Detailed Project Description

Attached on separate sheets or in the space below, provide a detailed description of the project which addresses the selection criteria. Please include a description of the project objectives and how the project will accomplish those objectives, a detailed scope of work and, if possible, preliminary project plans or drawings.

-see attached Project Description

-see attached Plans

-see attached Class A Estimates

-see attached Year End Statements

-see attached Bank Statements

-see attached Copy of Canada 150 Infrastructure Community Contribution

-see attached Board of Directors Minutes

-see attached letter to Mrs Karen Beck applying for Loan Guarantee

-see attached Letter from Cambrian Credit Union endorsing Loan Application

Project Description- Construction of Maintenance Shop

PROJECT PURPOSE

To replace the existing 45 year old storage shed into a new Maintenance Shop.

This request is for the construction of a 30 ft. x 90 ft. Maintenance Shop attached to south end of the Arenas.

The facility is utilized by many user groups each year and contributes greatly to the well being of the centre and assist Gateway Recreation Centre Inc. in meeting its goals.

HISTORY

The Gateway Recreation Centre has been in existence for over 45 years. Over the years each new executive with the assistance of the community has worked very hard to ensure that the long term goals and objectives of the community have been met.

The club has grown from a single outdoor rink to a multi purpose facility, housing two indoor arenas, an indoor soccer complex, banquet hall, playground, outdoor soccer pitches and ball diamonds.

Gateway Recreation Centre operates as a non profit organization year round. This is done with the support of over 45,000 volunteer hours, 10 full time staff and 12 part time staff. Gateway Recreation Centre Inc. not only serves approximately 15,000 constituents but is also the home of many user groups from all over Manitoba. Gateway has become the model for all other community clubs to follow.

FACILITY/ COMMUNITY NEEDS

The centre operates year round, 12 months per year, 6 am to 1 am daily with only a few general holidays being closed. It serves not only the River East Area but the entire City of Winnipeg and the Province of Manitoba. For the past 17 years we have hosted numerous events ranging from Community Club Hockey, AAA level tournaments and Hockey/ Ringette schools. We are the home of Gateway Ringette and Hockey teams, River East Minor Hockey Teams, AAA Hockey and the Winnipeg Thrashers, High School Hockey, Winnipeg Youth Soccer Association, Gateway Mini and Micro Soccer Program, Adult Soccer, Community Club Baseball and Softball as well as being one of the most sought out facility in Winnipeg for hockey/ringette tournaments, playoffs and hockey schools. Our Community Club

membership is 1100 and includes Hockey, Ringette, Baseball, Softball, Basketball, Indoor and Outdoor Soccer (Youth and Adults). A total 7962 hours were rented or used by our community in our arenas (6136) and Indoor Soccer Pitch (1824) for 2014.

MAINTENANCE SHOP

The existing Storage shed is over 45 years old. It is in dire need of replacement as it in a position to crumble to piece any time soon and may not last the winter. In order to replace the Storage Shed, plans need to be developed for the construction of the Maintenance Shop that will meet the needs of the facility. Our goal is to start construction in April 1, 2016 and finish by August 31, 2016.

At this time we store equipment all over the place. Tractors need to be brought outside daily as it is stored in our Zamboni Room and there is no other place to store the tractor. Our 2nd Zamboni, Riding Lawnmowers (2) snow blowing equipment as well as our Baseball and Softball Equipment are stored in the existing storage shed.

As part of our Maintenance Shed we are looking at having enough storage for all heavy equipment, sports equipment as well as an area to perform work inside. This will go a long way in meeting the needs of the facility and the community and being able to upkeep our equipment thus increasing the lifespan of all equipment.

Accutech Engineering Inc. has developed plans for the Maintenance Shop (see attached) and is managing the project for us. Accutech Engineering Inc. is very familiar with Gateway Recreation Centre Inc. as they were the firm that developed and managed the construction of the Indoor Soccer Complex, the dehumidification upgrades in the arenas, the construction of Offices, the replacement of a new roof over the arenas and more recently upgrades to our new boiler system.

The City of Winnipeg Public Works Department has been made aware of the project. Mr. Bruce Kazun, Supervisor of Community Services Maintenance has been made aware of our plans to construct the Maintenance Shop.

FUTURE PROJECTS

Once we complete the construction of the Maintenance Shop we will be looking at moving the outdoor rink to a different location and build a turnaround in our parking lot for all patrons to be able to facilitate and provide a safer area for pick up and drop off of children and equipment as well as develop new signs (digital/computerize) to better advertise the centre's programs.

ESTIMATED COST/PROJECT REVENUE

Cost:

Construction	**$ 790,872.00**
GST	**$ 39,543.60**
Total Cost	**$830,415.60**

Two Class A estimate has been obtained for the purpose of the grant applications, one by Postma Quantity Surveying and one by Hanscomb. (see attached Class A estimates). We are using Postma Quantity Surveying as our choice in estimates. It is our understanding that Postma Quantity Surveying as a very good reputation in the industry and usually comes very close to the tenders. Any shortfall will be covered thru Loan Guarantee and/or Capital Reserves.

Formal Tenders with minimum of 3 quotes will be sent out shortly.

Revenue:

Canada 150 Community Infrastructure Program(see attached letter)	**$355,616.00**
Gateway Recreation Centre Inc.-from Capital Reserves	**$125,000.00**
CIGP	**$140,000.00**
Total	**$620,616.00**

The remainder will come from an application for a Loan Guarantee to the City of Winnipeg in the amount of $500,000 to cover any needed funds required to ensure completion of the project and for Interim financing. We will require a Loan Guarantee from the City of Winnipeg for the sum of $500,000.00, with approximately $225,000.00 need to cover the remainder of the project and approximately $275,000.00 to cover the interim financing.

Please see attached 2014 Gateway Recreation Centre Financial Statements, August 2015 Financial Statements and Bank Statements as well as a copy of the Cambrian Credit Union letter in support of our application for a Loan Guarantee and request sent to Mrs. Karen Beck at Community Services to apply for Loan Guarantee.

BOARD APPROVAL

Please see attached Letter from President, Tammy Harper approving application for a CIGP grant for construction of the Maintenance Shop.

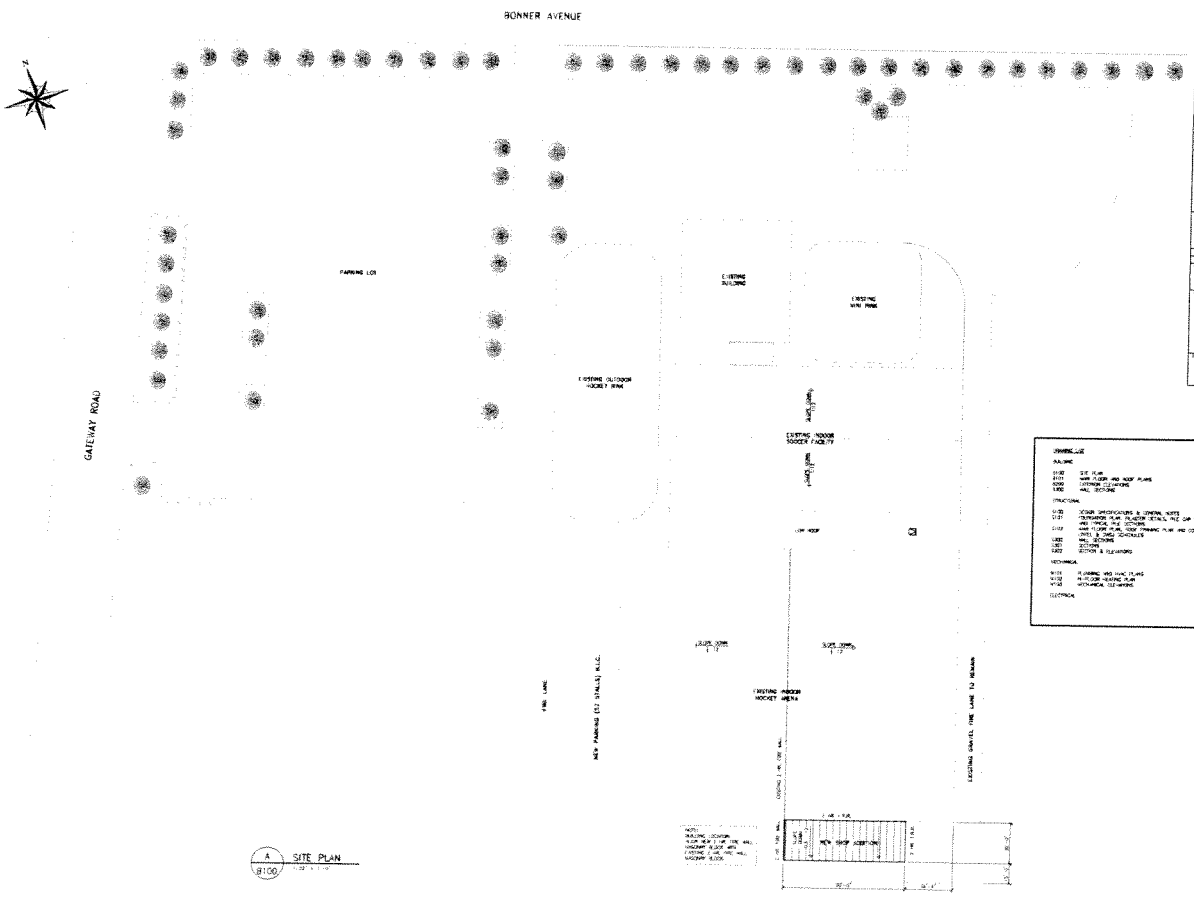
Please see attached Board of Directors Minutes approving Project Description, Gateway Recreation Centre Contribution, City of Winnipeg CIGP application and Financial Statements.

FINANCIAL IMPACT

Presently Gateway Recreation Centre's Arena's generate over $1,000,000.00 in direct revenue each year and another $600,000 indirectly thru canteen revenues, bill board advertising and sports registrations. The revenue is used to offset some of operating cost in the remainder of the facility including salaries, operating expenses and monthly mortgage payments. Our overall facility budget is 1.6 million dollars each year.

SUMMARY

Gateway Recreation Centre needs to replace the Storage Shed as soon as it is possible. We cannot wait much longer to pursue this project. There is a very good chance that we will not have any place to store equipment in the near future. We are hoping that you will be able to assist us in getting the project started.



NATIONAL BUILDING CODE (NBC) MATRIX

ITEM						NBC REFERENCE
1	PROJECT DESCRIPTION	NEW		ALTERATION		
		ADDITION		OTHER (SPECIFY)		
2	MAJOR OCCUPANCY	DESCRIPTION:		USE OF OCCUPANCY		3.1.2.1.
		GROUP C - RESIDENTIAL				
		NON - APPLICABLE				
	CLASSIFICATION MAJOR OCCUPANCY	DESCRIPTION:		USE OF OCCUPANCY		3.1.2.1.
		GROUP C - RESIDENTIAL				
3	NUMBER OF STREETS/FIRE FIGHTER ACCESS					
4	BUILDING AREA (SQ.M.)					3.2.1.5.
5	NUMBER OF STREETS/FIRE FIGHTER ACCESS					3.2.2.10.
6	SPRINKLER SYSTEM	YES				3.2.2.10.
7	BUILDING AREA					3.2.1.5.
8	FIRE ALARM	YES				3.2.4.1.
9	HAS ANY WORK BEEN DONE?	YES				
10	BUILDING AND SIDE ADDRESS					3.2.1.5.
		AREA (SQ.M.)	AREA OF EXPOSING BUILDING FACE (SQ.M.)	LIMITING DISTANCE (M)	EXPOSURE CHARGE (%)	
	ALL					
11	BUILDING CLASSIFICATION					3.2.2.10.
		NBC 2010		NBC 2010 WITH NEW ADDITION		
	CLASSIFICATION					
	HEIGHT			1 STOREY		3.2.1.5.
	AREA			1 STOREY		3.2.1.5.
	SPRINKLERED	YES		YES		3.2.2.10.
	ANY BUILDING WALLS, COLUMNS AND BEAMS	YES		NOT LESS THAN 45 MINUTES FOR SUPPORTED MATERIALS		3.2.1.5.
12	BUILDING CONTAINING MORE THAN ONE MAJOR OCCUPANCY					3.1.2.1.
	NORTH WALL			1 HOURS		
	SOUTH WALL			N/A		
	EAST WALL			1 HOURS		
	WEST WALL			1 HOURS		
13	SPRINKLER SYSTEM PROPOSED			YES		3.2.1.5.
14	SPRINKLER SYSTEM TO BE INSTALLED			YES		3.2.1.5.
15	BUILDING AREA (SQ.M.)			1 HOURS		3.2.1.5.
	STORAGE GARAGE			GARAGE		3.3
	ELECTRICAL ROOM			1HOUR		3.6.2.
16	OTHER			1HOUR		3.6.2.
	NUMBER OF EXITS PROVIDED					3.4.2.1.
	EXIT WIDTH (METRES)			N/A		
	TRAVEL DISTANCE (M)			N/A		
	EXIT ENCLOSURE (OTHERWISE)			N/A		
	EXIT FIRE SEPARATION			N/A		
	EXIT CAPACITY	NUMBER OF PERSONS		NUMBER OF PERSONS		
		N/A		N/A		
	DATA IS NOT PROVIDED					
17	BARRIER FREE DESIGN					3.8.2.
			REQUIRED	PROVIDED		3.7.2.2.
	LOBBY					

DRAWING LIST

BUILDING

A100 SITE PLAN
A101 MAIN FLOOR AND ROOF PLANS
A200 EXTERIOR ELEVATIONS
A300 WALL SECTIONS

STRUCTURAL

S100 DESIGN SPECIFICATIONS & GENERAL NOTES
S101 FOUNDATION PLAN, PLASTER DETAILS, PILE CAP DETAILS AND TYPICAL PILE SECTIONS
S102 MAIN FLOOR PLANS, ROOF DRAINAGE PLAN AND COLUMN, WALL AND BEAM SCHEDULES
S200 WALL SECTIONS
S201 SECTIONS
S202 SECTION & ELEVATIONS

MECHANICAL

M100 PLUMBING AND HVAC PLANS
M102 MAIN FLOOR HEATING PLAN
M200 MECHANICAL SPECIFICATIONS

ELECTRICAL

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE
1	ISSUED FOR PRICE ESTIMATE	MC	MAY 29 2015

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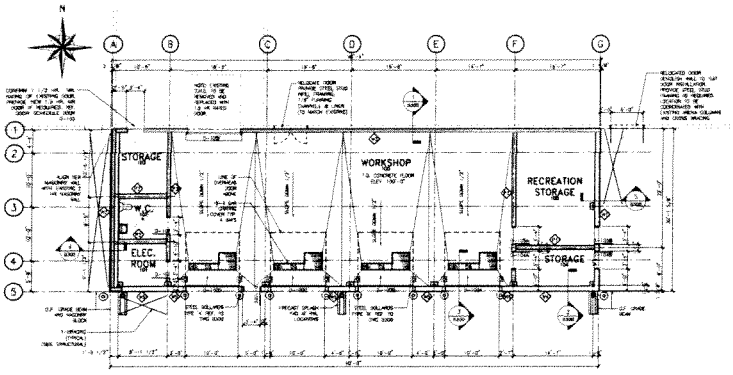
CLIENT
GATEWAY RECREATION CENTRE INC.

PROJECT
SHOP ADDITION

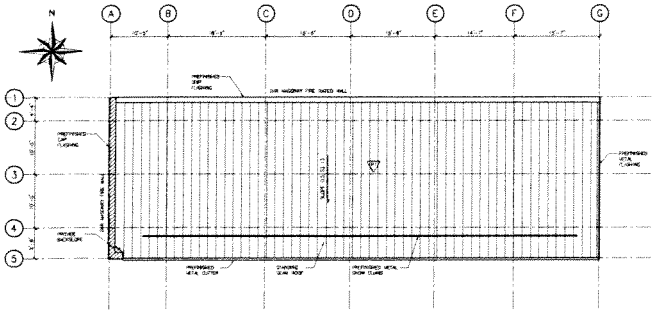
SHEET TITLE
SITE PLAN AND BUILDING CODE SUMMARY

DRAWN BY: MC	CHECKED BY: KRD	SCALE: AS NOTED	SHEET NO.: B100
CHECKED BY: KRD	JOB NUMBER: 72587	DATE: MAY 29 2015	REVISION NO.: 1

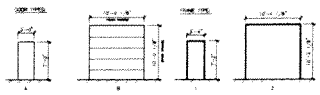
PLOT DATE: May 29, 15 - 11:27 a.m.



A 8101 FLOOR PLAN



B 8101 ROOF PLAN



DOOR SCHEDULE

NO.	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MATL.	DOOR CORE	DOOR FIN.	DOOR GLAZ.	DOOR HDWR	FRAME TYPE	FRAME MATL.	FRAME FIN.	FRAME GLAZ.	SOUND RATING	REMARKS
01100A	1'0"	6'7"/2.0	1 3/4"	A	METAL	PRIM.	PT2		2	METAL	PT	PT2		1 HOUR INSULATED EXTERIOR DOOR
01100B	2'0"	6'7"/2.0	1 3/4"	A	METAL	PRIM.	PT2		2	METAL	PT	PT2		INSULATED VAN. FRAME
01100C	2'0"	6'7"/2.0	1 3/4"	A	METAL	PRIM.	PT2		2	METAL	PT	PT2		
01100D	2'0"	6'7"/2.0	1 3/4"	A	METAL	PRIM.	PT2		2	METAL	PT	PT2		
01100E	2'-4"	7'-0"	1 3/4"	A	VIN.	PRIM.	PT2		1	VIN.	PT	PT2		VINYL SHEET, NO ACCESS FROM INSIDE
01100F	2'-8"	7'-0"	1 3/4"	A	VIN.	PRIM.	PT2		1	METAL	PT	PT2	1.5 HR	
0101	3'-0"	7'-0"	1 3/4"	A	VIN.	PT	PT2		1	VIN.	PT	PT2	VISION	V.N. FRAME NO MIR RATING
0102	3'-0"	7'-0"	1 3/4"	A	VIN.	PT	PT2		1	VIN.	PT	PT2		
0103	3'-0"	7'-0"	1 3/4"	A	VIN.	PRIM.	PT2		1	VIN.	PT	PT2	1.5 HR	V.N. FRAME 1.5 HR MIR RATING
0104A	3'-0"	7'-0"	1 3/4"	A	VIN.	PT	PT2		1	VIN.	PT	PT2	VISION	V.N. FRAME NO MIR RATING
0104B	3'-0"	7'-0"	1 3/4"	A	VIN.	PRIM.	PT2		1	VIN.	PT	PT2	1.5 HR	V.N. FRAME 1.5 HR MIR RATING
0105A	3'-0"	7'-0"	1 3/4"	A	VIN.	PT	PT2		1	VIN.	PT	PT2	VISION	V.N. FRAME NO MIR RATING
0105B	3'-0"	7'-0"	1 3/4"	A	VIN.	PRIM.	PT2		1	VIN.	PT	PT2	1.5 HR	V.N. FRAME 1.5 HR MIR RATING

GENERAL NOTES

1. ALL WALLS TO HAVE MINIMUM SEALS AT FLOOR, CEILING, CONCRETE AND WALL ASSEMBLY.
2. SEE SHEET A8101 FOR DETAILS AND LOCATIONS OF INSULATION, 12" OR GREATER UNDER YARD (SEE 4)
3. ALL EXTERIOR DIMENSIONS ARE TO CORE OF FACE OF CONCRETE UNLESS OTHERWISE NOTED

WALL TYPES

EXTERIOR STEEL STUD WALL ASSEMBLY (2HR FIRE)
1 1/2" PREFINISHED METAL CLADDING
1" FURRING CHANNELS @ 24" O.C. (HORIZ.)
ITHOR BUILDING WRAP
5/8" TYPE 'X' G.W.B. (2 LAYERS)
6" x 24 STEEL STUDS @ 16" O.C.
6" BATT INSULATION
6 MIL POLY VAPOUR BARRIER
5/8" TYPE 'X' G.W.B. (2 LAYERS)

EXTERIOR MASONRY WALL ASSEMBLY (2HR FIRE WALL)
1 1/2" PREFINISHED METAL CLADDING
1" FURRING CHANNELS @ 24" O.C. (HORIZ.)
ITHOR BUILDING WRAP
8" MASONRY BLOCK (TYPE 'C' MORTAR)
6" x 24 STEEL STUDS @ 16" O.C.
R20 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
5/8" G.W.B.
5/8" PREFINISH METAL LINER

MASONRY WALL ASSEMBLY (2HR FIRE)
8" MASONRY BLOCK (TYPE 'C' MORTAR)
EXISTING EXTERIOR WALL

EXTERIOR STEEL STUD WALL ASSEMBLY
1 1/2" PREFINISHED METAL CLADDING
1" FURRING CHANNELS @ 24" O.C. (HORIZ.)
ITHOR BUILDING WRAP
5/8" TYPE 'X' G.W.B.
6" x 24 STEEL STUDS @ 16" O.C.
R20 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
5/8" TYPE 'X' G.W.B.
EXISTING FINISH LINER

EXTERIOR STEEL STUD WALL ASSEMBLY
1 1/2" PREFINISHED METAL CLADDING
1" FURRING CHANNELS @ 24" O.C. (HORIZ.)
ITHOR BUILDING WRAP
5/8" TYPE 'X' G.W.B.
6" x 24 STEEL STUDS @ 16" O.C.
R20 BATT INSULATION
6 MIL POLY VAPOUR BARRIER
5/8" TYPE 'X' G.W.B.
EXISTING FINISH LINER

INTERIOR STEEL STUD PARTITION
1 1/2" TYPE 'X' G.W.B.
6" x 24 STEEL STUDS @ 16" O.C.
1 1/2" TYPE 'X' G.W.B.

INTERIOR STEEL STUD PARTITION (1HR FIRE)
5/8" TYPE 'X' G.W.B.
5/8" PREFINISH METAL LINER
5/8" TYPE 'X' G.W.B.
6" x 24 STEEL STUDS @ 16" O.C.
5/8" TYPE 'X' G.W.B.

INTERIOR STEEL STUD PARTITION (1HR FIRE)
5/8" PREFINISH METAL LINER
5/8" TYPE 'X' G.W.B.
6" x 24 STEEL STUDS @ 16" O.C.
5/8" TYPE 'X' G.W.B.

ROOF TYPES

ROOF ASSEMBLY (2HR FIRE)
1 1/2" PREFINISHED STANDING SEAM ROOF
6" ROOF INSULATION @ 24" O.C.
6" ROOF INSULATION WITH 2" GRITS @ 24" O.C.
6 MIL POLY VAPOUR BARRIER
7/8" DECK @ 24" O.C.
TRUSS @ 24" O.C.
1 1/2" FURRING CHANNELS @ 24" O.C.
5/8" TYPE 'X' G.W.B. (2 LAYERS)

HARDWARE SCHEDULE

HARDWARE GROUP 1				
3	HINGES	CB1774 4 1/2"x4"	7HD	ST
1	LOCKSET	NOMINEE 4442	626	SC
1	CLOSER	4011 TBSE	689	CC
1	KICK PLATE	K1050 10" x 1" MTS	032	SM
	MALL STOP	0121 SS32	709	SM
HARDWARE GROUP 2				
3	HINGES	CB1774 4 1/2"x4"	7HD	ST
1	PRIVACY SET	NOMINEE 4442	626	SC
1	KICK PLATE	K1050 10" x 1" MTS	032	SM
1	MALL STOP	0121 SS32	709	SM
	PERIMETER SEAL	R 772	BLK	VN
	AUTO DOOR BOTTOM	DT 38	CA	VN
HARDWARE GROUP 3				
3	HINGES	CB1774 4 1/2"x4"	7HD	ST
1	LOCKSET	NOMINEE 4442	626	SC
1	CLOSER	4011 TBSE	689	CC
1	KICK PLATE	K1050 10" x 1" MTS	032	SM
	MALL STOP	0121 SS32	709	SM
HARDWARE GROUP 4				
	CONTINUOUS HINGE	224HD	628	BL
1	KEY DEVICE	MORKS CBF x 1 HUB WL CYLINDER ASSEMBLY	626	PS
	WALL CYLINDER	1802 CH 7B CUT	626	US
	PULL	3042-2 4" x 1"	723	SM
1	CLOSER	4111 TBA	689	CC
1	MORTISE	K1050 10" x 4" MTS	032	SM
	SONIC OVERHEAD STOP	1085	630	CL
2	WEATHER STRIP	W 105	CA	VN
2	WEATHER STRIP	W 105	CA	VN
	SWEEP	W 130	CA	VN
	THRESHOLD	CT 11	AL	VN
HARDWARE GROUP 5				
	CONTINUOUS HINGE	224HD	628	BL
	MORTISE LOCK	4844 17 115 R	626	PS
1	CLOSER	4111 TBA	689	CC
1	KICK PLATE	K1050 10" x 1" MTS	032	SM
	MALL STOP	0121 SS32	709	SM
2	WEATHER STRIP	W 105	CA	VN
2	WEATHER STRIP	W 105	CA	VN
	SWEEP	W 130	CA	VN
	THRESHOLD	CT 11	AL	VN
HARDWARE GROUP 6				
3	HINGES	CB1774 4 1/2"x4"	7HD	ST
	LOCKSET	NOMINEE 4442	626	SC
1	CLOSER	4011 TBSE	689	CC
1	KICK PLATE	K1050 10" x 1" MTS	032	SM
	MALL STOP	0121 SS32	709	SM

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

NO.	DESCRIPTION	DATE
1	ISSUED FOR PRICE ESTIMATE	MAY 20 2015

Accutech Engineering Inc.
Tomorrow's Technology Today
1929-187 Broadway, Winnipeg, Manitoba, Canada, R3C 3M8
phone 204.944.1868 fax 204.944.1464
www.accutech.ca

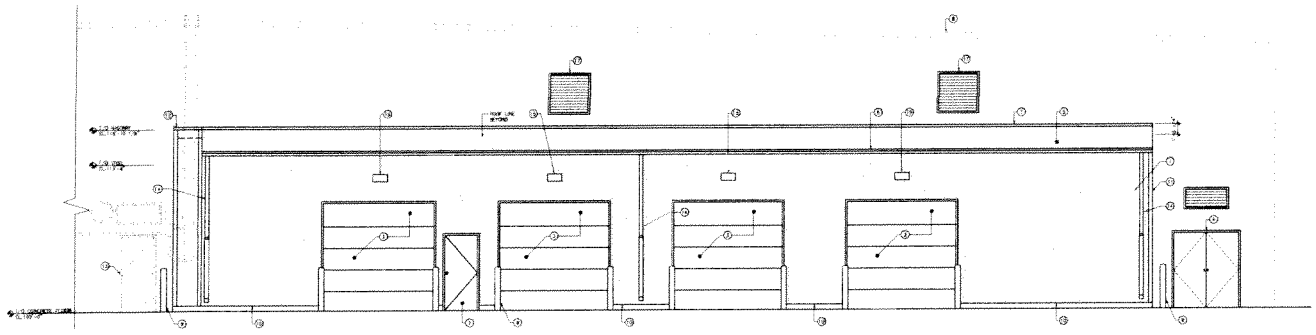
CLIENT
GATEWAY RECREATION CENTRE INC.

PROJECT
SHOP ADDITION

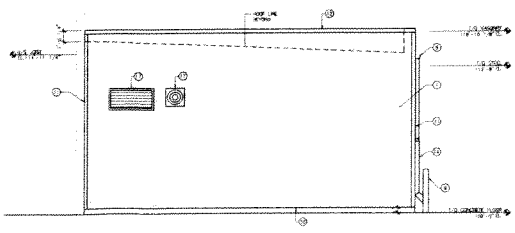
SHEET TITLE
MAIN FLOOR AND ROOF PLANS

DRAWN BY	CHECKED BY	SCALE	SHEET NO.
IRC	KBD	AS NOTED	8101
DRAWING NO.	JOB NUMBER	DATE	REVISION NO.
KBD	72507	MAY 20 2015	1

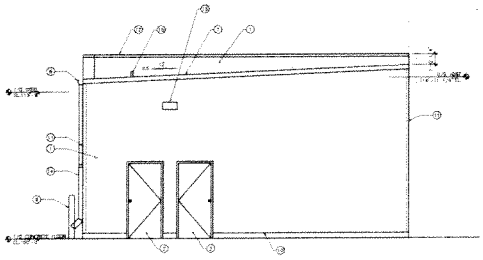
LEGEND:



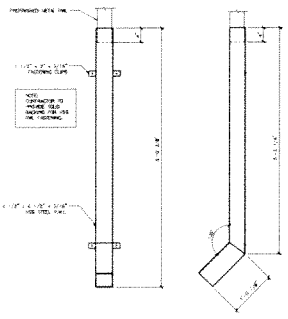
A / B200 NEW NORTH EXTERIOR ELEVATION



B / B200 WEST EXTERIOR ELEVATION



C / B200 EAST EXTERIOR ELEVATION



1 / B200 RWL DETAIL

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

NO.	REVISION	BY	APP'D	DATE
	ISSUED FOR PRICE ESTIMATE			

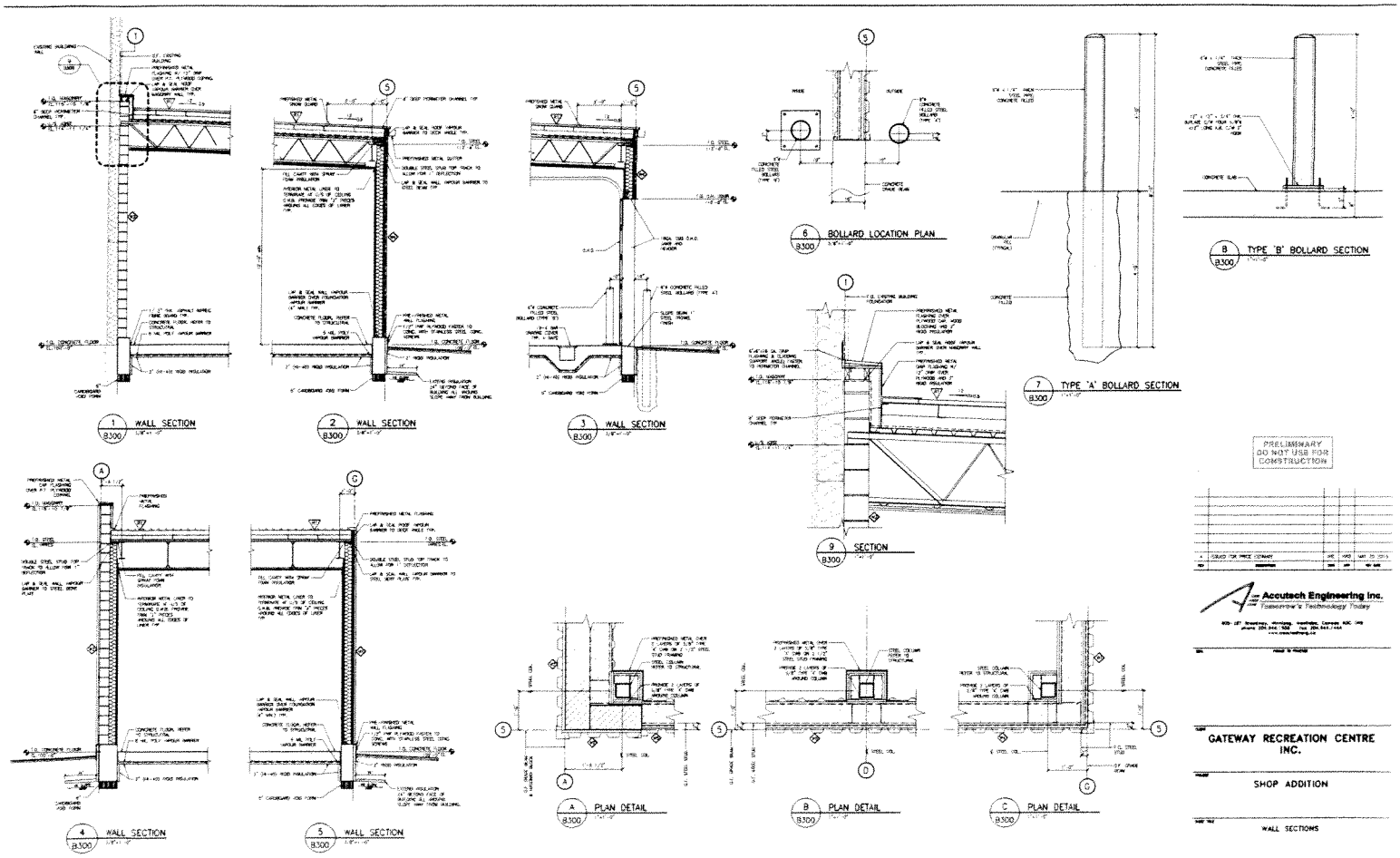
Accutech Engineering Inc.
Tomorrow's Technology Today

CLIENT
GATEWAY RECREATION CENTRE INC.

PROJECT
SHOP ADDITION

SHEET TITLE
EXTERIOR ELEVATIONS

DRAWN BY	CHECKED BY	SCALE	SHEET NO.
JRC	KRB	AS NOTED	B200
SUBMITTED BY	JOB NUMBER	DATE	REVISION NO.
KRB	72587	MAY 29 2015	A



PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

REV	DESCRIPTION	DRN	CHKD	MAY 20 2015
A	ISSUED FOR PRICE COMPANY	JRC	KRD	MAY 20 2015

Accutech Engineering Inc.
Tomorrow's Technology Today

GATEWAY RECREATION CENTRE INC.

SHOP ADDITION

WALL SECTIONS

DRAWN BY	CHECKED BY	SCALE	SHEET NO
JRC	KRD	AS NOTED	B300
KRD	22587	MAY 20 2015	6

GENERAL NOTES

1.1 DESIGN LIVE LOADS SHOULD NOT BE EXCEEDED AT ANY TIME DURING CONSTRUCTION.
1.2 DO NOT SCALE DRAWINGS.
1.3 VERIFY ALL DIMENSIONS, CLEARANCES, SLOPES, DETAILS, CONDITIONS, ETC. SHOWN ON THESE DRAWINGS WITH THOSE AT THE SITE AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING AND FOR SITE PRIOR TO START OF CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
1.4 LOCATE UNDERGROUND SERVICES AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION.
1.5 DISCREPANCIES OR AMBIGUITIES ON THE DRAWINGS AND/OR ON THE SITE, WHICH AFFECT THE STRUCTURAL ELEMENTS SHALL BE REPORTED TO THE DESIGN ENGINEER.
1.6 THE CONTRACTOR SHALL CHECK ALL SUPPLIER DETAILS OF THE DRAWINGS. THE WORK DETAILS SUPPLIED SHALL BE CONSIDERED CORRECT, UNLESS APPROVED OTHERWISE BY THE DESIGN ENGINEER.
1.7 MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE DESIGN ENGINEER PRIOR TO IMPLEMENTATION.
1.8 THE GENERAL CONTRACTOR SHALL LOCATE ALL EXISTING SITE SERVICES PRIOR TO CONSTRUCTION.
1.9 ALL OPENINGS IN SLABS, FLOOR, WALLS, ROOF, ETC. REFER TO ARCHITECTURAL, MECHANICAL AND / OR OTHER APPROPRIATE DRAWINGS.
1.10 LOCATION OF THE CONSTRUCTION JOINTS IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
1.11 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY BRACING REQUIRED FOR THE DESIGN, INSTALLATION OF ALL EQUIPMENT AND FOR THE STRUCTURAL FEATURES DESCRIBED IN THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS. ALL WELDING, WELDERS AND WELDING PROCEDURES SHALL BE CERTIFIED TO CAN/CSA-W47.1. ANY WORK FROM THE CONSTRUCTION SHALL BE APPROVED BY THE DESIGN ENGINEER. PROCEDURE MUST BE APPROVED BY THE DESIGN ENGINEER.
1.12 CONSTRUCTION SAFETY REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND / OR PROJECT MANAGER.
1.13 THE GENERAL CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AT LEAST 48 HOURS PRIOR TO ALL CONCRETE POURS AND / OR INSTALLATION OF INTERIOR SHEARWALL TO ALLOW FOR SITE INSPECTIONS.

DEMOLITION AND REMOVALS

2.1 REMOVE ITEMS AND MATERIALS WHERE SHOWN ON DRAWINGS. REMOVE ONLY MATERIALS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
2.2 PROTECT WORK TO REMAIN.
2.3 PROVIDE PROTECTION TO PERSONNEL WORKING IN ADJACENT AREAS, AND TO THE PUBLIC.
2.4 PROVIDE PUBLISHED, WATERPROOF TEMPORARY COVERING WHERE WORK.
2.5 CAP OFF AND MARK GAS, MECHANICAL AND ELECTRICAL SERVICES AS REQUIRED.
2.6 STORE AND PROTECT MATERIALS AND ITEMS TO BE INSTALLED IN REMOVED AREAS.
2.7 REMOVE ITEMS FROM SITE ALL MATERIALS NOT REQUIRED.

EARTHWORK

3.1 EXCAVATION AS REQUIRED AND REMOVE FROM SITE MATERIALS NOT REQUIRED FOR BACKFILL OR GRADING.
3.2 EXCAVATION AREA MUST BE PERMITTED OPEN, NOT FOR STRUCTURE IS IN PLACE.
3.3 BACKFILL WITH INACCEPTABLE INDICATED ON DRAWINGS AND SPECIFICATIONS.
3.4 COMPACTION (OPTIMUM MOISTURE DRY DENSITY BASE)
	SUBGRADE	95%
1	WALLS, BEHIND TOP	95%
2		95%

3.5 GRADE AND FILL SITE TO ELEVATION SHOWN, ALLOWING FOR TOPSOIL, PLANTING OR PAVEMENT FILL.
3.6 ALL IN 4" (300 mm) LIFTS (LOOSE) AND COMPACT EACH LIFT TO REQUIRED DENSITY

CONCRETE

4.1 ALL CONCRETE TO BE HAND-MIXED AND INSTALLED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CSA STANDARD A23.1, AND CSA A23.2.
4.2 CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON DRAWINGS:

LOCATION	CEMENT TYPE	CLASS OF EXPOSURE	AIR CONTENT RANGE (%)	SLUMP (mm)	MAX. AGGREGATE SIZE (mm)	COMPRESSIVE AGE (28)	COVER FOR REINF. STEEL (mm)	WATER CEMENT RATIO	REMARKS
INTERIOR SLAB	TYPE 10	N	5%	80 MAX.	19	4	40	0.45	
GRADE BEAMS	TYPE 10	C-1	5%	80 MAX.	19	4	40	0.45	
CAST-IN-PLACE CONCRETE PILES	TYPE 10	C-1	5%	150 MAX.	19	4	75	0.45	
PILE CAPS									TO MATCH PILES
MASONRY FILL	TYPE 2			200 MAX.	10	4			

4.3 THE USE OF ANY ADDITIVE WITHIN THE CONCRETE MIX SHALL BE APPROVED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.
4.4 PROTECT ALL CONCRETE WORK WITH APPROPRIATE MATERIAL REMARKS.
4.5 CONCRETE WORKABLE MIX, FROM BATCHING TO PLACEMENT AND CONSOLIDATION, SHALL NOT EXCEED 1 1/2 HOURS OR MIX REVOLUTIONS.
4.6 CONSTRUCTION JOINTS NOT SHOWN ON DRAWINGS TO BE DIRECTED BY THE CONCRETE CONTRACTOR AND MUST BE APPROVED BY THE DESIGN ENGINEER. ALL CONSTRUCTION JOINTS, EXPANSION JOINTS, CONTROL JOINTS, ANCHOR BOLTS, INSERTS, NOTCH OR SHAPE, SLEEVING, ETC. FOR STRUCTURAL, MECHANICAL, ELECTRICAL AND ANY OTHER EQUIPMENT DRAWINGS.
4.7 PROVIDE WATER STOP TAPE IN ALL EXTERIOR AND BELOW GRADE WALL CONSTRUCTION JOINTS.
4.8 SEE GENERAL NOTES REGARDING HYDRATION NOTIFICATION.
4.9 THE GENERAL CONTRACTOR (PROJECT MANAGER) SHALL ENSURE THAT CONCRETE TESTING BE PERFORMED BY A C.S.A. APPROVED INDEPENDENT TESTING COMPANY FOR THE FOLLOWING: CONCRETE STRENGTH TESTS, AIR CONTENT, SLUMP, CONCRETE TEMPERATURE. ALL CONCRETE TO BE SAMPLED AND TESTED IN ACCORDANCE WITH CSA STANDARD A23.2 (LATEST), AND THE RESULTS SHALL BE FORWARDED TO THE ARCHITECT AND DESIGN ENGINEER.
4.10 CAST DETAILS, AS DETAILED ON THE DRAWINGS SHALL BE CHAMFERED 25mm UNLESS OTHERWISE SPECIFIED.
4.11 ALL CONCRETE BE SUPPLIED BY A READY MIX CONCRETE FACILITY THAT IS CERTIFIED AND A CERTIFICATE OF COMPLIANCE WITH THE READY MIX CONCRETE ASSOCIATION.

REINFORCING STEEL

5.1 ALL REINFORCING STEEL TO BE CSA G30.18 M 400 MPA DEFORMED BARS (GRADE 400W) UNLESS WHICH MAY BE USE MPA GRADE 300S. ALL REINFORCING TO BE DETAILED IN ACCORDANCE WITH LATEST EDITION OF CSA STANDARD MANUAL, UNLESS OTHERWISE NOTED.
5.2 REINFORCING STEEL SHALL CONFORM TO CURRENT EDITION OF THE NBCC AND AS FOLLOWS:
1.	GRADE BEAMS, CAISSONS & FOOTINGS	5 @ 75 (152 mm)
2.	GRADE BEAMS, SECTIONS	5 @ 75 (152 mm)
3.	PILES	2 @ 75 (75 mm)
4.	PILE CAPS	2 @ 75 (75 mm)

5.3 IN WALLS SEND HORIZONTAL STEEL 40" (400 mm) AROUND CORNERS, OR USE EXTRA CORNER BARS 36" (900 mm) LONG.
5.4 ALL OPENINGS IN CONCRETE WALLS 16" (400 mm) OR LESS EACH SIDE AND 3 (75 mm) THICK OVER OPENING, UNLESS NOTED OTHERWISE. PROVIDE MINIMUM 12" (300 mm) DEEP BEAM OVER OPENING C/W (2) STIRRUPS AT 12" (300 mm) O.C.
5.5 BOTTOM STEEL IN CONCRETE BEAMS TO BE SUPPORTED ON SUPPORTS, TOP STEEL TO BE LAPPED AT CENTRE SPAN UNLESS NOTED OTHERWISE.
5.6 ALL REINFORCING TO BE HELD IN PLACE AND TIED TO MINIMUM ACCEPTABLE SIZES OF SPACING BEFORE CONCRETE IS POURED. ALL REINFORCING ACCESSORIES, SUCH AS CHAIRS, SPACERS, ETC. SHALL BE OF PLASTIC OR STEEL AND NON-CORROSIVE.
5.7 ALL OPENINGS THROUGH CAST-IN-PLACE CONCRETE TO BE FRAMED WITH 2-15M STIFFENING BARS MINIMUM OF 24" (600 mm) PAST OPENING UNLESS NOTED OTHERWISE.

FORMWORK

7.1 USE 6" (150 mm) CHAMFERED WOOD FORM MARKED # PLYWOOD OR SHEETS AS MOTION FORM FOR STRUCTURAL SLABS AND GRADE BEAMS AT GRADE. ACCESSORIES SUCH AS V-CHANNEL SPACERS, ETC. SHALL BE SUPPORTED ZINC PADS OF TOLERANCES OR TEMPERED HARDBOARD TO PREVENT RUSTING FORMS.
7.2 FORMED SURFACES EXPOSED TO VIEW TO BE SMOOTH HARDBOARD SLIP JOINT BETWEEN CONCRETE SLABS AND STRUCTURAL MEMBERS.
7.3 ALL CONSTRUCTION JOINTS TO HAVE KEY MINIMUM 1 - 1" (40 mm) DEEP
7.4 PLACE 6 MIL (0.15 mm) POLYETHYLENE UNDER ALL SLABS.
7.5 ALL MISCELLANEOUS PADS AND CURBS TO BE REINFORCED WITH MINIMUM (4) #5 OF 15" (400 mm) O.C. EACH WAY TOP UNLESS NOTED OTHERWISE.

MASONRY

7.6 ALL MASONRY WORK TO CAN/A371-M84 "MASONRY CONSTRUCTION FOR BUILDINGS".
7.7 CONCRETE BLOCKS TO CONFORM TO CAN/A-A-86.1M "CSA STANDARDS ON CONCRETE MASONRY UNITS".
1. STANDARD HOLLOW MASONRY UNITS TO BE 15/15/4"
7.8 MORTAR TO CONFORM TO CSA-A179-M94, TYPE S (MIXED BY PROPORTION SPECIFICATIONS
1. EXTERIOR NON-BEARING WALLS - TYPE S (FOR 2-HOUR FIRE WALL)
7.9 USE RUNNING OR COUR, CHOPP SECOND COURSE, CHOPP COURSE FOR STACK ABOVE.
7.10 TOP COURSE OF ALL BLOCK WALLS TO BE "U" BLOCK WITH 2-15M REINFORCING STEEL CONTINUOUS, AND 20 MPA CONCRETE FILL UNLESS NOTED OTHERWISE.
7.11 PROVIDE CONTROL JOINTS TO MASONRY WALLS SPACED AT MAXIMUM 25 FEET.
7.12 ALL MASONRY WALLS TO BE "REINFORCED" MASONRY UNITS. STRUCTURE IS CLOSED IN

STRUCTURAL STEEL

7.13 STRUCTURAL STEEL TO CONFORM TO CSA G40.21 "STRUCTURAL QUALITY STEEL" AND CSA G40.20 "GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL".
7.14 ROLLED OR WELDED STEEL STRUCTURAL SECTIONS AND PLATES TO BE GRADE A 1/4 (345 MPA) GRADE STEEL.
7.15 YIELDS STRUCTURAL SECTIONS TO BE GRADE1-M (350 MPA) CLASS C UNLESS NOTED OTHERWISE.
7.16 FABRICATION AND ERECTION OF STRUCTURAL STEEL IS CONFORM TO LATEST EDITION OF CAN-S16.1. "LIMIT STATES DESIGN OF STEEL STRUCTURES".
7.17 ALL WELDING TO CONFORM TO CAN-W59-M89 "WELDED STEEL CONSTRUCTION".
7.18 FABRICATORS SHALL BE CERTIFIED IN ACCORDANCE WITH CAN-S-A471-M89 "CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL STRUCTURES".
7.19 BOLTED CONNECTIONS TO USE A MINIMUM OF 3 ASSEMBLY HIGH STRENGTH BOLTS.
7.20 STRUCTURAL STEEL TO RECEIVE ONE COAT OF CSA-O164.1-78 SHOP PRIMER.
7.21 STRUCTURAL STEEL SUPPLIER TO PROVIDE 1-1/2" X 4-1/4" (40 X 110 mm) GALVANIZED ASSEMBLY ANCHORS AT MAX. 32" (800 mm) O.C. IN ALL COLUMNS AND BEAMS IN CONTACT WITH MASONRY UNLESS NOTED OTHERWISE.
7.22 42 HOLES PERMITTED IN TOP FLANGE OF BEAMS OR COLUMNS WHERE BEAMS ARE CONTINUOUS OVER COLUMNS.
7.23 SEVEN ENGINEER'S APPROVAL PRIOR TO WARMED ANY MEMBER SUBSTITUTIONS OR CONNECTION DETAIL CHANGES.
7.24 PROVIDE HOLES IN STEEL SECTIONS AS REQUIRED. BOTTOM SHALL BE STRENGTHENED AS REQUIRED TO GUARANTEE ORIGINAL STRENGTH OF BEAM. CUTTING OF STEEL IS ABSOLUTELY SHALL BE DONE ONLY AT LOCATIONS APPROVED BY THE ENGINEER.
7.25 ALL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED TO PROVIDE DURABILITY FOR STRUCTURE AS A WHOLE. THESE SHALL REMAIN IN PLACE JOISTS, DECKING AND PERMANENT BRACING IS WELDED AND FULLY WELDED IN PLACE AND ALL MASONRY WALLS AND CONSTRUCTION.
7.26 HOLES LARGER THAN 1" (25 mm) DIAMETER MUST BE TO BE REINFORCED WITH 1/4" X 4" X 4" (100 X 100 X 6.4 mm) ALL AROUND, EXCEPT AS NOTED. PREPARE REINFORCING FOR WELDER OPENINGS THROUGH STEEL DECK. MARK HOLES, SEND REJECTED ITS FRAMING DIRECTION. USE (2 1/2" X 2 1/2" X 1/4" OR 64 X 64 X 6.4 mm) TO SUPPORT DECK.
7.27 SUBMIT ENGINEERING DRAWINGS BEARING SEAL OF A REGISTERED, PROFESSIONAL ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA SHOWING DESIGN OF CONNECTIONS TO PROJECT ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

STEEL JOISTS

7.28 ORIGINAL LATEST SUPPLEMENT TO NATIONAL BUILDING CODE OF CANADA OR NON-UNIFORM BUILDING CODE.
7.29 JOISTS ARE TO BE PLANNERED FOR DEFLECTION OF TOTAL DEAD LOAD DEFLECTION OR NORMAL LIVE LOAD DEFLECTION OF L/360 (L/240 FOR ROOF JOISTS).
7.30 JOINT BRIDGING TO CONFORM TO LATEST BUILDING CODE REQUIREMENTS EXCEPT AS NOTED OTHERWISE.
7.31 JOISTS BEARING ON BEAMS TO REST ON MIDDLE THIRD OF FLANGE. JOISTS TO LAP TO BEAM END TO END ON SUPPORTING BEAMS WITH A MINIMUM LAP OF 2" (51 mm).
7.32 REFER TO DRAWINGS FOR LOCATIONS AND WEIGHTS OF ANY EQUIPMENT SUPPORTED ON JOISTS. JOISTS TO HAVE ADDITIONAL MEMBERS IF LOAD ABOVE REQUIRED OF BEARING.
7.33 ALL STEEL JOISTS TO RECEIVE ONE COAT OF SHOP PRIMER SSC-CPMA-2-75.
7.34 SUBMIT ENGINEERING DRAWINGS BEARING SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA SHOWING DESIGN OF CONNECTIONS TO PROJECT ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
7.35 JOISTS ANGLE AND HORIZONTAL MOVING SHALL CONFORM TO CAN3-M83.1 AND "WORKMANSHIP WELDING QUALIFICATION CODE FOR FABRICATORS OF STRUCTURAL MEMBERS USED IN BUILDINGS".
7.36 ALL CEILINGS TO BE CONTROLLED BY JOISTS OR BEAMS.

ROOF DECK GENERAL

AREA	GAUGE	DECK THICKNESS (mm)	SUPPORT SPACING PERPENDICULAR	SIDE-LAP SPACING	REMARKS
TYPICAL UNLESS NOTED OTHERWISE	-	0.76	5' 00 (1524) MEANS 48 x 77 (1219 x 1956) OR 24" (600MM) O.C. ALL SUPPORTS (ALL SUPPORTS)	BUTTON PUNCH	-

STEEL DECKS

7.37 ALL COLUMNS WALL STUDS SHALL BE OF LIGHT GAUGE SECTION NO. 20 (1.37 mm) AT 24" (600mm) ON CENTERS, MINIMUM DEPTH OF 3 1/2" (89mm) 20 (1.37 mm) UNLESS OTHERWISE NOTED. JOISTS STUDS SHALL NOT BE ACCEPTED FOR LARGER SPANS.
7.38 STEEL STUD SHALL CONFORM TO THE REQUIREMENTS OF CAN-S136-94 OR COLD FORMED STEEL STRUCTURAL MEMBERS.
7.39 ALL STEEL STUD TRACKS AND COMPONENTS SHALL BE GALVANIZED THE COMPANY SHALL BE NOT LESS THAN ONE (1) MIL.
7.40 PROVIDE HORIZONTAL BRIDGING AT 4'-6" (1350mm) ON CENTERS UNLESS OTHERWISE NOTED.
7.41 ALL FRAMING COMPONENTS SHALL BE CUT SQUARE, FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED FOR ANGULAR OR SKEWED SHAPING MEMBERS. MEMBERS SHALL BE HELD IN PLACE UNTIL SHEATHING IS FASTENED.

DESIGN SPECIFICATIONS:

1. THIS STRUCTURE IS DESIGNED AND SHALL BE CONSTRUCTED AS PER FOLLOWING CODE REQUIREMENTS.
   1.1 NATIONAL BUILDING CODE OF CANADA NBCC
2. FOUNDATION CLEARANCE ARE DESIGNED FOR RECOMMENDATION OF GEOTECHNICAL INVESTIGATION PREPARED GAITANE MANOR SESSION FACILITY PREPARED BY DYNOMAND CONSULTANTS DATED MARCH 1988 (REF. PROJECT No. 88-1755).
3. SYSTEMS, WORK DATA

SNOW	=	1.0KPA
SNOW	=	0.4KPA
SNOW	=	0.2KPA
SNOW	=	0.4KPA
WIND	=	0.4KPA

4. SITE CLASSIFICATION IS CLASS D.
5. IMPORTANCE CATEGORY = NORMAL
6. VOLUME WIND PRESSURE (1:50T) Sq = 0.40 KPA
7. SNOW LOAD (1:50T) Ss = 1.0 KPA
Sr = 0.4 KPA

PRELIMINARY DO NOT USE FOR CONSTRUCTION

NO.	ISSUED FOR PRICE ESTIMATE	DRN	CHKD	MAY 20 2015

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CLIENT
GATEWAY RECREATION CENTRE INC.

PROJECT
SHOP ADDITION

DRAWING TITLE
DESIGN SPECIFICATIONS & GENERAL NOTES

DRAWN BY	CHECKED BY	SCALE	SHEET NO.
GBC	KRD	AS NOTED	S100
DESIGNED BY	JOB NUMBER	DATE	REVISION NO.
MJPC	72567	MAY 20 2015	A

CONCRETE GRADE BEAM SCHEDULE:

MARK	SIZE	REINFORCING	REMARKS
GB1	10" x 24"	2 - 15M TOP 2 - 15M BOT 10M STIRRUPS @ 24" c/c	REFER TO SEC 7/S301
GB2	10" x 30"	2 - 20M TOP 2 - 20M BOT 10M STIRRUPS @ 24" c/c	REFER TO SEC 5/S301
GB3	10" x 30"	2 - 20M TOP 2 - 20M BOT 10M STIRRUPS @ 24" c/c	REFER TO SEC 7/S301
NOTE:			

PILE SCHEDULE:

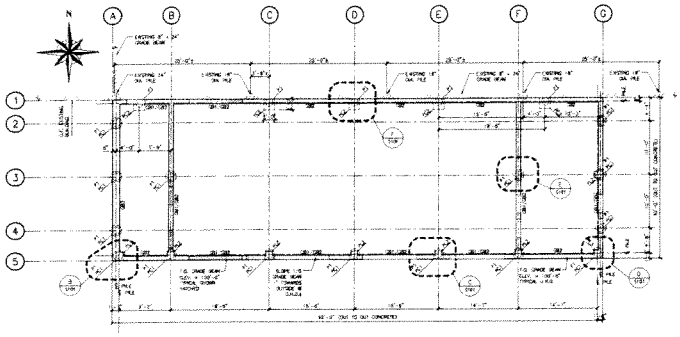
MARK	SIZE	REINFORCING	REMARKS
P1	18" DIA. x 18'-0" LG	8 - 15M VERTICALS 10M RINGS @ 18" c/c	EXTEND VERTICALS 18" INTO PILE CAP
NOTE:			

PILE CAP SCHEDULE:

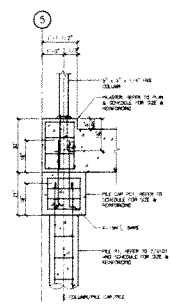
MARK	SIZE	REINFORCING	REMARKS
PC1	1'-6" DIA. x 2'-0" DEEP	8 - 15M VERTICALS & 4 - 10M RINGS	REFER TO 6/S101 & SEC 1/S101
PC2	2'-0" x 2'-0" x 2'-0" DEEP	8 - 15M VERTICALS & 4 - 10M TIES	REFER TO 7/S101
NOTE:			

PILASTER SCHEDULE:

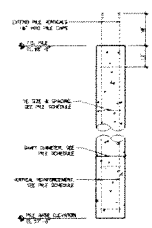
MARK	SIZE	REINFORCING	REMARKS
PL1	19 1/2" x 28" x 30" DEEP	8 - 15M VERTICALS & 4 - 10M TIES	REFER TO 8/S101
PL2	19 1/2" x 19" x 30" DEEP	8 - 15M VERTICALS & 4 - 10M TIES	REFER TO C/S101
PL3	19 1/2" x 19 1/2" x 30" DEEP	8 - 15M VERTICALS & 4 - 10M TIES	REFER TO D/S101
NOTE:			



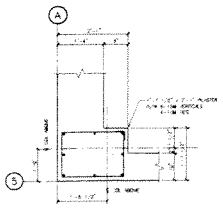
A S101 FOUNDATION PLAN



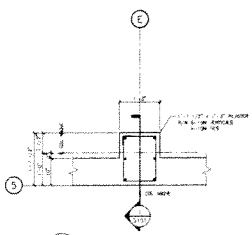
1 S101 TYP. SEC. THRU PILE, PILE CAP AND PILASTER



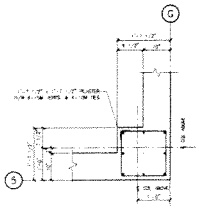
2 S101 TYP. CONC. PILE "P1" SECTION



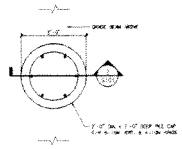
B S101 TYP. PILASTER "PL1" DETAIL



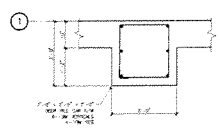
C S101 TYP. PILASTER "PL2" DETAIL



D S101 TYP. PILASTER "PL3" DETAIL



E S101 TYP. PILE CAP "PC1" DETAIL



F S101 TYP. PILE CAP "PC2" DETAIL

PRELIMINARY
DO NOT USE FOR CONSTRUCTION

REV	DESCRIPTION	DWN	APP	DATE
A	ISSUED FOR PRICE ESTIMATE	DBG	KRD	MAY 20 2015

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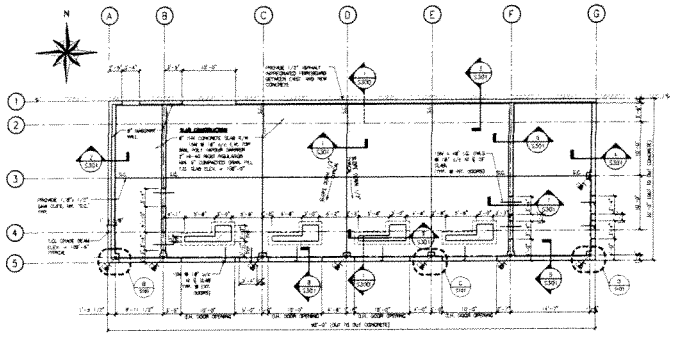
GATEWAY RECREATION CENTRE INC.

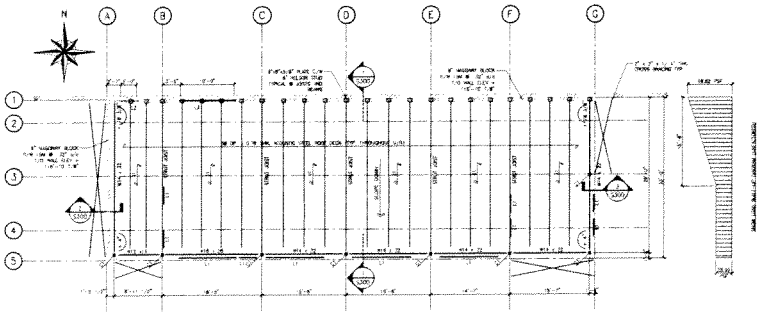
SHOP ADDITION

FOUNDATION PLAN, PILASTER DETAILS, PILE CAP DETAIL AND TYPICAL PILE SECTION

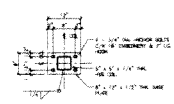
DRAWN BY	CHECKED BY	SCALE	SHEET NO.
DBG	KRD	AS NOTED	S101
DBG	22507	MAY 20 2015	A



A S102 MAIN FLOOR PLAN



B S102 ROOF FRAMING PLAN



C S102 TYP. BASE PLATE "BP1" DETAIL

COLUMN/BASE PLATE SCHEDULE:

MARK	COLUMN SIZE	BASE PLATE	REMARKS
C1	5" x 5" x 1/4" THK	-	REFER TO DETAILS
BP1	-	8" x 12" x 1/2" THK	REFER TO DETAILS
NOTE:			

LINTEL SCHEDULE:

MARK	LINTEL SIZE	REINFORCING	REMARKS
L1	2 - 6" STEEL STUD	-	TOP & BOTTOM TRACK ON STEEL STUD LINTEL 2 CRAWLERS, 1 PULL LENGTH F.S. OF LINTEL
L2	8" DEEP 2-BLOCK 20 MPA CONCRETE FILLED	2-15M BOTTOM	MINIMUM BEARING 8" EACH END FULLY GROUT 2 COURSES, MINIMUM 3 COURSES DEEP
L3	8" x 12" 30 MPA CONCRETE C.I.P. BEAM	2-15M TOP 2-15M BOTTOM ON PER 4" x 6" 6/0	THICKNESS 10 MATCH MASONRY WALL. MINIMUM BEARING 8" EACH END. FULLY GROUT 2 COURSES, MINIMUM 3 COURSES DEEP.
NOTE:			

OWSJ SCHEDULE:

MARK	DEPTH	SIZE AND ROWS OF BRIDGING	SPACING
J1	72"	BRIDGING SIZE AND LOCATION IS PER JOIST MANUFACTURER	48" 4/0 MAX.
NOTE:			

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

NO.	DESCRIPTION	DRN	CHK	DATE
A	ISSUED FOR PRICE ESTIMATE	DRG	KRD	MAY 20 2015

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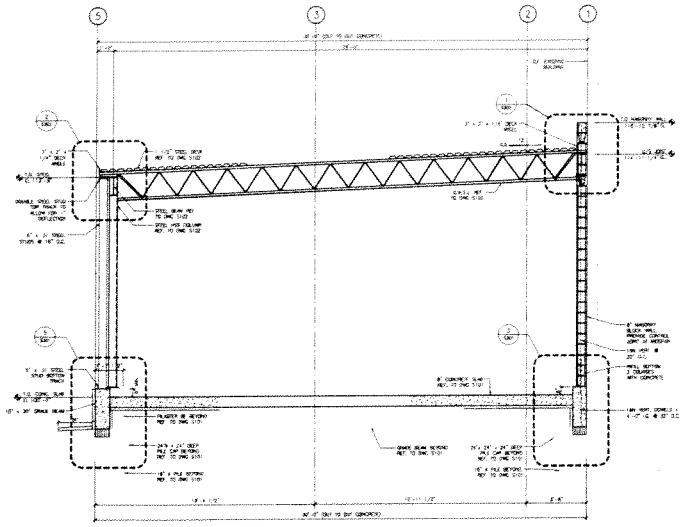
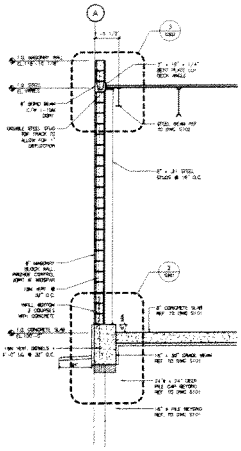
SHOP ADDITION

MAIN FLOOR PLAN, ROOF FRAMING PLAN, COLUMN SCHEDULE, LINTEL & OWSJ SCHEDULE

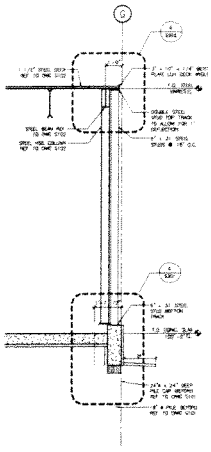
DRAWN BY	CHECKED BY	SCALE	SHEET NO.
DRG	KRD	AS NOTED	S102
DESIGNED BY	JOB NUMBER	DATE	REVISION NO.
MJRL	22507	MAY 20 2015	A



1 S300 BUILDING SECTION



2 S300 WALL SECTION



3 S300 WALL SECTION

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

A	ISSUED FOR PRICE ESTIMATE	MC	KRD	MAY 20 2015
REV	DESCRIPTION	DWN	APP	DD MMM

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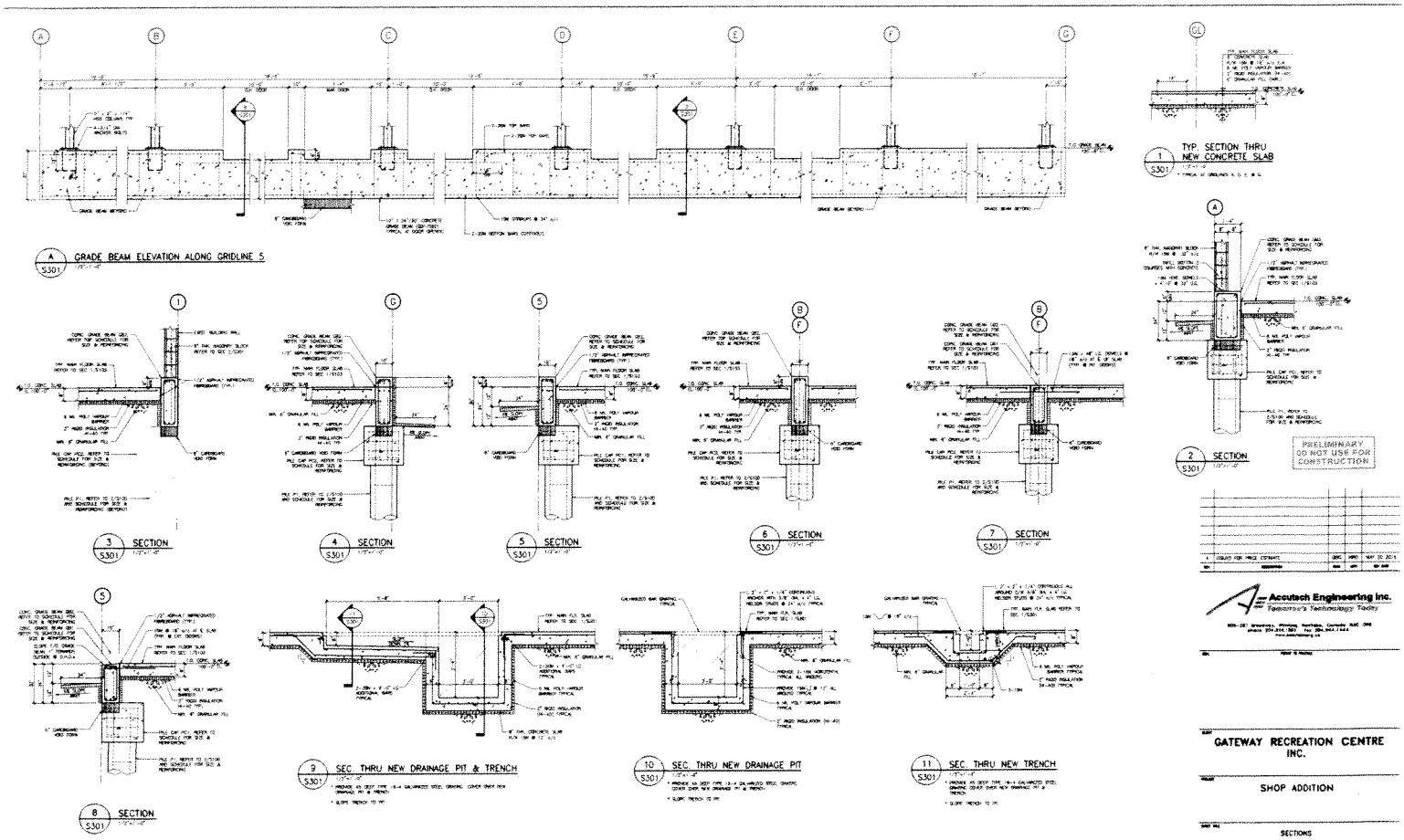
GATEWAY RECREATION CENTRE INC.

SHOP ADDITION

WALL SECTIONS

DRAWN BY: MC	DESIGNED BY: KRD	SCALE: AS NOTED	SHEET NO.: S300
PROJECT NO.: M.R.	JOB NUMBER: 22507	DATE: MAY 20 2015	REVISION NO.: A


A GRADE BEAM ELEVATION ALONG GRIDLINE 5
S301
1/2"=1'-0"
1 TYP. SECTION THRU NEW CONCRETE SLAB
S301
2 SECTION
S301
3 SECTION
S301
4 SECTION
S301
5 SECTION
S301
6 SECTION
S301
7 SECTION
S301
8 SECTION
S301
9 SEC. THRU NEW DRAINAGE PIT & TRENCH
S301
10 SEC. THRU NEW DRAINAGE PIT
S301
11 SEC. THRU NEW TRENCH
S301

A	ISSUED FOR PRICE ESTIMATE	QBG	MAY 20 2015

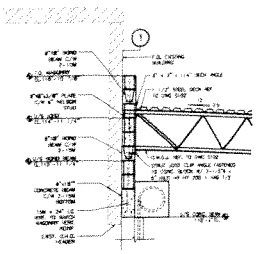
Accutech Engineering Inc.
Tomorrow's Technology Today

GATEWAY RECREATION CENTRE INC.

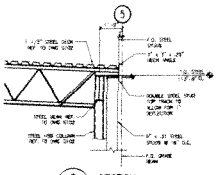
SHOP ADDITION

SECTIONS

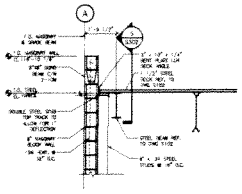
QBG	KRD	AS NOTED	S301
QBG	22507	MAY 20 2015	A



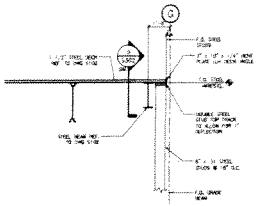
1 SECTION
S302



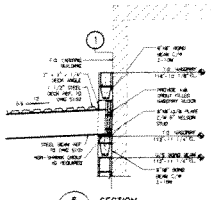
2 SECTION
S302



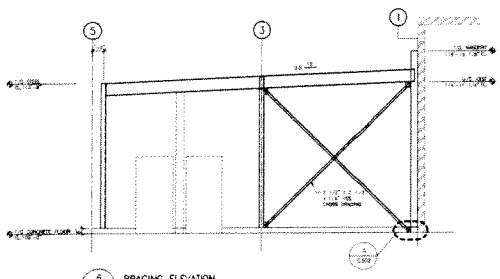
3 SECTION
S302



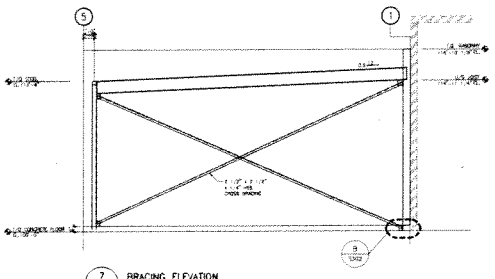
4 SECTION
S302



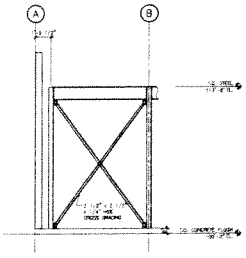
5 SECTION
S302



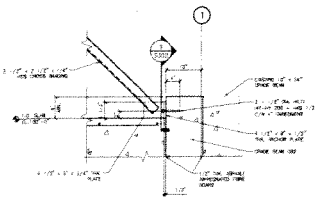
6 BRACING ELEVATION
S302



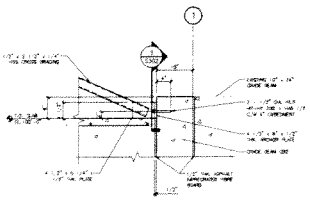
7 BRACING ELEVATION
S302



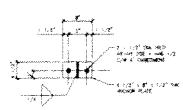
8 BRACING ELEVATION
S302



A CROSS-BRACE ANCHOR PLATE DETAIL
S302



B CROSS-BRACE ANCHOR PLATE DETAIL
S302



9 ANCHOR PLATE SECTION
S302

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

NO.	DESCRIPTION	DRN	APP	DATE
A	ISSUED FOR PRICE ESTIMATE	JRC	KRD	MAY 20 2015

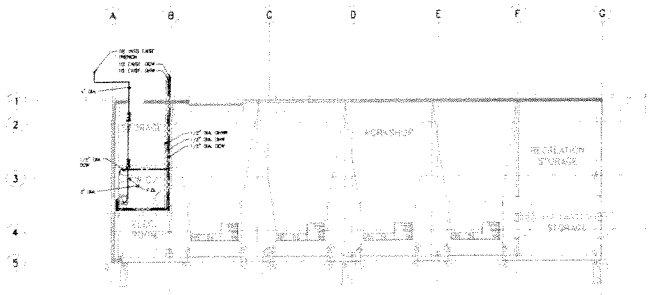
Accutech Engineering Inc.
Tomorrow's Technology Today

GATEWAY RECREATION CENTRE INC.

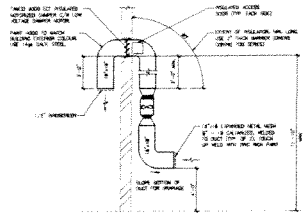
SHOP ADDITION

SECTIONS & ELEVATIONS

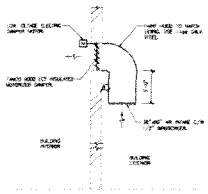
DRAWN BY	CHECKED BY	SCALE	SHEET NO.
JRC	KRD	AS NOTED	S302
M.JR.	22507	MAY 20 2015	A



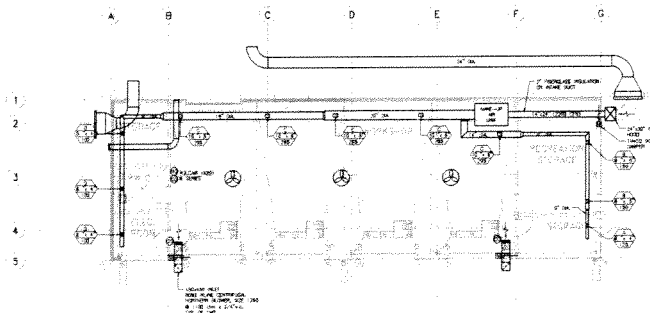
A M101 PLUMBING PLAN



C M101 DUCT WITH EXHAUST FAN



D M101 EXTERIOR DUCT



B M101 HVAC PLAN

NOTES OF DESIGN

1. VEHICLE DEGRADING - THE VENTILATION SYSTEM HAS BEEN DESIGNED ONLY FOR NORMAL REMOVAL OF EXHAUST GASES. HEAVY EQUIPMENT IS NOT ON LEFT PLANNING WHILE DRIVING IN THE GARAGE. VEHICLES ARE TO BE MOVED OUT OF THE GARAGE IMMEDIATELY AFTER BEING STARTED.
2. SERVICE OF VEHICLE IS NOT PERMITTED WITHIN THE GARAGE. THE GARAGE IS DESIGNED AS A STORAGE GARAGE ONLY.
3. THE SPACE IS TYPICALLY NOT OCCUPIED.

GRILL, REGISTER AND DIFFUSER SCHEDULE:

TYPE	MANUFACTURER	INLET SIZE	FACE SIZE (W x H)		MODEL INFORMATION	COMMENTS / NOTES
A	PRICE	-	8"	4"	120 SQF	
B	PRICE	-	8"	8"	120 SQF	
C	PRICE	-	10"	6"	120 SQF	
D	PRICE	-	8"	4"	120 SQF	

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

REV	DESCRIPTION	DRN	CHK	DATE
1	ISSUED FOR PRICE ESTIMATE	VCV	DKW	MAY 20 2015

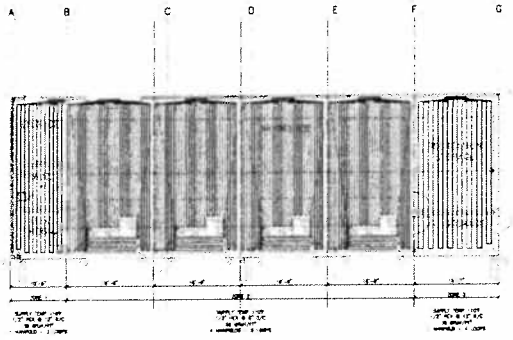
Accutech Engineering Inc.
Tomorrow's Technology Today
[illegible]

CLIENT
GATEWAY RECREATION CENTRE INC.

PROJECT
SHOP ADDITION

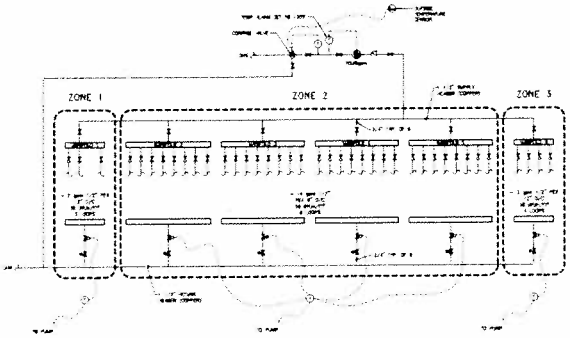
SHEET TITLE
PLUMBING AND HVAC PLANS

DRAWN BY	CHECKED BY	SCALE	SHEET NO.
VCV	DKW	AS NOTED	M101
DESIGNED BY	JOB NUMBER	DATE	REVISION NO.
DKW	72587	MAY 20 2015	4

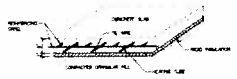


A M102 IN-FLOOR HEATING PLAN

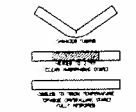
COIL SCHEDULE - 1/2" PEX PLUS							
MANIFOLD #	ZONE 1	LENGTH (FT)	ZONE 2	COIL #		COIL #	LENGTH (FT)
1	2			2		2	
	1			1		1	
2	3			3		3	
	4			4		4	
	5			5		5	
	6			6		6	
	7			7		7	
	8			8		8	
3	9			9		9	
	10			10		10	
	11			11		11	
	12			12		12	
4	13			13		13	
	14			14		14	
	15			15		15	
	16			16		16	
5	17			17		17	
	18			18		18	
	19			19		19	
	20			20		20	
6	21			21		21	
	22			22		22	
	23			23		23	
	24			24		24	
7	25			25		25	
	26			26		26	
	27			27		27	
	28			28		28	
8	29			29		29	
	30			30		30	
	31			31		31	
	32			32		32	
TOTAL							



D M102 INFLOOR HEATING CONTROL SCHEMATIC



B M102 SLAB ON OR BELOW GRADE INSTALLATION



C M102 REPAIRING KINKS

PRELIMINARY DO NOT USE FOR CONSTRUCTION

NO.	ISSUED FOR PRICE ESTIMATE	BY	CHK'D	MAY 20 2015
1				

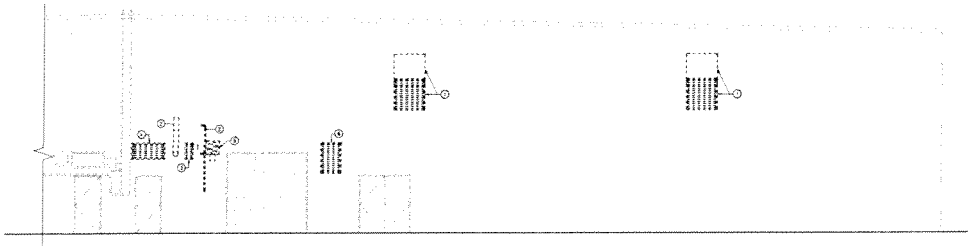
Accutech Engineering Inc.
Tomorrow's Technology Today

GATEWAY RECREATION CENTRE INC.

SHOP ADDITION

IN-FLOOR HEATING PLAN

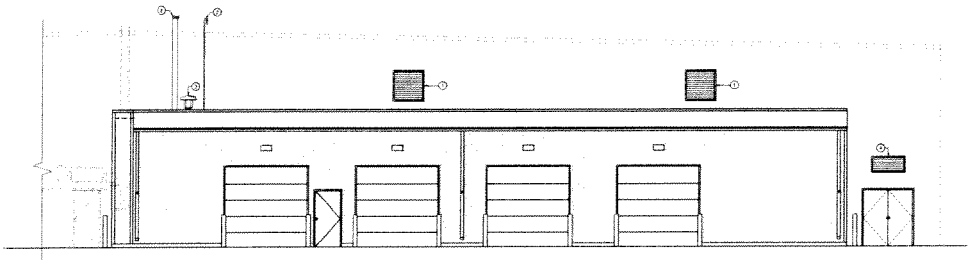
VCV	DRCH	AS NOTED	M102
DRCH	72567	MAY 20 2015	1



1 M103 DEMOLITION NORTH EXTERIOR ELEVATION – MECHANICAL

DEMOLITION NOTES:

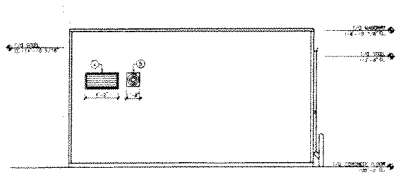
1. NEW UP EXISTING DRILLE OPENINGS AS REQUIRED, TO ALLOW FOR NEW SHOP ADDITION ROOF. PATCH PENETRATION TO MATCH EXISTING WALL CONSTRUCTION.
2. EXISTING CHIMNEYS AND RELIEF PIPING FOR NATURAL GAS THROUGH ROOF TO TOP OF EXISTING STRUCTURE.
3. EXISTING COMBUSTION AIR INTAKE THROUGH ROOF
4. RE-AIR TO EXISTING DUCTWORK FOR 8F-11.
5. RELOCATE CHAMBER ROOM EXHAUST DRILL TO WEST WALL OF NEW ADDITION. REFER TO A/M000.
6. REMOVE EXISTING INTAKE FOR FAN-11. PATCH WALL TO MATCH EXISTING.



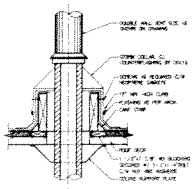
2 M103 NEW NORTH EXTERIOR ELEVATION – MECHANICAL

CONSTRUCTION NOTES:

1. RELOCATED DRILLE OPENINGS.
2. RELOCATED CHIMNEY AND RELIEF PIPING FOR NATURAL GAS.
3. EXTENDED COMBUSTION AIR INTAKE THROUGH ROOF. REFER TO A/M000 FOR HOOD DETAIL.
4. RELOCATED DRILLE FROM 8F-11.
5. RELOCATE CHAMBER ROOM EXHAUST DRILL TO WEST WALL OF NEW ADDITION. REFER TO A/M000.



3 B200 NEW WEST EXTERIOR ELEVATION – MECHANICAL



A M103 CHIMNEY THROUGH ROOF

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

REV.	DESCRIPTION	DWN	CHK	APP	DATE
A	ISSUED FOR PRICE ESTIMATE	VCV	DKN		MAY 20 2015

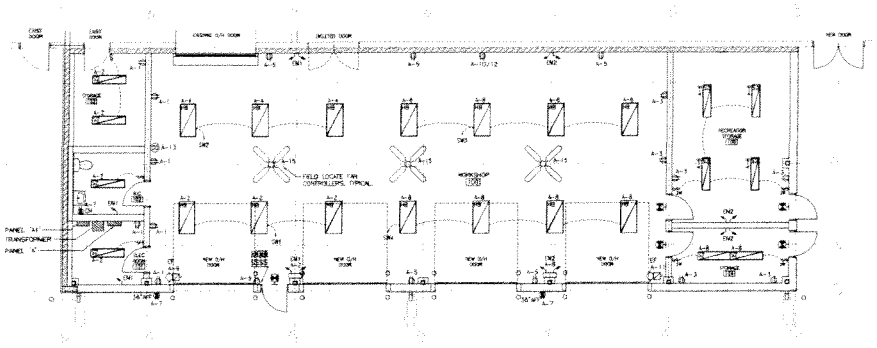
Accutech Engineering Inc.
Tomorrow's Technology Today

GATEWAY RECREATION CENTRE INC.

SHOP ADDITION

MECHANICAL ELEVATIONS

DRAWN BY	CHECKED BY	SCALE	SHEET NO.
VCV	DKN	AS NOTED	M103
BCW	22507	MAY 20 2015	A


EXIST. DOOR
EXIST. DOOR
EXISTING O/H DOOR
EXISTING DOOR
NEW DOOR
WORKSHOP
1008
STORAGE
1009
OFFICE
1010
FIELD LOCATE FAN CONTROLLERS, TYPICAL
PANEL 'AE'
TRANSFORMER
PANEL 'A'
NEW O/H DOOR
NEW O/H DOOR
NEW O/H DOOR

POSTMA
QUANTITY SURVEYING

154 Rue Dumoulin
Winnipeg, MB R2H 0E1
Phone: (204) 415-3700
Fax: (204) 421-9080
Email: pqs@shaw.ca
www.postmaquantitysurveying.ca

May 29, 2015

Accutech Engineering
1349 Dugald Road
Winnipeg, Man.
R2J 0H3

Attention: Mr. Brent Wall

Re: **Gateway Community Centre Garage Addition**
Winnipeg, Man.
Class A Estimate

We are pleased to attach our class A estimate for the above noted project and do hereby certify the following values of **$790,872.00** which includes a 5% design contingency.

The estimate excludes GST, cash allowances, exterior site work outside of building lines (none shown) and any consulting fees. The pricing reflects probable construction costs obtainable in the location of the project as of the date of this estimate and is a determination of fair market value for the construction of this project and should not be taken as a prediction of low bid.

This pricing assumes competitive bidding for every portion of the construction work including all subcontractors as well as the general contractor, and assumes a minimum of four (4) general bidders. If fewer bids are received, the bid results can be expected to be higher.

It is recognized, however, that Postma Quantity Surveying does not have control over the cost of labour, material or equipment, over a contractor's methods of determining bid prices, or over competitive bidding, market or negotiation conditions.

Accordingly, Postma Quantity Surveying cannot and does not warrant or represent that bids or negotiated prices will not vary from this or any subsequent estimate of construction cost or evaluation prepared or agreed to by Postma Quantity Surveying. It is generally acknowledged that a Class A estimate is within the range of plus or minus five (5%) percent.

We hope this meets to your satisfaction. If you have any questions please do not hesitate to call.

POSTMA QUANTITY SURVEYING LTD.

Wes Postma, PQS, CET, GSC
President

Gateway Community Club Shop Addition

Class A Estimate 5/29/2015

Postma Quanitity Surveying Ltd.

	Descripton of Work	Unit	Quantity	Unit Price	Total
1	**General Conditions**				
2	Supervision	month	6	$8,250.00	$49,500
3	Indirect Site Costs	month	6	$6,800.00	$40,800
4	Overhead & Fee	%	6.00	$710,577	$42,635
5	Bonds & Insurance	thous.	754	$8.00	$6,032
6	Building permit	item	1	$6,000.00	$6,000
7	Cash Allowances - inspections, testing	item	$ -	$0.00	$0
8				Subtotal	$144,967
9	**Site work**				
10	Excavate grade beams	CY	100	$25.00	$2,500
11	Excavate caps, pits	item	1	$1,000.00	$1,000
12	Excavate slab on grade	CY	56	$22.50	$1,260
13	Bacfill grade beam, pits	CY	124	$29.00	$3,596
14	Site grading	item	1	$1,100.00	$1,100
15				Subtotal	$9,456
16	**Structural Elements**				
17	CIP friction piles 16" dia x 39 ft	no	20	$1,650.00	$33,000
18	Pile caps - 20 no	CY	5	$600.00	$3,000
19	Grade beams with pilasters - 293 lf	CY	24	$825.00	$19,800
20	Pits	CY	6	$650.00	$3,900
21	8" slab on grade, 2" HI 40, 6" gran base	sf	2,429	$13.75	$33,399
22	2" HI 40 at grade beams, frost protect	sf	1,124	$3.00	$3,372
23	Rebar	tons	5	$2,150.00	$10,750
24	Isolated concrete beam masonry wall	item	1	$1,400.00	$1,400
25	8" masonry bearing wall	sf	1,820	$22.00	$40,040
26	Metal grating at pits & trench	sf	59	$70.00	$4,130
27	Sanitary pit 3x3x3 ft with cover	no	1	$2,000.00	$2,000
28	Structural steel & OWSJ	tons	7	$4,800.00	$34,320
29	Steel decking roof	sf	2,620	$3.00	$7,860
30				Subtotal	$196,971
31	**Exterior walls and roof**				
32	Rough carpentry- misc blocking, misc rigid, VB	item	1	$2,500.00	$2,500
33	1 1/2" metal cladding, 7/8" furring bar, tyvek	sf	1,767	$12.00	$21,204
34	5/8" drywall 2 layers BS, 6" SS , R20 batt, VB	sf	457	$10.50	$4,799
35	6" SS 20 gauge, R20 batt, 5/8" drywall, VB	sf	510	$7.00	$3,570
36	5/8" drywall BS, R20 Batt, 6" SS 20 gauge, VB	sf	800	$8.00	$6,400
37	3/4" prefinsihed metal liner	sf	720	$6.00	$4,320
38	Create opening in exist wall for double door	no	1	$750.00	$750
39	Infill wall at relocated double door	no	1	$1,500.00	$1,500
40	Patch existing wall at removed ducts	no	1	$500.00	$500
41	Move up duct opening 4x4 2 fr	no	4	$750.00	$3,000
42	New wall opening and patch at duct	no	1	$500.00	$500
43	OHD frame 18 gauge G90	no	4	$200.00	$800

Gateway Community Club Shop Addition

Class A Estimate 5/29/2015

Postma Quanitity Surveying Ltd.

	Descripton of Work	Unit	Quantity	Unit Price	Total
44	1/2" PWF at grade beam & prefin metal flash	lf	150	$5.00	$750
45	Spray foam top of wall	lf	90	$7.00	$630
46	Gutter	lf	90	$15.00	$1,350
47	RWL with HSS 6 ft, splash pad	no	3	$750.00	$2,250
48	Overhead door 10x10	no	4	$2,750.00	$11,000
49	Roof R1 1 1/2" SS roof, 8" rigid, Z bassrs, poly	sf	2,620	$21.00	$55,020
50				Subtotal	$120,843
51	**Interior Work**				
52	7/8" furr bar, 5/8" drywall 2 layers ceiling	sf	2,563	$6.30	$16,147
53	P1 1/2" DW BS, 6" steel stud	sf	210	$7.50	$1,575
54	Firestopping	item	1	$5,000.00	$5,000
55	P2, P3 5/8" DW BS, 6" steel stud 20 gauge	sf	1,017	$7.50	$7,628
56	Hardener & sealer to slab	sf	2,429	$1.15	$2,793
57	Fire rate columns - 2 layers DW, SS	sf	168	$11.00	$1,848
58	Remove overhead door	no	1	$300.00	$300
59	Cut & patch floor at existing for tie in sanitary	item	1	$2,000.00	$2,000
60	Relocate double door	no	1	$500.00	$500
61	Replace door with 1 1/2 hr HM door & frame	no	1	$1,100.00	$1,100
62	Exterior exit door	no	1	$2,500.00	$2,500
63	Washroom doors	no	1	$1,000.00	$1,000
64	Storage/elect doors interior	no	4	$1,100.00	$4,400
65	Storage door exterior	no	2	$1,400.00	$2,800
66	Rolling steel door rated 10 x 10	no	1	$4,000.00	$4,000
67	Painting	sf	2,700	$3.00	$8,100
68	Rubber base at drywall walls	lf	250	$2.00	$500
69	Washroom accessories	item	1	$300.00	$300
70	Bollard on footing	no	10	$550.00	$5,500
71	Bollard bolted to floor	no	8	$400.00	$3,200
72				Subtotal	$71,191
73	**Mechanical**				
74	As per attached worksheets	item	1		$133,750
75				PST	$10,700
76				Subtotal	$144,450
77	**Electrical**				
78	As per attached worksheets	item	1		$60,495
79				PST	$4,840
80				Subtotal	$65,335
81	**Subtotal**				$753,211
82	Escalation			0.00%	$0
83	**SUBTOTAL**				**$753,211**
84	Design Contingency Allowance			5.00%	$37,661
85	**TOTAL**				**$790,872**
86	Cost per sf before contingency	sf	2,700		$279

QSM Mechanical Quantity Surveying 27-May-15

Gateway Recreation Complex Addition

Class A Estimate

	Building Area	250 270 SF	sm			
C1 Mechanical						
C11 Plumbing & Drainage						
1	Fixtures & rough in	250	sm	7.20	$	1,800.00
	Water closet	1	ea.	1,000.00	$	1,000.00
	Lavatory	1	ea.	800.00	$	800.00
2	Domestic Water	250	sm	17.80	$	4,450.00
	Connect cold and hot water to existing - allow 40 ft	1	sum	2,500.00	$	2,500.00
	Domestic water pipe	1	sum	1,000.00	$	1,000.00
	Thermal pipe insulation	1	sum	600.00	$	600.00
	Fixture rough in	1	ea.	250.00	$	250.00
	Floor drain primer	1	no	100.00	$	100.00
3	Sanitary Waste and Vents	250	sm	67.80	$	16,950.00
	Connect to existing aboveground sanitary	1	sum	500.00	$	500.00
	Pumped sanitary to existing drain - 200ft	1	sum	6,000.00	$	6,000.00
	Provide duplex sanitary sump pumps	1	sum	4,500.00	$	4,500.00
	Sanitary drain - below grade	1	sum	1,500.00	$	1,500.00
	Sanitary drain and vent	1	sum	2,000.00	$	2,000.00
	Fixture rough in	1	ea.	250.00	$	250.00
	Floor drain	1	no	200.00	$	200.00
	Excavation and backfill	1	sum	2,000.00	$	2,000.00
	Concrete cut and patch	1	sum	0.00	with concrete	
4	Garage drains	250	sm	0.00	$	-
	Vehicle weight bar grates	4	no	0.00	with metals	
5	Natural gas piping	250	sm	15.20	$	3,800.00
	Connect to existing	1	no	400.00	$	400.00
	Natural gas pipe - allow 50 ft	1	sum	2,750.00	$	2,750.00
	Connection to roof top unit	1	no	200.00	$	200.00
	PRV	1	no	450.00	$	450.00
	C11 Plumbing & Drainage Total : $	250	sm	108.00	$	27,000.00

QSM Mechanical Quantity Surveying 27-May-15

Gateway Recreation Complex Addition

Class A Estimate

	Building Area		250 270 SF	sm			
C12 Fire Protection							
1	Fire extinguisher		250	sm	2.40	$	600.00
	Wall mounted extinguisher		4	ea.	150.00	$	600.00
2	Sprinklers		250	sm	0.00	$	-
	No sprinkler work is required		1	nil	0.00	$	-
	C12 Fire Protection	Total : $	250	sm	2.40	$	600.00
C13 HVAC							
1	Liquid transfer - heating		250	m2	150.00	$	37,500.00
	Connect to existing glycol supply and return within arena - allow 40 ft		2	no	750.00	$	1,500.00
	Heating water piping		1	sum	7,500.00	$	7,500.00
	Heating water insulation		1	sum	2,000.00	$	2,000.00
	Circulation pump		1	no	1,000.00	$	1,000.00
	In slab heating manifolds		6	no	1,750.00	$	10,500.00
	In slab radiant heating tube		250	m2	60.00	$	15,000.00
2	HVAC equipment		250	sm	54.60	$	13,650.00
	New make up air unit - 1,500 cfm - gas heating		1	no	5,500.00	$	5,500.00
	Washroom exhaust 100 cfm		1	no	250.00	$	250.00
	CO exhaust 1,100 cfm		2	no	2,750.00	$	5,500.00
	Stratification fans - 1000 cfm		3	no	800.00	$	2,400.00

QSM Mechanical Quantity Surveying 27-May-15

Gateway Recreation Complex Addition

Class A Estimate

	Building Area		250 270 SF	sm			
3	Air distribution ductwork - rework		250	sm	49.00	$	12,250.00
	Galvanized ductwork		700	lbs	10.00	$	7,000.00
	Thermal insulation		400	sf	3.50	$	1,400.00
	Relocate inlet grills		2	ea.	400.00	$	800.00
	Extend chimney and relief for natural gas		1	sum	800.00	$	800.00
	Extend combustion ait intake thru roof		1	sum	500.00	$	500.00
	Relocate EF-1 louvre		1	sum	500.00	$	500.00
	Relocate Zamboni room exhaust		1	sum	750.00	$	750.00
	Relocate FAU-1 intake louvre		1	sum	500.00	$	500.00
	Patch and repair old opening in siding		2	no	0.00	with arch.	
4	Air distribution ductwork - new		250	sm	59.00	$	14,750.00
	Galvanized ductwork		1000	lbs	10.00	$	10,000.00
	Thermal insulation		300	sf	3.50	$	1,050.00
	Motorized damper - install		3	ea.	500.00	$	1,500.00
	Grill A		1	ea.	200.00	$	200.00
	Grill B		2	ea.	200.00	$	400.00
	Grill C		5	ea.	200.00	$	1,000.00
	Grill D		3	ls	200.00	$	600.00
4	Balancing & commissioning		250	sm	6.00	$	1,500.00
	Air balance		1	sum	1,500.00	$	1,500.00
	C13 HVAC	Total : $	250	sf	318.60	$	79,650.00

QSM Mechanical Quantity Surveying 27-May-15

Gateway Recreation Complex Addition

Class A Estimate

	Building Area		250 270 SF	sm			
C14 Controls							
1	Controls		250	sm	106.00	$	26,500.00
	New make up air unit c/w inlet damper		1	sum	2,500.00	$	2,500.00
	CO monitoring - alarm and wiring		1	sum	4,000.00	$	4,000.00
	NOX monitoring - alarm and wiring		1	sum	5,000.00	$	5,000.00
	CO fan control - damper and operator		2	no	1,500.00	$	3,000.00
	In floor htg mixing valve		1	sum	1,000.00	$	1,000.00
	In floor heating zones		6	no	1,000.00	$	6,000.00
	BAS connect to existing, programing		1	no	5,000.00	$	5,000.00
	C14 Controls	Total : $	250	sm	106.00	$	26,500.00
	Mechanical	Total : $	250	sm	535.00	$	133,750.00

PRICING SHEET

QSM Quantity Surveying

PROJECT: GATEWAY RECREATION CENTRE SHOP ADDITION May 27, 2015

ACTIVITY: ELECTRICAL SHEET: RECAP

Description	Unit	Quantity	Unit Price	TOTALS
SHEET #1	item	1	$ 24,065.00	$ 24,065.00
SHEET #2	item	1	$ 36,430.00	$ 36,430.00

PRICING SHEET

QSM Quantity Surveying

PROJECT: GATEWAY RECREATION CENTRE SHOP ADDITION May 27, 2015

ACTIVITY: ELECTRICAL SHEET: 1

Description	Unit	Quantity	Unit Price	TOTALS
MAIN FEEDER	item	1	$ 9,600.00	$ 9,600.00
4C#3 TECK				
PANEL - A1	no	1	$ 4,700.00	$ 4,700.00
TRANSFORMER FEEDER	item	1	$ 515.00	$ 515.00
4C#4 TECK				
45KVA TRANSFORMER	item	1	$ 4,550.00	$ 4,550.00
PANEL - A FEEDER	item	1	$ 1,500.00	$ 1,500.00
4C#1/0 TECK				
COORDINATION & TESTING	item	1	$ 2,300.00	$ 2,300.00
DEMOLITION	item	1	$ 900.00	$ 900.00

$ 24,065.00

PRICING SHEET

QSM Quantity Surveying

PROJECT: GATEWAY RECREATION CENTRE SHOP ADDITION May 27, 2015

ACTIVITY: ELECTRICAL SHEET: 2

Description	Unit	Quantity	Unit Price	TOTALS
FIXTURE TYPE - HB	no	14	$ 685.00	$ 9,590.00
FIXTURE TYPE - S2	no	10	$ 310.00	$ 3,100.00
EXIT SIGN	no	5	$ 325.00	$ 1,625.00
EMERG. BATTERY UNIT	no	2	$ 410.00	$ 820.00
SINGLE REMOTE HEAD	no	2	$ 185.00	$ 370.00
DBL. REMOTE HEAD	no	4	$ 210.00	$ 840.00
1 POLE SWITCH	no	7	$ 120.00	$ 840.00
3 WAY SWITCH	no	4	$ 170.00	$ 680.00
DUPLEX RECEPTACLE	no	18	$ 155.00	$ 2,790.00
WP GFI RECEPTACLE	no	3	$ 245.00	$ 735.00
GFI RECEPTACLE	no	1	$ 185.00	$ 185.00
60 AMP WELD RECEPT.	no	1	$ 685.00	$ 685.00
CONN. EXHAUST FANS	no	2	$ 225.00	$ 450.00
CONN. CEILING FANS	no	3	$ 340.00	$ 1,020.00
BRANCH WIRING	item	1	$ 12,700.00	$ 12,700.00

$	36,430.00