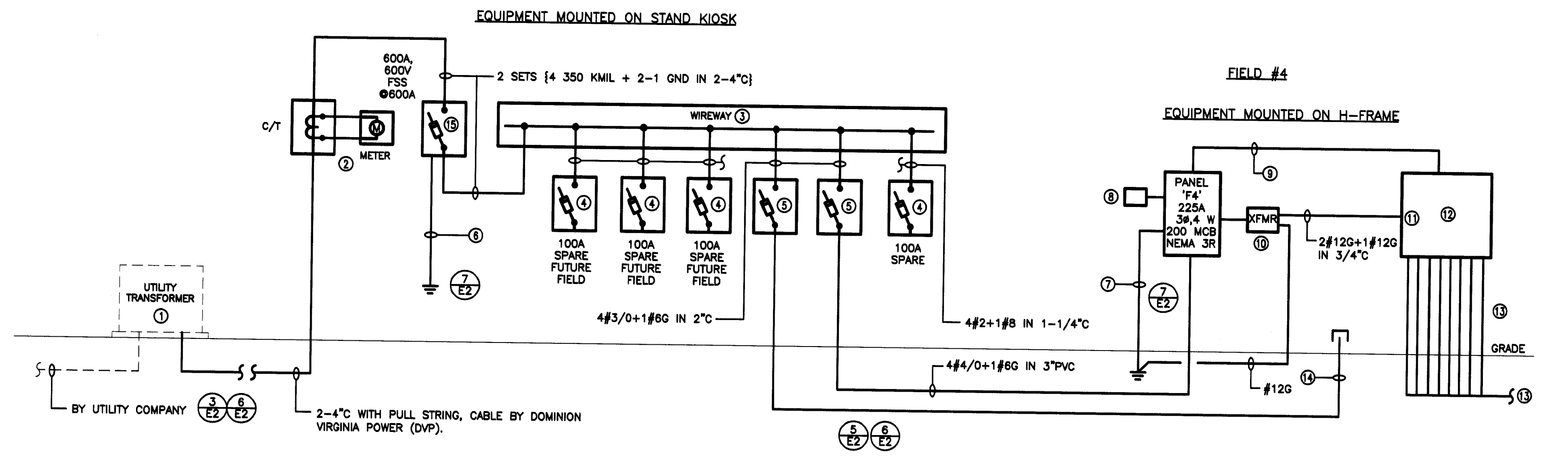
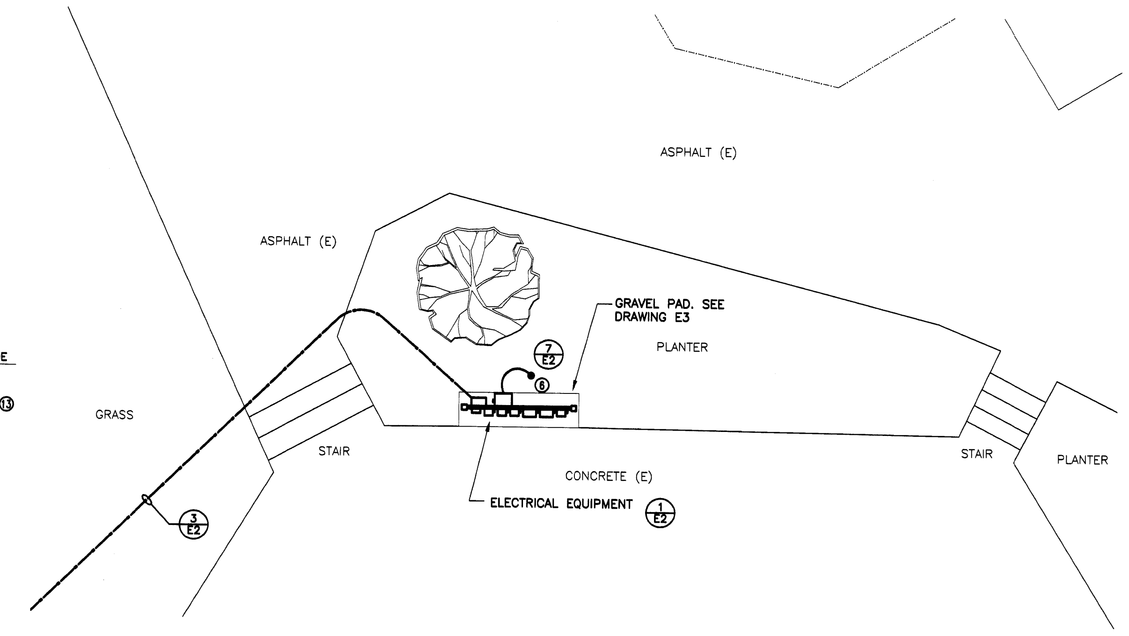


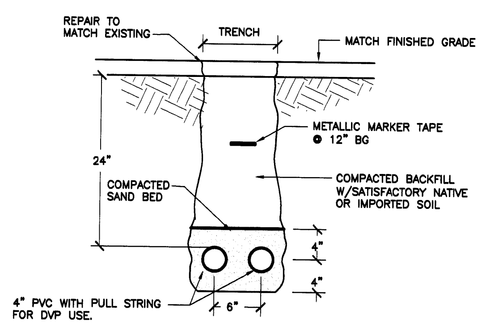
RISER NOTES

1. UTILITY TRANSFORMER PROVIDE BY POWER COMPANY. REFER TO SITE PLANS FOR LOCATION. COORDINATE FINAL LOCATION WITH DOMINION VIRGINIA POWER (DVP) AND COUNTY PROJECT MANAGER PRIOR TO ROUGH-IN.
2. PROVIDE C/T CABINET AND METER BASE PER DMV REQUIREMENTS.
3. PROVIDE 12"x12"x8', NEMA 3, HINGED WIREWAY.
4. PROVIDE 100A/600V/3 POLE DISCONNECT SWITCH, FUSED AT 100A. IN NEMA 3 ENCLOSURE
5. PROVIDE 200A/600V/3 POLE DISCONNECT SWITCH, FUSED AT 200A IN NEMA 3R ENCLOSURE
6. GROUND PER NEC-250. #1/0 BTC GROUNDING ELECTRODE CONDUCTOR TO 10' #4 IRON REBAR IN CONCRETE AND #2/0G TO A COPPER CLAD STEEL ROD W/MIN. 3/4"ø X 10'-0" LONG DRIVEN 24" BELOW PERVIOUS GRADE ADJACENT TO THE DISCONNECT SWITCH.
7. GROUND PER NEC-250. #2 BTC TO A COPPER CLAD STEEL ROD W/MIN. 5/8"ø X 8'-0" LONG.
8. SURGE PROTECTION DEVICE PROVIDE BY THE FIELD LIGHTING MANUFACTURER. CONNECT TO 60A, 3-POLE CIRCUIT BREAKER IN PANEL 'F4' WITH 3#4 THWN AND 1#4 GROUND.
9. (8) CIRCUITS OF 3#12+1#12G IN 3/4"C TO LIGHTING CONTACTORS. SEE 'F4' PANEL SCHEDULE.
10. PROVIDE SINGLE PHASE 1.5 KVA TRANSFORMER (480V TO 120V),
11. CONNECT TO A 20A FUSE PROVIDED IN THE LIGHTING CONTROL PANEL.
12. LIGHTING CONTROL PANEL (MUSCO BASIS OF DESIGN, MODIFY AS REQUIRED FOR ALTERNATIVE MANUFACTURERS). REFER TO SITE PLAN ON DRAWING E1 FOR LOCATION.
13. 3#8+1#10G IN 3/4"C TO POLE MOUNTED LIGHTING FIXTURES. REFER TO SITE PLAN ON DRAWING E1.
14. PROVIDE 3" PVC WITH PULL WIRE TAPPED TO EXTEND FOR FUTURE CONNECTION TO FIELD #5.
15. PROVIDE 600A, 600V, 3 POLE, SERVICE RATED DISCONNECT SWITCH, FUSED AT 600A IN NEMA 3R ENCLOSURE. PROVIDE LUGS RATED SIZED TO ACCEPT UTILITY PROVIDED ALUMINUM SERVICE CONDUCTORS.

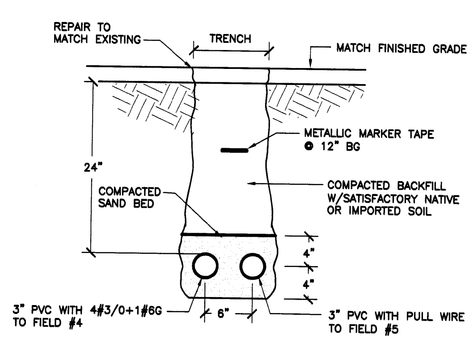
1/E2 POWER RISER DIAGRAM – PROPOSED
SCALE: NOT TO SCALE



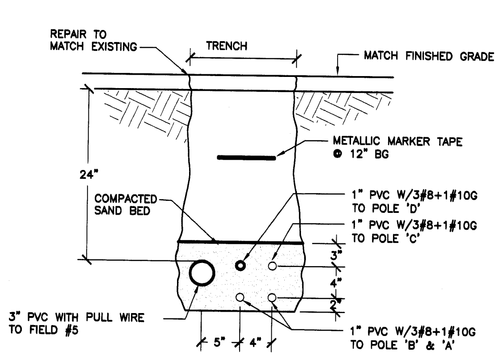
2/E2 SITE PLAN POWER
SCALE: 1"=10'



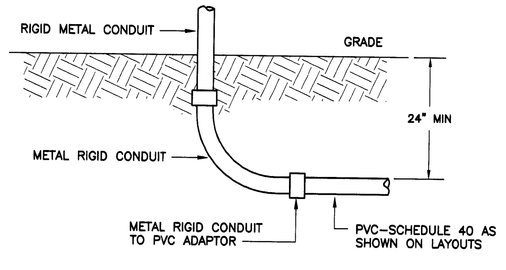
3/E2 TRENCH DETAIL
NOT TO SCALE



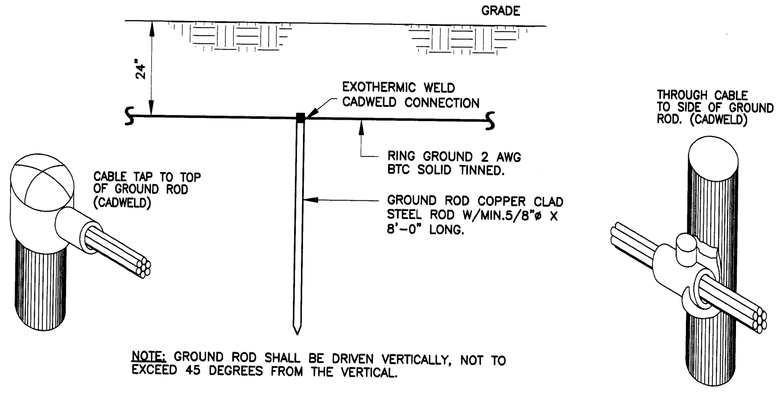
4/E2 TRENCH DETAIL
NOT TO SCALE



5/E2 TRENCH DETAIL (TYPICAL)
NOT TO SCALE



6/E2 UNDERGROUND CONDUIT STUB-UP
NOT TO SCALE



NOTE: GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.

7/E2 GROUND ROD & CONNECTION DETAIL
SCALE: NO TO SCALE

PANEL: "F4"

VOLTAGE: 480/277V 3 PHASE, 4 WIRE
BUS: 225A
MAIN: 200A MCB

LOCATION: FIELD #4
FED FROM: SERVICE DISCONNECT SWITCH
SECTION: 1 OF 1

AIC: MINIMUM
MOUNTING: SURFACE
SOURCE: NORMAL

LOAD TYPE	LOAD DESCRIPTION	FDR SIZE	LOAD (KVA)	BKR (A)	CKT NO	LOAD (KVA) PHASE A	PHASE B	PHASE C	CKT NO	BKR (A)	LOAD (KVA)	FDR SIZE	LOAD DESCRIPTION	LOAD TYPE
C	LIGHTING CONTACTOR C1 POLE 'A7'	1	4.0	30	1	8.0			2	30	4.0	1	LIGHTING CONTACTOR C2 POLE 'A8'	C
C			4.0	/	3		8.0		4	/	4.0			C
C			4.0	3P	5			8.0	6	3P	4.0			C
C	LIGHTING CONTACTOR C3 POLE 'B7'	1	7.4	30	7	14.8			8	30	7.4	1	LIGHTING CONTACTOR C4 POLE 'B8'	C
C			7.4	/	9		14.8		10	/	7.4			C
C			7.4	3P	11			14.8	12	3P	7.4			C
C	LIGHTING CONTACTOR C5 POLE 'C7'	1	2.1	30	13	4.2			14	30	2.1	1	LIGHTING CONTACTOR C6 POLE 'C8'	C
C			2.1	/	15		4.2		16	/	2.1			C
C			2.1	3P	17			4.2	18	3P	2.1			C
C	LIGHTING CONTACTOR C7 POLE 'D1'	1	3.1	30	19	6.2			20	30	3.1	1	LIGHTING CONTACTOR C8 POLE 'D2'	C
C			3.1	/	21		6.2		22	/	3.1			C
C			3.1	3P	23			6.2	24	3P	3.1			C
	SPARE			30	25	0.0			26	30			SPARE	
				/	27		0.0		28	/				
				3P	29			0.0	30	3P				
	SPARE			20	31	0.0			32				SPACE	
	SPARE			20	33		0.0		34				SPACE	
	SPACE				35			0.0	36				SPACE	
	SPACE				37	0.0			38	60		3	TVSS (SURGE PROTECTION)	
	SPACE				39		0.0		40	/				
N	TRANSFORMER 480V TO 120V	2	1.0	20	41			1.0	42	3P				
						33.2	33.2	34.2						

Notes:
1.

	(KVA)	(AMP)
TOTAL CONNECTED:	100.6	121

LOAD TYPE CODE LETTERS		(KVA)	(AMP)
C	CONTINUOUS LOAD *(125% OF CONTINUOUS LOAD)*	124.5	150
K6	KITCHEN DEVICES *(SIX OR MORE AT 65% OF LOAD)*	0.0	0
LM	LARGE MOTOR LOAD *(LARGEST MOTOR x125%)*	0.0	0
M	MOTOR LOAD *(100% OF LOAD)*	0.0	0
N	NON-CONTINUOUS LOAD *(100% OF LOAD)*	1.0	1
R	RECEPTACLE LOAD *(FIRST 10KVA AT 100%, REMAIN. AT 50%)*	0.0	0
	TOTAL DEMAND:	125.5	151

PANELBOARD SPECIAL FEATURES
- [ ] 200% RATED NEUTRAL
- [ ] SURGE PROTECTION DEVICE (SPD)
- [ ] OTHER

FEEDER SIZE:

1	3#6+1#10G IN 1"C
2	2#12+1#12G IN 3/4"C
3	3+4+1#4G IN 1-1/4"C
4	
5	
X	REMOVE EXISTING CIRCUIT (CONDUIT AND WIRE)
E	EXISTING CIRCUIT TO REMAIN

SWSG
SHAFFER WILSON SARVER & GRAY
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A PROFESSIONAL CORPORATION
Engineering • Architecture • Construction Management

FRANKLIN COUNTY, VIRGINIA

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NO.	DATE	
	09/20/10	PERMIT AND CONSTRUCTION SUBMISSION

RISER DIAGRAM, PARTIAL PLAN AND DETAILS
FRANKLIN PARK
BALL FIELD LIGHTING
17501 FRANKLIN PARK DR
PURCELLVILLE, VA 20132

JOB# 10-071

E2

OF 4