature within the zone. Where used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the control shall be adjustable up to 85 degrees F or higher. Where used for both heating and cooling, the control shall be capable of providing a deadband of at least 5 degrees F within which the supply of heating and cooling is shut off or reduced to a minimum.		
☐ §122(c)	Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to authorized personnel.		
☐ §112(b)	Heat pumps shall be installed with controls to prevent electric resistance supplementary heater operation when the heating load can be met by the heat pump alone.		

LIGHTING MANDATORY MEASURES — LTG-MM

PROJECT NAME: Del Mar High School — DATE: 1/29/2009

DESCRIPTION		Designer	Enforcement
☐ § 131(d)1	For every floor, all interior lighting systems shall be equipped with a separate automatic control to shut off the lighting. This automatic control shall meet the requirements of Section 119 and may be an occupancy sensor, automatic time switch, or other device capable of automatically shutting off the lighting.		
☐ § 131(d)2	Override for Building Lighting Shut-off: The automatic building shut-off system is provided with a manual, accessible override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.		
☐ § 119(h)	Automatic Control Devices Certified: All automatic control devices specified are certified, all alternate equipment shall be certified and installed as directed by the manufacturer.		
☐ § 111	Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are certified and listed in the Directory. All installed fixtures shall be certified.		
☐ § 131(a)	Individual Room/Area Controls: Each room and area in this building is equipped with a separate switch or occupancy sensor device for each area with floor-to-ceiling walls.		
☐ § 131(b)	Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet and more than 0.8 watts per square foot of lighting load shall be controlled with bi-level switching for uniform reduction of lighting within the room.		
☐ § 131(c)	Daylight Area Control: All rooms with windows and skylights that are greater than 250 square feet and that allow for the effective use of daylight in the area shall have 50% of the lamps in each daylit area controlled by a separate switch; or the effective use of daylight cannot be accomplished because the windows are continuously shaded by a building on the adjacent lot. Diagram of shading during different times of the year is included on plans.		
☐ § 131(e)	Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or less.		

CERTIFICATE OF COMPLIANCE — (Part 2 of 2) OLTG-1-C

PROJECT NAME: Del Mar High School — DATE: 1/29/2009

Lighting Schedules on Plans Show that Outdoor Lighting Meets Allowed Lighting Power

- ☐ Lighting power allowance for general site illumination on OLTG-2-C Part 1 of 4
- ☒ Not Applicable
- ☐ Lighting power allowance for local ordinances or for security multipliers on OLTG-2-C Part 2 of 4
- ☒ Not Applicable
- ☐ Lighting power allowances for specific applications, other than vehicle service stations with canopies on OLTG-2-C Part 3 of 4
- ☒ Not Applicable
- ☐ Lighting power allowances for vehicle service station canopies on OLTG-2-C part 4 of 4
- ☒ Not Applicable
- ☒ Sign lighting compliance on OLTG-4-C
- ☐ Not Applicable

Mandatory Measures on Plans Show that Outdoor Lighting Meets Outdoor Lighting Controls And Equipment

- ☐ Installed lighting power has been determined in accordance with Section 130(c)1
- ☒ Not Applicable
- ☐ All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficacy of at least 60 lumins per Watt or are controlled by a motion sensor per Section 132(a)
- ☒ Not Applicable
- ☐ All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements of Section 132(b)
- ☒ Not Applicable
- ☐ All permanently installed outdoor lighting meets the control requirements of Section 132(c)1
- ☒ Not Applicable
- ☐ Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements of Section 132(c)
- ☒ Not Applicable

MANDATORY AUTOMATIC CONTROLS

CONTROL LOCATION (Room #)	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch, Dimming, etc.)	AREA CONTROLLED	NOTE TO FIELD

MECHANICAL MANDATORY MEASURES — Part 2 of 2 — MECH-MM

PROJECT NAME: Del Mar High School — DATE: 1/29/2009

Description		Designer	Enforcement
Ventilation			
☐ §121(e)	Controls shall be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified on these plans.		
☐ §122(f)	Gravity or automatic dampers interlocked and closed on fan shutdown shall be provided on the outside air intakes and discharges of all space conditioning and exhaust systems.		
☐ §122(f)	All gravity ventilating systems shall be provided with automatic or readily accessible manually operated dampers in all openings to the outside, except for combustion air openings.		
☐ §121(f)1	Air Balancing: The system shall be balanced in accordance with the National Environmental Balancing Bureau (NEBB) Procedural Standards (1983), or Associated Air Balance Council (AABC) National Standards (1989); or		
☐ §121(f)2	Outside Air Certification: The system shall provide the minimum outside air as shown on the mechanical drawings, and shall be measured and certified by the installing licensed C-20 mechanical contractor and certified by (1) the design mechanical engineer, (2) the installing licensed C-20 mechanical contractor, or (3) the person with overall responsibility for the design of the ventilation system; or		
☐ §121(f)3	Outside Air Measurement: The system shall be equipped with a calibrated local or remote device capable of measuring the quantity of outside air on a continuous basis and displaying that quantity on a readily accessible display divice; or		
☐ §121(f)4	Another method approved by the Commission.		
Service Water Heating Systems			
☐ §113(b)2	If a circulating hot water system is installed, it shall have a control capable of automatically turning off the circulating pump(s) when hot water is not required.		
☐ §113(c)	Lavatories in restrooms of public facilities shall be equipped with controls to limit the outlet temperature to 110 degrees F.		

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Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job and the Architect shall be informed of any variations from the dimensions and conditions show on the drawing. Shop drawings shall be submitted to the Architect for approval before proceeding with fabrication.

Del Mar High School
312 Del Mar Ave
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TITLE 24 REPORTS

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