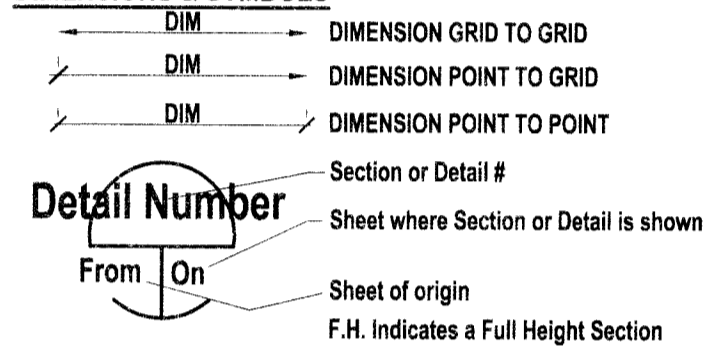


GENERAL NOTES

- DO NOT SCALE DRAWINGS.
- Design live loads shall not be exceeded at any time during construction. For concrete structures, design live loads may only be applied after concrete reaches its design strength.
- Construction loads must not be imposed on structure in excess of specified design live load. Design live loads may only be applied after concrete reaches its design strength.
- The contractor to verify dimensions, elevations, slopes, details, conditions and other data noted on the structural drawings with conditions on the site, co-ordinate all dimensions with the architectural drawings prior to construction or fabrication of any building component, and is held responsible for reporting any discrepancies that effect structural framing to the Contract Administrator before proceeding with the work. Variations and modifications to work shown on the structural drawings shall not be carried out without written permission from the Contract Administrator.
- Modifications, alterations or substitutions must be authorized in writing by the Contract Administrator.
- The General Contractor shall locate all existing site services prior to construction.
- For openings in slabs, floor, walls, roof, etc. refer to architectural, mechanical, structural and/or other pertinent drawings.
- Location of construction joints not indicated on plans is the responsibility of the general contractor but approval must be obtained from the Contract Administrator before proceeding.
- The contractor shall be responsible for the design and installation of all necessary shoring, bracing and form work. Form work for new construction shall be bridged over existing services.
- The structure and grade beams shall be braced in all directions to safely withstand all lateral forces which may be encountered during erection. The bracing shall remain in place until all permanent bracing, framing, cladding and backfill are in place.
- All codes referenced in these notes shall be of the latest applicable revision.
- All beams, angles and miscellaneous metals indicated on architectural drawings but not shown on structural drawings, shall be included in the bid opportunity price. The contractor is responsible for confirming sizes and locations of these members with the Contract Administrator prior to bid closing.
- Do not cut or drill any openings into structural members without obtaining written permission from the Contract Administrator.

DIMENSIONS & SYMBOLS



DESIGN SPECIFICATIONS

- The building is designed in accordance with the National Building Code of Canada, Current Edition.
 - Snow (Roof) 0.8(Ss) + (Sr) = 1.72 kPa (35.9 psf)
 - Wind $q(1/50) = 0.45$ kPa (9.4 psf)

EXCAVATION AND BACKFILL

- Remove all organic topsoil from the site minimum 6" (150mm) for the extent of the building.
 - Where compacted granular base or fill is specified, the subgrade shall be compacted to 98% Modified Proctor Density prior to placing compacted granular base. Test results to be forwarded to Contract Administrator, City of Winnipeg and contractor.
 - Compacted granular base shall be placed in 6" (150mm) maximum lifts and compacted to 98% Modified Proctor Density. Test results to be forwarded to Contract Administrator, City of Winnipeg and contractor.
 - Granular fill shall be well graded pit run gravel free from clay, shale, friable and organic materials unless noted otherwise in specifications.
 - Grade beams or walls shall be backfilled with granular material.
 - Excavation, backfill and compaction is to be supervised by the Contract Administrator.
- Construction joints shall be made and located so as not to significantly impair the strength of the structure. The location of construction joints shall be approved by the Contract Administrator. Slab and beam construction joint details shall be approved by the Contract Administrator.
 - Provide 6" (150mm) plastic wrapped cardboard void form below all beams, walls and pile caps.
 - Place concrete as a continuous operation stopping only at construction joints. Construction joints shall be adequately dowelled and keyed. If not provided as part of this drawing set, details and locations of construction joints shall be provided by the contractor and reviewed by the Contract Administrator.
 - Reinforcing steel must be reviewed by the Contract Administrator prior to placing concrete.
 - The general contractor shall notify the Contract Administrator at least 48 hours (72 hours for out-of-town projects) prior to all concrete pours.
 - Fins on concrete surfaces shall be removed. Honeycombed or otherwise defected concrete shall be removed sufficiently to expose sound concrete and shall be repaired as directed by the Contract Administrator.
 - Timing for removal of form work to be based on strength of concrete, as determined by the testing of field cured concrete cylinders. Do not remove form work from footings before concrete has reached 50% of its design strength. For walls and columns not supporting load, remove at 60% of design strength. For suspended structural slabs, form work may be removed at 80% of design strength, provided the slab is re-shored until full strength is reached.
 - Unless noted otherwise, contractor to test concrete for each day's concreting and/or every 40 cubic meters each day concreting. Forward test results to the Contract Administrator.
 - All freshly placed and consolidated concrete shall be cured in accordance with CSA standard A23.1, latest edition.
 - All freshly placed, consolidated concrete shall be suitably protected during the curing period against damage from adverse weather conditions such as winds, precipitation and extreme temperatures in accordance with CSA standard A23.1, latest edition.

CAST IN PLACE FRICTION PILES

- The contractor shall confirm the location of sub-grade services prior to commencing drilling for piles.
- Piles shall be cast-in-place concrete friction piles to diameters and lengths indicated on the plan.
- Pile length to be measured from the underside of supported grade beam or slab. Piles have been designed on the basis of shaft adhesion of 14.4 kPa (300psf). The top 1.52 m (5.0 ft) have been neglected. Variance in soil conditions from the above shall be reported to the Contract Administrator before proceeding.
- Pile reinforcing for piles located in unheated areas shall extend the full length of the pile.
- The upper 10'-0" (3000mm) of all piles shall be consolidated with a mechanical vibrator.
- Pile installation shall be provided under the full time inspection of a qualified professional geotechnical engineer selected by the Contract Administrator.
- Maintain accurate record of each pile. Submit a copy of this record to the Contract Administrator.
- Design data for cast in place piles taken from existing drawings.
- Full-length steel sleeves should be maintained on site and utilized as required during construction to maintain pile holes in a clean dry state.

CONCRETE

- Concrete, as specified in A23-04 table-2, shall have the following properties.

- C.I.P. PILES.
Exposure Class: S-1
- RETAINING WALLS, BASEMENT WALLS
Exposure Class: C-1
- GRADE BEAMS, PILE CAPS AND INTERIOR WALLS
25 MPa
Type GU Cement
Max. Slump 90mm
Max. Aggregate 20mm
Air Entrainment 4% - 6%
- INTERIOR SLAB ON GRADE, STRUCTURAL SLABS, SLABS ON STEEL DECK
25 MPa
Type GU Cement
Max. Slump 90mm
Max. Aggregate 20mm
- ENTRANCE SLABS, EXTERIOR PAVING, PARKING SLABS.
Exposure Class C-2
- STAIR PAN CONCRETE FINISH
20 MPa
Type GU Cement
Max. Slump 90mm
Max. Aggregate 13mm

REINFORCING STEEL

- Reinforcing steel shall be new billet, deformed bars in accordance with CSA Standard CAN/CSA-G30.18 minimum yield strength to be 400 MPa, except 10M bars for stirrups and column ties may be 300 MPa.
- Reinforcing steel shall be detailed in accordance with the latest RSIC Reinforcing Steel Manual of Standard Practice.
- Lap top bars at centre span and bottom bars over supports.
- All reinforcing to be held in place and tied by the use of proper accessories such as hi-chairs, spacers, etc., to be supplied by the reinforcing steel fabricator.
- Reinforcing in concrete beams/walls and masonry bond beams to be bent 24" (600mm) around corners or use 3'-0" x 3'-0" (900mm x 900mm) corner bars.
- Frame all openings in concrete beams, walls and/or slabs with 2-20M bars (extra) all four sides. Extend bars 24" (600 mm) beyond edges of openings except as noted.
- Submit shop drawings which clearly indicate bar sizes, grade, spacing, hooks, bends, and supporting/spacing devices, etc., for review to the Contract Administrator prior to fabrication of the reinforcing steel.
- Pit Walls/Slabs shall be 8" (200mm) thick reinforced with 15M @ 12" (300mm) o.c. each way at center unless otherwise shown.
- Housekeeping pads shall be a minimum of 4" (100mm) thick and reinforced with 10M @ 12" (300mm) o.c. each way at centre unless otherwise shown.
- Prior to placing concrete, ensure all reinforcing steel is clean, free of loose scale, rust, mud, oil or other foreign material which would reduce bond.
- Heating, quenching and bending of reinforcing steel on the site is not allowed.
- Splices at points of maximum tensile stress shall be avoided wherever possible. Such splices, where used, shall be approved by the Contract Administrator, the minimum lap shall be 48 bar diameters.
- Continuous and temperature reinforcing bars shall be lapped 24 bar diameters, or 18" (450mm) minimum at splice or at corners. Terminate continuous bar at non-continuous ends with standard hook.
- Minimum clear distance between parallel bars shall be greater than the largest of the following:
 - 14 times bar diameter.
 - 14 times maximum size of aggregates.
 - 1 3/16" (30mm) minimum.
- Minimum concrete cover for reinforcing:

Exposure Condition	Exposure Class		
	N	F-1, F-2, S-1, S-2	C-1, C-2, C-3, A-1, A-2, A-3
PILES, FOOTING, RETAINING WALL, AND CONCRETE CAST AGAINST AND/OR PERMANENTLY EXPOSED TO EARTH.	--	75mm	75mm
BEAMS, GIRDBERS, COLUMNS.	30mm	40mm	60mm
SLABS, WALLS, JOISTS, SHELLS AND FOLDED PLATES	20mm	40mm	60mm

STRUCTURAL STEEL

- Fabricate & erect structural steel to CSA Standard CAN/CSA-S16.1
- Structural steel shapes and plates shall conform to CSA Standard CAN/CSA-G40.21, Grade 350W and CAN/CSA-G40.21, Grade 350W for H.S.S., Class C.
- All welding shall be performed by qualified welders fully approved for structural welding by the Canadian Welding Bureau in accordance with CSA Specifications W47 and W59.
- Unless shown otherwise on the Drawings, connect all flexural members (beams, channels, etc...) at each end for one half of the total uniformly distributed factored load of the laterally supported beam, in addition to the transfer of factored moments, where shown on the Drawings.
- Splicing of members not permitted unless otherwise noted.
- Where beams are continuous over supports, no holes permitted in top flange. Provide 2-3/8" (10mm) welded web stiffener plates each side of beam, aligned with column walls.
- Column base and cap plates shall be welded to columns. Provide 3/4" (20mm) thick cap plate c/w 3/4"Ø (20mm) bolts for all columns supporting cantilevered beams.
- Structural steel erector shall supply and install all temporary guying and bracing necessary to provide stability for the structure as a whole. These shall remain in place until floor slabs are well cured, steel roof deck is fully welded and/or permanent bracing is installed.
- Steel stairs, handrails, guardrails shall be designed by others. Fabricator shall submit shop drawings under the seal of a Professional Engineer registered in the project Province, to the Contract Administrator for approval prior to fabrication.
- Structural Steel supplier shall submit shop drawings bearing the seal of a Professional Engineer in the project Province showing all design and fabrication details of connections to the Contract Administrator for review prior to fabrication.
- Pipe sections to ASTM A53, minimum yield point 241 MPa (35 ksi).
- Bolts, nuts, and washers to ASTM A325, minimum bolt diameter 3/4" (20mm).
- Anchor bolts to ASTM A307.
- Welding of reinforcing bars to CSA W188-M1990.
- Primer to conform to the requirements of CGSB or CISC/CPMA standards.
- Grout bed under base plates to be 35 MPa non shrink grout.
- All bolted connections shall have a minimum of two bolts in each connected piece and be designed with bearing-type connections with threads included in shear plane, unless noted otherwise.
- Unless noted otherwise on plans provide 3x3x3/8" (75x75x10) angle frame from joist to joist on each side of all steel deck openings over 18" (450mm), and C8x11.5 (C200x17) frame at all mechanical and electrical units that sit on or hang from the roof or floors.
- Provide 6"x6"x1/2" (150x150x13) clip angles x 12" (300mm) long at hollow core column openings. Co-ordinate with hollow contractor to ensure adequate bearing.
- All steel shall receive a shop coat of primer except surfaces to be concreted, welded, light zinc coated or galvanized.
- Clean all field welds after erection and touch up all unpainted surfaces with one coat of primer paint to match shop coat.
- There shall be no cutting of the structural steel members for the work of other trades without prior written approval of the Contract Administrator.
- Professional Engineer whose seal is on shop drawings shall review construction and provide a letter certifying that connections have been installed in accordance with the approved shop drawings.
- All exposed steel to be galvanized.

STEEL DECK

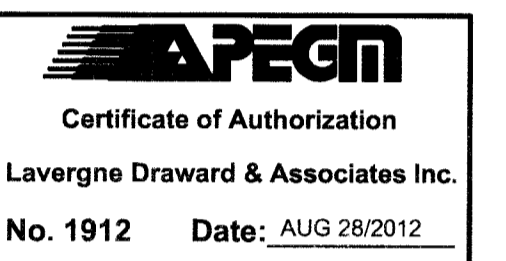
- Unless otherwise noted, Steel Deck shall be 1 1/2" X 22 ga. (38mmx 22 ga.) thick non-cellular, flutes at 6" (150mm) o.c. (minimum). Floor deck to have deformed webs for composite action.
- Provide Zinc-iron alloy (ZF) coated sheet steel to ASTM/A653/A653M Structural quality grade Z30 with ZF75 coating. ZF75 where galvanized steel deck is specified on drawings.
- Supply all closures, cover plates and accessories.
- Design fabrication & installation of the steel deck to conform to CSA Standard S136 and the CSSBI Code of Practice.
- Welding Shall Conform to CSA Standard W59.
- Erector to be Certified to division 1 or 2.1 of CSA Standard W47.1.
- Mechanically clinch side laps at 12" (300mm) o.c. maximum. Lap end joints minimum 2" (50mm) Provide 3/4" (20mm) diameter fusion welds at 12" (300mm) o.c. at all supports. Minimum bearing on supports to be 1 1/4" (30mm). Spot prime welds immediately after welding.
- Steel deck supplier shall submit shop drawings bearing the seal of a Professional Engineer in the project province indicating
 - deck plan, profile, dimensions, base steel thickness, metallic coating designation, connections to supports and spacings, projections, openings, reinforcement details and accessories.
 - details of shoring of steel deck, such as location, time and duration of placement and removal of shoring for concrete fill decks.
- Install deck continuous over at least three spans except where otherwise pre-approved by the structural consultant.
- Paint all welds with an approved zinc-rich paint.
- Deck gauges shown on plan are suggested only. Supplier to provide deck gauge appropriate for the loadings shown. Deck gauge is to be increased at drift load and other high load areas as required.
- Provide steel wedges in deck flutes over joists for mechanical roof top units with wood sleepers.

MASONRY

- Masonry work shall conform to CSA Standards S304.1 and A371.
- Masonry work shall comply with S304-94 masonry design for buildings (limit states design) including design testing and workmanship. Refer to S304.1 for material specifications.
- All concrete masonry shall be standard block for all walls, UN on drawings. Unit compressive strength to be 15 MPa (Design value for grouted masonry is 7.5 MPa). Mortar shall be Type S. Provide duralwall or equal every second course.
- Provide a minimum 1" (25 mm) joint at the top of masonry partition walls to allow for floor/roof deflection.
- Provide 1 1/2"x8"x1/8" (40mmx200mmx3mm) masonry strap anchors @ 16" (400mm) o.c. vertical at all columns that are within masonry walls.
- Provide block wall control joint at location shown on architects drawings. Maximum spacing to be at 315' (8m). Reinforce one cell on either side of joint with 2-15M vertical and fill with concrete. Vertical core fills to be cast in lifts of 4'-0" (1200mm) maximum. Vertical reinforcing to have a maximum length of 6'-0" (2000mm) without splicing. Lap splice 10M bars: 18" (450mm), 15M bars: 26" (650mm), 20M bars: 36" (900mm).
- Also refer to architectural drawings for specialty blocks/bricks e.g. acoustic blocks/giant bricks etc.
- Contractor to be responsible for temporary bracing of all masonry components until all masonry is self supporting or necessary structural elements are in place.
- For vertical core fills and reinforcement see plans. Unless otherwise noted on plans provide 1 void core fill complete with 1-15M vertical @ 32" (800mm) o.c. Provide minimum of 2 void core fill with 1-15M each void at all ends of wall, each side of wall openings and every corner of walls. Provide minimum of 2 void core fill at W360 or smaller beam, 3 void core fill at W410 and W460 beams, 4 void core fills at W530 beams and 5 void core fill at W610 beams U.N.O. provide 2-15M vertical each void. Provide 3 void core fills, 2-15M each void at wall openings of 72" (1800mm) to 96" (2400mm) and provide 4 core fills, 2-15M each void at wall openings of 96" (2400) to 120" (3000) U.N.O. on the drawings. Provide matching dowels x 36" (900mm) long at foundation, project 18" (450) above concrete.
- Fully grout bottom three courses.
- At top of all walls and below roof & floors, provide 1 course bond beam with 1-15M horizontal c/w knockout blocks. Fill with concrete.
- MASONRY REINFORCED BLOCK LINTEL SCHEDULE U.N.O. ON THE DRAWINGS:
Span up to 36" (915mm), 1 course 8" (200) high, 1-10M top & bottom
Span 36" (915) to 72" (1830), 2 course 16" (400) high, 1-15M top & bottom, Extend reinforcing cage at least 16" (400) (2 voids) past openings. Provide minimum 20 cover to reinforcing. Provide Min. 8" (200mm) bearing each side of opening.
- LOOSE LINTEL ANGLES FOR 3 1/2" (90) BRICK:
Span L1 clear span - 0 to 52" (1300mm): L 3 1/2"x 3 1/2"x 1 1/4" (L 90mmx90mmx6.4)
Span L2 clear span - 52" (1300mm) to 72" (1800mm): L5"x 3 1/2"x 5/16" (127mmx90mmx7.9mm)
Span L3 clear span - 72" (1800mm) to 84" (2100mm): L6"x 3 1/2"x 3/8" (152mmx90mmx3.0mm)
Extend loose lintel angle 8" (200mm) past openings, typical.

ELEVATORS

- It is the responsibility of the elevator supplier to review the structural and architectural drawings to ensure that the elevator supplied conforms to the drawings.
- He shall indicate in his bid all areas of non conformance including shaft size, clearances, pit depth and any special structural framing conditions pertaining to the elevator supplied.
- If his bid is not qualified and changes are required to the design documents then the elevator supplier will be responsible for the additional costs including design and engineering time.
- All elevator rails, supports and temporary hoist beam connections are the responsibility of the elevator supplier.



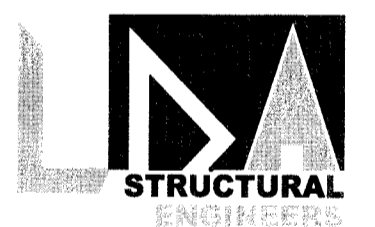
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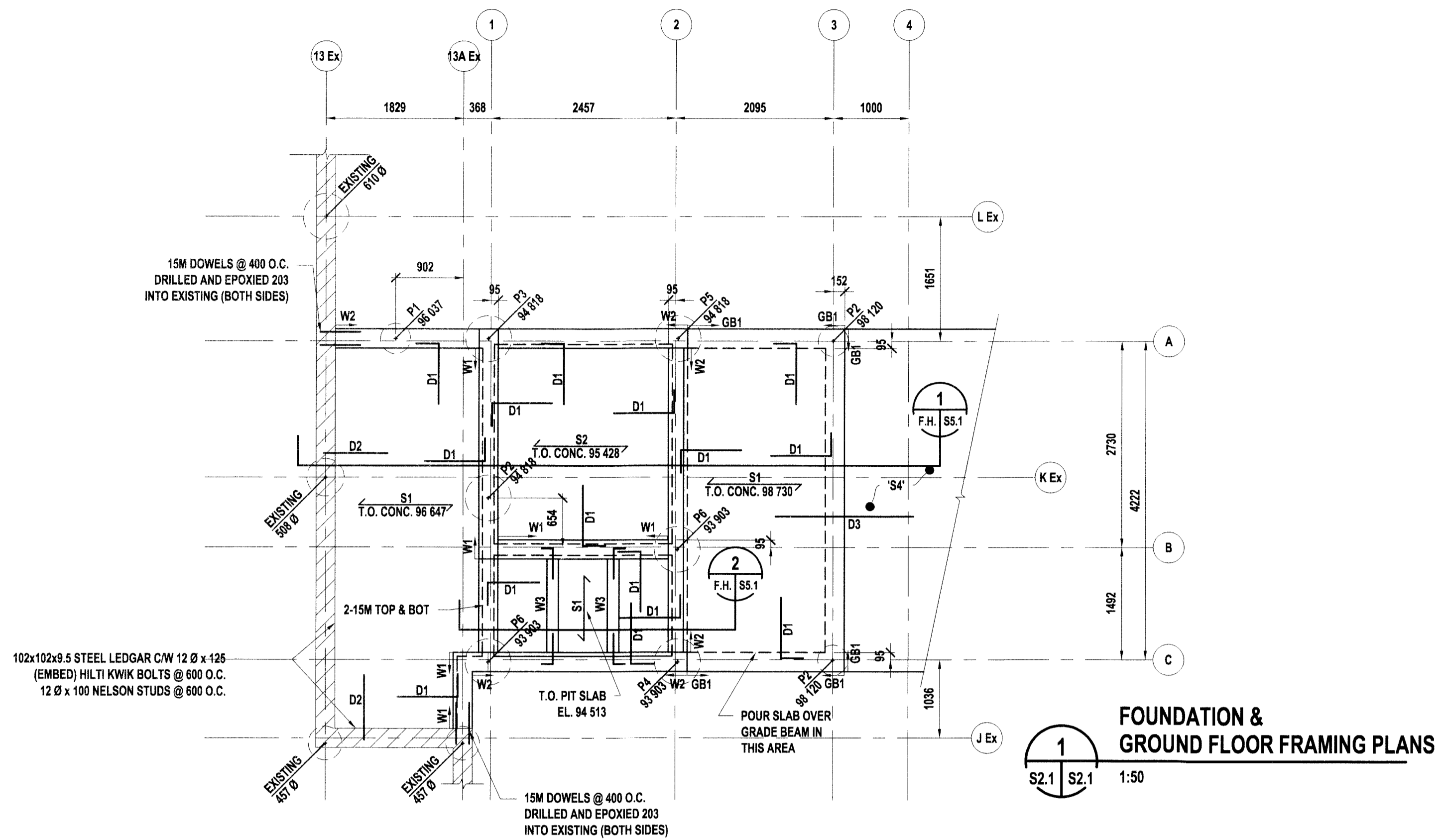
project

CENTURY ARENA
UNIVERSAL ACCESSIBILITY
1377 Clarence Ave., Winnipeg, Manitoba

sheet title

GENERAL NOTES

project number: 12-003 drawing number:
scale: AS NOTED S-1.1
drawn by: E.L.
approved by: E.L.
date: 23 AUGUST 2012



CAST IN PLACE PILE SCHEDULE			
MARK	SIZE & DEPTH	NOTES	DETAIL
P1	4060 / 9 200 DEEP		
P2	4060 / 10 000 DEEP		
P3	7620 / 9 200 DEEP		
P4	610 @ / 8 500 DEEP		
P5	915 @ / 9 200 DEEP		
P6	915 @ / 8 500 DEEP		
P7			

NOTE:
 - ALL PILES TO BE CENTERED UNDER GRADE BEAMS
 - ELEVATION TOP OF PILE 98'-0" TYPICAL
 UIN

CONCRETE SLAB SCHEDULE		
MARK	DESCRIPTION	REMARKS
S1	152 CONCRETE SLAB ON 5MIL POLY VAPOUR BARRIER 9.5 OSB SHEATHING 150mm CARDBOARD VOID FORM 75mm LEVELLING SAND ON LOOSE FILL REINF. W/ 15M @ 300 O.C. E.W. BOT	"->" INDICATES DIRECTION OF BLL
S2	254 CONCRETE SLAB ON 10MIL POLY VAPOUR BARRIER 9.5 OSB SHEATHING 150mm CARDBOARD VOID FORM 150mm LEVELLING SAND ON LOOSE FILL REINF. W/ 10M @ 300 O.C. E.W. TOP 20M @ 300 O.C. E.W. BOTTOM	"->" INDICATES DIRECTION OF BLL
S3	102 CONCRETE SLAB OVER 38mm x 22ga. HB 938-INV. (102mm TOTAL THICKNESS) COMPOSITE STEEL DECK (GALV) REINFORCING: 152x152 MW9.1 x MW9.1 WWW	
S4	127 SLAB ON GRADE C/W 10M @ 400 O.C. EACH WAY @ 6 OF SLAB	

WALL SCHEDULE			
MARK	DESCRIPTION	US BASE PLATE ELEVATION	REMARKS
W1	254 CONCRETE WALL 2-20M TOP & BOT 15M @ 400 O.C. E.W., E.S.		
W2	254 CONCRETE WALL 2-20M TOP & BOT 15M @ 200 O.C. HORIZONTAL, E.S. 15M @ 400 O.C. VERTICAL, E.S.		
W3	152 CONCRETE WALL 2-20M TOP & BOTTOM 15M @ 300 O.C. EACH WAY MID		

COLUMN SCHEDULE			
MARK	DESCRIPTION	US BASE PLATE ELEVATION	REMARKS
C1	HSS 102x102x4.8		

NOTES:
 - ALL COLUMNS TO HAVE 4 - A307 20mm Ø x 450mm LONG ANCHOR BOLTS
 - BASE AND CAP PLATES TO BE 20mm

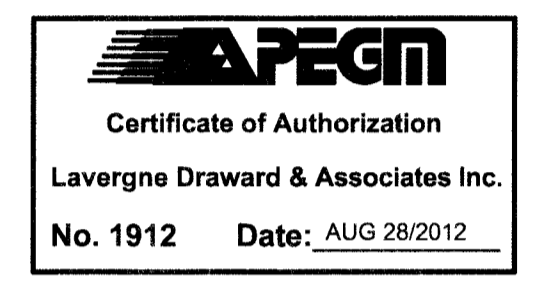
LINTEL SCHEDULE			
MARK	SIZE	REINFORCEMENT	REMARKS
L1	190x390 U-BLOCK	15M TOP & BOTTOM 10M TIES @ 150 O.C. (SINGLE LEG)	
L2	2 - 89x127x9.5 ANGLES W/ 6mm PLATE		TO BEAR 200 EACH SIDE
L3	254x1169 CONC. LINTEL	3-20M BOT OF OPENING	

GRADE BEAM SCHEDULE	
MARK	DESCRIPTION
GB1	254x750 GRADE BEAM 2-20M TOP & BOT. 10M STIRRUPS @ 300 O.C. 2-15M IN TOP BETWEEN COLUMNS

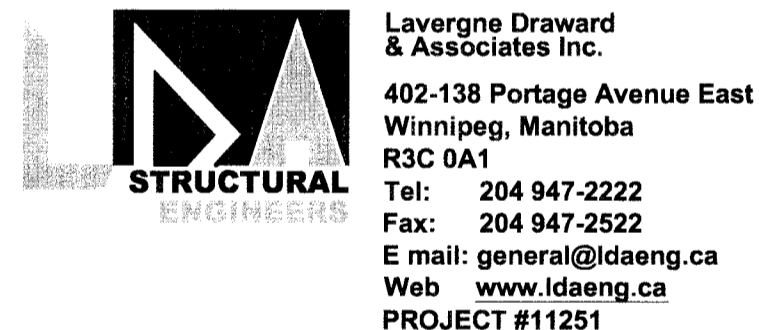
DOWEL SCHEDULE	
MARK	DESCRIPTION
D1	15M x 1100 LG DOWELS @ 300 O.C. TOP
D2	15M x 850 LG DOWELS @ 300 O.C. TOP DRILLED AND EPOXIED 150 MIN. INTO EXISTING.
D3	15M x 1830 LG DOWELS @ 300 O.C. MID

BLOCK WALL SCHEDULE	
MARK	DESCRIPTION
BW1	190 BLOCK WALL RW 1-15M @ 600 O.C. PROVIDE 15M DOWELS IN CONCRETE BELOW TO MATCH

NOTES:
 - ELEVATOR WALLS TO BE FULLY GROUTED.
 - PROVIDE 1-15M IN 3 CORES AT CORNERS.
 - PROVIDE 1-15M ON EACH SIDE OF OPENINGS



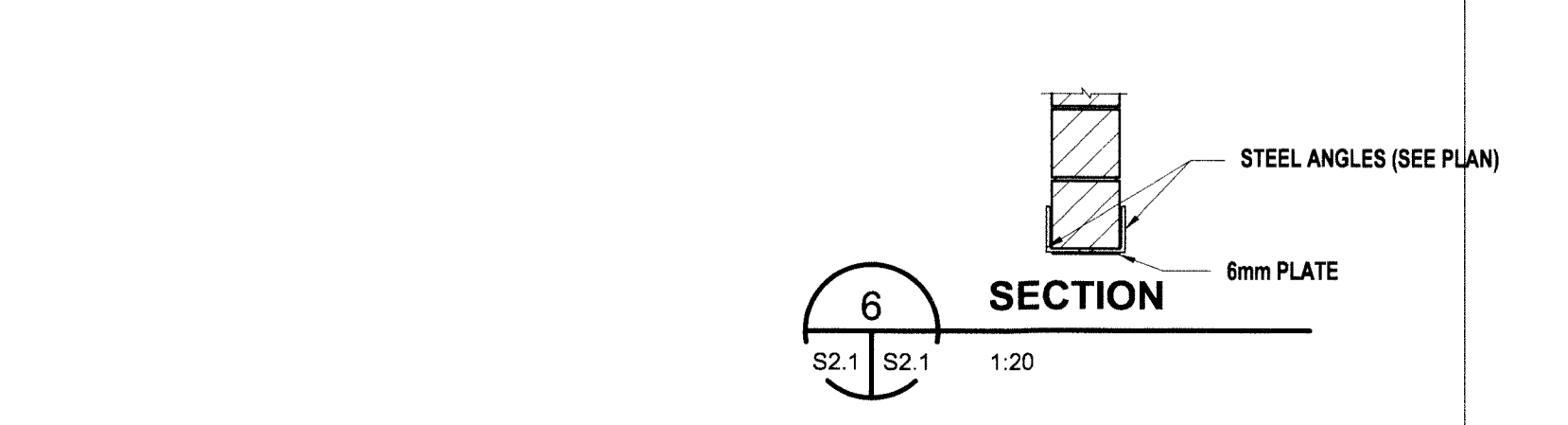
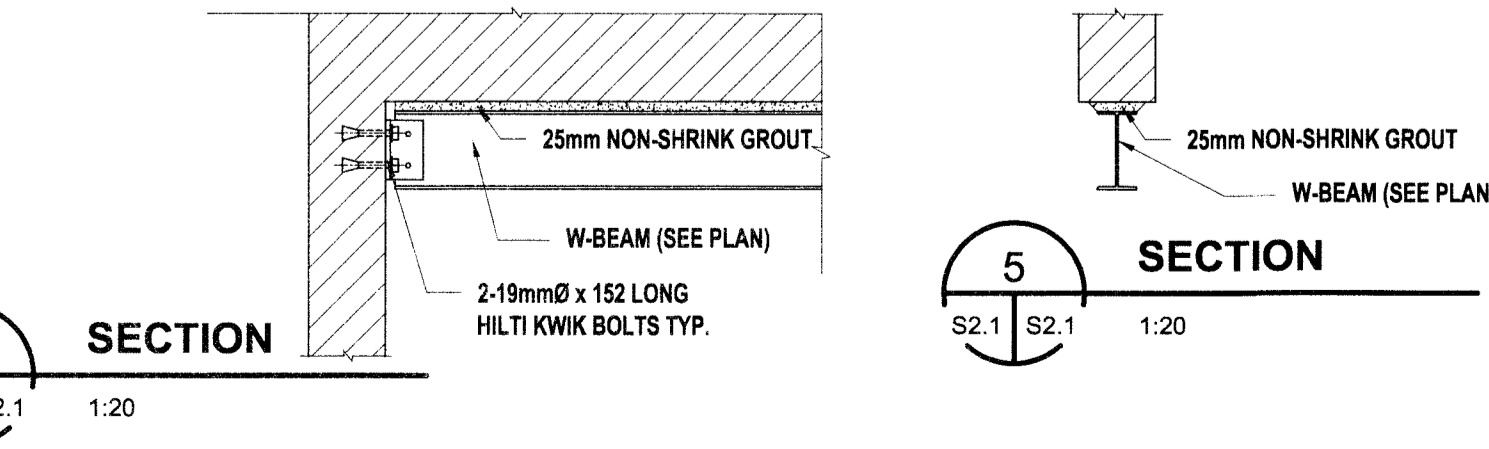
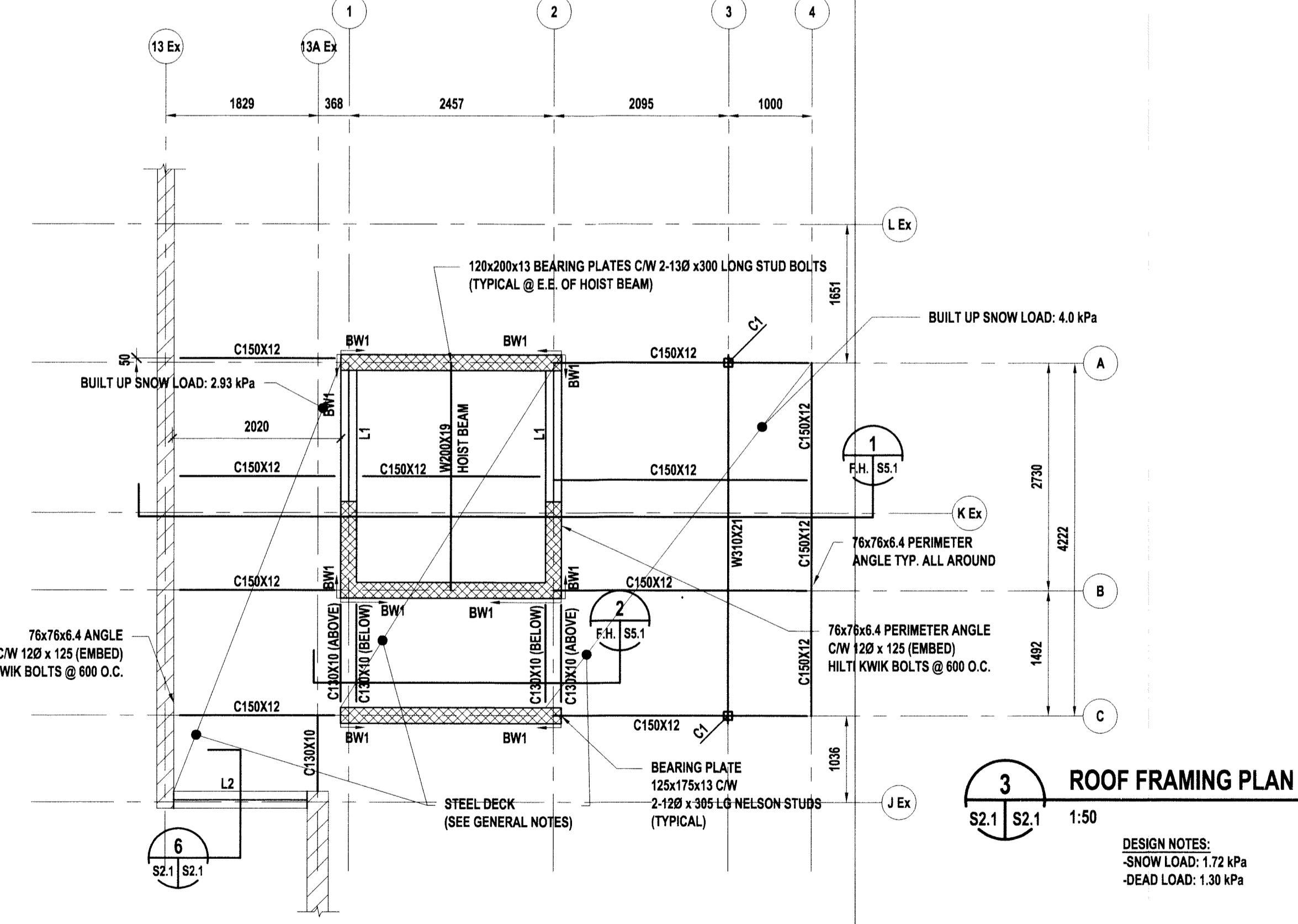
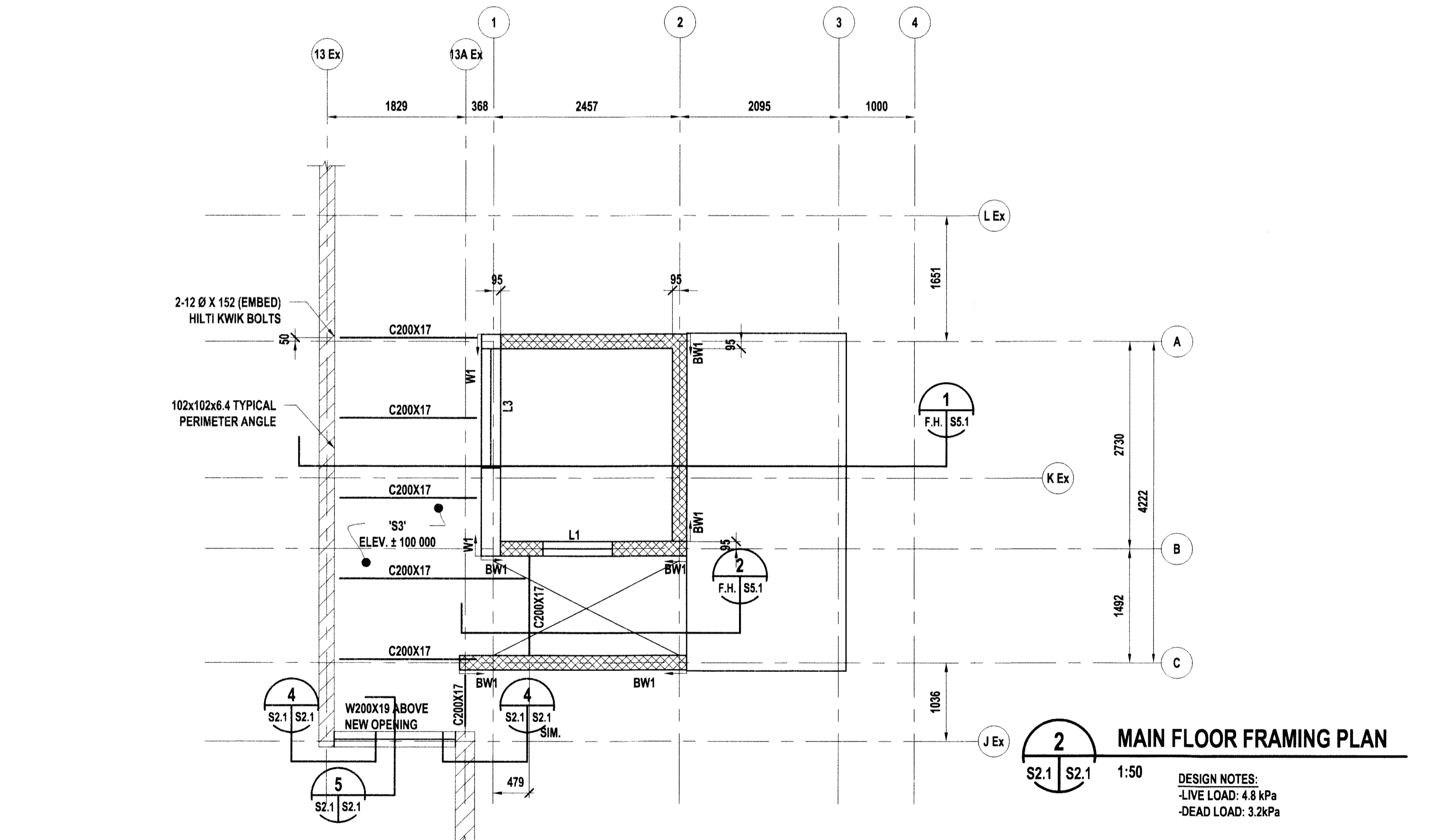
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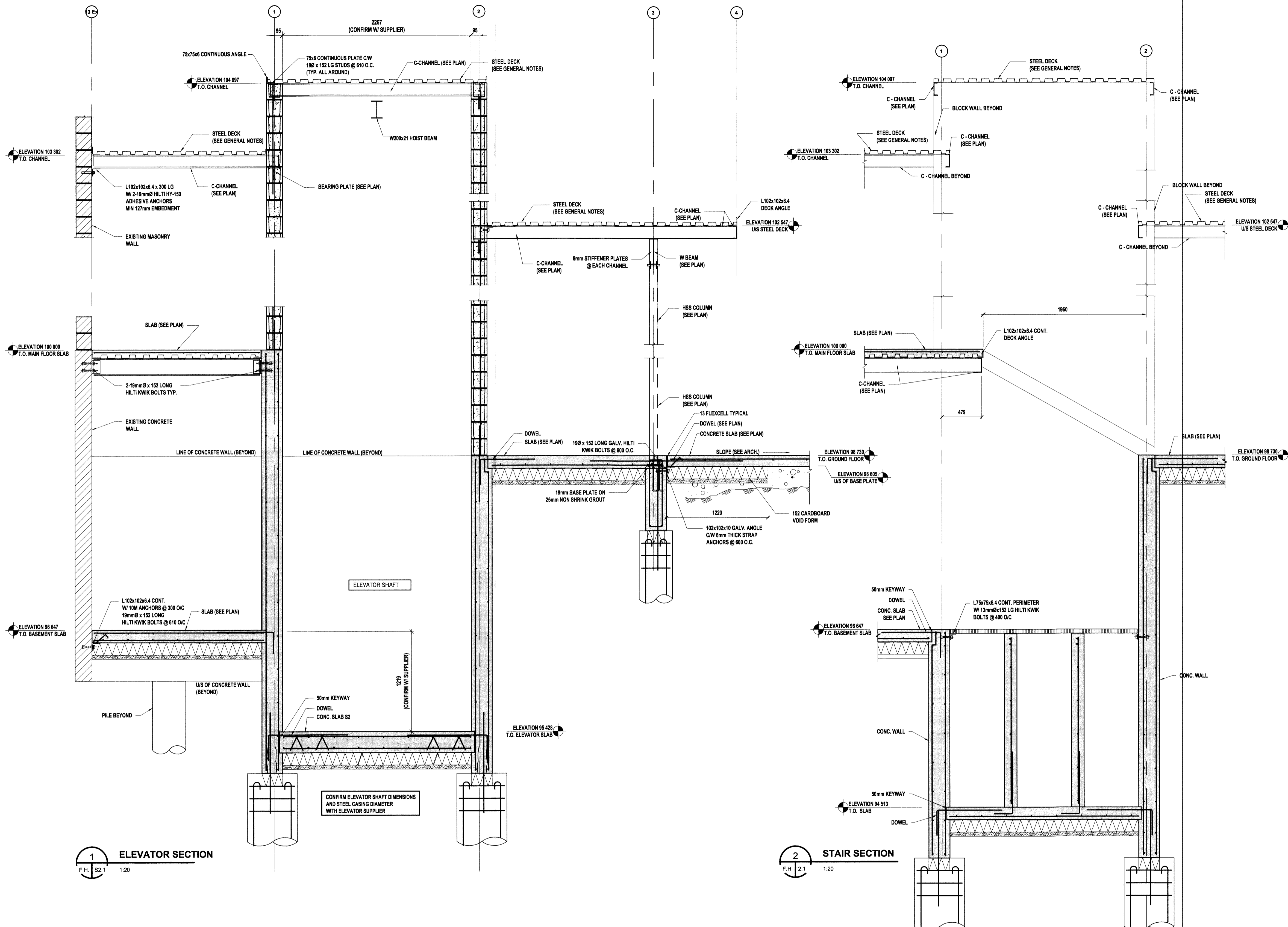


project
CENTURY ARENA
UNIVERSAL ACCESSIBILITY
 1377 Clarence Ave., Winnipeg, Manitoba

sheet title
FOUNDATION PLAN & GROUND FLOOR FRAMING PLAN
MAIN FLOOR FRAMING PLAN
ROOF FRAMING PLAN

project number: 12-003 drawing number:
 scale: AS NOTED **S-2.1**
 drawn by: E.L.
 approved by: E.L.
 date: 23 AUGUST 2012





APCM
 Certificate of Authorization
 Lavergne Draward & Associates Inc.
 No. 1912 Date: AUG 28/2012



revision
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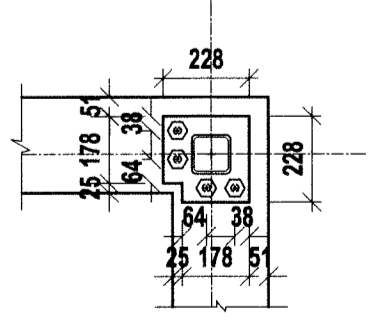
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project
CENTURY ARENA
UNIVERSAL ACCESSIBILITY
 1377 Clarence Ave., Winnipeg, Manitoba

sheet title
SECTIONS & DETAILS

project number: 12-003 drawing number:
 scale: AS NOTED **S-5.1**
 drawn by: E.L.
 approved by: E.L.
 date: 23 AUGUST 2012



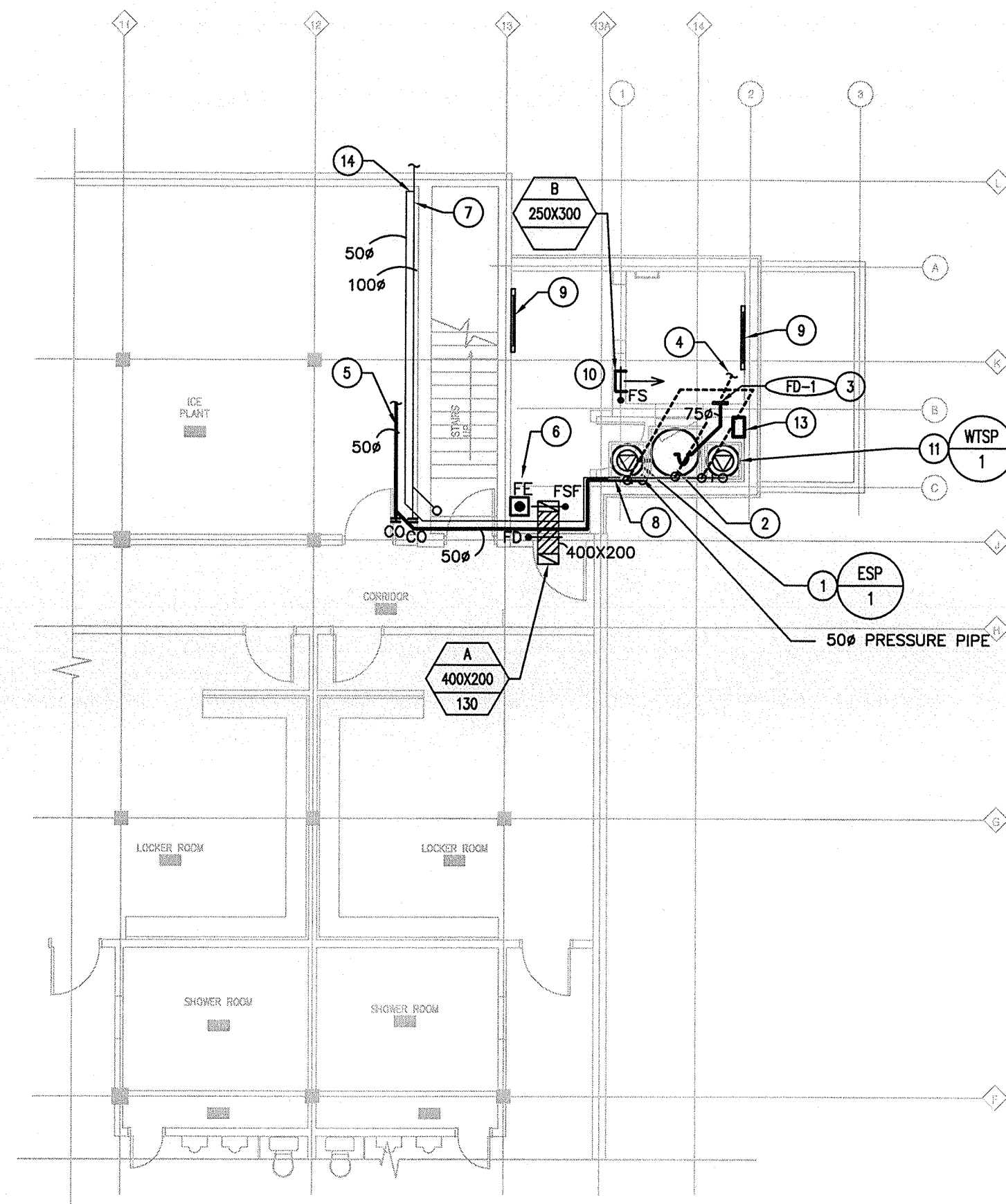
4
 TYPICAL BASE PLATES
 FOR 102x102 HSS COLUMNS
 1:20

GENERAL NOTES:

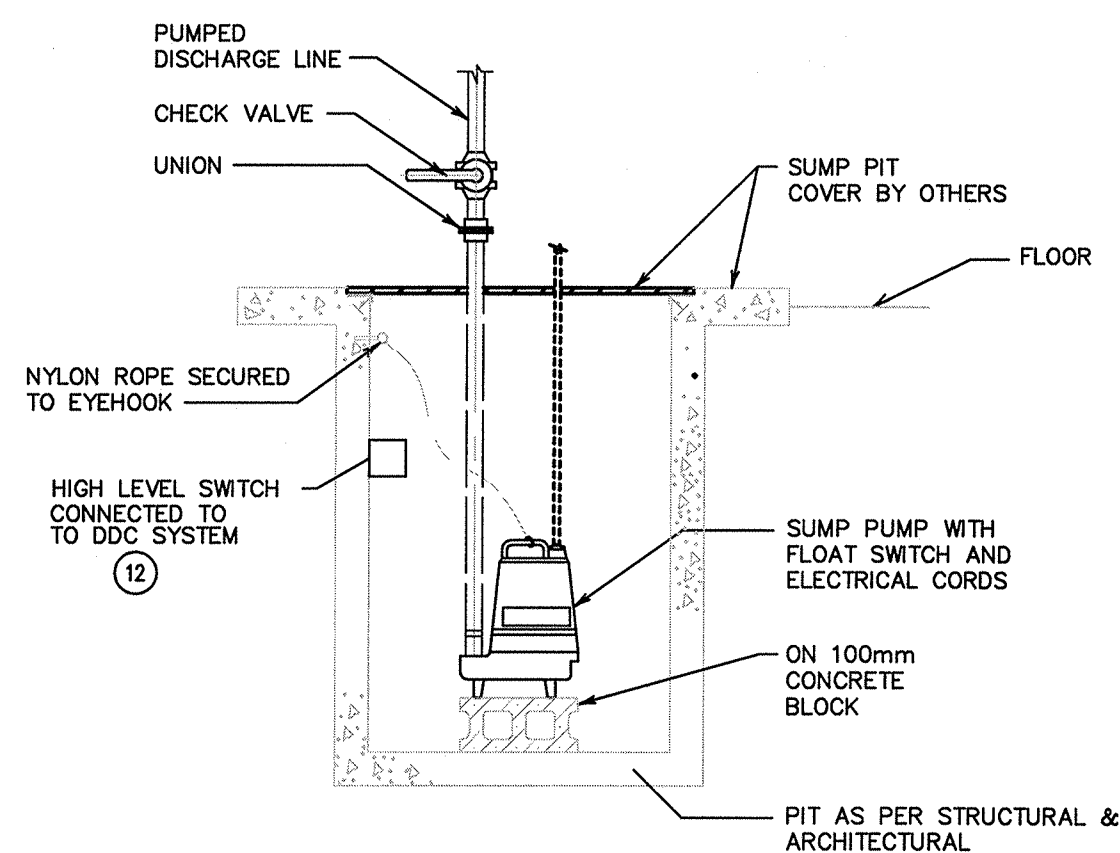
1. THIS DRAWING IS DIAGRAMMATICAL ONLY. DO NOT SCALE DRAWING. CONTRACTOR TO DETERMINE EXACT LOCATIONS AND SIZES ON SITE PRIOR TO TENDER.
2. ALL NEW WORK TO BE COORDINATED WITH EXISTING AND NEW STRUCTURAL, MECHANICAL, AND ELECTRICAL.
3. MINIMUM RAIN WATER LEADER SLOPE TO BE 1:100.
4. EXISTING DDC CONTROL SYSTEM CONSISTS OF A JOHNSON CONTROL SYSTEM WITH DMS100 CONTROLLER, APPROXIMATE CONTROLLER LOCATION IS WITHIN THE BASEMENT ELECTRICAL ROOM. CONTRACTOR TO SITE CONFIRM EXACT EQUIPMENT TYPE AND LOCATION ON SITE PRIOR TO TENDER.

DRAWING NOTES:

1. NEW ESP-1 (ELEVATOR SUMP PUMP) LOCATED IN ELEVATOR SUMP PIT. REFER TO STRUCTURAL AND TO DETAIL 2/M1.0.
2. NEW OIL INTERCEPTOR PIT BY OTHERS. REFER TO ARCHITECTURAL AND STRUCTURAL AND REFER TO DETAIL 2/M1.0.
3. NEW ANGLE DRAIN IN BOTTOM OF ELEVATOR SHAFT. COORDINATE WITH ELEVATOR INSTALLER. REFER TO ARCHITECTURAL.
4. NEW SUMP PIT VENT LINE TO RISE AND RUN AT HIGH LEVEL TO NEAREST ADEQUATELY SIZED VENT RISER. DETERMINE EXACT LOCATION ON SITE PRIOR TO TENDER. SIZE VENT AS PER CODE BASED ON LENGTH OF RUN.
5. 50# SUMP PIT DISCHARGE LINE TO RUN AT HIGH LEVEL AND CONNECT INTO NEAREST ADEQUATELY SIZED SANITARY DRAIN LINE WITHIN EXISTING ICE PLANT. COORDINATE EXACT ROUTING ON SITE WITH ALL NEW AND EXISTING SYSTEMS.
6. NEW 5LB ABC FIRE EXTINGUISHER COMPLETE WITH MOUNTING BRACKET.
7. RWL TO SPLASH PAD. REFER TO ARCHITECTURAL.
8. SUMP PIT DISCHARGE PIPE TO RISE UP TO HIGH LEVEL.
9. NEW BASEBOARD HEATER. BY ELECTRICAL.
10. NEW 250X300 TRANSFER AIR DUCT AT LOW LEVEL. SUPPLY COMPLETE WITH GRILLE AND FIRE DAMPER. COORDINATE WITH ARCHITECTURAL AND ELEVATOR INSTALLER.
11. WTSPP-1 (WEEPING TILE SUMP PUMP) LOCATED IN WEEPING TILE SUMP PIT. REFER TO STRUCTURAL, ARCHITECTURAL AND TO DETAIL 3/M1.0.
12. HIGH LEVEL SWITCH TO BE MAGNETROL MODEL T10-5104-020 OR FFYGT DRY CONTACT SWITCH MECHANISM WITH CABLE FLOATS AND CLAMPS MAGNETROL MODEL T10-5104-020. RUN AN APPROPRIATE CABLE TO THE NEAREST DDC CONTROL PANEL WITH AVAILABLE POINT. CONTRACTOR TO DETERMINE ALARM REQUIREMENTS WITH BUILDING OWNER AND MANAGER.
13. NEW HEATER BY ELECTRICAL.
14. WEEPING TILE PIT DISCHARGE LINE TO CONNECT INTO THE TOP OF RAIN WATER LEADER PRIOR TO PENETRATING WALL.
15. NEW ACCOUSTICALLY LINED TRANSFER AIR DUCT ABOVE DOOR COMPLETE WITH FIRE DAMPERS.



1 BASEMENT PLAN - PLUMBING & HVAC
M1.0 SCALE: 1:100



3 WEEPING TILE SUMP PIT DETAIL
M1.0 SCALE: NTS

PLUMBING LEGEND

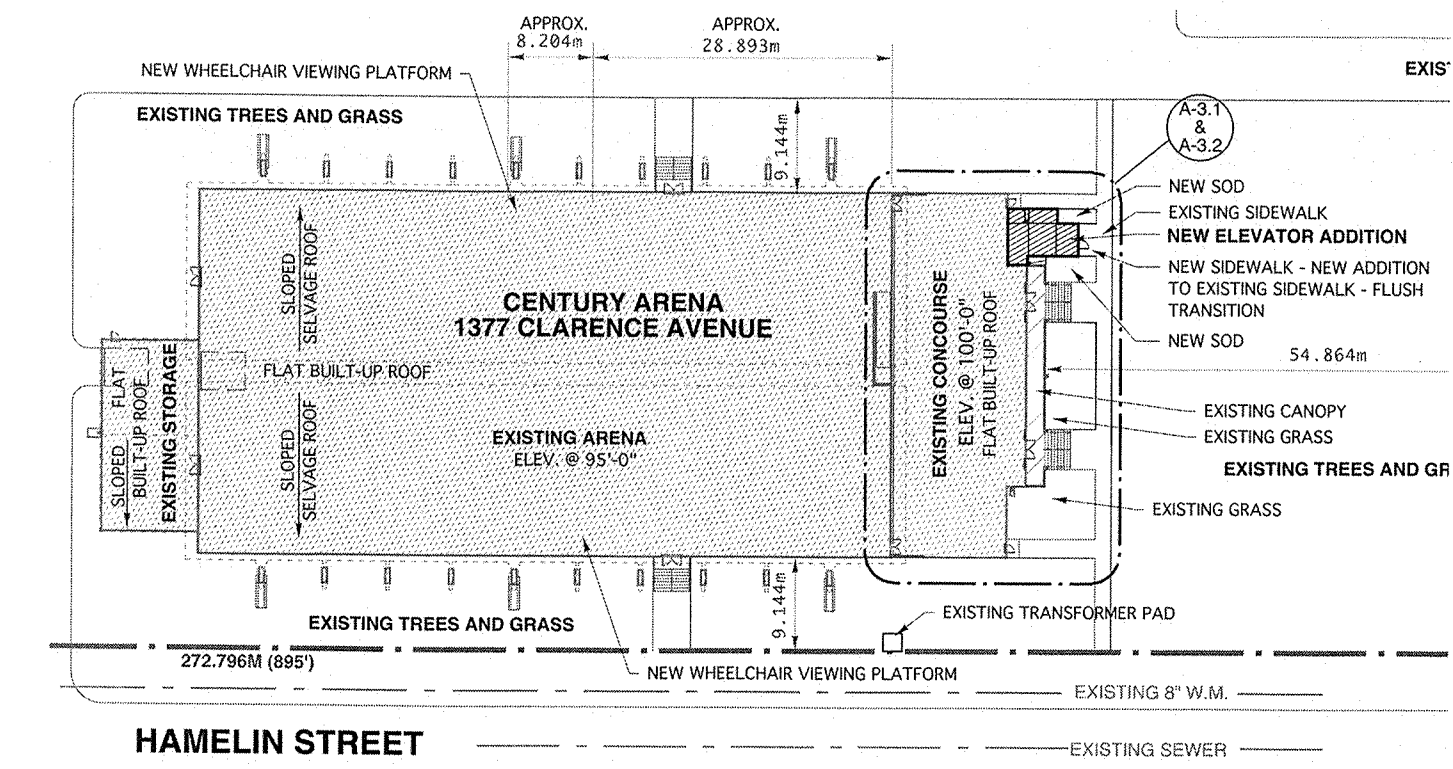
- STORM PIPE
- SANITARY ABOVE PIPE
- VENT
- BACK WATER VALVE
- PIPE RISER
- PUMP
- PIPE CONTINUATION
- FLOOR DRAIN
- CLEAN OUT
- CLEAN OUT

TAG LEGEND

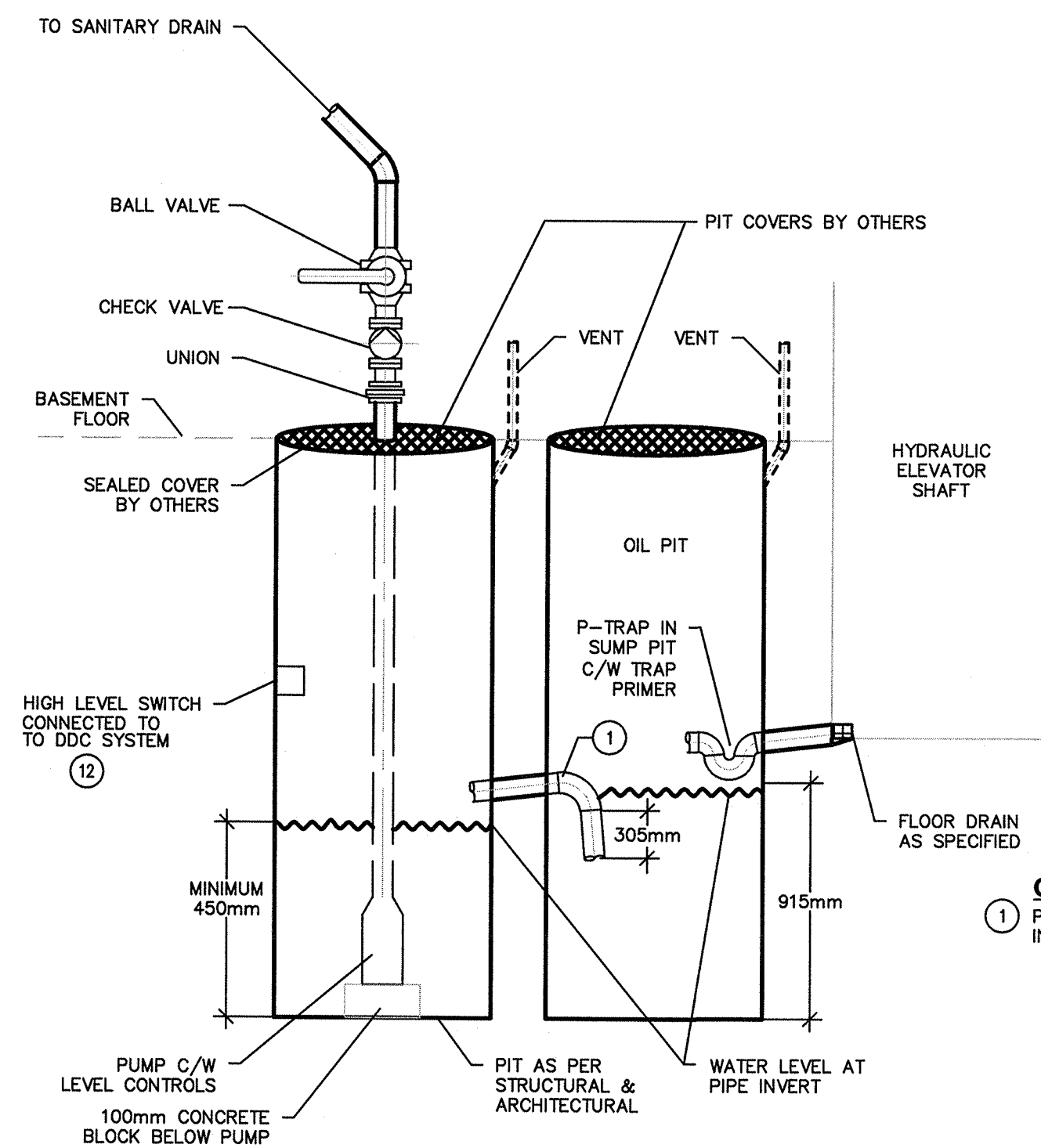
- QTY TYPE SIZE QTY GRILLE TAG
- EQUIP # EQUIPMENT TAG
- FIX-# FIXTURE TAG

HVAC/ FIRE PROTECTION LEGEND

- SUPPLY DUCT
- EXHAUST DUCT
- BASEBOARD HEATER
- ENTRANCE HEATER
- THERMOSTAT
- FIRE EXTINGUISHER
- DUCT UP
- FIRE DAMPER
- FIRE SMOKE DAMPER
- FIRE SMOKE FLAP



3 SITE PLAN
M1.0 SCALE: 1:500



2 ELEVATOR SUMP PIT DETAIL
M1.0 SCALE: NTS

GENERAL NOTES:
1. PIPE DIAMETER EQUAL TO LARGEST INCOMING PIPE.

6.	ISSUED FOR TENDER	2012-09-29
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

revision

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PUMP SCHEDULE

NO.	LOCATION	MAKE	MODEL	PUMP SERVICE	PUMP TYPE	FLOW GPM (l/s)	FLUID TYPE	HEAD FT (PSI)	SPEED RPM	CONTROLS			HP (kw)	FLA	MCA	MOCP	REMARKS
										INTERLOCK							
										SUPPLY	INSTALL	WITH					
ESP-1	ELEVATOR SUMP PIT	ARMSTRONG	5310-75	ELEVATOR SUMP	SUBMERSIBLE/ EFFLUENT	50 (3.15)	SANITARY	35 (15)	3450				3/4 (0.56)				SUPPLY COMPLETE WITH FLOAT SWITCH, HIGH LEVEL SWITCH, AND ELECTRICAL CORD. REFER TO 2/M1.0
WTSPP-1	WEEPING TILE SUMP PIT	BARNES	SPX-33	WEEPING TILE SUMP	SUBMERSIBLE/ EFFLUENT	13 (0.82)	DOMESTIC WATER	25 (11)	3450				1/3 (0.25)				SUPPLY COMPLETE WITH FLOAT SWITCH, HIGH LEVEL SWITCH, AND ELECTRICAL CORD. REFER TO 2/M1.0

APEGN
Certificate of Authorization
MCW/AGE Consulting Professional Engineers
No. 589 Expiry: April 30, 2013

PROVINCE OF MANITOBA
G.S.
REABURN
Member
8354
APR 27 2013
REGISTERED PROFESSIONAL

project

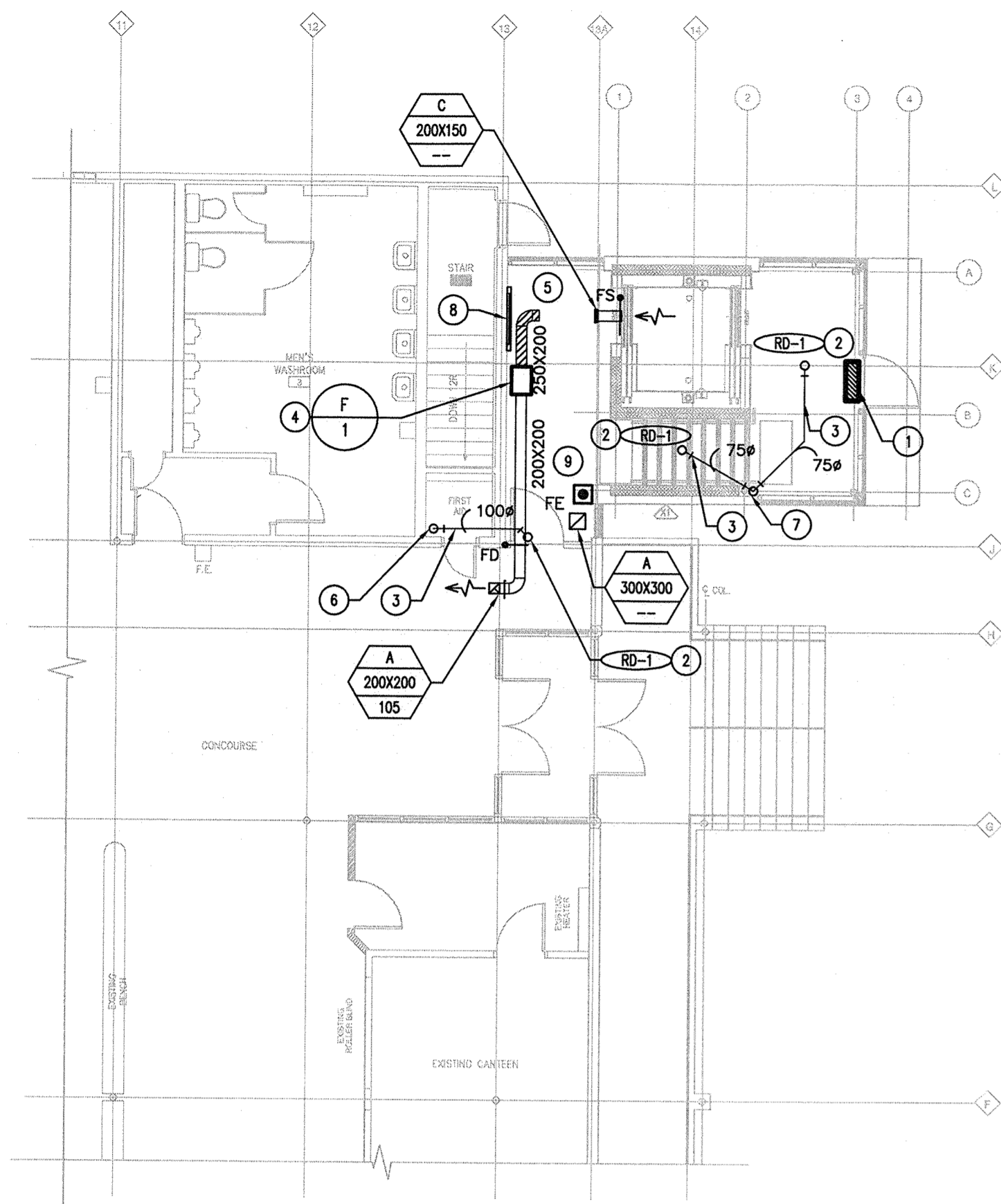
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
Winnipeg, Manitoba Bid Opportunity No. 579-2012

sheet title

BASEMENT FLOOR PLUMBING & HVAC RENOVATION

project number: 12-003 drawing number:
scale: 1:100
drawn by: C.DEB.
approved by: J.F.
date: 2012-09-21

M1.0



1 MAIN PLAN - PLUMBING & HVAC
 M1.1 SCALE: 1:100

GENERAL NOTES:

- THIS DRAWING IS DIAGRAMMATIC ONLY. DO NOT SCALE DRAWING. CONTRACTOR TO DETERMINE EXACT LOCATIONS AND SIZES ON SITE PRIOR TO TENDER.

DRAWING NOTES:

- ENTRANCE HEATER BY ELECTRICAL.
- RISER FOR ROOF DRAIN. REFER TO ARCHITECTURAL FOR THE EXACT LOCATION OF ROOF DRAIN.
- RAIN WATER LEADER AT APPROXIMATELY THIS LOCATION. COORDINATE EXACT LOCATION ON SITE AND WITH ARCHITECTURAL.
- F-1 LOCATED AT HIGH LEVEL AND TO BE SUSPENDED FROM STRUCTURE WITH SPRING ISOLATORS.
- EXHAUST DUCT TO RUN AT HIGH LEVEL WITHIN CEILING SPACE.
- NEW 100# RAIN WATER LEADER TO DROP DOWN TO BASEMENT WITHIN FIRST AID ROOM. REFER TO ARCHITECTURAL FOR EXACT LOCATION.
- RAIN WATER LEADER DOWN TO SPLASH PAD AT GRADE. EXACT ROUTING AND LOCATION BY ARCHITECTURAL.
- NEW BASEBOARD HEATER BY ELECTRICAL.
- NEW 5LB ABC FIRE EXTINGUISHER COMPLETE WITH MOUNTING BRACKET AT APPROXIMATELY THIS LOCATION.

GRILLE, DIFFUSER & LOUVER SCHEDULE

TYPE	SERVICE	MAKE	MODEL	BORDER	CORE	BLADE	FRAME	FASTEN	FINISH	REMARKS
A	RETURN AIR	PRICE	80	TB	---	---	---	---	B12	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. COLORS AND FINISHES BY ARCHITECTURAL.
B	TRANSFER AIR	PRICE	LBPH15A	1000	---	-	-	A	B12	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. COLORS AND FINISHES BY ARCHITECTURAL.
C	TRANSFER AIR	PRICE	S10	F	---	L	D	A	B12	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. COLORS AND FINISHES BY ARCHITECTURAL.

FAN SCHEDULE

NO.	LOCATION	MAKE	MODEL	FAN TYPE	AIRFLOW CFM (l/s)	EXTERNAL STATIC PRESS. IN. H ₂ O (pa)	SPEED RPM	UNIT WEIGHT W/O ACCESS. LBS (kg)	CONTROLS			HP (kw)	REMARKS
									INTERLOCK				
									SUPPLY	INSTALL	WITH		
F-1	REFER TO M1.1	GREENHECK	85Q-80-4	INLINE CENTRIFUGAL	275 (130)	0.5 (125)	1282	80 (36)	MECHANICAL	MECHANICAL	DDC	1/4 (0.25)	CONNECT TO BUILDING DDC. REFER TO SEQUENCE OF OPERATION. CONTRACTOR TO SITE VERIFY LOCATION OF NEAREST CONTROLLER AND ALLOW FOR EXPANSION IF REQUIRED.

PLUMBING SPECIFICATIONS

- FD-1 FLOOR DRAINS - AREA WELL DRAINS**
 JAY R. SMITH #6040 SPECIAL PURPOSE PIT DRAIN, ALL DUCO COATED CAST IRON BODY, FLASHING CLAMP WITH SEEPAGE OPENINGS, 3" (76MM) OUTLET, SUPPLY COMPLETE WITH THREADED CONNECTION AND ALL NECESSARY HARDWARE TO CONNECT TO DRAIN LINE.
- RD-1 ROOF DRAINS/DECK DRAINS - STANDARD FLOW DRAINS - LARGE CONVENTIONAL INSULATED ROOF**
 JAY R. SMITH #1010 4-R-U-C-E-CID ROOF DRAIN, ALL DUCO COATED 15-1/4" (387MM) DIAMETER CAST IRON BODY, FLASHING CLAMP WITH SEEPAGE OPENINGS, 4" (102MM) OUTLET, SUMP RECEIVER, VANDAL PROOF DOME, UNDERDECK CLAMP, EXTENSION SOLID (HEIGHT TO SUIT ROOF CONSTRUCTION), CAST IRON DOME MISSION #HW SERIES 'HEAVY WEIGHT' COUPLINGS, M.I. COUPLINGS, CONSTRUCTED OF EXTRA WIDE 4 TO 6 BAND CORRUGATED TYPE 304 STAINLESS STEEL BANDS, WITH HEAVY DUTY WORM DRIVE CLAMPS. REFER TO DRAWING FOR SIZES.

6.	ISSUED FOR TENDER	2012-09-29
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

revision

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project
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
 Winnipeg, Manitoba Bid Opportunity No. 579-2012

sheet title
MAIN FLOOR PLUMBING & HVAC RENOVATION

project number: 12-003 drawing number:
 scale: 1:100
 drawn by: C.DEB. **M1.1**
 approved by: J.F.
 date: 2012-09-21



NOTE:		ELECTRICAL SYMBOL LEGEND		ELECTRICAL DRAWING LIST		FORMAL ISSUES				
NOT ALL SYMBOLS SHOWN ON THIS LEGEND ARE NECESSARILY USED ON THIS PROJECT.						2012-07-12 ISSUED FOR REVIEW	2012-07-30 ISSUED FOR 90% SUBMISSION	2012-09-20 RE-ISSUED FOR 100% REVIEW	2012-09-28 ISSUED FOR TENDER	
<p>LIGHTING</p> <p>LINEAR FLUORESCENT LUMINAIRE, TYPE 'A' AS SPECIFIED. HATCHING DENOTES CONNECTED TO EMERGENCY/NIGHT LIGHTING CIRCUIT</p> <p>CEILING MOUNTED LUMINAIRE, TYPE 'A' AS SPECIFIED</p> <p>WALL MOUNTED LUMINAIRE, TYPE 'A' AS SPECIFIED</p> <p>DOUBLE SURFACE MOUNTED EMERGENCY LIGHTING REMOTE HEADS, TYPE 'BU-1' INDICATES BATTERY BANK FED FROM</p> <p>WALL MOUNTED DOUBLE FACED EXIT LIGHT AND DIRECTIONAL ARROWS AS INDICATED. SHADED AREAS DENOTE DIRECTION OF FACE OF EXIT SIGN. 'BU-1' INDICATES BATTERY UNIT FED FROM.</p> <p>WALL MOUNTED SINGLE FACED EXIT LIGHT AND DIRECTIONAL ARROWS AS INDICATED. SHADED AREAS DENOTE DIRECTION OF FACE OF EXIT SIGN.</p> <p>CEILING MOUNTED DOUBLE FACED EXIT LIGHT AND DIRECTIONAL ARROWS AS INDICATED. SHADED AREAS DENOTE DIRECTION OF FACE OF EXIT SIGN.</p> <p>CEILING MOUNTED SINGLE FACED EXIT LIGHT AND DIRECTIONAL ARROWS AS INDICATED. SHADED AREAS DENOTE DIRECTION OF FACE OF EXIT SIGN.</p> <p>SECURITY AND ACCESS SYSTEMS</p> <p>KEY PAD</p> <p>MOTION DETECTOR</p> <p>KEY SWITCH</p> <p>EQUIPMENT CONNECTIONS AND CONTROLS</p> <p>DIRECT CONNECTION - 120 OR 208V AS SPECIFIED</p> <p>DIRECT CONNECTION - 120 OR 208V C/W UNFUSED DISCONNECT SWITCH AS SPECIFIED</p> <p>MOTOR CONNECTION AS SPECIFIED</p> <p>MOTOR CONNECTION C/W UNFUSED DISCONNECT SWITCH</p> <p>MOTOR CONNECTION C/W FUSED DISCONNECT SWITCH</p> <p>UNFUSED DISCONNECT SWITCH</p> <p>FUSED DISCONNECT SWITCH</p> <p>THERMOSTAT PROVIDED BY DIV. 15 AND WIRED BY DIV. 16</p> <p>POWER ACTIVATED DOOR EXIT BUTTON SUPPLIED BY DOOR HARDWARE SUPPLIER, WIRED BY DIV. 16</p> <p>RECESSED MOUNTED ELECTRICAL PANEL - 'SP' DENOTES PANEL DESIGNATION</p> <p>SURFACE MOUNTED ELECTRICAL PANEL - 'SP' DENOTES PANEL DESIGNATION</p> <p>GENERAL POWER</p> <p>15A, U-GROUND DUPLEX RECEPTACLE</p> <p>15A, U-GROUND DUPLEX RECEPTACLE C/W GROUND FAULT CIRCUIT INTERRUPTER - STANDARD MOUNTING HEIGHT OR MOUNTED ABOVE COUNTER</p>		<p>FIRE ALARM SYSTEM</p> <p>PULL STATION</p> <p>AUTOMATIC COMBINATION FIXED TEMPERATURE/RATE OF RISE HEAT DETECTOR - WALL OR CEILING MOUNTED</p> <p>SMOKE DETECTOR - CEILING MOUNTED</p> <p>RECESSED MOUNTED - FIRE ALARM CONTROL PANEL</p> <p>SURFACE MOUNTED - FIRE ALARM CONTROL PANEL</p> <p>DOOR HOLDER</p> <p>LIGHTING CONTROL</p> <p>ONE, TWO, THREE AND FOUR GANG SINGLE POLE TOGGLE SWITCHES</p> <p>MISCELLANEOUS</p> <p>INDICATES EXISTING DEVICE TO REMAIN</p> <p>INDICATES EXISTING DEVICE TO BE MOVED</p> <p>INDICATES EXISTING DEVICE IN RELOCATED POSITION</p> <p>INDICATES EXISTING DEVICE TO BE DEMOLISHED</p> <p>INDICATES CONDUIT</p> <p>ELECTRICAL DRAWING NOTES</p> <p>COMMUNICATIONS</p> <p>TELEPHONE OUTLET - WALL MOUNTED OR MOUNTED ABOVE COUNTER</p> <p>INTERCOM STATION</p> <p>ELECTRIC HEATING</p> <p>ELECTRIC BASEBOARD HEATER, TYPE 'BBH1' AS SPECIFIED</p> <p>RECESSED MOUNTED - ELECTRIC FORCE FLOW HEATER, TYPE 'FFH1' AS SPECIFIED</p> <p>ELECTRIC UNIT HEATER, TYPE 'UH1' AS SPECIFIED</p>		<p>E1.0 ELECTRICAL SYMBOL LEGEND & DRAWING LIST</p> <p>EDL2.0 LIGHTING DEMOLITION</p> <p>EDP2.0 POWER & SYSTEMS DEMOLITION</p> <p>EL2.0 LIGHTING RENOVATION</p> <p>EP2.0 POWER & SYSTEMS RENOVATION</p> <p>E4.0 SINGLE LINE DISTRIBUTION AND PANEL BOARD</p>		✓	✓	✓	✓	

6.	ISSUED FOR TENDER	2012-09-28
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

revision

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project
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
Winnipeg, Manitoba Bid Opportunity No. 579-2012

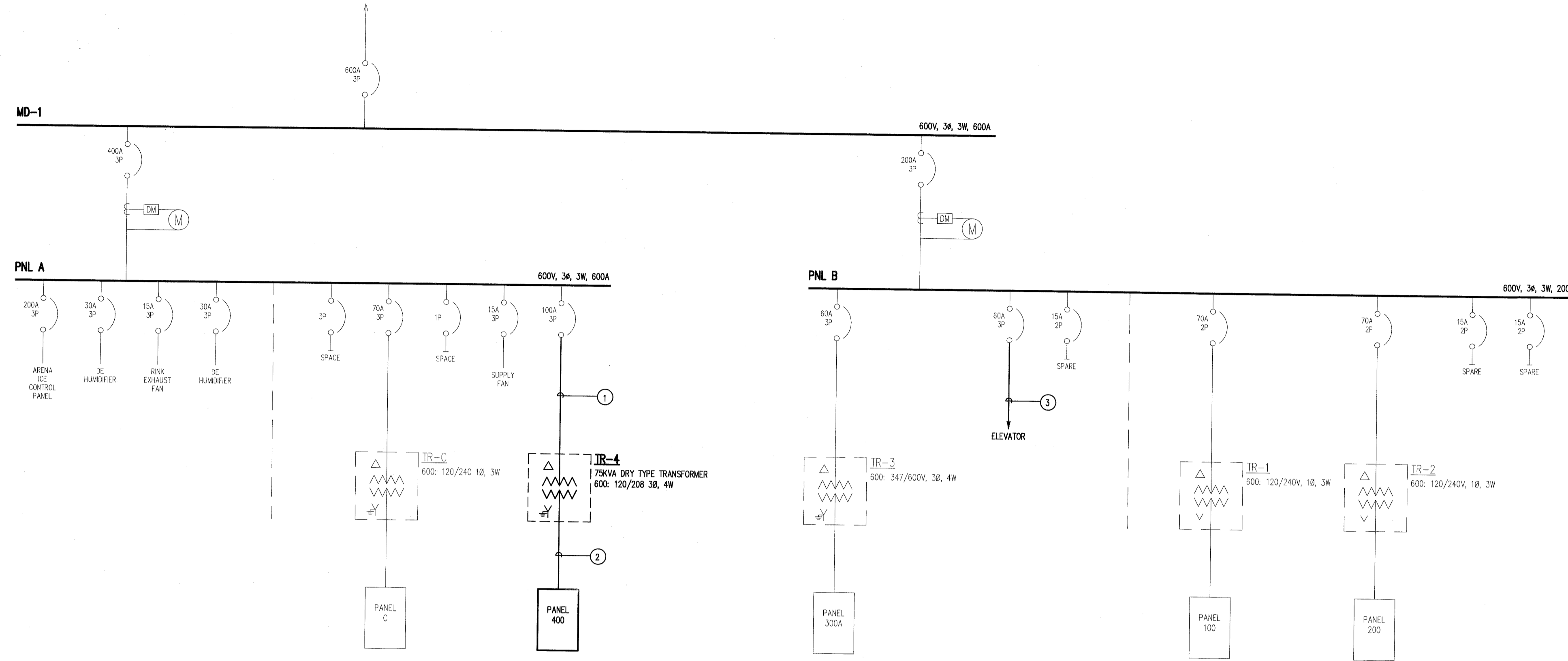
sheet title
ELECTRICAL SYMBOL LEGEND & DRAWING LIST

project number: 12-003
scale: N.T.S.
drawing number: **E1.0**
drawn by: MJB / LB
approved by: KEI
date: SEP 28, 2012

APEGM
Certificate of Authorization
MCW/AGE Consulting
Professional Engineers
No. 589 Expiry: April 30, 2013



CENTURY ARENA SITE REVIEW



NOTES
 LIGHTER FONT REPRESENTS EXISTING EQUIPMENT.
 DARKER FONT REPRESENTS NEW EQUIPMENT.

FEEDER SCHEDULE		
1	3# 3RW90 IN 35mmC	100A
2	4# 3/0 RW90IN 41mmC	200A
3	3# 8MI CABLE	50A

*** PANEL - 400 (120/208V/3Φ/4W/225A MAINS)**

LTG	1	22	AUTO DOOR	
LTG	2	23	REC	2R
LTG	3	24	REC	2R
LTG	4	25	ESPP-1 (3/4 HP)	
	5	26	WTSPP-1 (1/3 HP)	
	6	27	ELEVATOR LIGHT/CONTROL	
	7	28	FF	4000
	8	29	30	
	9	30	BB	4000
	10	31	30	
	11	32	SIGNAGE EXTERIOR	
	12	33	MAGNETIC HOLD OPEN	
	13	34	REC	3R
	14	35	F-1 (1/4 HP)	
	15	36	BB	2000
	16	37	20	
	17	38	UH	2000
	18	39	20	
	19	40	SMOKE DAMPERS	
	20	41		
	21	42		

LTG	PKG	HTG	A/C	MTR	MISC	TOTAL
0.0	0.0	0.0	0.0	0.0	0.0	0.0
W/HTG	ELEV	BOIL	RAMP	LAU	KIT	
0.0	0.0	0.0	0.0	0.0	0.0	0.0

* PROVIDE INTEGRAL 200A/3P MAIN BREAKER

2.	ISSUED FOR TENDER	2012-09-28
1.	ISSUED FOR 100% REVIEW	2012-09-20

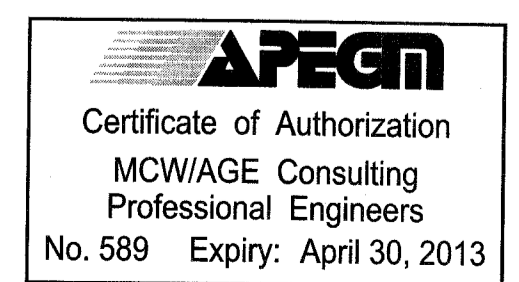
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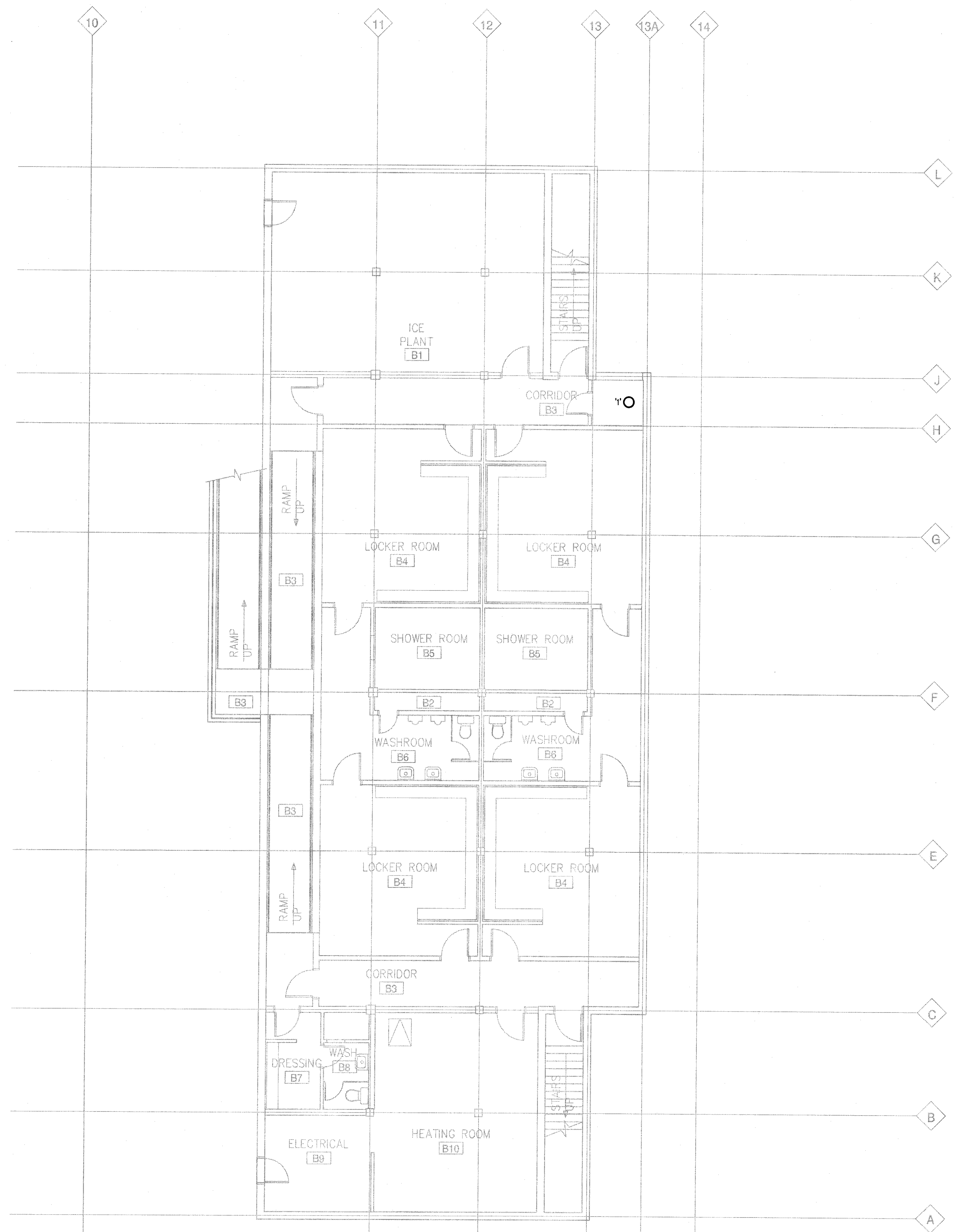
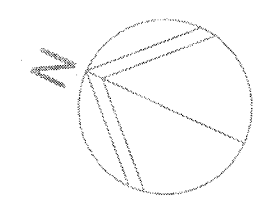


project
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
 Winnipeg, Manitoba Bid Opportunity No. 579-2012

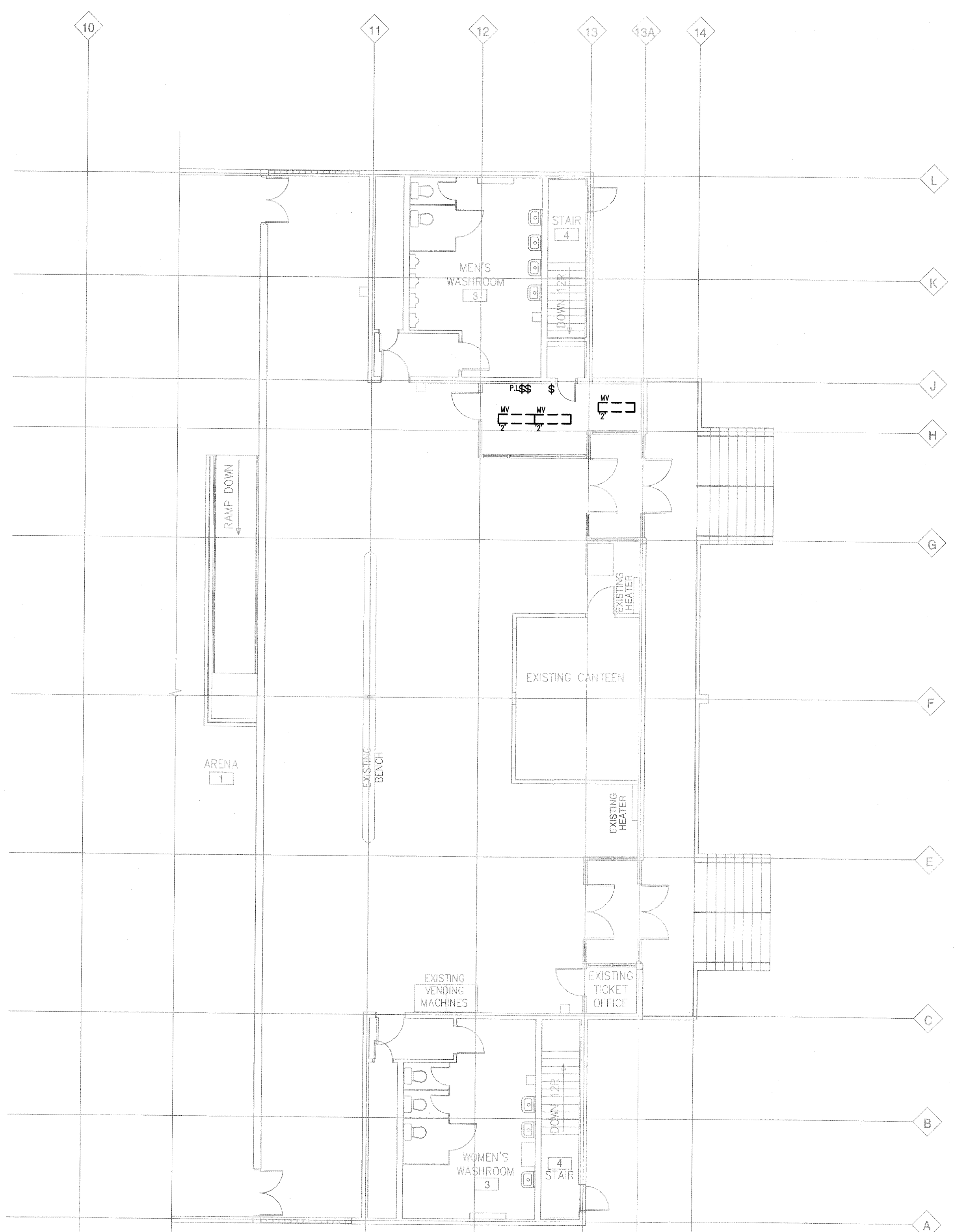
sheet title
SINGLE LINE DISTRIBUTION & PANEL BOARD

project number: 12-003 drawing number:
 scale: N.T.S. **E4.0**
 drawn by: LB
 approved by: KEI
 date: SEP 28, 2012





1 BASEMENT LIGHTING DEMOLITION
EDL2.0 SCALE: 1:100



2 MAIN FLOOR LIGHTING DEMOLITION
EDL2.0 SCALE: 1:100

EXISTING LUMINAIRE SCHEDULE	
1	KEYLESS LAMP HOLDER
2	4' 2F32T8 LAMP INDUSTRIAL EGG CRATE, STEM SUSPENDED
3	HPS SURFACE/CEILING PACK
4	HPS SURFACE/WALL PACK

revision		
6.	ISSUED FOR TENDER	2012-09-28
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

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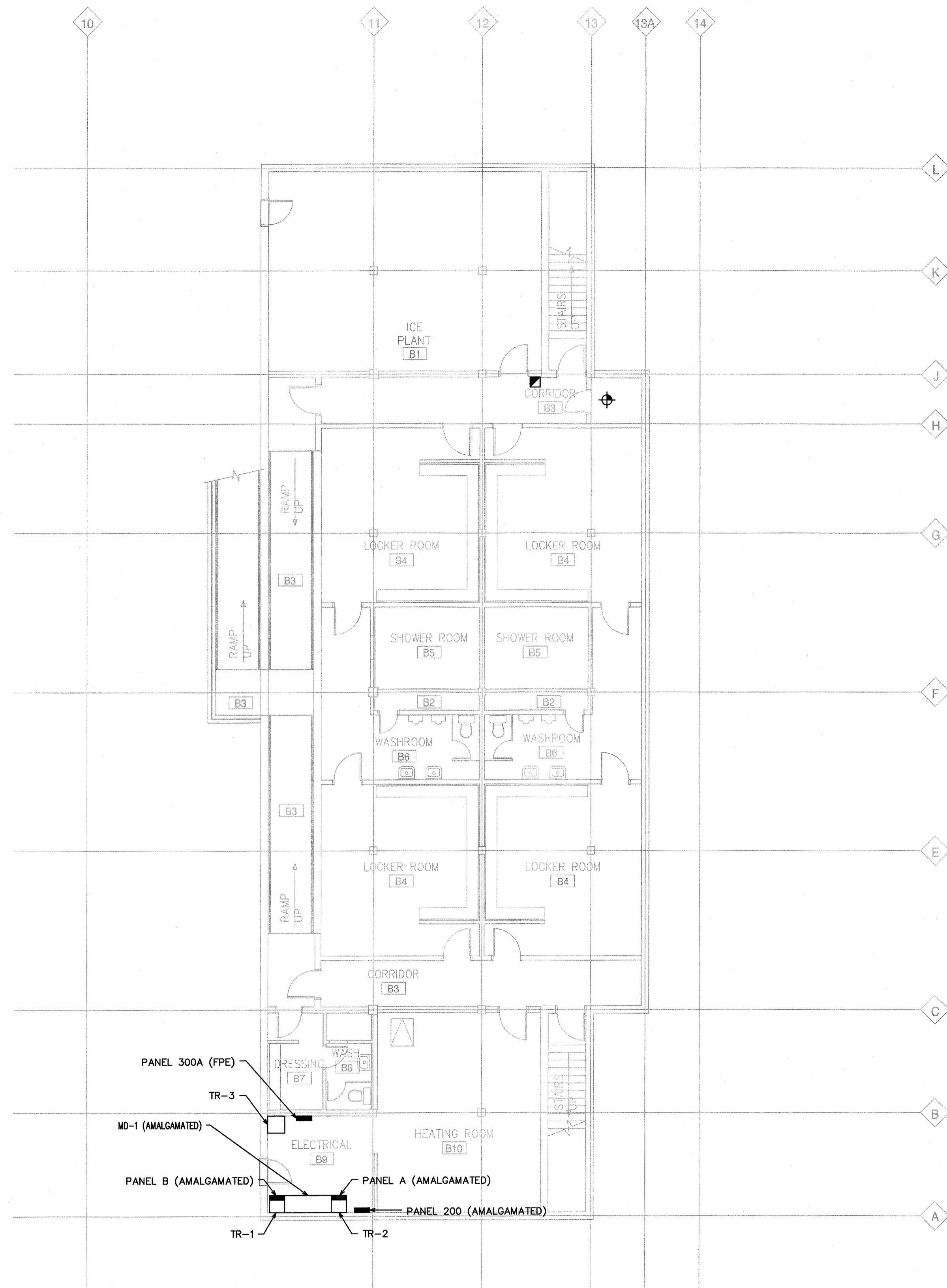
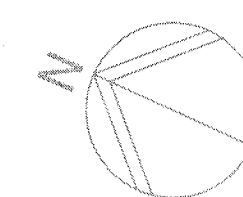
project
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
 Winnipeg, Manitoba Bid Opportunity No. 579-2012

sheet title
LIGHTING DEMOLITION

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 No. 589 Expiry: April 30, 2013



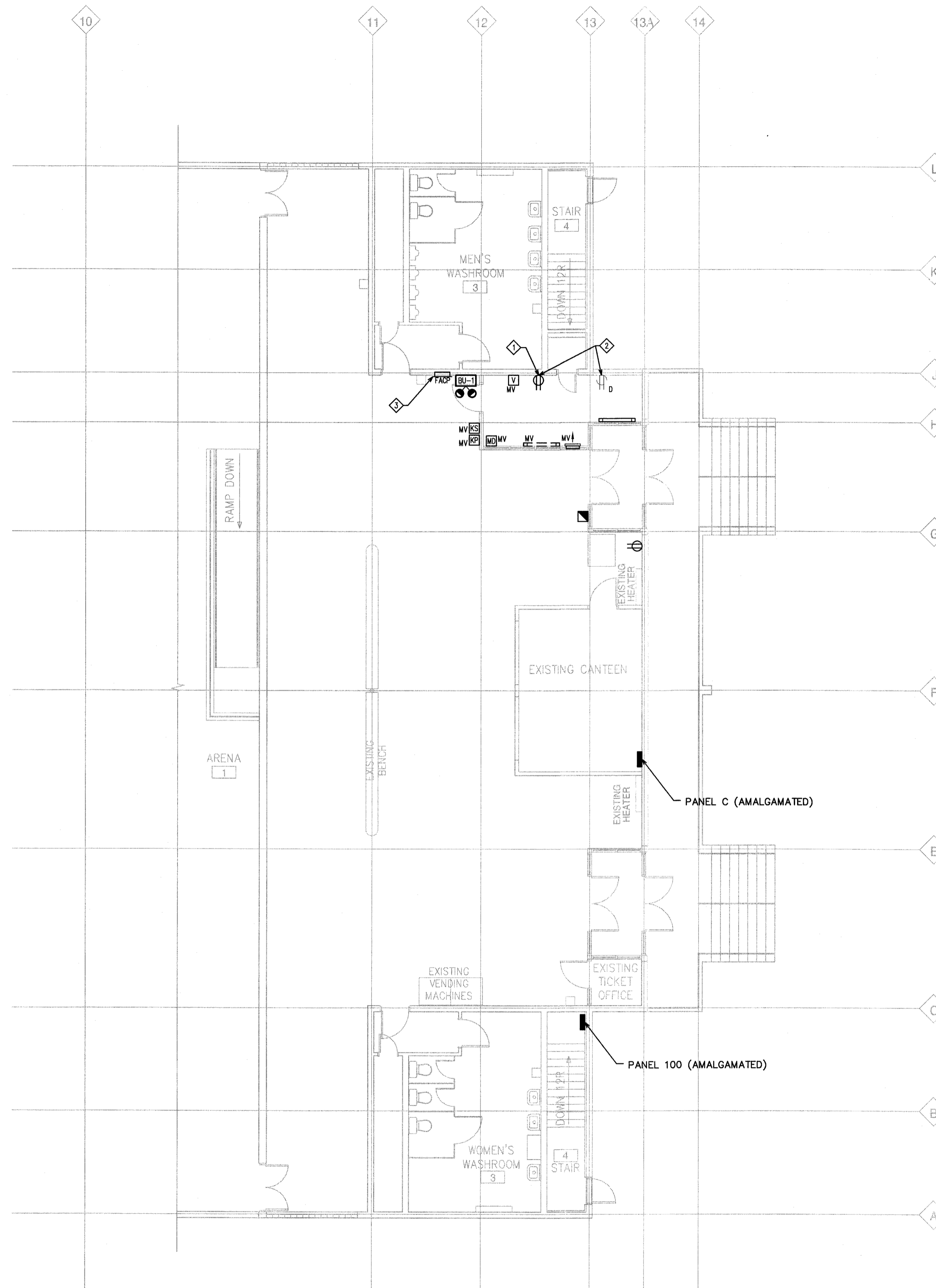
project number: 12-003 drawing number:
 scale: 1:100 **EDL2.0**
 drawn by: MJB / LB
 approved by: KEI
 date: SEP 28, 2012



1 BASEMENT POWER & SYSTEMS DEMOLITION LAYOUT
EDP2.0 SCALE: 1:100

NOTES:

1. FLUSH MOUNTED C/W WIREMOLD EXTENSION.
2. WIREMOLD BOX, SURFACE WIRED C/W WIREMOLD RACEWAY.
3. SIMPLEX MODEL 4004. UTILIZE SPARE ZONE FOR NEW DEVICES RELATED TO THE ELEVATOR SHAFT. MODIFY PANEL AS REQUIRED TO ACCOMMODATE ELEVATOR REQUIREMENTS.



2 MAIN FLOOR POWER & SYSTEMS DEMOLITION LAYOUT
EDP2.0 SCALE: 1:100

6.	ISSUED FOR TENDER	2012-09-28
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

revision

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project

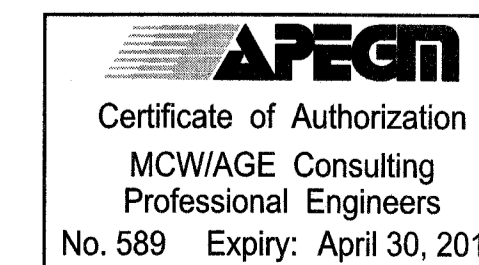
ELEVATOR ADDITION AND ACCESSIBILITY UPGRADES OF CENTURY ARENA
Winnipeg, Manitoba Bid Opportunity No. 579-2012

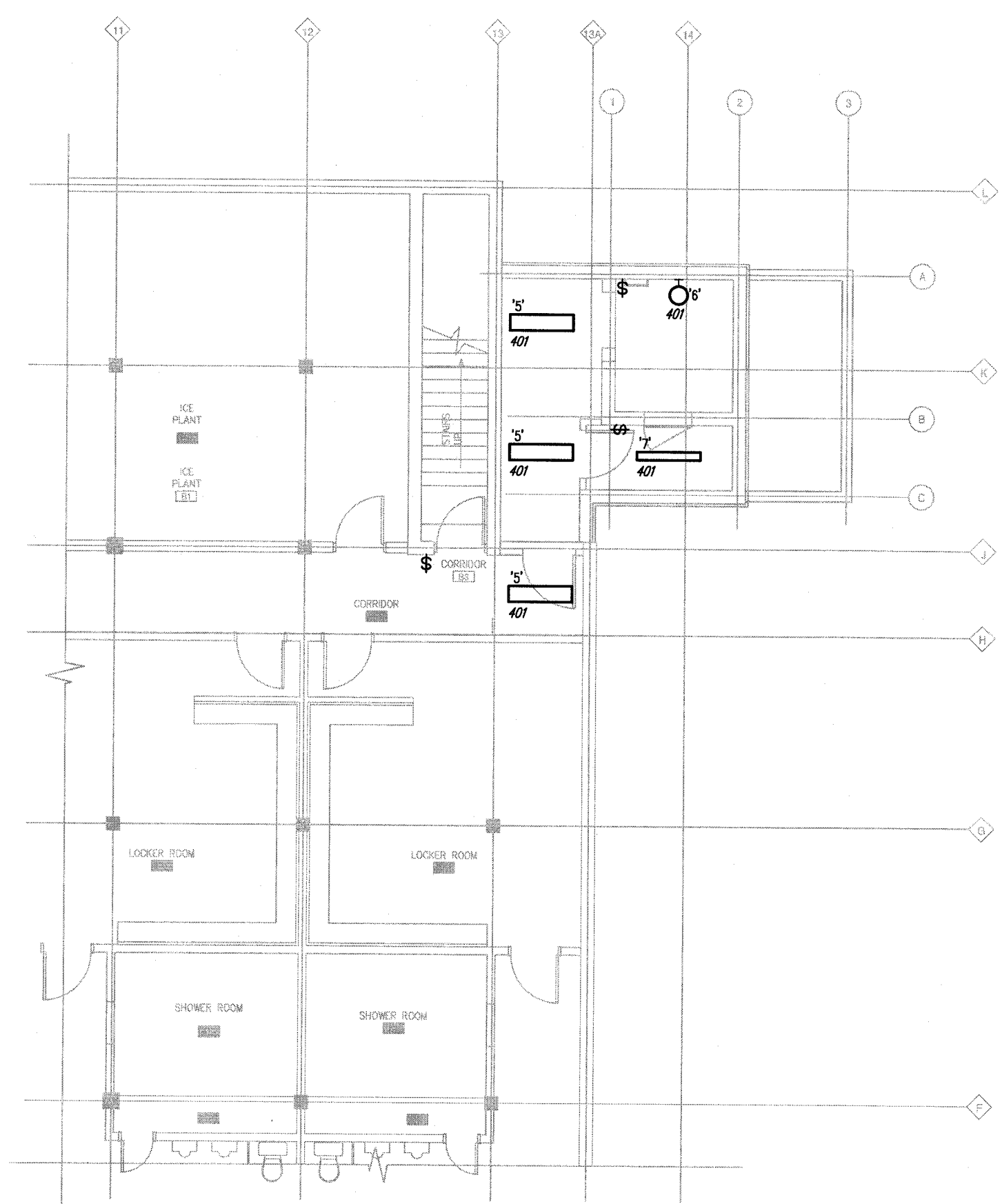
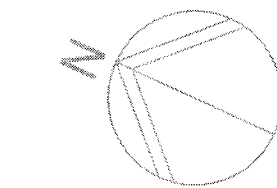
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POWER & SYSTEMS DEMOLITION

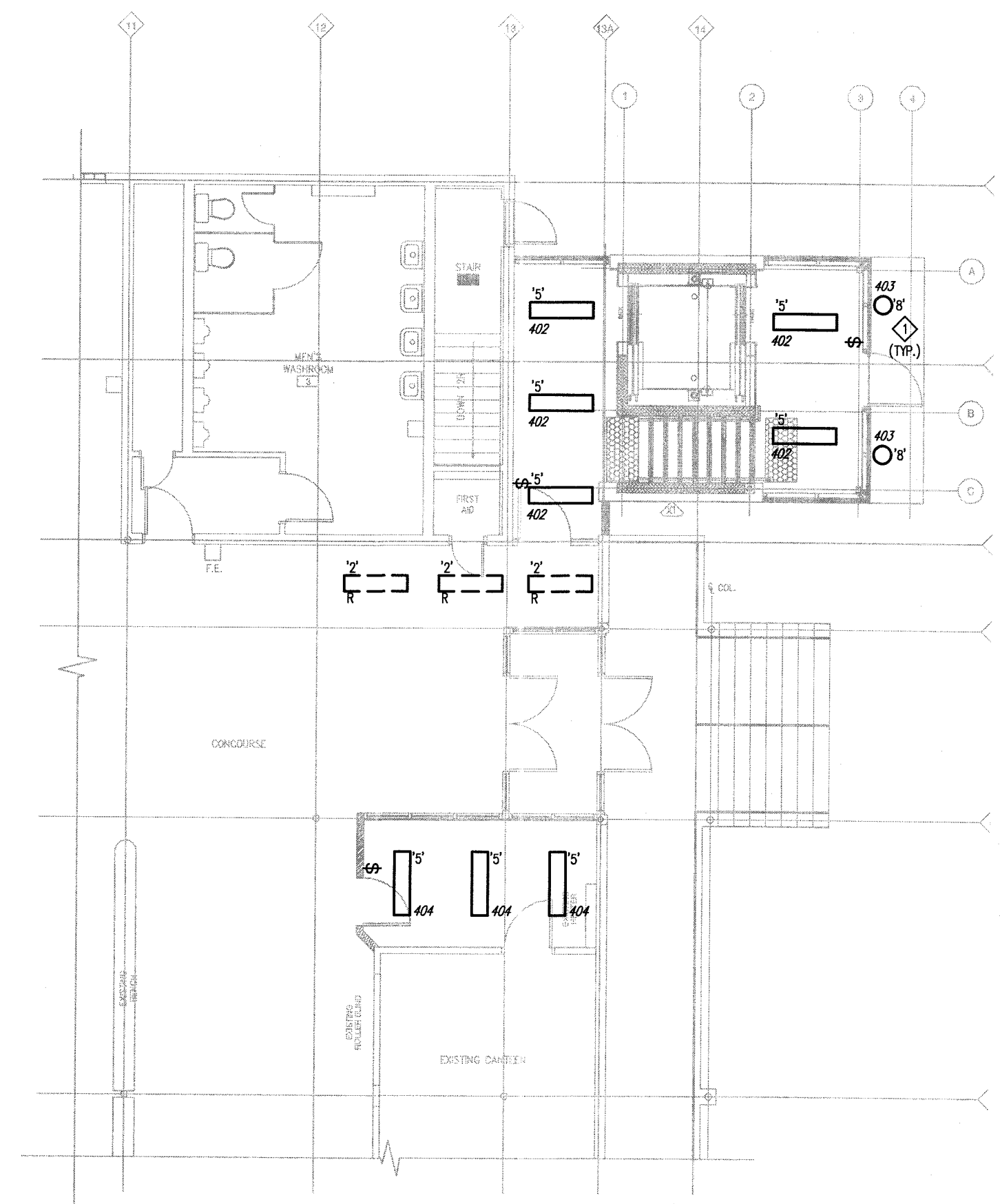
project number: 12-003
scale: 1:100
drawn by: MJB / LB
approved by: KEI
date: SEP 28, 2012

drawing number:
EDP2.0





1 BASEMENT LIGHTING RENOVATION LAYOUT
 EL2.0 SCALE: 1:100



2 MAIN FLOOR LIGHTING RENOVATION LAYOUT
 EL2.0 SCALE: 1:100

LUMINAIRE SCHEDULE:					
TYPE	MANUFACTURER	CATALOGUE NO.	VOLTS	LAMPS	REMARKS
5	CFI LITHONIA METALUX PEERLESS VISIONEERING	TH248-UNV-CA-VB CLM-2-32-MVOLT-GEB10IS-CSA WBI-232IMA-UNV-EB81 PFK-4-232-1908-UNV-1B-ELISPREM UNI248-T832NUNV-B50PSPR	120	2XF32T8	SURFACE MOUNTED WRAPAROUND LENSE RETAINED BY SPRING LOADED METAL PINS. INJECTION MOLDED CLEAR PRISMATIC ACRYLIC LENSE.
6	LEVITON/MCGILL P+S	49875/2100A 272/2100A	120	CF23	PORCELAIN LAMPHOLDER C/W WIREGUARD.
7	CFI COLUMBIA DAY-BRITE LITHONIA METALUX PEERLESS VISIONEERING	TU248-UNV-CA KL4-232-EBRLHU-CSA ATA232-UNV-1/2-EB10I AF-2-32-MVOLT-GEB10IS-CSA DIM-232-UNV-EB81 ITA-4-232-UNV-1B-ELISPREM TUR248-T832NUNV-B50R03PSPR	120	2XF32T8	DOUBLE LAMP INDUSTRIAL C/W SLOTTED REFLECTOR. SPRING LOADED SOCKETS. SURFACE MOUNTED OR SUSPENDED BY CHAIN OR AIRCRAFT CABLE.
8	COVENTRY ARCHITECTURAL SERIES	4MHT4-20-E4-FL/AHTP41-SCL	120	1-20WT4MH	

NOTES:
 1. PROVIDE PHOTOCELL ON/OFF CONTROL.

6.	ISSUED FOR TENDER	2012-09-28
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

revision

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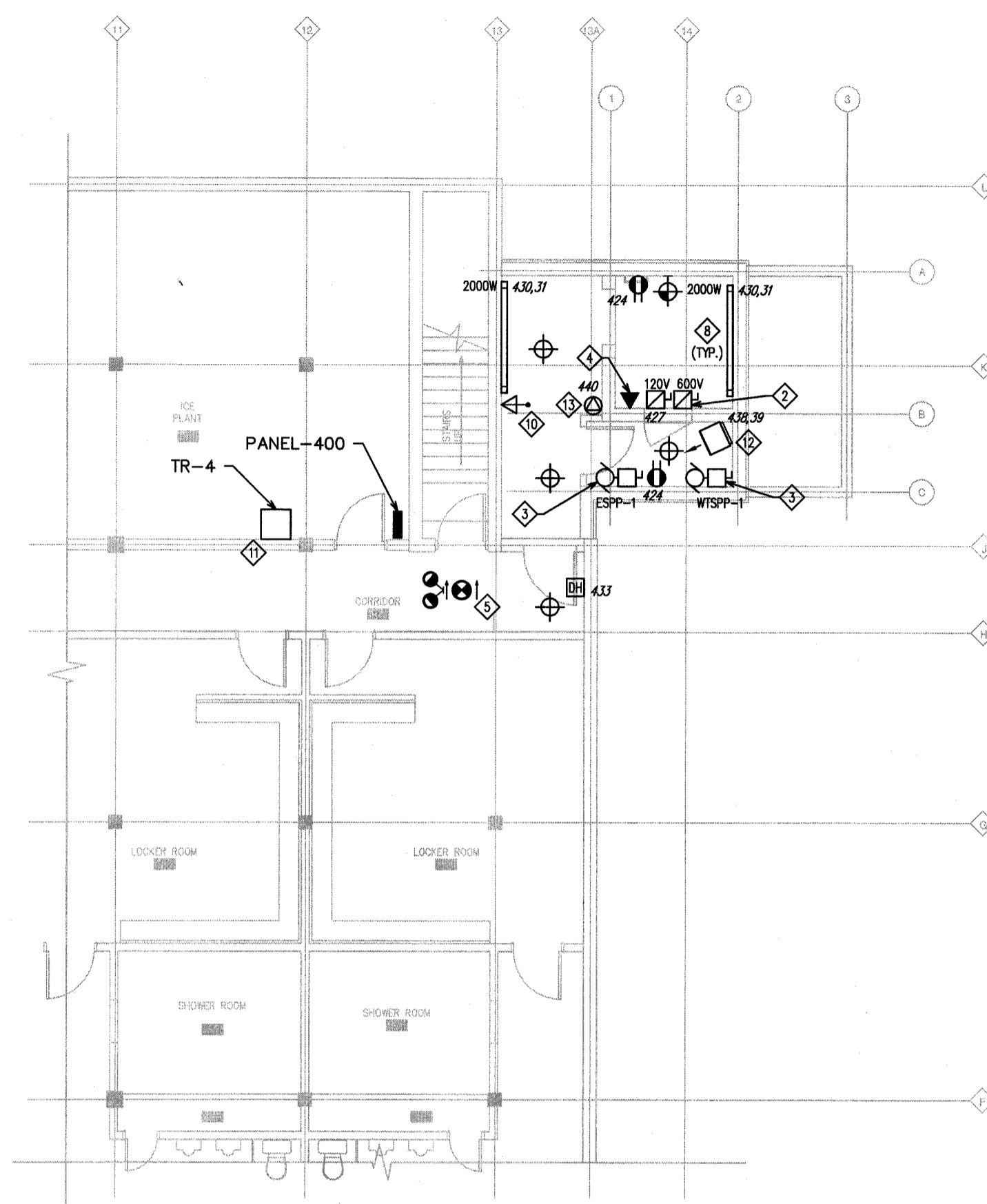
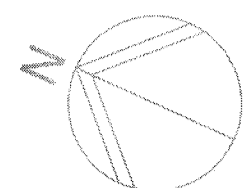
sheet title
LIGHTING RENOVATION

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 MCW/AGE Consulting
 Professional Engineers
 No. 589 Expiry: April 30, 2013

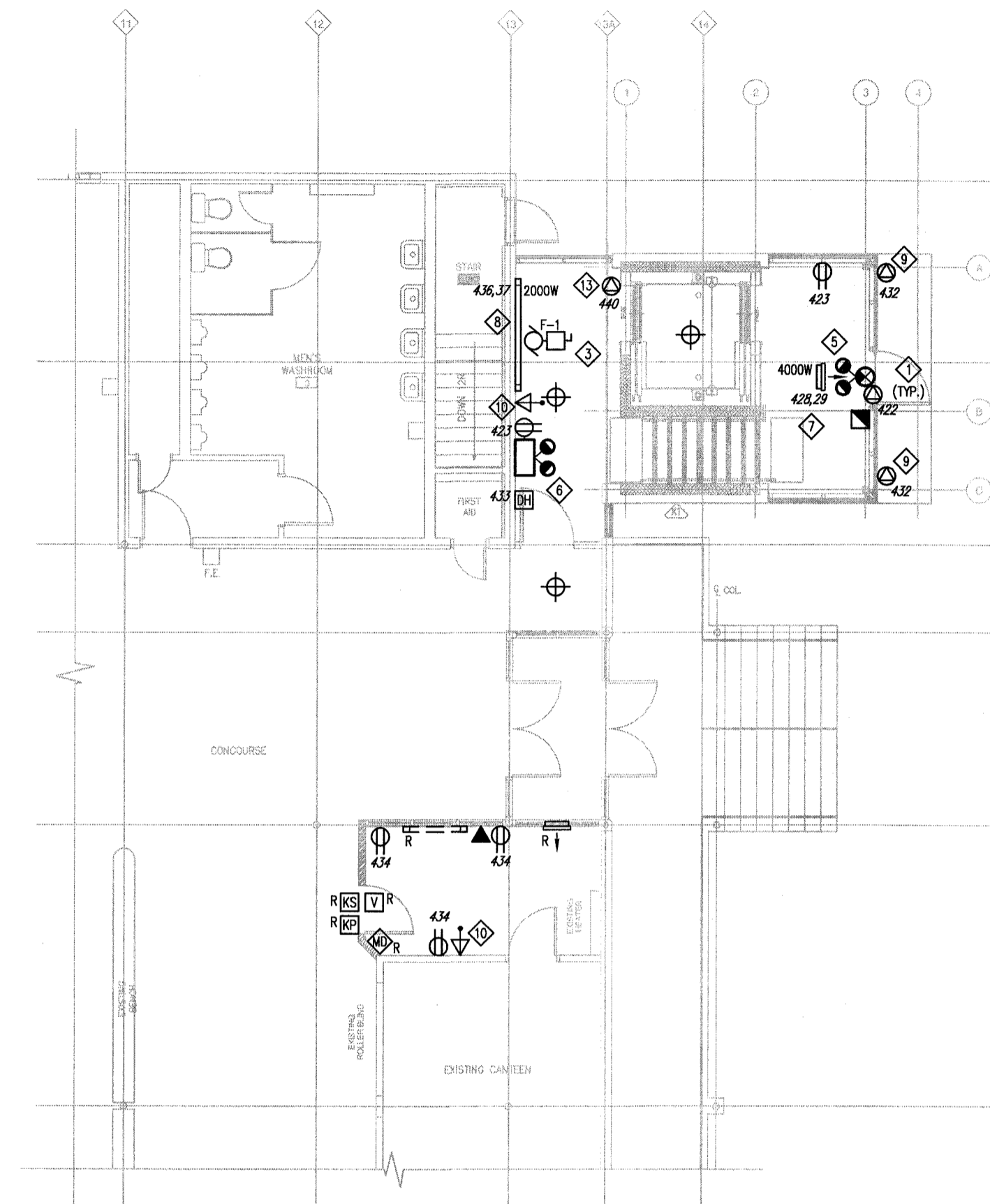
PROVINCE OF MANITOBA
 SEP 27 2012
 ISAAC
 Member
 Registered Professional Engineer

project number: 12-003
 scale: 1:100
 drawn by: MJB
 approved by: KEI
 date: SEPT 28, 2012

drawing number:
EL2.0



1 BASEMENT POWER & SYSTEMS RENOVATION LAYOUT
EP2.0 SCALE: 1:100



2 MAIN FLOOR POWER & SYSTEMS RENOVATION LAYOUT
EP2.0 SCALE: 1:100

NOTES:

1. WIRE AND CONNECT AUTO DOOR OPENER C/W ASSOCIATED CONTROLS.
2. WIRE AND CONNECT WITH 3 #8 MI TO EXISTING 60A/3P CIRCUIT BREAKER IN PANEL B. PROVIDE SEPARATE PRICE TO REPLACE EXISTING BREAKER SHOULD SAME BE DEFECTIVE. CONFIRM ROUTING/LOCATION(S)/BREAKER REQUIREMENTS ON SITE PRIOR TO TENDER.
3. WIRE AND CONNECT HIGH LEVEL ALARM AS SUPPLIED BY MECHANICAL. CONFIRM LOCATION(S) WITH MECHANICAL.
4. PROVIDE DEDICATED TELEPHONE LINE TO MAIN BUILDING MTS BACKBOARD. CONFIRM ROUTING/LOCATION(S) ON SITE PRIOR TO TENDER.
5. PROVIDE SELF CONTAINED EXIT/EMERGENCY LIGHT WIRED AND CONNECTED TO AREA LIGHTING CIRCUIT.
6. PROVIDE SELF CONTAINED EMERGENCY LIGHT WIRED AND CONNECTED TO AREA LIGHTING CIRCUIT.
7. PROVIDE 4KW, 208V, 1Ø FLUSH CEILING MOUNTED FORCE FLOW HEATER C/W B.I.T.
8. PROVIDE 2KW, 208V, 1Ø BASEBOARD HEATER C/W B.I.T.
9. WIRE AND CONNECT BACK LIT ENTRANCE SIGN (INDIVIDUAL LETTERS) AND UNIVERSAL ELEVATOR SYMBOL SIGN. PROVIDE PHOTOCELL ON/OFF CONTROL.
10. PROVIDE TWO-WAY VOICE COMMUNICATION BETWEEN THREE LOCATIONS.
11. COORDINATE TRANSFORMER LOCATION ON SITE WITH EXISTING CONDITIONS.
12. PROVIDE 2KW, 208V, 1Ø UNIT HEATER C/W B.I.T. MOUNTED AS HIGH AS POSSIBLE.
13. WIRE & CONNECT SMOKE DAMPER SUCH THAT LOSS OF POWER OR GENERAL FIRE ALARM SIGNAL, DAMPER SHALL CLOSE. PROVIDE REQUIRED CONTACT IN FACP. MODIFIED AS REQUIRED.

6.	ISSUED FOR TENDER	2012-09-29
5.	RE-ISSUED FOR 100% REVIEW	2012-09-20
4.	ISSUED FOR 100% REVIEW	2012-08-08
3.	ISSUED FOR PRICING	2012-08-03
2.	ISSUED FOR 90% SUBMISSION	2012-07-30
1.	ISSUED FOR REVIEW	2012-07-12

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sheet title

POWER & SYSTEMS RENOVATION

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