CERTIFICATE OF COMPLIANCE (Part 1 of 3) LTG-1-C

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

INSTALLED INDOOR LIGHTING POWER FOR CONDITIONED AND UNCONDITIONED SPACES

	INSTALLED WATTS
INSTALLED LIGHTING, CONDITIONED SPACES (From LTG-2-C)	89,815
PORTABLE LIGHTING (From LTG-3-C)	0
LIGHTING CONTROL CREDIT, CONDITIONED SPACES (From LTG-4-C)	163
CONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	89,652
INSTALLED LIGHTING, UNCONDITIONED SPACES (From LTG-2-C)	0
LIGHTING CONTROL CREDIT, UNCONDITIONED SPACES (From LTG-4-C)	0
UNCONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	0

ALLOWED INDOOR LIGHTING POWER FOR CONDITIONED SPACES

- ☐ COMPLETE BUILDING METHOD (From LTG-5-C)
- ☐ AREA CATEGORY METHOD (From LTG-5-C)
- ☐ TAILORED METHOD (From LTG-5-C)

	ALLOWED WATTS
ALLOWED LIGHTING POWER	89,652

ALTERNATE COMPLIANCE

- ☒ PERFORMANCE METHOD
- ☐ COMMMON LIGHTING SYSTEM (From LTG-8-C)

ALLOWED INDOOR LIGHTING POWER FOR UNCONDITIONED SPACES (From LTG-5-C): 0

MANDATORY INDOOR AND DAYLIGHTING AUTOMATIC CONTROLS

CONTROL LOCATION (Room #)	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch, Dimming, etc.)	SPACE CONTROLLED	Check if Daylighting	NOTE TO FIELD

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 11/08/07 19:46:24 Run Code: 1194579984

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 3 of 3 PERF-1

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)	Ctrl. Credits (W/sf)	Allowed LPD Area (W/sf)	Allowed LPD Tailored (W/sf)	Proc. Loads (W/sf)
???	1st Floor Offices	Office	1,018	*1.200				
	1F(B) Classrooms	Classroom, Lecture, Training	15,579	*1.200				
	1F(B) Support/RR/Corr.	Corridor/Restroom/Support	9,010	*0.600				
	2F Lobby	Lobby, Main Entry	1,774	1.161				
	2F Library Area	Library, Reading Area	12,975	0.700				
	2F Storage	Commercial, Industrial Storage	124	1.028				
	2F Classrooms/Study	Classroom, Lecture, Training	9,238	*1.200				
	2F Offices	Office	1,491	*1.200				
	3F Library Stacks	Library, Stacks	20,068	*1.500				
	3F Support/RR/Corridor	Corridor/Restroom/Support	1,233	*0.600				
	3F Offices	Office	3,632	*1.200				
	3F Storage	Commercial, Industrial Storage	152	0.788				
	3F Library/Reading	Library, Reading Area	3,702	0.804				
	3F Classrooms	Classroom, Lecture, Training	1,488	1.381	0.110			

Notes: 1. See LTG-2-C (items marked with asterisk, see LTG-2-C by others). 2. See LTG-4-C. 3. See LTG-5-C (by others). 4. See LTG-8-C. Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The HVAC System "CARRIER 25HPA460" includes an Economizer. This system has a cooling output < 75,000 Btuh or a supply cfm < 2500.

The HVAC System "CARRIER 25HPA460" includes Demand Control Ventilation per Standards Section 121.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp

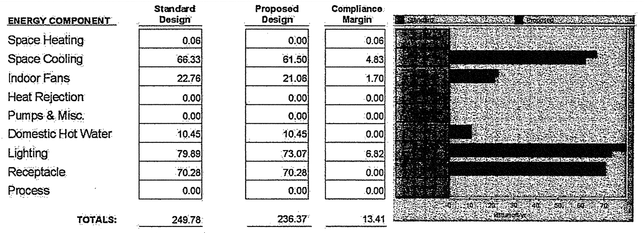
Run Initiation Time: 11/08/07 19:46:24 Run Code: 1194579984

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 2 of 3 PERF-1

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

ENERGY COMPONENT	Standard Design	Proposed Design	Compliance Margin
Space Heating	0.00	0.00	0.00
Space Cooling	66.33	61.50	4.83
Indoor Fans	22.76	21.06	1.70
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	10.45	10.45	0.00
Lighting	79.69	73.07	6.62
Receptacle	70.28	70.28	0.00
Process	0.00	0.00	0.00
TOTALS:	249.78	236.37	13.41



Percent better than Standard: 5.4% (5.4% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(N) 0 deg	Conditioned Floor Area	81,484 sqft.
Number of Stories	3	Unconditioned Floor Area	0 sqft.
Number of Systems	1	Conditioned Footprint Area	17,743 sqft.
Number of Zones	14	Fuel Type	Natural Gas

	Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(N)	3,216 sqft.	703 sqft.	21.9%
Left Elevation	(E)	3,600 sqft.	466 sqft.	12.3%
Rear Elevation	(S)	4,559 sqft.	110 sqft.	2.4%
Right Elevation	(W)	4,337 sqft.	255 sqft.	5.9%
Total		15,911 sqft.	1,533 sqft.	9.6%
Roof		29,683 sqft.	0 sqft.	0.0%

	Standard	Proposed
Lighting Power Density	1.203 W/sqft.	1.100 W/sqft.
Prescriptive Env. Heat Loss	9,559 Btu/h	15,705 Btu/h
Prescriptive Env. Heat Gain	476,342 Btu/h-F	781,563 Btu/h-F

Remarks:

Run Initiation Time: 11/08/07 19:46:24 Run Code: 1194579984

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 1 of 3 PERF-1

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

PROJECT ADDRESS: 28000 Marguerite Mission Viejo | Building Permit #

PRINCIPAL DESIGNER - ENVELOPE: GKK Works | TELEPHONE: (949) 250-1500 | Checked by/Date

DOCUMENTATION AUTHOR: Fundament & Associates | TELEPHONE: (949) 251-1131 | Enforcement Agency Use

GENERAL INFORMATION

DATE OF PLANS | BUILDING CONDITIONED FLOOR AREA: 81,484 Sq.Ft. | CLIMATE ZONE: 8

BUILDING TYPE: ☒ NONRESIDENTIAL ☐ HIGH RISE RESIDENTIAL ☐ HOTEL/MOTEL GUEST ROOM

PHASE OF CONSTRUCTION: ☐ NEW CONSTRUCTION ☐ ADDITION ☐ EXISTING + ADDITION/ALTERATION

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to additions using the performance compliance approach.

The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR: Fundament and Associates | SIGNATURE | DATE: 4/17/08

The Principal Designer hereby certifys that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building as designed meets the energy efficiency requirements contained in sections 110, 116, through 118, and 140, 142, 143 or 149 of Title 24, Part 6.

ENV.	LTG.	MECH.	
☐	☐	☒	1. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
☐	☐	☐	2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
☐	☐	☐	3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538, and 6737.1. (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

ENVELOPE COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures

Required Forms: ENV-1

PRINCIPAL ENVELOPE DESIGNER - NAME: GKK Works | SIGNATURE | LIC. NO. | DATE

LIGHTING COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures

Required Forms: LTG-1, LTG-2, LTG-4

PRINCIPAL LIGHTING DESIGNER - NAME: Fundament and Associates, Inc. | SIGNATURE: Reed Stout | LIC. NO. | DATE: 4/17/08

MECHANICAL COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures

Required Forms: MECH-1, MECH-2, MECH-3, MECH-5

PRINCIPAL MECHANICAL DESIGNER - NAME: Fundament and Associates, Inc. | SIGNATURE | LIC. NO. | DATE: 4/17/08

Run Initiation Time: 11/08/07 19:46:24 Run Code: 1194579984

LIGHTING MANDATORY MEASURES LTG-MM

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

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.		
☒ §132 Tandem Wiring for One and Three Lamp Fluorescent Fixtures: All one and three lamp fluorescent fixtures are tandem wired with two lamp ballasts where required by Standards Section 132; or all one and three lamp fluorescent fixtures are specified with electronic high-frequency ballasts and are exempt from tandem wiring requirements.		
☒ §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.		

ENVELOPE MANDATORY MEASURES ENV-MM

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

DESCRIPTION	Designer	Enforcement
☒ § 118(a) Installed Insulating Material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20, Chapter 4, Article 3.		
☒ § 118(c) All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.		
☒ § 117(a) All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.		
☐ § 116(b) Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).		
☐ § 116(a)1 Manufactured Doors and Windows installed shall have air infiltration rates not exceeding those shown in Table Number 1-E. of the Standards. Manufactured fenestration products must be labeled for U-value according to NFRC procedures.		
☒ § 118(e) Demising Walls in Nonresidential Buildings: The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.		

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

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

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

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

PROJECT NAME: Saddleback Library | DATE: 11/8/2007

PROJECT ADDRESS: 28000 Marguerite Mission Viejo | Building Permit #

PRINCIPAL DESIGNER - LIGHTING: Fundament and Associates, Inc. | TELEPHONE: 949-251-1131 | Checked by/Date

DOCUMENTATION AUTHOR: Fundament & Associates | TELEPHONE: (949) 251-1131 | Enforcement Agency Use

GENERAL INFORMATION

DATE OF PLANS | OUTDOOR LIGHTING ZONE: ☐ LZ1 ☐ LZ2 ☒ LZ3 ☐ LZ4

FUNCTION TYPE: ☒ OUTDOOR LIGHTING ☐ OUTDOOR SIGNS ☐ INDOOR SIGNS

PHASE OF CONSTRUCTION: ☐ NEW CONSTRUCTION ☐ ADDITION ☐ ALTERATION

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the outdoor lighting system specifications need to comply with Title 24, Parts 1 and 6 of the California Code of Regulations.
This certificate applies only to building lighting requirements.
The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR: Fundament and Associates | SIGNATURE: Reed Stout | DATE: 4/17/08

The Principal Lighting Designer hereby certifies that the proposed outdoor lighting and signs design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the lighting requirements contained in Sections 110, 119, 130 through 132, and 146,and 149 of Title 24, Part 6.

Please Check One: (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

- ☒ I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer or electrical engineer, or I am a licensed architect.
- ☐ I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
- ☐ I affirm that I am eligible under the exemption to Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

PRINCIPAL LIGHTING DESIGNER - NAME: Fundament and Associates, Inc. | SIGNATURE: Reed Stout | DATE: 4/17/08 | LIC. #

LIGHTING COMPLIANCE FORMS & WORKSHEETS (Check box if worksheet is included)

☒ OLTG-1-C: Certificate of Compliance. Required on plans for all submittals for outdoor lighting. Part 2 of 2 may be incorporated in schedules on the plans

Either LTG-1-C or OLTG-1-C may be used for signs as follows:
1. Use LTG-1-C if the project consists solely of indoor signs.
2. Use LTG-1-C if the project consists of indoor lighting, outdoor or indoor signs, but no other outdoor lighting.
3. Use OLTG-1-C if the project consists solely of outdoor signs.
4. Use OLTG-1-C if the project consists of outdoor lighting, outdoor or indoor signs, but no other indoor lighting.

☒ OLTG-2-C: LIGHTING COMPLIANCE SUMMARY. Applicable parts required for ALL outdoor lighting allowances (Except Signs).

☒ OLTG-3-C: AREA CALCULATIONS WORKSHEET. Applicable parts required for all outdoor area calculations.

☒ OLTG-4-C: SIGN LIGHTING COMPLIANCE. Required for all internally and externally illuminated signs, for both indoor and outdoor signs.

SADDLEBACK COLLEGE

gkkworks
2355 Main Street Suite 220
Irvine | CA 92614
949 250 1500
949 955 2708 fax

Architect Seal

Consultant and Seal

REGISTERED PROFESSIONAL ENGINEER REED STOUT No. 24311 MECHANICAL STATE OF CALIFORNIA

Fundament & Associates Inc. Engineering Consultants
26 Executive Park, Suite 100, Irvine CA 92614 (949) 251-1131

Agency Approval

VERIFICATION STAMP DIV OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 109129 AC MAY 07 2008

No.	Date	Revision/Issue

Project Name: JAMES B. UTT MEMORIAL LEARNING RESOURCE CENTER RENOVATION
28000 Marguerite Parkway
Mission Viejo, California 92692

Checked By | Drawn By

Sheet Title: TITLE 24 FORMS

Sheet Number: MO.05

Project Number: 04-111 | Scale: N.T.S.

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