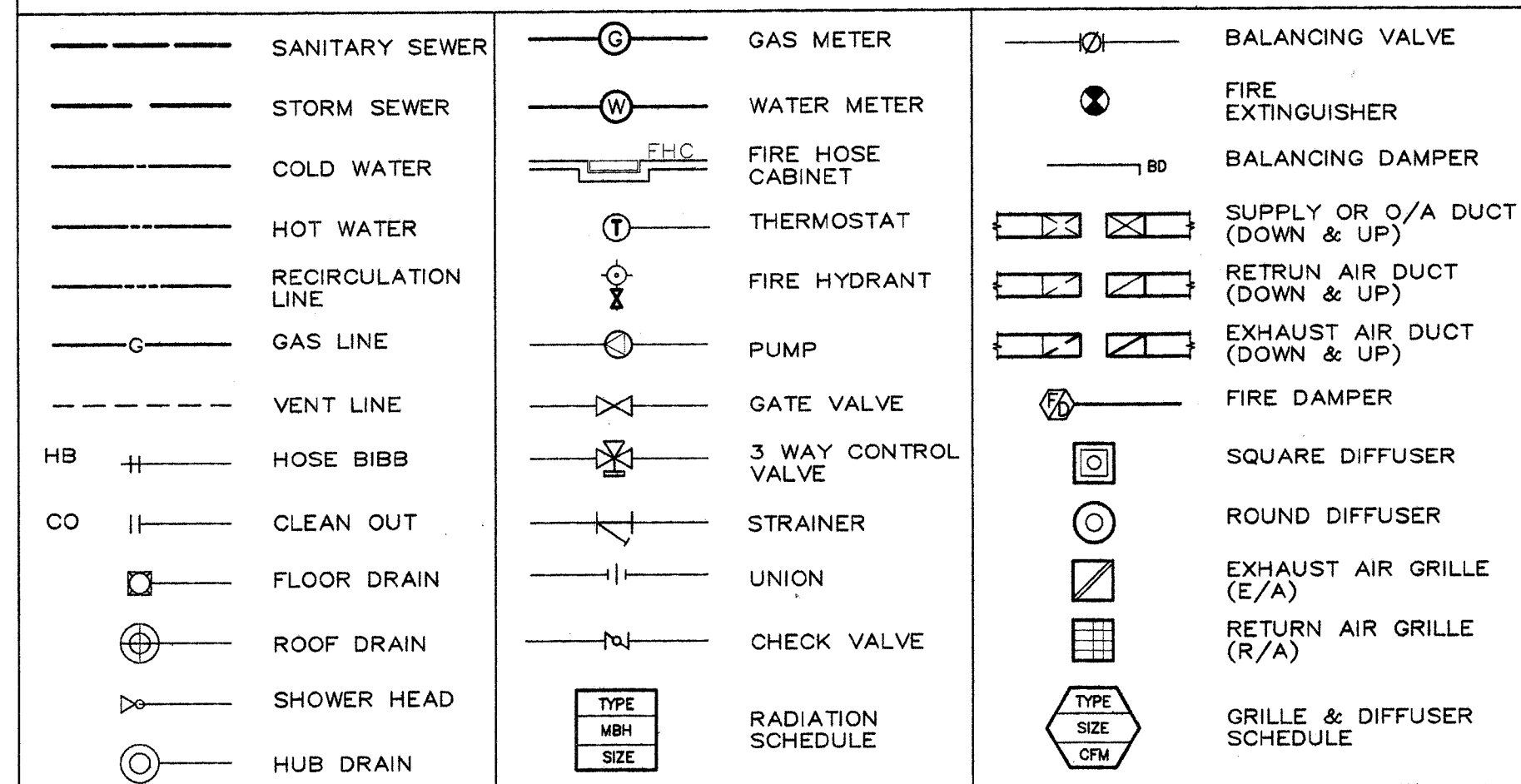


LEGAL DESCRIPTION

LOT 15
BLOCK 2
PLAN 932-3577
EDMONTON, ALBERTA

MECHANICAL LEGEND



GAS EQUIPMENT SCHEDULE

| EQUIPMENT | INPUT (CFH) |
|-------------------|-------------------|
| B-1 & B-2 | 2 @ 2000 4000 |
| MU-1 | 1 @ 3713 3713 |
| MU-2 & MU-3 | 2 @ 446 892 |
| FIREPLACE | 82 @ 20 1640 |
| TOTAL LOAD | 10 245 CFH |

THE MARQUEE

TOTAL AREA: 70,482 SQ.FT. 1.62 ACRES = 0.65 HA
 1. GRASS: 31,300 SQ.FT. 2,908 SQ.M = 0.291 HA
 2. PAVED: 13,580 SQ.FT. 1,262 SQ.M = 0.128 HA
 3. ROOF: 25,600 SQ.FT. 2,378 SQ.M = 0.238 HA
 PRESENT RUNOFF OF STORM WATER BASED ON 0.5 CF/A MAX.
 OUTFLOW RATE: 0.5 C.F.S/A x 1.62 ACRES = 0.81 C.F.S. (0.023 C.M.S.)

COMBINED RUNOFF COEFFICIENT:

$$\frac{0.291HA \times 0.1 + 0.128HA \times 0.9 + 0.238HA \times 0.9}{0.65HA} = 0.549$$

STORAGE VOLUME REQUIRED IN CUBIC METERS/HA TO RETAIN PRE-DEVELOPMENT RATE OF OUTFLOW, BASED ON 100 YEAR STORM, 4 HOUR CHICAGO DISTRIBUTION IS:
 121 C.M./HA x 0.65HA = 78.7 C.M.

DESIGNED DEPTH OF PONDING: 0.30 M

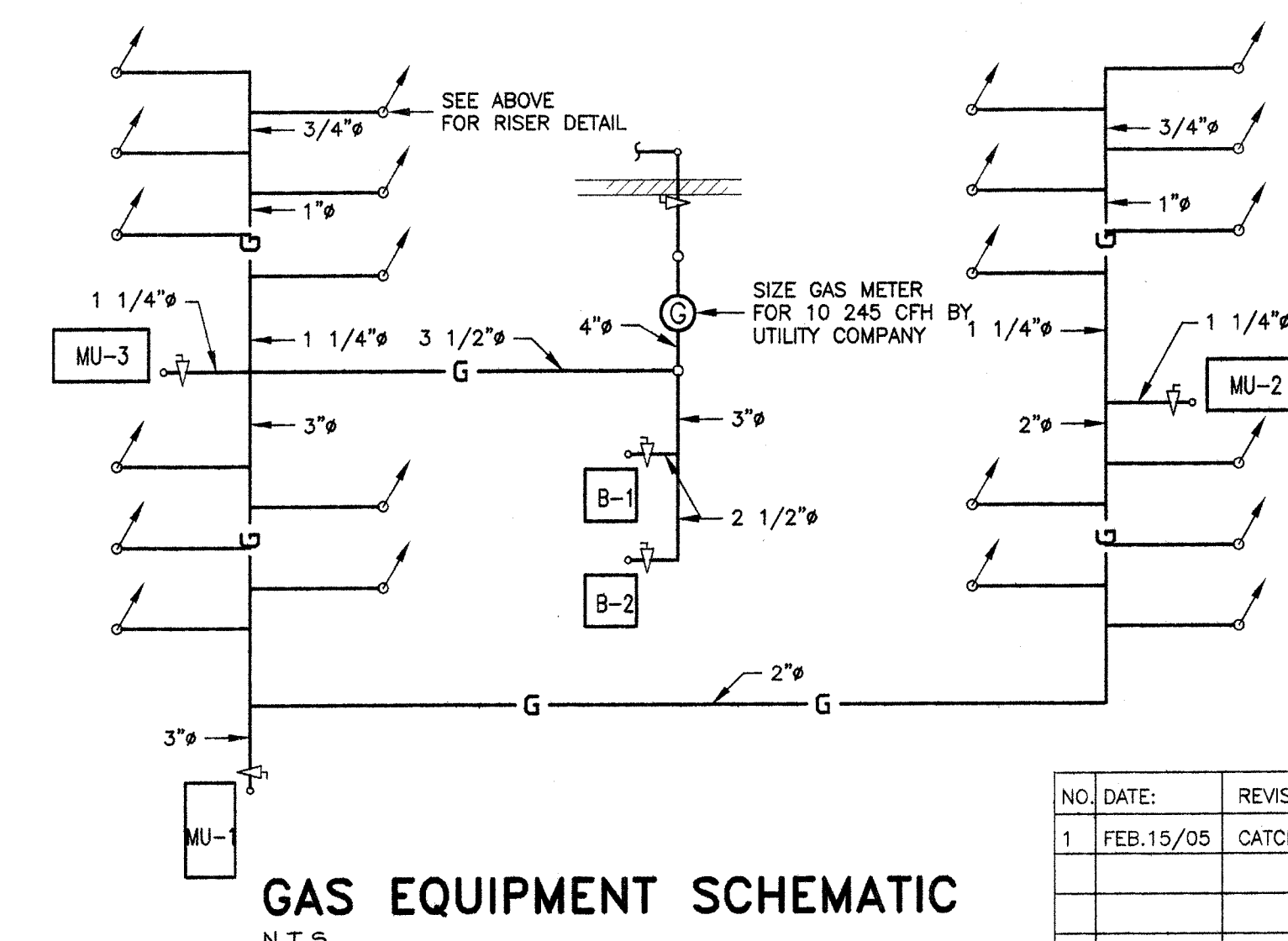
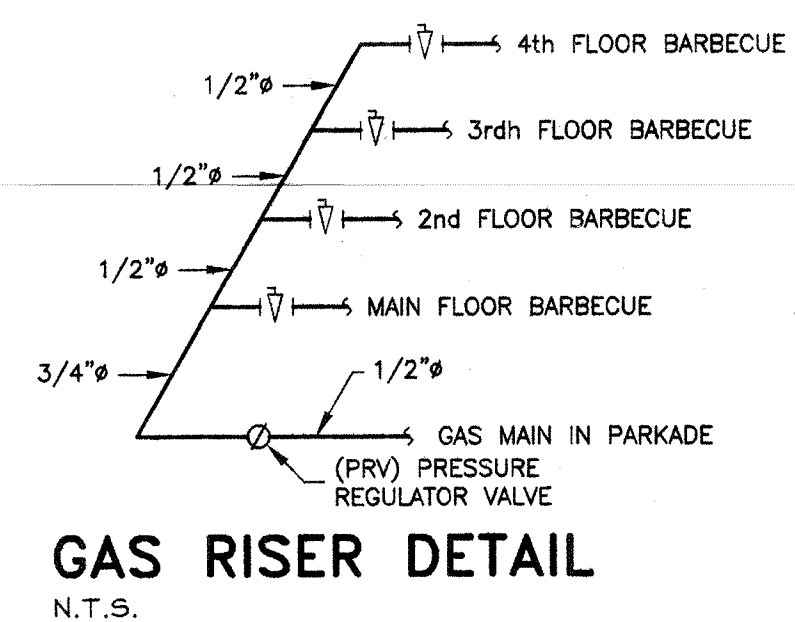
TOTAL AREA OF PONDING REQUIRED: $\frac{78.7 \times 3}{0.3} = 787 \text{ SQ.M. (8471 SQ.FT.)}$

ORIFICE REQUIRED:

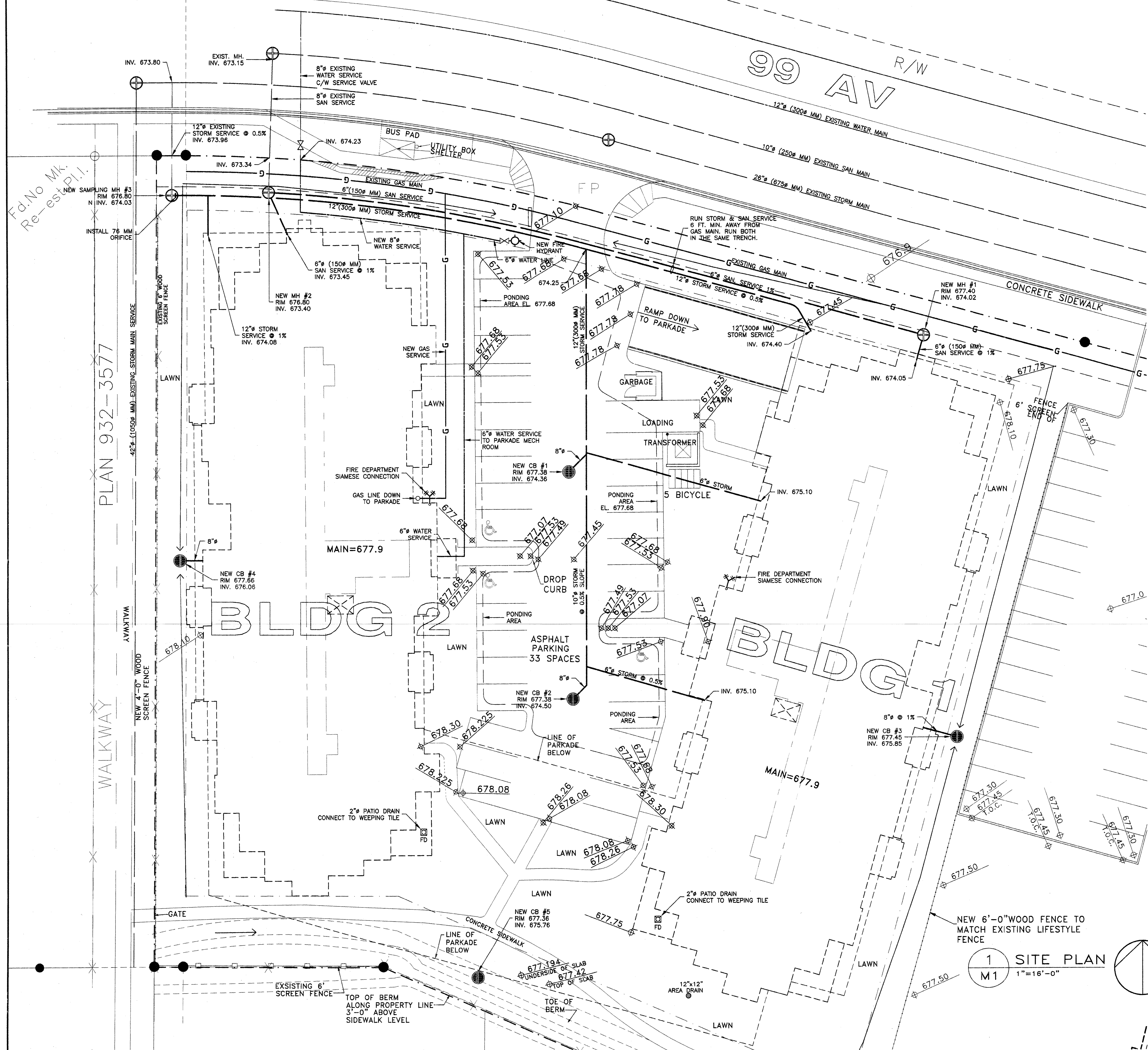
$$A = \frac{Q \times \text{AREA}}{0.61 \times \sqrt{2GH}} = \frac{0.5 \text{ C.F.S./ACRE} \times 1.62 \text{ ACRE}}{0.61 \times \sqrt{2 \times 32.2 \times 12}} = 0.048 \text{ FT.}$$

$$D = \frac{\sqrt{4 \times 0.048}}{3.14} = 0.25 \text{ FT.}$$

INSTALL ORIFICE 3.0 INCHES DIA. (76 MM) IN SAMPLING MH

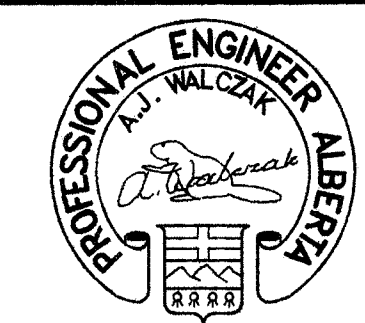


| NO. | DATE: | REVISION: |
|-----|-----------|----------------------|
| 1 | FEB.15/05 | CATCH BASIN #5 ADDED |



CARRINGTON - THE MARQUEE

PERMIT TO PRACTICE
 AGN ENGINEERING LTD.
 Signature: *A. Walman*
 Date: FEBRUARY 9, 2005
 Permit NUMBER: P08434
 The Association of Professional Engineers, Geologists and Geophysicists of Alberta



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 FAX: 780-437-5633



DRAWN: MA
 CHKD: AW
 DATE: 02/09/05
 SCALE: 1/16"=1'0"
 FILE NAME: 612M1.DWG

05-612 MECHANICAL SITE PLAN

M1
 OF 8