

SUPPLY AND INSTALLATION OF TURNSTILE FOR THE SWIMMING COMPLEX AT CSC@BUKIT BATOK

GENERAL PROJECT GUIDELINES

Purpose: To provide turnstile solution including integration and setup for the swimming complex @ CSC Bukit Batok

SCOPE OF WORKS

1. Preliminary for the entire works (erect of hoarding, safety sign to work site, protection, safety equipment, scaffolding etc). All rubbish to be cleared daily by the contractor at their own dumping ground. Standard insurance to be purchased to cover for the work site.
2. See Annex A for Turnstile specifications
3. Provide 1-year warranty upon completion
4. Co-ordination work on site with third party vendors
5. Design Proposal
6. Fee and Detail Construction Quotation including cost for software integration with third party vendor
7. Project Timeline
8. Any other works which is considered necessary for full and satisfactory completion of works
9. Company track record (submit a list of similar work the firm has completed within the past five years, giving the job location, name of owner, and dates on which the work started and completed).

Annex A

Turnstile solution including integration & setup

- 1) Two Lane – Quick and smooth motorized swing tempered glass bi - directional turnstile operations. Waist high, sufficient width to allow common wheel chair to pass through.
Size (mm): L 1000 x W2000 x H1000
2 turnstiles with single barrier tampered glass swing gate and 1 middle turnstile with 2 barrier tampered glass swing gates.
 - a. **Optical Detection** – LED's linked to 64 – bit CPU
 - b. **Throughput/Capacity** – up to 35 passages per minute for fast user throughput
 - c. **Card Stacking:**
 - Lane remains open while authorizing multiple credentials
 - Increases throughput during busy periods
 - Allows simultaneous transactions
 - d. **Alerts (Visible LED & Audible):**
 - Access Allowed: Green arrow and confirmation tone
 - Access Declined: Red X and rejection tones
 - e. **Lane Status LED's (2)** – Located at each end on pedestal tops
 - f. **Tailgate Detection:**
 - Assures that only one person enters for each authorized credential
 - Prevents “Piggybacking” by unauthorized persons
 - g. **Crawl Under Detection** – Optical LED's detect all movement 8” above the floor
 - h. **Reader Integration:**
 - Easily integrates to access control and fire safety systems through dry contact
 - Reader mounts internally in cabinet under lane status LED
 - i. **Power Failure/Emergency Mode:**
 - Barrier easily pushes open at power failure/emergency
 - Barrier auto-resets when power is restored
 - j. **Power Requirement** – 24 VDC – Maximum power consumption 90-180 W
 - k. **Cabinet Style** – Stainless steel w/square or round ends and tempered glass top
 - l. **Acrylic Color Choices** (swinging panels and sidewalls)
- 2) Industrial Grade CPU i3, 4GB RAM, 256 SSD, windows 10 professional OS, network ports, usb ports & serial ports

- 3) Installation cost of turnstile and cost for software integration with third party vendor (if any)
- 4) Laying of cables in the conduit must not be seen protruding from the ground
- 5) To make good all affected areas and the surfaces during the installation of the new turnstile.
- 6) QR code/Bar code scanner – interface: RS485, RS232, USB, TCP/IP

Software Integration

(a) Validation of membership (MAIN + SUPP)

Types of Membership	Ability to sign in guests
MAIN Member – A1000010001	Max 4 guests at all times \$1/guest weekdays, \$2/guest weekends
SUPP Member (Spouse) – A100001H101/A100001W101	Max 4 guests at all times \$1/guest weekdays, \$2/guest weekends
SUPP Member (Parents) – A100001F101/A100001M101	Max 4 guests at all times \$1/guest weekdays, \$2/guest weekends
SUPP Member (Child) – A100001S101/A100001D101	Max 4 guests on weekdays only \$1/guest weekday

- Barcode Scan for Member's guests – Per day according to member's purchase of guest ticket. To be valid for one-time use only at entry/exit gantry.
- QR code Scan for Member using virtual membership
- Magnetic Track 1 for Member using physical membership
- NFC Scan for Staff using Staff pass

(b) Message display on LCD – to allow end-user with supervisory access to change message display.

Description	Message Displayed (Configurable)
Error: Non-active membership	Your card is inactive/expired, please contact Membership
Welcome Message	Welcome Mr XXX.
Exit Message	Thank you! See you again!

(c) Record Management (Entry and Exit)

- View, retrieve, sort and export
- Automatic export of entry and exit record daily
- Ability to capture manual entry records
- Ability to sort by inserting Member's Name
- Ability to sort by inserting Member's Card Number
- Ability to sort by range of date/time of entry and exit time.

(d) Tailgate/Loss Ticket management

Valid Member:

- Allow to exit, flagged in LCD display and management tool that member has no signed in -
- Allow manual input of entry records.

Non-Member:

- Purchased Ticket: Scan ticket on the scanner in the entry turnstile to register the entry record so that they can exit.
- No purchased ticket: Allow manual exit via remote control to open the gates.

(e) Crowd control management – disallow entry once limit is reached according to Covid-19 regulations OR maximum capacity of the pools, only end-user with supervisory access be allowed to change the capacity of the pool.

(f) Application programming interface software development, software customization, product development and system implementation

(g) Technical software development and testing

(h) On-site testing

(i) User training

(j) Provision of LCD monitor (message display) – 7 inches with resolution 800 x 480 pixels