Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
Bonifacio Drive, Port Area Manila

BAGONG PILIPINAS

037.13 DPWH
02.20.2025

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DEPARTMENT ORDER)
)
NO. 37)
Series of 2025
on 2/20/2025

SUBJECT: DPWH Standard Specification for Item 1101 – Wires, Cables and Wiring Devices

To support the Department's commitment in updating its standard specifications and adopting effective/appropriate solutions for specific project needs, the attached revised Standard Specification for **Item 1101 – Wires, Cables and Wiring Devices** is hereby prescribed for adoption in DPWH infrastructure projects.

This revised standard specification shall form part of the DPWH Standard Specifications for Public Works Structures (Buildings, Ports and Harbors, Flood Control and Drainage Structures, and Water Supply Systems), Volume III. Likewise, the additional pay item subscript is now included in the Standard Pay Item List and Project and Contract Management Application (PCMA).

This Order shall take effect immediately.

MANUEL M. BONOAN
Secretary

Department of Public Works and Highways
Office of the Secretary
WIN5U02117

Encl.: DPWH Standard Specification for Item 1101 – Wires, Cables and Wiring Devices

14.1 JDV/AGC

DPWH Standard Specification for
Item 1101 – Wires, Cables and Wiring Devices

1101.1 Description

This Item shall consist of furnishing and installation of all wires and wiring devices consisting of electric wires and cables, wall switches, convenience receptacles, heavy duty receptacles and other devices in accordance with the approved Plans and this Specification.

1101.2 Material Requirements

1101.2.1 Wires and Cables

1101.2.1.1 Wires

All wires shall meet the requirements specified in the Philippine Electrical Code (PEC), Part 1 and PNS 35-1, Electric wires and cables – Thermoplastic-insulated copper wires and cables rated 600 volts – Part 1: General Specifications, and shall bear the Philippine Standard (PS) mark unless specified or indicated otherwise and shall be marked to indicate the following information:

1. The maximum rated voltage

2. The proper type letter or letters for the type of wire or cable as specified in the PEC Part 1

3. The manufacturer's name, trademark, or other distinctive marking by which the organization responsible for the product can be readily identified

4. The size in square millimeter or millimeter diameter

5. Cable assemblies where the neutral wire is smaller

The letters such as TW, THHN, THWN and THW represent the main insulation types of individual wires. These letters depict the following requirements:

1. T – Thermoplastic Insulation
2. H – Heat Resistance
3. HH – High Heat Resistance
4. W – Suitable for Wet locations
5. N – Thermoplastic Polyester, Tough and Very Resistant to Gas and Oil
6. X – Flame-Resistant Synthetic Polymer
7. Z – Modified ethylene tetrafluoroethylene

Conductors shall be insulated for 600 V and shall be aluminum, copper-clad aluminum, or copper unless otherwise specified. The minimum diameter size of conductors shall be 1.6 mm (2.0 mm^2) for copper and 2.0 mm (3.5 mm^2) for aluminum or copper-clad aluminum conductors. Solid aluminum conductors of diameters 3.2 mm, 2.6 mm, and 2.0 mm shall be made of an AA-8000 series electrical grade aluminum alloy conductor material. Stranded aluminum conductors 8.0 mm^2 through 500 mm^2 marked as Type RHH, RHW, XHHW, THW,

THHW, THWN, THHN, service-entrance Type SE Style U and SE Style R shall be made of an AA-8000 series electrical grade aluminum alloy conductor material.

Ampacities for conductors shall be as specified in the PEC Part 1. Where bare or covered conductors are used with insulated conductors, their allowable ampacities shall be limited to those permitted for the adjacent insulated conductors.

1101.2.1.2 Cables

1. Armored Cables (Type AC)

Type AC shall have ready identification of the manufacturer by distinctive external markings on the cable sheath throughout its entire length.

Type AC cable shall have an armor of flexible metal tape and shall have an internal bonding strip of copper or aluminum in intimate contact with the armor for its entire length. Insulated conductors of type AC shall be of type listed in the PEC Part 1. In addition, the conductors shall have an overall moisture-resistant fibrous covering and fire-retardant fibrous covering. For Type ACT, a moisture-resistant fibrous covering shall be required only on the individual conductors.

2. Flat Cable Assemblies (Type FC)

Flat cable assemblies shall consist of two (2), three (3), four (4), or five (5) conductors. The conductors shall be 5.5 mm^2 (2.6 mm dia.) special stranded copper wires. Type FC cable shall have the temperature rating durably marked on the surface at intervals not exceeding 600 mm.

3. Flat Conductor Cable (Type FCC)

Type FCC cable shall be clearly and durably marked on both sides at intervals of not more than 600 mm with the information required by the PEC Part 1. It shall consist of three (3), four (4), or five (5) flat copper conductors, one of which shall be an equipment grounding conductor. The insulating material of the cable shall be moisture resistant and flame retardant.

4. Integrated Gas Spacer Cable (Type IGS)

The conductors shall be solid aluminum rods, consisting of one (1) to nineteen (19) 13 mm diameter rods. The minimum conductor size shall be 125 mm^2, and the maximum size shall be 2375 mm^2. The insulation shall be dry kraft paper tapes and a pressurized sulfur hexafluoride gas (SF6), both approved for electrical use. The nominal gas pressure shall be 138 kPa gauge.

5. Medium Voltage Cable (Type MV)

Type MV cables shall have copper, aluminum, or copper-clad aluminum conductors and shall be marked as required by the PEC Part 1.

6. Metal-Clad Cable (Type MC)

The conductors for type MC shall be of copper, aluminum, or copper-clad aluminum, solid or stranded. The minimum conductor size shall be 0.75 mm^2 (1.0 mm dia.) copper and 3.5 mm^2 (2.0 mm dia.) aluminum or copper-clad aluminum. Metallic covering shall be one of the following types: smooth metallic sheath, corrugated metal sheath or interlocking metal tape armor. The metallic sheath or armor shall be used on single conductor type MC. Supplemental protection of an outer covering of corrosion-resistant material shall be permitted and shall be required where such protection is needed. The sheath shall not be used as current-carrying conductor.

7. Mineral-Insulated, Metal-Sheathed Cable (Type MI)

Type MI cable conductors shall be of solid copper, nickel, or nickel-coated copper with a resistance corresponding to standard mm^2 and mm dia. sizes. The conductor insulation in Type MI cable shall be a highly compressed refractory mineral that provides proper spacing for all conductors.

8. Non-metallic - Sheathed Cable (Types NM, NMC, and NMS)

The 600 volt insulated conductors shall be sizes 2.0 mm^2 (1.6 mm dia.) through 30 mm^2 copper conductors or sizes 3.5 mm^2 (2.0 mm dia.) through 2.0 mm^2 aluminum or copper-clad aluminum conductors. The signaling and communication conductors shall comply with the PEC Part 1. The insulated power conductors shall be one of the types listed in the PEC Part 1 that are suitable for branch circuit wiring or one that is identified for use in these cables. *Conductor insulation shall be rated at 90°C.*

The outer sheath of non-metallic-sheathed cable shall comply with the following:

a. Type NM – The overall covering shall be flame retardant and moisture resistant.

b. Type NMC – The overall covering shall be flame retardant, moisture resistant, fungus resistant, *and corrosion resistant.*

c. Type NMS – The overall covering shall be flame retardant and moisture resistant. The sheath shall be applied so as to separate the power conductors from the communications and signaling conductors. The signaling conductors shall be permitted to be shielded. An optional outer jacket shall be permitted.

9. Power and Control Tray Cable (Type TC)

A metallic sheath or armor shall not be permitted either under or over the nonmetallic jacket. Metallic shield(s) shall be permitted over groups of conductors, under the outer jacket, or both. The insulated conductors of Type TC tray cable shall be in sizes 0.75 mm^2 (1.0 mm dia.) through 500 mm^2 aluminum or copper-clad aluminum. Insulated conductors of sizes 2.0 mm^2 (1.6 mm dia.) and larger copper and sizes 3.5 mm^2 (2.0 mm dia.) and larger aluminum or copper-clad aluminum shall be one of the types listed in the PEC Part 1 that is suitable for branch circuit and feeder circuits or one that is defined for such use.

The outer jacket for Type TC shall be a flame-retardant, nonmetallic material. There shall be no voltage marking on a Type TC cable employing thermocouple extension wire.

10. Service-Entrance Cable (Type SE and USE)

Cabled, single-conductor, Type USE constructions recognized for underground use shall be permitted to have a bare copper conductor cable with the assembly. Type USE single, parallel, or cabled conductor assemblies recognized for underground use shall be permitted to have a bare copper concentric conductor applied. These constructions shall not require an outer overall covering. Type SE or USE cable containing two or more conductors shall be permitted to have one conductor uninsulated.

11. Underground Feeder and Branch-Circuit Cable (Type UF)

The conductors shall be sizes 2.0 mm^2 (1.6 mm dia.) copper or 3.5 mm^2 (2.0 mm dia.) aluminum or copper-clad aluminum through 100 mm^2. The conductors of Type UF shall be moisture-resistant type that is suitable for branch-circuit wiring or one that is identified for such use. Where installed as a substitute wiring method for NM cable, the conductor insulation shall be rated 90°C. The overall covering shall be flame retardant; moisture, fungus, and corrosion resistant; and suitable for direct burial in the earth.

1101.2.2 Switches

All switches shall conform to the requirements of the PEC Part 1. Switches shall be marked with the current voltage, and, if horsepower rated, the maximum rating for which they are designed. They shall be of the externally type mounted in an enclosure listed for the intended use.

Metal faceplates for switches shall be of ferrous metal not less than 0.75 mm in thickness or of non-ferrous metal not less than 1.00 mm in thickness. Faceplates of insulating material shall be non-combustible and not less than 0.25 mm in thickness, but they shall not be permitted to be less than 0.25 mm in thickness if formed or reinforced to provide adequate mechanical strength.

1101.2.3 Receptacles

All receptacles shall conform to the requirements of the PEC Part 1. Receptacles shall be listed and marked with the manufacturer's name or identification and voltage and ampere ratings. The rating for receptacles shall not be less than 15 A, 125 V, or 15 A, 250 V. Table 1101.1 shows the receptacle ratings for various size circuits.

Table 1101.1 Receptacle Rating for Various Size Circuits

Circuit Rating (Amperes, A)	Receptacle Rating (Amperes, A)
15	15 Not over
20	15 or 20
30	30
40	40 or 50
50	50

Metal faceplates for receptacles shall be of ferrous metal not less than 0.75 mm in thickness or of non-ferrous metal not less than 1.00 mm in thickness. Faceplates of insulating material shall be non-combustible and not less than 0.25 mm in thickness if formed or reinforced to provide adequate mechanical strength.

1101.3 Construction Requirements

Installation of electric wiring and wiring devices shall comply with the governing laws and applicable codes and standards such as the PEC Part 1 and Safety Standards.

1101.3.1 Installation

1101.3.1.1 Conductors

1. Conductors of the Same Circuit

All conductors of the same circuit and, where used, the grounded conductor and all equipment grounding conductors and bonding conductors shall be contained within the same raceway, auxiliary gutter, cable tray, cable bus assembly, trench, cable, or cord, unless otherwise permitted in accordance with the PEC 1.

a. Paralleled Installations

Conductors shall be permitted to be run in parallel in accordance with the provisions of the PEC Part 1. The requirement to run all circuit conductors within the same raceway, auxiliary gutter, cable tray, trench, cable, or cord shall apply separately to each portion of the paralleled installation, and the equipment grounding conductors shall comply with the provisions of the PEC Part 1. Parallel runs in cable tray shall comply with the provisions of the PEC Part 1.

b. Grounding and Bonding Conductors

Equipment grounding conductors shall be permitted to be installed outside a raceway or cable assembly in accordance with the provisions of the PEC Part 1.

c. Non-ferrous Wiring Methods

Conductors in wiring methods with a nonmetallic or other nonmagnetic sheath, where run in different raceways, auxiliary gutters, cable trays, trenches, cables, or cords shall comply with the provisions of the PEC Part 1.

2. Conductors of Different Systems

Conductors of circuits rated 600 V, nominal or less, AC circuits, and DC circuits shall be permitted to occupy the same equipment wiring enclosure, cable, or raceway. All conductors shall have an insulation rating equal to at least the maximum circuit voltage applied to any conductor within the enclosure, cable, or raceway.

Conductors of circuits over 600 V, nominal, shall not occupy the same equipment wiring enclosure, cable, or raceway with conductors of circuits rated 600 V, nominal, or less unless otherwise permitted in the PEC Part 1.

1101.3.1.2 Switches

Installation of switches shall conform to the requirements of the PEC Part 1. All switches and circuit breakers used as switches shall be located in an accessible place to facilitate operation. They shall be installed such that the center of the grip of the operating handle of the switch

or circuit breaker, when in its highest position, is not more than 1980 mm above the floor or working platform.

Faceplates provided for snap switches mounted in boxes and other enclosures shall be installed so as to completely cover the opening and, where the switch is flush mounted, seat against the finished surface.

Metal enclosures for switches shall be grounded. Where nonmetallic enclosures are used with metal raceways or metal-armored cables, provision shall be made for grounding continuity. Snap switches, including dimmer and similar control switches, shall be effectively grounded and shall provide a means to ground metal faceplates, whether or not a metal faceplate is installed. Snap switches shall be considered effectively grounded if either of the following conditions is met:

1. The switch is mounted with metal screws to a metal box or to a nonmetallic box with integral means for grounding devices.

2. An equipment grounding conductor or equipment bonding jumper is connected to an equipment grounding termination of the snap switch.

1101.3.1.3 Receptacles

General installation requirements for receptacles and location of receptacle outlets shall be in accordance with the PEC Part 1.

Receptacles shall be mounted in boxes or assemblies designed for the purpose, and such boxes or assemblies shall be securely fastened in place unless otherwise permitted in the PEC Part 1.

Receptacles installed on 15 A and 20 A branch circuits shall be of the grounding type. Grounding-type receptacles shall be installed only on circuits of the voltage class and current for which they are rated, except as provided in the PEC Part 1.

Receptacles and cord connectors that have grounding contacts shall have those contacts effectively grounded. They shall be grounded by connection to the equipment grounding conductor of the circuit supplying the receptacle or cord connector. The branch circuit wiring method shall include or provide an equipment-grounding conductor to which the grounding contacts of the receptacle or cord connector are connected.

1101.3.2 Locations

1101.3.2.1 Dry Locations

Insulated conductors and cables, receptacles, switches and other devices used in dry locations shall be any of the types identified in the PEC Part 1.

1101.3.2.2 Dry and Damp Locations

Insulated conductors and cables used in dry and damp locations shall be Types FEP, FEPB, MTW, PFA, RHH, RHW-2, SA, THHN, THW, THW-2, THHW, THHW-2, THWN, THWN-2, TW, XHH, XHHW, XHHW-2, Z, or ZW.

Receptacles installed outdoors in a location protected from the weather or in other damp locations shall have an enclosure for the receptacle that is weatherproof when the receptacle is covered (attachment plug cap not inserted and receptacle covers closed).

1101.3.2.3 Wet Locations

Insulated conductors and cables used in wet locations shall be Moisture-impervious metal-sheathed, Types MTW, RHW, RHW-2, TW, THW, THW-2, THHW, THHW-2, THWN, THWN-2, Z, or ZW and Type for use in wet locations.

Receptacles installed in wet locations shall have an enclosure that is weatherproof. Switches in a wet location or outside of a building shall be enclosed in a weatherproof enclosure or cabinet.

1101.3.2.4 Locations Exposed to Direct Sunlight

Insulated conductors or cables used where exposed to direct rays of the sun shall comply with one of the following:

1. Cables listed, or listed and marked, as being sunlight resistant.
2. Conductors listed, or listed and marked, as being sunlight resistant.
3. Covered with insulating material, such as tape or sleeving.

1101.4 Method of Measurement

The work under this Item shall be measured either by meters, rolls, set and lump sum actually placed and installed as shown on the Plans.

1101.5 Basis of Payment

The quantity as determined in Section 1101.4, Method of Measurement, shall be paid for at unit price stipulated in the Contract's Bill of Quantities. The payment shall constitute the full compensation for furnishing all the necessary materials, providing necessary equipment and tools in installing the wires and wiring devices labor cost and all the incidental expenses necessary to complete the work.

Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
1101 (1)a1	Electric Wire, 1.6 mm dia. TW/THHN/THWN^2, Solid	Roll
1101 (1)a2	Electric Wire, 2.0 mm dia. TW/THHN/THWN^2, Solid	Roll
1101 (1)a3	Electric Wire, 2.6 mm dia. TW/THHN/THWN^2, Solid	Roll

Pay Item Number	Description	Unit of Measurement
1101 (1)a4	Electric Wire, 3.2 mm dia. TW/THHN/THWN^2, Solid	Roll
1101 (1)b1	Electric Wire, 2.0 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b2	Electric Wire, 3.5 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b3	Electric Wire, 5.5 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b4	Electric Wire, 8.0 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b5	Electric Wire, 14 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b6	Electric Wire, 22 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b7	Electric Wire, 30 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b8	Electric Wire, 38 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b9	Electric Wire, 50 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b10	Electric Wire, 60 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b11	Electric Wire, 80 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b12	Electric Wire, 100 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b13	Electric Wire, 125 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b14	Electric Wire, 150 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1) b15	Electric Wire, 200 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b16	Electric Wire, 250 mm^2 TW/THHN/THWN^2, Stranded	Roll

Pay Item Number	Description	Unit of Measurement
1101 (1)b17	Electric Wire, 325 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b18	Electric Wire, 400 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)b19	Electric Wire, 500 mm^2 TW/THHN/THWN^2, Stranded	Roll
1101 (1)c1	Electric Wire, 14 mm^2 , ASCR	Roll
1101 (1)c2	Electric Wire, 22 mm^2 , ASCR	Roll
1101 (1)c3	Electric Wire, 30 mm^2 , ASCR	Roll
1101 (1)c4	Electric Wire, 38 mm^2 , ASCR	Roll
1101 (1)c5	Electric Wire, 50 mm^2 , ASCR	Roll
1101 (1)c6	Electric Wire, 60 mm^2 , ASCR	Roll
1101 (1)c7	Electric Wire, 80 mm^2 , ASCR	Roll
1101 (1)c8	Electric Wire, 100 mm^2 , ASCR	Roll
1101 (1)c9	Electric Wire, 125 mm^2 , ASCR	Roll
1101 (1)c10	Electric Wire, 150 mm^2 , ASCR	Roll
1101 (1)c11	Electric Wire, 200 mm^2 , ASCR	Roll
1101 (1)c12	Electric Wire, 250 mm^2 , ASCR	Roll
1101 (1)d1	Electric Wire, 1C X 4, XLPE	Roll
1101 (1)d2	Electric Wire, 1C X 6, XLPE	Roll
1101 (1)d3	Electric Wire, 1C X 10, XLPE	Roll

Pay Item Number	Description	Unit of Measurement
1101 (1)d4	Electric Wire, 1C X 25, XLPE	Roll
1101 (1)d5	Electric Wire, 1C X 35, XLPE	Roll
1101 (1)d6	Electric Wire, 1C X 50, XLPE	Roll
1101 (1)d7	Electric Wire, 1C X 70, XLPE	Roll
1101 (1)d8	Electric Wire, 1C X 95, XLPE	Roll
1101 (1)d9	Electric Wire, 1C X 120, XLPE	Roll
1101 (1)d10	Electric Wire, 1C X 185, XLPE	Roll
1101 (1)d11	Electric Wire, 1C X 240, XLPE	Roll
1101 (1)d12	Electric Wire, 1C X 300, XLPE	Roll
1101 (1)d13	Electric Wire, 1C X 400, XLPE	Roll
1101 (1)d14	Electric Wire, 1C X 500, XLPE	Roll
1101 (1)e1	Electric Wire, 2C X 4, XLPE	Roll
1101 (1)e2	Electric Wire, 2C X 6, XLPE	Roll
1101 (1)e3	Electric Wire, 2C X 10, XLPE	Roll
1101 (1)e4	Electric Wire, 2C X 25, XLPE	Roll
1101 (1)e5	Electric Wire, 2C X 35, XLPE	Roll
1101 (1)e6	Electric Wire, 2C X 50, XLPE	Roll
1101 (1)e7	Electric Wire, 2C X 70, XLPE	Roll

Pay Item Number	Description	Unit of Measurement
1101 (1)e8	Electric Wire, 2C X 95, XLPE	Roll
1101 (1)e9	Electric Wire, 2C X 120, XLPE	Roll
1101 (1)e10	Electric Wire, 2C X 185, XLPE	Roll
1101 (1)e11	Electric Wire, 2C X 240, XLPE	Roll
1101 (1)e12	Electric Wire, 2C X 300, XLPE	Roll
1101 (1)e13	Electric Wire, 2C X 400, XLPE	Roll
1101 (1)e14	Electric Wire, 2C X 500, XLPE	Roll
1101 (1)f1	Electric Wire, 3C X 4, XLPE	Roll
1101 (1)f2	Electric Wire, 3C X 6, XLPE	Roll
1101 (1)f3	Electric Wire, 3C X 10, XLPE	Roll
1101 (1)f4	Electric Wire, 3C X 25, XLPE	Roll
1101 (1)f5	Electric Wire, 3C X 35, XLPE	Roll
1101 (1)f6	Electric Wire, 3C X 50, XLPE	Roll
1101 (1)f7	Electric Wire, 3C X 70, XLPE	Roll
1101 (1)f8	Electric Wire, 3C X 95, XLPE	Roll
1101 (1)f9	Electric Wire, 3C X 120, XLPE	Roll
1101 (1)f10	Electric Wire, 3C X 185, XLPE	Roll
1101 (1)f11	Electric Wire, 3C X 240, XLPE	Roll

Pay Item Number	Description	Unit of Measurement
1101 (1)f12	Electric Wire, 3C X 300, XLPE	Roll
1101 (1)f13	Electric Wire, 3C X 400, XLPE	Roll
1101 (1)f14	Electric Wire, 3C X 500, XLPE	Roll
1101 (1)f15	**Electric Wire, 3C X 14, XLPE**	**Roll**
1101 (2)a1	Electric Wire, 1.6 mm dia. TW/THHN/THWN^2, Solid	Meter
1101 (2)a2	Electric Wire, 2.0 mm dia. TW/THHN/THWN^2, Solid	Meter
1101 (2)a3	Electric Wire, 2.6 mm dia. TW/THHN/THWN^2, Solid	Meter
1101 (2)a4	Electric Wire, 3.2 mm dia. TW/THHN/THWN^2, Solid	Meter
1101 (2)b1	Electric Wire, 2.0 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b2	Electric Wire, 3.5 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b3	Electric Wire, 5.5 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b4	Electric Wire, 8.0 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b5	Electric Wire, 14 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b6	Electric Wire, 22 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b7	Electric Wire, 30 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b8	Electric Wire, 38 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b9	Electric Wire, 50 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b10	Electric Wire, 60 mm^2 TW/THHN/THWN^2, Stranded	Meter

Pay Item Number	Description	Unit of Measurement
1101 (2)b11	Electric Wire, 80 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b12	Electric Wire, 100 mm^2 TW/THHN/THWN^2,Stranded	Meter
1101 (2)b13	Electric Wire, 125 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b14	Electric Wire, 150 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b15	Electric Wire, 200 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b16	Electric Wire, 250 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b17	Electric Wire, 325 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b18	Electric Wire, 400 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)b19	Electric Wire, 500 mm^2 TW/THHN/THWN^2, Stranded	Meter
1101 (2)c1	Electric Wire, 1C X 4, XLPE	Meter
1101 (2)c2	Electric Wire, 1C X 6, XLPE	Meter
1101 (2)c3	Electric Wire, 1C X 10, XLPE	Meter
1101 (2)c4	Electric Wire, 1C X 25, XLPE	Meter
1101 (2)c5	Electric Wire, 1C X 35, XLPE	Meter
1101 (2)c6	Electric Wire, 1C X 50, XLPE	Meter
1101 (2)c7	Electric Wire, 1C X 70, XLPE	Meter
1101 (2)c8	Electric Wire, 1C X 95, XLPE	Meter

Pay Item Number	Description	Unit of Measurement
1101 (2)c9	Electric Wire, 1C X 120, XLPE	Meter
1101 (2)c10	Electric Wire, 1C X 185, XLPE	Meter
1101 (2)c11	Electric Wire, 1C X 240, XLPE	Meter
1101 (2)c12	Electric Wire, 1C X 300, XLPE	Meter
1101 (2)c13	Electric Wire, 1C X 400, XLPE	Meter
1101 (2)c14	Electric Wire, 1C X 500, XLPE	Meter
1101 (2)d1	Electric Wire, 2C X 4, XLPE	Meter
1101 (2)d2	Electric Wire, 2C X 6, XLPE	Meter
1101 (2)d3	Electric Wire, 2C X 10, XLPE	Meter
1101 (2)d4	Electric Wire, 2C X 25, XLPE	Meter
1101 (2)d5	Electric Wire, 2C X 35, XLPE	Meter
1101 (2)d6	Electric Wire, 2C X 50, XLPE	Meter
1101 (2)d7	Electric Wire, 2C X 70, XLPE	Meter
1101 (2)d8	Electric Wire, 2C X 95, XLPE	Meter
1101 (2)d9	Electric Wire, 2C X 120, XLPE	Meter
1101 (2)d10	Electric Wire, 2C X 185, XLPE	Meter
1101 (2)d11	Electric Wire, 2C X 240, XLPE	Meter
1101 (2)d12	Electric Wire, 2C X 300, XLPE	Meter

Pay Item Number	Description	Unit of Measurement
1101 (2)d13	Electric Wire, 2C X 400, XLPE	Meter
1101 (2)d14	Electric Wire, 2C X 500, XLPE	Meter
1101 (2)e1	Electric Wire, 3C X 4, XLPE	Meter
1101 (2)e2	Electric Wire, 3C X 6, XLPE	Meter
1101 (2)e3	Electric Wire, 3C X 10, XLPE	Meter
1101 (2)e4	Electric Wire, 3C X 25, XLPE	Meter
1101 (2)e5	Electric Wire, 3C X 35, XLPE	Meter
1101 (2)e6	Electric Wire, 3C X 50, XLPE	Meter
1101 (2)e7	Electric Wire, 3C X 70, XLPE	Meter
1101 (2)e8	Electric Wire, 3C X 95, XLPE	Meter
1101 (2)e9	Electric Wire, 3C X 120, XLPE	Meter
1101 (2)e10	Electric Wire, 3C X 185, XLPE	Meter
1101 (2)e11	Electric Wire, 3C X 240, XLPE	Meter
1101 (2)e12	Electric Wire, 3C X 300, XLPE	Meter
1101 (2)e13	Electric Wire, 3C X 400, XLPE	Meter
1101 (2)e14	Electric Wire, 3C X 500, XLPE	Meter
1101 (2)f1	Electric Wire, 14 mm^2 , ASCR	Meter
1101 (2)f2	Electric Wire, 22 mm^2 , ASCR	Meter

Pay Item Number	Description	Unit of Measurement
1101 (2)f3	Electric Wire, 30 mm^2 , ASCR	Meter
1101 (2)f4	Electric Wire, 38 mm^2 , ASCR	Meter
1101 (2)f5	Electric Wire, 50 mm^2 , ASCR	Meter
1101 (2)f6	Electric Wire, 60 mm^2 , ASCR	Meter
1101 (2)f7	Electric Wire, 80 mm^2 , ASCR	Meter
1101 (2)f8	Electric Wire, 100 mm^2 , ASCR	Meter
1101 (2)f9	Electric Wire, 125 mm^2 , ASCR	Meter
1101 (2)f10	Electric Wire, 150 mm^2 , ASCR	Meter
1101 (2)f11	Electric Wire, 200 mm^2 , ASCR	Meter
1101 (2)f12	Electric Wire, 250 mm^2 , ASCR	Meter
1101 (3)	Single Pole Wall Switch on one switch plate	Set
1101 (4)	Duplex (2 Single Pole Wall Switches on one switch plate)	Set
1101 (5)	Triplex (3 Single Pole Wall Switches on one switch plate)	Set
1101 (6)	Three-way Switch	Set
1101 (7)	Four-way Switch	Set
1101 (8)	Double Pole Switch	Set
1101 (9)	Three Pole Switch	Set
1101 (10)	Dimmer Switch	Set

Pay Item Number	Description	Unit of Measurement
1101 (11)	Master Selector Switch	Set
1101 (12)	Automatic Door Switch	Set
1101 (13)	Switch Bank	Set
1101 (14)a	Passive Infra-Red (Presence) Detector/Switch, Surface Mounted	Set
1101 (14)b	Passive Infra-Red (Presence) Detector/Switch, Recessed	Set
1101 (15)	Single Convenience Outlet/Receptacle, Grounding Type (GT)	Set
1101 (16)	Duplex Convenience Outlets/Receptacles (GT)	Set
1101 (17)	Heavy Duty Convenience Outlet/Receptacles (GT)	Set
1101 (18)	Weatherproof Single Convenience Outlet/Receptacle (GT)	Set
1101 (19)	Weatherproof Duplex Convenience Outlet/Receptacle (GT)	Set
1101 (20)	Special Purpose Outlet/Receptacle, (GT) for ACU, WH, etc.	Set
1101 (21)	Pop-up type/Floor Single Convenience Outlet/Receptacle (GT)	Set
1101 (22)	Pop-up type/Floor Duplex Convenience Outlet/Receptacle (GT)	Set
1101 (23)	Pop-up type/Floor Triplex Convenience Outlet/Receptacle (GT)	Set
1101 (24)	Explosion Proof type Single Convenience Outlet/Receptacle (GT)	Set
1101 (25)	Explosion Proof type Duplex Convenience Outlet/Receptacle (GT)	Set
1101 (26)	Single Convenience Outlet with Ground Fault Circuit Interrupter (GFCI)	Set

Pay Item Number	Description	Unit of Measurement
1101 (27)	Duplex Convenience Outlet with GFCI	Set
1101 (28)	PVC Tape, 19 mm dia. x 18 mm	Roll
1101 (29)	Rubber Tape/ Friction Tape, 19 mm dia. x 227 g	Roll
1101 (30)a	Mica Tubing, 6.35 mm	Meter
1101 (30)b	Mica Tubing, 12.7 mm	Meter
1101 (30)c	Mica Tubing, 19.0 mm	Meter
1101 (30)d	Mica Tubing, 25.40 mm	Meter
1101 (31)	Messenger Wire	Meter
1101 (32)	Guy Wire	Meter
1101 (33)	Wires and Wiring Devices	Lump Sum
1101 (34)	Repair/Replacement of Wires and Wiring Devices	Lump Sum