

**DIVISION 00 00 00- GENERAL CONDITIONS
CONSTRUCTION STANDARDS**

MIDWESTERN STATE UNIVERSITY

00 00 00

GENERAL CONDITIONS

PART 1: GENERAL

1.01 Location:

- A. To review and obtain the Midwestern State University System Uniform General and Supplementary Conditions for Building Construction Contracts, contact the Purchasing Department.
- B. The above General Conditions must be included in the A/E's Specification Manual.

1.02 Hierarchy of A/E Document Conflicting Information:

- A. If conflicts occur in the document information, the following order of hierarchy shall apply, 1) Midwestern State University System Uniform General and Supplementary Conditions for Building Construction Contracts, 2) A/E's Specification Manual, and 3) A/E drawings.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF DIVISION 00 00 00

MIDWESTERN STATE UNIVERSITY

01 25 00

SUBSTITUTION FORM

PART 1: GENERAL

1.01 SUBSTITUTION FORM

A. The following form shall be used for product substitutions:

TO: ARCHITECT OF RECORD
OR
MIDWESTERN STATE UNIVERSITY PROJECT REPRESENTATIVE

PROJECT:

SPECIFIED ITEM:

Section _____ Paragraph _____ Description _____

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION _____

Upon submitting this Request for Substitution, the undersigned certifies that the following paragraphs are correct, unless otherwise modified on attachments:

1. Contractor has investigated the proposed substitution and believes that it is equal to or superior in all respects to specified item, and will conform to design requirements and artistic effect
2. Cost saving to Owner for accepting substitution: None__
\$ _____
3. Contractor will pay the Architect and/or Engineers for additional studies, investigations, submittal reviews, redesign and/or analysis caused by the requested substitution and at no additional cost to Owner.
4. Substitution requires dimensional changes or redesign of structure or M & E Work No __ Yes __ (If yes, attach complete data).
5. Contractor will waive future claims for added cost to Contract caused by substitution.
6. Changes in contract time caused by substitution: No __ Yes __ Add/Deduct __ days.
7. Adverse affect on other Trades caused by substitution: No __ Yes __ (If yes, explain on attachment).

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CONSTRUCTION STANDARDS

8. Contractor will modify other parts of the Work as may be required to make all parts of Work complete and functioning. Yes ___ (Explain on attached page if necessary)
9. Same type of warranty for specified product will be furnished for proposed substitution: Yes ___ No ___
10. Maintenance Service Available: Yes ___ No ___
Where? _____
11. Contractor has complied with requirements of the Midwestern State University's Design Guidelines and Construction Standards and Contract Documents as part of request for substitution, and has completely filled-in this form.

REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEM:
See attached ___ Not required ___

Submitted by:
Signature _____
Firm _____
Address _____

Date _____
Telephone _____

For Use by Architect:
___ Approved
___ Approved as noted
___ Rejected
Rejected only for conformance with
Design Concept of Project and with
Information in Contract Documents.
Signature _____
Date _____

REQUIRED ATTACHMENTS:

- A. Product Data for Specified Item: Clearly marked to indicate full compliance with specification section and Contract Documents: Attached
- B. Product Data for Substitution: Clearly marked for adequate evaluation and comparison with data submitted for specified item: Attached ___
- C. Samples: Attached ___ Not Required ___
- D. Cost Data and Implications of Substitution: Attached ___ Not required ___
- E. Contractor's Comments: Attached ___ Not required ___
- F. Manufacturers certifications on asbestos arid PCB: Required/must be attached
- G. Other: _____

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION 01 25 00

MIDWESTERN STATE UNIVERSITY

01 78 36

WARRANTY FORMS

PART 1: GENERAL (NOT USED)

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION

3.01 CONTRACTOR'S SAMPLE WARRANTY

Project Warranty for _____

Whereas, _____ (Contractor),

Address _____

Telephone (____) ____ - _____ ext. _____ has performed _____

(Work) on the following Project _____

Address _____

WHEREAS, The Contractor has agreed to warrant said Work _____

NOW, THEREFORE, the Contractor hereby warrants said Work in accordance

with the terms hereof, complying with the terms of the Contract with the Owner

dated _____ that _____

WARRANTY PERIOD _____ STARTING _____ TERMINATING _____

IN WITNESS THEREOF, this instrument has been duly executed this _____ day

of _____ 20__ for Contractor (typed name) as its (position).

Name of Firm _____

Address _____

And has been countersigned in accordance with terms and conditions, for the

Manufacturer (typed name) _____

as its _____ (position).

Name of Firm _____

Address _____

Signed by (print name): _____ Signature: _____

Title: _____ Date: _____

SECTION 01 78 36 – WARRANTY FORMS
CONSTRUCTION STANDARDS

3.02 MANUFACTURER’S SAMPLE WARRANTY

Project Warranty for _____
Whereas, _____ (Manufacturer),
Address _____
Telephone (____) ____ - _____ ext. _____ has furnished/provided _____
(product) on the following Project : _____

Address _____
Constructed by _____ (Contractor).
Address _____
For _____ (Owner).
Address _____

WHEREAS, the Manufacturer, through the Contractor, has agreed to warrant
said product _____

NOW, THEREFORE, the Manufacturer hereby warrants said product accordance
with the terms hereof, complying with the terms of the Contract between the
Contractor and the Owner dated _____ that _____

WARRANTY PERIOD, STARTING _____, TERMINATING _____
IN WITNESS THEREOF, this instrument has been duly executed this _____ day
of _____ 20____ for Manufacturer (typed name) as its _____
_____ (position).

And has been countersigned in accordance with terms and conditions.
for the Contractor (typed name) _____
as its _____ (position).

Signed by (print name): _____ Signature: _____

Title: _____ Date: _____

SECTION 01 78 36 – WARRANTY FORMS
CONSTRUCTION STANDARDS

3.03 OWNER’S REQUEST FOR WARRANTY WORK BY CONTRACTOR

Project Warranty for _____
_____ under PO _____.

Whereas, _____ (Contractor),
Address _____.

Telephone (____) ____ - _____ ext. _____ was responsible for installation of
equipment that has failed to meet acceptable standards during its warranty period
in the following manner: _____

_____.

Address of failed equipment _____

Date of failure first observed: _____.

Date reported to Contractor: _____ Contact: _____.

The Contractor will investigate the repair or replacement of the equipment and
return the equipment to its original design condition in a timely manner.

**Contractor to fax or e-mail the following information to Owner’s
Representative upon receipt of this document:**

Time and date Contractor to investigate repairs on site: _____.

**Contractor to fax or e-mail the following information to Owner’s
Representative PRIOR to beginning the following task:**

Time and date Contractor to begin on site repairs: _____.

**Contractor to fax or e-mail the following information to Owner’s
Representative AFTER completing the following task:**

Date Contractor completed on site repairs: _____.

Repairs will **not** be considered complete until the following written acceptance has
been issued to the Contractor by the Owner’s Representative:

Accepted by (print name): _____ Signature: _____

Title: _____ Date accepted: _____

END OF SECTION 01 78 36

MIDWESTERN STATE UNIVERSITY

26 05 00

COMMON WORK RESULTS FOR ELECTRICAL

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Common Work Results for Electrical.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Design Guidelines

- A. Code Compliance
 - 1. In this document “shall”* shall have the same meaning as in the OSHA Code of Federal Regulations (CFR) Article 29 Labor Part 1926.32 (p), (*mandatory).
 - 2. All electric work on Midwestern State University property shall comply with the latest version of The National Electric Code (NEC) in force at the pre-bid date as the minimum requirements.
- B. General.
 - 1. It is of utmost importance that a new building be provided adequate electrical capacity.
 - 2. Service conductors shall be rated at 100% of panel rating i.e.: 200A rated panel should have minimum 3/0 75 degree C wire.

**SECTION 26 05 00 – COMMON WORK RESULTS FOR ELECTRICAL
CONSTRUCTION STANDARDS**

3. Ideally any new circuit breaker panels should not be more than 80% filled.
4. Anticipate that building areas will be upgraded over time; therefore, provide sufficient electrical capacity initially.
5. Panels shall be located for proper clearance as set by NEC.
6. Use NFPA/NEC minimum except where otherwise noted to exceed minimum.
7. Outlets in wet areas must have GFCI protection within 6' (feet) of sinks or other water sources outdoors, for vending machines.
8. Do not overlook facilities for battery charging for various types of equipment and provide any such areas with ventilation.
9. Provide specific enclosures for high-voltage equipment.
10. Provide for electric gear areas to be well ventilated.
11. Provide for adequate insulation to protect maintenance workers.
12. Make transformer vaults accessible from building exteriors.
13. Doors on electrical rooms or closets should swing out, transformer vault rooms are required to swing out to conform with NFPA standards.
14. Provide floor drains in electric vaults.
15. Use identification systems for electric wiring and equipment.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION 26 05 00

**SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS
AND CABLES**
CONSTRUCTION STANDARDS

MIDWESTERN STATE UNIVERSITY

26 05 19

**LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND
CABLES**

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Low-Voltage Electrical Power Conductors and Cables.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Scope of Work

- A. This section includes building wire and cable rated 600V and less.
- B. This is a design standard and is not intended to be used as a guideline or construction specification.

PART 2: PRODUCTS

- A. All conductors, plus stranded, shall be soft drawn annealed copper, ninety-eight (98%) conductivity, continuous, from outlet to outlet.
- B. Minimum size of wire shall be #12 AWG. (Exception: Control wire may be #14 AWG.)
- C. All wire insulation for 600V conductors shall be type XHHW, THHN, or THWN.
- D. Non-metallic sheathed cable or type BX cable is strictly prohibited.

**SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS
AND CABLES**
CONSTRUCTION STANDARDS

PART 3: EXECUTION

3.01 Design/Drawing Requirements

- A. All branch circuit home runs shall contain no more than two multi-wire branch circuits. Multi-wire branch circuits shall not be used where the load generates harmonics, i.e. personnel computers.
- B. Home runs shall be clearly indicated on the floor plans.
- C. Pump Motor Requirements:
 - 1. Wiring Requirements:
 - 2. Connect all pump motors with sealed, flexible conduit no longer than 3 feet.
 - 3. Duplex sump pumps and condensate return pumps should be wired so that each pump is on a separate dedicated circuit. A mechanical alternator is to be provided to alternate operation of the pumps. There should be three floats in the sump; the lowest to energize the first pump, the next highest to energize both pumps, and the highest to operate a N.O. set of contacts for alarm purposes.
 - 4. Some pumps may require emergency power. Coordinate with Midwestern State University representative for special requirements.
- D. Plumbing Pump Motor Requirements:
 - 1. Wiring Requirements 120 volts
 - 2. All pumps 1 hp or less may be connected with an outlet plug and cord.
- E. Only copper wire shall be used on this campus.
- F. Minimum wire size on campus is # 12. Circuit wire size on all runs over 100' shall be sized no smaller than # 10.
- G. All wiring, including luminaries and motor leads, and motor control, shall be stranded.
- H. All wire insulation for 600V conductors shall be type XHHW, THHN, or THWN.

**SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS
AND CABLES**
CONSTRUCTION STANDARDS

- I. All conductors shall be soft drawn annealed copper, ninety-eight (98%) conductivity, continuous, from outlet to outlet.
- J. Crimp connectors and splices shall only be used in J-boxes, gutters, and cabinets.
 - 1. A compression connector installation tool such as Panduit CT-720 or a compound-action crimping tool such as a VACO T1710 that provides a crimp that meets or exceeds MIL-SPEC pull-out tests shall be used for all such connections.
 - 2. Crimps shall be made on each wire end of the connector for as much of the length of the barrel as possible.
 - 3. The longest barrel/sleeve possible shall be used.
 - 4. **Compression or stab in quick connectors that rely solely on connector for a solid connection are prohibited.**
- K. Crimp connectors shall not be used on items that may need to be changed out periodically, i.e.: ballast's, motor's, etc.
- L. Connectors shall be copper or tinned copper.

END OF SECTION 26 05 19

MIDWESTERN STATE UNIVERSITY

26 56 13

RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Raceway and Boxes for Electrical Systems.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Scope of Work

- A. This section of the standard includes minimum design requirements for raceways, boxes, and floor boxes used for electrical power.
- B. This is a design standard and is not intended to be used as a construction specification.

PART 2: PRODUCTS

- A. All electrical raceway design shall conform to the minimum requirements of the latest edition of the National Electric Code (NEC).
- B. New Buildings and Building renovations may use UL approved fire rated poke-thrus.
- C. All electrical penetrations through fire rated walls or floor, must have fire rated box and fire rated seals between box and conduit and opening.

PART 3: EXECUTION

3.01 Design/Drawing Requirements

SECTION 26 05 33 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
CONSTRUCTION STANDARDS

- A. In addition to the minimum NEC requirements all design shall conform to the following strict guidelines:
1. Installed conduit shall be Rigid Galvanized Conduit (RGC), Intermediate Conduit (IMC), or Electric Metallic Tubing (EMT).
 2. In exposed exterior areas, use only RGC or IMC. No MC cable or Greenfield in walls.
 3. In wet or corrosive areas use SCH 40 PVC raceway.
 4. Liquid tight flexible conduit installed in sizes ½” and larger shall not exceed 3’ in length. (Special applications may exceed this length if approved by Owner’s project representative).
 5. Flexible metal conduit is permissible in sizes ½” and larger with one exception. Applications with fixture tails may be 3/8”. Flexible metal conduit shall not be used as an equipment grounding conductor.
 6. Surface metal raceway:
 - a. Classrooms/Offices: extruded aluminum with brushed natural finish.
 - b. Laboratories: painted steel.
 7. Liquid tight flexible conduit or EMT shall be used under raised computer floors in the length and size necessary to serve the load. The conduit must originate and terminate in the same room. Do not use rubber cord for this application.
 8. All direct buried conduit shall be SCH 40 PVC. **And shall have buried electrical warning tape installed 6” above grade the full length of the buried raceway.**
 9. **Exterior conduit above grade level shall be RMC, IMC or EMT and shall be wrapped with corrosion inhibiting tape when in contact with the earth.**
 10. All floor boxes shall be shown on floor plans and clearly denoted as such by symbology.
 11. Drawing shall clearly indicate electrical conduit, with sizes, feeding the floor box.

SECTION 26 05 33 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
CONSTRUCTION STANDARDS

- B. Conduit shall not be mounted in or on the floor. In place of floor boxes, conduit shall be roughed in below the floor and installed by core drilling the floor after final placement is approved.
- C. All electrical box design shall conform to the minimum requirements of the latest edition of the NEC and the following strict clarifications:
 - 1. In dry locations, provide only galvanized-coated flat rolled sheet steel outlet wiring boxes.
 - 2. In wet or corrosive areas **above grade level**, use only PVC boxes and fittings.
 - 3. In exposed areas, used cast aluminum boxes with galvanized conduit.
 - 4. **In ground use, shall be handhole enclosures only. Handhole enclosures shall be designed and installed per the standards of the latest version of NFPA 70 NEC and constructed of concrete or concrete/fiber only. The cover shall be rated for traffic and or loads imposed on them and have a logo or identifying mark such as “Electrical”.**
- D. A minimum of ¾” conduit shall be used for all home runs. All home runs shall be in EMT or IMC. No Greenfield or MC cable shall be used for home runs.
- E. All conduit shall be standard trade sizes.
- F. All exposed conduit to be used for conductors over 600 VAC shall be rigid steel.
- G. Flexible conduits of any trade sizes shall be no longer than 3’. (Exception: Can be longer, up to 12 feet, when installed in walls in applications such as added receptacles in remodeling). Flexible metal conduits shall not be used as an equipment grounding conductor. MC Cable shall only be used for fixture whips and control devices above accessible ceilings.
- H. All metal, flexible conduit, such as Greenfield, shall be steel.
- I. Metal conduit fittings shall be steel or cast iron.
- J. Conduit fittings shall not be crimp tool or snap-in type.
- K. There shall be no **ENT** or similar product installed on Campus as the main or primary conduit. **ENT** or similar products shall be used only as an ‘inner duct’ or where it is accessible for it’s entire length and shall be labeled as **LS** (limited-smoke-producing characteristics).

SECTION 26 05 33 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
CONSTRUCTION STANDARDS

- L. There shall be no factory assembled metal clad or non-metallic-sheathed armored cable used as building wiring on Campus unless it is accessible for its entire length, such as on fixture whips, or used as exposed surface wiring and equipment leads.
- M. All conduit bends shall be made with appropriate trade benders or be factory made.
- N. Junction and device boxes shall be minimum 4" x 4" x 2 1/8" combination.
- O. All rough-in and above ground boxes are to be zinc plated.
- P. All handy 4" and 4 11/16" surface mount boxes are to be drawn type, not welded.
- Q. All exterior J-boxes used in earth, concrete or asphalt shall be traffic rated. These boxes shall be installed so that the top surface is at, or above grade with grade sloped up to them. Boxes should be installed so that they are not in a drain channel or "low spot".
- R. All electrical J-boxes, receptacles shall be "Accessible" as applied to wiring methods stated in NEC Article 100, I - General.
- S. All electrical J-boxes shall be labeled with panel and circuit number(s).

END OF SECTION 26 05 33

MIDWESTERN STATE UNIVERSITY

26 05 53

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Identification for Electrical Systems.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Color Codes

- A. Color coding shall be maintained in all applications including feeders and branch circuits. Voltage color codes are as follows:
 - 1. Single phase 120/208-240 – Black, Red. Neutral marked with White.
 - 2. Three phase 120/208 Y – Black-A, Red-B, Blue-C. Neutral marked with White.
 - 3. Three phase 120/240 Delta – High leg Orange. The two lighting legs Black and Red, Neutral marked with White
 - 4. Three phase 277/480 and greater - Brown-A, Orange-B, Yellow-C. Neutral marked with Gray.
 - 5. Ground-Green

END OF SECTION 26 05 53

MIDWESTERN STATE UNIVERSITY

26 24 16

PANEL BOARDS

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Panel Boards.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Scope of Work

- A. This section includes enclosed fusible switch and circuit breaker panelboards for feeders, and circuit breaker type lighting and appliance branch circuit panelboards.
- B. This is a design standard and is not intended to be used as a guideline or construction specification.

PART 2: PRODUCTS

- A. Panel board bus shall be 98% conductivity copper. Bus shall be installed completely throughout panel to permit addition of new bolt-on breakers in available space in future without modifying bus.
- B. All panel boards shall have door locks. The front cover shall be a door in door arrangement with the inner door hinged to allow breaker handles.
- C. Panels
 - 1. Distribution Panels, Square D preferred, shall be of the “Panel Board” type series with a 20” minimum width.

SECTION 26 24 16 – PANEL BOARDS
CONSTRUCTION STANDARDS

2. Shall have separate neutral and ground bars.
3. Panel's for computer labs shall comply with NEC as a minimum. These panels will have 200% rated neutral busses and served from K rated transformers where applicable.

PART 3: EXECUTION

3.01 Design/Drawing Requirements

- A. Branch circuit panel boards shall not serve loads on more than one level of a building.
- B. Molded case circuit breakers shall be bolt-on type only.
- C. Do not mount panel boards in hallways or other public spaces. Where an obsolete panel is being replaced in an existing public space, the new panel shall be flush mounted.
- D. Provide a separate panel board for labs or other high density electrical utilization equipment spaces where the power requirements exceed 12 poles, and locate the panel board near the entrance to and within the space. Provide door locks on all panel boards.
- E. Lighting panel boards shall serve only lighting loads and should contain 15% spare capacity.
- F. Receptacle panel boards, power distribution panel boards, main switchboards and motor control centers should contain 25% minimum spare capacity.
- G. Panel boards should be designed in the electrical room detail layout such that feeder piping is minimized and installed efficiently. Provide a minimum of two 1" empty conduits from each flush mounted panel to an accessible point above the ceiling.
- H. Panel boards serving predominately motor loads shall be fusible.
- I. Panel boards shown on single line diagram shall indicate required short circuit amps interrupting capacity (AIC) rating. (may be shown in panel schedules if single-line diagram not appropriate).
- J. Provide panel locations drawn to scale in electric room detail plans.

SECTION 26 24 16 – PANEL BOARDS
CONSTRUCTION STANDARDS

- K. Panel boards shall be labeled with a descriptor indicating location, reference voltage level, and primary loads served.
- L. Panel schedules shall be provided indicating panel size, AIC rating, whether main circuit breaker or main lug only style, main breaker size. Panel schedules shall indicate load information in kVA per phase.
- M. Panel schedules need room number(s).
- N. Distribution panel boards (400A & up) shall have a minimum of 10” of gutter space on both sides.
- O. Provide 2-1” conduit stub outs for future use at each panel board.

END OF SECTION 26 24 16

MIDWESTERN STATE UNIVERSITY

26 28 16

ENCLOSED SWITCHES AND CIRCUIT BREAKERS

PART 1: GENERAL

1.01 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of Midwestern State University for Enclosed Switches and Circuit Breakers.
- B. Midwestern State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Midwestern State University projects.

1.02 Scope of Work

- A. This section includes enclosed switches for use as disconnects in service and distribution systems rated 600 volts and less.
- B. This is a design standard and is not intended to be used as a guideline or construction specification.

PART 2: PRODUCTS

Use heavy-duty type enclosed switches only.

- A. Circuit breakers shall have a positive means of indicating a tripped condition (i.e.: Square D's orange indicator).
- B. Disconnect (Safety) switches shall be rated 'heavy duty'.
- C. All breaker panels shall have a complete and legible circuit index positioned on the inside surface of the panel door.
 - 1. Use room numbers as to where circuits go.
- D. Working Space About Electric Equipment. Distances shall be measured from the enclosure front or opening if such are enclosed. Concrete, brick or tile

SECTION 26 28 16 – ENCLOSED SWITCHES AND CIRCUIT BREAKERS
CONSTRUCTION STANDARDS

walls shall be considered as grounded. The work space shall not be less than 30 in. wide in front of electric equipment. The work space shall be clear and extend from the floor or platform to the height required. The work space shall permit at least a 90-degree opening of equipment doors or hinged panels. The minimum headroom of working spaces about service equipment, switchboards, panelboards, or motor control centers shall be 6½ ft. (1.98m).

PART 3: EXECUTION (NOT USED)

END OF SECTION 26 28 16