| BEAM NO. (SEE PLANS) | SIZE | | * TOP REINF AT LEFT SUPPORT | | BOTTOM REINF | | * TOP REINF AT RIGHT SUPPORT | | S BARS | SHEAR REINF | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | D | T | TC | B | BC | T | TC | | NO. (NOTE 5) | SIZE | TYPE | SPACING FROM LEFT SUPPORT | |
| BM1 | 450 | 800 | 3–35M | 3–35M | – | 5–35M | 3–35M | 3–35M | 4–20M | 4 | 15M | 4 LEGGED | @ 150 | |
| BM2 | 450 | 800 | 2–35M | 3–35M | – | 4–35M | 2–35M | 3–35M | 4–20M | 2 | 15M | 2 LEGGED | @ 150 | |
| BM3 | 450 | 800 | – | 3–20M | – | 5–35M | – | 3–20M | 4–20M | 2 | 15M | 2 LEGGED | @ 250 | |
| BM4 | 450 | 800 | – | 4–25M | – | 4–25M | – | 4–25M | 4–20M | 2 | 15M | 2 LEGGED | @ 250 | |
| BM5 | 450 | 800 | – | 3–20M | – | 3–20M | – | 3–20M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |
| BM6 | 450 | 800 | – | 3–20M | – | 4–35M | – | 3–20M | 4–20M | 2 | 10M | 2 LEGGED | @ 150 | |
| BM7 | 450 | 800 | 1–25M | 4–25M | – | 4–25M | 1–25M | 4–25M | 4–20M | 2 | 15M | 2 LEGGED | @ 200 | |
| BM8 | 450 | 800 | – | 3–20M | – | 5–35M | – | 3–20M | 4–20M | 2 | 15M | 2 LEGGED | @ 200 | |
| BM9 | 450 | 800 | – | 3–35M | – | 3–35M | – | 3–25M | 4–20M | 2 | 15M | 2 LEGGED | @ 250 | |
| B10 | 300 | 700 | – | 2–25M | – | 2–30M | – | 2–25M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |
| B11 | 300 | 700 | – | 2–25M | – | 3–25M | – | 2–25M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |
| B12 | 400 | 800 | – | 4–35M | – | 4–30M | – | 4–35M | 4–20M | 2 | 15M | 2 LEGGED | @ 250 | |
| B13 | 300 | 800 | – | 3–35M | – | 3–30M | – | 3–35M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |
| B14 | 300 | 800 | – | 3–15M | – | 4–20M | – | 3–15M | 4–20M | 2 | 10M | 2 LEGGED | @ 300 | |
| B15 | 300 | 1762 | – | 3–35M | – | 5–35M | – | 3–35M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |
| B16 | 400 | 700 | – | 3–20M | – | 3–30M | – | 3–20M | 4–20M | 2 | 10M | 2 LEGGED | @ 250 | |

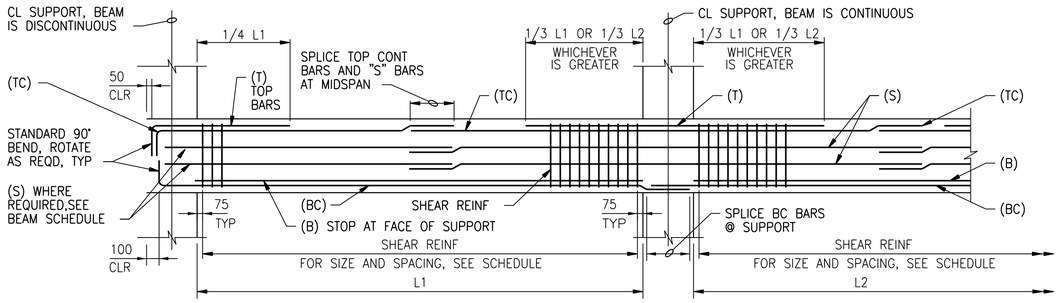
01

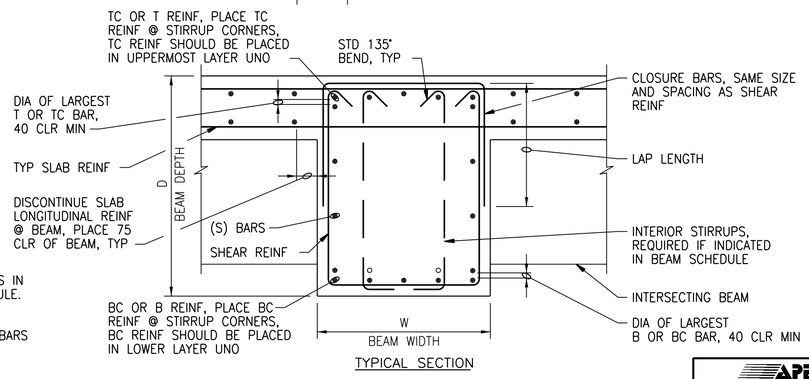
NOTES:

1. * TOP REINFORCING MAY BE CALLED–OUT TWICE IN SCHEDULE. (I.E. "TOP REINFORCING AT RIGHT SUPPORT" OF BEAM THAT IS CONTINUOUS OVER THE RIGHT SUPPORT IS CALLED–OUT AS "TOP REINFORCING AT LEFT SUPPORT" OF ADJACENT BEAM.)
2. LEFT SUPPORT IS DESIGNATED AS THE SUPPORT CLOSEST TO THE LEFT SIDE OR BOTTOM OF SHEET ON WHICH FRAMING PLAN IS DRAWN, UNLESS NOTED OTHERWISE ON PLAN.
3. WHERE FLOOR SLOPES, DEPTH OF BEAM (D) SHOWN IS MINIMUM DEPTH. BOTTOM ELEVATION OF BEAM SHALL BE CONSTANT, UNLESS INDICATED OTHERWISE.
4. WHERE SHEAR REINFORCING "TYPE" IS INDICATED AS "STIRRUP", PROVIDE SHEAR REINFORCING AND CLOSURES AS SHOWN IN BEAM REINFORCING DETAIL. WHERE SHEAR REINFORCING "TYPE" IS INDICATED AS "CLOSED TIE", PROVIDE CLOSED TIES IN LIEU OF STIRRUPS AND CLOSURE BARS.
5. "NO." INDICATES NUMBER OF STIRRUPS OR TIES PER SET.

## BEAM SCHEDULE

NTS



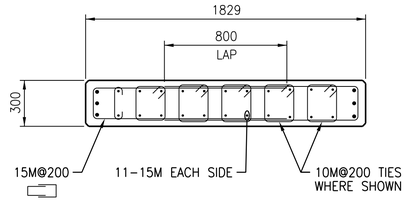

TYPICAL SECTION

NOTES:

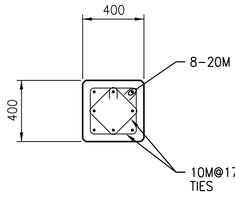
1. PLACE TOP (T & TC) AND BOTTOM (B & BC) BARS IN MULTIPLE ROWS ONLY WHERE INDICATED IN SCHEDULE.
2. WHEN INDICATED IN BEAM SCHEDULE, SUBSTITUTE CLOSED TIES ( ) FOR STIRRUPS AND CLOSURE BARS SHOWN ( ).
3. PROVIDE MINIMUM 1 – 15M CONTINUOUS AT EACH CORNER OF STIRRUPS.

## BEAM REINFORCING

NTS




COLUMN C1

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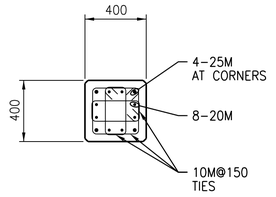


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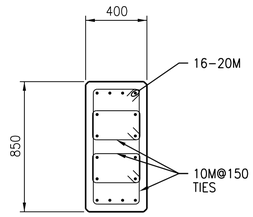


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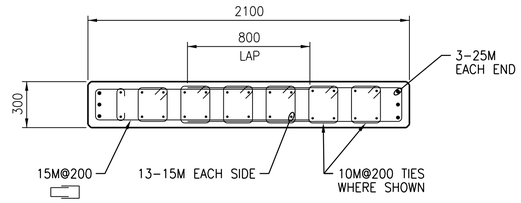
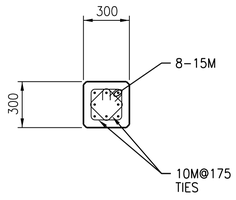


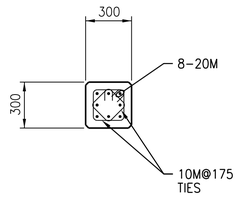

COLUMN C5



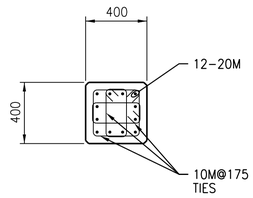

COLUMN C6

## COLUMN REINFORCING SCHEDULE

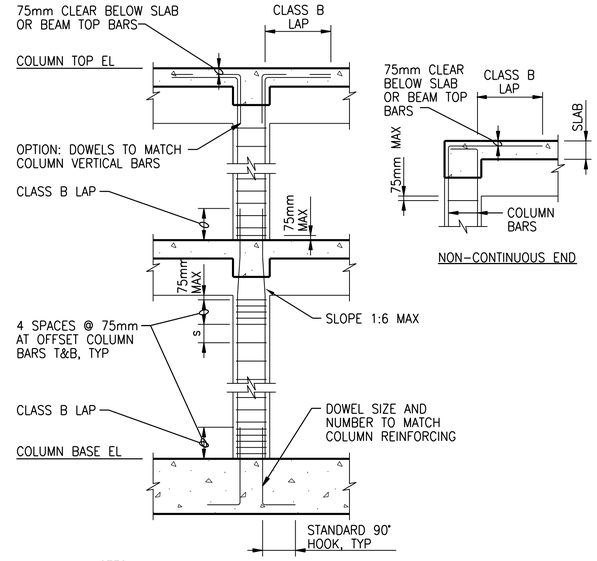
NTS




COLUMN C7




COLUMN C8




NOTES:

1. FOR COLUMN DIMENSIONS AND REINFORCING SEE COLUMN SCHEDULE.
2. "s" = TIE SPACING.
3. FOR BEAM DIMENSIONS AND REINFORCING SEE BEAM SCHEDULE.

## COLUMN REINFORCING

NTS

APEGM
Certificate of Authorization
CH2M HILL Canada Ltd.
No. 1441

| NO. | REVISIONS | DATE | DESIGN | CHECK |
|---|---|---|---|---|
| 01 | ISSUED FOR ADD. 2 – B.O. 899–2015 | 02/2016 | G.O. | J.C. |
| 00 | ISSUED FOR TENDER – B.O. 899–2016 | 01/2016 | G.O. | J.C. |

CH2MHILL
SNC·LAVALIN
KGS GROUP CONSULTING ENGINEERS

DESIGNED BY: A. THAKKAR
CHECKED BY: E. LUI
DRAWN BY: G. OMORI
APPROVED BY: H.T. FREIHAMMER
SCALE: NTS
ISSUED FOR CONSTRUCTION BY: T. TURZAK
DATE: 2016/01/29
DATE: 2016/01/29
CONSULTANT NO.: 474248

ENGINEER'S SEAL
24/03/2016
PROVINCE OF MANITOBA
S.L.E. LUI
Member 37003
REGISTERED PROFESSIONAL ENGINEER

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
STRUCTURAL
SECONDARY CLARIFIERS 4 AND 5
COLUMN AND BEAM SCHEDULE

| CITY DRAWING NUMBER | SHEET | REV. | SIZE |
|---|---|---|---|
| 1–0102–SSCH–S001 | 001 | 01 | A1 |

PLOT DATE: 2016\02\25
FILE NAME: