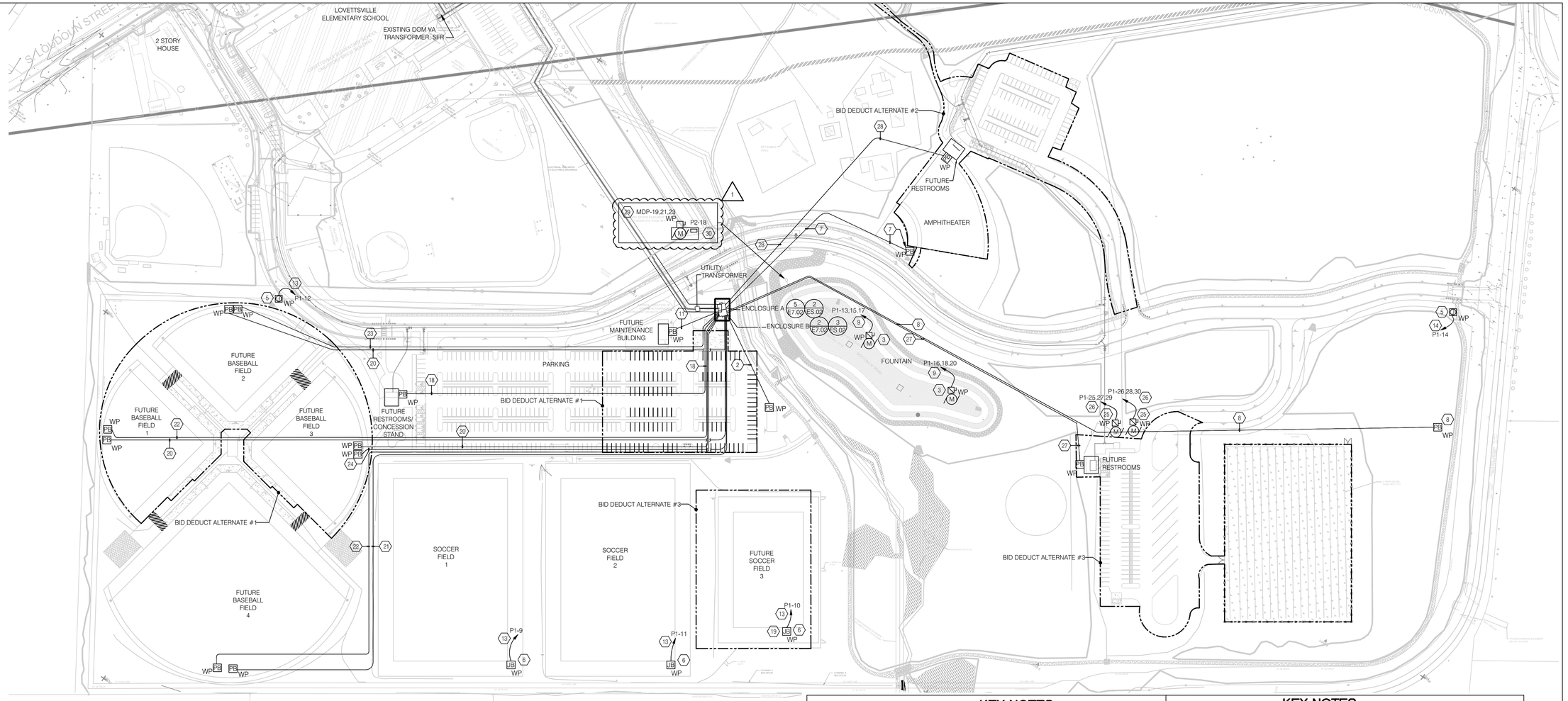
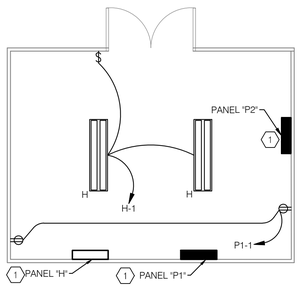


1 ES.02 — ELECTRICAL SITE PLAN - LIGHTING AND POWER

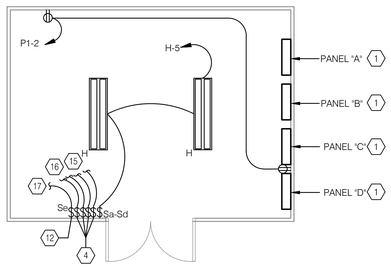
SCALE: 1":100'



NOTE:
SEE DRAWING E7.02 FOR SERVICE EQUIPMENT GROUNDING DETAIL FOR GROUNDING REQUIREMENTS.

2 ES.02 — ELECTRICAL EQUIPMENT ENCLOSURE A - ENLARGED LIGHTING & POWER PLAN

SCALE: 1/4" = 1'-0"



3 ES.02 — ELECTRICAL EQUIPMENT ENCLOSURE B - ENLARGED LIGHTING & POWER PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO DRAWING E0.01, FOR THE ELECTRICAL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL PULL BOXES SHALL BE FLUSH MOUNTED IN GROUND AND SHALL BE MIN. 12"X12" UNLESS NOTED OTHERWISE. TAG EACH LOCATION WITH PERMANENT MARKING.
3. REFER TO RISER DIAGRAM ON DWG. ES.01 FOR FEEDER SIZES BETWEEN ENCLOSURES "A" AND "B".
4. REFER TO DRAWING ES.01 FOR PARKING, SITE AND BALL FIELD LIGHTING.
5. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL WIRES.

KEY NOTES

1. ALL PANELS SHALL BE EQUIPPED WITH THE COPPER BUSBARS AND BOLT-ON TYPE BRANCH CIRCUIT BREAKERS.
2. PROVIDE 2" EMPTY CONDUIT FROM ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" AT PAVILION. REFER TO SHEET E5.01 FOR ADDITIONAL INFORMATION. COORDINATE THE EXACT LOCATION WITH ARCHITECT, PRIOR TO ANY INSTALLATION.
3. PROVIDE 3P-30A DISCONNECT SWITCH FOR FOUNTAIN (1 1/2HP @ 3Ø,208VOLTS). COORDINATE WITH CIVIL, ARCHITECT AND COUNTY FOR EXACT LOCATION AND POWER REQUIREMENTS, PRIOR TO ANY INSTALLATION.
4. PROVIDE MANUAL CONTROL SWITCH FOR PEDESTRIAN EGRESS LIGHTING IN THE ENCLOSURE "B". EXACT LOCATION SHALL BE FIELD COORDINATED WITH THE SITE CONDITIONS. REFER TO DRAWING ES.01 FOR LOCATION OF PEDESTRIAN EGRESS LIGHTS.
5. PROVIDE WEATHERPROOF JUNCTION BOX MIN. 6" ABOVE GRADE FOR SIGNAGE LIGHTS. COORDINATE WITH ARCHITECT FOR EXACT LOCATION AND MOUNTING HEIGHT, PRIOR TO ANY INSTALLATION.
6. PROVIDE WEATHERPROOF JUNCTION BOX FLUSH WITH GROUND FOR FUTURE SCOREBOARD. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT, WITH THE CIVIL AND ARCHITECT, PRIOR TO ANY INSTALLATION.
7. PROVIDE 2" EMPTY CONDUIT FROM PANEL "P1" IN ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT AMPHITHEATER. REFER TO SHEET E5.01 FOR ADDITIONAL INFORMATION. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
8. PROVIDE 2" EMPTY CONDUIT FROM PANEL "P1" IN ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT EQUESTRIAN. REFER TO SHEET E5.01 FOR FEEDER INFORMATION. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
9. 3#10 + 1#10 G. IN 3/4"C.
10. NOT USED.
11. PROVIDE 2" EMPTY CONDUIT FROM PANEL "P1" IN ENCLOSURE "A" TO THE WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE MOUNT THE PB COMPLETELY FLUSH WITH THE GROUND AND NEAR THE FUTURE LOCATION OF THE MAINTENANCE BUILDING/OUTDOOR STORAGE. REFER TO DRAWING ES.01 FOR FEEDER INFORMATION. COORDINATE WITH ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
12. PROVIDE MANUAL CONTROL SWITCH FOR FLAG POLE LIGHTS IN THE ENCLOSURE "B". EXACT LOCATION SHALL BE FIELD COORDINATED WITH THE SITE CONDITIONS.
13. 2#4 + 1#8 G. IN 1"C.
14. 2#3 + 1#8 G. IN 1"C.
15. TO PEDESTRIAN EGRESS LIGHTS AT SOCCER FIELDS 2 & 3. REFER TO DRAWING ES.01 FOR LOCATION OF LIGHT FIXTURES, AND BID DEDUCT ALTERNATE #3.
16. TO FUTURE PEDESTRIAN EGRESS LIGHTS AT SOCCER FIELD 1 AND 2. REFER TO DRAWING ES.01 FOR LOCATION OF LIGHT FIXTURES.
17. TO FLAG POLE LIGHTS (TYPE - SP) LOCATED IN BETWEEN BASEBALL FIELD 1 AND PARKING LOT. REFER TO DRAWING ES.01 FOR LOCATION OF LIGHT FIXTURES.

KEY NOTES

18. PROVIDE ONE 2 1/2" EMPTY CONDUIT FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 18"X18" SIZE AT FUTURE RESTROOM /CONCESSION STAND. REFER TO DRAWING E5.01 FOR ADDITIONAL INFORMATION. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
19. UNDER BID DEDUCT ALTERNATE #3 PROVIDE TWO 2" EMPTY CONDUIT FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 18"X18"X12" SIZE AT SOCCER FIELD #3. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
20. PROVIDE SIX 1" EMPTY CONDUIT FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 18"X18"X12" SIZE AT BASEBALL FIELD #1, 2, 3. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
21. PROVIDE EIGHT 1" EMPTY CONDUIT FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 24"X24"X12" SIZE AT BASEBALL FIELD #4. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
22. PROVIDE 1" EMPTY CONDUIT FROM PANEL "P1" IN ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT BASEBALL FIELD #1 & 4. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
23. PROVIDE TWO 1" EMPTY CONDUIT FROM FROM PANEL "P1" IN ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT BASEBALL FIELD #2. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
24. PROVIDE SIX 1" EMPTY CONDUIT FROM FROM PANEL "P1" IN ENCLOSURE "A" TO WEATHERPROOF PULL BOX OF MIN. 18"X18"X12" SIZE AT BASEBALL FIELD #3. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
25. PROVIDE 3P-30A DISCONNECT SWITCH FOR SEWAGE LIFT PUMP. COORDINATE WITH CIVIL, ARCHITECT/COUNTY FOR EXACT LOCATION, PRIOR TO ANY INSTALLATION.
26. 3#6 +1#10 G. IN 1"C.
27. PROVIDE ONE 2 1/2" EMPTY CONDUIT FROM FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT FUTURE RESTROOM. REFER TO DRAWING E5.01 FOR ADDITIONAL INFORMATION. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
28. PROVIDE ONE 2 1/2" EMPTY CONDUIT FROM FROM PANEL "P2" IN ENCLOSURE "B" TO WEATHERPROOF PULL BOX OF MIN. 12"X12" SIZE AT FUTURE RESTROOM. REFER TO DRAWING E5.01 FOR ADDITIONAL INFORMATION. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT AND CIVIL ENGINEER, PRIOR TO ANY INSTALLATION.
29. 100A NEMA 3R DISCONNECT SWITCH FUSED AT 100A FOR IRRIGATION PUMP STATION. PROVIDE 3 #6 + 1 #10 G IN 1" C. CONNECT TO CIRCUIT INDICATED VIA PUMP CONTROLLER. FIELD COORDINATE EXACT LOCATION.
30. FOR PUMP CONTROLLER / VFD LOCATED IN PUMP STATION ENCLOSURE.

1

LOUDOUN COUNTY VIRGINIA — I RYDE MY TAIE — 1757

LSY ARCHITECTS & LABORATORY PLANNERS

ATKINS

SETTY

Architect and Engineer Name and LOGO

ARCHITECT: LOUVIERE, STRATTON & YOKEL, LLC, 8484 GEORGIA AVE, SUITE 650, SILVER SPRING, MD 20910, (301) 588-1500

CIVIL ENGINEER: ATKINS, 3959 CENTERVIEW DRIVE, SUITE 160, CHANTILLY, VA 20151, (703) 471-7275

MECHANICAL ENGINEER: SETTY, 3040 WILLIAMS DRIVE, FAIRFAX, VA 22031, (703) 691-2115

STRUCTURAL ENGINEER: SIMPSON, GUMPERTZ & HEGER, 1828 L STREET, NW, WASHINGTON, DC 20036, (202) 239-4199

SEAL

REVISIONS

MARK	DATE	DESCRIPTION
1	01/15/2020	ADDENDUM #4

CONTRACTORS

A/E CON. NO.
A/E TASK NO.
CONS. CONTR.
CONS. WORK
PRIME A/E: LSY ARCHITECTS
SUB A/E: ATKINS
CONSTR. CON.

BUILDING

FACILITY CODE
BUILDING NO.
NAME: DEPT OF TRANSP
STREET: 101 BLUE SEAL DR.
CITY: LEESBURG
STATE/ZIP: VA, 20177
OTHER BUILDING NO.

PROJECT

PROJ. NO.
LSY PROJ. NO.: 11028.04
PROJ. MGR.: MARK HOFFMAN
SUBMISSION: BID DOCUMENT
SUB. DATE: 3/25/19

N

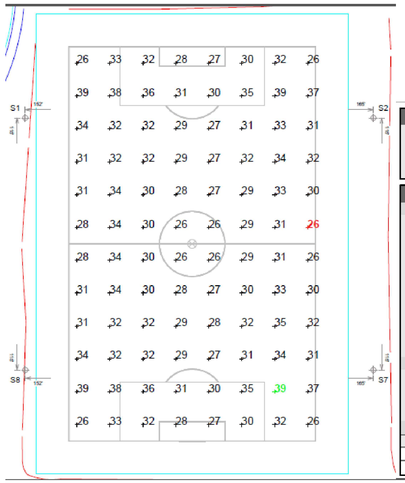
PROJECT TITLE: LOVETTSVILL COMMUNITY PARK

DRAWING TITLE: ELECTRICAL SITE PLAN - LIGHTING AND POWER

DRAWING

DESIGNED BY: SM
DRAWN BY: SM
CHECKED BY: PJ/CD
DATE: 3/25/19
FILE NAME
DRAWING NO.: ES.02

OF SHEET NUMBER



GRID SUMMARY

Name:	Soccer 1
Size:	360' x 225'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	31.03
Maximum:	39
Minimum:	26
Avg / Min:	1.21
Guaranteed Max / Min:	**3**
Max / Min:	1.53
UG (adjacent pts):	1.47
CU:	0.80
No. of Points:	96

LUMINAIRE INFORMATION

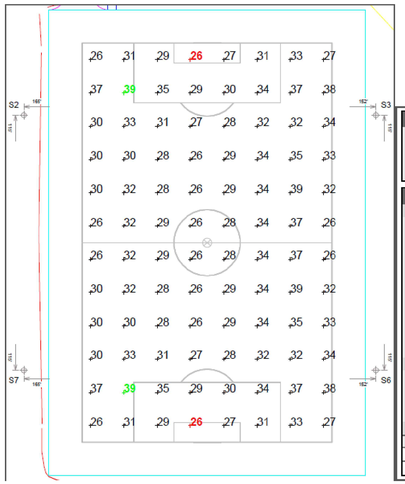
Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**28**
Total Load:	32.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

1 / E1.01 SOCCER FIELD 1
SCALE: NTS



GRID SUMMARY

Name:	Soccer 2
Size:	360' x 225'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	30.98
Maximum:	39
Minimum:	26
Avg / Min:	1.21
Guaranteed Max / Min:	**3**
Max / Min:	1.52
UG (adjacent pts):	1.41
CU:	0.80
No. of Points:	96

LUMINAIRE INFORMATION

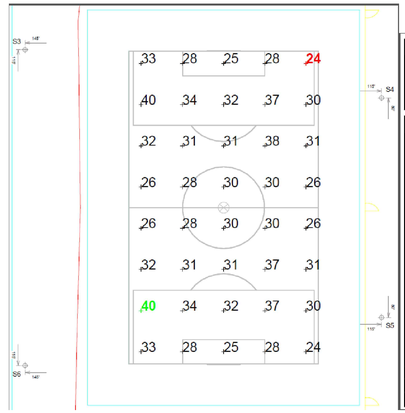
Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**28**
Total Load:	32.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

2 / E1.01 SOCCER FIELD 2
SCALE: NTS



GRID SUMMARY

Name:	Soccer 3
Size:	228' x 138'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	30.67
Maximum:	40
Minimum:	24
Avg / Min:	1.28
Guaranteed Max / Min:	**3**
Max / Min:	1.68
UG (adjacent pts):	1.32
CU:	0.67
No. of Points:	40

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**14**
Total Load:	16.1 kW

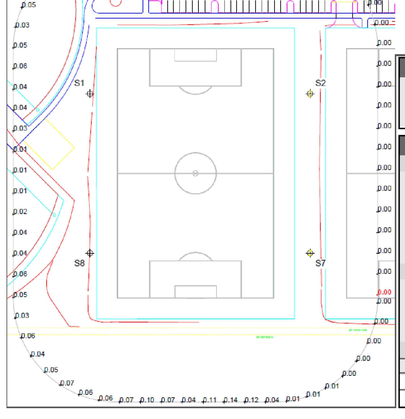
Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

3 / E1.01 SOCCER FIELD 3
SCALE: NTS

NOTE : BID DEDUCT ALTERNATE #3. SEE DWG ES.01 AND ES.02 FOR ADDITIONAL INFORMATION.



GRID SUMMARY

Name:	Soccer 1 Spill 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	**0.0375**
Guaranteed Maximum:	**0.3**
Maximum:	0.14
Minimum:	0.00
No. of Points:	71

LUMINAIRE INFORMATION

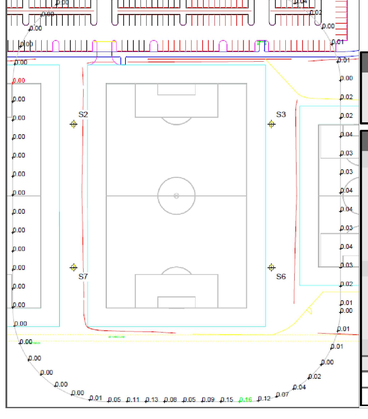
Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**28**
Total Load:	32.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

4 / E1.01 SOCCER FIELD 1
SCALE: NTS



GRID SUMMARY

Name:	Soccer 2 Spill 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	**0.0360**
Guaranteed Maximum:	**0.3**
Maximum:	0.16
Minimum:	0.00
No. of Points:	71

LUMINAIRE INFORMATION

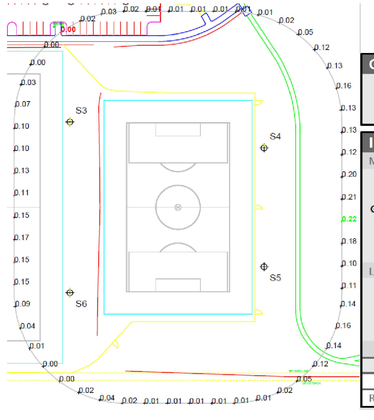
Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**28**
Total Load:	32.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

5 / E1.01 SOCCER FIELD 2
SCALE: NTS



GRID SUMMARY

Name:	Soccer 3 Spill 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	**0.0733**
Guaranteed Maximum:	**0.3**
Maximum:	0.22
Minimum:	0.00
No. of Points:	56

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**14**
Total Load:	16.1 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

6 / E1.01 SOCCER FIELD 3
SCALE: NTS

NOTE : BID DEDUCT ALTERNATE #3. SEE DWG ES.01 AND ES.02 FOR ADDITIONAL INFORMATION.

LOUDOUN COUNTY VIRGINIA — I RYDE MY TAE — 1757

LSY ARCHITECTS & LABORATORY PLANNERS

ATKINS
SETTY

Architect and Engineer Name and LOGO SEAL

ARCHITECT:	LOUVIERE, STRATTON & YOKEL, LLC 8484 GEORGIA AVE, SUITE 650 SILVER SPRING, MD 20910 (301) 588-1500
CIVIL ENGINEER	ATKINS 3959 CENTERVIEW DRIVE, SUITE 160 CHANTILLY, VA 20151 (703) 471-7275
MECHANICAL ENGINEER	SETTY 3040 WILLIAMS DRIVE FAIRFAX, VA 22031 (703) 691-2115
STRUCTURAL ENGINEER	SIMPSON, GUMPERTZ & HEGER 1828 L STREET, NW WASHINGTON, DC 20036 (202) 239-4199

REVISIONS

MARK	DATE	DESCRIPTION
1	01/07/2020	ADDENDUM #3

CONTRACTORS

A/E CON. NO.	
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	LSY ARCHITECTS
SUB A/E	ATKINS
CONSTR. CON.	

BUILDING

FACILITY CODE	
BUILDING NO.	
NAME	DEPT OF TRANSP
STREET	101 BLUE SEAL DR.
CITY	LEESBURG
STATE/ZIP	VA, 20177
OTHER BUILDING NO.	

PROJECT

PROJ. NO.	
LSY PROJ. NO.	11028.04
PROJ. MGR.	MARK HOFFMAN
SUBMISSION	BID DOCUMENT
SUB. DATE	3/25/19

N

PROJECT TITLE: LOVETTSVILL COMMUNITY PARK

DRAWING TITLE: ELECTRICAL PHOTOMETRIC CALCULATIONS

DRAWING

DESIGNED BY	SM
DRAWN BY	SM
CHECKED BY	PJ/CD
DATE	3/25/19
FILE NAME	

DRAWING NO.

E1.01

OF SHEET NUMBER

C:\Users\rwatson\Documents\11028.04_Lovettsville Park_CENTRAL R13_RWatson.rvt

10/23/2018 1:39:46 PM

Control System Summary

Project Specific Notes:

Project Information

Project #:	159915
Project Name:	Loudoun County Lovettsville Park Phase 1
Date:	10/24/18
Project Engineer:	JBrown
Sales Representative:	Joe Forche
Control System Type:	Control and Monitoring
Communication Type:	Digital Cellular
Scan:	159915A
Document ID:	159915P1V4-1024141159
Distribution Panel Location or ID:	Service #1
Total # of Distribution Panel Locations for Project:	1
Design Voltage/Hertz/Phase:	480/60/3
Control Voltage:	120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE
1.Control and Monitoring Cabinet	24 X 72
2.Control and Monitoring Cabinet	24 X 48

	QTY	SIZE
Total Contactors	13	30 AMP
Total Off/On/Auto Switches:	4	

Materials Checklist

Contractor/Customer Supplied:

- ❑ A single control circuit must be supplied per distribution panel location.
  - — If the control voltage is NOT available, a control transformer is required.
- ❑ Electrical distribution panel to provide overcurrent protection for circuits
  - — Thermal/Magnetic circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ❑ Wiring:
  - — Dedicated control power circuit
  - — Power circuit to and from lighting contactors
  - — Harnesses for cabinets at remote locations
  - — Means of grounding, including lightning ground protection
- ❑ Electrical conduit wireway system
  - — Entrance hubs rated NEMA 4: must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ❑ Mounting hardware for cabinets
- ❑ Control circuit lock-on device to prevent unauthorized power interruption to control power
- ❑ Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central ™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation. Note: Activation may take up to 1 1/2 hours

IMPORTANT NOTES

1. Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's ballast enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are UL 100% rated for the published continuous load. All contactors are 3 pole.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. A single control circuit must be supplied per control system.
6. Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements

Form: T-6030-1

T:\159\159915P1V4-1024141159.pdf

Control System Summary

Loudoun County Lovettsville Park Phase 1 / 159915 - 159915A
Service #1 - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones
Soccer 1	1
Soccer 2	2
Soccer 3	3
Egress	4

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 3428.0
	SEALED: 441.0

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
S1	Soccer 1	7	7	**12.8**	30	C1	1
S2	Soccer 1	7	7	**12.8**	30	C2	1
S7	Soccer 1	7	7	**12.8**	30	C3	1
S8	Soccer 1	7	7	**12.8**	30	C4	1
S2	Soccer 2	7	7	**12.8**	30	C5	2
S3	Soccer 2	7	7	**12.8**	30	C6	2
S6	Soccer 2	7	7	**12.8**	30	C7	2
S7	Soccer 2	7	7	**12.8**	30	C8	2
S3	Soccer 3	4	4	**7.7**	30	C9	3
S4	Soccer 3	3	3	**5.1**	30	C10	3
S5	Soccer 3	3	3	**5.1**	30	C11	3
S6	Soccer 3	4	4	**7.7**	30	C12	3
S2,S3,S4,S6,S7	Egress	9	2	**2.2**	30	C13	4

*Full Load Amps based on amps per driver.

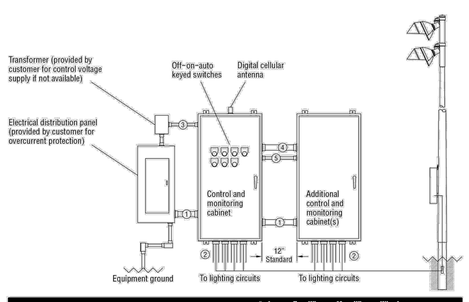
T:\159\159915P1V4-1024141159.pdf

1

Control System Summary

Loudoun County Lovettsville Park Phase 1 / 159915 - 159915A
Service #1 - Page 2 of 4

Control-Link® Control and Monitoring System



Wire	Description	# of Wires	Typ. Wire Size (AWG)	Max. Wire Length (FT)	Wire from Musco	Notes
1	Line power to contactors, and equipment grounding conductor	Note A	Note B	27	No	A – E
2	Load power to lighting circuits	Note A	Note B	N/A	No	A – D
3	Control power (dedicated, 20A)	3	12	N/A	No	C, D
4	Control harnesses	Note F	– –	8"	Yes*	C, D, F
5	Communication cable (RS – 485)	1	– –	8"	Yes*	C, D

R60-33-00_C

Notes:
A. Voltage and phasing per the notes on cover page.
B. Calculate per load and voltage drop.
C. Minimum conduit diameter.
  a. Wire 4 requires 2" (for connector ends to pass through).
  b. Wire 5 requires 1" (for connector ends to pass through).
  c. All other conduit diameters should be per code.
D. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.
E. Contact Musco if maximum wire length from circuit breaker to contactor exceeds value in chart.
F. Number of wires = 6 power wires + 2 wires per zone (see circuit summary by zone chart for the number of zones).

IMPORTANT: Communication wire (5) must be in separate conduit from any AC power wiring (1, 2, 3, 4). Control (3, 4) wires must be in separate conduit from line and load power wiring (1, 2).
*Musco supplied wire harnesses are provided in standard 8-foot lengths.

T:\159\159915P1V4-1024141159.pdf

Control System Summary

Loudoun County Lovettsville Park Phase 1 / 159915 - 159915A
Service #1 - Page 4 of 4

PANEL SUMMARY

CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole S1	12.82		
1	1	C2	Pole S2	12.82		
1	1	C3	Pole S7	12.82		
1	1	C4	Pole S8	12.82		
1	1	C5	Pole S2	12.82		
1	1	C6	Pole S3	12.82		
1	1	C7	Pole S6	12.82		
1	1	C8	Pole S7	12.82		
1	1	C9	Pole S3	7.69		
1	1	C10	Pole S4	5.13		
1	1	C11	Pole S5	5.13		
1	1	C12	Pole S6	7.69		
2	1	C13	Pole S2,S3,S4,S6,S7	2.18		

ZONE SCHEDULE

			CIRCUIT DESCRIPTION	
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	POLE ID	CONTACTOR
Zone 1	1	Soccer 1	S1 S2 S7 S8	C1 C2 C3 C4
Zone 2	2	Soccer 2	S2 S3 S6 S7	C5 C6 C7 C8
Zone 3	3	Soccer 3	S3 S4 S5 S6	C9 C10 C11 C12
Zone 4	4	Egress	S2	C13

NOTE :

1. SOCCER FIELDS #1 AND #2 LIGHTING ARE PART OF THE BASE BID. WHILE SOCCER FIELD #3 LIGHTING IS PART OF BID DEDUCT ALTERNATE #3 AND BASEBALL FIELDS LIGHTING IS PART OF BID DEDUCT ALTERNATE #1

LOUDOUN COUNTY VIRGINIA — I RYDE MY TAHE — 1757

LSY ARCHITECTS & LABORATORY PLANNERS

ATKINS
SETTY

Architect and Engineer Name and LOGO SEAL

ARCHITECT: LOUVIERE, STRATTON & YOKEL, LLC, 8484 GEORGIA AVE, SUITE 650, SILVER SPRING, MD 20910, (301) 588-1500
CIVIL ENGINEER: ATKINS, 3859 CENTERVIEW DRIVE, SUITE 160, CHANTILLY, VA 20151, (703) 471-7275
MECHANICAL ENGINEER: SETTY, 3040 WILLIAMS DRIVE, FAIRFAX, VA 22031, (703) 691-2115
STRUCTURAL ENGINEER: SIMPSON, GUMPERTZ & HEGER, 1828 L STREET, NW, WASHINGTON, DC 20036, (202) 239-4199

REVISIONS

MARK	DATE	DESCRIPTION
1	01/07/2020	ADDENDUM #3

CONTRACTORS

A/E CON. NO.	
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	LSY ARCHITECTS
SUB A/E	ATKINS
CONSTR. CON.	

BUILDING

FACILITY CODE	
BUILDING NO.	
NAME	DEPT OF TRANSP
STREET	101 BLUE SEAL DR.
CITY	LEESBURG
STATE/ZIP	VA, 20177
OTHER BUILDING NO.	

PROJECT

PROJ. NO.	
LSY PROJ. NO.	11028.04
PROJ. MGR.	MARK HOFFMAN
SUBMISSION	BID DOCUMENT
SUB. DATE	3/25/19

N

PROJECT TITLE: LOVETTSVILL COMMUNITY PARK

DRAWING TITLE: ELECTRICAL LIGHTING CONTROLS

DRAWING

DESIGNED BY	SM
DRAWN BY	SM
CHECKED BY	PJ/CD
DATE	3/25/19
FILE NAME	
DRAWING NO.	E1.03

OF
SHEET NUMBER

C:\Users\watson\Documents\11028.04_Lovettsville Park_CENTRAL R13_RWatson.rvt
10/23/2018 1:39:46 PM

PROJECT: LOVETTSVILLE COMMUNITY PARK | **PANEL VOLTAGE:** 480/277V | **AIC RATING:** 42K
PANEL: H | **PHASE & WIRE:** 3PH, 4W | **MOUNTING:** SURFACE
LOCATION ENCLOSURE A | **BUS/MAIN (AMPS):** 225A MLO | **NEMA TYPE:** 1

CKT NO.	OCD A	OCD P	DESCRIPTION	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	3 PH SEQUENCE A	B	C	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	DESCRIPTION	OCD A	OCD P	CKT NO.
1	20	1	ENCLOSURE "A" LIGHTS					0.1	0.1								FUTURE PEDESTRIAN LIGHT AT BASEBALL	20	1	2
3	20	1	PEDESTRIAN LIGHT AT SOCCER FIELDS					0.9		0.9							FUTURE PEDESTRIAN LIGHT AT BASEBALL	20	1	4
5	20	1	ENCLOSURE "B" LIGHTS					0.1			0.1						SPARE	20	1	6
7	20	1	PEDESTRIAN LIGHT AT SOCCER FIELD 1					0.6	0.6								SPARE	20	1	8
9	20	1	PEDESTRIAN LIGHT AT SOCCER FIELD 2					0.6		0.6							SPARE	20	1	10
11	20	1	SPARE								0.0						SPARE	20	1	12
13	20	1	SPARE					0.0									SPARE	20	1	14
15	20	1	SPARE							0.0							SPARE	20	1	16
17	20	1	SPARE								0.0						SPARE	20	1	18
19	-	1	SPACE					0.0									SPACE	-	1	20
21	-	1	SPACE						0.0								SPACE	-	1	22
23	-	1	SPACE							0.0							SPACE	-	1	24
25	20	3	SPARE					0.0									SPARE	30	3	26
27	/	/	/						0.0								/	/	/	28
29	/	/	/							0.0							/	/	/	30
31	/	3	SPACE					0.0									SPACE	/	3	32
33	/	/	/						0.0								/	/	/	34
35	/	/	/							0.0							/	/	/	36
37	30	3	TVSS	0.2				3.9			3.2	0.0	0.0	0.3	0.2		PANEL "P1" VIA 112.5 KVA XFMR	175	3	38
39	/	/	/	0.2					3.9		3.2	0.0	0.0	0.3	0.2		/	/	/	40
41	/	/	/	0.2						3.9	3.2	0.0	0.0	0.3	0.2		/	/	/	42
CONNECTED LOAD (KVA)				0.6	0.0	0.0	0.0	2.3	4.6	5.4	4.0	9.6	0.0	0.0	0.8	0.6				
25% OF LARGEST MOTOR (KVA)																				
TOTAL CONNECTED LOAD (KVA)				10.2	0.0	0.0	0.8	2.9												
DEMAND FACTOR				1.0	1.25	1.0	X	1.25									TOTAL DEMAND (KVA)	15		
TOTAL DEMAND LOAD (KVA)				10.2	0.0	0.0	0.8	3.6									LINE CURRENT (AMPS)	18		

X= 1ST 10KVA @ 100%, + REMAINDER @ 50% (N.E.C. 220-44)

PROJECT: LOVETTSVILLE COMMUNITY PARK | **PANEL VOLTAGE:** 120/208V | **AIC RATING:** 22K
PANEL: P1 | **PHASE & WIRE:** 3PH, 4W | **MOUNTING:** SURFACE
LOCATION ENCLOSURE A | **BUS/MAIN (AMPS):** 400A MCB | **NEMA TYPE:** 1

CKT NO.	OCD A	OCD P	DESCRIPTION	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	3 PH SEQUENCE A	B	C	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	DESCRIPTION	OCD A	OCD P	CKT NO.
1	20	1	RECEPTACLES ENCLOSURE "A"						0.4		0.8					0.4	RECEPTACLES ENCLOSURE "B"	20	1	2
3	20	1	FUTURE SCOREBOARD BASEBALL FIELD 2							0.0							FUTURE SCOREBOARD BASEBALL FIELD 3	20	1	4
5	20	1	FUTURE SCOREBOARD BASEBALL FIELD 4								0.0						FUTURE SCOREBOARD BASEBALL FIELD 5	20	1	6
7	20	1	FUTURE RECEPTACLES PAVILION						0.0								FUTURE RECEPTACLES PAVILION	20	1	8
9	20	1	SCOREBOARD SOCCER FIELD 1	0.6						1.2		0.6					SCOREBOARD SOCCER 3	20	1	10
11	20	1	SCOREBOARD SOCCER FIELD 2	0.6							0.6						FUTURE SIGNAGE LIGHT NEAR BB FIELD	20	1	12
13	20	3	FOUNTAIN MOTOR	0.6					1.1							0.5	SIGNAGE LIGHT NEAR EQUESTRIAN	20	1	14
15	/	/	/	0.6						1.2		0.6					FOUNTAIN MOTOR	20	3	16
17	/	/	/	0.6							1.2	0.6					/	/	/	18
19	-	1	SPACE						0.6			0.6					/	/	/	20
21	-	1	SPACE							0.1						0.1	FLAG POLE LIGHTS	20	1	22
23	-	1	SPACE								0.0						SPACE	-	1	24
25	30	3	SEWAGE EJECTOR PUMP	0.6					1.2			0.6					SEWAGE EJECTOR PUMP	30	3	26
27	/	/	/	0.6						1.2		0.6					/	/	/	28
29	/	/	/	0.6							1.2	0.6					/	/	/	30
31	/	3	SPACE FOR 100 AMP FRAME CB						0.0								SPACE FOR 100 AMP FRAME CB	/	3	32
33	/	/	(FOR FUTURE AMPHITHEATER)							0.0							(FOR FUTURE EQESTRIAN)	/	/	34
35	/	/	/								0.0						/	/	/	36
37	30	3	TVSS	0.2					0.2								SPACE FOR 225 AMP FRAME CB	/	3	38
39	/	/	/	0.2						0.2							(FOR FUTURE MANTAINANCE BUILDING)	/	/	40
41	/	/	/	0.2							0.2						/	/	/	42
CONNECTED LOAD (KVA)				5.4	0.0	0.0	0.4	0.0	3.9	3.9	3.2	4.2	0.0	0.0	0.4	0.6				
25% OF LARGEST MOTOR (KVA)																				
TOTAL CONNECTED LOAD (KVA)				9.6	0.0	0.0	0.8	0.6												
DEMAND FACTOR				1.0	1.25	1.0	X	1.25									TOTAL DEMAND (KVA)	11		
TOTAL DEMAND LOAD (KVA)				9.6	0.0	0.0	0.8	0.8									LINE CURRENT (AMPS)	31		

X= 1ST 10KVA @ 100%, + REMAINDER @ 50% (N.E.C. 220-44) | HWH - HOT WATER HEATER

PROJECT: LOVETTSVILLE COMMUNITY PARK | **PANEL VOLTAGE:** 120/240V | **AIC RATING:** 22K
PANEL: P2 | **PHASE & WIRE:** 1PH, 3W | **MOUNTING:** SURFACE
LOCATION ENCLOSURE A | **BUS/MAIN (AMPS):** 400A MCB | **NEMA TYPE:** 1

CKT NO.	OCD A	OCD P	DESCRIPTION	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	1 PH SEQ A	B	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	DESCRIPTION	OCD A	OCD P	CKT NO.
1	200	2	FUTURE PANEL "A1" (PRE-FAB CONC. STAND)							0.0						FUTURE PANEL "A2" (PRE-FAB REST RMS)	125	2	2
3	/	/	NEAR BASEBALL FIELD							0.0						NEAR AMPHITHEATER	/	/	4
5	125	2	FUTURE PANEL "A3" (PRE-FAB REST RMS)							0.0						SPARE	125	2	6
7	/	/	NEAR EQESTRIAN							0.0						/	/	/	8
9		2	SPACE							0.0						SPACE		2	10
11	/	/	/							0.0						/	/	/	12
13	/	1	SPACE							0.0						SPACE	/	1	14
15	/	1	SPACE							0.0						SPACE	/	1	16
17	/	1	SPACE							0.5	0.5					IRRIGATION PUMP CONTROLLER	20	1	18
19	/	2	SPACE							0.0						SPACE	/	2	20
21	/	/	/							0.0						/	/	/	22
23	/	2	SPACE							0.0						SPACE	/	2	24
25	/	/	/							0.0						/	/	/	26
27	30	2	TVSS	0.2						0.2						SPACE	/	2	28
29	/	/	/	0.2						0.2						/	/	/	30
CONNECTED LOAD (KVA)				0.4	0.0	0.0	0.0	0.0	0.7	0.2	0.5	0.0	0.0	0.0	0.0				
TOTAL CONNECTED LOAD (KVA)				0.9	0.0	0.0	0.0	0.0											
TOTAL GENERAL LOAD (KVA)				0.9															
DEMAND FACTOR				X															
TOTAL DEMAND LOAD (KVA)				0.9												TOTAL DEMAND (KVA)	0		
TOTAL HVAC LOAD				0.0												LINE CURRENT (AMPS)	0		

X= 1ST 10KVA @ 100%, + REMAINDER @ 40% (N.E.C. 220.82B) | HWH - HOT WATER HEATER

MDP (SEC 1) IS WITH 1200A ADJUSTABLE TRIP MAIN CIRCUIT BREAKER WITH GROUND FAULT PROTECTION

PROJECT: LOVETTSVILLE COMMUNITY PARK | **PANEL VOLTAGE:** 480/277V | **AIC RATING:** 42K
PANEL: MDP (DISTRIBUTION SEC.) | **PHASE & WIRE:** 3PH, 4W | **MOUNTING:** SURFACE
LOCATION ENCLOSURE A | **BUS/MAIN (AMPS):** 1200A MCB (MAIN SEC.) | **NEMA TYPE:** 1

CKT NO.	OCD A	OCD P	DESCRIPTION	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	3 PH SEQUENCE A	B	C	LOAD (KVA) MISC	HWH	HVAC	REC	LTG	DESCRIPTION	OCD A	OCD P	CKT NO.
1	225	3	PANEL "H"	3.4	0.0	0.0	0.3	1.0	53.4			0.2	0.0	0.0	0.0	48.6	PANEL "A"	400	3	2
3	/	/	/	3.4	0.0	0.0	0.3	1.0		53.4		0.2	0.0	0.0	0.0	48.6	/	/	/	4
5	/	/	/	3.4	0.0	0.0	0.3	1.0			53.4	0.2	0.0	0.0	0.0	48.6	/	/	/	6
7	225	3	PANEL "B"	0.2	0.0	0.0	0.0	2.7	3.1			0.2	0.0	0.0	0.0	0.0	PANEL "P2" VIA 75 KVA XFMR	200	2	8
9	/	/	/	0.2	0.0	0.0	0.0	2.7		3.1		0.2	0.0	0.0	0.0	0.0	/	/	/	10
11	/	/	/	0.2	0.0	0.0	0.0	2.7			2.9						SPACE	-	1	12
13	225	3	PANEL "C"	0.2	0.0	0.0	0.0	0.0	0.4			0.2	0.0	0.0	0.0	0.0	PANEL "D"	225	3	14
15	/	/	/	0.2	0.0	0.0	0.0	0.0		0.4		0.2	0.0	0.0	0.0	0.0	/	/	/	16
17	/	/	/	0.2	0.0	0.0	0.0	0.0			0.4	0.2	0.0	0.0	0.0	0.0	/	/	/	18
19	100	3	IRRIGATION PUMP				11.4		11.4								SPACE FOR 100 AMP FRAME CB		3	20
21	/	/	/				11.4			11.4							/	/	/	22
23	/	/	/				11.4				11.4						/	/	/	24
25	3		SPACE FOR 150 AMP FRAME CB						0.0								SPARE	225	3	26
27	/	/	/							0.0							/	/	/	28
29	/	/	/								0.0						/	/	/	30
31	/	3	SPACE FOR 225 AMP FRAME CB						0.0								SPACE FOR 225 AMP FRAME		3	32
33	/	/	/							0.0							/	/	/	34
35	/	/	/								0.0						/	/	/	36
37	30	3	TVSS	0.2					0.2								SPACE FOR 400 AMP FRAME		3	38
39	/	/	/	0.2						0.2							/	/	/	40
41	/	/	/	0.2							0.2						/	/	/	42
CONNECTED LOAD (KVA)				12.0	0.0	34.2	0.8	11.0	68.5	68.5	68.3	1.6	0.0	0.0	0.0	145.8				
25% OF LARGEST MOTOR (KVA)																				
TOTAL CONNECTED LOAD (KVA)				13.6	0.0	34.2	0.8	156.8												
DEMAND FACTOR				1.0	1.25	1.0	X	1.25									TOTAL DEMAND (KVA)	245		
TOTAL DEMAND LOAD (KVA)				13.6	0.0	34.2	0.8	196.0									LINE CURRENT (AMPS)	294		

X= 1ST 10KVA @ 100%, + REMAINDER @ 50% (N.E.C. 220-44)

LIGHTING FIXTURE SCHEDULE

POLE / FIXTURE ID	SYMBOL	MANUFACTURER	CATALOG NUMBER	LAMP NO.	LAMP WATTS	LAMP TYPE	BALLAST	VOLTS/PHASE	MOUNTING	REMARKS
S4-S5	⊕	MUSCO LIGHTING	COORDINATE WITH MUSCO LIGHTING	4	1150W	LED	CONSTANT WATTAGE AUTO TRANSFORMER(CWA)	480/3Ø	70"	FUTURE BASEBALL FIELD. SOCCER FIELD FLOOD LIGHT. REFER TO DRAWINGS E7.01 FOR DETAILS.
S1,S8	⊕			8	1150W				80"	FUTURE BASEBALL FIELD. SOCCER FIELD FLOOD LIGHT. REFER TO DRAWINGS E7.01 FOR DETAILS.
S2,S7	⊕			16(8/8*)	1150W				80"	SOCCER FIELD FLOOD LIGHT. REFER TO DRAWINGS E7.01 FOR DETAILS.
S3,S6	⊕			12(4/8*)	1150W				80"	SOCCER FIELD FLOOD LIGHT. REFER TO DRAWINGS E7.01 FOR DETAILS.
K (1)	⊕	MUSCO LIGHTING	CREE OSQ	1	130W	LED	-	277/1Ø	30" ABOVE GROUND	ANTI-BIRD FEATURE. COORDINATE FINAL FINISH, ACCESSORIES AND MOUNTING HEIGHT WITH COUNTY.
H	▭	COLUMBIA LIGHTING	LCL-4-35-ML-E-U	1	42W	LED		277/1Ø	SURFACE	LOCATE IN NEW ELECTRICAL ENCLOSURES.
PL1	⊕	DOMINION	LED ENCLOSED FLAT	1	244W	LED	-	480/3Ø	30"	PARKING LOT LIGHT. PROVIDE WITH INTEGRAL PHOTOCELL
PL2	⊕	DOMINION	LED ENCLOSED FLAT	1	244W	LED	-	480/3Ø	30"	PARKING LOT LIGHT. PROVIDE WITH INTEGRAL PHOTOCELL
PL3	⊕	DOMINION	LED ENCLOSED FLAT	1	244W	LED	-	480/3Ø	30"	ROAD LIGHT. PROVIDE WITH INTEGRAL PHOTOCELL
SP	⊙	AMERICAN FLAGPOLE	96441 - XX	1	6W	LED	-	120/1Ø		COORDINATE POLE HEIGHT WITH OWNER

* THIS STRUCTURE POLE UTILIZES A BACK-TO-BACK MOUNTING CONFIGURATION.

NOTES:
1. COORDINATE WITH ARCHITECT, CIVIL AND LANDSCAPE DRAWING FOR EXACT LOCATION AND MOUNTING REQUIREMENTS OF FIXTURES.
2. COORDINATE WITH ARCHITECT FOR ALL FIXTURE FINISHES. PROVIDE FIXTURES WITH ALL NECESSARY ACCESSORIES.

KEY PANELS

H (N)	P1 (N)	P2 (N)
		MDP (N)

GENERAL NOTES

1. REFER TO DRAWING E0.01 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. ALL PANELS SHALL BE EQUIPPED WITH COPPER BUSBARS AND BOLT-ON TYPE BRANCH CIRCUIT BREAKERS..
3. REGARDLESS WHETHER OR NOT SPECIFICALLY SHOWN OR NOTED, ALL NEW PANELS AND SWITCHES SHALL BE IN WEATHERPROOF (NEMA 3R) ENCLOSURE AND SHALL BE LOCKABLE TYPE.
4. ALL EXTERIOR CONDUITS/WIRING SHALL RUN UNDERGROUND AND MINIMUM 3' BELOW FINISHED GRADE.
5. TURN ALL SPARE CIRCUIT BREAKERS TO "OFF" POSITION AT COMPLETION OF WORK AND CLEARLY MARK IN THE PANEL DIRECTORY.
6. PROVIDE TYPED WRITTEN SCHEDULE FOR ALL PANELBOARDS UTILIZED AT COMPLETION OF PROJECT INDICATING ACTUAL AS-BUILT CONDITIONS.
7. ALL NEW PANELBOARDS SHALL BE EQUIPPED WITH INTEGRAL OR EXTERNAL MOUNTED TVSS.

SHEET NOTES

1. PEDESTRIAN EGRESS LIGHT CONTROL SWITCH TO BE LOCATED IN ENCLOSURE B. SEE DRAWING ES.02 FOR EXACT LOCATION.

LOUDOUN COUNTY VIRGINIA — 1757 — I BYDE MY TIME

LSY ARCHITECTS & LABORATORY PLANNERS

ATKINS
SETTY

ARCHITECT: LOUVIERE, STRATTON & YOKEL, LLC, 8484 GEORGIA AVE, SUITE 650, SILVER SPRING, MD 20910, (301) 588-1500
CIVIL ENGINEER: ATKINS, 3959 CENTERVIEW DRIVE, SUITE 160, CHANTILLY, VA 20151, (703) 471-7275
MECHANICAL ENGINEER: SETTY, 3040 WILLIAMS DRIVE, FAIRFAX, VA 22031, (703) 691-2115
STRUCTURAL ENGINEER: SIMPSON, GUMPERTZ & HEGER, 1828 L STREET, NW, WASHINGTON, DC 20036, (202) 239-4199

SEAL — Architect and Engineer Name and LOGO

REVISIONS

MARK	DATE	DESCRIPTION
1	01/07/2020	ADDENDUM #3
2	01/15/2020	ADDENDUM #4

CONTRACTORS

A/E CON. NO.
A/E TASK NO.
CONS. CONTR.
CONS. WORK
PRIME A/E: LSY ARCHITECTS
SUB A/E: ATKINS
CONSTR. CON.

BUILDING

FACILITY CODE
BUILDING NO.
NAME: DEPT OF TRANSP
STREET: 101 BLUE SEAL DR.
CITY: LEESBURG
STATE/ZIP: VA, 20177
OTHER BUILDING NO.

PROJECT

PROJ. NO.
LSY PROJ. NO.: 11028.04
PROJ. MGR.: MARK HOFFMAN
SUBMISSION: BID DOCUMENT
SUB. DATE: 3/25/19

N

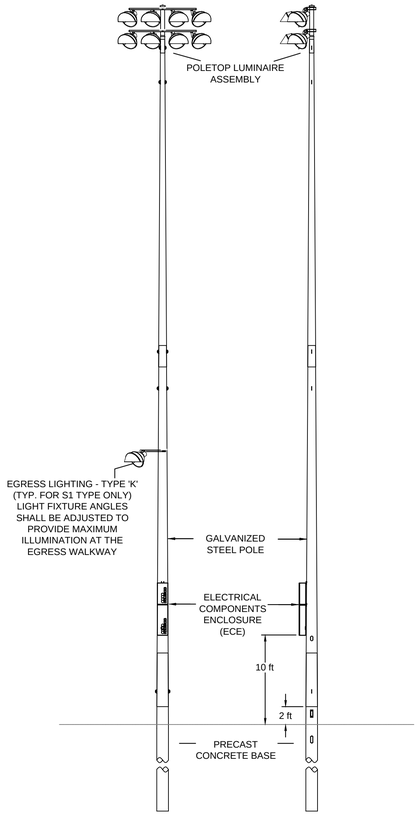
PROJECT TITLE: LOVETTSVILL COMMUNITY PARK

DRAWING TITLE: ELECTRICAL SCHEDULES

DRAWING

DESIGNED BY: SM
DRAWN BY: SM
CHECKED BY: PJ/CD
DATE: 3/25/19
FILE NAME
DRAWING NO.: E6.01
OF
SHEET NUMBER

C:\Users\watson\Documents\11028.04_Lovettsville Park_CENTRAL R13_RWatson.rvt
10/23/2018 1:39:46 PM

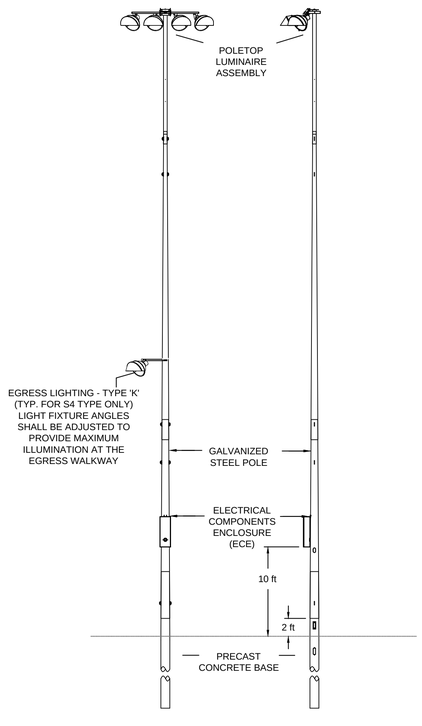


1 E7.01

ELECTRICAL FIELD LIGHTING POLE DETAILS (FIXTURES S1, S8) 1

SCALE: NTS

SOCCER FIELD #1

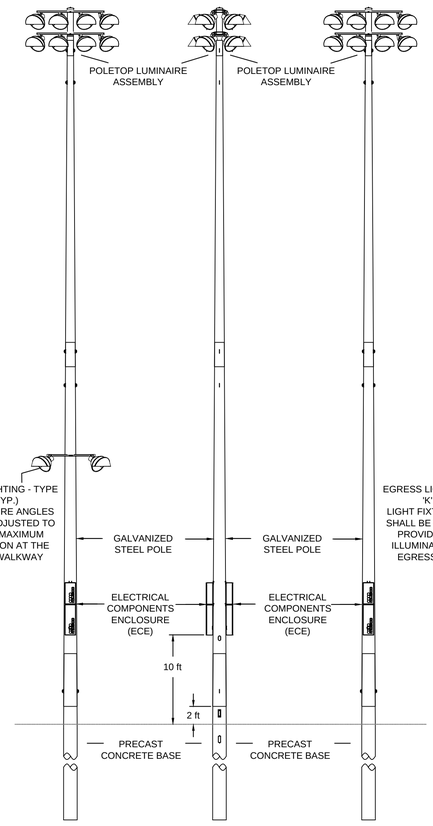


2 E7.01

ELECTRICAL FIELD LIGHTING POLE DETAILS (FIXTURES S4, S5) 4

SCALE: NTS

SOCCER FIELD #3
(BID DEDUCT ALT #3)

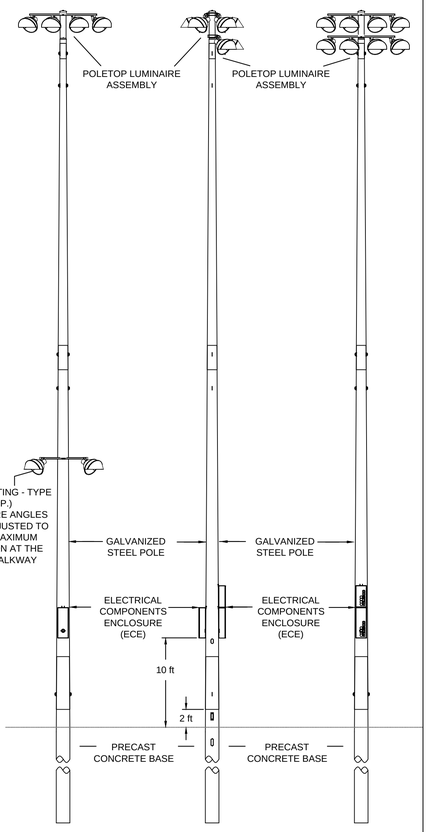


3 E7.01

ELECTRICAL FIELD LIGHTING POLE DETAILS (FIXTURES S2, S7) 2

SCALE: NTS

SOCCER FIELD #1 & #2



4 E7.01

ELECTRICAL FIELD LIGHTING POLE DETAILS (FIXTURES S3, S6) 3

SCALE: NTS

SOCCER FIELD #2 & #3
(FIELD #3 PART OF BID DEDUCT ALT. #3)

ELECTRICAL DETAILS

GENERAL NOTES

1. REFER TO DRAWING E0.01, FOR THE ELECTRICAL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. PRE-CAST CONCRETE POLE BASE MUST BE INSTALLED AS PER THE POLE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS AND MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER, PRIOR TO ANY INSTALLATION.
3. EACH POLE MUST BE GROUNDED AS PER THE LATEST NEC. PROVIDE MINIMUM 3/4" DIAMETER X 10' LONG TWO COPPER GROUNDING RODS ADJACENT TO EACH POLE FROM EACH ROD, RUN MINIMUM 1#2 AWG BARE COPPER GREEN GROUNDING CABLE AND TERMINATE AT THE GROUNDING LUG PROVIDED ON THE ASSOCIATED LIGHT POLE AND CONTINUE UP TO THE GROUNDING BAR IN THE ECE. THE TOP OF RODS SHALL BE BURIED AT LEAST 12" BELOW FINISHED GRADE.
4. MUSCO OR SELECTED LIGHTING MANUFACTURER MUST PROVIDE A PRECAST CONCRETE BASE, OR SUGGESTED INSTALLATION METHOD. THE INSTALLATION METHOD SHALL BE MODIFIED FOR TAPER AND INSTALLATION WEDGES, AND PER THE ACTUAL SITE CONDITIONS,PROVIDED IT CREATES A SECURED AND SAFE INSTALLATION.
5. UNLESS SHOWN OTHERWISE, ALL LIGHTING FIXTURES SHALL BE MOUNTED ON STEEL POLE AND APPROVED EQUAL TO MUSCO LIGHTING. REFER TO DWG E6.01 FOR THE POLE DESIGNATION AND NUMBER OF FIXTURES ON THE RELATED POLES. ALL WORK MUST BE DONE AS PER THE REQUIREMENTS AND RECOMMENDATIONS OF THE LIGHTING MANUFACTURER.
6. UNLESS SPECIFICALLY SHOWN OR NOTED, FROM THE DESIGNATED CIRCUIT BREAKER IN THE PANEL, RUN MINIMUM 3#2+1#8 EG IN 1 1/4"C, VIA RESPECTIVE CONTACTOR IN THE RELATED CONTROL AND MONITORING CABINET, AND CONTINUE IN 11/4" PVC SCHEDULE 40 AND GRS CONDUIT UP TO THE DESIGNATED POLE AND TERMINATE AT THE POWER WIRING/LUGS AT THE FUSED DISCONNECT SWITCH, PROVIDED INSIDE THE ELECTRICAL COMPONENT ENCLOSURE (ECE). WHILE, THE GROUNDING CONDUCTOR SHALL TERMINATE AT THE GROUNDING LUGS ON THE POLE AND GROUNDING BAR IN THE ECE. ALL WORK/WIRING INSIDE THE ECE, INCLUDING THE POWER CONDUCTORS/WIRING HARNESS RUNNING TO THE INDIVIDUAL LIGHTING FIXTURES IN THE LIGHTING CLUSTER SHALL BE PROVIDED BY THE LIGHTING FIXTURE MANUFACTURER. WHEN THERE ARE TWO ECEs ON THE SAME POLE, THE SAME CIRCUIT WIRING SHALL FEED THE FUSED SAFETY SWITCHES IN EACH SIDE OF THE ECEs OR ECE SERVING FIXTURES ON ONE SIDE OF THE FIELD AND THE SAME GROUNDING CONDUCTORS SHALL BE USED FOR A CONTINUOUS SYSTEM.

SHEET NOTES

1. MUSCO 80' LIGHTING POLE STRUCTURE WITH EIGHT (8) 1150W LED MUSCO "TLC-LED-1150" LUMINAIRES, SERVING SOCCER FIELD.
2. MUSCO 80' LIGHTING POLE STRUCTURE WITH SIXTEEN (8/8) 1150W LED MUSCO "TLC-LED-1150" LUMINAIRES, SERVING SOCCER FIELD.
3. MUSCO 80' LIGHTING POLE STRUCTURE WITH TWELVE (4/8) 1150W LED MUSCO "TLC-LED-1150" LUMINAIRES, SERVING SOCCER FIELD.
4. MUSCO 70' LIGHTING POLE STRUCTURE WITH FOUR (4) 1150W LED MUSCO "TLC-LED-1150" LUMINAIRES, SERVING SOCCER FIELD.

1

LOUDOUN COUNTY VIRGINIA
I BYDE MY TAE
1757

LSY
ARCHITECTS & LABORATORY PLANNERS

ATKINS
SETTY

Architect and Engineer Name and LOGO

ARCHITECT: LOUVIERE, STRATTON & YOKEL, LLC
8484 GEORGIA AVE, SUITE 650
SILVER SPRING, MD 20910
(301) 588-1500

CIVIL ENGINEER: ATKINS
3959 CENTERVIEW DRIVE, SUITE 160
CHANTILLY, VA 20151
(703) 471-7275

MECHANICAL ENGINEER: SETTY
3040 WILLIAMS DRIVE
FAIRFAX, VA 22031
(703) 691-2115

STRUCTURAL ENGINEER: SIMPSON, GUMPERTZ & HEGER
1828 L STREET, NW
WASHINGTON, DC 20036
(202) 239-4199

SEAL

MARK	DATE	DESCRIPTION

REVISIONS

CONTRACTORS

A/E CON. NO.	
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	LSY ARCHITECTS
SUB A/E	ATKINS
CONSTR. CON.	

BUILDING

FACILITY CODE	
BUILDING NO.	
NAME	DEPT OF TRANSP
STREET	101 BLUE SEAL DR.
CITY	LEESBURG
STATE/ZIP	VA, 20177
OTHER BUILDING NO.	

PROJECT

PROJ. NO.	
LSY PROJ. NO.	11028.04
PROJ. MGR.	MARK HOFFMAN
SUBMISSION	BID DOCUMENT
SUB. DATE	3/25/19

N

LOVETTSVILL COMMUNITY PARK
PROJECT TITLE

ELECTRICAL DETAILS
DRAWING TITLE

DESIGNED BY	SM
DRAWN BY	SM
CHECKED BY	PJ/CD
DATE	3/25/19
FILE NAME	

DRAWING

DRAWING NO.

E7.01

OF
SHEET NUMBER