



**MANUALLY OPERATED VALVES**

BALL VALVES  
 OPEN CLOSED  
 ALL OTHER VALVES  
 OPEN CLOSED

**ACTUATED VALVES**

A-AUTOMATIC  
 H-HYDRAULIC  
 E-ELECTRIC  
 L-LOCAL  
 G-GAS  
 R-REMOTE

**INSTRUMENTATION (TO BS5461)**

FIELD  
 A-ALARM  
 C-CONTROL  
 D-DENSITY  
 F-FLOW  
 P-POSITION  
 I-INDICATOR  
 P-PRESSURE  
 T-TEMPERATURE  
 REMOTE

**GENERAL SYMBOLS**

D- DRAIN  
 F- FILTER  
 HE- HEAT EXCHANGER  
 I- INSULATED JOINT  
 PR- PRESSURE REGULATOR  
 TW- THERMOWELL ONLY  
 V- VENT

**LEGEND**

EXISTING PIPEWORK/EQUIPMENT  
 NEW PIPEWORK/EQUIPMENT

REFERENCE DRAWING  
318364AA/BE/03/01/0000/002 GENERAL ARRANGEMENT

ALL LEVELS IN METRES  
ALL DIMENSIONS IN MILLIMETRES  
UNLESS OTHERWISE STATED  
DO NOT SCALE

EXISTING INFORMATION ON THIS DRAWING HAS BEEN TAKEN FROM NORTHERN GAS NETWORKS DRAWING 4202/GD-311 REV. E

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**ESTABLISH**

**Mott MacDonald**

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CAD FILES: 318364m001.cad

CLIENT

**Northern Gas Networks**

PROJECT

**CROSSGATES HOLDER STATION PRE-HEATING UPGRADE**

TITLE

**ENGINEERING LINE DIAGRAM**

SHEET ONE OF ONE SCALE: N.T.S.  
 DATE: 16-02-13  
 BY: J.F. M.P.  
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 APPROVED: J.F. M.P.  
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