

File Name: P:\Projects\2018\18-1447-001\Drawings\Struct\18-1447-001_1806.dwg - Tab: B06 Plotted By: Dberche 19/02/19 [Tue 10:03am] 24"x36" PLOT SCALE: 1"=1'

GENERAL NOTES:

- ALL SPECIFICATIONS AND CODES SPECIFIED SHALL BE THE LATEST REVISION AVAILABLE.
- SITE VERIFY ALL DIMENSIONS, ELEVATIONS, DETAILS, QUANTITIES AND CONDITIONS PRIOR TO START OF ANY DEMOLITION, CONSTRUCTION OR PREFABRICATION OF ANY COMPONENT.
- EXISTING STRUCTURAL SUPPORTS WHICH INTERFERE WITH NEW WORK SHALL BE RELOCATED UPON APPROVAL BY THE DESIGN ENGINEER.
- THE CONTRACTOR SHALL ENSURE THAT ALL BURIED SERVICES ARE LOCATED AND MARKED PRIOR TO EXCAVATION.
- ALL BUILDING SYSTEMS COMPONENTS SHALL BE THE PRODUCTS OF A SINGLE MANUFACTURER UNLESS SPECIFIED OTHERWISE.
- SHIP, STORE, HANDLE, ERECT, INSTALL, ETC. ALL BUILDING MATERIALS, COMPONENTS, FIXTURES, EQUIPMENT, ETC. AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ALL DEMOLITION, FABRICATION, CONSTRUCTION, ETC. SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL PERTINENT BUILDING CODES, AND LOCAL BYLAWS AND ORDINANCES.
- EACH TRADE SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE PROTECTION FOR THE EXISTING FACILITY/PROPERTY TO PREVENT PHYSICAL DAMAGE AND LOSS OF VALUE OR USE OF ANY KIND, AS A RESULT OF DEMOLITION, CONSTRUCTION AND RELATED ACTIVITIES.
- TIME AND DURATION OF ANY NECESSARY DISRUPTION IN THE USE OF ANY ROOM, SPACE, SERVICE, EQUIPMENT, ETC. SHALL BE COORDINATED WITH, AND APPROVED BY THE OWNER AT THE START OF THE PROJECT. PROVIDE OWNER WITH MINIMUM ONE WEEK NOTICE (OR AS REQUIRED) PRIOR TO EACH ACTUAL OCCURRENCE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE OWNER AND THE DESIGN ENGINEER OF ANY PREVIOUSLY UNNOTICED PRE-EXISTING FLAW OR CONDITION THAT MIGHT INCREASE THE SCOPE OF WORK OR COMPROMISE NEW CONSTRUCTION, PRIOR TO THE START OF DEMOLITION AND CONSTRUCTION, OR AS SOON AS IT IS DISCOVERED.

BELOW GRADE INSULATION:

- PERIMETER FOUNDATION INSULATION TO BE TYPE 4, RIGID, CLOSED-CELL, EXTRUDED POLYSTYRENE FOAM INSULATION WITH INTEGRAL HIGH DENSITY SKIN IN ACCORDANCE WITH CAN/ULC-S701.
- THICKNESS OF INSULATION AND R-VALUE TO BE AS DETAILED ON DRAWINGS. EDGE TREATMENT TO BE SQUARE. BOARD SIZE TO BE LARGEST SIZE AVAILABLE.
- ACCEPTABLE PRODUCT: STYROFOAM BRAND SM EXTRUDED POLYSTYRENE FOAM INSULATION AS MANUFACTURED BY THE DOW CHEMICAL COMPANY OR APPROVED EQUAL.
- INSTALL ALL INSULATION AS PER MANUFACTURER'S WRITTEN SPECIFICATIONS. USE POLYSTYRENE COMPATIBLE ADHESIVE TO HOLD BOARDS IN PLACE DURING BACKFILLING.

PRE-CAST PAVERS:

- PRE-CAST PAVERS TO BE INSTALLED AND SUB BASE PREPARED AS PER MANUFACTURER'S INSTRUCTIONS. INSTALL A MINIMUM OF 200mm COMPACTED GRANULAR AND PREPARE SUBSTRATE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- INSTALL PRE-CAST PAVERS FLUSH WITH THE BUILDING CONCRETE AT THE FRONT ENTRANCE TO MAINTAIN BARRIER-FREE ACCESSIBILITY. DO NOT EXTEND PAVERS BELOW EXISTING BRICK LEDGE STEEL ANGLE. ACCEPTABLE LARGE PRE-CAST PAVER: 305mm X 610mm X 60mm THICK BROADWAY PAVER AS MANUFACTURED BY BARKMAN CONCRETE OR APPROVED EQUAL. ACCEPTABLE SMALL PRE-CAST PAVER: TYPE AND SIZE TO MATCH EXISTING. COLOUR TO BE CONFIRMED BY OWNER.

EXCAVATION & BACKFILL:

- REMOVE ALL FILL MATERIALS, DELETERIOUS SOILS AND ORGANICS IN AREAS REQUIRING GRANULAR BASE MATERIALS. COMPACT SUBGRADE TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY. SUB-EXCAVATE AND REPAIR ALL AREA EXHIBITING UNSUITABLE DEFLECTIONS.
- GRANULAR BASE TO BE PLACED ON GRADE SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY IN MAXIMUM 150mm LIFTS OR AS DIRECTED BY THE DESIGN ENGINEER.
- DO NOT PLACE OR COMPACT FROZEN BACKFILL OR PLACE ON FROZEN SUBGRADE.
- SUB-GRADE, SUB-BASE AND BASE COURSE MATERIALS AND CONSTRUCTION METHODS SHALL BE AS PER CITY OF WINNIPEG SPECIFICATION CW3110 SPECIFICATION OR APPROVED ALTERNATIVE.
- SUBGRADE AND BASE COURSE INSTALLATION SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA, AT CONSTRUCTION PHASES AS DETERMINED BY THE GEOTECHNICAL ENGINEER, BEFORE WORK IS TO COMMENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF THE INSPECTIONS.
- CONTRACTOR SHALL SUBMIT SIEVE ANALYSIS AND DENSITY PROPERTIES FOR THE PROPOSED GRANULAR MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION.

GEOTEXTILE:

- A GEOTEXTILE FABRIC SEPARATOR SHALL BE NON-WOVEN AND SHALL MEET OR EXCEED A TENSILE STRENGTH (ASTM D4632) OF 900 N AND AN APPARENT OPENING SIZE (ASTM D4751) OF 1.2mm.
- SUITABLE PRODUCTS FOR NON-WOVEN GEOTEXTILE SHALL BE PROPEX 4553, LAYFIELD LPS, MIRAF 180N OR APPROVED EQUIVALENT. THE CONTRACTOR SHALL PROVIDE PRODUCT DATA SHEETS TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND DELIVERY.
- EACH GEOTEXTILE ROLL TO BE USED SHALL BE TAGGED TO PROVIDE PRODUCT IDENTIFICATION FOR INVENTORY AND QUALITY CONTROL PURPOSES.
- GEOTEXTILE ROLLS SHALL BE PROVIDED WITH SUITABLE WRAPPING FOR PROTECTION AGAINST MOISTURE AND EXTENDED EXPOSURE FROM THE SUN, AND CONTAMINATION FROM DIRT, DUST AND OTHER DELETERIOUS MATERIALS. THE GEOTEXTILE SHALL REMAIN WRAPPED IN A PROTECTIVE COVERING AND PROTECTED FROM DAMAGE UNTIL IT IS USED.
- THE GEOTEXTILE STRIPS SHALL OVERLAP AT LEAST 0.6m AND OVERLAPS SHALL BE MAINTAINED.

CONCRETE:

- CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CSA A23.1-09 (R2014). SEE BELOW FOR MIX REQUIREMENTS.
- ADMIXTURES SHALL NOT BE USED UNLESS SPECIFIED HEREIN OR APPROVED BY THE DESIGN ENGINEER. CALCIUM CHLORIDE SHALL NOT BE USED.
- MIX WATER SHALL BE POTABLE.
- DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.3-M92 (R2013). ALLOW SUFFICIENT CONCRETE CURING TIME PRIOR TO REMOVAL.
- CONCRETE FINISHING SHALL MEET THE REQUIREMENTS OF CSA A23.1-09 (R2014).
- FORM RELEASE AGENT SHALL BE BIODEGRADABLE, NON-STAINING AND NON-VOLATILE.
- PROVIDE ADEQUATE COLD/HOT WEATHER PROTECTION AS REQUIRED DURING CURING PERIOD.
- PLACE AND SECURE ALL EMBEDDED ANCHORS, WELD PLATES, SLEEVES, BUCKS, DOWELS, INSERTS, WATERSTOPS, ETC., PRIOR TO PLACING CONCRETE. CO-ORDINATE WITH ALL TRADES FOR EMBEDDING OF ALL OTHER, CONDUIT, SERVICES, BLOCKING, ETC.
- LOCATE AND FABRICATE ALL CONSTRUCTION JOINTS, CONTROL JOINTS AND EXPANSION JOINTS AS DETAILED ON THE DRAWINGS. JOINTS NOT SHOWN SHALL BE APPROVED BY THE DESIGN ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
- BONDING AGENTS SHALL BE USED TO ADHERE NEW CONCRETE TO EXISTING CONCRETE OR STEEL. ACCEPTABLE PRODUCT: SIKADUR 32 HI-MOD (EPOXY) OR APPROVED EQUAL.
- THE CONCRETE SUPPLIER SHALL BE CERTIFIED TO MEET THE REQUIREMENTS OF CSA A23.1-09 (R2014).
- THE CONCRETE SUPPLIER SHALL SUBMIT CONCRETE MIX DATA SUBMISSION FORMS FOR EACH TYPE OF CONCRETE SPECIFIED FOR REVIEW PRIOR TO BATCHING ANY CONCRETE.
- CONCRETE STRENGTH TESTS SHALL BE ARRANGED BY THE CONTRACTOR. PROVIDE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH CSA A23.1-14 FOR EVERY 50 CUBIC METERS OF CONCRETE PLACED AND A MINIMUM OF ONE SET PER STRUCTURAL COMPONENT.

CONCRETE MIX DESIGNS:

CONCRETE MIX DESIGN SHALL BE PROPORTIONED TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

EXTERIOR CONCRETE:	
EXPOSURE CLASS	C-1
MIN. 28 DAY COMP. STRENGTH	35 MPa
CEMENT TYPE	GU
MAX. W/C RATIO	0.40
MAX. AGGREGATE SIZE	20mm
ENTRAINED AIR CONTENT	5%-8%

REINFORCING STEEL:

- REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18-09 (R2014). GRADE TO BE 400 MPa.
- REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.
- SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, SPACINGS, LOCATIONS & QUANTITIES OF REINFORCING STEEL, BENDING & CUTTING SCHEDULES, SUPPORTING & SPACING DEVICES, ETC. FOR REVIEW PRIOR TO FABRICATION. DETAIL, FABRICATE AND PLACE REINFORCING IN ACCORDANCE WITH CSA A23.1-09 (R2014), CSA A23.3-14 AND ACI SP-66 (2004) UNLESS NOTED. LAP STEEL 36 BAR DIAMETERS (MINIMUM) UNLESS NOTED.
- LAP BEAM AND STRUCTURAL SLAB TOP REINFORCING AT CENTER SPAN, AND BOTTOM STEEL AT SUPPORTS.
- BEND ALL HORIZONTAL REINFORCING 305mm AROUND CORNERS OR PROVIDE ADDITIONAL 610mm X 610mm ANGLE BARS.
- TIE, SUPPORT AND SPACE ALL REINFORCING STEEL WITH PROPER APPROVED DEVICES DESIGNED FOR USE IN REINFORCED CONCRETE, TO PREVENT DISPLACEMENT OF REINFORCING AND ENSURE SPECIFIED CONCRETE COVER.
- PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
CURBS 75mm

FOR TENDER ONLY
NOT TO BE USED FOR CONSTRUCTION

1	19/02/19	RE-ISSUED FOR TENDER	DRK
0	18/12/21	ISSUED FOR TENDER	PPG DRK
NO.	YY/MM/DD	DESCRIPTION	DESIGN BY / DESIGN CHECK

REVISIONS / ISSUE

Government of Canada / Gouvernement du Canada

PROJECT:
**FOUNDATION INSULATION UPGRADES
FACILITIES BUILDING
381 KELSEY BLVD. CHURCHILL, MB**

DWG DESCRIPTION:
**BUILDING
NOTES**

 KGS GROUP CONSULTING ENGINEERS	DESIGN BY:	PPG	DATE (YY/MM/DD):	18/12/17	
	DESIGN CHECK:	DRK	DATE:	18/12/20	
	DRAWN BY:	SNH	DATE:	18/12/17	
	DWG CHECK:	PPG	DATE:	18/12/20	
DWG. NO.:		18-1447-001 B06		REV:	1

Certificate of Authorization
 KGS Group
 No. 245

AUTHENTICATION FOR CURRENT REVISION
 ENG. STAND.