RESIDENTIAL QUICK REFERENCE

PROVO CITY POWER STANDARDS

ELECTRICAL ENGINEERING

UPDATED: 2013

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTIFICATION.
TEMPORARY CONSTRUCTION POWER:

ALL TEMPORARY ELECTRICAL SERVICE INSTALLATIONS SHALL MEET PROVO CITY ENERGY DEPARTMENT SPECIFICATIONS, NATIONAL ELECTRICAL CODE, AND NATIONAL ELECTRICAL SAFETY CODE LATEST REVISIONS. ADDRESS TO BE POSTED AT BUILDING SITE.

PROVO CITY REQUIRES OWNER/BUILDER TO SUPPLY AND INSTALL TEMPORARY POWER POLE INCLUDING METER BASE, DISCONNECTS AND OUTLETS. (SEE DRAWING #6 OR #8)

OWNER SHALL CONTACT PROVO CITY POWER. (ENGINEERING DIVISION) AT 251 WEST 800 NORTH PROVO, UT. TO MAKE APPLICATION FOR SERVICE.

TEMPORARY POWER CONNECTS ARE GENERALLY $200.00. ADDITIONAL CHARGES MAY BE NECESSARY DEPENDING ON SIZE AND TYPE OF TEMPORARY POWER REQUEST.

OWNER/BUILDER SHALL HAVE A PROVO CITY BUILDING PERMIT NUMBER PRIOR TO MAKING APPLICATION FOR TEMPORARY POWER.

TEMPORARY POWER INSPECTIONS WILL BE SCHEDULED ON A FIRST COME BASIS, ALL TEMPORARY POWER INSTALLATIONS SHALL BE INSPECTED BY PROVO CITY POWER (ENG. DIVISION) PRIOR TO CONNECTION. CALL 852-6999.

PERMANENT POWER:

ALL PERMANENT ELECTRICAL SERVICE INSTALLATIONS SHALL MEET PROVO CITY POWER SERVICE SPECIFICATIONS, NATIONAL ELECTRICAL CODE AND NATIONAL ELECTRICAL SAFETY CODE LATEST REVISIONS, NO CUSTOMER OWNED EQUIPMENT BETWEEN METER BASE AND METER. ADDRESS TO BE POSTED AT BUILDING SITE.

CONTACT PROVO CITY POWER. (ENGINEERING DIVISION) AT 251 WEST 800 NORTH PROVO, UT. FOR SERVICE SPECIFICATIONS OR CALL 852-6999.

APPLICATION FOR PERMANENT ELECTRICAL SERVICE MUST BE COMPLETED BY OWNER BUILDER/CONTRACTOR PRIOR TO CONNECTION OF PERMANENT ELECTRICAL SERVICE.

MAIN SERVICE DISCONNECT IS REQUIRED OUTSIDE AT THE METER LOCATION FOR ALL ELECTRICAL SERVICE INSTALLATIONS. PROVO CITY POWER SHALL INSPECT TRENCH AND CONDUIT INSTALLATION PRIOR TO BACKFILL. (CALL 852-6999 TO SCHEDULE ELECTRICAL SERVICE TRENCH INSPECTIONS)


ALL UNDERGROUND AND OVERHEAD ELECTRICAL SERVICES SHALL BE INSPECTED BY PROVO CITY BUILDING INSPECTION PRIOR TO CONNECTION BY PROVO CITY POWER. CALL 852-6450 TO SCHEDULE PERMANENT POWER INSPECTION.

ALL NEW DEVELOPMENTS WILL BE SERVICED UNDERGROUND; OWNER/DEVELOPER WILL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL UNDERGROUND CONDUIT, TRANSFORMER PADS/VAULTS, AND SECONDARY BOXES, GROUND SLEEVES WILL BE PROVIDED BY PROVO CITY POWER AND INSTALLED BY CONTRACTOR. THE UNDERGROUND ELECTRICAL DISTRIBUTION LAYOUT SHALL BE COMPLETED OR APPROVED BY PROVO CITY POWER ENGINEERING DIVISION.

ALL SERVICES OVER 200 AMPS REQUIRE SCH. 40 PVC CONDUIT AND CONDUCTOR TO BE SUPPLIED, INSTALLED, TERMINATED & MAINTAINED BY OWNER / CONTRACTOR PER NEC, FROM THE METER BASE TO THE POWER SOURCE SUPPLIED BY PROVO CITY. SERVICES 200 AMPS AND BELOW PROVO CITY WILL PROVIDE THE CONDUCTOR UP TO 75 FEET MAX. THE COST OF THESE CONDUCTORS IS INCLUDED IN THE STANDARD CONNECTION FEES. FOR LONGER LENGTHS CONSULT WITH PROVO CITY POWER FOR ADDITIONAL COST.
STANDARDS
UNDERGROUND SERVICE INSTALLATION
100-200 AMP (1 OR 3 PHASE)
(RESIDENTIAL, SMALL COMMERCIAL)

NOTES (FOR CONDUIT SYSTEM ONLY)
1. CUSTOMER TO FURNISH AND INSTALL CONDUIT FROM
TRANSFORMER/PEDESTAL, TO METER LOCATION.
2. CONTACT PROVO CITY POWER FOR TRENCH INSPECTION.
(852-6999) DO NOT BACKFILL PRIOR TO INSPECTION.
3. SEE TRENCH DETAIL DRAWING FOR SPECIFICATIONS.
4. TRENCH TO BE MIN. DEPTH OF 24".
5. PROVO CITY POWER TO SUPPLY CONDUCTOR AFTER INSPECTION
HAS BEEN COMPLETED BY BUILDING INSPECTION.
6. METER LOCATION TO BE APPROVED BY PROVO BUILDING
INSPECTION.

ADDRESS TO BE POSTED AT BUILDING

METER BASE &
MAIN SERVICE DISCONNECT
SECTION A-A

MAIN SERVICE DISCONNECT IS REQUIRED OUTSIDE AT
THE METER LOCATION

PROVO CITY POWER 852-6852
PROVO CITY BUILDING INSPECT 852-6450

4 AWG CONDUCTOR
5' TO 6' FROM FINAL GRADE
24" MIN.

CONDUCTIVE STEEL
REINFORCING RODS (REBAR) 1/2
IN. OR LARGER BONDED
TOGETHER BY STEEL TIE WIRE
THAT HAS A COMBINED LENGTH
OF 20 FT CAN SERVE AS THE
GROUNDING ELECTRODE.
CONTACT BUILDING INSPECTION
WITH QUESTIONS.

ANCHOR RISER CONDUIT TO FOUNDATION.
ANCHOR TO BE ABOVE FINAL GRADE.

CUSTOMER TO INSTALL MULE
TAPE IN ALL CONDUIT.

SCH. 40 PVC CONDUIT TO POWER SOURCE
SEE DRAWINGS 26A, 26B & 33 FOR CUSTOMER
INFORMATION AND SPECIFICATIONS AT
TRANSFORMER/PEDESTAL.

GRS OR IMC CONDUIT INSTALLED BELOW GRADE
SHALL BE SUITABLY COVERED FOR CORROSION
PROTECTION

ALL NON-CURRENT CARRYING METALLIC
PARTS TO BE BONDED TO NEUTRAL AND
EFFECTIVELY GROUNDED -AS PER NEC
SEE DRAWINGS 28 & 29 FOR TYPICAL
GROUNDING AND BONDING DETAILS.
STANDARDS

UNDERGROUND RESIDENTIAL
RECESSED METER SERVICE
(AND REQUIRED RESIDENTIAL WORKING CLEARANCES)

MINIMUM 6' HEAD CLEARANCE TO FINAL GRADE

GAS METER

3' MIN.

2'MIN.

2'MIN.

3'MIN.

AT LEAST 2' OF CLEAR SPACE IS REQUIRED ON EACH SIDE OF THE METER SOCKET WITH 3' OF CLEAR AREA REQUIRED IN FRONT OF THE METER. THIS CLEAR SPACE SHALL EXTEND FROM THE FINAL GRADE UP TO THE REQUIRED 6' HEAD CLEARANCE. OBSTRUCTIONS THAT CAN HINDER MAINTENANCE OR READING OF METERS SUCH AS WOOD PILES, STAIRWAYS, WINDOW WELLS OR SHRUBS ARE PROHIBITED WITHIN THIS CLEAR AREA.

NOTE: THESE WORKING CLEARANCES APPLY TO BOTH OVERHEAD AND UNDERGROUND SERVICES.

CONTACT PROVO CITY POWER METERING DEPT FOR ANY QUESTIONS AT 852-6855

CONCRETE ENCASED ELECTRODE
STANDARDS

MULTI-METER INSTALLATION WITH
UNDERGROUND SERVICE 2-6 METERS
(SERVICES LARGER THAN 200 AMP, SELF-CONTAINED METERING)

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED - SEE DRAWINGS 28 & 29 FOR TYPICAL GROUNDING AND BONDING DETAILS.

PROVO CITY BUILDING INSPECTION SHALL INSPECT ELECTRICAL SERVICE PRIOR TO CONNECTION BY PROVO CITY POWER. CALL 852-6450 FOR INSPECTION

PROVO ENERGY DEPARTMENT SHALL DETERMINE LOCATION OF ALL METER EQUIPMENT. CONTACT SERVICE ENG. 852-6832 OR 852-6852.

NOTES
1. CONTRACTOR SHALL PREWIRE THE LINE SIDE OF THE METER SOCKET.
2. CONDUIT CLAMP MUST BE ABOVE GROUND.
3. CUSTOMER TO FURNISH, INSTALL AND MAINTAIN CONDUIT AND CONDUCTOR.
4. CALL 852-6999 FOR INSPECTION PRIOR TO BACKFILL OF TRENCH.
5. CALL 852-6450 FOR PERMANENT POWER INSPECTION.

SCH.40 PVC CONDUIT TO POWER SOURCE SEE DRAWING #26A, 26B & 33A FOR DETAIL ON CONDUIT AND CONDUCTOR INTO TRANSFORMER/PEDESTAL

GRS OR IMC CONDUIT INSTALLED BELOW GRADE SHALL BE SUITABLY COVERED OR TAPED FOR PROTECTION

CONDUIT/CONDUCTOR SIZE AS PER NEC REQUIREMENTS

LONG SWEEP ELBOW TO BE GRS OR IMC

3' MIN.

6' MAX. FROM FINAL GRADE

12"

24" MIN.
NOTES (FOR CONDUIT SYSTEM ONLY)

1. CUSTOMER TO FURNISH AND INSTALL CONDUIT FROM POLE AS SHOWN. CUSTOMER TO FURNISH ADDITIONAL 20' UV RATED PVC CONDUIT WITH STANDOFFS AND MOUNTING HARDWARE, TO BE INSTALLED BY PROVO CITY POWER.
2. CONTACT PROVO CITY POWER FOR TRENCH INSPECTION (852-6999) DO NOT BACKFILL PRIOR TO INSPECTION.
3. SEE TRENCH DETAIL DRAWINGS FOR SPECIFICATIONS
4. TRENCH TO BE MINIMUM DEPTH OF 24"
5. PROVO CITY POWER TO SUPPLY CONDUCTOR AFTER ALL INSPECTIONS HAVE BEEN COMPLETED.
PROVO CITY POWER 852-6832 OR 852-6852
PROVO CITY BUILDING INSPE. 852-6450

ADDRESS TO BE POSTED AT BUILDING

MAIN SERVICE DISCONNECT IS REQUIRED OUTSIDE AT THE METER LOCATION. METER LOCATION TO BE APPROVED BY PROVO CITY POWER

2 STAND OFF BRACKETS FOR EVERY 10' OF CONDUIT MINIMUM 6" STAND OFF, DO NOT BURY BRACKETS

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED - AS PER NEC
SEE DRAWINGS 28 & 29 FOR TYPICAL GROUNDING AND BONDING DETAILS

CUSTOMER TO INSTALL MULE TAPE IN CONDUIT WITH 24" LEAD AT BOTH ENDS. CAP AND/OR TAPE ALL CONDUIT OPENINGS WITH MULE TAPE LEADS SHOWING.

CONTACT BUILDING INSPECTION WITH QUESTIONS.
STANDARDS

TYPICAL RESIDENTIAL/SMALL COMMERCIAL
1 PHASE OVERHEAD SERVICE
(200 AMP MAX. FOR OVERHEAD SERVICE)

NOTES:
1. IF ACCESSIBLE TO TRUCK TRAFFIC, TO OTHER VEHICLES OVER 8' IN HEIGHT, OR TO RIDERS ON HORSEBACK, MINIMUM ATTACHMENT HEIGHT IS 16'; REFER TO NESC TABLE 232-1 & DRAWING 16.
2. IF THE SERVICE IS CROSSING THE ROOF FOR MORE THAN 6' HORIZONTALLY IN ANY DIRECTION, OR MORE THAN 4' HORIZONTALLY FROM THE NEAREST EDGE OF THE ROOF, REFER TO NESC 234C3 & DRAWING 17 FOR THE APPROPRIATE CLEARANCE:
4. SERVICE MAST MUST BE MOUNTED ON SIDE NEAREST POLE, PROVO CITY BUILDING INSPECTION TO APPROVE LOCATION.
5. PROVO CITY BUILDING INSPECTION TO INSPECT PRIOR TO CONNECTION. CALL 852-6450
6. USE OXIDE INHIBITOR WHEN TERMINATING ALUMINUM CONDUCTORS.
STANDARDS

TYPICAL RESIDENTIAL UNDER EAVES SERVICE INSTALLATION

(This is a non-standard installation and requires approval by Provo City Power) - (For multi level buildings only) - (200 Amp max. for overhead service)

NOTES:

1. If accessible to truck traffic or to other vehicles over 8' in height, or to riders on horseback, minimum clearance (& attachment height) is 16'; refer to NESC Table 232-1 & drawing 16. Clearances shown as 12' minimum are suitable for areas subject to pedestrians and restricted traffic only.

2. 2"x4" blocks between studs is suggested. Anchor to building frame at 24" centers.

3. Service mast must be mounted on side nearest pole, Provo City building inspection to approve location.

4. Provo City building inspection to inspect prior to connection. Call 852-6450

5. Use oxide inhibitor when terminating aluminum conductors.

DRAWING: DWG-02 REVISION 23-APR-2013

MAIN SERVICE DISCONNECT IS REQUIRED OUTSIDE AT THE METER LOCATION

ATTACHMENT HEIGHT: RECOMMENDED MIN. 16', BUT NOT LESS THAN 12' TO FINAL GRADE (COMMERCIAL ATTACHMENT HEIGHTS TO BE SPECIFIED BY PROVO CITY)

MULTIPLEX CABLE

MIN. 6"

12" MAX.

DRIP LOOP

SERVICE CLEVIS TO WITHSTAND 400 LBS. TENSION

2" RIGID OR IMC CONDUIT. (UP TO 200 AMP) SERVICE DROPS MAY BE ATTACHED TO THE MAST.

FOR CLEARANCE OF SERVICE DROPS SEE SECTION 230 OF THE NATIONAL ELECTRICAL SAFETY CODE AND DRAWINGS 16, 17 & 18.

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED - SEE DRAWINGS 28 & 29 FOR TYPICAL GROUNDING AND BONDING DETAILS.

CONDUCTIVE STEEL REINFORCING RODS (REBAR) 1/2 IN. OR LARGER BONDED TOGETHER BY STEEL TIE WIRE THAT HAS A COMBINED LENGTH OF 20 FT CAN SERVE AS THE GROUNDING ELECTRODE. CONTACT BUILDING INSPECTION WITH QUESTIONS.
O.H. TEMPORARY POWER
POST TYPE METER INSTALLATION

STANDARDS

POLE: 4"x4"x16' MIN.
MAXIMUM CAPACITY 200 AMP
3 WIRE METER SOCKET
2" GRS OR IMC CONDUIT MIN.
OUTLET RECEPTACLES, 2 WIRE, 120 VOLTS AND 3 WIRE, 240 VOLTS. BREAKER AND OUTLET CABINETS ARE REQUIRED TO BE WEATHERPROOF. GROUND FAULT CURRENT INTERRUPTORS ARE REQUIRED FOR ALL CIRCUITS

POLE: 4"x4"x16' MIN.
SUPPLIED & INSTALLED
BY: OWNER/CONTRACTOR

18" MIN. OF TAIL.
(NEUTRAL CONDUCTOR MUST BE WHITE OR IDENTIFIED.)

SECONDARY SERVICE CONDUCTOR BY: PROVO

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED-SEE DRAWINGS 28 & 29 FOR TYPICAL GROUNDING AND BONDING DETAILS.

NOTE:
SERVICE LENGTH TO BE MAXIMUM OF 80' TO NEAREST O.H. DISTRIBUTION POLE.

18" MAX.
6"

WEATHERPROOF
3 WIRE METER SOCKET
MAXIMUM CAPACITY 200 AMP

OUTLET RECEPTACLES, 2 WIRE, 120 VOLTS AND 3 WIRE, 240 VOLTS. BREAKER AND OUTLET CABINETS ARE REQUIRED TO BE WEATHERPROOF. GROUND FAULT CURRENT INTERRUPTORS ARE REQUIRED FOR ALL CIRCUITS

2"x4" BRACES
FRONT BRACE HIDDEN FOR CLARITY

STAKE AT EACH BRACE

CALL PROVO CITY POWER FOR INSPECTION: 852-6999

12 MIN.
5' TO 6' TO FINAL GRADE

8' X 5/8" GROUND ROD PER NEC

#6 CU MIN.

18"

8' X 5/8" GROUND ROD PER NEC

NOTE:
SERVICE LENGTH TO BE MAXIMUM OF 80' TO NEAREST O.H. DISTRIBUTION POLE.

ADDRESS TO BE POSTED ON TEMP POST

2" GRS OR IMC CONDUIT MIN.

WEATHERPROOF
3 WIRE METER SOCKET
MAXIMUM CAPACITY 200 AMP

OUTLET RECEPTACLES, 2 WIRE, 120 VOLTS AND 3 WIRE, 240 VOLTS. BREAKER AND OUTLET CABINETS ARE REQUIRED TO BE WEATHERPROOF. GROUND FAULT CURRENT INTERRUPTORS ARE REQUIRED FOR ALL CIRCUITS

2"x4" BRACES
FRONT BRACE HIDDEN FOR CLARITY

STAKE AT EACH BRACE

CALL PROVO CITY POWER FOR INSPECTION: 852-6999
STANDARDS

U.G. TEMPORARY POWER
POST TYPE METER INSTALLATION

METER SOCKET HEIGHT
5' TO 6' FROM FINAL GRADE

GROUND WIRE CONNECTED TO METER SOCKET NEUTRAL/ GROUND TERMINAL

#6 CU MIN. GROUND WIRE STAPLED TO POST

2" GRS OR IMC CONDUIT MIN.

WOODEN POST 4X4 MIN. PRESSURE TREATED. POST TO BE PLUMB. RISER CONDUIT TO BE SECURELY FASTENED TO POST.

COMPACTED BACK FILL TO STABILIZE PEDESTAL

24" MIN.

8' X 5/8" GROUND ROD TO BE LEFT EXPOSED UNTIL AFTER INSPECTION

STUB 30" OF WIRE INTO SECONDARY PEDESTAL

APPROPRIATELY SIZED TRIPLEX WIRE

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED - SEE DRAWINGS 28 & 29 FOR TYPICAL GROUNDING AND BONDING DETAILS.

ADDRESS TO BE POSTED ON TEMP POST

249 N

NOTES:
1. WEATHERPROOF, 3 WIRE, 240 VOLT, BREAKER AND OUTLET CABINETS ARE REQUIRED. GROUND FAULT CIRCUIT INTERRUPTERS ARE REQUIRED. (GFCI) ON ALL OUTLETS.
2. PEDESTAL AND RELATED EQUIPMENT FURNISHED BY CUSTOMER.
3. INSTALLATION BY CUSTOMER.
4. PEDESTAL MUST BE PLACED WITHIN 10 FEET AND NO CLOSER THAN 2 FEET TO EXISTING TRANSFORMER OR SECONDARY PULL BOX. DO NOT OBSTRUCT ACCESS TO POWER BOXES.
5. WIRE AND TRENCH TO BE FURNISHED BY CUSTOMER.
6. METER SHALL FACE STREET.
7. METER PEDESTAL TO BE INSPECTED BY PROVO CITY POWER. CALL 852-6999
8. CALL 852-6999 FOR ACCESS TO TRANSFORMER ENCLOSURES OR SECONDARY PEDESTALS.
9. TEMPORARY POWER REQUIREMENTS LARGER THAN 200A WILL BE APPROVED BY PROVO CITY BUILDING INSPECTION DEPARTMENT AND INSTALLED BY CUSTOMER.
NOTES:
1. WEATHERPROOF, 3 WIRE, 120/240 VOLT, BREAKER AND OUTLET CABINETS ARE REQUIRED. GFCI PROTECTION REQUIRED ON ALL OUTLETS.
2. PEDESTAL AND RELATED EQUIPMENT FURNISHED BY CUSTOMER.
3. INSTALLATION BY CUSTOMER.
4. PEDESTAL MUST BE PLACED WITHIN 10 FEET AND NO CLOSER THAN 2 FEET TO EXISTING TRANSFORMER OR SECONDARY PEDESTALS. DO NOT OBSTRUCT ACCESS TO POWER BOXES.
5. WIRE AND TRENCH TO BE FURNISHED BY CUSTOMER.
6. METER SHALL FACE STREET.
7. METER PEDESTAL TO BE INSPECTED BY PROVO CITY POWER. CALL 852-6999.
8. CALL 852-6999 FOR ACCESS TO TRANSFORMER ENCLOSURES AND SECONDARY PEDESTALS.
9. TEMPORARY POWER REQUIREMENTS LARGER THAN 200 AMPS WILL BE APPROVED BY PROVO CITY BUILDING INSPECTION DEPT AND INSTALLED BY CUSTOMER.
10. NEUTRAL AND GROUNDING CONDUCTORS SHALL BE BONDED AS PER NEC 250.146.
STANDARDS

CLEARANCES OF 600 VOLT SERVICE DROPS TO BUILDINGS, SIGNS, AND OTHER INSTALLATIONS TO WHICH ATTACHED (NESC RULE 234C3 & 235C1)

3' - IF ROOF IS NOT READILY ACCESSIBLE & MULTIPLEX CABLE (OR OPEN WIRE UP TO 300 VOLTS BETWEEN CONDUCTORS)

10' - IF ROOF IS READILY ACCESSIBLE TO PEDESTRIANS OR IF SERVICE CABLE IS 480 VOLT OPEN WIRE

MAXIMUM 6' HORIZONTAL WIRE IN ANY DIRECTION & MAXIMUM 4' HORIZONTAL TO NEAREST EDGE OF ROOF

SEE NOTE 1

OVER BUILDING, SIGN, OR OTHER INSTALLATION TO WHICH ATTACHED

18" - FOR NOT MORE THAN 6' HORIZONTAL WIRE/ 4' HORIZONTAL TO NEAREST EDGE OF ROOF OVERHANG & MULTIPLEX (OR OPEN WIRE EXCEPT 480 VOLTS)

SEE NOTE 2

OVER PORTION OF ROOF (OVERHANG)

3' - IF ROOF IS NOT READILY ACCESSIBLE & MULTIPLEX CABLE (OR OPEN WIRE UP TO 300 VOLTS BETWEEN CONDUCTORS)

8" - IF ROOF IS READILY ACCESSIBLE, OR FOR OPEN WIRE 480 VOLTS (WYE OR DELTA)

SEE NOTE 2

WINDOWS, DOORS, FIRE ESCAPES, ETC. (SEE NOTE 3)

3'

3'

8" (SEE NOTE 1)

TO WINDOWS, DOORS, FIRE ESCAPES, ETC.

MIN 24" IF DROPS FROM DIFFERENT POLES (NESC TABLE 233-1)

MIN 12" IF DROPS FROM SAME POLE

MIN 12"

SEE NOTE 4

BETWEEN ELECTRIC POWER & COMMUNICATION SERVICE DROPS

ELECTRIC SERVICE DROP

40" MIN

COMMUNICATION SERVICE DROP
STANDARDS

CLEARANCES OF 600 VOLT SERVICE DROPS TO BUILDINGS, SIGNS, AND OTHER INSTALLATIONS TO WHICH ATTACHED (NESC RULE 234C3 & 235C1)

SERVICE DROP CONDUCTORS SHALL NOT BE READILY ACCESSIBLE.

NOTES:

1. IF A ROOF OR BALCONY IS NOT READILY ACCESSIBLE TO PEDESTRIANS AND THE SERVICE CABLE IS MULTIPLEX (UP TO 600 VOLTS) OR IS INSULATED OPEN WIRE (UP TO 300 VOLTS BETWEEN CONDUCTORS, I.E. NOT INCLUDING 480 VOLT WYE OR DELTA), THE CLEARANCE MAY BE A MINIMUM OF 3 FEET PER NESC 234C3d(1) EXCEPTION 1. (NEC 230-24 ALSO REQUIRES 3' MINIMUM FOR UP TO 300 VOLTS BETWEEN CONDUCTORS AND A ROOF SLOPE OF AT LEAST 4" IN 12" TO BE CONSIDERED NOT ACCESSIBLE TO PEDESTRIANS.) NESC DEFINES A ROOF OR BALCONY READILY ACCESSIBLE TO PEDESTRIANS IF IT CAN BE CASUALLY ACCESSED THROUGH A DOORWAY, WINDOW, RAMP, STAIRWAY, OR PERMANENT LADDER (WITH ITS BOTTOM RUNG LESS THAN 8' FROM GROUND OR FROM PERMANENT ACCESSIBLE SURFACE) BY A PERSON, ON FOOT, WHO NEITHER EXERTS EXTRAORDINARY PHYSICAL EFFORT NOR EMPLOYS SPECIAL TOOLS OR DEVICES TO GAIN ENTRY. NESC SHALL GOVERN FROM THE UTILITY’S POLE TO THE DRIP LOOP AT THE CUSTOMER’S SERVICE ENTRANCE; NEC SHALL GOVERN FROM THAT DRIP LOOP INTO THE BUILDING.

2. WHERE NOT MORE THAN 6 FEET (MEASURED HORIZONTALLY) OF A SERVICE DROP PASSES OVER A ROOF TO TERMINATE AT A (THROUGH-THE-ROOF) SERVICE RACEWAY OR APPROVED SUPPORT LOCATED NOT MORE THAN 4' MEASURED HORIZONTALLY FROM THE NEAREST EDGE OF ROOF AND THE CABLE IS EITHER MULTIPLEX (UP TO 600 VOLTS), OR IS INSULATED OPEN WIRE (UP TO 300 VOLTS BETWEEN CONDUCTORS, I.E. NOT INCLUDING 480 VOLT WYE OR DELTA), THE CLEARANCE ABOVE THE ROOF MAY BE A MINIMUM OF 18". SEE THE PLAN VIEW SKETCH BELOW. (NEC 230-24 ALLOWS THE SAME 18" CLEARANCE FOR SERVICES UP TO 300 VOLTS BETWEEN CONDUCTORS AND SIMILAR OVERHANG.)

3. A CLEARANCE OF 3 FEET IN ANY DIRECTION FROM WINDOWS, DOORS, FIRE ESCAPES, OR SIMILAR LOCATIONS IS REQUIRED, EXCEPT IT DOES NOT APPLY TO:
   A. MULTIPLEX CABLE ABOVE THE TOP OF A WINDOW, OR
   B. WINDOWS THAT DO NOT OPEN.
   (NEC 230-9 REQUIRES THE SAME 3' OF CLEARANCE EXCEPT ABOVE THE TOP LEVEL OF A WINDOW; SERVICE CONDUCTORS ARE NOT ALLOWED BELOW WINDOWS OR OPENINGS THROUGH WHICH MATERIALS MAY BE MOVED, E.G. IN FARM OR COMMERCIAL BUILDINGS.)

4. PER NESC RULE 235C1 (EXCEPTION 3) A SPACE OF NOT LESS THAN 12" IS REQUIRED BETWEEN ELECTRIC SERVICE DROPS OF 0-600 VOLTS RUNNING ABOVE AND PARALLEL TO COMMUNICATION SERVICE DROPS. THIS APPLIES TO ANY POINT IN THE SPAN AS WELL AS AT THE BUILDING ATTACHMENT. OTHER CLEARANCES APPLY AT THE POLE. IF THESE SERVICES ARE RUN FROM DIFFERENT SUPPORT STRUCTURES, NESC TABLE 233-1 REQUIRES 24" VERTICAL CLEARANCE BETWEEN CONDUCTORS. COMMUNICATION CABLES SHOULD BE INSTALLED BELOW POWER SUPPLY CONDUCTORS WHENEVER POSSIBLE.

CAUTION:
ALL NESC VERTICAL CLEARANCES APPLY TO THE CONDUCTORS AT MAXIMUM FINAL SAG. ALLOW FOR 1.0 FOOT OF ADDITIONAL SAG FOR INCREASE FROM INITIAL SAG TO MAXIMUM FINAL CONDITIONS.
NOTES:
1. A FIFTH TERMINAL (STINGER) IS REQUIRED FOR 120/208 VOLT SERVICE.
2. WIRE SIZE RANGE:
   2.1 100 AMP SOCKET: LUGS SUITABLE FOR #6 - #2/0 STRANDED CU/AL CONDUCTORS.
   2.2 200 AMP SOCKET: LUGS SUITABLE FOR #2 - 350 KCMIL CU/AL CONDUCTORS.
3. APPROXIMATE DIMENSIONS:
   3.1 100 AMP SOCKET: 3-5/16"(D) X 8"(W) X 11-1/2"(H).
   3.2 200 AMP SOCKET: 4-3/8"(D) X 11"(W) X 15-1/2"(H).
4. CONTACT PROVO CITY POWER AT 852-6952 FOR SERVICE VOLTAGE INFORMATION.
STANDARDS

UNDERGROUND DISTRIBUTION SPECIFICATIONS (SINGLE PHASE)
FOR NEW DEVELOPMENT

2 STAND OFF BRACKETS FOR EVERY 10' OF CONDUIT. MINIMUM 6" STAND OFF, PROVIDED BY CUSTOMER INSTALLED BY PROVO CITY POWER.

UV RATED PVC SCH 40 CONDUIT, DIAMETER SIZE AS SPECIFIED FOR JOB. PROVIDED BY CUSTOMER INSTALLED BY PROVO CITY POWER.

RIGID METAL OR IMC CONDUIT FOR FIRST 10' SECTION AT THE POLE. MULE TAPE IN CONDUIT WITH 24" LEAD AT BOTH ENDS. CAP AND/OR TAPE ALL CONDUIT ENDS OPENINGS WITH MULE TAPE LEADS SHOWING. PROVIDED AND INSTALLED BY CUSTOMER.

GRS OR IMC ELBOW, 46" MIN. RADIUS FOR PRIMARY. GRS OR IMC CONDUIT INSTALLED BELOW GRADE SHALL BE SUITABLY COVERED FOR CORROSION PROTECTION.

GROUND RODS: 5/8" x 8'
GROUND ROD COPPER CLAD UL LISTED.

NOTES:
1. TRENCHES AND PAD MOUNT TRANSFORMER LOCATIONS MUST BE COMPACTED TO 95% COMPACTION.
2. ALL DEPTHS SHOWN MUST BE FROM FINISHED GRADE. YELLOW/RED WARNING TAPE TO BE PLACED IN TRENCH (2' ABOVE CONDUIT). MINIMUM DEPTH FOR PRIMARY CONDUIT IS 48"; FOR SECONDARY CONDUIT 36" OR 24" FOR STREET LIGHTS AND SERVICE CONDUITS TO A RESIDENCE. SEE TRENCH DETAIL DRAWINGS FOR SPECIFICATIONS.
3. PVC SCH. 40 4" OR LARGER REQUIRED FOR PRIMARY, 3" FOR SECONDARY, 3" FOR SERVICE CONDUITS TO A RESIDENCE, OR 2" FOR STREET LIGHTS.
4. ALL TRENCHES MUST BE LEFT OPEN UNTIL FINAL INSPECTION BY PROVO CITY POWER AT 852-6999.
NOTE:
1. PROVO CITY POWER TO APPROVE BACKFILL MATERIAL
2. PROVO CITY POWER SHALL INSPECT TRENCH/CONDUIT PRIOR TO BACKFILL.
3. SECONDARY DEPTH 36" MINIMUM.
4. SERVICE DEPTH 24" MINIMUM.
STANDARDS

TRANSFORMER & PADMOUNTED EQUIPMENT ACCESS-CLEARANCES

NOTE:
IN THE EVENT OF AN EQUIPMENT FAILURE OR POWER OUTAGE, IT IS NECESSARY FOR UTILITY CREWS TO HAVE ADEQUATE ACCESS TO PADMOUNTED EQUIPMENT AND TRANSFORMERS. ACCESS TO THE FRONT SHALL BE TEN FEET, ACCESS TO THE REAR AND SIDES SHALL BE THREE FEET. NO TREES, SHRUBS, FENCES, LARGE LANDSCAPE ROCKS, OR OTHER OBSTRUCTIONS SHALL BE PERMITTED IN ACCESS AREA.

NOTE FOR NEW SERVICES
1. PADMOUNTED EQUIPMENT, TRANSFORMERS AND SECONDARY PEDESTALS ARE LOCKED FOR PROTECTION AGAINST ELECTRICAL SHOCK.

2. WHEN INSTALLATION OF A NEW SERVICE REQUIRES ACCESS TO A TRANSFORMER OR PEDESTAL, OWNER/CONTRACTOR SHOULD CALL PROVO CITY POWER AT 852-6999.

3. ALL NEW CONDUIT RUNS SHALL BE INSTALLED BY CONTRACTOR INTO TRANSFORMER PEDESTAL WITH PROVO CITY POWER SUPERVISION.

4. BLUE STAKE LAWS PROHIBIT ANY DIGGING WITH EQUIPMENT WITHIN THE 2' SAFETY ZONE. PLEASE HAND DIG AROUND ANY ELECTRICAL EQUIPMENT.
SECONDARY PEDESTAL ACCESS-CLEARANCES

NOTE FOR NEW SERVICES

1. TRANSFORMERS AND SECONDARY PEDESTALS ARE LOCKED FOR PROTECTION AGAINST ELECTRICAL SHOCK.

2. WHEN INSTALLATION OF A NEW SERVICE REQUIRES ACCESS TO A TRANSFORMER OR PEDESTAL, OWNER\CONTRACTOR SHOULD CALL PROVO CITY POWER AT 852-6999.

3. ALL NEW CONDUIT RUNS SHALL BE INSTALLED BY CONTRACTOR INTO TRANSFORMER \PEDESTAL WITH PROVO CITY POWER SUPERVISION.

4. BLUE STAKE LAWS PROHIBIT ANY DIGGING WITH EQUIPMENT WITHIN THE 2' SAFETY ZONE. PLEASE HAND DIG AROUND ANY ELECTRICAL EQUIPMENT.