# ADDENDUM NO. 2 BID OPPORTUNITY NO. 15-2004 

CITY OF WINNIPEG OFFICE ADDITION AND RENOVATION 1155 PACIFIC AVENUE, WINNIPEG, MANITOBA

## URGENT <br> PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID OPPORTUNITY

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid Submission non-responsive.

## PART B - BIDDING PROCEDURES

Revise: B2.1 to read:
B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 29, 2004.

## PART E - SPECIFICATIONS

Revise: Section 05310 - STEEL DECK as follows: Refer to item 2.2.1 Revise Steel composite deck minimum base steel thickness from 0.91 mm to 0.76 mm .

Revise: Section 06240 PLASTIC LAMINATES as follows: Refer to Item 2.2.1: Delete Nevamar - ARP finish and Formica - Colorcore, Sante Fe and Standard Series \#38. Add Formica General Purpose Matt Finish.

Revise: Section 06400 ARCHITECTURAL WOODWORK as follows: Revise Item 2.5.1 to read, "Fabricate caseworks to AWMAC conventional construction, premium grade and as follows."

Revise: Section 07465 PREFORMED METAL SIDING PANELS, ROOFING, SOFFITS AND RAINWEAR as follows: Move Item 2.2 to Section 07532

Revise: Section 07532 MODIFIED BITUMEN MEMBRANE ROOFING as follows: Add Item 2.2 from Section 07465.
Revise: Section 09510 ACOUSTICAL CEILINGS as follows: Refer to section 2.1.1 "ACT-1":

- Delete Armstrong "Fine Fissured" square lay-in tile model no. 1830. Dimensions: 24 "x 48 " x 5/8".
- $\quad$ Add Armstrong "Fine Fissured" square lay-in tile model no. 1729. Dimensions: 24 "x 48 " x 5/8".

Revise: Section 10800 TOILET AND BATH ACCESSORIES as follows: Refer to Item 2.3 "Toilet and Bath Accessories"

- Item 7 "Napkin Dispenser": delete reference to abbreviation (SND) and replace with (ND). Total quantity of this item is 3 .
Add Item 15 "(SND) Surface Mounted Napkin Disposal - Frost model 622 Stainless Steel ( 22 ga) Type 304 no. 4 brushed finish. Includes pivoting, self closing lid." Total quantity of this item is 12.
- $\quad$ Refer to large-scale plans on drawing 15-2004_Drawing_A10.2-R0 for locations.

Revise: Section 15010as noted in Addendum No. 1 as follows: Delete the following sentences:

- $\quad$ Replace the specified condensing boilers with cast iron of equivalent capacity, provide a primary-secondary piping loop with two additional pumps, 3 -way valve, piping, pressure and temperature gauges, suction diffusers, tripleduty valves.
- Delete the carbon dioxide sensors and associated controls for the ventilation system.
- Delete the Variable frequency drives for the air handling units and associated controls.
- Delete the variable frequency drives for the pumps and associated controls.

Revise: Section 15051 as follows:
Clause 1.2 - Equipment or Materials and Approved Manufacturers, Refer to paragraph . 3 - Plumbing

- Refer to . 36 Shower Stalls; add Hytec
- $\quad$ Add . 37 Mop Sinks; Fiat, Stern-Williams

Revise: Section 15900 as follows: Clause 2.10-Output Devices - Refer to.1.1.1 and revise to "Damper and valve actuators shall be electric."

Revise: Section 16010 - Electrical General Requirements as follows:

- $\quad$ Clause 30 - Mounting Heights
- Refer to paragraph .3; revise mounting height to be as follows:
. 2 Wall Receptacles
. 1 General: 450mm
. 2 Voice/data and interphone outlets: 450mm
. 5 Wall mounted telephone and interphone outlets: 1200 mm
. 6 Fire alarm stations: 1200 mm
. 9 Television outlets: 450 mm
- Add the following new clause:
- $\quad$ Clause 43 - Additional Outlets and Devices
- Provide the following additional outlets and devices as directed:
- New Building
- 6 LV light switches c/w relays, (1 per switch) 40 ft conduit and wire per switch.
- 10 duplex outlets (wall) c/w 40 ft conduit and wire per outlet, connected to spare breaker.
- $\quad 10$ voice or data outlets (wall) c/w stub to cable tray and Cat 6 cable to server room.
- $\quad 10$ voice/data/power outlets (floor) c/w 2 Cat 6 cables to server room, stub to cable tray and 40 ft of conduit and wire connected to spare breaker.


## Renovation

- $\quad 10$ duplex outlets (wall) c/w 40 ft conduit and wire per outlet, connected to spare breaker.
- $\quad 10$ voice or data outlets (wall) c/w stub to cable tray and Cat 6 cable to server room.
- $\quad 10$ line voltage (347V) light switches, connected to existing lighting circuit, 40 ft of conduit and wire per switch.
- $\quad 10$ voice/data/power outlets (floor) c/w 2 Cat 6 cables to server room, stub to cable tray and 40 ft of conduit and wire connected to spare breaker.

Revise: Section 16132 - Outlet Boxes, Conduit Boxes and Fittings as follows:
Clause 2.9 Service Fittings: Delete paragraphs .1, . 2 and .3, replace with the following: ". 1 Surface Mounted 2gang floor mounted spider box, spider \#FSCS-2-9- c/w 1 duplex outlet and 6 data outlet locations. Provide inserts for unused data jack locations."

Revise: Section 16141 - Wiring Devices as follows: Clause 3.1-Installation: Refer to paragraph . 1 Switches; . 7 revise "1.4 m (4'-6") to read "1200mm".

Revise: Section 16193 - Miscellaneous Apparatus and Appliances as follows: Clause - 2.3 Pushbutton/Buzzers: Refer to paragraph . 1; add the following new sentence: ". . . Mount pushbutton at 1200 mm ."

Revise: Section 16477 - Moulded Case Circuit Breakers as follows: Clause 2.3 - Solid State Trip Breakers Delete paragraph . 2 "Breakers feeding transformers 30 kVA .."

Add: the attached new Section 16496 Ground Fault Circuit Interrupters - Class "A"

Revise: Section 16726 - Fire Alarm Systems (Addressable, single Stage) as follows: Clause 1.3 - Description of System: Refer to paragraph .5; add the following new sentence:"Existing inspection/test report and "as-built" drawings are available at Consultant's office for review. Provide all necessary devices, modules, wiring as necessary to replace existing equipment and functions."

Revise: Section 16747 - Voice and Data Communications Cabling as follows: Clause 1.5 - Approved Voice and Data Contractor: Refer to paragraph .2; add the following new sub-paragraph: ". 6 ALLCO Datacomm att: Ken Ernstberger, 697-1000"

Revise: Section 16902 - Card Access Control System as follows:

- Clause 2.1 - General Description: Refer to 1 - Manufacturers; change .2 to read: "Base bid to be Johnson Controls \# P2000 LE c/w 5 user licence"
- $\quad$ Clause 2.2 - Hardware Requirements: Add the following new paragraphs:

| - | ". $5 \quad$Locking Devices <br> .1$\quad$Locking devices such as electromagnets and door strikes are provided by the General |
| :--- | :--- | :--- |
| - $\quad .6$ | Powtractor. Refer to Door Hardware Schedule (08710). Coordinate as required. |

. 1 Power supplies for electromagnets and door strikes are provided by this section. Refer to Door Hardware specifications and schedules. Coordinate as required. Power supply to be located within DPU equipment cabinets. Cabinets to be ventilated, sprinklerproof and lockable. Size power supply at $150 \%$ of requirements.
. 2 Configure power supply to release all locks in the event that there is a loss of power to the door lock control system/CPU."

- $\quad$ Clause 2.3 - Cards and Card Readers: Refer to paragraph .2, subparagraph .1; add the following wording to sentence .7: "Provide 2000 cards".

Revise: Section 16910 - Intrusion Alarm System (Zoned) as follows:

- $\quad$ Clause 2.2 - Control Panel: Add the following new paragraphs:
". 4 Each control panel to have the required security system control modules and associated equipment installed inside surface mounted 18 " wide by 30 " high by 7 " deep metal enclosure with hinged door and padlock hasp and perforated metal backboard with $1 / 8^{\prime \prime}$ holes, as manufactured by JR Stevenson to City of Winnipeg specs. Metal enclosures to be mounted on 3/4" painted plywood backboard that shall extend well beyond the cabinet to facilitate secure fastening and mounting of conduit, wiring and other accessories.
. 5 Security equipment to be generally installed as per installations at 1220 and 1277 Pacific and as specified in this document.
. $6 \quad$ Prior to installing components within panels, provide shop drawings and review proposed installation with City of Winnipeg Building Services, Building Maintenance Tech Shop staff.
. 7 Each control panel to include a DSC LCD4500 series keypad for control module programming.
. 8 Control modules to be DSC PC 4020 latest version. Each control module to be programmed to cover no more than 2 partitions (2 zones).
.9 Leave installer's default code. Owner will change this code after Substantial Performance.
. 10 All detection zones to be programmable, supervised and controlled by microprocessor, c/w nonvolatile ram, 0 to 4 minute adjustable entry/exit delay timers, cabinet door tamper switch, leadacid maintenance-free standby batteries, power supply charger and lightning protection.
. 11 Card Access system to enable/disable security system zones/ devices within the building. Owner will provide final programming instructions at time of shop drawings and also at time of commissioning.
. 12 DSC intrusion system to have individual zone outputs (voltage outputs) connected to Metasys for grouped point monitoring. Inside DSC equipment control panel enclosure, provide DSC PC4216 output modules as required, each output corresponding to one zone, programmed as "zone follower". Each door contact point to be individually monitored by the Metasys system. Motion detectors covering perimeter exterior glazing inside individual offices may have up to 7 motion

> detectors combined into one Metasys alarm point provided that all the offices are in the same security partition and in a straight row (no change in direction) along the same building exterior wall. All other motion detectors to be individual monitored by Metasys. All alarm/control/status information to be on Metasys workstations at Central Control, 510 Main. Inside DSC equipment enclosure provide individual dry contacts as required for the following: $.13 \quad$ Each partition status: arm/disarm status . 2 Each partition alarm: common alarm $.3 \quad$ Each system trouble $.14 \quad$ DSC intrusion system to have inputs connected to Metasys from the card access system for arm/disarm operation. $.15 \quad \begin{aligned} & \text { Metasys equipment to be installed in separate lockable metal cabinets by 15900. Division } 16 \text { to } \\ & \text { provide minimum 1" conduit and required cable between DSC and Metasys cabinets. Leave } \\ & \text { enough cable length to facilitate all connections without wire splices. } \\ & .16 \quad \text { Division 15900 will provide Metasys equipment as required." }\end{aligned}$

- $\quad$ Clause 2.5 - Motion Detector
- Refer to paragraph .4, change to read ". . .Dual Tec \#DT640STC or 660STC as required for area coverage."
- $\quad$ Add new paragraph .5 to read as follows: "Install "t-REX" motion detector with built-in electronic buzzer above all door(s) at all locations for warning that basement stairwell and exterior vestibule door(s) is/are armed."
Clause 2.6 - Door Contacts: Refer to paragraph .4, change to read as follows: ". . .to be Sentrol \# 1076 or 1076C as required."

Clause 2.7 - Sirens: Refer to paragraph .2, change to read as follows: "To be DSC \# SD30W, 30 Watt"
Clause 2.9 - Zoning and Annunciation: Add the following new paragraphs:
. 2 System to be generally zoned as indicated. Request clarification if unclear.
. 3 In the existing building, remove existing security control panels in the basement and install new panels. Existing equipment to be turned over to the Contract Administrator. New panels to be interfaced to the Metasys system to communicate, monitor and display the status of all system security points on the Johnson Control Building Automation System (Metasys) system operator's terminal in the Central Control Office in the basement at 510 Main.
. 4 Provide 2 new, separate PC4020 control panels as follows:
. 1 One panel for Zones 5 and 6
. 2 One panel for Zones 7 and 8
. 5 If existing installation requires wiring splices due to specified work, all wiring splices to be made on suitable terminal block(s) inside lockable metal cabinet(s). Provide complete identification of all work including cabinet, cable, wiring, terminal blocks, etc, and show all details on as-built drawings.

Add the following new clause:

### 2.10 - Keyswitch

. 1 Keyswitch to be BEST Lock electric switch lock 1W7B3-626. Keyswitch to be installed in 2-gang metal electrical switch box, mounted on a 2-gang stainless steel cover plate with 1 red LED (partition arm/disarm status) and 1 green LED (loop status - ready light) and 12 volt DC electronic buzzer mounted inside enclosure for audible pre-alarm. On inside of stainless steel cover plate provide a stick-on magnetic tamper switch adhered with silicone adhesive. Coverplate to be secured by tamperproof security screws supplied by Contract Administrator. to be generally installed as per installations at 1220 and 1277 Pacific and as specified in this document. From each keyswitch run a FT-4, 22 AWG copper, 12 conductor jacketed multi-conductor cable to the DSC control panel. Use wires required and leave spare conductors for future. BEST lock cylinder to be 7 pin, "WB" keyway.

- Clause 3.1 - Installation: Add the following new paragraphs:
". 4 Provide multi-conductor \# 22 AWG from intrusion alarm system to Johnson Metasys cabinets. Refer to detail sheet attached to this addendum.
. 5 Wire splices not permitted. Provide adequate cable lengths to facilitate a neat and complete installation without wire splices. All cables and wires to be tagged with a permanent marking system (eg. waterproof mylar tape) adjacent to all termination points. All identification to be documented on as-built drawings and documents."

Clause 3.2 - Certification: Add the following new paragraphs:
. 3 System to be tested under actual working conditions in the presence of, and to the satisfaction of the Contract Administrator.
. 4 System to be certified by manufacturer's representative. Submit certified test results in the Maintenance/Operating Manual.
. 5 Instruct Contract Administrator. maintenance and operations personnel in the operation and maintenance of the system.
. 6 In each Maintenance/Operating Manual, provide complete as-built documentation, all wiring diagrams, programming information and description of system operation. Include parts list using industry standard component identification numbers.
. 7 Provide one hard copy of all programming data for all DSC modules directly to the Contract Administrator. staff (Building Maintenance Tech Shop staff) responsible for this system.
. 8 All equipment, components, cable and wiring to be identified with a permanent marking system (eg. waterproof mylar tape).
. $9 \quad$ All identification to be documented on as-built drawings and documents.

- $\quad$ Clause 3.3 - Approved Installers: Refer to paragraph .1, change to read:"Servo Electronics, National Industrial Communications Inc., Accurate Alarm Inc."

Revise: Motor Schedule as follows:

- $\quad$ Add UH-5, Room GEN-WW-38 manual c/w pilot light, cct 4C-16. Wire to line voltage stat located at starter, 2\#12, 120 V .
- Refer to fan coil units, FC-1 to FC-10 inclusive, delete note "wire to line voltage stat, refer to mechanical plans," change to read "Fan coil is DDC controlled."
- $\quad$ Refer to AHU-1, 2, 3, 4. Disconnect switches should be c/w aux contact and wired back to VFD in AHU. coordinate with 15900 . Provide wiring from disconnect to VFD and from VFD to motor using drive RX cable.

Add: Detail sheet ED-11 (attached).
Revise: Replace Low Voltage Lighting Control Schedule with revised Low Voltage Lighting Control Schedule (attached). Note - only the "bold" items have changes from the original bid opportunity documents.

Revise: Replace Door Security Schedule with revised Door Security Schedule (attached). Note - only the "bold" doors have changes from the original bid opportunity documents.

## PART E - SPECIFICATIONS

Revise: the following drawings:
15-2004_Drawing_A1.2-R1 Site Plan Civil:

- $\quad$ Pavement structure at recycling bin is to be concrete.
- $\quad$ Delete the reference to recycled concrete sub-base. All sub-base material must be crushed limestone. Refer to section 02223 Backfill.

15-2004_Drawing_A1.3-R1 Add to Site Plan General Notes:

- $\overline{\mathrm{D}}$. This plan to govern sidewalk layout.
- E. Provide for line painting of parking stalls for all of existing parking stalls in addition to new as per Site Plan Key Note 8.

15-2004_Drawing_A6.1-R0 Wall Sections and Details: Refer to sections 1 and 5 of A6.1-Pea gravel is to be provided at weeping tile alongside grade beams and further granular backfill is to be provided alongside grade beams as shown on these details. Refer also to section 02223 Backfill, 3.5.3.

15-2004 Drawing S1.2-R0 Partial Existing Building Floor Framing Plan And Details: Refer to Section 8/1.2. Add note "Typical section at all concrete slabs at building entrances and exits."

15-2004_Drawing_S1.3-R0 Roof Framing Plan, Schedules and Details: Column C3 to be 219 diameter HSS x 6.4 mm wall.

15-2004_Drawing_S2.2-R0 Sections and Details:

- $\quad$ Refer to Section 5/S2.2-75 x $75 \times 6$ angle soffit framing consists of vertical drop angle from top continuous bent plate and diagonal angles at 900 o/c.
- $\quad$ Refer to Section 7/S2.2-C100 x 8 outriggers to be spaced at 1500 o/c
- $\quad$ Refer to Section 7/S2.2-75 x $75 \times 6$ angle soffit framing consists of continuous top and bottom angles at exterior edge, vertical drop angles and diagonal angles at $900 \mathrm{o} / \mathrm{c}$.

15-2004_Drawing_M0.1-R0: Refer to the radiation unit designation, revise the tag such that the output is the middle number and the physical length is the bottom number.

15-2004_Drawing_M2.4-R0: Refer to the existing building plans. The return grilles shown with a heavier line weight are new type D grilles 600x300.

15-2004_Drawing_M2.5-R0: Refer to the existing building plans. The return grilles shown with a heavier line weight are new type D grilles 600x300.

15-2004_Drawing_E2.3-R0 Main Floor Plan Part B - Lighting: Replace with drawing 15-2004_Drawing_E2.3-R1 for general revisions to lighting.

15-2004_Drawing_E2.4-R0 Main Floor Plan Part B - Lighting: Replace with drawing 15-2004_Drawing_E2.4-R1 for general revisions to lighting.

15-2004_Drawing_E2.6-R0 Main Floor Plan Part A - Power And Systems: Replace with drawing 15-2004_Drawing_E2.6-R1 for general revisions.

15-2004_Drawing_E2.7-R0 Main Floor Plan Part A - Power And Systems: Replace with drawing 15-2004_Drawing_E2.7-R1 for general revisions.

15-2004_Drawing_E2.8-R0 Main Floor Plan Part B - Power And Systems: Replace with drawing 15-2004_Drawing_E2.8-R1 for general revisions.

15-2004_Drawing_E2.9-R0 Main Floor - Security Systems: Replace with drawing 15-2004_Drawing_E2.9-R1 for general revisions.

15-2004_Drawing_E3.1-R0 Single Line Distribution Schematic: Replace with drawing 15-2004_Drawing_E3.1-R1 for general revisions.

15-2004_Drawing_E3.2-R0 Miscellaneous Schematics: Replace with drawing 15-2004_Drawing_E3.2 -R1 for general revisions.

## PART 1 - GENERAL

### 1.1 Related Work Specified Elsewhere

# . 1 Electrical General Requirements Section 16010 

. 2 Panelboards Breaker Type Section 16471

### 1.2 Shop Drawings and Product Data

. 1 Submit shop drawings and product data in accordance with Section 01300 - Submittals.

## PART 2 - PRODUCTS

### 2.1 Materials

. 1 Components comprising ground fault protective system to be of same manufacturer.

### 2.2 Breaker Type Ground Fault Interrupter

. 1 Single or Two pole ground fault circuit interrupter for 15 to 40A, 120/240V, 1 phase circuit c/w test and reset facilities.

### 2.3 Ground Fault Protector Unit

.1 Self-contained with $15 \mathrm{~A}, 120 \mathrm{~V}$ circuit interrupter and duplex receptacle complete with:
. 1 Solid state ground sensing device.
. $2 \quad$ Facility for testing and reset.
. 3 Flush mounted with stainless steel face plate.

## PART 3 -EXECUTION

### 3.1 Installation

. 1 Do not ground neutral on load side of ground fault relay.
. 2 Pass phase conductors including neutral through zero sequence transformers.
. 3 Connect supply and load wiring to equipment in accordance with manufacturer's recommendations.

### 3.2 Field Quality Control

. 1 Perform tests in accordance with Section 16010 - Electrical - General Requirements.
. 2 Arrange and pay for field testing of ground fault equipment by independent testing laboratory before commissioning service.
. 3 Submit report of tests to Consultant and a certificate that system as installed meets criteria specified herein. Include copies of report in maintenance manuals.
.4 Demonstrate simulated ground fault tests.

## END OF SECTION



| SWITCH NUMBER | SWITCH LOCATION ROOM NUMBER | $\begin{gathered} \text { CIRCUITS } \\ \text { CONTROLLED } \end{gathered}$ | $\begin{gathered} \text { RELAY } \\ \text { CONTROLLED } \end{gathered}$ | REMARKS |
| :---: | :---: | :---: | :---: | :---: |
| CS-1 | CRAWLSPACE | L320 | r1 | 2 LOCATIONS |
| CS-2 | CRAWLSPACE | L320 | r2 |  |
| CS-3 | CRAWLSPACE | L320 | r3 |  |
| CS-4 | CRAWLSPACE | L320 | r4 |  |
| CS-5 | CRAWLSPACE | L321 | r5 | 3 LOCATIONS |
| CS-6 | CRAWLSPACE | L321 | r6 |  |
| CS-7 | CRAWLSPACE | L321 | r7 |  |
| CS-8 | CRAWLSPACE | L321 | r8 |  |
| CS-9 | CRAWLSPACE | L221 | r9 | 3 LOCATIONS |
| CS-10 | CRAWLSPACE | L221 | r10 |  |
| CS-11 | CRAWLSPACE | L221 | r11 |  |
| CS-12 | CRAWLSPACE | L220 | r12 |  |
| CS-13 | CRAWLSPACE | L220 | r13 |  |
| CS-14 | CRAWLSPACE | L220 | r14 |  |
| CS-15 | CRAWLSPACE | L221 | r15 |  |
| CS-16 | CRAWLSPACE | L220 | r16 |  |


| SWITCH NUMBER | SWITCH LOCATION ROOM NUMBER | CIRCUITS CONTROLLED | $\begin{gathered} \text { RELAY } \\ \text { CONTROLLED } \end{gathered}$ | REMARKS |
| :---: | :---: | :---: | :---: | :---: |
| S1 | HR-WW-12 | L322 | r1a-e | 2 LOCATIONS |
| S2 | IS-WW-08 | L324 | r2a-c | 2 LOCATIONS |
| S3 | EN-WW-S2 | L326 | r3a-c |  |
| S4 | EN-WW-40 | L327 | r4a-c |  |
| S5 | EN-WW-10 | L329 | r5a-e |  |
| S6 | EN-WW-42 | L304 | r6a-c | 2 LOCATIONS |
| S7 | EN-WW-12 | $\begin{aligned} & \text { L305 } \\ & \text { 5C-75 } \end{aligned}$ | $\begin{gathered} \text { r7a-c } \\ \text { r7d } \end{gathered}$ | 3 LOCATIONS |
| S8 | EN-WW-50 | L306 | r8a-d |  |
| S9 | MASTER (BC-WW-03) | $\begin{aligned} & \text { L211 } \\ & \text { L227 } \\ & \text { L308 } \\ & \text { 4A-59 } \end{aligned}$ | $\begin{gathered} \text { r9b } \\ \text { r9 } \\ \text { r9a } \\ \text { r9c } \end{gathered}$ |  |
| S10 | FA-WW-04 | L312 | r10a-d | 2 LOCATIONS |
| S11 | EN-PW-08 | $\begin{aligned} & \text { L206 } \\ & \text { L207 } \end{aligned}$ | $\begin{aligned} & \text { r11a } \\ & \text { r11b } \end{aligned}$ | 3 LOCATIONS |
| S12 | EN-PW-08 | $\begin{aligned} & \text { L208 } \\ & \text { L214 } \end{aligned}$ | $\begin{aligned} & \text { r12a } \\ & \text { r12b } \end{aligned}$ | 3 LOCATIONS |
| S13 | GEN-WW-28 | L222 | r13 |  |
| S14 | MASTER (BC-WW-03) | L222 | r14 |  |
| S15 | GEN-WW-34 | $\begin{gathered} \mathrm{L} 224 \\ \mathrm{~L} 225 \\ \text { 4D-19 } \end{gathered}$ | $\begin{aligned} & \text { r15a } \\ & \text { r15b } \\ & \text { r15c } \\ & \hline \end{aligned}$ | 2 LOCATIONS |
| S16 | BS-PW-13 | L201 | r16a-e |  |

LOW VOLTAGE LIGHTING CONTROL SCHEDULE
Project: OFFICE ADDITION AND RENOVATION 1155 PACIFIC AVE. Job Number: 02-018-01

SMS engineering

| SWITCH NUMBER | SWITCH LOCATION ROOM NUMBER | CIRCUITS CONTROLLED | $\begin{gathered} \text { RELAY } \\ \text { CONTROLLED } \end{gathered}$ | REMARKS |
| :---: | :---: | :---: | :---: | :---: |
| S17 | BS-PW-23 | L205 | r17 | 2 LOCATIONS |
| S18 | BS-PW-35 | L226 | r18a-d |  |
| S19 | ENPW-24 | L209 | r19 |  |
| S20 | GEN-WW-14 | L309 | r20a |  |
| S21 | GEN-WW-15 | L309 | r20b |  |
| BLDG. MGMT. |  | L338 | rx-1 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING SIGN |
| BLDG. MGMT. |  | L337 | rx-2 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING SIGN |
| BLDG. MGMT. |  | L342 | rx-3 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BOLLARD LIGHTS |
|  |  |  | SPARE |  |
| BLDG. MGMT. |  | L339 | rx-5 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING SIGN |
| BLDG. MGMT. |  | L340 | rx-6 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING SIGN |
| BLDG. MGMT. |  | L341 | rx-7 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING SIGN |
|  |  |  | SPARE |  |
| BLDG. MGMT. |  | L242 | rx-9 | PHOTO CELL/MGMT. SYSTEM CONTROLLED BUILDING LIGHTS |
| BLDG. MGMT. |  | $\begin{aligned} & \text { 5A-69 } \\ & \text { 5B-42 } \\ & \text { 5C-72 } \\ & \text { 5B-44 } \end{aligned}$ | $\begin{aligned} & \mathrm{rxx}-10 \\ & \mathrm{rx}-12 \\ & \mathrm{rx}-11 \\ & \mathrm{rx}-13 \end{aligned}$ | CORRIDOR DISPLAY LIGHTING |

Door Security Schedule (Revised - June 22/04)
SMS ENGINEERING
Project: 1155 PACIFIC
Job Number: 02-018-01

| Door |  |  |  |  |  |  | Request for Exit |  |  |  | Auto Door Equipment |  |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Auto Operator |  | Motion Detector |  |  |
| GEN-WW-01-2 |  | XX |  | X | X |  |  |  |  |  | X | XX |  | X | AUTO DOORS |
| GEN-WW-01-1 |  |  |  |  |  |  |  |  |  |  | X | XX |  |  | AUTO DOORS |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IS-WW-10 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-14 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-54 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GN-WW-23 |  | XX |  | X |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-24-1 |  |  |  |  |  |  |  |  |  | X |  |  |  |  | 20 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-24-2 |  | XX |  | XX |  |  |  |  |  |  |  |  |  | XX |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BS-PW-35 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-01 |  | XX |  | XX | X |  |  |  |  |  | X | XX |  | XX | AUTO DOORS |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-01-1 |  |  |  |  |  |  |  |  |  |  | X | XX |  |  | AUTO DOORS |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FA-WW-04 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |

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| Door |  |  | ᄃ <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 10 | $\begin{aligned} & \text { 듬 } \\ & \text { ㅂ } \\ & \text { O } \\ & \Sigma \end{aligned}$ |  |  | Request for Exit |  |  |  | Auto Door Equipment |  |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | 응 <br>  $\begin{aligned} & \stackrel{\ddots}{\mathrm{O}} \\ & \frac{\mathrm{O}}{\mathrm{~W}} \mathrm{O} \end{aligned}$ | $\overline{0}$ <br> $\stackrel{0}{0}$ <br> 0.0 <br> 0 <br> 0 <br> 0 <br> 1 | $\check{0}$ 0 0 0 $\frac{1}{5}$ 0 | Motion Detector |  |  |
| EN-PW-08-1 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BS-PW-25 |  | X |  | X |  |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DIR-WW-02 |  | X |  | X |  |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-32B |  | XX |  |  | X |  |  |  |  |  |  |  | X | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-02-1 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-02-2 |  | X |  |  | X |  |  |  | X |  |  |  |  | XX |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-08-1 |  | X |  |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BC-WW-06 |  | X | X | X |  |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-PW-08-2 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BS-PW-13 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-41 |  | XX |  | XX | X |  |  |  | X |  |  |  |  | XX | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BS-PW-01 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |


| Door |  |  |  | $\begin{aligned} & \text { 들 } \\ & \text { ㄹ } \\ & 0 \\ & \text { I } \end{aligned}$ |  |  | Request for Exit |  |  |  | Auto Door Equipment |  |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $\underset{\text { 区 }}{\underset{\text { 区 }}{\text { 区 }}}$ |  | 흠 <br>  | Auto Operator |  | Motion Detector |  |  |
| EN－PW－08－3 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－10 |  | XX |  | X | X |  |  |  |  |  |  |  |  | X | 21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－9 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－3 |  | XX |  | X | X |  |  |  |  |  |  |  |  | X | 21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－5 |  | XX |  | XX |  | X |  |  |  |  |  |  |  | XX |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－1 |  | XX |  | X | X |  |  |  | X |  |  |  |  | X | 5，21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PO－PW－39 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－4 |  | XX |  | X | X |  |  |  |  |  |  |  |  | X | 5，21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX－7 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN－PW－24 |  | X | X | X |  |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GN－PW－03 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN－PW－01 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |

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| Door |  |  |  | $\begin{aligned} & \text { 드 } \\ & \text { O } \\ & \text { O } \\ & \Sigma \end{aligned}$ |  |  | Request for Exit |  |  |  | Auto Door Equipment |  |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | ıоџеләdO O!n甘 |  | Motion Detector |  |  |
| TR-PW-01 |  | X |  |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PO-PW-02 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SM-PW-16 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX-8 |  | X |  |  | X |  |  |  |  |  |  |  | X | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-PW-36 |  | XX |  | X |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SM-PW-15 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX-8 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX-6 |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX-2A |  | X |  |  | X |  |  | X |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EX-2B |  | X |  | X | X |  |  | X |  |  |  |  |  | X | 21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DR-PW-01 |  | X |  |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FA-PW-10 |  | X |  | X |  |  |  |  | X |  |  |  |  | X |  |

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| Door |  |  |  | $\begin{aligned} & \text { 프 } \\ & \text { O} \\ & \text { 제 } \\ & \sum \end{aligned}$ |  |  | Request for Exit |  |  |  | Auto Door Equipment |  |  |  | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | $\check{c}$ 0 0 0 $\frac{1}{5}$ 0 0 | Motion Detector |  |  |
| TR-PW-22-1 |  | X |  |  | X |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR-PW-22-2 |  | X |  |  | X |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TR-PW-21 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-28 |  | X | X |  | X |  |  |  | X |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R0-WW-06-1 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GEN-WW-22 |  | X |  |  | X |  | X |  |  |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-46 |  | X | X | X |  |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-43-1 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-22 |  | X |  |  | X |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EN-WW-20 |  | X |  | X |  |  |  |  | X |  |  |  |  | X | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HR-WW-12 |  | XX |  | X |  |  |  |  |  |  |  |  |  | X |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FA-WW-04B |  | X |  |  | X |  | X |  |  |  |  |  |  | X |  |

## Door Security Schedule Notes

Project:
SMS Engineering
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1. Auto Door Push Button also serves as "request-to-exit" function for Access Control/Monitor System.
2. Auto Door Motion Detector serves as timing device to hold doors open until doorway is clear.
3. Card Reader also serves to initiate Auto Door opening sequence.
4. LBM in electric strike serves as "request-to-exit" function for Access Control/Monitor System.
5. Exit detector to be complete with local alarm 'sonolert' buzzer, mounted adjacent to sensor 1 gang box. Sensor to activate sonolent buzzer "after hours" when a person approaches this door. Buzzer shall reset automatically when sensor deactivates.
6. Remote door release button(s) by Access Control/Monitor System supplier.
7. Key switch to control mag lock.
8. Not used
9. Auto Door Push Button and/or Card Reader mounted on post - refer to Architectural details
10. Auto Doors are interlocked so that motion detector on outside and push button or motion detector on inside open both sets of doors in sequence in respective directions. Push buttons inside vestibule open respective doors only.
11. Auto Door motion detector also serves as "request-to-exit" function for Access Control/Monitor System.
12. Not used
13. Remote door release button deactivates lock on first door and after timed delay activates Auto Door operators on second door.
14. Not used
15. Not used
16. On secure mode, push button is deactivated.
17. Door normally locked, but releases on fire alarm.
18. Not used
19. Power for door wired from card access system DGP at 24 volt D.C.
20. Magnetic door hold opens to be released by Access Control System and fire alarm system.
21. Magnetic lock and door strike to operate together.
