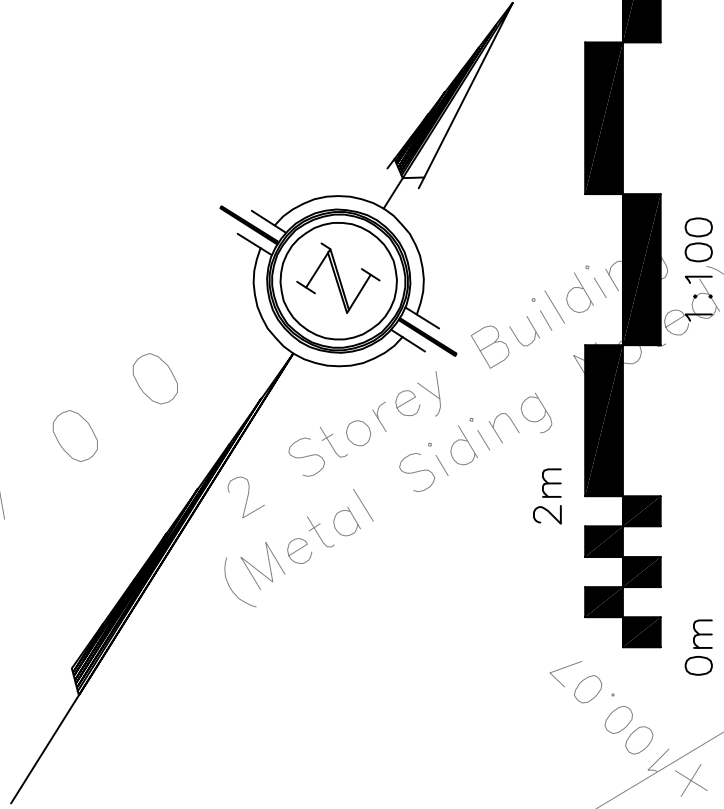


REFER TO NOTES, DETAILS &  
SCHEDULES ON DRAWINGS C-8 & C-9

ON-SITE SEWAGE SYSTEM  
TOTAL DAILY SEWAGE FLOW:  
OFFICE AREAS:  
16 EMPLOYEES x 75 L/DAY PER EMPLOYEE = 1,200 L/DAY  
OR  
107 m<sup>2</sup> OF OFFICES x 75 L/DAY PER 9.3 m<sup>2</sup> = 863 L/DAY  
PLUS  
WAREHOUSE AREAS:  
4 LOADING BAYS x 150 L/DAY PER BAY = 600 L/DAY  
TOTAL:  
OFFICE AREAS (1,200 L/DAY) + WAREHOUSE AREAS (600 L/DAY) = 1,800 L/DAY



FORCEMAINS SHALL BE  
50mm PVC SCH 40 PIPE.  
INSTALL INSULATION OVER  
ALL SEPTIC SYSTEM PIPES  
SEWERS & OTHER SEPTIC  
SYSTEM PIPES AS PER  
DETAILS ON C-5

ALL TANKS AND CHAMBERS SHALL BE INSTALLED WITH ±500mm COVER; INSULATE TOP  
AND EXTEND 1200mm DOWN SIDES WITH MIN. 100mm TYPE SM HI-40 STYROFOAM

WATERLOO BIOFILTER ANAEROBIC DIGESTER WITH INTERNAL PUMP CHAMBER: BOYD BROS.  
ADPC-6000 TANK; C/W INNERTUBE PIPE (MIN. VOLUME 400 L), HIGHWATER ALARM,  
RISER & COVER ASSEMBLIES, C/W PUMP (LIBERTY 280-2 EFFLUENT PUMP OR APPROVED  
EQUAL), 'WATERLOO SMART PANEL' CONTROL PANEL (TIME DOSE TO BIOFILTER TANK 6  
-10 L PER m<sup>3</sup> FOAM), INLINE FILTER, HIGHWATER ALARM, RISER & COVER ASSEMBLIES.

WATERLOO BIOFILTER: BOYD BROS., BFCN-4800 TREATMENT UNIT, C/W MINIMUM 3.0 m<sup>3</sup>  
FOAM FILTER MEDIA (OR AS RECOMMENDED BY MANUFACTURER), PUMP (LIBERTY 280-2  
EFFLUENT PUMP OR APPROVED EQUAL CONTROLLED BY THE 'WATERLOO SMART PANEL'),  
INLINE FILTER, HIGHWATER ALARM, RISER & COVER ASSEMBLIES. THE PUMP SHALL DOSE  
THE WATERNOX NITRATE REDUCTION TANK AND RECIRCULATE TO ANAEROBIC DIGESTER.

WATERNOX-LS 4,800 L TWO COMPARTMENT NITRATE REDUCTION TANK TO WATERLOO  
BIOFILTER SPECIFICATIONS C/W LIME-SULFUR AGGREGATE MEDIA, PUMP (LIBERTY 280-2  
EFFLUENT PUMP OR APPROVED EQUAL), HIGHWATER ALARM, RISER & COVER  
ASSEMBLIES. PUMP TO DEMAND DOSE DISPERSAL BED.

TYPE 'A' DISPERSAL BED  
75mm DISTRIBUTION PIPES  
4" x 2.5m RUNS AT 1.2m CENTERS  
300mm STONE LAYER: 25.2 sq.m.  
(25.2 sq.m. = 4.5m x 5.6m)  
U/S OF STONE LAYER ELEVATION: 99.14  
(±880mm ABOVE GROUNDWATER ELEVATION)  
300mm SAND LAYER: 200 sq.m.  
INC. MANTLE  
(200 sq.m.: 8.5m x 21.4m TO 25.7m)

OVERSIZED DISTRIBUTION BOX  
WITH A VELOCITY REDUCTION  
TEE OR BAFFLE. ANCHOR  
DISTRIBUTION BOX.

\*SLOPE FORCEMAIN BACK  
TO PUMP CHAMBER

5m-100  
SAN @ 1%

INV 98.55

INV 98.50

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

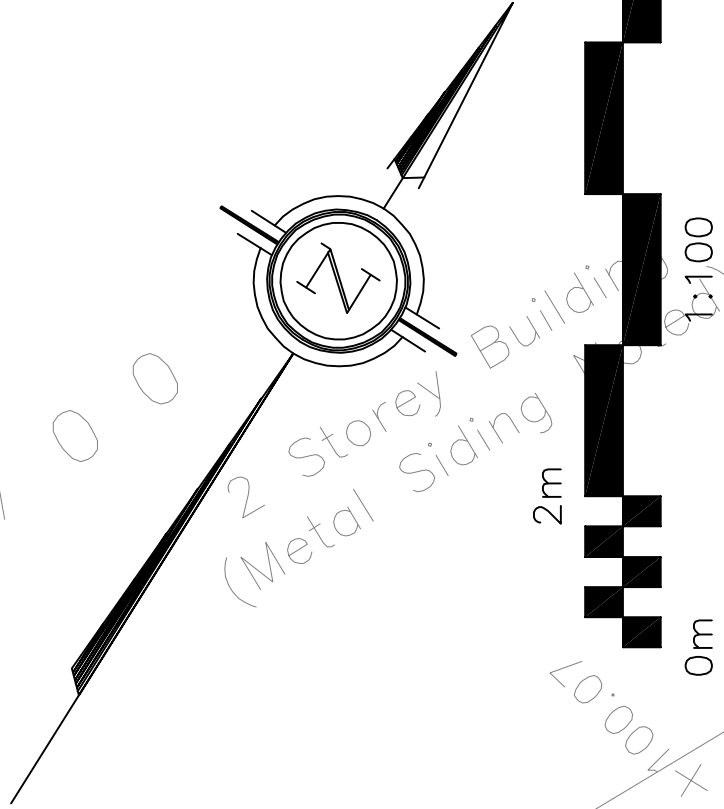
INV 98.25

INV 98.25

INV 98.25

REFER TO NOTES, DETAILS &  
SCHEDULES ON DRAWINGS C-8 & C-9

ON-SITE SEWAGE SYSTEM  
TOTAL DAILY SEWAGE FLOW:  
OFFICE AREAS:  
16 EMPLOYEES x 75 L/DAY PER EMPLOYEE = 1,200 L/DAY  
OR  
107 m<sup>2</sup> OF OFFICES x 75 L/DAY PER 9.3 m<sup>2</sup> = 863 L/DAY  
PLUS  
WAREHOUSE AREAS:  
4 LOADING BAYS x 150 L/DAY PER BAY = 600 L/DAY  
TOTAL:  
OFFICE AREAS (1,200 L/DAY) + WAREHOUSE AREAS (600 L/DAY) = 1,800 L/DAY



FORCEMAINS SHALL BE  
50mm PVC SCH 40 PIPE.  
INSTALL INSULATION OVER  
ALL SEPTIC SYSTEM PIPES  
SEWERS & OTHER SEPTIC  
SYSTEM PIPES AS PER  
DETAILS ON C-5

ALL TANKS AND CHAMBERS SHALL BE INSTALLED WITH ±500mm COVER; INSULATE TOP  
AND EXTEND 1200mm DOWN SIDES WITH MIN. 100mm TYPE SM HI-40 STYROFOAM

WATERLOO BIOFILTER ANAEROBIC DIGESTER WITH INTERNAL PUMP CHAMBER: BOYD BROS.  
ADPC-6000 TANK; C/W INNERTUBE PIPE (MIN. VOLUME 400 L), HIGHWATER ALARM,  
RISER & COVER ASSEMBLIES, C/W PUMP (LIBERTY 280-2 EFFLUENT PUMP OR APPROVED  
EQUAL), 'WATERLOO SMART PANEL' CONTROL PANEL (TIME DOSE TO BIOFILTER TANK 6  
-10 L PER m<sup>3</sup> FOAM), INLINE FILTER, HIGHWATER ALARM, RISER & COVER ASSEMBLIES.

WATERLOO BIOFILTER: BOYD BROS., BFCN-4800 TREATMENT UNIT, C/W MINIMUM 3.0 m<sup>3</sup>  
FOAM FILTER MEDIA (OR AS RECOMMENDED BY MANUFACTURER), PUMP (LIBERTY 280-2  
EFFLUENT PUMP OR APPROVED EQUAL CONTROLLED BY THE 'WATERLOO SMART PANEL'),  
INLINE FILTER, HIGHWATER ALARM, RISER & COVER ASSEMBLIES. THE PUMP SHALL DOSE  
THE WATERNOX NITRATE REDUCTION TANK AND RECIRCULATE TO ANAEROBIC DIGESTER.

WATERNOX-LS 4,800 L TWO COMPARTMENT NITRATE REDUCTION TANK TO WATERLOO  
BIOFILTER SPECIFICATIONS C/W LIME-SULFUR AGGREGATE MEDIA, PUMP (LIBERTY 280-2  
EFFLUENT PUMP OR APPROVED EQUAL), HIGHWATER ALARM, RISER & COVER  
ASSEMBLIES. PUMP TO DEMAND DOSE DISPERSAL BED.

TYPE 'A' DISPERSAL BED  
75mm DISTRIBUTION PIPES  
4" x 2.5m RUNS AT 1.2m CENTERS  
300mm STONE LAYER: 25.2 sq.m.  
(25.2 sq.m. = 4.5m x 5.6m)  
U/S OF STONE LAYER ELEVATION: 99.14  
(±880mm ABOVE GROUNDWATER ELEVATION)  
300mm SAND LAYER: 200 sq.m.  
INC. MANTLE  
(200 sq.m.: 8.5m x 21.4m TO 25.7m)

OVERSIZED DISTRIBUTION BOX  
WITH A VELOCITY REDUCTION  
TEE OR BAFFLE. ANCHOR  
DISTRIBUTION BOX.

\*SLOPE FORCEMAIN BACK  
TO PUMP CHAMBER

5m-100  
SAN @ 1%

INV 98.55

INV 98.50

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

INV 98.25

LEGEND

- FEL FIRST FLOOR ELEVATION
- TOF TOP OF FOUNDATION
- USF UNDERSIDE OF FOOTING
- PROPERTY LINE
- CB CATCH BASIN
- CB/MH CATCH BASIN/MANHOLE
- MH SANITARY MANHOLE
- SAN SANITARY SEWER
- ST --- STORM SEWER
- WL WATER LINE
- INV INVERT OF PIPE
- T.O.S. --- TOP OF SLOPE
- B.O.S. --- BOTTOM OF SLOPE
- CENTERLINE OF SWALE
- 150mm BARRIER CURB
- D.C. DEPRESSED CURB

KEY PLAN



| No. | DATE      | REVISION                        |
|-----|-----------|---------------------------------|
| 7   | SEP 29-25 | RE-ISSUED FOR APPROVAL          |
| 6   | JUL 30-25 | RE-ISSUED FOR APPROVAL          |
| 5   | JUN 30-25 | ISSUED TO OSO FOR SEPTIC PERMIT |
| 4   | MAR 24-25 | RE-ISSUED FOR APPROVAL          |
| 3   | MAR 6-25  | RE-ISSUED FOR APPROVAL          |
| 2   | JAN 13-25 | ISSUED FOR APPROVAL             |
| 1   | DEC 18-24 | ISSUED FOR COORDINATION         |

D.B. GRAY ENGINEERING INC.  
Sewerage Management Consulting & Planning • Storm & Sanitary Sewers • Foundations  
700 Long Point Circle  
Ottawa, Ontario  
d.gray@dbgrayengineering.com  
613-425-8044

Project  
PROPOSED  
1-STORY BUILDING  
1386-1394 GREELY LANE  
GREELY, ONTARIO

Drawing Title  
SEPTIC SYSTEM

Engineer's Seal  
D.B. GRAY  
116,650  
SEP 29-25  
PROVINCE OF ONTARIO  
LICENSED PROFESSIONAL ENGINEER

Drawn: D.B.G.  
H. Scale: 1:100  
V. Scale: 1:10  
Date: SEP 20-24  
Job No.: 24013

Drawing No.:  
C-2  
of 9  
NOT VALID UNLESS  
SIGNED & DATED