UPGRADE WEST CAMPGROUND UTILITIES
MISSOURI STATE FAIRGROUNDS
SEDALIA, MISSOURI

MEP ENGINEER:

Antella Consulting Engineers, Inc.
1600 Genessee, Suite 260
Kansas City, MO 64102

CIVIL ENGINEER:

SK Design Group, Inc.
4600 College Blvd, Suite 100
Overland Park, KS 66211

OWNER: STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

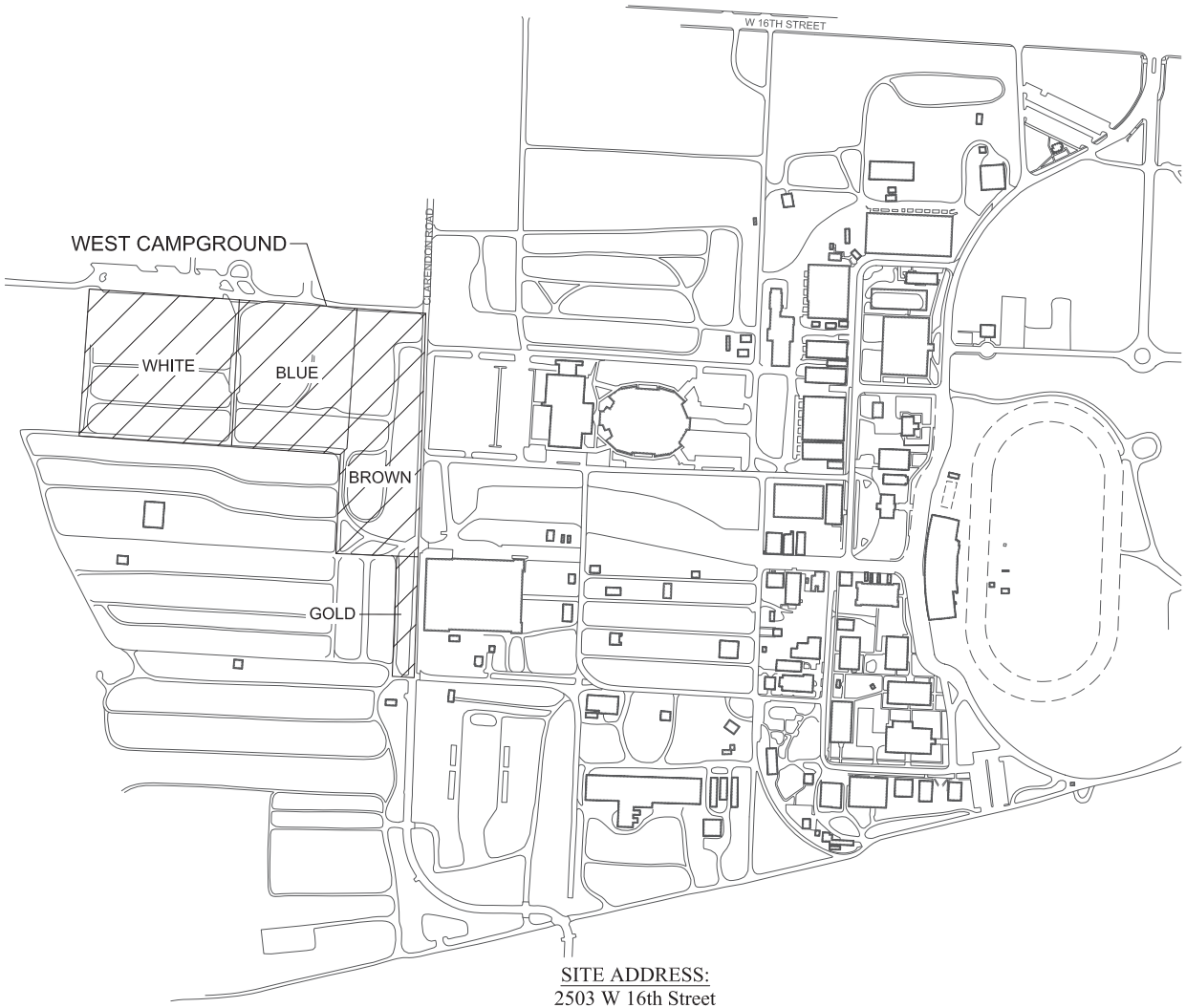
DEPARTMENT OF
AGRICULTURE

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

PROJECT NUMBER: F1903-01

SITE NUMBER: 1501
FACILITY NUMBER: 3511501141

SHEET NUMBER:
G-000
1 OF 20 SHEETS
AUGUST 29, 2019



SITE ADDRESS:
2503 W 16th Street
Sedalia, MO 65301

NORTH
SCOPE OF WORK PLAN
NOT TO SCALE

PROJECT GENERAL NOTES:

IF CONTRACTOR ENCOUNTERS ROCK AS DEFINED BY SPECIFICATION SECTION 312000-1.2(L), NOTIFY ENGINEER AND OWNER'S REPRESENTATIVE. REMOVAL TO BE AT A NEGOTIATED PRICE BY CHANGE ORDER.

COORDINATE WITH OWNER PRIOR TO BACKFILLING UTILITY TRENCHES FOR POTENTIAL OWNER CABLING WORK.

CODE SUMMARY:

INTERNATIONAL BUILDING CODE 2018
INTERNATIONAL MECHANICAL CODE 2018
INTERNATIONAL PLUMBING CODE 2018
INTERNATIONAL FIRE CODE..... 2018

NFPA 70 NATIONAL ELECTRICAL CODE 2017

DRAWING INDEX:

G000	PROJECT COVER SHEET
G001	PROJECT SCOPE OF WORK PLAN

CIVIL:

C101	EXISTING CONDITIONS PLAN - WEST CAMPGROUND
DC201	SITE DEMOLITION PLAN - WEST CAMPGROUND
C301	SITE UTILITY PLAN - WEST CAMPGROUND
C501	SITE DETAILS - 1

ELECTRICAL:

E001	ELECTRICAL SYMBOLS LEGEND & GENERAL NOTES
DE101	ELECTRICAL DEMOLITION PLAN - WEST
DE102	ELECTRICAL DEMOLITION PLAN - GOLD
E101	ELECTRICAL SITE PLAN - WEST
E102	ELECTRICAL SITE PLAN - GOLD
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL DETAILS
E601	ELECTRICAL PANEL SCHEDULES - WEST
E602	ELECTRICAL PANEL SCHEDULES - WEST
E603	ELECTRICAL PANEL SCHEDULES - WEST
E801	MEDIUM VOLTAGE ONE-LINE DIAGRAM - WEST
E802	MEDIUM VOLTAGE ONE-LINE DIAGRAM - GOLD
E803	TYPICAL 120/240V ELECTRICAL RISER & LUMINAIRE SCHEDULE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
REGISTERED PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546
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SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
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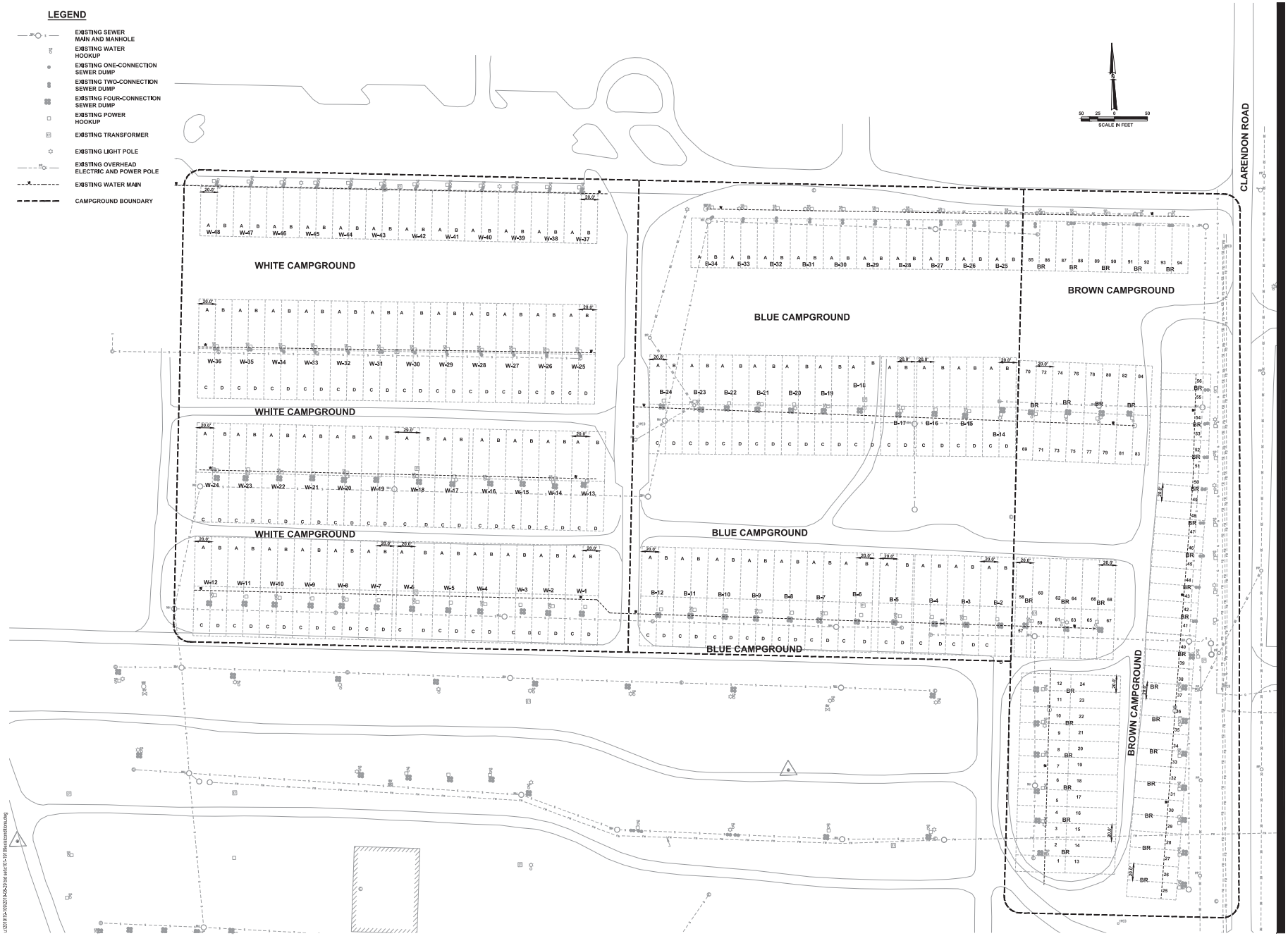
DATE:
REVISION:
DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

SHEET TITLE:
PROJECT SCOPE OF WORK PLAN

SHEET NUMBER:
G001

SHEET 2 0F 20
08/29/2019



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DESIGNED BY:

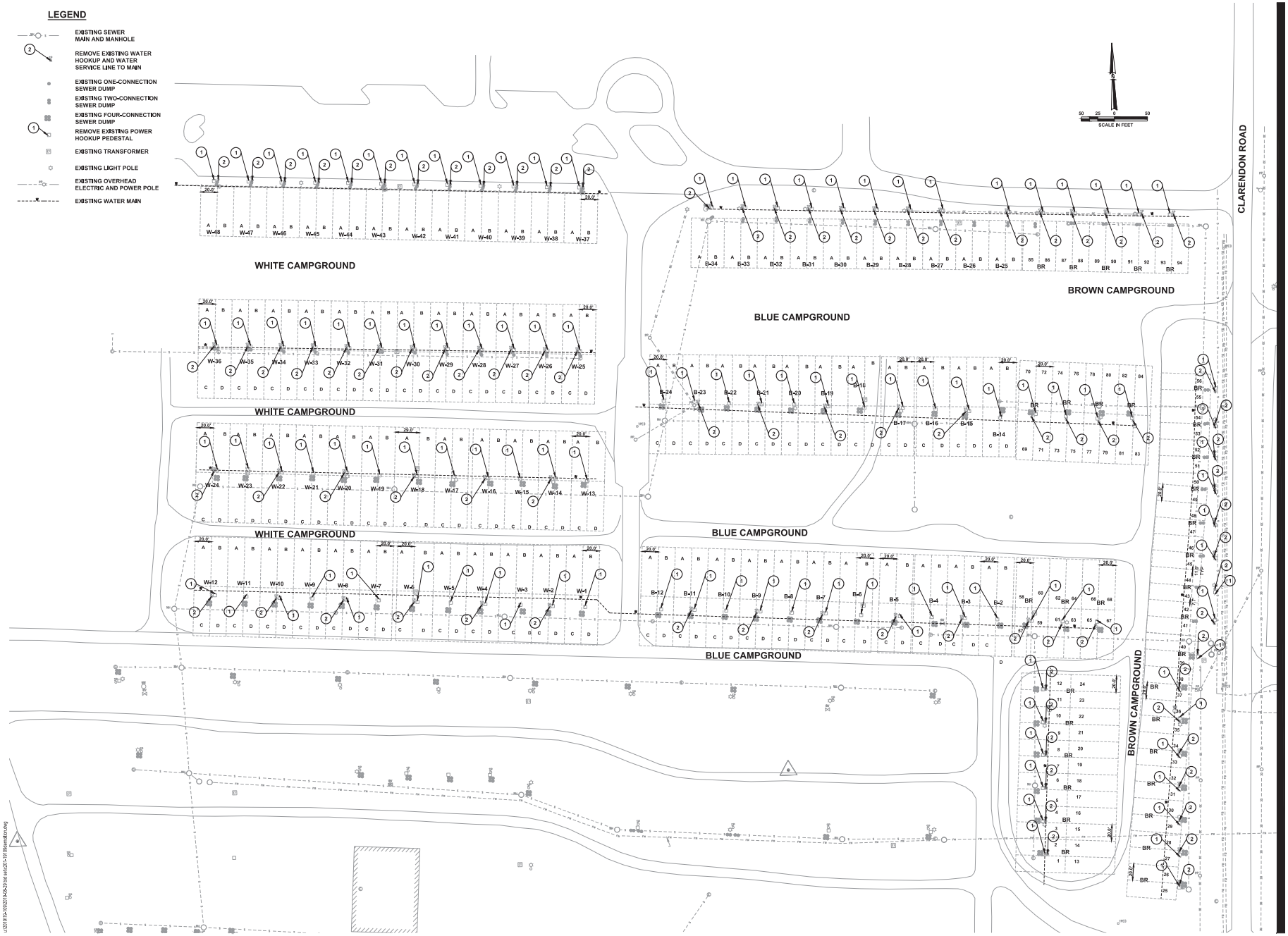
SHEET TITLE:

EXISTING CONDITIONS PLAN - WEST CAMPGROUND

SHEET NUMBER:

C101

SHEET 3 OF 20
08/29/2019



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DESIGNED BY:

SHEET TITLE:

SITE DEMOLITION PLAN - WEST CAMPGROUND

SHEET NUMBER:

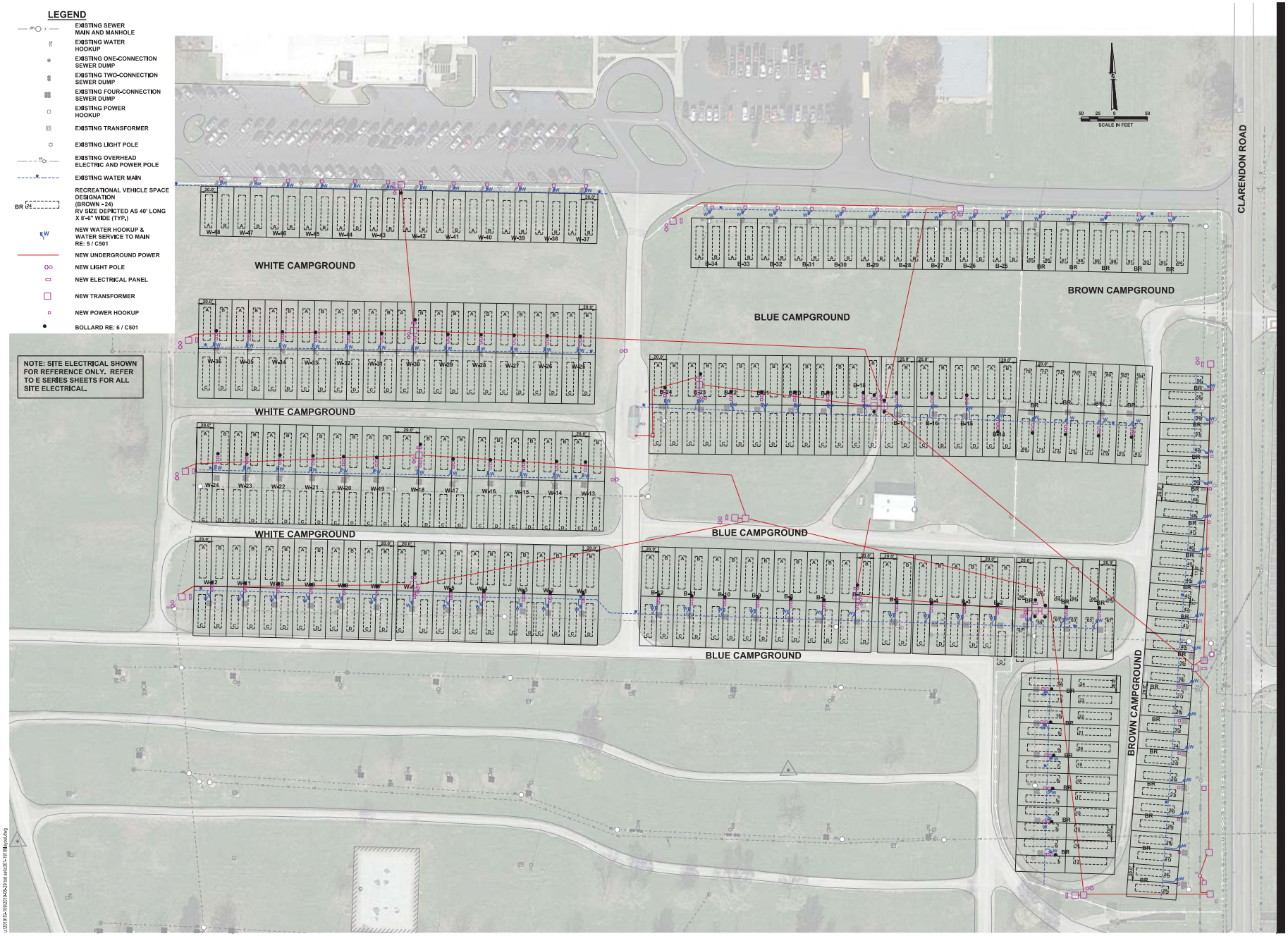
DC201

SHEET 4 OF 20
08/29/2019

LEGEND

- EXISTING SEWER MAIN AND MANHOLE
- EXISTING WATER HOOKUP
- EXISTING ONE-CONNECTION SEWER DUMP
- EXISTING TWO-CONNECTION SEWER DUMP
- EXISTING FOUR-CONNECTION SEWER DUMP
- EXISTING POWER HOOKUP
- EXISTING TRANSFORMER
- EXISTING LIGHT POLE
- EXISTING OVERHEAD ELECTRIC AND POWER POLE
- EXISTING WATER MAIN
- BR 24 — RECREATIONAL VEHICLE SPACE DESIGNATION (BROWN - 24) RV SIZE DEPICTED AS 40' LONG X 8'-0" WIDE (TYP.)
- BW — NEW WATER HOOKUP & WATER SERVICE TO MAIN RE: 5 / C501
- NEW UNDERGROUND POWER
- NEW LIGHT POLE
- NEW ELECTRICAL PANEL
- NEW TRANSFORMER
- NEW POWER HOOKUP
- BOLLARD RE: 6 / C501

NOTE: SITE ELECTRICAL SHOWN FOR REFERENCE ONLY. REFER TO E SERIES SHEETS FOR ALL SITE ELECTRICAL.



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DRAWN BY:
CHECKED BY:
DESIGNED BY:

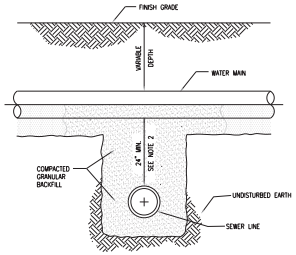
SHEET TITLE:

SITE UTILITY PLAN - WEST CAMPGROUND

SHEET NUMBER:

C301

SHEET 5 OF 20
08/29/2019

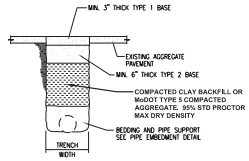


NOTES:

1. SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A VERTICAL SEPARATION THAT IS NO LESS THAN 24 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER MAIN.
2. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER LINE CROSSES BELOW THE WATER LINE. CROSSINGS IN WHICH THE SEWER LINE IS ABOVE THE WATER LINE WILL ONLY BE APPROVED ON A CASE BY CASE BASIS.
3. THE CROSSING SHALL BE ARRANGED SO THAT THE ENDS OF A FULL JOINT OF PIPE WILL BE EQUIDISTANT FROM THE WATER MAIN AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
4. IF THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND SEWER MAIN IS LESS THAN 18 INCHES, THE SEWER MAIN SHALL BE D.I.P. OR PRESSURE RATED PVC PIPE WITH A PRESSURE RATING THAT IS EQUAL TO OR GREATER THAN THE WATER MAIN. THE D.I.P. OR PRESSURE RATED P.V.C. MUST BE EXTENDED A DISTANCE 10 FEET ON BOTH SIDES OF THE WATER MAIN. THE TRANSITION BETWEEN PIPE MATERIALS SHALL BE ACCOMPLISHED WITH A RESTRAINED MECHANICAL TYPE JOINT OR FITTING. FLEXIBLE TYPE (FERNCO) FITTINGS ARE NOT ACCEPTABLE.
5. FORCE MAIN SEWER LINE AND WATER LINE CROSSINGS SHALL BE REVIEWED ON A CASE BY CASE BASIS.

NOTE:
1. CONTRACTOR SHALL COORDINATE WITH OWNER'S PERSONNEL FOR POSSIBLE OWNER WORK PRIOR TO BACKFILLING UTILITY TRENCHES.

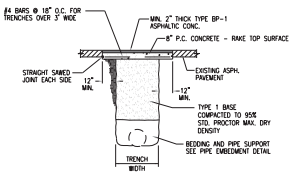
1 GRAVITY SEWER AND WATER LINE CROSSING
Not to Scale



EXISTING AGGREGATE SURFACING PAVEMENT

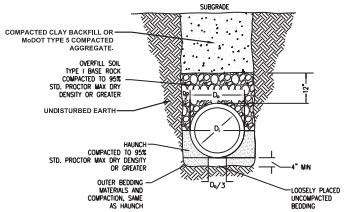
NOTE:
1. CONTRACTOR SHALL COORDINATE WITH OWNER'S PERSONNEL FOR POSSIBLE OWNER WORK PRIOR TO BACKFILLING UTILITY TRENCHES.

2 EXISTING AGGREGATE PAVEMENT PATCH
Not to Scale



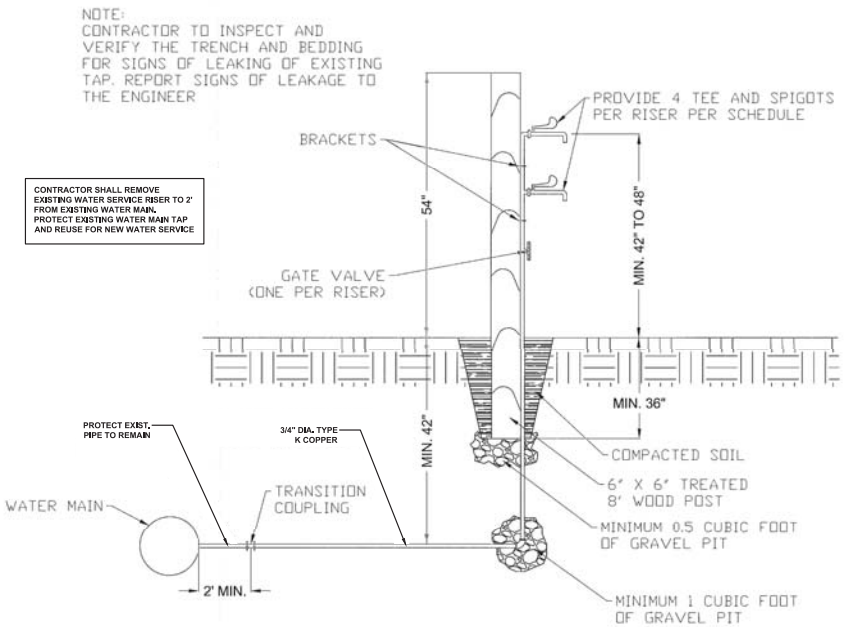
NOTES:
1. CONCRETE SHALL BE CLASS A PER PROJECT SPECIFICATIONS.
2. REINFORCING STEEL SHALL BE GRADE 60.
3. CONTRACTOR SHALL COORDINATE WITH OWNER'S PERSONNEL FOR POSSIBLE OWNER WORK PRIOR TO BACKFILLING UTILITY TRENCHES.

3 EXISTING ASPHALTIC PAVEMENT PATCH
Not to Scale



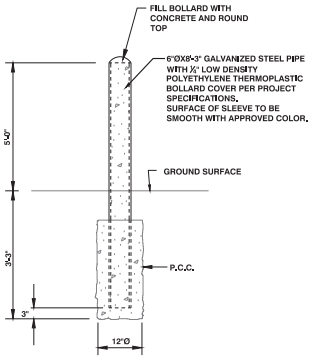
NOTE:
1. CONTRACTOR SHALL COORDINATE WITH OWNER'S PERSONNEL FOR POSSIBLE OWNER WORK PRIOR TO BACKFILLING UTILITY TRENCHES.

4 TYPICAL PIPE EMBEDMENT
Not to Scale



NOTE:
1. CONTRACTOR SHALL COORDINATE WITH OWNER'S PERSONNEL FOR POSSIBLE OWNER WORK PRIOR TO BACKFILLING UTILITY TRENCHES.

5 WATER SERVICE RISER
Not to Scale



6 TYPICAL BOLLARD DETAIL
Not to Scale

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MICHAEL L. PARSON, GOVERNOR

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UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS
2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

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ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY:
CHECKED BY:
DESIGNED BY:

SHEET TITLE:

SITE DETAILS - 1

SHEET NUMBER:

C501

SHEET 6 OF 20
08/29/2019

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GENERAL DEMO NOTES:

A) REMOVE ALL WIRING (CONDUIT, CONDUCTORS, BOXES, ETC.) ABANDONED AS PART OF THIS PROJECT.

B) ANY EXISTING DEVICE AND/OR CIRCUIT SHOWN ARE INDICATED ONLY FOR INFORMATION PURPOSES. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL CONDITIONS AS THEY EXIST AND SHALL REMOVE, RELOCATE AND/OR REWORK ANY ELECTRICAL EQUIPMENT OR CIRCUITS NECESSARY FOR A COMPLETE REWIRING SYSTEM.

C) UNLESS NOTED OTHERWISE,THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL WORK TO BE DONE BY OBSERVATION OF THE SITE. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR PERFORMING ALL WORK NECESSARY TO PROVIDE A WORKMANLIKE INSTALLATION.

D) ALL WORK SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE LATEST NATIONAL ELECTRICAL CODE, UNDERWRITER'S LABORATORIES, INC., OCCUPATIONAL SAFETY AND HEALTH ACT, AND ALL STATE, LOCAL, MUNICIPAL, AND STATUTORY REQUIREMENTS.

E) WHERE NEW WORK INTERFERES WITH CIRCUITS OTHERWISE UNDISTURBED, EXISTING CIRCUITS SHALL BE REWORKED AS REQUIRED TO MAINTAIN SERVICE.

F) THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SAME DURING THE COURSE OF THIS WORK. EXISTING UTILITIES, EXISTING BUILDING, AND/OR MATERIALS WHICH ARE DAMAGED BY NEGLIGENCE ON THIS CONTRACTOR'S PART OR ANY PARTIES ASSOCIATED WITH THIS CONTRACTOR, SHALL BE REPAIRED OR REPLACED AT THIS CONTRACTOR'S EXPENSE, IN A TIMELY MANNER, AND TO THE ARCHITECT'S AND OWNER'S WRITTEN ACCEPTANCE.

G) COORDINATE ALL DEMOLITION WORK WITH FAIRGROUND PERSONNEL, KCPL AND TELECOM PROVIDER PERSONNEL.

H) MAINTAIN CONTINUITY OF EXISTING CIRCUITS SERVING DEVICES, FIXTURES OR EQUIPMENT TO REMAIN.

GENERAL NOTES: (TYPICAL ALL SHEETS)

A) ANY MATERIAL REMOVED THAT OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED FROM PROJECT SITE AND DISPOSED OF BY THE CONTRACTOR.

B) NEW CIRCUITRY SHOWN FOR NEW/EXISTING POWER IS DIAGRAMMATIC AND IS INTENDED TO SHOW WHICH DEVICES ARE TO BE GROUPED ON INDIVIDUAL CIRCUITS.

C) TYPEWRITTEN PANELBOARD DIRECTORY SHALL BE PROVIDED FOR EACH PANELBOARD PROVIDED AS PART OF THE PROJECT.

D) ALL SINGLE PHASE, SINGLE POLE LOADS TO HAVE DEDICATED NEUTRALS. LABEL NEUTRAL CONDUCTORS WITH CORRESPONDING CIRCUIT NUMBER AT EACH PULL BOX, JUNCTION BOX, HANDHOLE AND OTHER SPLICE POINTS.

E) WHERE ELECTRICAL SITE WORK IS REQUIRED, CONTRACTOR SHALL RESTORE EXISTING SITE TO IT'S ORIGINAL CONDITION. INCLUDING BUT NOT LIMITED TO REPLACING VEGETATION, SOFTSCAPE AND HARDSCAPE REQUIRED TO BE DISTURBED DURING INSTALLATION OF ELECTRICAL COMPONENTS.

F) CONTRACTOR SHALL COMPLY WITH NEC OR ANY OTHER CODES HAVING JURISDICTION.

G) PROTECT EXISTING OWNER AND UTILITY-OWNED TELECOM EQUIPMENT, CABLING AND ASSOCIATED POWER/TELEPHONE SERVICE FROM CONSTRUCTION RELATED DAMAGE. ANY DAMAGE SHALL BE REPAIRED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.

H) ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.

I) ELECTRICAL CONTRACTOR TO VERIFY EXACT PLACEMENT OF ALL DEVICES SHOWN ON THE ELECTRICAL CONSTRUCTION DOCUMENTS WITH CIVIL DOCUMENTS PRIOR TO FINAL PLACEMENT.

J) ALL NEW PANELBOARDS, SWITCHBOARDS AND LINE VOLTAGE CONTROL EQUIPMENT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTING, SERVICING OR MAINTENANCE OF EQUIPMENT. MARKING SHALL BE SELF ADHESIVE, COMMERCIAL LABEL CONFORMING TO NEC AND ANSI REQUIREMENTS.

K) THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF 'AS-BUILT' CONDITIONS AND ANY MODIFICATIONS TO THE EXISTING SYSTEMS WHICH ARE TO REMAIN AND SHALL, UPON COMPLETION OF THIS PROJECT, DELIVER "RECORD" DRAWINGS TO THE ARCHITECT INDICATING ALL SUCH CHANGES. THE CONTRACTOR SHALL MAINTAIN IN THE PROJECT OFFICE, AS WORK PROGRESSES, AN UP-TO-DATE NEATLY MARKED COPY OF THESE DRAWINGS FOR REVIEW BY THE APPROPRIATE PARTIES.

ELECTRICAL SYMBOLS

	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS #12 AWG UNLESS NOTED OTHERWISE. EACH SINGLE PHASE CIRCUIT TO HAVE DEDICATED NEUTRAL. PHASE CONDUCTORS NEUTRAL CONDUCTOR GROUND CONDUCTOR
LP1-10	PANEL - BREAKER NUMBER (IDENTIFICATION)
1/3, 1/3/5	INDICATES X/X= 2-POLE C.B., X/X/X = 3-POLE C.B.
3 5 1	HOMERUN INDICATED LIKE THIS INDICATED THREE SEPARATE SINGLE PHASE CIRCUITS. EACH CIRCUIT TO HAVE DEDICATED NEUTRAL.
	CONDUIT CONCEALED IN CEILING OR WALL WITH THREE CONDUCTORS: 1-PHASE; 1-NEUTRAL; 1-GROUND WIRE, NO.12 AWG UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
	CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB.
	GROUNDING CONDUCTOR NO.12 WIRE EXCEPT AS NOTED
	POLE MOUNTED LIGHT FIXTURE
	DISTRIBUTION PANEL (SURFACE MOUNTED).
	SURFACE MOUNTED EQUIPMENT, TYPE AS INDICATED ON DRAWINGS
T	PAD MOUNTED TRANSFORMER
S	SECTIONALIZER CABINET, GRADE MOUNTED
SW	PAD MOUNTED SWITCHGEAR
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT STUBBED THRU WALL WITH BUSHINGS ON BOTH ENDS. SIZE AS NOTED ON PLANS.
	GROUND
	POWER CONNECTION POINT
	DISCONNECT SWITCH, SIZE AND TYPE AS NOTED TOP MOUNTED 5'-0" AFF
J	WALL MOUNTED OR CEILING MOUNTED JUNCTION BOX.
+3'-10"	HEIGHT TO CENTERLINE OF OUTLET BOX ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
ETR	EXISTING TO REMAIN

WIRING SCHEDULE - VOLTAGE DROP

DISTANCE	CONDUCTOR SIZE
120V - 20A BRANCH CIRCUIT	
UP TO 100'	#12
100' - 150'	#10
150' - 250'	#8
250' - OVER	#6
277V - 20A BRANCH CIRCUIT	
UP TO 200'	#12
200' - 375'	#10
375' - OVER	#8

NOTE

FOR CIRCUITS WITH #6 CONDUCTORS, REDUCE TO #8 CONDUCTORS AT PANEL FOR FINAL CONNECTION TO CIRCUIT BREAKER. SIZES LISTED ARE BASED ON COPPER CONDUCTORS.

PLAN NOTE LEGEND

ED000	ELECTRICAL DEMOLITION
EP000	POWER

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DESIGNED BY: PSJ

SHEET TITLE:
ELECTRICAL SYMBOLS LEGEND & GENERAL NOTES

SHEET NUMBER:
E001

SHEET 7 0F 20
08/29/2019

ELECTRICAL DEMOLITION PLAN - WEST

NORTH

1"=60'

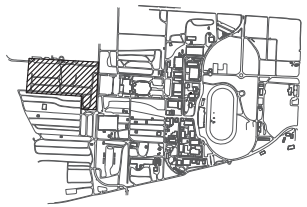
0 60' 120'

GENERAL DEMO NOTES

1	CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO TELECOM, POWER, WATER AND SEWER.
2	EXISTING UTILITIES, STRUCTURES, PAVEMENT AND ANY OTHER MATERIALS WHICH ARE DAMAGED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THIS CONTRACTOR'S EXPENSE, IN A TIMELY MANNER, AND TO THE ENGINEER'S AND OWNER'S WRITTEN ACCEPTANCE.

DEMOLITION PLAN NOTES

ED001	DISCONNECT AND REMOVE EXISTING PAD-MOUNT TRANSFORMER, ASSOCIATED CONCRETE PAD AND BOLLARDS. FIELD VERIFY EXACT LOCATION.
ED002	EXISTING SECTIONALIZER TO REMAIN.
ED003	DISCONNECT AND REMOVE EXISTING 120/240V DISTRIBUTION PANELBOARD.
ED004	DISCONNECT AND REMOVE EXISTING RV PEDESTAL. REMOVE FEEDER CONDUIT AND CONDUCTORS BACK TO DISTRIBUTION PANELBOARD POWER SOURCE. FIELD VERIFY EXISTING ROUTING.
ED005	EXISTING GRINDER PUMP TO REMAIN. DISCONNECT AND REMOVE EXISTING SAFETY SWITCH, CONDUIT AND CONDUCTORS BACK TO PANELBOARD POWER SOURCE. SEE NEW WORK PLANS FOR WORK REQUIRED TO REFEED EQUIPMENT.
ED006	DISCONNECT AND REMOVE POWER FROM ASSOCIATED 240V DISTRIBUTION PANELBOARD TO BATH HOUSE. REMOVE CONDUIT AND CONDUCTORS. MAINTAIN EXISTING CONDUIT ONLY AS REQUIRED BY NEW WORK.
ED007	DISCONNECT AND REMOVE EXISTING ELECTRICAL DISTRIBUTION SYSTEM SERVING TICKET STRUCTURE INCLUDING POLE MOUNTED DISCONNECTS, LOAD CENTER AND OVERHEAD WIRING.
ED008	DISCONNECT AND REMOVE EXISTING WOOD POLE, AREA LIGHTING LUMINAIRE, SAFETY SWITCH AND ASSOCIATED CONDUIT AND CONDUCTORS INCLUDING OVERHEAD DISTRIBUTION.
ED009	DISCONNECT AND REMOVE EXISTING 15 KV PRIMARY FEEDER CONDUCTORS AND CONDUITS SERVING PAD-MOUNT TRANSFORMERS BEING DEMOLISHED. FIELD VERIFY EXACT ROUTING. REPAIR AND PATCH ROADWAYS TO MATCH EXISTING SURFACES AS REQUIRED.
ED010	DISCONNECT AND REMOVE EXISTING POLE AND ASSOCIATED OVERHEAD EQUIPMENT INCLUDING ARMS, FUSED CUTOUT AND SINGLE PHASE RISER CONDUCTORS. REMOVE EXISTING RISER CONDUIT SERVING SINGLE PHASE CIRCUIT TO REMAIN FOR REINSTALLATION AS PART OF NEW WORK. SEE NEW WORK PLANS AND DETAILS FOR ADDITIONAL INFORMATION.
ED011	EXISTING OVERHEAD TELECOMMUNICATIONS CABLE TO BE REMOVED BY OWNER
ED012	EXISTING POLE MOUNTED WI-FI, ASSOCIATED CABLING AND ACCESSORIES TO BE REMOVED BY OWNER.
ED013	EXISTING TELECOM PEDESTAL AND ASSOCIATED WIRING TO REMAIN. FIELD VERIFY EXACT LOCATIONS.
ED014	DISCONNECT AND REMOVE EXISTING CONDUCTORS FEEDING BATH HOUSE. MAINTAIN CONDUIT FROM BATH HOUSE TO 5' OUTSIDE BUILDING FOR REUSE AS PART OF NEW WORK.
ED015	DISCONNECT AND REMOVE EXISTING RISER CONDUIT, CONDUCTOR AND CONNECTION ASSOCIATED WITH PROJECT DEMOLITION WORK TO OVERHEAD DISTRIBUTION SYSTEM.



KEY PLAN

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
REGISTERED PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546

MEP Engineer:

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License Name: SK Design Group, Inc.
Profession Name: Professional Engineering Corporation
Licensee Number: E-12744-

OFFICE OF ADMINISTRATIO
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTIO

DEPARTMENT OF AGRICULTURE

UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS
2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

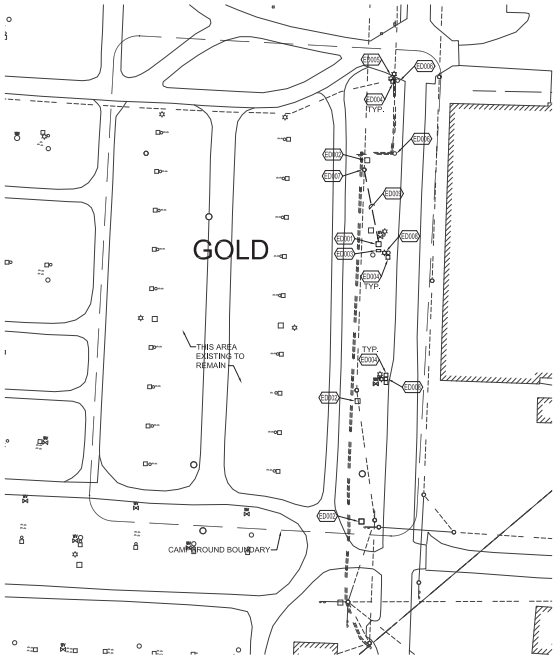
SHEET TITLE:

ELECTRICAL DEMOLITION PLAN-WEST

SHEET NUMBER:

DE101

SHEET 8 0F 20
08/29/2019



NORTH

ELECTRICAL DEMOLITION PLAN - GOLD

1"=60'

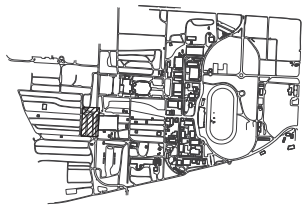
0 60' 120'

GENERAL DEMO NOTES

1	CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO TELECOM, POWER, WATER AND SEWER.
2	EXISTING UTILITIES, STRUCTURES, PAVEMENT AND ANY OTHER MATERIALS WHICH ARE DAMAGED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THIS CONTRACTOR'S EXPENSE, IN A TIMELY MANNER, AND TO THE ENGINEER'S AND OWNER'S WRITTEN ACCEPTANCE.

DEMOLITION PLAN NOTES

ED001	DISCONNECT AND REMOVE EXISTING PAD-MOUNT TRANSFORMER. ASSOCIATED CONCRETE PAD AND BOLLARDS. FIELD VERIFY EXACT LOCATION.
ED002	EXISTING SECTIONALIZER TO REMAIN.
ED003	DISCONNECT AND REMOVE EXISTING 120/240V DISTRIBUTION PANELBOARD.
ED004	DISCONNECT AND REMOVE EXISTING RV PEDESTAL. REMOVE FEEDER CONDUIT AND CONDUCTORS BACK TO DISTRIBUTION PANELBOARD POWER SOURCE. FIELD VERIFY EXISTING ROUTING.
ED005	EXISTING POLE, LOADCENTER AND FLOODLIGHT TO REMAIN. DISCONNECT AND REMOVE EXISTING AREA LIGHTING LUMINAIRE AND ASSOCIATED CONDUIT AND CONDUCTORS. DISCONNECT AND REMOVE CONDUIT AND CONDUCTORS SERVING LOADCENTER.
ED006	EXISTING TELECOM PEDESTAL AND ASSOCIATED WIRING TO REMAIN.
ED007	EXISTING POLE AND ASSOCIATED OVERHEAD EQUIPMENT TO REMAIN INCLUDING ARMS AND RISERS NOT ASSOCIATED WITH THIS PROJECT. REMOVE EXISTING RISER CONDUIT AND CONDUCTORS SERVING TRANSFORMER BEING DEMOLISHED. SEE NEW WORK PLANS FOR ADDITIONAL INFORMATION.
ED008	DISCONNECT AND REMOVE EXISTING WOOD POLE, AREA LIGHTING LUMINAIRE, SAFETY SWITCH AND ASSOCIATED CONDUIT AND CONDUCTORS INCLUDING OVERHEAD DISTRIBUTION.
ED009	EXISTING 15 KV PRIMARY FEEDER CONDUCTORS AND CONDUIT TO REMAIN FOR REUSE AS PART OF NEW WORK. FIELD VERIFY EXACT ROUTING.



KEY PLAN

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MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
REGISTERED PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546

MEP Engineer:

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DEPARTMENT OF
AGRICULTURE

UPGRADE WEST
CAMPGROUND UTILITIES

MISSOURI STATE
FAIRGROUNDS

2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
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ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

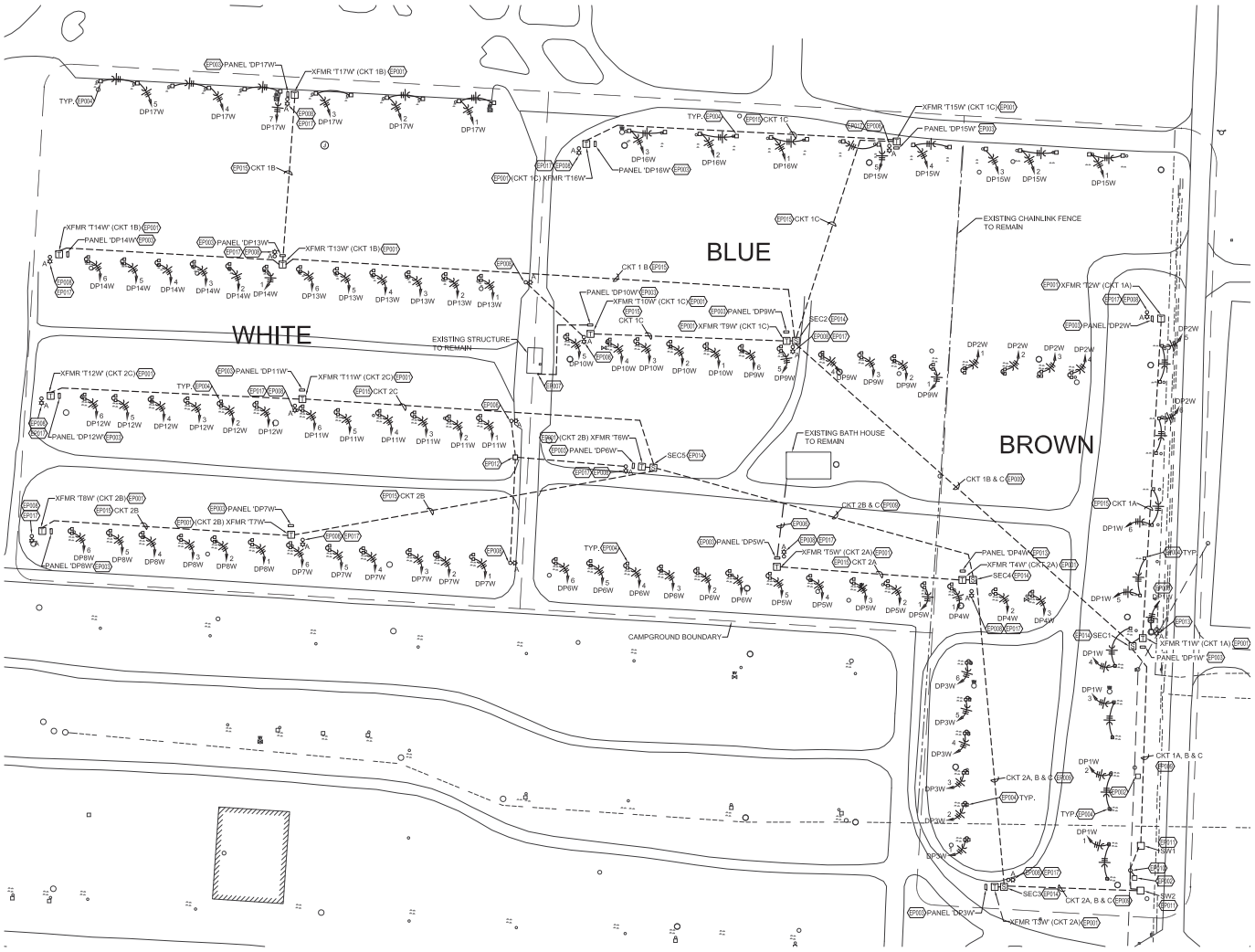
SHEET TITLE:

ELECTRICAL
DEMOLITION
PLAN-GOLD

SHEET NUMBER:

DE102

SHEET 9 0F 20
08/29/2019



ELECTRICAL SITE PLAN - WEST

NORTH

1"=60'

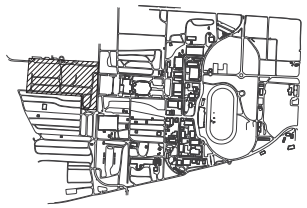
0 60' 120'

GENERAL NOTES

1	CIRCUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY.
2	CONTRACTOR TO FIELD LOCATE, MAINTAIN AND PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED.

NEW WORK PLAN NOTES

EP001	PROVIDE NEW 250 KVA, 7200-240/120, SINGLE PHASE PAD MOUNT TRANSFORMER.
EP002	EXISTING SINGLE PHASE SECTIONALIZER INSTALLED AS PART OF 2016 PROJECT TO REMAIN. MAINTAIN EXISTING CONNECTION TO PRIMARY RISER FROM ADJACENT POLE.
EP003	PROVIDE NEW 240/120V PANELBOARD IN NEMA 3R ENCLOSURE MOUNTED ON GALVANIZED UNI-STRUT FRAME. SEE ASSOCIATED PANEL SCHEDULE AND RISER DIAGRAM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
EP004	DOUBLE-SIDED RV ELECTRIC PEDESTAL. SEE ELECTRICAL RISER DIAGRAM, SHEET E803 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
EP005	RECONNECT TO EXISTING GRINDER PUMP TO REMAIN. PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT MIN. 24" BELOW GRADE. SEE PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
EP006	PROVIDE NEW 120/240V UNDERGROUND FEEDER AND CONNECT TO EXISTING BATH HOUSE SERVICE ENTRANCE SAFETY SWITCH, MATCH EXISTING CONDUIT AND CONDUCTOR SIZE (MINIMUM (3) #1/0 & (1) # 6 GND IN 1-1/2" CONDUIT 24" BELOW GRADE).
EP007	PROVIDE NEW 120/240V UNDERGROUND FEEDER AND CONNECT TO EXISTING TICKET OFFICE LOADCENTER. (3) #6 & (1) # 10 GND IN 1" CONDUIT MIN. 24" BELOW GRADE.
EP008	PROVIDE NEW 35' CLASS 3 WOOD POLE AND LUMINAIRE. PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT FROM 20A, 1 POLE BREAKER IN NEAREST PANELBOARD. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
EP009	THREE PHASE, MEDIUM VOLTAGE CIRCUIT BELOW GRADE. SHEET SHEET E801 FOR ADDITIONAL INFORMATION.
EP010	PROVIDE NEW 45' CLASS 3 WOOD POLE WITH DUAL 10' POLE ARMS. TWO (2) 200A, 3 PHASE FUSED CUTOUTS (FUSE AT 200A) TO NEW SECTIONALIZER SWITCHES AND ONE (1) 200A, 1 PHASE. REINSTALL EXISTING RISER CONDUIT AND CONDUCTORS SERVING EXISTING SINGLE PHASE SECTIONALIZER.
EP011	PROVIDE NEW PAD-MOUNTED, 15 KV SECTIONALIZER SWITCH (BASIS OF DESIGN: S&C PME-5 OR APPROVED EQUAL). SEE SPECIFICATIONS AND RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
EP012	SEE DETAIL 3, SHEET E502 FOR IN-GRADE JUNCTION BOX DETAIL.
EP013	PROVIDE LUMINAIRE 10' ABOVE GRADE WITH MANUAL SWITCH IN WEATHERPROOF COVER DIRECTLY BELOW. PROVIDE GALVANIZED UNISTRUT FRAME AS REQUIRED FOR MOUNTING OF LUMINAIRE AND SWITCH. PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT FROM 20A, 1 POLE BREAKER IN PANELBOARD 'DP1W'. SEE PANELBOARD SCHEDULE FOR ADDITIONAL INFORMATION.
EP014	PROVIDE 15 KV, 200A, 3 PHASE, SECTIONALIZING CABINET WITH FIBERGLASS GROUND SLEEVES AS REQUIRED FOR ON-GRADE MOUNTING. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
EP015	SINGLE PHASE, MEDIUM VOLTAGE CIRCUIT BELOW GRADE. SHEET SHEET E801 FOR ADDITIONAL INFORMATION.
EP017	PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT FROM NEAREST PANELBOARD TO WEATHERPROOF JUNCTION BOX MOUNTED 5' ABOVE GRADE ON POLE FOR OWNER WI-FI BY OTHERS. WIRENUT AND TAPE CONDUCTORS FOR FUTURE EXTENSION. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.



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Licensee Number: E-1274-F

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DEPARTMENT OF AGRICULTURE

UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS

2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
DATE:
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DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

SHEET TITLE:

ELECTRICAL SITE PLAN-WEST

SHEET NUMBER:

E101

SHEET 10 OF 20
08/29/2019

ELECTRICAL SITE PLAN - GOLD

1"=60'

NORTH

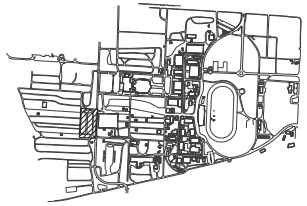
0 60' 120'

GENERAL NOTES

1	CIRCUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY.
2	CONTRACTOR TO FIELD LOCATE, MAINTAIN AND PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED.
3	PROVIDE ALL WORK AS REQUIRED TO MEET INTENT OF WORK SHOWN. MAINTAIN CLEARANCES PER NESC RECOMMENDATIONS AND MEET LATEST USDA RURAL UTILITIES SERVICE STANDARD REQUIREMENTS.
4	MODIFY EXISTING OVERHEAD DISTRIBUTION STRUCTURES, CONDUCTORS, ETC. AS REQUIRED TO ACCOMMODATE NEW WORK SHOWN.

NEW WORK PLAN NOTES

EP001	PROVIDE NEW 250 KVA, 7200-240/120, SINGLE PHASE PAD MOUNT TRANSFORMER.
EP002	EXISTING SINGLE PHASE SECTIONALIZER INSTALLED AS PART OF 2016 PROJECT TO REMAIN. MAINTAIN EXISTING CONNECTION TO PRIMARY RISER FROM ADJACENT POLE.
EP003	PROVIDE NEW 240/120V PANELBOARD IN NEMA 3R ENCLOSURE MOUNTED ON GALVANIZED UNISTRUT FRAME. SEE ASSOCIATED PANEL SCHEDULE AND RISER DIAGRAM FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
EP004	DOUBLE-SIDED RV ELECTRIC PEDESTAL. SEE ELECTRICAL RISER DIAGRAM, SHEET E803 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
EP005	PROVIDE NEW 120/240V UNDERGROUND FEEDER AND CONNECT TO EXISTING LOAD CENTER. MATCH EXISTING CONDUIT AND CONDUCTOR SIZE (MINIMUM (3) #1 & (1) # 6 GND IN 1-1/2" CONDUIT 24" BELOW GRADE).
EP006	SINGLE PHASE, MEDIUM VOLTAGE CIRCUIT BELOW GRADE. SHEET SHEET E802 FOR ADDITIONAL INFORMATION.
EP007	EXISTING POLE, CONDUITS AND CONDUCTORS SERVING OLD GOLD, NEW GOLD, YELLOW AND WEST LIFT LOADS NOT ASSOCIATED WITH THIS PROJECT TO REMAIN.
EP008	PROVIDE NEW 35' CLASS 3 WOOD POLE AND LUMINAIRE. PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT FROM 20A, 1 POLE BREAKER IN NEAREST PANELBOARD. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.
EP009	REMOVE EXISTING FUSED CUTOUTS AND REPLACE WITH NEW 15 KV COMBINATION ARRESTER/200A FUSIBLE CUTOUTS AND TERMINATIONS FOR EACH CIRCUIT (EXISTING AND NEW). FUSE TO MATCH EXISTING. RECONNECT TO EXISTING CONDUCTORS.
EP010	PROVIDE NEW 15 KV COMBINATION ARRESTER/200A FUSIBLE CUTOUT AND TERMINATOR TO SERVE THIS PROJECT. PROVIDE WORK AS REQUIRED FOR CONNECTION TO EXISTING CONDUCTORS BEING REUSED.
EP011	PROVIDE (2) #12 & (1) #12 GROUND IN 3/4" CONDUIT FROM NEAREST PANELBOARD TO WEATHERPROOF JUNCTION BOX MOUNTED 5' ABOVE GRADE ON POLE FOR OWNER WI-FI BY OTHERS. WIRENUT AND TAPE CONDUCTORS FOR FUTURE EXTENSION. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.



KEY PLAN

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

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MONICA SANTOYO SANTOS
NUMBER E-2000174546
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8/29/2019

Monica S Santos
MO# E-2000174546

MEP Engineer:

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CAD DWG FILE:
DRAWN BY: PSJ
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DESIGNED BY: PSJ

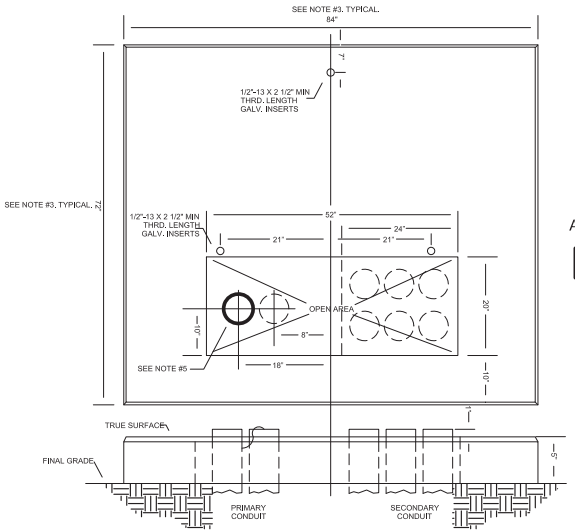
SHEET TITLE:

ELECTRICAL
SITE PLAN-GOLD

SHEET NUMBER:

E102

SHEET 11 0F 20
08/29/2019



GENERAL NOTES

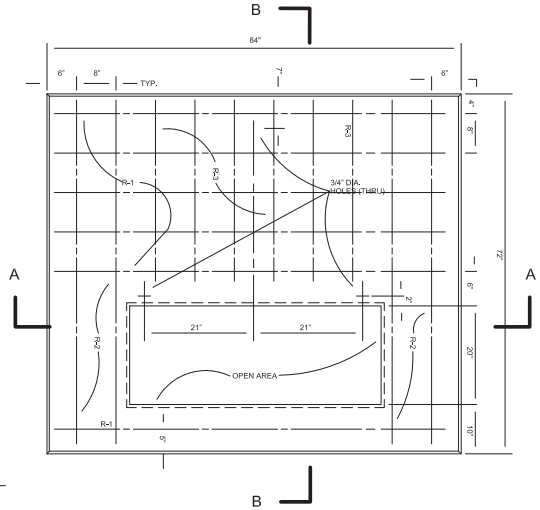
1. ALL CONDUIT SHALL BE SCHEDULE 40 PVC.

2. SECONDARY CONDUIT SHALL BE SYMMETRICALLY LOCATED WITHIN SECONDARY OPENING AREA.

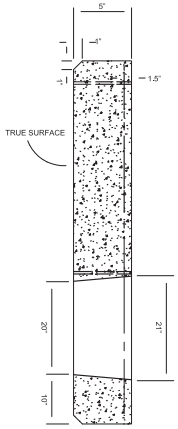
3. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. PAD TO EXTEND OUT FROM EDGE OF TRANSFORMER EQUIPMENT MINIMUM OF 18" ON ALL SIDES. FIELD VERIFY EXACT DIMENSIONS REQUIRED PER ACTUAL UNIT INSTALLED.

4. PROPER COMPACTION OF BACKFILL IS IMPORTANT TO PREVENT SETTLING. BACK FILL WITH LIMESTONE SCREENINGS, 24" MINIMUM THICKNESS BELOW GRADE.

5. FOR RADIAL FED TRANSFORMERS, INSTALL THE PRIMARY CONDUIT IN THE LEFT POSITION (SHOWN AS A SOLID CIRCLE).



SECTION AA



SECTION BB

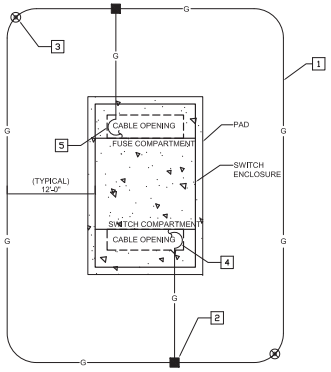
REINFORCING SCHEDULE

MARK	NO.REQ.	SIZE	LEGNTH
R-1	6	#4	6'-6"
R-2	4	#4	5'-6"
R-3	5	#4	3'-0"

4 TRANSFORMER PAD DETAIL
NO SCALE

KEYED NOTES:

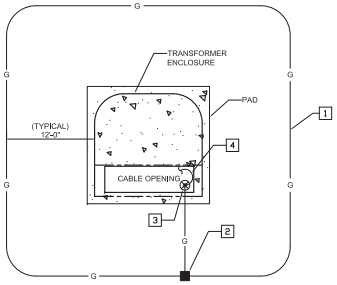
1. #4/0 BARE COPPER GROUND CONDUCTOR AT DEPTH OF 24" BELOW GRADE. (TYP.)
2. EXOTHERMIC WELD (TYP.).
3. 3/4" BY 10' COPPER-CLAD STEEL DRIVEN GROUND ROD. CONNECT GROUND CONDUCTOR TO GROUND ROD WITH EXOTHERMIC WELD. (TYP.)
4. #4/0 BARE COPPER GROUND CONDUCTOR BONDED TO SWITCH COMPARTMENT GROUND BUS BAR.
5. #4/0 BARE COPPER GROUND CONDUCTOR BONDED TO FUSE COMPARTMENT GROUND BUS BAR.



1 PAD MOUNTED SWITCHGEAR - GROUNDING
NO SCALE

KEYED NOTES:

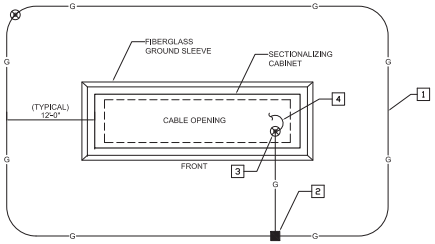
1. #4/0 BARE COPPER GROUND CONDUCTOR AT DEPTH OF 24" BELOW GRADE. (TYP.)
2. EXOTHERMIC WELD (TYP.).
3. 3/4" BY 10' COPPER-CLAD STEEL DRIVEN GROUND ROD. CONNECT GROUND CONDUCTOR TO GROUND ROD WITH EXOTHERMIC WELD. (TYP.)
4. #4/0 BARE COPPER GROUND CONDUCTOR BONDED TO TRANSFORMER ENCLOSURE.



2 PAD MOUNTED TRANSFORMER - GROUNDING
NO SCALE

KEYED NOTES:

1. #4/0 BARE COPPER GROUND CONDUCTOR AT DEPTH OF 24" BELOW GRADE. (TYP.)
2. EXOTHERMIC WELD (TYP.).
3. 3/4" BY 10' COPPER-CLAD STEEL DRIVEN GROUND ROD. CONNECT GROUND CONDUCTOR TO GROUND ROD WITH EXOTHERMIC WELD. (TYP.)
4. #4/0 BARE COPPER GROUND CONDUCTOR BONDED TO SECTIONALIZING CABINET ENCLOSURE.



3 SECTIONALIZER CABINET- GROUNDING
NO SCALE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MONICA SANTOYO SANTOS NUMBER E-2000174546 REGISTERED PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546
MEP Engineer:
Antella CONSULTING ENGINEERS INC
1600 Genessee, Suite 260 Kansas City, Missouri 64102
Tele 816-421-0950 Fax 816-249-2439
email: antella@antella-eng.com
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Profession Name: Professional Engineering Corporation
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Civil Engineer:
SK Design Group, Inc.
Civil Engineers
4600 College Blvd., Suite 100
Overland Park, KS 66211
(913)-451-1818
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www.skdg.com
License Name: SK Design Group, Inc.
Profession Name: Professional Engineering Corporation
Licensee Number: E-12174-F

OFFICE OF ADMINISTRATIO
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTIO

DEPARTMENT OF AGRICULTURE

UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS
2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

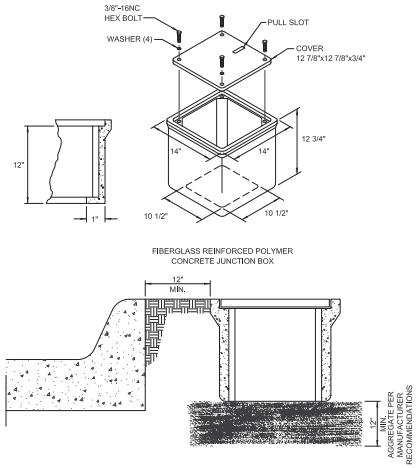
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

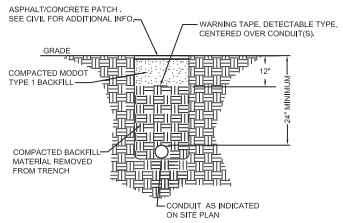
SHEET TITLE:
ELECTRICAL DETAILS

SHEET NUMBER:
E501

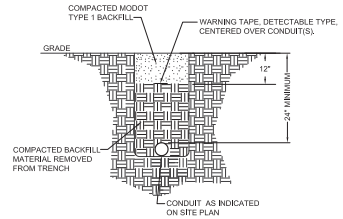
SHEET 12 0F 20
08/29/2019



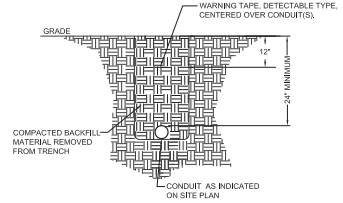
3 600V JUNCTION BOX DETAIL
NO SCALE



BELOW PAVEMENT DRIVE



BELOW GRAVEL DRIVE



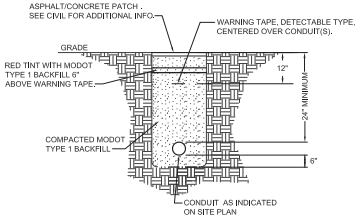
BELOW GRADE

GENERAL NOTES:

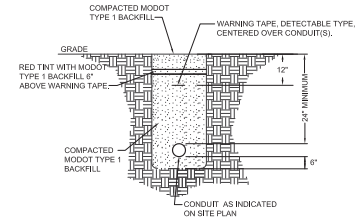
1) AT CONTRACTOR'S DISCRETION, CONDUITS MAY BE BORED UTILIZING SCHEDULE 40 HDPE CONDUIT.

MULTIPLE RUNS

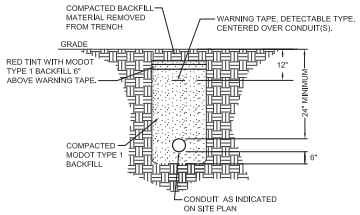
2 600V CONDUIT TRENCH DETAILS
NO SCALE



BELOW PAVEMENT DRIVE



BELOW GRAVEL DRIVE



BELOW GRADE

GENERAL NOTES:

1) AT CONTRACTOR'S DISCRETION, CONDUITS MAY BE BORED UTILIZING SCHEDULE 40 HDPE CONDUIT.

MULTIPLE RUNS

1 15KV CONDUIT TRENCH DETAILS
NO SCALE

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MICHAEL L. PARSON,
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STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
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SITE # 1501
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CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

SHEET TITLE:

ELECTRICAL
DETAILS

SHEET NUMBER:

E502

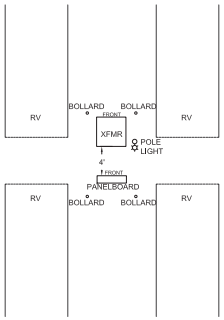
SHEET 13 OF 20
08/29/2019

GENERAL NOTES

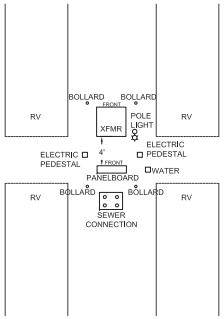
1	PROVIDE ALL WORK AS REQUIRED TO MEET INTENT OF WORK SHOWN. MAINTAIN CLEARANCES PER NESC RECOMMENDATIONS AND MEET LATEST USDA RURAL UTILITIES SERVICE STANDARD REQUIREMENTS.
2	MODIFY EXISTING STRUCTURES, CONDUCTORS, ETC. AS REQUIRED TO ACCOMMODATE NEW WORK SHOWN.

DETAIL NOTES

EP001	EXISTING 'DELTA' NEUTRAL. MAINTAIN CONTINUITY AND EXISTING CONNECTIONS. MODIFY HEIGHT AS REQUIRED FOR CLEARANCES.
EP002	EXISTING NEUTRAL. MAINTAIN CONTINUITY AND EXISTING CONNECTIONS. MODIFY HEIGHT AS REQUIRED FOR CLEARANCES.
EP003	EXISTING CONDUIT AND CONDUCTORS SERVING SINGLE PHASE CIRCUIT TO REMAIN. MODIFY AS REQUIRED AND RECONNECT TO OVERHEAD DISTRIBUTION SYSTEM. MAINTAIN CONNECTION TO EXISTING SECTIONALIZER.
EP004	PROVIDE 4" RIGID GALVANIZED RISER CONDUIT WITH STANDOFFS AS REQUIRED.

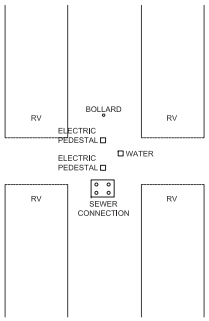


TYPICAL TRANSFORMER - STANDALONE



TYPICAL LAYOUT WITH TRANSFORMER

GENERAL NOTE: MINIMUM 36" CLEARANCE IN FRONT AND BACK OF ELECTRIC PEDESTAL EQUIPMENT.

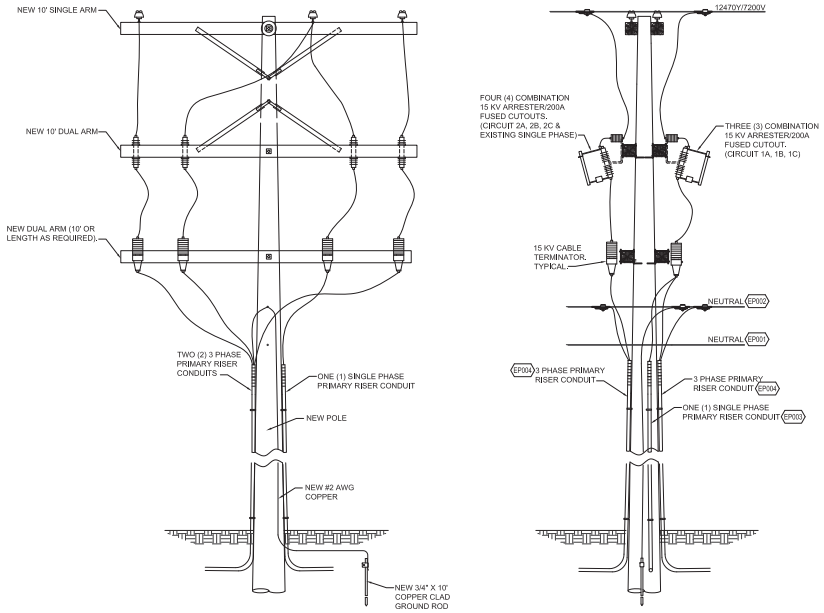


TYPICAL LAYOUT

GENERAL NOTE: MINIMUM 36" CLEARANCE IN FRONT AND BACK OF ELECTRIC PEDESTAL EQUIPMENT.

2 TYPICAL UTILITY SERVICES LAYOUT

NO SCALE



1 POLE DETAIL - WEST

NO SCALE

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CAD DWG FILE:
DRAWN BY: PSJ
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SHEET TITLE:

ELECTRICAL
DETAILS

SHEET NUMBER:

E503

SHEET 14 0F 20
08/29/2019

PANELBOARD DP6W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BLUE CAMP
SOUTH MIDDLE

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE B-7	2	250	24		2	SITES B-8	2	250	24			
							24						24		
		3	SITES B-9	2	250	24		4	SITES B-10	2	250	24			
							24						24		
		5	SITES B-11	2	250	24		6	SITES B-12	2	250	24			
							24						24		
		7	POLE LIGHT	1	20			8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72	72				TOTAL:	72.1	72		
													72	72	

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.1 144
AMP / PHASE TOTAL: 1201 1200

TOTAL CONNECTED LOAD: 288.10 KVA
TOTAL CONNECTED CURRENT: 1200.42 AMPS
TOTAL DEMAND CURRENT: 1200.42 AMPS

PANELBOARD DP4W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 800 AMP
MAINS: MCB / 800 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BROWN CAMP
NW CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE BR-57-60	2	250	24		2	SITES BR-61-64	2	250	24			
							24						24		
		3	SITES BR-65-68	2	250	24		4	SPARE	1	20				
							24		SPARE	1	20				
		5	POLE LIGHT	1	20	0.2		6	J-BOX - OWNER WIFI	1	20	0.1			
		7	SPARE	1	20			8	SPARE	1	20				
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	48.2	48				TOTAL:	24.1	24		
												48.2	48		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.

KVA / PHASE TOTAL: 72.3 72
AMP / PHASE TOTAL: 603 600

TOTAL CONNECTED LOAD: 144.30 KVA
TOTAL CONNECTED CURRENT: 601.25 AMPS
TOTAL DEMAND CURRENT: 601.46 AMPS

PANELBOARD DP2W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BROWN CAMP
NE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE BR-69-72	2	250	24		2	SITES BR-73-76	2	250	24			
							24						24		
		3	SITES BR-77-80	2	250	24		4	SITES BR-81-84	2	250	24			
							24						24		
		5	SITES BR-53-56	2	250	24		6	SITES BR-49-52	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.3 144
AMP / PHASE TOTAL: 1203 1200

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.25 AMPS

PANELBOARD DP5W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BLUE CAMP
SE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE B-2	2	250	24		2	SITES B-3	2	250	24			
							24						24		
		3	SITES B-4	2	250	24		4	SITES B-5	2	250	24			
							24						24		
		5	SITES B-6	2	250	24		6	EXISTING BATH HOUSE	2	150	12			
							24						12		
		7	POLE LIGHT	1	20			8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72	72				TOTAL:	60.1	60		
												72	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 132.1 132
AMP / PHASE TOTAL: 1101 1100

TOTAL CONNECTED LOAD: 264.10 KVA
TOTAL CONNECTED CURRENT: 1100.42 AMPS
TOTAL DEMAND CURRENT: 1100.42 AMPS

PANELBOARD DP3W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BROWN CAMP
SW CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE BR-1-2, 13-14	2	250	24		2	SITES BR-3-4, 15-16	2	250	24			
							24						24		
		3	SITES BR-5-6, 17-18	2	250	24		4	SITES BR-7-8, 19-20	2	250	24			
							24						24		
		5	SITES BR-9-10, 12-22	2	250	24		6	SITES BR-11-22, 23-24	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.3 144
AMP / PHASE TOTAL: 1203 1200

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.04 AMPS

PANELBOARD DP1W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N , GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BROWN CAMP
SE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITES BR-25-28	2	250	24		2	SITES BR-29-32	2	250	24			
							24						24		
		3	SITES BR-33-36	2	250	24		4	SITES BR-37-40	2	250	24			
							24						24		
		5	SITES BR 41-44	2	250	24		6	SITES BR-45-48	1	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.1		8	EXISTING GRINDER PUMP	2	20	1		1	
		9	SPARE	1	20			10					1		
		11	SPARE	1	20			12	JBOX - OWNER WIFI	1	20	0.1			
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.1	72				TOTAL:	73.1	73		
												72.1	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

1) COORDINATE BREAKER SIZE WITH EXISTING EQUIPMENT NAMEPLATE INFORMATION.

KVA / PHASE TOTAL: 145.2 146
AMP / PHASE TOTAL: 1210 1208

TOTAL CONNECTED LOAD 290.20 KVA
TOTAL CONNECTED CURRENT: 1209.17 AMPS
TOTAL DEMAND CURRENT: 1209.17 AMPS

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CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES -WEST

SHEET NUMBER:
E601

SHEET 15 OF 20
08/29/2019

PANELBOARD DP12W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
SW CORNER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-19	2	250	24		2	SITES W-20	2	250	24			
							24						24		
		3	SITES W-21	2	250	24		4	SITES W-22	2	250	24			
							24						24		
		5	SITES W-23	2	250	24		6	SITES W-24	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		
											KVA / PHASE TOTAL:	144.3	144		
											AMP / PHASE TOTAL:	1203	1200		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP11W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
SW CORNER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-13	2	250	24		2	SITES W-14	2	250	24			
							24						24		
		3	SITES W-15	2	250	24		4	SITES W-16	2	250	24			
							24						24		
		5	SITES W-17	2	250	24		6	SITES W-18	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		
											KVA / PHASE TOTAL:	144.3	144		
											AMP / PHASE TOTAL:	1203	1200		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP10W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BLUE CAMP
WEST CENTER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE B-20	2	250	24		2	SITES B-21	2	250	24			
							24						24		
		3	SITES B-22	2	250	24		4	SITES B-23	2	250	24			
							24						24		
		5	SITES B-24	2	250	24		6	EXISTING TICKET LOADCENTER	2	50	4			
							24						4		
		7	POLE LIGHT	1	20	0.4		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.4	72				TOTAL:	52.1	52		
												72.4	72		
											KVA / PHASE TOTAL:	124.5	124		
											AMP / PHASE TOTAL:	1038	1033		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 248.50 KVA
TOTAL CONNECTED CURRENT: 1035.42 AMPS
TOTAL DEMAND CURRENT: 1035.83 AMPS

PANELBOARD DP9W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BLUE CAMP
EAST CENTER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE B-14	2	250	24		2	SITES B-15	2	250	24			
							24						24		
		3	SITES B-16	2	250	24		4	SITES B-17	2	250	24			
							24						24		
		5	SITES B-18	2	250	24		6	SITES B-19	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		
											KVA / PHASE TOTAL:	144.3	144		
											AMP / PHASE TOTAL:	1203	1200		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP8W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
SW CORNER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-7	2	250	24		2	SITES W-8	2	250	24			
							24						24		
		3	SITES W-9	2	250	24		4	SITES W-10	2	250	24			
							24						24		
		5	SITES W-11	2	250	24		6	SITES W-12	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		
											KVA / PHASE TOTAL:	144.3	144		
											AMP / PHASE TOTAL:	1203	1200		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP7W SCHEDULE

SERVICE: 240/120 VOLT, 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
SE CORNER

REV NO.	NOTE NO.	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-1	2	250	24		2	SITES W-2	2	250	24			
							24						24		
		3	SITES W-3	2	250	24		4	SITES W-4	2	250	24			
							24						24		
		5	SITES W-5	2	250	24		6	SITES W-6	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		
											KVA / PHASE TOTAL:	144.3	144		
											AMP / PHASE TOTAL:	1203	1200		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546

MEP Engineer:

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Profession Name: Professional Engineering Corporation
Licensee Number: E-2074-F

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF AGRICULTURE

UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS
2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES -WEST

SHEET NUMBER:
E602

SHEET 16 OF 20
08/29/2019

PANELBOARD DP1G SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 800 AMP
MAINS: MCB / 800 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: GOLD
EAST SIDE

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITES GOLD 19	2	125	24		2	SITES GOLD 20	2	125	24			
							24						24		
		3	SITES GOLD 21	2	125	24		4	EXISTING LOADCENTER - NORTH GOLD	2	100	9.6		1	
							24						9.6		
		5	POLE LIGHT	1	20	0.2		6	J-BOX - OWNER WIFI	1	20	0.1			
		7	SPARE	1	20			8	SPARE	1	20				
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	48.2	48				TOTAL:	33.7	33.6		
												48.2	48		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.

1 - COORDINATE BREAKER SIZE WITH EXISTING EQUIPMENT.

KVA / PHASE TOTAL: 81.9 81.6
AMP / PHASE TOTAL: 683 680

TOTAL CONNECTED LOAD: 163.50 KVA
TOTAL CONNECTED CURRENT: 681.25 AMPS
TOTAL DEMAND CURRENT: 681.25 AMPS

PANELBOARD DP17W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 65000 A.I.C.
LOCATION: WHITE CAMP
NE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-37-38	2	250	24		2	SITES W-39-40	2	250	24			
							24						24		
		3	SITES W-41-42	2	250	24		4	SITES W-43-44	2	250	24			
							24						24		
		5	SITES W-45-46	2	250	24		6	SITES W-47-48	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.3 144
AMP / PHASE TOTAL: 1203 1200

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP16W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 800 AMP
MAINS: MCB / 800 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 65000 A.I.C.
LOCATION: BLUE CAMP
NW CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE B-29-30	2	250	24		2	SITES B-31-32	2	250	24			
							24						24		
		3	SITES B-33-34	2	250	24		4	SPARE	2	125				
							24								
		5	POLE LIGHT	1	20	0.2		6	J-BOX - OWNER WIFI	1	20	0.1			
		7	SPARE	1	20			8	SPARE	1	20				
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	48.2	48				TOTAL:	24.1	24		
												48.2	48		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.

KVA / PHASE TOTAL: 72.3 72
AMP / PHASE TOTAL: 603 600

TOTAL CONNECTED LOAD: 144.30 KVA
TOTAL CONNECTED CURRENT: 601.25 AMPS
TOTAL DEMAND CURRENT: 601.25 AMPS

PANELBOARD DP15W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1000 AMP
MAINS: MCB / 1000 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: BROWN/BLUE CAMP
NE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE BR-91-94	2	250	24		2	SITES BR-67-90	2	250	24			
							24						24		
		3	SITES BR-85-86	2	125	12		4	SITES BLUE B-25-26	2	250	24			
							12						24		
		5	SITES BLUE B-27-28	2	250	24		6	SITES BLUE B-25-26	2	125				
							24								
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	60.2	60				TOTAL:	48.1	48		
												60.2	60		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.

KVA / PHASE TOTAL: 108.3 108
AMP / PHASE TOTAL: 903 900

TOTAL CONNECTED LOAD: 216.30 KVA
TOTAL CONNECTED CURRENT: 901.25 AMPS
TOTAL DEMAND CURRENT: 901.46 AMPS

PANELBOARD DP14W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
NW CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-31	2	250	24		2	SITES W-32	2	250	24			
							24						24		
		3	SITES W-33	2	250	24		4	SITES W-34	2	250	24			
							24						24		
		5	SITES W-35	2	250	24		6	SITES W-36	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.3 144
AMP / PHASE TOTAL: 1203 1200

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

PANELBOARD DP13W SCHEDULE

SERVICE: 240/120 VOLT , 1 - PHASE , 3 - WIRE
AMP: 1200 AMP
MAINS: MCB / 1200 AMP MAIN BREAKER
BUS: COPPER, S/N ,GND BUS
MOUNTING: SURFACE
RATING: 42000 A.I.C.
LOCATION: WHITE CAMP
NE CORNER

REV NO.	NOTE NO.	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	LOAD CRT#	LOAD DESCRIPTION	BRKR P	BRKR AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITE W-25	2	250	24		2	SITES W-26	2	250	24			
							24						24		
		3	SITES W-27	2	250	24		4	SITES W-28	2	250	24			
							24						24		
		5	SITES W-29	2	250	24		6	SITES W-30	2	250	24			
							24						24		
		7	POLE LIGHT	1	20	0.2		8	J-BOX - OWNER WIFI	1	20	0.1			
		9	SPARE	1	20			10	SPARE	1	20				
		11	SPARE	1	20			12	SPARE	1	20				
		13	SPARE	1	20			14	SPARE	1	20				
		15	SPARE	1	20			16	SPARE	1	20				
		17	SPARE	1	20			18	SPARE	1	20				
		19	SPARE	1	20			20	SPARE	1	20				
					TOTAL:	72.2	72				TOTAL:	72.1	72		
												72.2	72		

NOTES:
PANELBOARD ENCLOSURE TO BE NEMA 3R.
MAIN BREAKER TO BE PROVIDED WITH REDUCED ENERGY LET-THRU MAINTENANCE SWITCH

KVA / PHASE TOTAL: 144.3 144
AMP / PHASE TOTAL: 1203 1200

TOTAL CONNECTED LOAD: 288.30 KVA
TOTAL CONNECTED CURRENT: 1201.25 AMPS
TOTAL DEMAND CURRENT: 1201.46 AMPS

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
MONICA SANTOYO SANTOS
NUMBER E-2000174546
REGISTERED PROFESSIONAL ENGINEER
8/29/2019

Monica S Santos
MO# E-2000174546

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF AGRICULTURE

UPGRADE WEST CAMPGROUND UTILITIES

MISSOURI STATE FAIRGROUNDS
2503 W 16TH STREET
SEDALIA, MISSOURI 65301

PROJECT # F1903-01
SITE # 1501
FACILITY # 3511501141

REVISION:
DATE:
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DATE:
ISSUE DATE: 08/29/2019

CAD DWG FILE:
DRAWN BY: PSJ
CHECKED BY: MSS
DESIGNED BY: PSJ

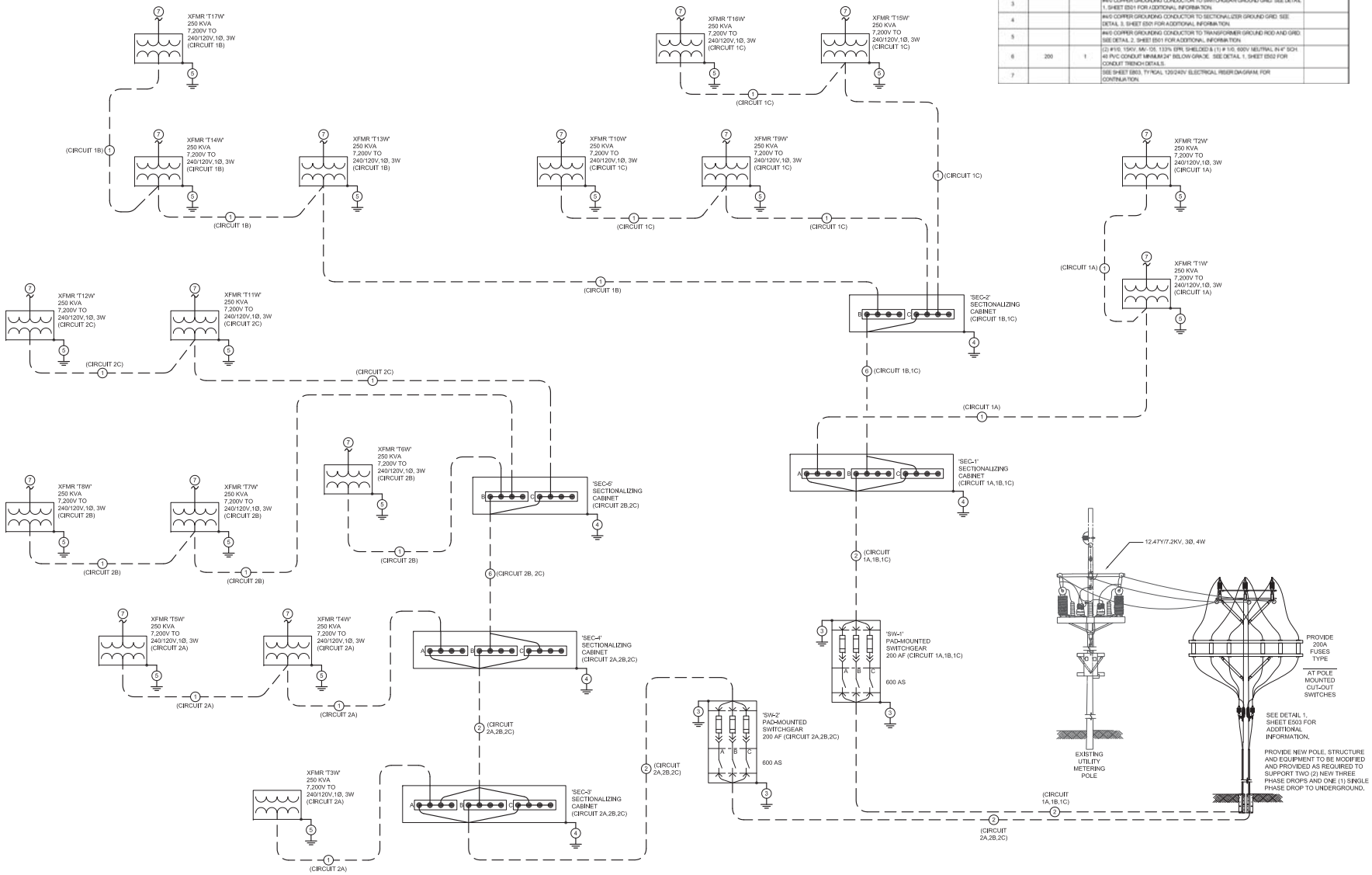
SHEET TITLE:
ELECTRICAL PANEL SCHEDULES -WEST

SHEET NUMBER:
E603

SHEET 17 OF 20
08/29/2019

MV FEEDER SCHEDULE

SYMBOL NUMBER	AMPACITY	NUMBER OF RUNS	FEEDER SIZE/NOTE	TEMP RATING
1	200	1	(1) #1/0, 15kV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS.	
2	200	1	(3) #1/0, 15kV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS.	
3			#4/0 COPPER GROUNDING CONDUCTOR TO SWITCHGEAR GROUND GRID. SEE DETAIL 1, SHEET ES01 FOR ADDITIONAL INFORMATION.	
4			#4/0 COPPER GROUNDING CONDUCTOR TO SECTIONALIZER GROUND GRID. SEE DETAIL 3, SHEET ES01 FOR ADDITIONAL INFORMATION.	
5			#4/0 COPPER GROUNDING CONDUCTOR TO TRANSFORMER GROUND ROD AND GRID. SEE DETAIL 2, SHEET ES01 FOR ADDITIONAL INFORMATION.	
6	200	1	(2) #1/0, 15kV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS.	
7			SEE SHEET E803, TYPICAL 120/240V ELECTRICAL RISER DIAGRAM, FOR CONTINUATION.	



1 MEDIUM-VOLTAGE ONE-LINE DIAGRAM - WEST
NO SCALE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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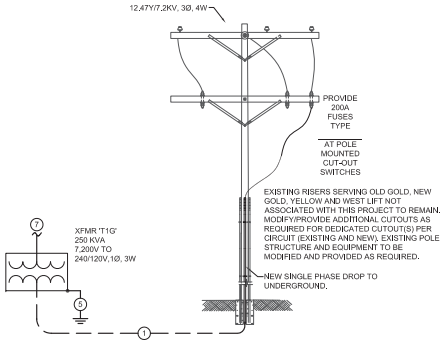
SHEET TITLE:
MEDIUM VOLTAGE ONE-LINE DIAGRAM-WEST

SHEET NUMBER:
E801

SHEET 18 0F 20
08/29/2019

MV FEEDER SCHEDULE

DIAGRAM NUMBER	AMPACITY	NUMBER OF RUNS	FEEDER SIZE/NOTE	TEMP RATING
1	200	1	(1) #1/0, 15KV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS	
2	200	1	(3) #1/0, 15KV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS.	
3			#4/0 COPPER GROUNDING CONDUCTOR TO SWITCHGEAR GROUND GRID. SEE DETAIL 1, SHEET ES01 FOR ADDITIONAL INFORMATION	
4			#4/0 COPPER GROUNDING CONDUCTOR TO SECTIONALIZER GROUND GRID. SEE DETAIL 3, SHEET ES01 FOR ADDITIONAL INFORMATION.	
5			#4/0 COPPER GROUNDING CONDUCTOR TO TRANSFORMER GROUND ROD AND GRID SEE DETAIL 2, SHEET ES01 FOR ADDITIONAL INFORMATION.	
6	200	1	(2) #1/0, 15KV, MV-105, 133% EPR, SHIELDED & (1) # 1/0, 600V NEUTRAL IN 4" SCH 40 PVC CONDUIT MINIMUM 24" BELOW GRADE. SEE DETAIL 1, SHEET ES02 FOR CONDUIT TRENCH DETAILS.	
7			SEE SHEET E803, TYPICAL 120/240V ELECTRICAL RISER DIAGRAM, FOR CONTINUATION.	



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SHEET TITLE:

MEDIUM VOLTAGE ONE-LINE DIAGRAM-GOLD

SHEET NUMBER:

E802

SHEET 19 0F 20
08/29/2019

LUMINAIRE SCHEDULE

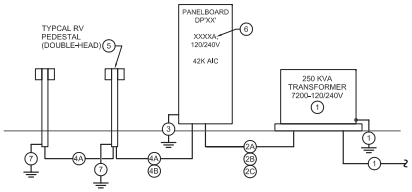
TYPE	MOUNTING	LAMPS	LUMENS	COLOR TEMP	CRI	WATTS	VOLTAGE	BASIS OF DESIGN MANUFACTURER	DESCRIPTION
A	POLE	LED	7000	5000 K	70	50	120/277 V	EATON CARETAKER LED CRTK2-C018-D-U-T5R-7050-WPBKT-B18-A-LLPC	EXTERIOR RATED AREA LUMINAIRE. TYPE 5 DISTRIBUTION. 0-10V DRIVER. ALUMINUM HOUSING, INTEGRAL PHOTOCELL FOR DUSK TO DAWN OPERATION, BRACKET FOR ROUND WOOD POLE MOUNTING AND 18 INCH ARM

GENERAL NOTES:

PROVIDE ALL REQUIRED ACCESSORIES/OPTIONS FOR A COMPLETE INSTALLATION.

120/240V FEEDER SCHEDULE

SYMBOL NUMBER	AMPACITY	NUMBER OF RUNS	FEEDER SIZE/NOTE	TEMP RATING
1			SEE MEDIUM VOLTAGE ONE-LINE DIAGRAMS, SHEET E801 AND E802 (WEST) AND E811 (INNER), FOR ADDITIONAL INFORMATION ON MEDIUM VOLTAGE SYSTEM AND ASSOCIATED EQUIPMENT	
2A	1200	4	(3) #350 KCMIL IN 3" CONDUIT TO MATCH ASSOCIATED PANELBOARD	90 DEG
2B	1000	3	(3) #400 KCMIL IN 3" CONDUIT TO MATCH ASSOCIATED PANELBOARD	90 DEG
2C	800	2	(3) #500 KCMIL IN 3-1/2" CONDUIT TO MATCH ASSOCIATED PANELBOARD	90 DEG
3			#3/0 COPPER GROUNDING CONDUCTOR TO 3/4" X 10' GROUND ROD	
4A	250	1	(3) #250 KCMIL & (1) # 4 GROUND IN 2-1/2" CONDUIT	90 DEG
4B	125	1	(3) #1 & (1) #6 GROUND IN 1-1/2" CONDUIT FOR SINGLE PEDESTAL INSTALLATIONS AS NOTED ON PLANS AND PANEL SCHEDULES.	90 DEG
5			PROVIDE NEW NEMA 3R, DIRECT BURIED, 125A, 120/240V, 1 PH, 3 WIRE DOUBLE SIDED PEDESTAL, (EATON CH4LN0G4N) WITH FULLY RATED LOOP-FEED LUG ASSEMBLY (MIN. #250 KCMIL) EACH SIDE TO INCLUDE: ONE (1) 20A, 1P, GFCI; ONE (1) 30A, 1P AND ONE (1) 50A, 2P BREAKER TO SERVE THE FOLLOWING RECEPTACLES: 20A NEMA 5-20 (WEATHER RESISTANT TYPE) , 30A NEMA TT-30 AND 50A, NEMA 14-50R.	
6			PANELBOARD TO BE 1200A, 1000A OR 800A RATED AS NOTED ON SCHEDULE.	
7			#6 COPPER GROUNDING CONDUCTOR TO 3/4" X 10' GROUND ROD	



1 120/240V TYPICAL ELECTRICAL RISER DIAGRAM
NO SCALE

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SHEET TITLE:
TYPICAL 120/240V ELECTRICAL RISER & LUMINAIRE SCHEDULE

SHEET NUMBER:
E803

SHEET 20 0F 20
08/29/2019