

ELEVATION

- POLE LABEL PROVIDED BY PENN STATE.
- REINFORCED HANDLE WITH COVER AND GROUND LUG.
- COMPOSITE BASE COVER FINISHED TO MATCH POLE.
- CONCRETE BASE

SECTION

- PROVIDE RUSSMANN STYLE HIGH SINGLE IN-LINE FUSEHOLDER WITH TYPE SC FUSE INSIDE HANDLE FOR FEED TO LUMINAIRE.
- ANCHOR BOLTS & BOLT PATTERN AS DIRECTED BY POLE MANUFACTURER.
- 1" 45° CHAMFER ON EDGE
- CONNECT GROUND WIRE TO METAL POLE BASE
- 36"
- FINISHED
- 19" MINIMUM BELOW FINISHED GRADE
- 3" MIN.
- 1" C UNLESS OTHERWISE NOTED
- 8'-0" MIN.
- 14" STEEL TIE RINGS 19x24"
- 6-#6 BARS EQUALLY SPACED AROUND PERIMETER WELDED TO RINGS
- 6" MIN.
- 6" MIN.
- 24" DIA.
- PLACE CONCRETE BASE ON UNDISTURBED EARTH

LEGEND:

- 1" C UNLESS NOTED OTHERWISE (TYP.)
- QUALITY SPACED REINFORCING BARS AND RINGS
- CONCRETE BASE ON UNDISTURBED EARTH

LIGHTING FIXTURE SCHEDULE NOTES:

- PRODUCT INFORMATION LISTED IS THE FIRST NAMED MANUFACTURER AND FIXTURE CONSTITUTES THE BASIS OF DESIGN. LISTING OF ALTERNATE MANUFACTURERS' NAMES DOES NOT IMPLY RECOMMENDATION OR STANDARD PRODUCT ENDORSEMENT. MANUFACTURERS ARE RESPONSIBLE FOR PROVIDING FIXTURES THAT ARE EQUAL IN ALL RESPECTS TO THE 'BASIS OF DESIGN' FIXTURE.
- SUBSTITUTIONS OR FIXTURES PROVIDED BY MANUFACTURERS NOT LISTED IN THE SCHEDULE ARE NOT ACCEPTABLE. WHERE 'OR APPROVED EQUAL' IS LISTED, A FIXTURE SUBMITTED FROM A MANUFACTURER NOT LISTED IN THE SCHEDULE WILL BE REQUIRED TO MATCH ALL ASPECTS OF THE 'BASIS OF DESIGN' FIXTURE. BRING QUESTIONS ON SUBSTITUTE PRODUCT EQUIVALENCY TO THE ATTENTION OF THE DESIGN TEAM A MINIMUM OF SEVEN (7) DAYS PRIOR TO BID FOR RESOLUTION.
- AS A MINIMUM, INCLUDE THE FOLLOWING INFORMATION FOR EACH FIXTURE TYPE OF THE LIGHTING FIXTURE SHOP DRAWING SUBMITTALS: 1) FIXTURE TYPE, DIMENSIONS, AND FINISH; 2) LAMPED DATA FOR EACH FIXTURE TYPE INCLUDING TYPE, QUANTITY, WATTAGE, LUMEN OUTPUT (DELIVERED PREFERRED), CORRELATED COLOR TEMPERATURE (CCT), COLOR RENDERING INDEX (CRI); 3) DRIVER DATA INCLUDING DIM LEVEL AND TYPE.
- VERIFY FIXTURE VOLTAGES AND CEILING TRIM COMPATIBILITY FOR EACH FIXTURES.
- PROVIDE LABOR AND EQUIPMENT FOR AIMING OF ADJUSTABLE FIXTURES. AIM LIGHTING IN THE PRESENCE OF THE ARCHITECT AND/OR UNIVERSITY.

LIGHTING CONTROL SYSTEM - SEQUENCE OF OPERATIONS									
ABBREVIATIONS: OCC = OCCUPANCY MODE (AUTOMATIC ON); VAC = VACANCY MODE (MANUAL ON)									
AREA NAME (NAME / NUMBER)	GENERAL			LINE VOLTAGE CONTROLS			DIGITAL CONTROLS		REMARKS
	LIGHTING ZONES	TARGET MAINTAINED AVERAGE (FO)	CONTROL FUNCTION: ON/OFF OR DIM	TIME-OUT (MINUTES)	TOGGLE CONTROL SWITCH	WALL SWITCH SENSOR CONTROL (OCC/VAC)	MANUAL CONTROLS	SENSOR CONTROL (OCC/VAC)	
CUSTODIAL	SINGLE	20	ON/OFF	-	YES	-	-	-	
MENS / SINGLE / WOMENS	SINGLE	15	ON/OFF	15	-	-	YES	OCC	

GENERAL NOTES:

- MATRIX INDICATES DESIRED CONTROL SCHEME AND PROGRAMMING FOR EACH SPACE. REFER TO LIGHTING FLOOR PLANS FOR LOCATIONS, TYPES, AND QUANTITIES OF FIXTURES AND CONTROL DEVICES.
- BASIS OF DESIGN: LUTRON VIVE SYSTEM, NO SUBSTITUTIONS.
- DURING CONTROLS SYSTEM PROGRAMMING AND COMMISSIONING, COORDINATE AND CONDUCT A WALK-THROUGH OF THE BUILDING WITH THE SYSTEM PROGRAMMING TECHNICIAN/INTEGRATOR, OWNER'S REPRESENTATIVE(S), GENERAL CONTRACTOR, AND THE DESIGN TEAM TO CONFIRM PREFERRED CONTROL PROGRAMMING AND ADJUST LIGHTING LEVELS AS REQUESTED FOR EACH SPACE. LIGHTING LEVEL PERCENTAGES LISTED IN THIS MATRIX SHALL BE CONSIDERED AS A STARTING POINT FOR INITIAL PROGRAMMING. PROVIDE MINIMUM 10 DAYS NOTICE PRIOR TO WALK-THROUGH.
- LIGHTING CONTROL SYSTEM START-UP, COMMISSIONING, AND OWNER-TRAINING SHALL BE PROVIDED BY A MANUFACTURER-TRAINED REPRESENTATIVE.
- PERFORM FUNCTIONAL TESTING OF THE LIGHTING CONTROL SYSTEM AS DEFINED BY SECTION C408 OF IEC 2018. FUNCTIONAL TESTING CONFIRMS THE LIGHTING CONTROL SYSTEM MEETS THE PERFORMANCE CRITERIA DEFINED BY THE DIFFERING ENERGY CODE ALONG WITH THE DESIGN INTENT OUTLINED IN THE SEQUENCE OF OPERATIONS MATRIX. PRIOR TO FINAL INSPECTION, SUBMIT FUNCTIONAL TESTING REPORT TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. ONCE APPROVED, SUBMIT TO THE OWNER AND COMMISSIONING AGENT WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY. INCLUDE A COPY OF THE APPROVED REPORT IN THE FACILITY'S O&M MANUAL. FUNCTIONAL TESTING REPORT TEMPLATE WILL BE PROVIDED BY ENGINEER AS PART OF THEIR COMPLETED SHOP DRAWING REVIEW COMMENTS ON THE LIGHTING CONTROL SYSTEM FOR CONTRACTOR USE DURING TESTING.
- LIGHTING FIXTURES AND DEVICES PROVIDED AS PART OF THIS PROJECT SHALL BE COMPATIBLE WITH AND WIRED TO ACCEPT THE APPROVED DIGITAL LIGHTING CONTROL SYSTEM.
- PROVIDE MANUFACTURER ENGRAVED PUSH-BUTTON STATIONS. DIRECTION ON WORDING OF ENGRAVINGS SHALL BE PROVIDED BY UNIVERSITY.
- UNLESS OTHERWISE NOTED, ANY ZONE THAT IS DIMMABLE AND TO BE CONTROLLED VIA OCCUPANCY SENSOR OR VACANCY SENSOR SHALL FADE DOWN OVER 3 SECOND PERIOD AFTER TIMEOUT SETTING IS REACHED.
- ASSUME IDENTIFIED TARGET LIGHTING LEVELS MEASURED AT 30" AFF, UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, TAKE A SIMILAR APPROACH TO LOCATING ZONE CONTROLLERS, LOCAL NETWORK BRIDGES, AND OTHER SIMILAR "BACK OF HOUSE" DEVICES WITHIN ROOMS/SPACES THROUGHOUT THE PROJECT. WHERE ROOMS HAVE ACCESSIBLE CEILING, INSTALL ZONE CONTROLLERS CONCEALED ABOVE THE CEILING RIGHT INSIDE THE DOORWAY OF THE ROOM THAT THEY SERVE. WHERE NETWORK DEVICES ARE REQUIRED, INSTALL ADJACENT TO ROOM CONTROLLERS THAT THEY SERVE. IF DEVICE LOCATION IS REQUIRED IN AN UNCOMMON OR SPECIAL PLACE, PROVIDE LAMINATED TYPED LABEL ON GRID NOTING EQUIPMENT LOCATED ABOVE. COORDINATE DESIRED LABELING CHARACTERISTICS WITH ARCHITECT PRIOR TO INSTALLATION.
- PERFORM LABELING OF ALL LINE VOLTAGE CONDUCTOR BRANCH CIRCUITRY AT THE LIGHTING CONTROL EQUIPMENT TERMINALS. LABEL SHALL INDICATE PANELBOARD AND CIRCUIT NUMBER SERVING DEVICE.
- PROVIDE MANUFACTURER-APPROVED LIGHTING CONTROL SYSTEM DEVICE LAYOUT PLANS AND WIRING DETAILS [TYPICAL DETAILS FOR SIMILAR SPACE TYPES ARE ACCEPTABLE] AS PART OF THE LIGHTING CONTROL SYSTEM SHOP DRAWING SUBMISSION. ADJUSTMENTS TO DEVICE QUANTITY OR DEVICE LOCATIONS SHOWN ON THE CONSTRUCTION DOCUMENTS THAT ARE NEEDED TO MEET MANUFACTURER-SPECIFIC CONTROL SYSTEM REQUIREMENTS OR OVERCOME SYSTEM LIMITATIONS WILL BE AT NO ADDITIONAL COST TO THE PROJECT.
- COORDINATE CEILING OCCUPANCY SENSOR LOCATION TO MOUNT AT LEAST MANUFACTURER-RECOMMENDED MINIMUM DISTANCE TO SUPPLY AIR DIFFUSERS IN AN EFFORT TO AVOID FALSE TRIGGERING OF SENSOR. SENSORS WITH ULTRASONIC TECHNOLOGY WILL NOT BE PERMITTED TO BE PROGRAMMED OFF WHERE SENSOR INSTALLATION IS NOT PER MANUFACTURER RECOMMENDATIONS. RELOCATION OF DETECTORS DUE TO NON-ADEQUATE DISTANCE TO SUPPLY AIR DIFFUSERS WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- TEST DIGITAL CONTROL SYSTEM INTERFACE CABLING (CAT5 OR 6 AS SPECIFIED) PRIOR TO THE SYSTEM START-UP. PERFORM REQUIRED CORRECTIVE ACTIONS (REPAIRS/REPLACEMENTS) OF DAMAGED/DEFECTIVE CABLING TO MINIMIZE ON-SITE DELAYS. PROVIDE CABLE RINGING TESTING REPORTS SEVEN DAYS PRIOR TO START-UP DATE TO LIGHTING CONTROLS ON-SITE FIELD SERVICES TECHNICIAN.

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KEY PLAN



DRAWING NC

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