STANDARDS

ELECTRICAL SERVICE INFORMATION
(RESIDENTIAL, COMMERCIAL)

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

O.H. TEMPORARY POWER
POST TYPE METER INSTALLATION

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

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

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.

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

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

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

12" MAX.

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

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

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

12" MAX.

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

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.

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

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

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

12" MAX.

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

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

12" MAX.
STANDARDS

U.G. TEMPORARY POWER
POST TYPE METER INSTALLATION

249 N

ADDRESS TO BE POSTED ON TEMP POST

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" GR&S 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 48" OF WIRE INTO DE-ENERGIZED SECONDARY PEDESTAL. IF PEDESTAL IS ENERGIZED REFER TO DWG-36 FOR WIRE INSTALLATION

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.

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.
STANDARDS
TEMPORARY POWER METER PEDESTAL

ALL NON-CURRENT CARRYING METALLIC PARTS TO BE BONDED TO NEUTRAL AND EFFECTIVELY GROUNDED. SEE #10 BELOW.

PEDESTAL SHALL BE WEATHERPROOF

OUTLET RECEPTACLES

3 WIRE METER SOCKET

ADDRESS TO BE POSTED ON TEMP. PEDESTAL

STUB 48" OF WIRE INTO DE-ENERGIZED SECONDARY PEDESTAL. IF PEDESTAL IS ENERGIZED, REFER TO DWG-36 FOR WIRE INSTALLATION

TO BE LEFT EXPOSED UNTIL AFTER INSPECTION

SECONDARY PEDESTAL

COMPACTED BACK FILL

#6 CU MIN.

8" X 5/8" GROUND ROD

APPROPRIATELY Sized TRIPLEX WIRE 18" MIN. DEPTH

BURY TO GRADE LINE ON PEDESTAL

32"

72"

40"

24"

MIN.

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, WITHIN 2' FROM POWER BOX.
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.
UNDERGROUND RESIDENTIAL
RECESSED METER SERVICE

AND REQUIRED RESIDENTIAL WORKING CLEARANCES

MINIMUM 6’ HEAD CLEARANCE TO FINAL GRADE

CONCRETE ENCASED ELECTRODE

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
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. 852-6532 OR 852-6552.

3' MIN

6' MAX. FROM FINAL GRADE

12"

24" MIN.

ALL GRS OR IMC CONDUIT INSTALLED BELOW GRADE SHALL BE WRAPPED WITH CORROSION PROTECTION TAPE.

CONDUIT/CONDUCTOR SIZE AS PER NEC REQUIREMENTS

LONG SWEEP ELBOW TO BE GRS OR IMC

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

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.
STANDARDS
OVERHEAD TO 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 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 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

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

OVERHEAD PRIMARY CONDUCTORS
FIELD ENGINEER TO SPECIFY ONE OF FOUR QUADRANTS FOR RISER LOCATION

SECONDARY PEDESTAL PENCIL AG-20HD
3" GRS OR IMC CONDUIT

ANCHOR RISER CONDUIT TO FOUNDATION. ANCHOR TO BE ABOVE FINAL GRADE
METAL CONDUIT INSTALLED BELOW GRADE SHALL BE WRAPPED WITH CORROSION PROTECTION TAPE
RIGID OR IMC COUPLING
3" GRS, IMC LONG SWEEP ELBOW

CONDUCTIVE STEEL REINFORCING RODS (REBAR) \( \frac{1}{2} \) 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.

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

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.

NOTES:
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)

1. If accessible to truck traffic or to other vehicles over 8' in height, or to riders on horseback, minimum clearance (and 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.

NOTES:

- 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.

- All non-current carrying metallic parts to be bonded to neutral and effectively grounded - see drawings 28 & 29 for typical grounding and bonding details.

- For clearance of service drops see section 230 of the National Electrical Safety Code and drawings 16, 17 & 18.

- Termination: 4 AWG conductor

- Driveway: Minimal 6" final grade

- Service drops: Recommended min. 16', but not less than 5' to final grade

- Multiplex cable: Min. 6"

- Service clevis to withstand 400 lbs. tension

- Drip loop: 12" max.

- 2" rigid or IMC conduit. (Up to 200 Amp)

- Service drops may be attached to the mast.
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

OVER BUILDING, SIGN, OR OTHER INSTALLATION TO WHICH ATTACHED

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

SEE NOTE 1

OVER PORTION OF ROOF (OVERHANG)

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

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)

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

3'

8' (SEE NOTE 1)

BALCONY (OR DECK) READILY ACCESSIBLE TO PEDESTRIANS

TO WINDOWS, DOORS, FIRE ESCAPES, ETC.

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

MIN 12' IF DROPS FROM SAME POLE

ELECTRIC SERVICE DROP

40'MIN

COMMUNICATION SERVICE DROP

BETWEEN ELECTRIC POWER & COMMUNICATION SERVICE DROPS

DRAWING: DWG-17A  REVISED 30-APR-2013
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 EMPLOY 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.)

![Plan View Sketch]

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.
STANDARDS

METER SOCKET WIRING DIAGRAM
SINGLE PHASE, 3 WIRE, 120/240 VOLT
OR
120/208 VOLT, 3 WIRE, NETWORK
(100 OR 200 AMP SOCKET; RESIDENTIAL OR COMMERCIAL)

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 COSTUMER INSTALLED BY PROVO CITY POWER.

UV RATED PVC SCH 40 CONDUIT, DIAMETER SIZE AS SPECIFIED FOR JOB. PROVIDED BY COSTUMER 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

CONDUIT DETAILS TOP VIEW

4" CONDUITS

GROUND ROD

3/8" x 8'

PRIMARY SECTIONALIZER/SWITCH

3" CONDUITS OUT

4" CONDUIT IN

SECONDARY PEDESTAL

3" CONDUIT IN

GROUND ROD

3/8" x 8'

TRANSFORMER

SECONDARY PEDESTAL

PENCELL #AG-20HD-XCL

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

REQUIRED TRENCH AND FINAL INSPECTIONS

FOR PROJECTS:

FOR MAIN LINE TRENCH INSPECTIONS:
CALL AFTER CONDUIT HAS BEEN PLACED IN TRENCH AND 12” OF SAND HAS BEEN PLACED ON CONDUIT. TRENCH MUST BE LEFT OPEN FOR INSPECTION OR YOU WILL BE ASKED TO RE-OPEN TRENCH FOR INSPECTION AND FOR INSPECTOR TO GPS CONDUIT LOCATION.
CALL THE PROJECT ENGINEER YOU HAVE BEEN WORKING WITH.
PROVO POWER ENGINEERING: 801 852-6852

SERVICE TRENCH INSPECTIONS:
CALL FOR TRENCH INSPECTION BEFORE DOING ANY BACKFILL ON TRENCH.
PROVO CITY POWER DISPATCH: 801 852-6999

TO HAVE CONDUIT ELBOWS PLACED INTO EXISTING POWER EQUIPMENT:
CALL AFTER TRENCH HAS BEEN OPENED TO BASE OF POWER EQUIPMENT, CONDUIT HAS BEEN INSTALLED AND LEFT 2’ SHORT OF POWER EQUIPMENT AND FIBERGLASS ELBOW HAS BEEN LEFT ON SITE FOR OUR CREW TO INSTALL. NEVER PLACE CONDUIT INTO LIVE EQUIPMENT.
PROVO CITY POWER DISPATCH: 801 852-6999

FOR FINAL PROJECT INSPECTION:
CALL WHEN BOXES ARE INSTALLED AT PROPER HEIGHT AND ARE LEVEL, GROUND RODS HAVE BEEN INSTALLED, MULE TAPE HAS BEEN PLACED IN CONDUIT, AND CONDUIT IS AT PROPER HEIGHT. CALL THE PROJECT ENGINEER YOU HAVE BEEN WORKING WITH.
PROVO POWER ENGINEERING: 801 852-6852
STANDARDS

U.G. POWER INSTALLATION
EXISTING ENERGIZED EQUIPMENT

1. CONNECTING TO A SECTIONALIZER

2. CONNECTING TO A PEDESTAL

3. CONNECTING TO A TRANSFORMER

NOTES:
1. FOR SAFETY REASONS DO NOT INSTALL CONDUITS/CONDUCTORS INSIDE ENERGIZED EQUIPMENT.
2. STOP INSTALLATION OF CONDUITS/CONDUCTORS A MAXIMUM OF 2 FEET FROM ENERGIZED EQUIPMENT.
3. EXTEND TRENCH TO THE EDGE OF THE EQUIPMENT.
4. CONTRACTOR TO SUPPLY SWEEP & ADDITIONAL CONDUIT TO COMPLETE INSTALLATION BY PROVO POWER.
5. CONTACT PROVO POWER AND NOTIFY CREWS FOR INSTALLATION OF CONDUIT/CONDUCTORS INTO ENERGIZED EQUIPMENT.
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.
NOTE:
IN THE EVENT OF AN EQUIPMENT FAILURE OR POWER OUTAGE, IT IS NECESSARY FOR PROVO CITY CREWS TO HAVE ADEQUATE ACCESS TO SECONDARY PEDESTAL LIDS. ACCESS TO THE FRONT AND SIDES AND REAR SHALL BE 2 FEET. NO TREES, SHRUBS, FENCES, LARGE LANDSCAPE ROCKS, OR OTHER OBSTRUCTIONS SHALL BE PERMITTED IN ACCESS AREA.

NOTE FOR NEW SERVICES

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