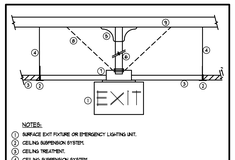
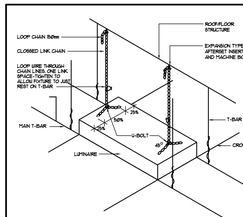
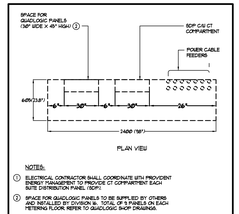


NOTES:
1. SURFACE EXIT FIXTURE ON EMERGENCY LIGHTING UNIT.
2. CEILING SUSPENSION SYSTEM.
3. CEILING TREATMENT.
4. CEILING SUSPENSION SYSTEM.
5. CEILING TREATMENT.
6. CEILING SUSPENSION SYSTEM HANGER.
7. THREADED BARE SUPPORT.
8. 19mm RIGID CONDUIT.
9. OUTLET BOX TO SUIT FIXTURE.
10. LATERAL SUPPORT WHERE CONDUIT EXCEEDS 1200mm.
11. ROOF DECK/FLOOR ASSEMBLY.

1 SURFACE EXIT FIXTURE

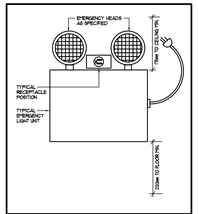


2 LUMINAIRE SUSPENSION DETAIL, T-BAR CEILING

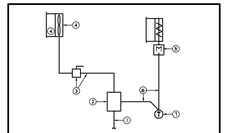


NOTES:
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH PROVIDENT ENERGY MANAGEMENT TO PROVIDE CT COMPARTMENT EACH SUITE DISTRIBUTION PANEL (SOP).
2. SPACE FOR QUADLOGIC PANELS TO BE SUPPLIED BY OTHERS AND INSTALLED BY DIVISION 16. TOTAL OF 5 PANELS ON EACH METERING FLOOR. REFER TO QUADLOGIC SHOP DRAWINGS.

3 TYPICAL ELECTRICAL CLOSET DETAIL

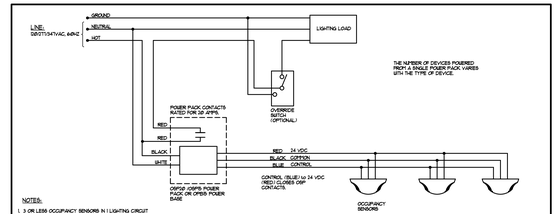


4 MOUNTING HEIGHT DETAIL OF EMERGENCY BATTERY PACK



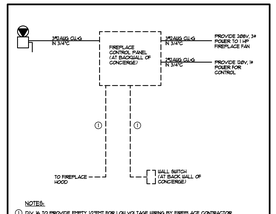
NOTES:
1. POWER WIRING AND CONDUIT BY DIV. 16
2. MAGNETIC STARTER BY DIV. 15 IF REQUIRED
3. POWER WIRING AND CONDUIT, SAFETY SWITCH BY DIV. 16
4. FAN BY DIV. 15
5. LINE VOLTAGE ACTUATOR BY DIV. 15
6. LINE VOLTAGE CONTROL WIRING AND CONDUIT BY DIV. 16
7. LINE VOLTAGE THERMOSTAT BY DIV. 15

5 EXHAUST FAN/MOTORIZED INTAKE DAMPER WIRING DIAGRAM



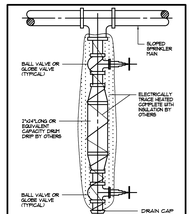
NOTES:
1. ON LIEBE OCCUPANCY SENSORS IN 1 LIGHTING CIRCUIT

6 LIGHTING CONTROL BLOCK DIAGRAM

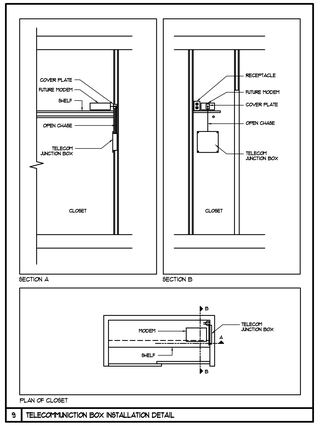


NOTES:
1. DIV. 16 TO PROVIDE EMPTY 1/2"EPT FOR LOW VOLTAGE WIRING BY FIREPLACE CONTRACTOR.

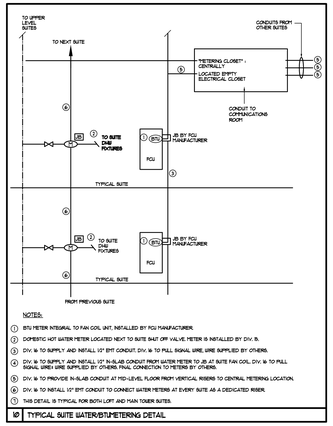
7 FIREPLACE CONNECTION DIAGRAM



8 DRUM DRIP - AT LOW POINT- DETAIL

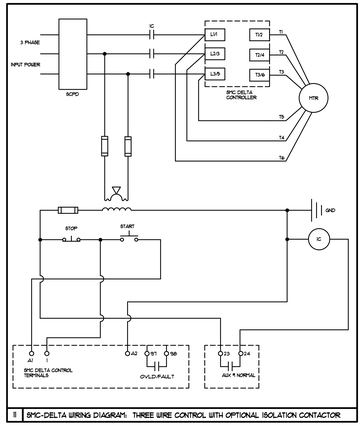


9 TELECOMMUNICTION BOX INSTALLATION DETAIL

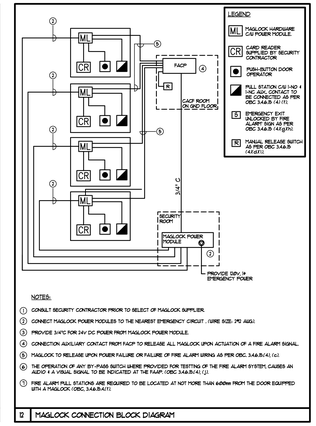


NOTES:
1. BTU METER INTEGRAL TO FAN COIL UNIT. INSTALLED BY FCU MANUFACTURER.
2. DOMESTIC HOT WATER METER LOCATED NEXT TO SUITE SHUT OFF VALVE. METER IS INSTALLED BY DIV. 15.
3. DIV. 16 TO SUPPLY AND INSTALL 1/2" EMT CONDUIT. DIV. 16 TO PULL SIGNAL WIRE. WIRE SUPPLIED BY OTHERS.
4. DIV. 16 TO SUPPLY AND INSTALL 1/2" FLEXIBLE CONDUIT FROM WATER METER TO JB AT SUITE FAN COIL. DIV. 16 TO PULL SIGNAL WIRE. WIRE SUPPLIED BY OTHERS. FINAL CONNECTION TO METERS BY OTHERS.
5. DIV. 16 TO PROVIDE IN-SLAB CONDUIT AT FIC-LEVEL FLOOR FROM VERTICAL RISERS TO CENTRAL METERING LOCATION.
6. DIV. 16 TO INSTALL 1/2" EMT CONDUIT TO CONNECT WATER METERS AT EVERY SUITE AS A DEDICATED RISER.
7. THIS DETAIL IS TYPICAL FOR BOTH LOFT AND MAIN TOWER SUITES.

10 TYPICAL SUITE WATER/BTUMETERING DETAIL

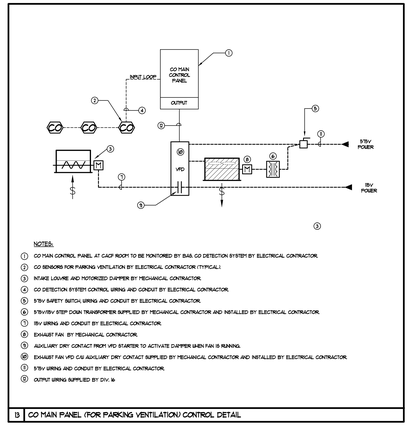


11 SMC-DELTA WIRING DIAGRAM: THREE WIRE CONTROL WITH OPTIONAL ISOLATION CONTACTOR



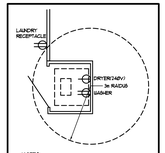
NOTES:
1. CONSULT SECURITY CONTRACTOR PRIOR TO SELECT OF MAGLOCK SUPPLIER.
2. CONNECT MAGLOCK POWER MODULES TO THE EMERGENCY POWER CIRCUIT. (WIRE SIZE: 3*12 AWG)
3. PROVIDE 3/4"C FOR 24V DC POWER FROM MAGLOCK POWER MODULE.
4. CONNECTION AUXILIARY CONTACT FROM FACP TO RELEASE ALL MAGLOCK UPON ACTUATION OF A FIRE ALARM SIGNAL.
5. MAGLOCK TO RELEASE UPON POWER FAILURE OR FAILURE OF FIRE ALARM WIRING AS PER OBC 3.4.8.7.(4) (c).
6. THE OPERATION OF ANY BY-PASS SWITCH WHERE PROVIDED FOR TESTING OF THE FIRE ALARM SYSTEM, CAUSES AN AUDIO 1 & VISUAL SIGNAL TO BE INDICATED AT THE FAMP. (OBC 3.4.8.7.(4) (j))
7. FIRE ALARM PULL STATIONS ARE REQUIRED TO BE LOCATED AT NOT MORE THAN 600mm FROM THE DOOR EQUIPPED WITH A MAGLOCK (OBC 3.4.8.5.(1))

12 MAGLOCK CONNECTION BLOCK DIAGRAM



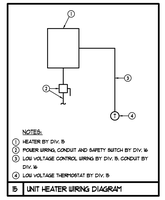
NOTES:
1. CO MAIN CONTROL PANEL AT CAGF ROOM TO BE MONITORED BY BAS. CO DETECTION SYSTEM BY ELECTRICAL CONTRACTOR.
2. CO SENSORS FOR PARKING VENTILATION BY ELECTRICAL CONTRACTOR (TYPICAL).
3. INTAKE LOUVRES AND MOTORIZED DAMPERS BY MECHANICAL CONTRACTOR.
4. CO DETECTION SYSTEM CONTROL WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR.
5. 5V/ SAFETY SWITCH WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR.
6. 5V/ 15V STEP DOWN TRANSFORMER SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
7. 15V WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR.
8. EXHAUST FAN BY MECHANICAL CONTRACTOR.
9. AUXILIARY DRY CONTACT FROM VFD STARTER TO ACTIVATE DAMPER WHEN FAN IS RUNNING.
10. EXHAUST FAN VFD CAI AUXILIARY DRY CONTACT SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
11. 5V/ 15V WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR.
12. OUTPUT WIRING SUPPLIED BY DIV. 16

13 CO MAIN PANEL (FOR PARKING VENTILATION) CONTROL DETAIL



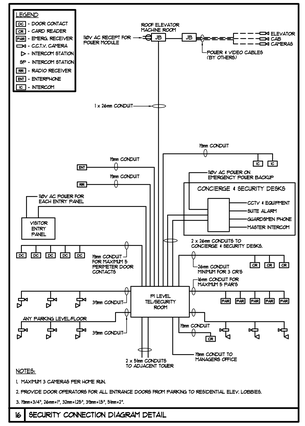
NOTES:
1. A RECEPTACLE IS PERMITTED TO BE INSTALLED WITHIN A 3ø RADIUS OUTSIDE OF A LAUNDRY CLOSET.

14 RECEPTACLE FOR LAUNDRY CLOSET



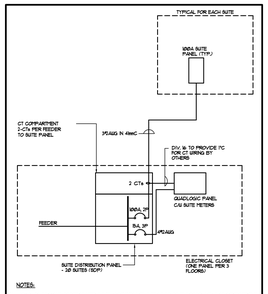
NOTES:
1. HEATER BY DIV. 15
2. POWER WIRING, CONDUIT AND SAFETY SWITCH BY DIV. 16
3. LOW VOLTAGE CONTROL WIRING BY DIV. 15. CONDUIT BY DIV. 16
4. LOW VOLTAGE THERMOSTAT BY DIV. 15

15 UNIT HEATER WIRING DIAGRAM



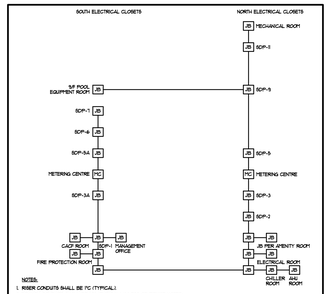
NOTES:
1. MAXIMUM 3 CAMERAS PER HOME RUN.
2. PROVIDE DOOR OPERATORS FOR ALL ENTRANCE DOORS FROM PARKING TO RESIDENTIAL ELEV. LOBBIES.
3. 19mm=3/4", 26mm=1", 32mm=1 1/4", 39mm=1 1/2", 51mm=2".

16 SECURITY CONNECTION DIAGRAM DETAIL



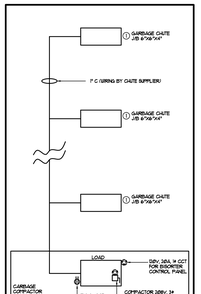
NOTES:
1. DIV. 16 TO PROVIDE AN INTEGRATED PANEL CONSISTING OF A REGULAR PANELBOARD AND A CT COMPARTMENT.
2. DIV. 16 TO PURCHASE 2CTS PER SUITE PRIOR PROVIDENT AND INSTALL AT CT COMPARTMENT AT SUITE FEEDER CABLES. DIV. 16 TO CONNECT CTS TO QUADLOGIC PANELS.
3. 3/4" CONDUIT BY DIV. 16, WIRING BY OTHERS.

17 QUADLOGIC INTERCONN. BLOCK DIAGRAM



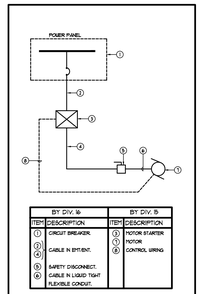
NOTES:
1. RISER CONDUITS SHALL BE 1"C (TYPICAL)
2. BRANCH CONDUITS SHALL BE 1/2" (TYPICAL) UNLESS OTHERWISE NOTED.
3. ALL BOXES/COVERS TO BE PAINTED "EPR".
4. FLOORS CONTAINING MC "METERING CENTRE", REQUIRE SMV POWER.
4. FIRST JB FOR "SOP" SUITE DISTRIBUTION PANELS (FROM THE BOTTOM) REQUIRE SMV POWER (ACTUAL LOCATION OF METERING CENTRE "MC" TO BE DETERMINED BY ELECTRICAL LOWEST POSSIBLE FLOOR)

18 METERING & EPS RISER DIAGRAM

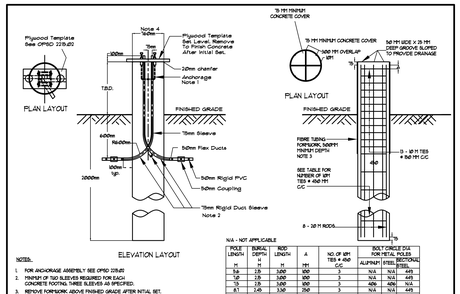


NOTES:
1. JUNCTION BOX PER FLOOR

19 BISORTER



20 MOTOR DRIVE AND STARTER CONNECTION, DIVISION OF RESPONSIBILITIES

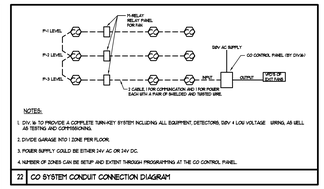


NOTES:
1. FOR ANCHORAGE ASSEMBLY SEE OPSD 2.20.02
2. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONCRETE FOOTING THREE SLEEVES AS SPECIFIED.
3. REMOVE FORFWORK ABOVE FINISHED GRADE AFTER INITIAL SET.
4. 19" POLE-MOUNT, 3ø1 POLE - 5x8ø FOR POLE MOUNTING DETAILS SEE OPSD 2.20.05.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N/A - NOT APPLICABLE

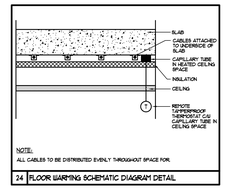
POLE LENGTH	BURIAL DEPTH	BOLT LENGTH	A	NO. OF 1ØT TIES + 4X8 CC	BOLT CIRCLE DIA. FOR METAL POLES		BASEPLATE
					ALUMINUM	STEEL	STEEL
H	H	H	1ØT				
9.0	2.5	3.600	1000	3	N/A	N/A	4.65
12.0	2.5	3.600	1000	3	N/A	N/A	4.65
14.0	2.75	3.900	1500	3	N/A	N/A	4.65
17.1	2.45	3.300	1500	3	N/A	N/A	4.65
18.0	2.45	3.300	1ø	4	460	460	N/A
20.0	2.600	3.300	1000	4	460	460	N/A
22.0	2.75	3.600	1500	4	460	460	N/A
24.0	2.900	3.75	1ø	4	460	460	N/A
31.0	3.05	3.900	1000	4	460	460	N/A

21 RAISED CONCRETE FOOTING FOR BASE MOUNTED LIGHTING POLES (REFER TO OPSD 2.20.02.01 FOR MORE INFORMATION) (REFER TO STRUCTURAL AND ARCHITECTURAL DETAILS PRIOR TO INSTALLING POLE BASES) (THIS DETAIL IS FOR REFERENCE ONLY)



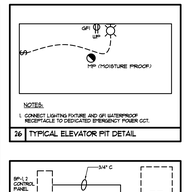
NOTES:
1. DIV. 16 TO PROVIDE A COMPLETE TURN-KEY SYSTEM INCLUDING ALL EQUIPMENT, DETECTORS, 15V + LOW VOLTAGE WIRING, AS WELL AS TESTING AND COMMISSIONING.
2. DIVIDE GARAGE INTO 1 ZONE PER FLOOR.
3. POWER SUPPLY COULD BE EITHER 24V AC OR 24V DC.
4. NUMBER OF ZONES CAN BE SETUP EASILY THROUGH PROGRAMMING AT THE CO CONTROL PANEL.

22 CO SYSTEM CONDUIT CONNECTION DIAGRAM



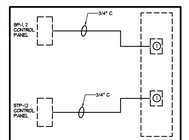
NOTE:
ALL CABLES TO BE DISTRIBUTED EVENLY THROUGHOUT SPACE FOR.

24 FLOOR WARMING SCHEMATIC DIAGRAM DETAIL



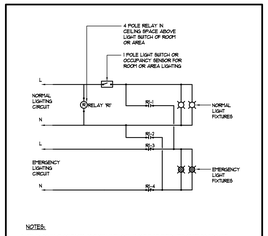
NOTES:
1. CONNECT LIGHTING FIXTURE AND GFI WATERPROOF RECEPTACLE TO DEDICATED EMERGENCY POWER CCT.

26 TYPICAL ELEVATOR PIT DETAIL



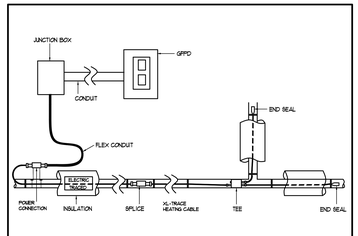
NOTES:
1. DIV. 15 TO PROVIDE NOVA SWITCH AND LOW VOLTAGE WIRING.

27 SP & STP MONITORING SYSTEM CONDUIT CONNECTION DIAGRAM



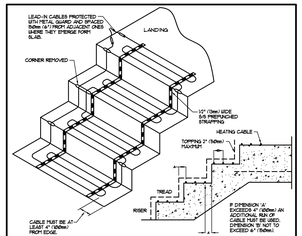
NOTES:
1. RELAY TO HAVE CONTACTS AS SHOWN WHEN COIL IS IN THE DE-ENERGIZED STATE TO PROVIDE FAIL SAFE SPT-PASS OF THE LIGHT SWITCH.
2. THE 1 POLE LIGHT SWITCH SHALL CONTROL NORMAL AND EMERGENCY LIGHTS AND THE EMERGENCY LIGHTS SHALL REMAIN ON TURN ON AUTOMATICALLY WITH LOSS OF NORMAL POWER TO THE LIGHT FIXTURES.
3. TVSS CONTROL SHALL BE PROVIDED FOR ALL ROOMS AND AREAS WHERE IT IS NECESSARY TO CONTROL NORMAL AND EMERGENCY LIGHTS IN THE ROOM OR AREA FROM ONE COMMON SWITCH.

28 TYPICAL AUTOMATIC EMERGENCY LIGHTING CONTROL DIAGRAM



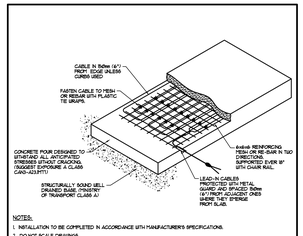
NOTES:
1. THE HEATING CABLE IS PERMANENTLY SECURED TO INSULATED METALLIC OR PLASTIC PIPING.
2. A 30-mA NOMINAL GROUND-FAULT PROTECTION DEVICE(GFPD) IS USED.
3. THE HEATING CABLE IS INSTALLED PER MANUFACTURER'S INSTRUCTIONS WITH APPROVED RAYCHEM COMPONENTS.

29 HEAT TRACE CONNECT DETAIL



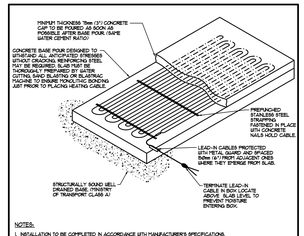
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. LEAD-IN CABLE SHOULD BE TERMINATED IN A JUNCTION BOX ABOVE GRADE LEVEL TO PREVENT MOISTURE FROM ENTERING FROM ENTERING THE BOX.
4. CARE MUST BE TAKEN NOT TO DAMAGE CABLE WITH RAKES, SHOVELS, WHEELBARROWS, ETC.
5. CONTROL JOINTS TO BE PLACED NO NARRIER THAN 30" IN ANY ONE DIRECTION.
6. CUT CONTROL JOINTS 1/8" DEEP AND 3/4" DEEP APPROX. 4 HOURS AFTER PLACING CONCRETE.
7. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info (REFERENCE NUMBER 3426-0182)

30A SURFACE SNOW MELTING - (PYROTENAX) STAIR INSTALLATION DETAIL



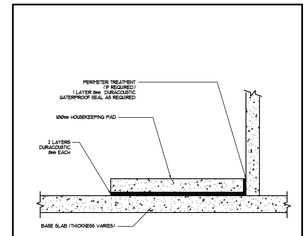
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. LEAD-IN CABLE SHOULD BE TERMINATED IN A JUNCTION BOX ABOVE GRADE LEVEL TO PREVENT MOISTURE FROM ENTERING FROM ENTERING THE BOX.
4. CARE MUST BE TAKEN NOT TO DAMAGE CABLE WITH RAKES, SHOVELS, WHEELBARROWS, ETC.
5. CONTROL JOINTS TO BE PLACED NO NARRIER THAN 30" IN ANY ONE DIRECTION.
6. CUT CONTROL JOINTS 1/8" DEEP AND 3/4" DEEP APPROX. 4 HOURS AFTER PLACING CONCRETE.
7. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info (REFERENCE NUMBER 3426-0179)

31 SURFACE SNOW MELTING - (PYROTENAX) CONCRETE SINGLE POUR INSTALLATION DETAIL



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. MAXIMUM SLAB AREA WITHOUT CONTROL OR EXPANSION JOINTS RECOMMENDED FOR A HEATING INSTALLATION 31.5Qa (4000 SQ FT), NO GREATER THAN 6m (20 FT) IN ANY ONE DIRECTION.
4. CARE MUST BE TAKEN NOT TO DAMAGE CABLE WITH RAKES, SHOVELS, WHEELBARROWS, ETC.
5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info (REFERENCE NUMBER 3426-0179)

32 SURFACE SNOW MELTING - (PYROTENAX) CONCRETE TWO POUR INSTALLATION DETAIL



33 ISOLATED HOUSEKEEPING PAD DETAIL

ELECTRICAL LEGEND

LIGHTING

- FLUORESCENT LIGHT FIXTURE, TYPE AS INDICATED
- NIGHT LIGHT OR LIGHT CONNECTED TO EMERGENCY POWER
- CEILING MOUNTED/WALL MOUNTED LIGHT FIXTURE, INDICATED LETTER DENOTES TYPE
- POLE MOUNTED LIGHT FIXTURE INDICATED LETTER DENOTES TYPE
- CAPPED CEILING LIGHT OUTLET
- TRACK LIGHT
- STRIP LIGHT
- UNDER CABINET FLUORESCENT LIGHT FIXTURE
- CEILING MOUNTED/WALL MOUNTED EXIT SIGN
- SINGLE/DUAL EMERGENCY LAMP REMOTE HEAD
- EMERGENCY BATTERY PACK
- OCCUPANCY SENSOR MASTER PACKS
- SINGLE/TWO/THREE POLE, SINGLE/TWO/THREE THROW TOGGLE SWITCH RESPECTIVELY, (S1, S2, S3, S4, S5, S6 - DENOTES SWITCH + GANTY PILOT LIGHT, DIMMER SWITCHED LIGHT RESPECTIVELY)
- MASTER LIGHTING SWITCH-OFF SWITCH
- SENSOR WALL SWITCH PIR, SELF POWERED
- OCCUPANCY SENSOR, CEILING MOUNTED

POWER

- REGULAR DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE, GROUND FAULT INTERRUPT
- 5-20R T-SLOT DUPLEX RECEPTACLE
- SINGLE RECEPTACLE, TYPE AND CONFIGURATION AS SPECIFIED FOR DRYER
- CONNECTION FOR OVEN/COOKTOP
- ABOVE COUNTER DEVICE
- CEILING MOUNTED DEVICES
- FLOOR MOUNTED DEVICES
- DISCONNECT SWITCH, NON-FUSED
- DISCONNECT SWITCH, FUSED
- COMBINATION STARTER
- FRACTIONAL MOTOR/FAN DIRECT CONNECTION
- DIRECT CONNECTION, SINGLE PHASE
- DIRECT CONNECTION, THREE PHASE
- THERMOSTAT
- DRYER SENSOR
- HEAT TRACE
- ELECTRICAL HEATER
- ELECTRICAL PANEL / SECURITY PANEL

TELECOMMUNICATION

- TV/CABLE OUTLET
- TELEPHONE OUTLET
- TELEPHONE/TV CABLE (MULTI-PORT OUTLET)
- DATA OUTLET
- DATA/TELEPHONE OUTLET
- IN SUITE TELECOMM. BOX C/W RECEPTACLE
- WIFI LOCATION
- VIDEO INTERCOM
- RADIO RECEIVER

SECURITY

- INTERCOM / ENTERPHONE
- INTERCOM WITH CAMERA
- PANIC BUTTON / PANIC INTERCOM STATION
- C