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Printed By: Thien Nhoatichuk 1/29/2018 3:15 PM

LIGHTING FIXTURE SCHEDULE										
TYPE	DESCRIPTION	LENS/ LOUVER	MOUNTING	VOLTS	LAMP WATTAGE/ TYPE	MANUFACTURER & CATALOG NO.	NOTES			
A	2'X4' LED VOLUMETRIC LAY-IN TROFFER, WHITE WITH CENTER ACRYLIC LINEAR PRISMATIC DIFFUSER FOR GRID TYPE CEILING, 3000 LUMENS, 82CRI, 4000K	LENS	CR	120V	33.2W LED	LITHONIA 2VTL4 30L ADP E21 LP840	3.5			
AE	2'X4' LED VOLUMETRIC LAY-IN TROFFER, WHITE WITH CENTER ACRYLIC LINEAR PRISMATIC DIFFUSER FOR GRID TYPE CEILING, WITH INTEGRAL EMERGENCY BATTERY, 3000 LUMENS, 82CRI, 4000K	LENS	CR	120V	33.2W LED	LITHONIA 2VTL4 30L ADP E21 LP840 EL14L	3.5			
A1	2'X4' LED VOLUMETRIC LAY-IN TROFFER, WHITE WITH CENTER ACRYLIC LINEAR PRISMATIC DIFFUSER FOR GRID TYPE CEILING, 3000 LUMENS, 82CRI, 4000K	LENS	CR	120V	33.2W LED	LITHONIA 2VTL4 40L ADP E21 LP840	3.5			
A1E	2'X4' LED VOLUMETRIC LAY-IN TROFFER, WHITE WITH CENTER ACRYLIC LINEAR PRISMATIC DIFFUSER FOR GRID TYPE CEILING, WITH INTEGRAL BATTERY BACK-UP, 4000 LUMENS, 82CRI, 4000K	LENS	CR	120V	33.2W LED	LITHONIA 2VTL4 40L ADP E21 LP840 EL14L	3.5			
AA	2'X2' LED VOLUMETRIC LAY-IN TROFFER, WHITE WITH CENTER ACRYLIC LINEAR PRISMATIC DIFFUSER FOR GRID TYPE CEILING, 4000 LUMENS, 82CRI, 4000K	LENS	CR	120V	35.3W LED	LITHONIA 2VTL2 40L ADP E21 LP840	3.5			
B	8' X 4' SUSPENDED LINEAR LED FOR GRID TYPE CEILING, INDIRECT/DIRECT, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI	DIFFUSER	CC8.5	277V	103.2 W LED	FINELITE HP-4-ID-8-H-B-840-277	3.5			
BE	8' X 4' SUSPENDED LINEAR LED FOR GRID TYPE CEILING, INDIRECT/DIRECT, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI. PROVIDE WITH INTEGRAL BATTERY BACKUP.	DIFFUSER	CC8.5	277V	103.2 W LED	FINELITE HP-4-ID-8-H-B-840-277	3.5			
B1	6' X 4' SUSPENDED LINEAR LED FOR GRID TYPE CEILING, INDIRECT/DIRECT, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI	DIFFUSER	CC8.5	277V	70.2 W LED	FINELITE HP-4-ID-8-H-B-840-277	3.5			
B1E	6' X 4' SUSPENDED LINEAR LED FOR GRID TYPE CEILING, INDIRECT/DIRECT, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI. PROVIDE WITH INTEGRAL BATTERY BACKUP.	DIFFUSER	CC8.5	277V	70.2 W LED	FINELITE HP-4-ID-8-H-B-840-277	3.5			
B2	4' X 4' SUSPENDED LINEAR LED FOR GRID TYPE CEILING, DIRECT, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI	DIFFUSER	CC8.5	277V	37.2 W LED	FINELITE HP-4-D-4-V-840-277	3.5			
C	4" RECESSED LINEAR LED FOR GRID TYPE CEILING, FLUSH FROST DIFFUSER, 3500 LUMEN, 4000K, 80 CRI. FIXTURE LENGTH AS INDICATED ON LIGHTING FLOOR PLANS.	DIFFUSER	CR	277V	n/a	FINELITE HP-4-R-V-840-277	3.5			
D	4' STRIPLIGHT W/ DIFFUSE LENS, 2000 LUMEN, 80CRI, 4000K	DIFFUSER	CC10	120V	35W LED	LITHONIA ZL1N L48 5000LM FST MVOLT 40K 80CRI GALV	3.5			
DE	4' STRIPLIGHT W/ DIFFUSE LENS, WITH INTEGRAL BATTERY BACKUP, 2000 LUMEN, 80CRI, 4000K	DIFFUSER	CC10	120V	35W LED	LITHONIA ZL1N L48 5000LM FST MVOLT 40K 80CRI GALV	3.5			
F	6" SQUARE LED DOWNLIGHT, 1/4" ADJUSTABLE APERTURE, 1500 LUMENS, 80 CRI, 4000K	POLYCARB	CR	120V	29.5 LED	GOTHAM EVO SQ 40/15 6AR WD LD	3.5			
FE	6" SQUARE LED DOWNLIGHT, WITH INTEGRAL BATTERY BACKUP, 1500 LUMENS, 80 CRI, 4000K	POLYCARB	CR	120V	29.5 LED	GOTHAM EVO SQ 40/15 6AR WD LD EL	3.4,5			
F1	6" SQUARE LED DOWNLIGHT, 1/4" ADJUSTABLE APERTURE, 2000 LUMENS, 80 CRI, 4000K	POLYCARB	CR	120V	29.5 LED	GOTHAM EVO SQ 40/20 6AR WD LD	3.5			
F2	6" SQUARE LED DOWNLIGHT, 1/4" ADJUSTABLE APERTURE, 2500 LUMENS, 80 CRI, 4000K	POLYCARB	CR	120V	29.5 LED	GOTHAM EVO SQ 40/20 6AR WD LD	3.5			
H	LED HIGH BAY, PENDANT MOUNTED, NATURAL ALUMINUM FINISH, CLEAR POLYCARBONATE REFLECTOR WITH OPEN BOTTOM, 9000 LUMENS, 80 CRI	OPEN	CC13	120V	63W LED	LITHONIA JCBL 9000LM PLCR MVOLT G210 40K 80 CRI PM DNAXD	3.5			
HE	LED HIGH BAY, PENDANT MOUNTED, NATURAL ALUMINUM FINISH, CLEAR POLYCARBONATE REFLECTOR WITH OPEN BOTTOM, WITH INTEGRAL EMERGENCY BATTERY, 9000 LUMENS, 80 CRI	OPEN	CC13	120V	63W LED	LITHONIA JCBL 9000LM PLCR MVOLT G210 40K 80 CRI PM DNAXD E10WCP	3.4,5			
K	LED LINEAR PENDANT MOUNTED, EXTRUDED ALUMINUM RAILS WITH DIE-CAST ALUMINUM END CAPS, 0.125" EXTRUDED FROSTED ACRYLIC LENS, POLYESTER POWDER COAT, WHITE HOUSING.	DIFFUSER	CC9	120V	50W LED	FOCAL POINT FNRS FL70 1000LF 40K 1C UNV LD1 G 24 WH 5' C5	3.5			
L	4' WALL MOUNTED LED FIXTURE, CURVED SURFACE, VOLUMETRIC, 4000L, 4000K	DIFFUSER	WS8	120V	34.9W LED	LITHONIA STL4 40L MVOLT E21 LP840	3.4			
M	4' LED ENCLOSED AND GASKETED, ONE-PIECE 5VA RATED FIBERGLASS WITH POURED-IN-PLACE NEMA-4X GASKET, HIGH IMPACT, WET LOCATION, 2000 LUMENS, FROSTED ACRYLIC DIFFUSER, 4000K	-	WS	277	18W LED	LITHONIA DMW4 L24 2000LM AFL WD MVOLT 40K 80CRI	3.5			
N	EXTERIOR ARCHITECTURAL LED WALL SCONCE, 4000K, 2,251 LUMENS, P1 PERFORMANCE PACKAGE, TYPE 2 DISTRIBUTION, 0-10V DIMMING, DARK BRONZE	DIFFUSER	WS10	120V	11W LED	LITHONIA WST LED P1 40K VV MVOLT DBLXD	3.5			
NE	EXTERIOR ARCHITECTURAL LED WALL SCONCE, WITH INTEGRAL BATTERY BACKUP, 4000K, 2,251 LUMENS, P1 PERFORMANCE PACKAGE, TYPE 2 DISTRIBUTION, 0-10V DIMMING, DARK BRONZE	DIFFUSER	WS10	120V	11W LED	LITHONIA WST LED P1 40K VV MVOLT DBLXD	3.5			
XP	POLE MOUNTED LED PATHWAY FIXTURE WITH 14" ROUND POLE AND POST TOP SWEEP CAST ARM, 4000K, 4800 LUMENS, DISTRIBUTION TYPE 1, BLACK	-	P14	277	LED	KIM LIGHTING 1A-AE17-1-E35-60L-3K-277-BL-A33	3.5			
XP2	POLE MOUNTED LED PATHWAY FIXTURE WITH 14" ROUND POLE AND POST TOP SWEEP CAST ARM, 4000K, 4800 LUMENS, DISTRIBUTION TYPE 2, BLACK	-	P14	277	LED	KIM LIGHTING 1A-AE17-2-E35-60L-3K-277-BL-A33	3.5			
XP3	HYBRID PHOTOLUMINESCENT LED DIE-CAST EXIT SIGN, INJECTION MOLDED INTERNAL CAVITY REFLECTOR, ELECTRONIC DRIVER CIRCUIT PROVIDES CURRENT CONTROL AND PROTECTION	-	-	277	LED	ISOLITE DTH2	1.4			
<p>MOUNTING:</p> <p>CS - CEILING, SURFACE  CR - CEILING, RECESSED, ACT  CC# - CEILING, SUSPENDED, # FEET A.F.F.</p> <p>CG - CEILING, RECESSED, GYPSUM PA - POLE MOUNT, # FEET A.F.F.  WS# - WALL MTD., SURFACE, # UCP - UNDER CANOPY  WR# - WALL, RECESSED, # FEET A.F.F.</p>										

LIGHTING FIXTURE NOTES:

- PROVIDE MOUNTING TYPES, DIRECTIONAL ARROWS AND FACE QUANTITIES (SINGLE / DOUBLE) AS INDICATED ON DRAWING. COORDINATE LETTERING COLOR OF THE EXIT SIGN WITH AUTHORITY HAVING JURISDICTION.
- REFER TO ARCHITECTURAL DRAWINGS AND ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHT.
- PROVIDE 0-10V DIMMING DRIVER. FIXTURE SHALL ALSO BE CAPABLE OF ON/OFF LINE VOLTAGE SWITCHING.
- CONNECT TO NORMAL LIGHTING CIRCUIT SUPPLYING THIS AREA AHEAD OF ANY SWITCHING UNLESS OTHERWISE NOTED.
- FIXTURE SHALL BE DLC OR ENERGY STAR LISTED.

LIGHTING CONTROL SEQUENCE OF OPERATION		
LIGHTING CONTROL SEQUENCE TAG	SEQUENCE OF OPERATION	NOTES
①	LIGHTS CONTROLLED BY MANUAL SWITCH(ES).	1,2
②	LIGHTS CONTROLLED BY OCCUPANCY SENSOR(S) AND MANUAL SWITCH(ES)/DIMMER(S). CONTINUOUS 0-10V DIMMING. MANUAL ON/OFF. AUTOMATIC OFF BASED ON ROOM OCCUPANCY (30 MINUTES AFTER ROOM IS NOT OCCUPIED). LIGHTS LOCATED IN DAYLIGHT ZONE SHALL BE CONTROLLED BY DAYLIGHT CONTROLLER (PHOTOCELL) LOCATED IN THE AREA (WHERE APPLICABLE). ALL LIGHTS IN THE DAYLIGHT ZONE SHALL BE ACTIVE ANY TIME THE LIGHTS ARE ACTIVE IN THE ADJACENT ZONE. EMERGENCY LIGHTS GO TO FULL ILLUMINATION UPON LOSS OF NORMAL POWER TO THE AREA.	1,2
③	LIGHTS CONTROLLED BY OCCUPANCY SENSOR(S) AND MANUAL SWITCH(ES)/DIMMER(S). MULTIPLE SWITCHING ZONES (a, b, etc.). CONTINUOUS 0-10V DIMMING. MANUAL ON/OFF. AUTOMATIC OFF BASED ON ROOM OCCUPANCY (30 MINUTES AFTER ROOM IS NOT OCCUPIED). LIGHTS LOCATED IN DAYLIGHT ZONE SHALL BE CONTROLLED BY DAYLIGHT CONTROLLER (PHOTOCELL) LOCATED IN THE AREA (WHERE APPLICABLE). ALL LIGHTS IN THE DAYLIGHT ZONE SHALL BE ACTIVE ANY TIME THE LIGHTS ARE ACTIVE IN THE ADJACENT ZONE. EMERGENCY LIGHTS GO TO FULL ILLUMINATION UPON LOSS OF NORMAL POWER TO THE AREA.	1,2
④	LIGHTS CONTROLLED BY OCCUPANCY SENSOR(S) AND MANUAL SWITCH(ES)/DIMMER(S). MANUAL ON/OFF. AUTOMATIC OFF BASED ON ROOM OCCUPANCY (30 MINUTES AFTER ROOM IS NOT OCCUPIED).	1,2
⑤	NORMAL BUSINESS HOURS: (MONDAY - FRIDAY) LIGHTS CONTROLLED BY TIME CLOCK CONTROL. AUTOMATIC ON AT 6:00 AM. AUTOMATIC OFF AT 4:00 PM. MANUAL ON/OFF OVERRIDE SWITCH. NON-NORMAL BUSINESS HOURS: MANUAL ON/OFF VIA MANUAL OVERRIDE SWITCH. LIGHTS CONTROLLED BY AUTOMATIC ON/OFF BASED ON CORRIDOR OCCUPANCY (30 MINUTES AFTER CORRIDOR IS NOT OCCUPIED)	1,2
CORRIDOR	ALL LIGHTS GO TO FULL ILLUMINATION UPON ACTIVATION OF FIRE ALARM SYSTEM.	
⑥	LIGHTS CONTROLLED BY OCCUPANCY SENSOR(S). DUAL LEVEL SWITCHING (50% AND 100%). AUTOMATIC RAISE/LOWER. LIGHTS WILL AUTOMATICALLY GO TO 100% WHEN STAIR IS OCCUPIED. LIGHTS WILL AUTOMATICALLY GO TO 50% BASED ON STAIR OCCUPANCY (30 MINUTES AFTER STAIR IS NOT OCCUPIED). EMERGENCY LIGHT(S) AUTOMATICALLY GO TO FULL ILLUMINATION UPON LOSS OF NORMAL POWER. ALL LIGHTS GO TO FULL ILLUMINATION UPON ACTIVATION OF BUILDING FIRE ALARM SYSTEM.	1,2
⑦	EXTERIOR LIGHTS CONTROLLED THROUGH LIGHTING CONTROL SYSTEM TIME CLOCK AND LIGHT SENSING PHOTOCELL. AUTOMATIC ON AT DUSK. AUTOMATIC REDUCTION TO 50% (CONTINUOUS 0-10V DIMMING) AT MIDNIGHT. AUTOMATIC RAISE TO 100% AT 6:00 AM. AUTOMATIC OFF AT SUNRISE. EMERGENCY LIGHTS SHALL GO TO FULL ILLUMINATION UPON LOSS OF NORMAL POWER. LIGHTS SHALL GO TO FULL ILLUMINATION UPON ACTIVATION OF BUILDING FIRE ALARM SYSTEM.	1,2
⑧	EXTERIOR LIGHTS CONTROLLED THROUGH LIGHTING CONTROL SYSTEM TIME CLOCK CONTROL AND LIGHT SENSING PHOTOCELL. AUTOMATIC ON AT DUSK. AUTOMATIC OFF AT MIDNIGHT. AUTOMATIC ON AT 6:00 AM. AUTOMATIC OFF AT SUNRISE. PROVIDE CONTINUOUS 0-10V DIMMING CAPABILITY FOR POSSIBLE FUTURE USE.	1,2
EXTERIOR POLE MOUNTED		

LIGHTING SEQUENCE NOTES:

- STAND ALONE ROOM LIGHTING CONTROL SYSTEM UNLESS NOTED OTHERWISE.
- ALL STAND ALONE LIGHTING CONTROL SYSTEM DEVICES SHALL BE BY THE SAME MANUFACTURER.

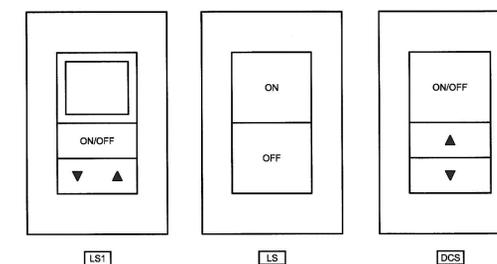
LIGHTING CONTROL SYSTEM NOTES:

- EACH ROOMSPACE CONTAINS A LIGHTING CONTROL SEQUENCE TAG WHICH MATCH THE CORRESPONDING TAG DESIGNATION AND SEQUENCE OF OPERATION SHOWN IN THE LIGHTING CONTROL SEQUENCE OF OPERATION SCHEDULE SHOWN ON THIS SHEET. LIGHTING CONTROL SYSTEM SHALL PROVIDE LIGHTING CONTROL SEQUENCE OF OPERATION SHOWN ON THE LIGHTING CONTROL SEQUENCE OF OPERATION ON THIS DRAWING FOR EACH ROOMSPACE.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, ADDITIONAL SYSTEM DESIGN AND ALL INCIDENTALS TO PROVIDE A COMPLETE AND OPERABLE LIGHTING CONTROL SYSTEM AS SHOWN AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- NOTE: ONLY MAJOR LIGHTING CONTROL SYSTEM COMPONENTS AND SEQUENCES ARE SHOWN ON THIS DRAWING IN ORDER TO CONVEY SYSTEM DESIGN INTENT. CERTAIN LIGHTING CONTROL SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO, POWER/RELAY PACKS, OCCUPANCY SENSORS, INTERFACE DEVICES, POWER SUPPLIES, INTERFACE DEVICES AND LOW VOLTAGE INTERCONNECT CABLES (I.E. CATSE CABLE) ARE NOT SHOWN IN THIS DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LIGHTING CONTROL SYSTEM MANUFACTURER TO DETERMINE ALL REQUIRED COMPONENTS AND TO INCLUDE ALL REQUIRED COMPONENTS IN THE PROJECT BID PRICE.
- LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS SENSOR SWITCH, INC. (NIGHT PRODUCT LINE). REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

LIGHTING CONTROL SYSTEM LEGEND	
LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS SENSOR SWITCH, INC. (NIGHT PRODUCT LINE). REFER TO LIGHTING CONTROL SYSTEM SPECIFICATION SECTION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.	
OS	LIGHTING CONTROL SYSTEM - OCCUPANCY SENSOR. SENSOR SWITCH (NIGHT) MODEL, QUANTITY AND LOCATION AS RECOMMENDED BY SENSOR SWITCH FOR THIS APPLICATION
LS	LIGHTING CONTROL SYSTEM - LOW VOLTAGE ADDRESSABLE WALL ON/OFF SWITCH. SENSOR SWITCH (NIGHT) NP0DM SERIES.
LS1	LIGHTING CONTROL SYSTEM - COMBINATION WALL SWITCH SENSOR WITH MANUAL ON/OFF CAPABILITY. SENSOR SWITCH (NIGHT) NWSX SERIES.
LS2	LIGHTING CONTROL SYSTEM - LOW VOLTAGE ADDRESSABLE WALL ON/OFF SWITCH WITH STEP DIMMING (50% AND 100%). SENSOR SWITCH (NIGHT) NP0DM SERIES.
PP1	LIGHTING CONTROL SYSTEM - 1 RELAY POWER/RELAY PACK. LOWER CASE SUBSCRIPT INDICATES CONTROLLING SWITCH(ES). SENSOR SWITCH (NIGHT) MODEL #NPP16. LOCATE LIGHTING CONTROL SYSTEM COMPONENTS IN CONCEALED ACCESSIBLE CEILING LOCATION.
PP2	LIGHTING CONTROL SYSTEM - 0-10VDC DIMMING PACK. LOWER CASE SUBSCRIPT INDICATES CONTROLLING SWITCH(ES). SENSOR SWITCH (NIGHT) MODEL #NPP16 D. LOCATE LIGHTING CONTROL SYSTEM COMPONENTS IN CONCEALED ACCESSIBLE CEILING LOCATION.
DCS	LIGHTING CONTROL SYSTEM - DIMMING ON/OFF CONTROL SWITCH. LOWER CASE SUBSCRIPT INDICATES CONTROLLING SWITCH(ES). SENSOR SWITCH (NIGHT) NP0DM SERIES.
SUBSCRIPT INDICATES FIXTURES CONTROLLED BY THE SWITCH. IF NO SUBSCRIPT IS SHOWN, THEN ALL FIXTURES IN THE ASSOCIATED ROOMSPACE ARE CONTROLLED BY THE SAME SWITCH.	
GW	LIGHTING CONTROL SYSTEM - TIME BASED CONTROL SWITCH. SENSOR SWITCH (NIGHT) GATEWAY SERIES 2.

NOTE:

- SOME SYMBOLS MAY NOT BE USED ON THIS PROJECT.



LIGHTING CONTROL SYSTEM - LOW VOLTAGE SWITCH DETAIL

SCALE: NONE



ARCHITECTURE

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SEAL:

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUM: EXP DATE:

PROJECT:

INNOVATIVE LEARNING CENTER  
NEW MIDDLE SCHOOL

500 CHESTNUT AVE  
TOWSON, MD 21204

PREPARED FOR:

LOYOLA BLAKEFIELD

500 CHESTNUT AVE  
TOWSON, MD 21204

1 12-06-2019 CONFORMED SET

MARK DATE DESCRIPTION

PROJECT NO: 18-00386-001

DATE: AUGUST 30, 2019

SCALE: As indicated

DESIGNED BY: RMK/TAN

DRAWN BY: RMK/TAN

CHECKED BY: DMW

DRAWING TITLE:

ELECTRICAL LIGHTING FIXTURE SCHEDULE, LIGHTING CONTROL LEGEND, LIGHTING CONTROL SEQUENCE OF OPERATION

SHEET NUMBER:

E002