

WENTWORTH LANDSCAPES

Lot 38 McDonald Drive, Picton

STORMWATER MANAGEMENT BRIEF

JOSELYN ENGINEERING INC.

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July 11, 2022.

JEI Project 1570

1 Introduction

The purpose of this analysis is to review the proposed grading and drainage of the proposed development on Lot 38 within the Prince Edward Industrial Park and ensure that it is in general conformance with the recommendations of the Stormwater Management Report prepared by Greer Galloway Group Inc., dated January 2010.

2 Existing Site Conditions and Drainage

The site is presently vacant, and drains generally easterly to the existing stormwater management facility.

McDonald Drive is constructed to a rural standard, with roadside ditches for drainage. Sanitary Sewer is to be provided to the property by the municipality, and water is readily available for this site.

The subject site is within the study area of the Prince Edward Industrial Park that was prepared for the County of Prince Edward Public Works Department for the North. The location of the subject property is within Areas 3 and 4 described in the report.

3 Stormwater Management

The intent of the overall stormwater design was to provide quality and quantity control for the industrial development to minimize the impact of the existing and future development.

In general, the conveyance of post development runoff from the overall park development is to be overland, through a series of side and rear lot swales/ditches, road ditches and culvert crossings. Runoff quality and quantity treatment/control is achieved through the existing linear detention/retention pond located on municipal property at the rear of the subject site.

A notched weir controls the discharge of the pond to the swale along Lot 37 before it enters the road side ditch at MacStevens Drive. The proposed pond outlet structure is a 2 stage, rectangular, notched weir designed to maximize detention times for higher frequency, shorter duration storms, while reducing runoff volumes and limiting

peak flows to below predevelopment rates for storms up to and including the 100, 24 Hour Chicago Storm.

The proposed grading plan for the industrial park is provided as Appendix A. This plan has been used as a guide as part of the County's site plan approval process.

4 Proposed Development

The proposed development within the 0.44ha parcel consists of a 542m² industrial building, 833m² asphalt parking and 1968m² of gravel area.

The drainage and grading of the site is in accordance with the overall grading plan (Appendix A). The drainage from the site is directed to the northerly and southerly property limits, a small portion of the site shall discharge directly to the existing stormwater facility to the east. The proposed Grading Plan is provided as Appendix B for reference.

It is noted that the adjacent sites are currently vacant and therefore no lot line swales currently exist. As part of this development the southerly swale shall be constructed along the property limit, grading within the adjacent site is necessary in order to construct the swale. Along the northerly limit the proposed grade has been sloped down to fit existing along the lot line. As the adjacent lot is developed and presumably built up from existing grade a common swale will be created. In the interim condition drainage will flow toward the existing pond as intended.

The gravel area of the site shall be used for vehicle access and bulk storage of landscape materials. The landscape materials are to be contained on three sides with jersey barricades in order to prevent sediment from entering the side yard swales. As an additional measure of pre-treatment, a pea gravel diaphragm shall be provided along the perimeter of the gravel area to attenuate and filter runoff prior to entering the swale.

5 Conclusions

This report demonstrates that the proposed development is in general accordance with the recommendations of the Stormwater Management Report prepared by Greer Galloway Group Inc., dated January 2010. The grading and drainage of the proposed development shall be directed to the existing stormwater management facility for the purpose of quality and quantity control of post development flows.

APPENDIX A

Grading Plan and Site Plan
prepared by Greer Galloway Group Inc

Notes

1. Do not scale drawings.

LEGEND

- H HYDRO POLE
- AN GUY WIRE ANCHOR
- MH MAINTENANCE HOLE
- CB CATCH BASIN
- FH FIRE HYDRANT
- WV WATER VALVE
- SB PROPERTY BAR
- SANITARY CLEANOUT
- 92.933 EX. ELEVATION
- 99.000 PROP. ELEVATION
- 99.00 PROP. SWALE ELEVATION
- 99.00 AS CONST. ELEVATION
- 94.11 PROP. GRADE @ BUILDING
- 1.8 M CLF
- ▶ DRAINAGE DIRECTION ARROW

Issued

| No. | Date | Subject |
|-----|-----------|------------------------|
| 1 | DEC 22/09 | C of A SUBMISSION |
| 2 | MAY 27/10 | MCE REVISIONS |
| 3 | MAY 27/10 | SEPARATION BERM ADDED |
| 4 | AUG 30/10 | SOUTH POND OFFSET REV. |
| 5 | FEB 1/11 | AS BUILT. |

Project Name

PICTON INDUSTRIAL PARK

Drawing Name

SITE PLAN

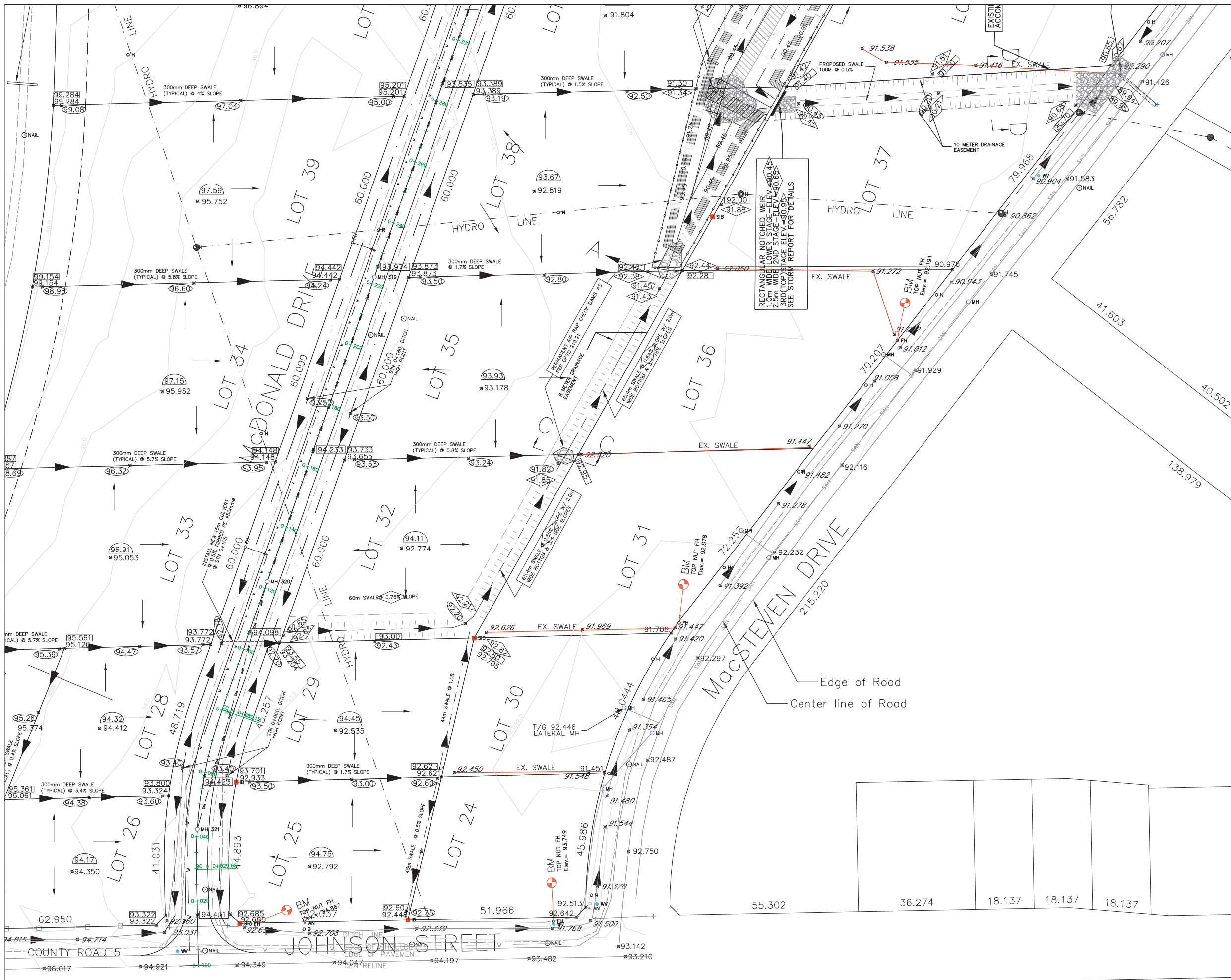
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1: 100 (V)

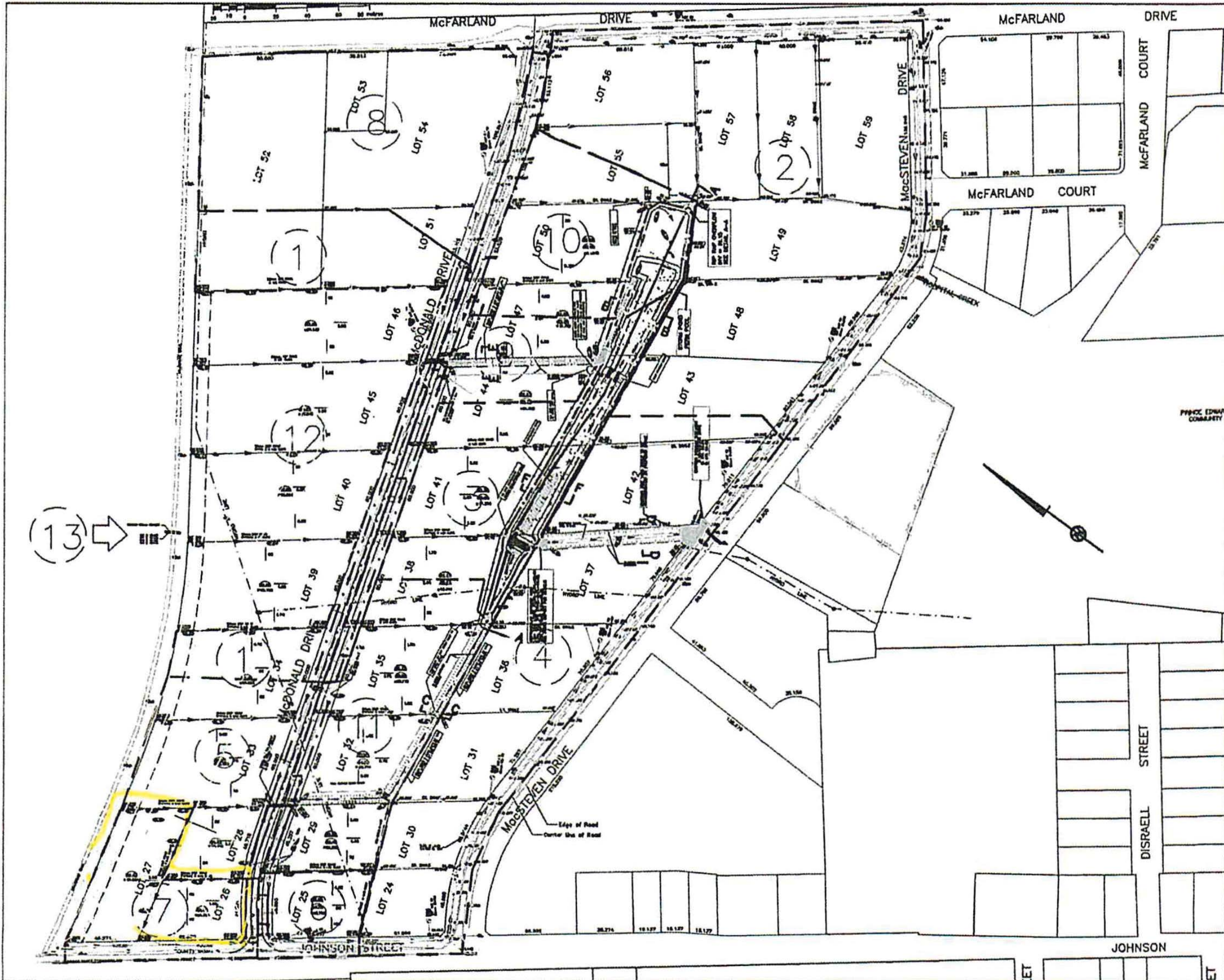
Drawn By Date
BAS JAN. 2009

Checked By Date
CW JAN. 2009

Printed
JAN. 2009

Project Number Drawing Number
09-3-5191 5191-03





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- Notes
- Do not scale drawings.
- LEGEND**
- H HYDRO POLE
 - AN GUY WIRE ANCHOR
 - MH MAINTENANCE HOLE
 - CB CATCH BASIN
 - FH FIRE HYDRANT
 - WV WATER VALVE
 - PB PROPERTY BARR
 - SC SANITARY CLEANOUT
 - EL ELEVATION
 - PE PROP. ELEVATION
 - SW PROP. SWALE ELEVATION
- 1.8 M CUR
- (13) DRAINAGE AREA ID
- ▶ DRAINAGE DIRECTION ARROW

Issued

| No. | Date | Subject |
|-----|-----------|-------------------|
| 1 | DEC 21/09 | O of A SUBMISSION |
| 2 | MAY 27/10 | MOE REVISIONS |

Project Name
PICTON INDUSTRIAL PARK

Drawing Name
SITE PLAN

Scale
 1: 1000 (H)
 1: 100 (V)

Drawn By
 BAS JAN 2009

Checked By
 CW JAN 2009

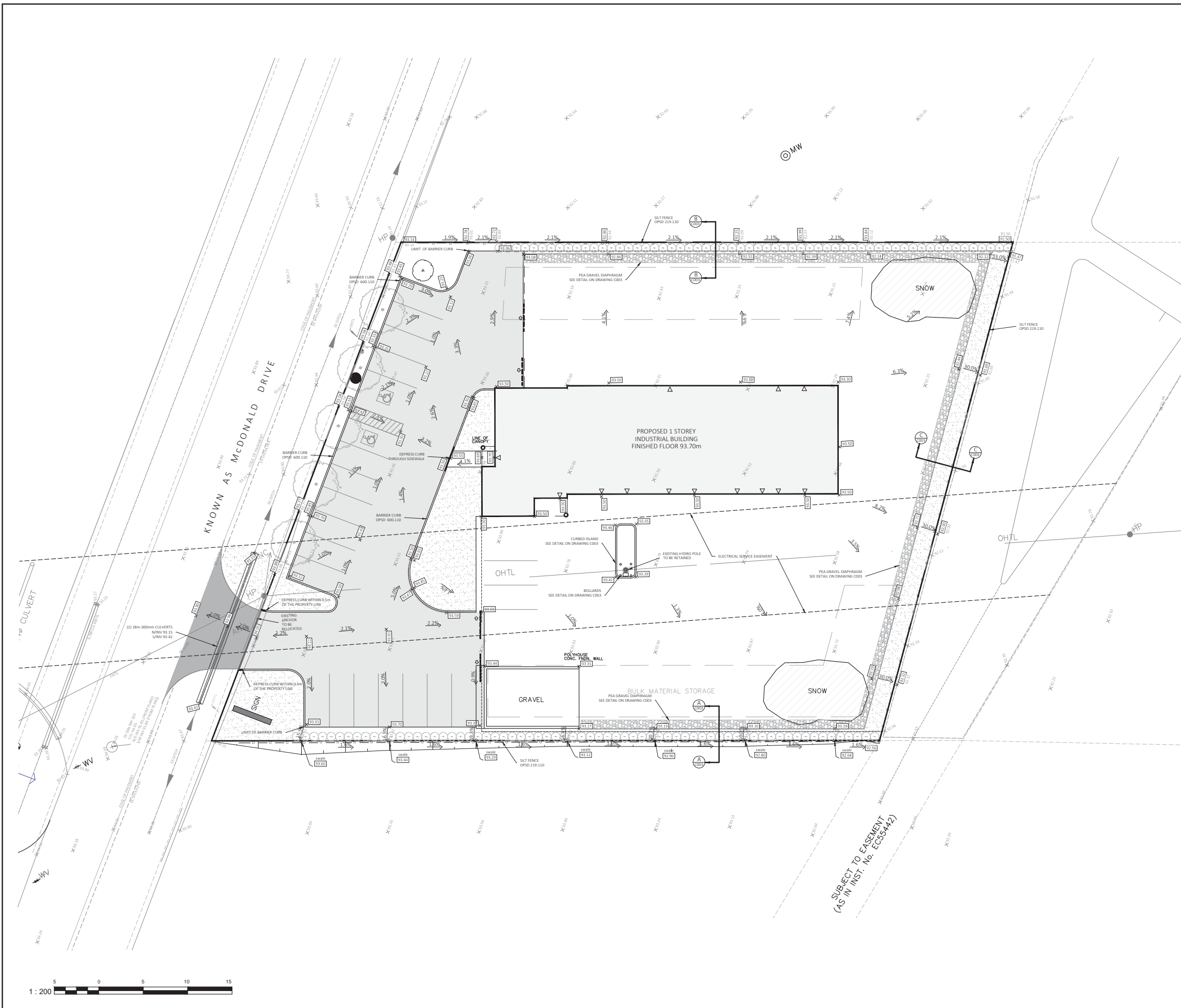
Printed
 JAN 2009

Project Number
 09-3-5191

Drawing Number
 5191-05

APPENDIX B

Grading Plan



| LEGEND | EXISTING | PROPOSED |
|--|----------|--------------------------|
| NOT IN CONTRACT | N.I.C. | N.I.C. |
| SHOULDER | --- | --- |
| PAVEMENT | --- | --- |
| CONCRETE CURB TYPE | --- | --- |
| DITCH | --- | --- |
| STORM SEWER & MANHOLE WITH DIRECTION OF FLOW | --- | --- |
| SAN. SEWER & MANHOLE WITH DIRECTION OF FLOW | --- | --- |
| WATERMAIN AND VALVE CHAMBER | --- | --- |
| GAS METER LOCATION | --- | --- |
| GAS MAIN | --- | --- |
| CULVERT | --- | --- |
| BELL TELEPHONE CONDUIT | --- | --- |
| BELL CANADA PEDESTAL | --- | --- |
| OVERHEAD STREETLIGHT WIRING | --- | --- |
| HYDRO CONDUIT | --- | --- |
| HYDRO METER LOCATION | --- | --- |
| TRANSFORMER VAULT ON CONC. PAD | --- | --- |
| SWITCHGEAR | --- | --- |
| HYDRO STREET LIGHTING CONDUIT | --- | --- |
| SINGLE CATCH BASIN | --- | --- |
| DITCH INLET CATCH BASIN | --- | --- |
| TWIN INLET CATCH BASIN | --- | --- |
| CATCH BASIN MANHOLE | --- | --- |
| HYDRANT & VALVE BOX | --- | --- |
| BELL UTILITY POLE & ANCHOR | --- | --- |
| HYDRO UTILITY POLE & ANCHOR | --- | --- |
| STREET LIGHT | --- | --- |
| TREES | --- | --- |
| PROPERTY BOUNDARY | --- | --- |
| CENTRE LINE | --- | --- |
| EASEMENT | --- | --- |
| CODED PEDESTAL | --- | --- |
| CODED CABLE | --- | --- |
| EXISTING | --- | --- |
| ROCK | --- | --- |
| STOP SIGN | --- | --- |
| STREET SIGN | --- | --- |
| FENCE | --- | --- |
| SILT FENCE | --- | --- |
| LOCATION OF TEST PITS | --- | --- |
| BENCH MARK LOCATION | --- | --- |
| COMMUNITY MAILBOX | --- | --- |
| THRUST BLOCK | --- | --- |
| EXISTING GRADE | --- | --- |
| PROPOSED GRADE | --- | --- |
| DRAINAGE DIRECTION | --- | --- |
| DOOR | --- | --- |
| ROOF DOWN SPOUT | --- | --- |
| HEAVY DUTY ASPHALT | --- | --- |
| LIGHT DUTY ASPHALT | --- | --- |
| T/WALL | --- | --- |
| B/WALL | --- | --- |
| | --- | TOP OF RETAINING WALL |
| | --- | BOTTOM OF RETAINING WALL |

| No. | By | Date | Revision | Checked |
|-----|----|------|----------|---------|
| | | | | |
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OWNER: WENTWORTH LANDSCAPE INC.

PROJECT: LOT 38 McDONALD DRIVE

DRAWING TITLE: GRADING PLAN

| | | | |
|-------------------|--------------------|------------------|------------------|
| Designed By: M.J. | Date: JULY 5, 2022 | Project No. 1570 | Drawing No. C001 |
| Drawn By: N.B. | Scale: 1:200 | | |
| Checked By: M.J. | | | |

