

1 General**1.1 SECTION INCLUDES**

- .1 Design, labour, Products, tool, equipment and services necessary for automatic door equipment work in accordance with the Contract Documents.

1.2 REFERENCES

- .1 ANSI/BHMA A156.19, Power Assist and Low-Energy Power-Operated Doors.

1.3 DESIGN REQUIREMENTS

- .1 Design handicap door system comprising of low energy power operator with optional push and go door system as defined in ANSI/BHMA A156.19.
- .2 Design system operator to activate if one push button from either side of door is pushed. Actuated door shall open slowly to back check (80°) in 3 to 6 seconds and to full open position in 4 to 7 seconds. Door shall remain open for period set to suit requirements (period of 5 to 30 seconds). After time delay door shall close by spring in door operator from 90° to 10° in 3 to 6 seconds from 10° to fully closed in 1-1/2 to 2 seconds.

1.4 SUBMITTALS

- .1 Product data: Submit duplicate copies of manufacturer's Product data in accordance with Section 01 00 00 indicating performance criteria, compliance with appropriate reference standard(s), characteristics, limitations, trouble-shooting protocol, transportation, storage, handling and installation requirements.
- .2 Shop drawings: Submit shop drawings in accordance with Section 01 00 00 indicating all connections, attachments, reinforcing, anchorage and location of exposed fastenings.
- .3 Extended warranty: Submit extended warranty signed and registered by the manufacturer providing the warranty in the name of the Owner for the timeframe and coverage specified in this Section.

1.5 EXTENDED WARRANTY

- .1 Submit a extended warranty for automatic door equipment in accordance with General Conditions, except that warranty period is extended to 2 years.
 - .1 Warrant against failure to meet design criteria and requirements.
 - .2 Coverage: Complete replacement including affected adjacent Work.

2 Products

2.1 **ACCEPTABLE MANUFACTURER(S) AND SYSTEM(S)**

- .1 Regular Duty, Interior Operator: Design is based on low energy, electro-mechanical operator. Operator to be as manufactured by one of the following:
 - .1 Navig-Aider 50 by Besam of Canada.
 - .2 Magic Access by Stanley Canada Inc.
 - .3 Or approved alternative by Allegion.
- .2 Door operating equipment shall be complete with electro mechanical motor gear box. Provide 3 position (off-on) switch.

2.2 **REQUIREMENTS**

- .1 Functional Requirements:
 - .1 Equipment shall be designed to operate swing doors up to weight of 100 kg.
 - .2 Opening Speed:
 - .1 Door shall be field adjusted to back check as required in Table 1 of ANSI/BHMA A156.19.
 - .2 Opening speed to fully open shall be 4 seconds or longer.
- .2 Hold Open: Door shall be field adjusted to remain fully open for not less then 5 seconds or more than 30 seconds.
- .3 Closing Speed:
 - .1 Doors shall be field adjusted to close 90° to 10° in 3 seconds or longer as required in Table 1 of ANSI/BHMA A156.19.
 - .2 Doors shall close from 10° to fully closed in not less than 1.5 seconds.
 - .3 Force required to prevent door from opening or closing shall not exceed 7 kg applied 25 mm from latch edge of door at any point in opening or closing cycle.
 - .4 During power failure, doors shall open with manual pressure not exceeding 11.3 kg at point 25 mm from latch edge of door.
 - .5 Doors shall be equipped with signs visible from either side, instructing user as to operation and function of door.
- .4 Requirements:
 - .1 Provide header complete with full housing, finish shall match door frame finish.
 - .2 Locations of automatic door operators to conform to requirements of the Ontario Building Code (OBC).
 - .3 Operator shall be activated by 150 mm diameter stainless steel push button switches on either sides as indicated.
 - .4 Switches shall bear universal handicap logo visible to all types of traffic.

3 Execution

3.1 **EXAMINATION**

- .1 Verify condition and dimensions of previously installed Work upon which this Section depends. Report defects to Consultant. Commencement of Work means acceptance of existing conditions.

3.2 **INSTALLATION**

- .1 Install automatic door operators, controls and accessories for doors indicated in accordance with reviewed shop drawings and manufacturer written instructions.
- .2 Installation of automatic door operators to be in accordance with requirements of the Ontario Building Code (OBC).
- .3 Doors shall operate manually as though equipped with manual door closers, without damage to automatic door components, in event of power failure or in event of power termination.
- .4 Power supply to each door operator and wiring shall be provided by Division 26 - Electrical. Make connections at operators and at control panel and supply and install each electrical work between operators and activating controls. Comply with requirements of Division 26 - Electrical. All wiring shall be concealed and where exposed shall be run in conduit. Location of exposed wiring shall be subject to Consultant's approval.

3.3 **ADJUSTMENT AND CLEANING**

- .1 Test and adjust operators and controls smooth and proper operation.
- .2 Upon completion of Work of this Section, remove from Site all debris, equipment and excess material resulting from Work of this Section.

END OF SECTION