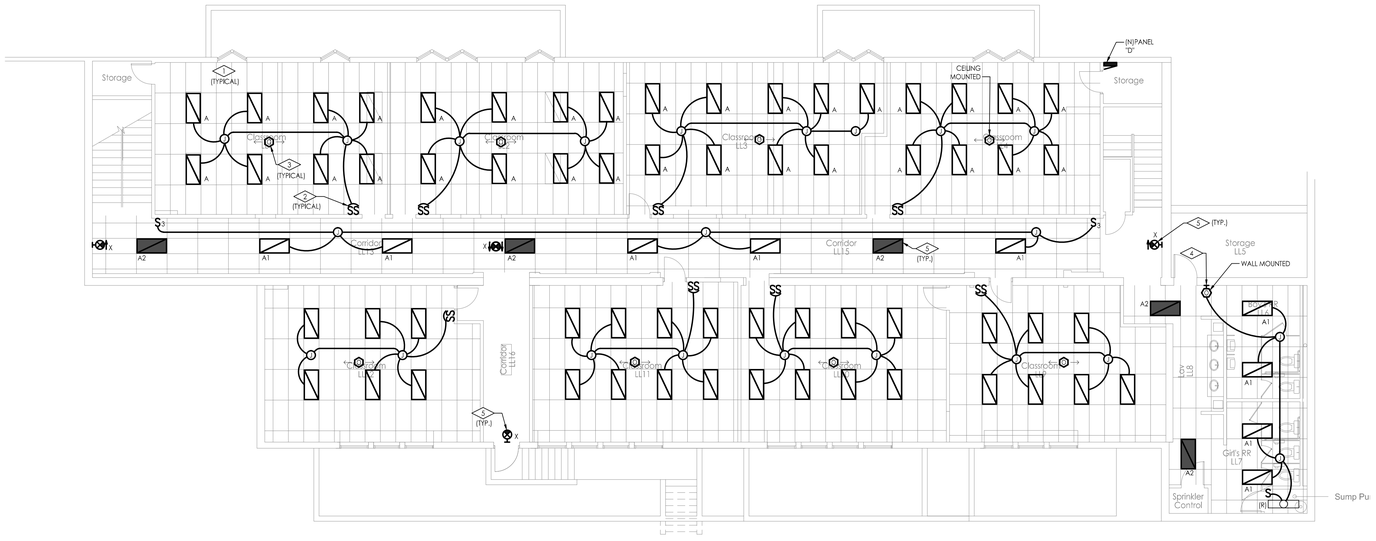

1 LOWER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

NOTE TO BUILDING DEPARTMENT:

1. THE POWER CONSUMPTION FOR EACH LIGHT FIXTURE WILL BE REDUCED FROM 150-WATTS TO 90-WATTS AND WILL COMPLY WITH THE LATEST IECC CODE.

EXISTING LIGHT FIXTURES BEING REMOVED:	76 x 150W = 11,400 WATTS
NEW LIGHT FIXTURES:	76 x 90W = 6,840 WATTS
TOTAL DECREASE LIGHTING LOAD:	4,560 WATTS

LIGHTING NOTES:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND THE BUILDING ENGINEERING DEPARTMENT PRIOR TO START-UP OF THE CONSTRUCTION PROJECT FOR RULES AND REGULATIONS. SAFETY, NEC, LOCAL CODES AND OTHER APPLICABLE CODES ARE TO BE UNDERSTOOD AS MINIMUM REQUIREMENTS.
2. UPON COMPLETION OF THE PROJECT, THE BUILDING ENGINEERING DEPARTMENT SHALL BE ISSUED WITH UPDATED PANEL SCHEDULES, AS-BUILT DRAWINGS, CATALOG CUTS SHEETS, WARRANTIES AND OPERATING INSTRUCTIONS FOR ANY INSTALLED EQUIPMENT PRIOR TO THE LAST PAYMENT OF THE COMPLETED PROJECT, IF ELECTED BY THE BUILDING OWNER OR BUILDING MANAGEMENT.
3. REFER TO APPROPRIATE BUILDING OUTLINE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR TENANT BUILD OUT. ELECTRICAL CONTRACTOR SHALL ABIDE TO THE BUILDING OUTLINE SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY OWNER, BUILDING MANAGEMENT OR ARCHITECT IN A WRITTEN FORM.
4. UP-TO-DATE AS-BUILT ELECTRICAL PLANS ARE NOT AVAILABLE FOR THIS BUILDING. INFORMATION FOR EXISTING CIRCUITRY IS BASED ON EXISTING PANEL DIRECTORIES, AVAILABLE DRAWINGS, AND ASSUMPTIONS. IF SIGNIFICANT DISCREPANCIES ARE FOUND THAT CANNOT BE EASILY RESOLVED, CONTACT THE ARCHITECT OR ENGINEER.
5. SHADED LIGHT FIXTURES AND EXIT SIGNS FOR EGRESS PATH SHALL REMAIN ON AT ALL TIMES AND NOT CONNECTED TO A SWITCH LEG CIRCUIT. THE EMERGENCY LIGHTING AND EXIT SIGNS SHALL BE CONNECTED TO THE EMERGENCY GENERATOR SUPPLIED CIRCUITS ONLY, UNLESS OTHERWISE NOTED OR THE ENTIRE BUILDING REQUIRES 90-MINUTE EMERGENCY BATTERY PACK. INTERCEPT EMERGENCY CIRCUIT FROM NEAREST LOCATION ON THIS FLOOR AND EXTEND TO THE NEW EMERGENCY LIGHTING AND EXIT SIGN LAYOUT. CONNECT THE FIXTURES TO THE APPROPRIATE EMERGENCY LIGHTING CIRCUIT DESIGNATED FOR THIS FLOOR, AS REQUIRED AND NOTE ON CONTRACTOR RED LINE DRAWINGS FOR FUTURE INFORMATION
6. ELECTRICAL CONTRACTOR IS TO FIELD VERIFY EXISTING 120V LIGHTING CIRCUITS. BEING REUSED IN THIS TENANT SPACE IF OTHER THAN SHOWN. NOTE ON "AS-BUILT" DRAWINGS FOR FUTURE REFERENCE.
7. LOWERCASE LETTER ADJACENT TO SWITCH INDICATES CONTROL OF LIGHT FIXTURES WITH MATCHING LOWERCASE LETTER. WHERE NO LOWERCASE LETTERING IS SHOWN (EITHER ON FIXTURE OR ADJACENT TO SWITCHES), SWITCH IS ASSUMED TO BE DEDICATED TO FIXTURE IN LOCAL/CONFINED AREA.
8. REFER TO ARCHITECTURAL DRAWINGS FOR ALL LIGHT SWITCHES FOR MOUNTING HEIGHTS, LOCATIONS, AND FINISHED PRIOR TO ROUGH-IN.
9. ELECTRICAL CONTRACTOR SHALL ENSURE ALL EXISTING CORE DEVICES REMAIN ON EXISTING CIRCUITS.
10. ENSURE THAT ALL NEW DEVICES ARE INSTALLED PLUMB AND SQUARE TO WALL MOUNTED ON.
11. WHERE LIGHT FIXTURE LOCATIONS INTERFERE WITH DUCT OR CEILING SUPPORTS, RELOCATE SUPPORTS. IF IMPOSSIBLE CONTACT OWNER OR ARCHITECT.
12. ANY LIGHT FIXTURES REMOVED IN THIS REMODEL AREA AND NOT REUSED, LIGHT FIXTURE SHALL BE TURNED OVER TO THE BUILDING OWNER FOR FUTURE USE.
13. ELECTRICAL CONTRACTOR IS TO PROVIDE CUT SHEETS FOR ALL NEW LIGHT FIXTURES, WALL SWITCHES AND EXIT SIGNS INDICATING TYPES, QUANTITY, MANUFACTURER AND CATALOG NUMBERS TO THE ARCHITECT PRIOR TO ORDERING.
14. ALL LIGHT FIXTURES SHOWN IN LIGHT LINE WEIGHT ARE EXITING TO REMAIN, DASHED FIXTURES INDICATES TO BE RELOCATED OR REMOVED AND HEAVY LINE WEIGHT INDICATES NEW LOCATION OR NEW LIGHT FIXTURE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL FIXTURE COUNTS AND INSTALLATION REQUIREMENTS.
15. ELECTRICAL CONTRACTOR IS TO FIELD VERIFY EXISTING 277V LIGHTING CIRCUITS BEING REUSED IN THIS TENANT SPACE. IF OTHER THAN SHOWN, NOTE ON "AS-BUILT" DRAWINGS.
16. REWIRE EXISTING OR RELOCATED LIGHT FIXTURES TO BE CONTROLLED AS SHOWN.
17. REMOVE ALL ELECTRICAL EQUIPMENT, CONDUIT AND ASSOCIATED WIRING IN THE DEMOLITION AREA BACK TO POINT OF ORIGIN. RETAIN CIRCUIT CONTINUITY FOR REMAINING DEVICES OR NEW DEVICES BEING INSTALLED

◇ DETAIL NOTES:

1. REPLACING EXISTING 2'x4', THREE F40WT12 LAMPS, FLUORESCENT LIGHT FIXTURES WITH NEW 2'x4' DIRECT/INDIRECT, THREE FP54/841/HO LAMPS FLUORESCENT LIGHT FIXTURE. THE POWER CONSUMPTION FOR EACH LIGHT FIXTURE WILL BE FROM 150-WATTS TO 90-WATTS AND COMPLY IECC LATEST CODE. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION. CONNECT NEW LIGHT FIXTURE TO EXISTING LIGHTING CIRCUITS SERVING THE AREA. ENSURE CIRCUITS DO NOT EXCEED 16-AMPS.
2. DUAL SWITCHING FOR TWO STEP DRAWING CONFIGURATION IN THIS AREA. VERIFY AND CONNECT PER MANUFACTURE SPECIFICATIONS AND REQUIREMENTS.
3. PROVIDE AND INSTALL BUILDING STANDARD, CEILING OR WALL MOUNTED OCCUPANCY SENSOR. FIELD VERIFY EXACT TYPE PRIOR TO PURCHASING. SENSORS SHALL BE INSTALLED PER MANUFACTURE SPECIFICATIONS AND REQUIREMENTS.
4. REPLACE EXISTING SINGLE POLE SWITCH WITH BUILDING STANDARD WALL MOUNTED OCCUPANCY SENSOR AND CONNECT AS REQUIRED.
5. SHADED LIGHT FIXTURES INDICATES EGRESS LIGHTING WITH EMERGENCY 90-MINUTE BATTERY PACK. CONNECT THE SHADED LIGHT FIXTURES AND EXIT SIGNS TO A NON-SWITCHED EGRESS LIGHTING CIRCUIT AS REQUIRED.

COMcheck Software Version 3.6.1

Interior Lighting Application Worksheet

2006 IECC

Section 1: Allowed Lighting Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
School/University	14442	1.2	17330
Gymnasium	4377	1.1	4815
		Total Allowed Watts =	22145

Section 2: Proposed Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
School/University (14442 sq.ft.)				
Linear Fluorescent 1: A, A1, A2: 2'x4' Fluor. / 46" T5 54W / Electronic	3	168	90	15120
Gymnasium (4377 sq.ft.)				
Linear Fluorescent 2: B, B1: 2'x4' Fluo. High Bay / 46" T5 54W / Electronic	6	18	324	5832
			Total Proposed Watts =	20952

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Proposed Watts is greater than or equal to zero, the building complies.

Total Allowed Watts =	22145
Total Proposed Watts =	20952
Project Compliance =	1193

Interior Lighting PASSES: Design 5% better than code.

Project Title: aSPEN aCADEMY
Data filename: J:\5859 S. University - Aspen Academy\10004\Aspen Academy\Drawings\2010-01-26 - First Issue\Comcheck\2010-02-18 Aspen.cck

Report date: 02/18/10

LUMINAIRE SCHEDULE

TYPE	LAMPS	DESCRIPTION	MOUNTING	WATTS	MANUFACTURER/CAT. NO.	NOTES
A	(3) FP54/841/HO	2'x4' FLUORESCENT RECESSED DIRECT/INDIRECT BASKET FIXTURES WITH (3) T5 LAMPS AND HIGH EFFICENT ELECTRONIC 120/277V BALLAST. TWO STEP BIMMING BALLST	RECESSED	90	CORELITE / R2-WL-3N5-2C-UNV-24-XX	
A1	(3) FP54/841/HO	2'x4' FLUORESCENT RECESSED DIRECT/INDIRECT BASKET FIXTURES WITH (3) T5 LAMPS AND HIGH EFFICENT ELECTRONIC 120/277V BALLAST.	RECESSED	90	CORELITE / R2-WL-3N5-2C-UNV-24-XX	
A2		SAME AS "B" (2) LAMPS ARE CONTINOUSLY ON FOR EGRESS LIGHTING AND CONNECTED 90-MINUTE EMERGENCY BATTERY PACK, CONNECTED TO A NON-SWITCH EGRESS LIGHTING CIRCUIT SERVING THIS AREA.				
B	(6) 54W T5HO	WLTRA-EFFICIENT FLOURESCENT HIGH BAY 6-LAMP LIGHT FIXTURE WITH CLEAR LENS AND WIRE GUARD.	RECESSED OR PENDANT	324	COLUMBIA LIGHTING: CAT#LMR-4-654-M4RST-3EPU-F5B41-FSCP6W	ENSURE LENS WIRE GUARD IS PROVIDED. PROVIDE PENDANT HARDWARE FOR FIXTURES NOTED ON THE LIGHTING PLAN.
X	PROVIDED W/ UNIT	UNIVERSAL MOUNTED DIE CAST EXIT LIGHT WITH LED LAMPS, GREEN LETTERS WITH WHITE BACKGROUND AND 90-MINUTE EMERGENCY BATTERY PACK.	CEILING OR WALL		FIELD VERIFY AND MATCH BUILDING STANDARD.	

NOTES:

1. ALL LIGHT FIXTURES SHALL BE APPROVED BY OWNER, ARCHITECT AND LIGHTING DESIGNER PRIOR TO PURCHASING.
2. ALL LIGHT FIXTURES LOCATIONS SHALL BE COORDIANTED WITH THE LIGHTING DESIGNER PRIOR TO ROUGH-IN.
3. PROVIDE AND INSTALL ALL REQUIRED COMPONENTS FOR A FULLY FUNCTIONAL LIGHTING PACKAGE.
4. COORDINATE ALL CONDUIT (PVC SHED. 80) ROUTING, LOCATED IN THE REMODELED LAND SCAPING AREA WITH LAND SCAPER CONTRACTOR PRIOR TO TRENCHING.

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Aspen Academy

5859 S. University Boulevard
Greenwood Village, CO

ISSUES/REVISIONS

Issued for owner review	22 February 2010
Revised per preliminary code review	18 March 2010
⚠ Revised per code review comments	4 April 2010

LOWER LEVEL LIGHTING PLAN

PROJECT DIRECTOR	SRH
PROJECT NO.	10004
DATE	February 19, 2010
SHEET NO.	E.1.1