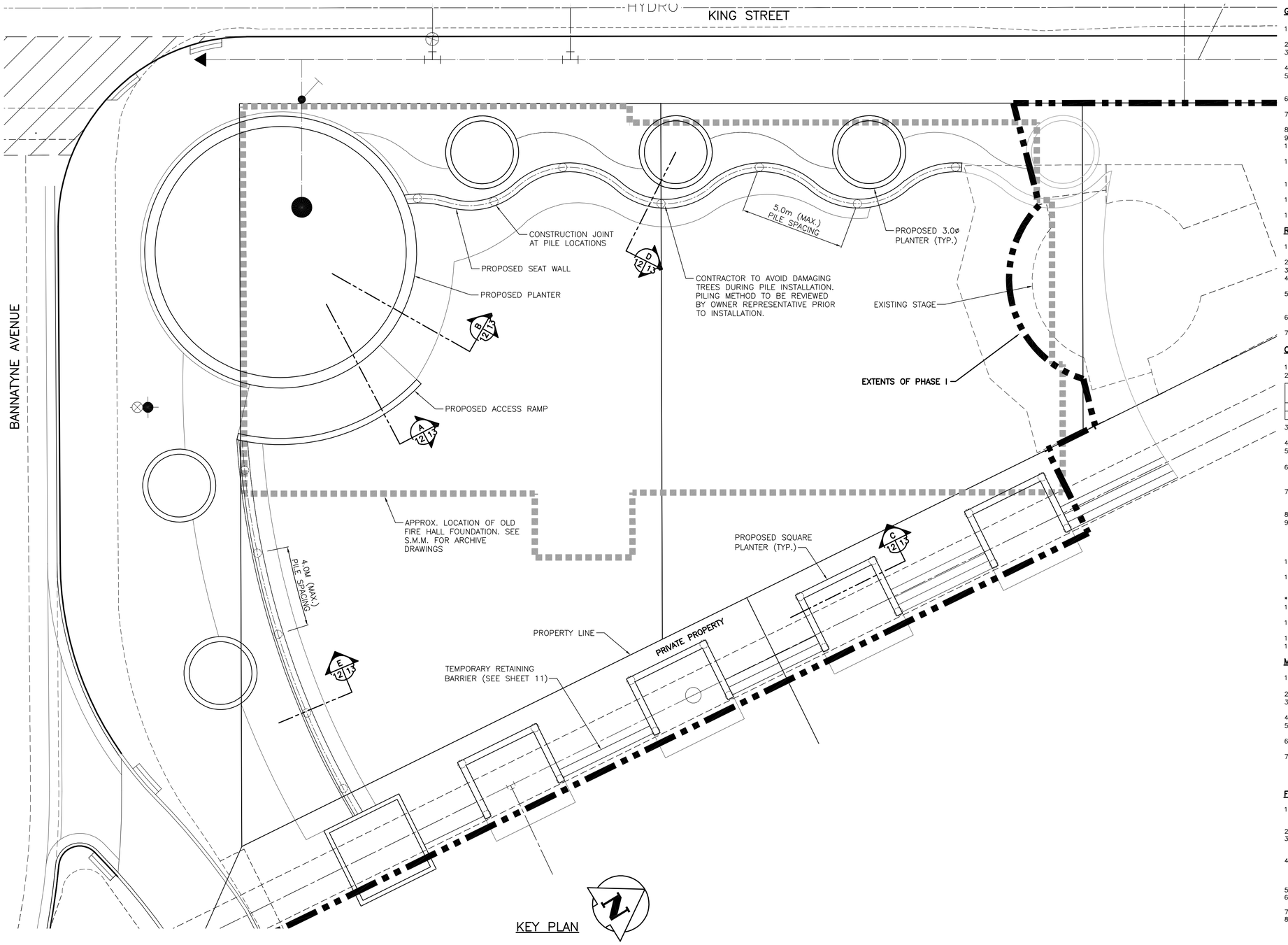

GENERAL

1.) THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH, AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2005 AND ALL APPLICABLE LOCAL BYLAWS.
2.) PRINCIPAL APPLIED DESIGN LOADS ARE INDICATED ON APPROPRIATE DRAWINGS.
3.) LIVE LOAD REDUCTION FACTORS IN ACCORDANCE WITH NBC 2005 HAVE BEEN USED TO DESIGN STRUCTURAL SUPPORT ELEMENTS.
4.) DO NOT SCALE DRAWINGS.
5.) VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC., SHOWN ON THE STRUCTURAL DRAWINGS WITH THE LATEST ARCHITECTURAL DRAWINGS, OTHER CONSULTANT DRAWINGS AND THE SITE, PRIOR TO CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
6.) DISCREPANCIES OR AMBIGUITIES ON THE DRAWINGS AND/OR THE SITE, WHICH AFFECT THE STRUCTURAL FRAMING, SHALL BE REPORTED TO THE CONTRACT ADMINISTRATOR.
7.) MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE CONTRACT ADMINISTRATOR.
8.) LOCATE ALL EXISTING SITE SERVICES PRIOR TO CONSTRUCTION.
9.) FOR OPENINGS REFER TO ARCHITECTURAL, MECHANICAL, AND/OR OTHER PERTINENT DRAWINGS.
10.) LOCATION OF CONSTRUCTION JOINTS IS THE RESPONSIBILITY OF THE CONTRACTOR BUT APPROVAL MUST BE OBTAINED FROM THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING.
11.) DESIGN AND INSTALL ALL NECESSARY SHORING, BRACING AND FORMWORK. FORM WORK FOR NEW CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES. PROCEDURE MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR.
12.) NOTIFY THE CONTRACT ADMINISTRATOR AT LEAST 48 HOURS PRIOR TO ALL CONCRETE POURS AND/OR INSTALLATION OF INTERIOR SHEATHING, TO ALLOW FOR SITE INSPECTIONS.
13.) ANY DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND THE CITY AT NO COST TO THE CITY OR CONTRACT ADMINISTRATOR.
14.) REPRODUCTION OF STRUCTURAL CONSULTANTS DRAWINGS WILL NOT BE ACCEPTED.

REINFORCING STEEL

1.) REINFORCING STEEL SHALL BE NEW BILLET, DEFORMED BARS IN ACCORDANCE WITH CSA STANDARDS G30.10 MINIMUM YIELD STRENGTH TO BE 400 MPa, EXCEPT 10M BARS MAY BE 300 MPa.
2.) REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL.
3.) LAP TOP BARS AT CENTER SPAN AND BOTTOM BARS OVER SUPPORTS UNLESS NOTED ON PLANS.
4.) ALL REINFORCING TO BE HELD IN PLACE AND TIES BY THE USE OF PROPER ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, ETC., TO BE SUPPLIED BY THE REINFORCING STEEL FABRICATOR.
5.) SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, GRADE, SPACING, HOOKS, BENDS, AND SUPPORTING/SPACING DEVICES, ETC. FOR REVIEW TO THE DESIGN ENGINEER PRIOR TO FABRICATION OF THE REINFORCING STEEL.
6.) PRIOR TO PLACING CONCRETE, ENSURE THAT ALL REINFORCING STEEL IS CLEAN, FREE OF LOOSE SCALE, RUST, MUD, OIL OR OTHER FOREIGN MATERIAL WHICH WOULD REDUCE BOND.
7.) HEATING, QUENCHING AND BENDING OF REINFORCING STEEL ON THE SITE IS NOT ALLOWED.

CONCRETE

1.) ALL CONCRETE WORK SHALL CONFORM TO CSA STANDARD A23.1 (LATEST).
2.) PERFORMANCE CONCRETE SPECIFICATIONS:

COMPONENT	CEMENT TYPE	EXPOSURE CLASS	28 DAY STRENGTH	AIR CONTENT CATEGORY	CONCRETE COVER	NOTES
	DESCRIPTION	No.	MPa		mm	
CAST-IN-PLACE	HS	S-1	35	2	50	75 WHEN IN CONTACT WITH SOILS

3.) CONTRACTOR TO PROVIDE PROPRIETORY MIX DESIGN PERFORMANCE RECORD AS REQUIRED BY MANITOBA READY-MIX ASSOCIATION.
4.) VIBRATE ALL CONCRETE WORK WITH APPROPRIATE INTERNAL VIBRATORS.
5.) CONCRETE WORKING TIME, FROM BATCHING TO PLACEMENT AND CONSOLIDATION, SHALL NOT EXCEED 1-1/2 HOURS.
6.) CONCRETE CONTRACTOR SHALL PLACE ALL COMPONENTS TO BE EMBEDDED IN THE CONCRETE (ie. WELD PLATES, DOWELS FOR CONCRETE AND/OR MASONRY, ANCHOR BOLTS, INSERTS, WATER STOP BARS, SLEEVING, ETC.). SEE STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ANY OTHER PERTINENT DRAWINGS.
7.) SEE ARCHITECTURAL DRAWINGS FOR EDGE TREATMENTS, ETC. VERTICAL FACES SHALL BE FINISHED WITH A LIGHT SANDBLASTING. SANDBLASTING INTENSITY & PROCEDURE MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO APPLICATION
8.) SEE "GENERAL" NOTES REGARDING INSPECTION NOTIFICATION.
9.) THE CONTRACTOR SHALL ENSURE THAT CONCRETE TESTING BE PERFORMED BY AN INDEPENDENT CSA APPROVED TESTING COMPANY. THREE CONCRETE TEST CYLINDERS AND ONE SLUMP TEST SHALL BE TAKEN FOR EVERY 50 (OR LESS) CUBIC METERS, OR EACH DAY CONCRETE IS PLACED, WHICHEVER IS GREATER. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CSA STANDARD A23.2 (LATEST), AND THE RESULTS SHALL BE FORWARDED TO THE CONTRACT ADMINISTRATOR.
10.) "VOID FORMS", AS DETAILED ON THE DRAWINGS SHALL BE CARDBOARD FORMS UNLESS OTHERWISE SPECIFIED.
11.) UNDER IDEAL WEATHER CONDITIONS, ALLOW MINIMUM CURING TIME AS SCHEDULED BELOW BEFORE REMOVING FORM WORK:

* CONCRETE 3 DAYS

12.) THE CONCRETE SUPPLIER AND CONCRETE MIXING BATCH PLANT MUST BE A MEMBER IN GOOD STANDING WITH THE MANITOBA READY MIX CONCRETE ASSOCIATION.
13.) ALL HOLES CORED OR CREATED THROUGH REINFORCED CONCRETE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR ADMINISTRATOR.
14.) CONSTRUCTION JOINTS TO BE SMOOTHED PRIOR TO SANDBLASTING.
15.) FIELD APPLY EPOXY COATING TO DOWELS AT CONSTRUCTION JOINTS.

METAL FABRICATION

1.) FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH CSA S16.01 (LATEST EDITION).
2.) ALUMINUM MATERIAL: REFER TO MISCELLANEOUS METAL SPECIFICATION.
3.) APPLY ISOLATION COATING TO ALL ALUMINUM SURFACES TO BE EMBEDDED IN AND MOUNTED ON CONCRETE.
4.) ALUMINUM AND STEEL CONNECTIONS: REFER TO MISCELLANEOUS METALS SPECIFICATIONS.
5.) SUBMIT SHOP DRAWINGS INCLUDING CONNECTION DETAILS AND CLEARLY INDICATING PROFILES, SIZES, SPACING, CONNECTIONS, AND LOCATIONS OF STRUCTURAL MEMBERS, CAMBERS, AND LOADS.
6.) SEPIAS OR ELECTRONIC COPIES OF STRUCTURAL DRAWINGS WILL NOT BE ACCEPTED FOR USE AS SHOP DRAWINGS.
7.) MATERIALS:
.1 STRUCTURAL STEEL: TO CAN3 G40.21, SHOP PRIMED. FINISHED PAINT BY OTHERS.
.2 ANCHOR BOLTS: TO ASTM A307 COMPLETE WITH NUTS AND WASHERS.
.3 WELDING MATERIALS: TO CSA W59.

FOUNDATION - CAST-IN-PLACE CONCRETE FRICTION PILES

1. ALL PILES TO BE CAST-IN-PLACE FRICTION PILES, SIZES AS SHOWN ON PLANS. PILE LENGTH TO BE MEASURED FROM FINISHED CONTOURS OF EXCAVATION AS SHOWN ON THE DRAWINGS AND DETAILS UNLESS NOTED OTHERWISE.
2. PILE REINFORCING TO BE AS SHOWN ON THE DRAWINGS.
3. FRICTION PILES ARE DESIGNED FOR AN ASSUMED SKIN FRICTION OF 14.4 KPa IN FIRM CLAY. NOTIFY CONTRACT ADMINISTRATOR SHOULD SITE CONDITION VARY FROM THAT ASSUMED. FRICTION PILES ARE DESIGNED FOR FRICTION VALUES IN ACCORDANCE WITH GEOTECHNICAL REPORT.
4. INSTALLATION OF ALL CONCRETE PILES SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA, PRIOR TO PLACEMENT OF CONCRETE. A LETTER OF CERTIFICATION SHALL BE ISSUED TO THE CONTRACT ADMINISTRATOR UPON COMPLETION OF THE FOUNDATION.
5. PILES SHALL NOT BE MORE THAN 50 MM OUT OF THE POSITION SHOWN ON THE FOUNDATION PLAN.
6. EXTEND VERTICAL PILE REINFORCING STEEL 450 MM INTO THE UNDERSIDE OF ANY STRUCTURAL CONCRETE MEMBERS SUPPORTED. U.N.O.
7. MECHANICALLY VIBRATE TOP 3.0 METERS OF PILE.
8. SLEEVE HOLES AS REQUIRED DURING INSTALLATION OF CONCRETE FOR PILES.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

WARNING
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

APEGM
Certificate of Authorization
Stantec Consulting Ltd.
No. 1301 Expiry: April 30, 2009

LOCATION APPROVED
UNDERGROUND STRUCTURES
SUPV. U/G STRUCTURES COMMITTEE — DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.

NO.	REVISIONS	DATE	BY
1	ISSUED FOR ADDENDUM 3	08.08.06	
0	ISSUED FOR TENDER	08.07.14	B.E.F.

Stantec Consulting Ltd.
905 Waverley Street, Winnipeg, Manitoba
Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	B.E.F.	CHECKED BY	V.M.M.
DRAWN BY	J.M.B.	APPROVED BY	V.M.M.
HOR. SCALE: 1:250 VERTICAL:		RELEASED FOR CONSTRUCTION:	
DATE 08.06.10		DATE	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
B.E. FRASER
Member 23402
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NO.
S-101

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION ENGINEERING DIVISION

KING STREET-RECONSTRUCTION
OLD MARKET SQUARE - PHASE 1

OLD MARKET SQUARE
STRUCTURAL SITE PLAN

SHEET 12 OF 16
CAD FILE DRAWING NUMBER 04780s-101-696.dwg
CITY DRAWING NUMBER P-3295-11

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2008-08-06 02:18PM By: tgall