



ALSTEN LANDS OUTLINE PLAN



Prepared By:
DURRANCE PROJECTS LTD.
TRANS AMERICA GROUP
ECOMARK LTD.
ASSOCIATED ENGINEERING LTD.
BK HYDROLOGY SERVICE



JULY 2007

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1 Introduction

Purpose

The Alsten Lands Outline Plan has been prepared on behalf of Trans America Group for a proposed land development within the City of Fort Saskatchewan. The Outline Plan provides the context and development details for portions of land which comprises ~ 123 hectares (304 acres) in and surrounding Sec 33-54-22-W4M. The subject area is located in the northeast portion of the City, south of Highway 15 and east of 112 Street within the City of Fort Saskatchewan.

The purpose of the Alsten Lands Outline Plan is to address development issues such as land use, environmental assessment, transportation circulation as well as utility servicing to provide the framework to guide development within the plan area. The Outline Plan includes the following sections: existing and proposed land uses, lotting and staging plan; traffic impact analysis with appropriate road standards and access locations into the plan area; and municipal servicing systems including water, sanitary sewer and storm water management.

Location Context

The Alsten Outline Plan Area is bounded by:

- Highway 15 and township road 550 on the north
- Section 34-54-22-W4M on the east
- 115 Street on the west
- NE ¼ Section 27-54-22-W4M on the south

Figure 1 provides a location overview and delineated boundary limits of the subject area. The Alsten Outline Plan lies within the Transitional policy Area of Alberta's Industrial Heartland Area Structure Plan (ASP).

Land Ownership

Trans America Group is the registered owner of all the portions of the land within the Outline Plan subject area. This includes areas in both NE $\frac{1}{4}$ Section 33-54-22-4 and SE $\frac{1}{4}$ Section 33-54-22-4 in addition to a portion of land north of the NE $\frac{1}{4}$ section.

There are various utility, pipeline and overhead transmission right-of-ways registered on titles within the Outline Plan area. ATCO Gas Utilities owns natural gas lines that run diagonally and north-south across the area. Altalink Management Ltd. owns the overhead transmission right-of-way running west-east within the area. These right-of-ways along with other utility right-of-way and easements are shown on **Figure 1**.

2 Site Analysis

Utility Crossings

There are various utility and easement alignment right-of-ways through this area. These areas have been identified and are shown in **Figure 1**. Crossing agreements with these utilities and other right-of-way utility corridors will be addressed during the design phase of the development.

Environmental Assessment

Ecomark Ltd. conducted a biophysical assessment on the subject property located in NE & SE-33-54-22-W4M, Fort Saskatchewan, Alberta. The property is presently used as cultivated, agricultural land, with the exception of a permanent marsh wetland in NE-33-54-22-W4M and some low-lying wet areas throughout the subject property.

The most valuable vegetative feature on the subject property is the marsh wetland at the northeast portion of the subject property. The marsh wetland is an *isolated basin marsh* located in a topographically defined depression, with no visible surface inlets or outlets and is heavily influenced by agricultural development. According to the air photo review, the total area of the marsh wetland has changed over time and the average marsh wetland area at NE-33-54-22-W4M was approximately 1,223 m² (0.1223 hectares). The marsh wetland is not unique to other small wetland areas in the region. The marsh wetland may potentially provide suitable habitat for some provincially or federally listed species, however, it is unlikely that the habitat features on the subject property offers critical, quality habitat for plants or wildlife. Nonetheless, the permanent marsh wetland on the subject property is a naturally occurring wetland area and any loss or development of the marsh wetland may require appropriate wetland compensation under the *Water Act*.

The low-lying wet areas contained standing water, crop stubble, and did not contain any wetland vegetation. The air photo review indicated that these low-lying wet areas were typically cultivated, agricultural land in drier seasons. Low-lying wet areas may provide seasonal habitat for migratory birds, waterfowl and amphibians, however, these lands

do not hold water long enough to promote growth of wetland vegetation, wetland soils or biological activity typical of wetland ecosystems. As such, the low-lying wet areas on the subject property should not be classified as wetland areas, nor should they require wetland compensation upon development.

Although the permanent marsh wetland on the subject property did not provide unique or critical wildlife habitat, there is still benefit in maintaining wetland areas within urban settings. Wetlands maintain biodiversity, provide habitat for migratory birds and waterfowl, filters water resources, acts as storm water retention areas and provides valuable recreational opportunities for the public. For these reasons, it is recommended that the wetland area be retained, where practical, or replaced with a constructed wetland area. Hence, based on Ecomark Ltd's Biophysical Report, the stormwater management facility in the north portion of lands will be retained. The complete report from Ecomark Ltd is included as **Appendix 1**.

3 Development Concept

Existing Land Use

The subject area is presently zoned as industrial reserve (I-R) land use, as indicated on **Figure 1**, by the City of Fort Saskatchewan. This subject area complements adjacent properties and matches the land use designations denoted in Alberta's Industrial Heartland ASP. Specifically, the subject area conforms to the Transition Policy Area as identified in the ASP.

Subdivision Concept

The subdivision concept being proposed for the Alsten Lands Outline Plan is shown on **Figure 2**. A north/south collector roadway, 118th Street, extends through the area. This collector road provides the framework for the block subdivision concept being proposed, and includes:

- 88th Avenue (Josephburg Road) that follows a east/west alignment proposed to extend from the existing road and provide a tie-in with the proposed 118th Street collector road.
- 87nd Avenue that follows an east/west alignment proposed to extend from highway 15 on the west and tie-in to 118 Street.
- 84th Avenue that follows an east/west alignment that ties-in the existing 112th Street on the west and provides access to the area on the east side namely 119th Street on the south end of the area. Additional local roads may be constructed for lotting and internal circulation purposes.

Proposed Land Use and Zoning

The land uses proposed for the Alsten Lands are illustrated in **Figure 3**. The land use designations include light industrial (I-L) and medium industrial (I-M) and municipal reserve. An objective of the Outline Plan is to promote industrial development within the area, such as with warehousing types of light industrial uses. This Outline Plan complements the adjacent land uses. On the west side, there is an existing industrial

park. Country residential and agricultural land uses about the south end. As mentioned earlier, this subject area lies within the Transition Area Policy of Alberta's Heartland Industrial Area Structure Plan.

Landscaping and Municipal Reserve

The storm pond proposed for the site will be integrated as an amenity feature into a comprehensive landscaping plan. See **Figure 2** for detailed areas and locations for the storm water pond and municipal reserve.

Sequencing

Development of the Alsten Lands will be completed in a number of stages. The current plan shows the possible build out in subdivision stages. The stages coincide with the need for services to be completed such that the services are extended from the existing facilities into the new development area. Where roadways are dead ended in the initial stages of development, temporary turnarounds for traffic will be provided. **Figure 4** shows the proposed development stages based on the servicing constraints and owner input into the foreseeable absorption of the building sites. Generally, the development will occur from the northwest to southeast as the services are available on the east and north side of the property. The sanitary line along 118 Street will be constructed in stage 1.

Alternative Lotting Plan

The south end of outline plan area provides an alternate layout. The original lotting plan offers larger lot layouts as shown on **Figure 2**. One alternative provides for smaller lots as shown on **Figure 5**. The alternative provides for flexibility in meeting the needs of the potential users of the individual sites.

4 Statutory & Regulatory Compliance

The subject area identified in the Alsten Lands Outline Plan will conform to statutory and regulatory compliance requirements. In general, it will comply with Federal and Provincial statutes pertaining to environmental and water issues; municipal land use bylaws and development standards; and franchise utilities agreements for servicing and crossings. The specific statutory documents relating to this Outline Plan are discussed in the following section.

Municipal Development Plan (MDP)

The Municipal Development Plan is a high-level policy document that provides overall direction for land development in the City of Fort Saskatchewan. This Outline Plan will be submitted to the City of Fort Saskatchewan for approval and compliance with the MDP.

Alberta's Industrial Heartland Area Structure Plan (ASP)

The Alsten Lands Outline Plan falls within the boundaries identified in Alberta's Industrial Heartland Area Structure Plan. Specifically, the Fort Saskatchewan Alberta's Industrial Heartland Complementary ASP provides guidance for the future growth of industrial development within the City of Fort Saskatchewan. The Alsten Lands lies within a transitional area in the ASP identified as light industrial and medium industrial development. Hence, the Alsten Lands area complements and reinforces similar type of developments.

Land Use Bylaw

The City of Fort Saskatchewan Land Use Bylaw regulates land uses within the City. Hence, this land development will require compliance and/or amendments to meet approvals. A subdivision re-districting application will be submitted to the City of Fort Saskatchewan.

Alberta Infrastructure and Utilities (AIU)

A roadside development application will be submitted through Alberta Infrastructure and Utilities. This application is required for access and development next to the road right-of-way.

Federal and Provincial Legislation (Environment & Water Acts)

Federal and Provincial statutes and regulations for development near water bodies and in environmental sensitive areas will be observed. Specifically with Alberta Environment approvals, this Outline Plan identifies two storm water management ponds that will have interim and ultimate pond approval submissions.

Pipeline Crossing and Franchise Utilities Approvals

All necessary pipeline crossings have been identified and all approval requirements will be met.

5 Transportation

Transportation Impact Assessment (TIA)

Associated Engineering was retained to conduct a Traffic Impact Assessment for subject area. The study examined not only the development proposed by Trans America but the future development of the lands with the subject area which are not currently owned by Trans America. In summary from their report, the intersection capacity analysis of the intersections of Highway 15 with 111 Street, 112 Street and 114 Street show that the existing intersection treatment will be sufficient to accommodate the projected traffic volumes through 2013. Hence, no improvements are recommended at these locations. At the ultimate stage of the development, 119 Street will be aligned to intersect with Highway 15 in the study area. At this location, a capacity analysis for this future intersection found that a treatment with dedicated turning lanes from Highway 15 will be required to accommodate the projected traffic volumes. The traffic volumes expected for this intersection warrant the installation of traffic signals as well.

The speed limit on Highway 15 identified in the report may be reduced from 80km/hr to 70 km/hr. The final TIA report will model the impact of both speeds on the subject area. The Transportation Impact Assessment Report prepared by Associated Engineering is included in **Appendix 2**.

Roadway Standards

The development will incorporate both rural and urban cross-sections for the roadways servicing the properties within the outline area. **Figure 6** shows the areas of rural and urban cross-sections for the roadways. Specifically, the rural cross-sections will be along 118 Street (running North/South) and along 88 Avenue (running west/east). A typical rural cross section for a 30 meter right of way is provided in figure 6. Associated Engineering has developed typical drawing of the proposed cross-sections. These are based on information from the City of Fort Saskatchewan Engineering Standards.

Landscaping details will be finalized at the detailed design submission stage.

6 Major Utility Servicing

Storm Water Management

The local storm runoff within the Alsten Lands development will be directed to two storm ponds by a combination of storm sewers, road ditches and overland drainage. These two ponds are considered to control the storm runoff leaving the site. In general, the outflow from the two storm pond options will be directed to Ross Creek through storm sewers within the subject area and along ditches which are outside the subject areas and finally through another storm line across Highway 15 to outfall at the creek. Drainage of the stage 1 and stage 2 lands will require negotiation of an drainage easement within the portion of the NW ¼ 33-54-22-4 to the southeast of Highway 15. **Figure 7** shows the proposed storm water pond locations considered for this site. The maximum drawdown will be 2 meters. The modelling of the storm drainage system was conducted for the 1:5 year and 1:100 year, 24 hour durations. The Storm Water Report prepared by B.K. Hydrology is included in **Appendix 3**.

Sanitary Sewer

The sanitary sewer mains are sized to meet the service criteria defined in the City of Fort Saskatchewan Engineering General Standards. **Figure 8** shows the sanitary catchments for the proposed sanitary sewer mains. The lots north of the new Josephburg Road alignment will have to be serviced with pumpouts until such time as a connection to the sewer connection at 84 Avenue can be constructed. A tentative alignment for an extension to the on 118 Street sewer has been added into **Figure 8** as per a previous report (Stantec, 2006). **Appendix 4** provides the sanitary catchment area calculations as per the **Figure 8**.

Water Supply

Water services will be extended from the existing water mains on Highway 15 and 87th Avenue. The extension of water services from the Highway 15 connection will also require negotiation of an easement for construction of the portion of the watermains

within the NW ¼ 33-54-22-4 to the southeast of Highway 15. An offsite extension of the 450mm water line from the intersection of 99 avenue and 112 street to the intersection of Highway 15 and 87 avenue will be completed as part of stage 2 of the development. Until completion of the construction of the 450mm watermain extension, site-specific solutions such as booster pumps can be employed to provide fire flows which meet the general standards.

A network analysis was completed by Associated Engineering on behalf of the City of Fort Saskatchewan. The watermain sizes shown in **Figure 9** are as recommended by Associated Engineering. The watermain along 88th avenue will be oversized to 450mm to service future development to the northeast of the proposed development. The watermains will consist of a 450mm diameter loop from the intersection of Highway 15/87 Avenue east with a 300mm diameter connection at the end of the existing portion of 84 avenue. All other watermains being 300mm diameter comply with the Engineering Servicing Standards for Light Industrial districts in the City of Fort Saskatchewan. Water pressures will be in the range of 80 psi (550 KPa) under fire flow conditions. All watermain sizes comply with the City of Fort Saskatchewan water analysis requirements. **Appendix 5** shows the output of the water network analysis provided by Associated Engineering.

A building mechanical report provided by Arrow Engineering Inc. addresses the fire flows requirements for the commercial building sprinkler system in the north section of the development. Arrow Engineering Inc. estimates that there is a required 750 gallons per minutes for the building sprinkler system which can achieved at approximately 55 psi. Arrow Engineering Inc. has recommended that a 200mm diameter watermain be brought to each of these buildings and the sprinkler room be located in the centre of the building in order to provide adequate flow/pressure and to minimize sprinkler pipe sizing. A letter from Arrow Engineering Inc. is included in **Appendix 6**.

Shallow Utilities

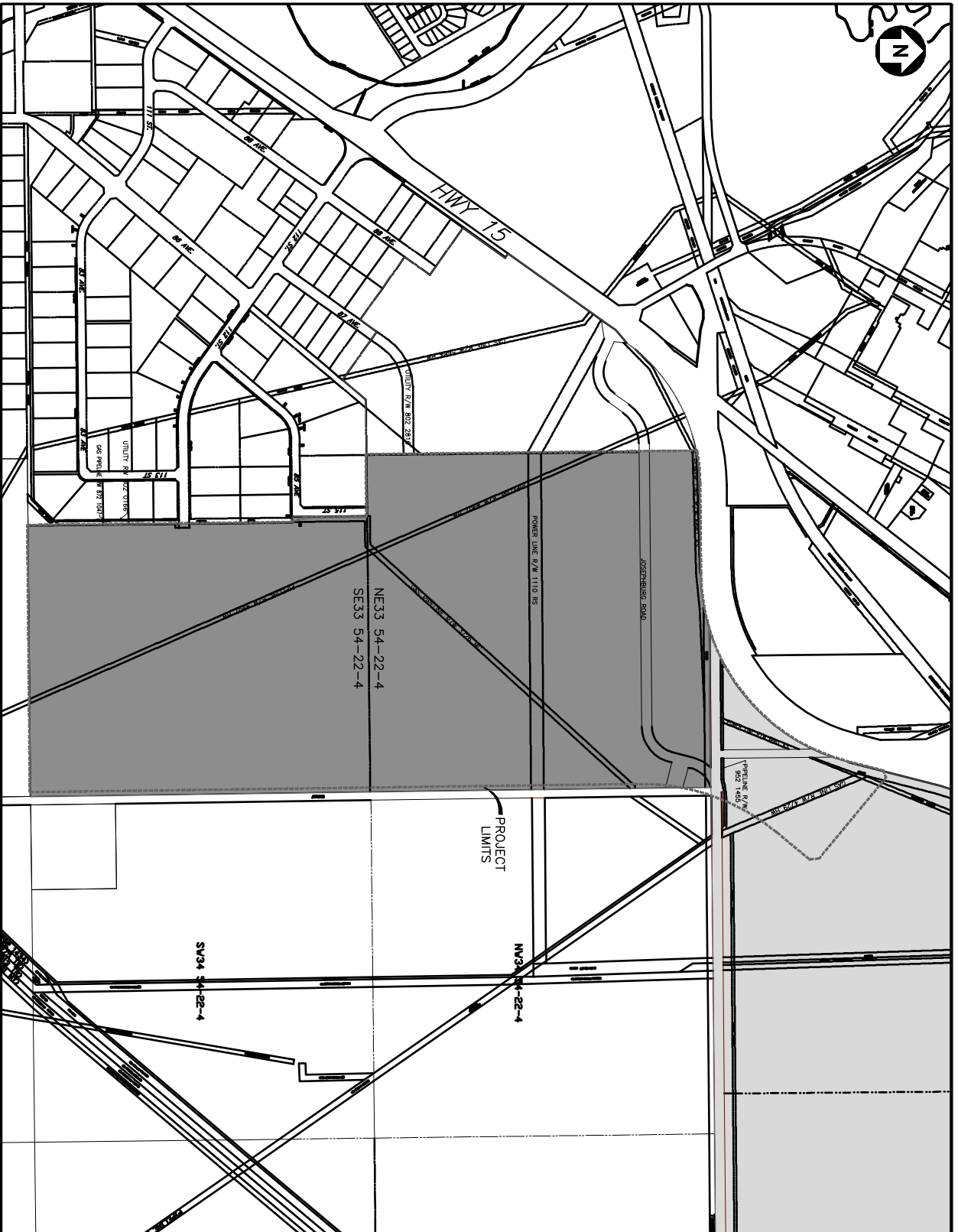
Shallow utilities, such as natural gas, power and telephone will be available for extension into the subject area from adjacent lands. All of these utilities will be located within the road right-of-way or through easements on private land.

7 Closure

The Outline Plan for Alsten Lands complies with the guidelines for ASP and OLP preparation in the City of Fort Saskatchewan. The Outline Plan provides a framework for the zoning, subdivision and development of the area.

The approval of the Outline Plan will provide the City of Fort Saskatchewan with the opportunity to add to the City's inventory of business light industrial land. Alsten Lands will be an asset to the City for expanding its industrial base, and will provide a visually appealing development on its north boundary.

FIGURES



MEDIAN INDUSTRIAL AS PER HIGHWAY DEP
 INDUSTRIAL RESERVE (R/L) AS
 SHOWN ON THE LAYOUT OF THE
 PROPOSED INDUSTRIAL LAND USE PLAN

NO.	1-M-D	DESCRIPTION	RT	LAND
1	1-M-D	1-M-D	1-M-D	1-M-D
2	1-M-D	1-M-D	1-M-D	1-M-D
3	1-M-D	1-M-D	1-M-D	1-M-D
4	1-M-D	1-M-D	1-M-D	1-M-D
5	1-M-D	1-M-D	1-M-D	1-M-D
6	1-M-D	1-M-D	1-M-D	1-M-D
7	1-M-D	1-M-D	1-M-D	1-M-D
8	1-M-D	1-M-D	1-M-D	1-M-D
9	1-M-D	1-M-D	1-M-D	1-M-D
10	1-M-D	1-M-D	1-M-D	1-M-D

NO.	1-M-D	DESCRIPTION	RT	LAND
1	1-M-D	1-M-D	1-M-D	1-M-D
2	1-M-D	1-M-D	1-M-D	1-M-D
3	1-M-D	1-M-D	1-M-D	1-M-D
4	1-M-D	1-M-D	1-M-D	1-M-D
5	1-M-D	1-M-D	1-M-D	1-M-D
6	1-M-D	1-M-D	1-M-D	1-M-D
7	1-M-D	1-M-D	1-M-D	1-M-D
8	1-M-D	1-M-D	1-M-D	1-M-D
9	1-M-D	1-M-D	1-M-D	1-M-D
10	1-M-D	1-M-D	1-M-D	1-M-D

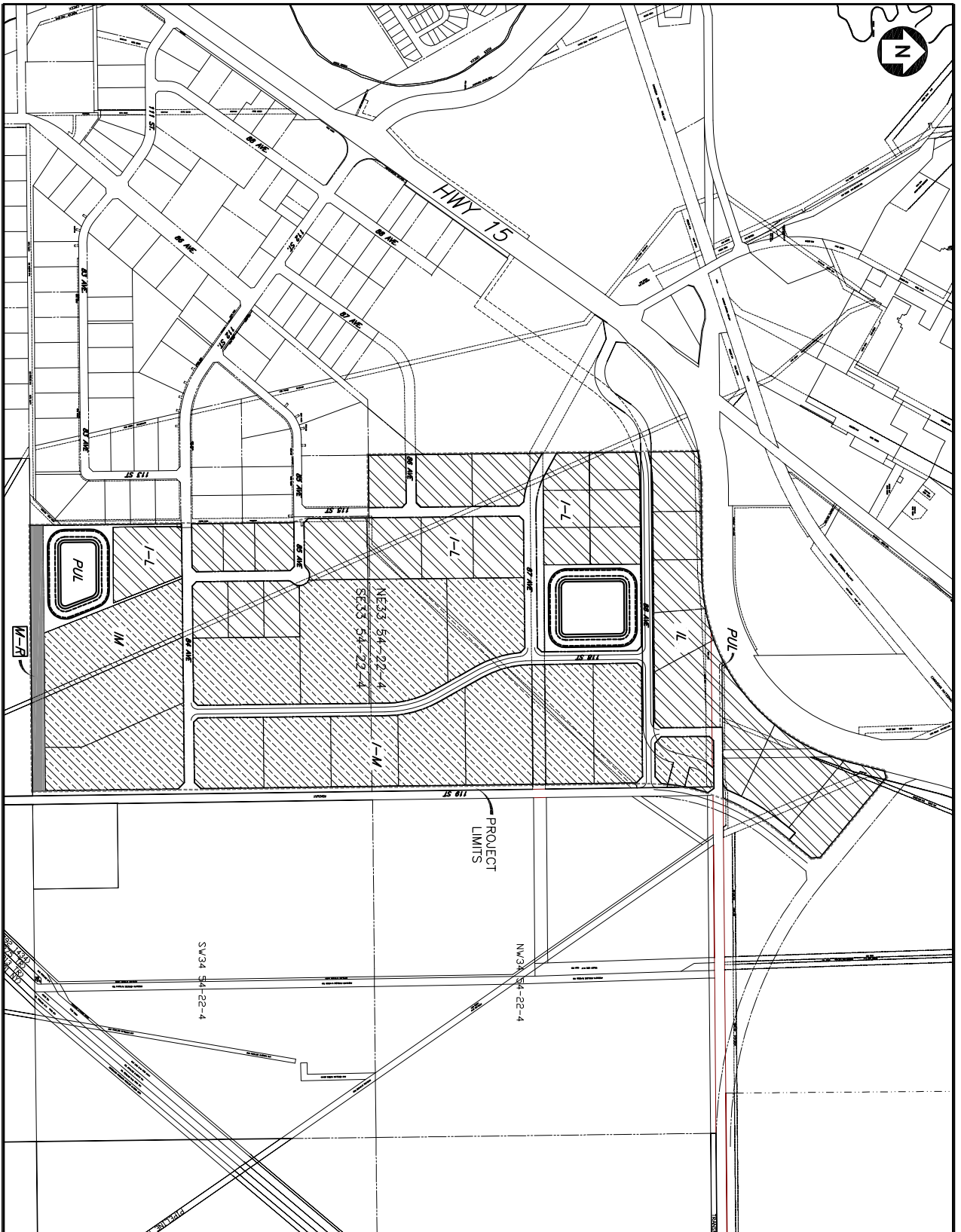
TRANS TO PROPOSE
DURANCE PROJECTS LTD.
 10000 100th Ave. Suite 100
 Edmonton, Alberta T5A 1A6
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 Fax: 780-443-4445
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TRANS AMERICA GROUP
 FORT SASKICHEWAN, ALBERTA
ALSTEN LANDS
 EXISTING LAND USE PLAN

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SCALE: N.T.S.
 DESIGNED BY: [Name]
 CHECKED BY: [Name]
 DATE: 07/26/11
 50549.1
 FIG. 1



- DC DIRECT CONTROL
- I-L LIGHT INDUSTRIAL
- I-M MEDIUM INDUSTRIAL
- M-A MANUFACTURE RESERVE

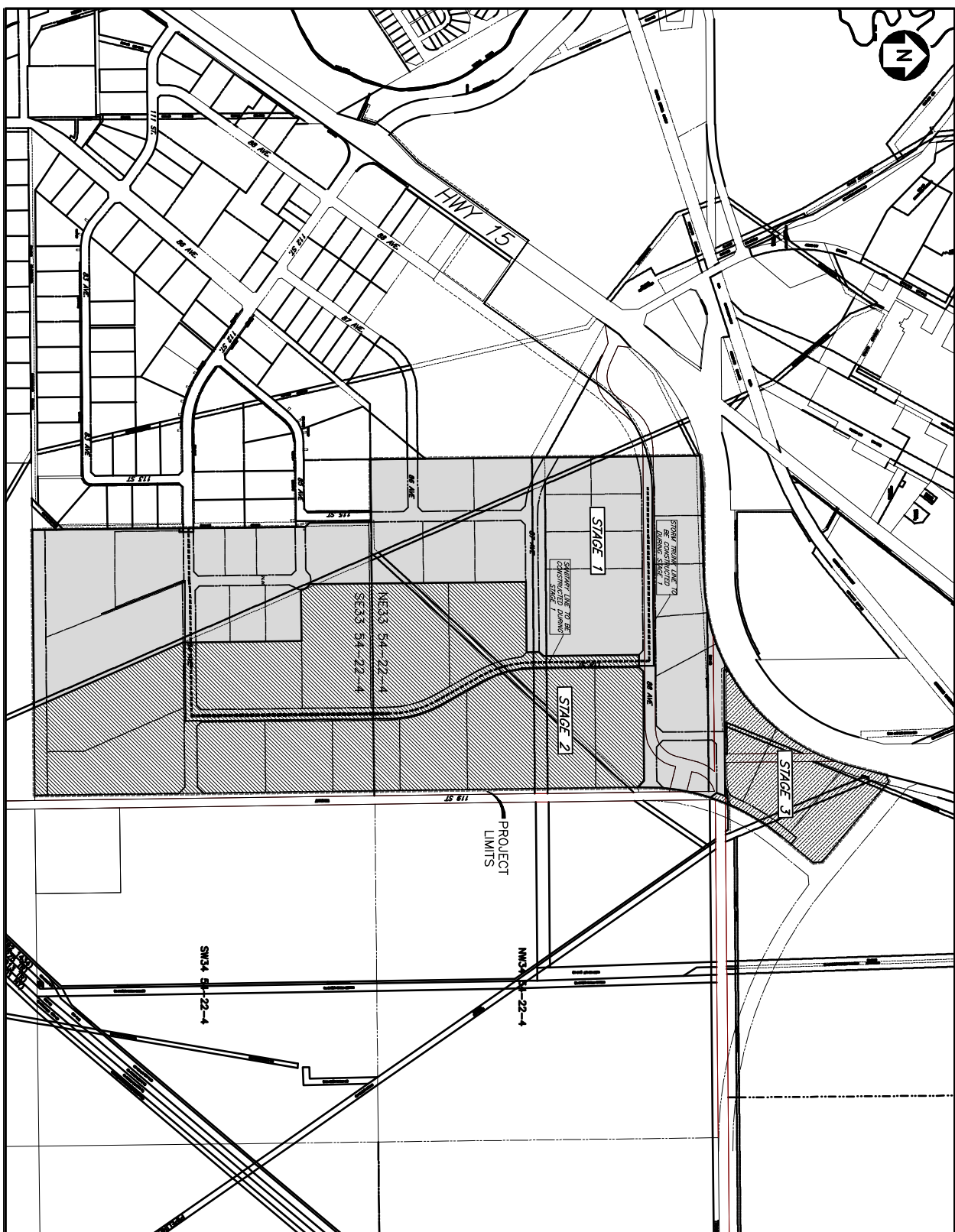
NO.	DESCRIPTION	BR.	APPRO.
1	07/07/09 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.
2	07/06/2010 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.
1	07/06/2010 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.

NO.	DESCRIPTION	BR.	APPRO.
1	07/07/09 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.
2	07/06/2010 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.
1	07/06/2010 REVISION 1-1 TO DC ZONING OF 87 AVE.	103	J.S.D.

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TRANS AMERICA GROUP
FORT SASKATCHEWAN, ALBERTA
ALSTEN LANDS
TENANT LAND USE PLAN

DURANCE PROJECTS
SCALE: N.T.S.
DESIGNED BY: D.S. JOB NUMBER: 50549.1
DRAWN BY: D.S. FIG. 3
CHECKED BY: D.S.
DATE: 07/04/11
LAST EDIT DATE: 07/07/09

[illegible]

 RIGHTS OF WAY TO BE CLOSED

RIGHTS OF WAY TO BE CLOSED

2. DIMENSIONS SHOWN ARE IN METRES AND DECIMALS THEREOF;
3. PLAN SUBJECT TO CONFORMATION BY ALBERTA LAND SURVEYORS
4. LANDS PROPOSED TO BE SUBDIVISION SHOWN THIS DATE 12/31/74
AND CONTAINS APPROXIMATELY 123.174 HECTARES
(304.56± ACRES)

No.	DATE	REVISIONS	BY	APP'D
1	07/06/04	REVISED FOR 2nd STORM POND ACTIVE STORAGE	DSS	EJO
	Y-M-D	DESCRIPTION		

ALSTEN LANDS

ALTERNATIVE LOTTING AND LAND USE PLAN

DURRANCE PROJECTS

DIS	DRAWING NUMBER:	2100
CKED BY:		

LAST EDIT DATE: 07/06/1



LEGEN

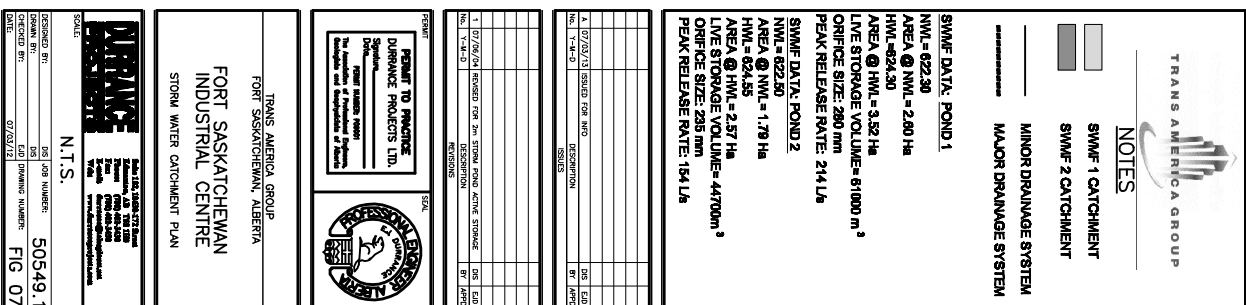
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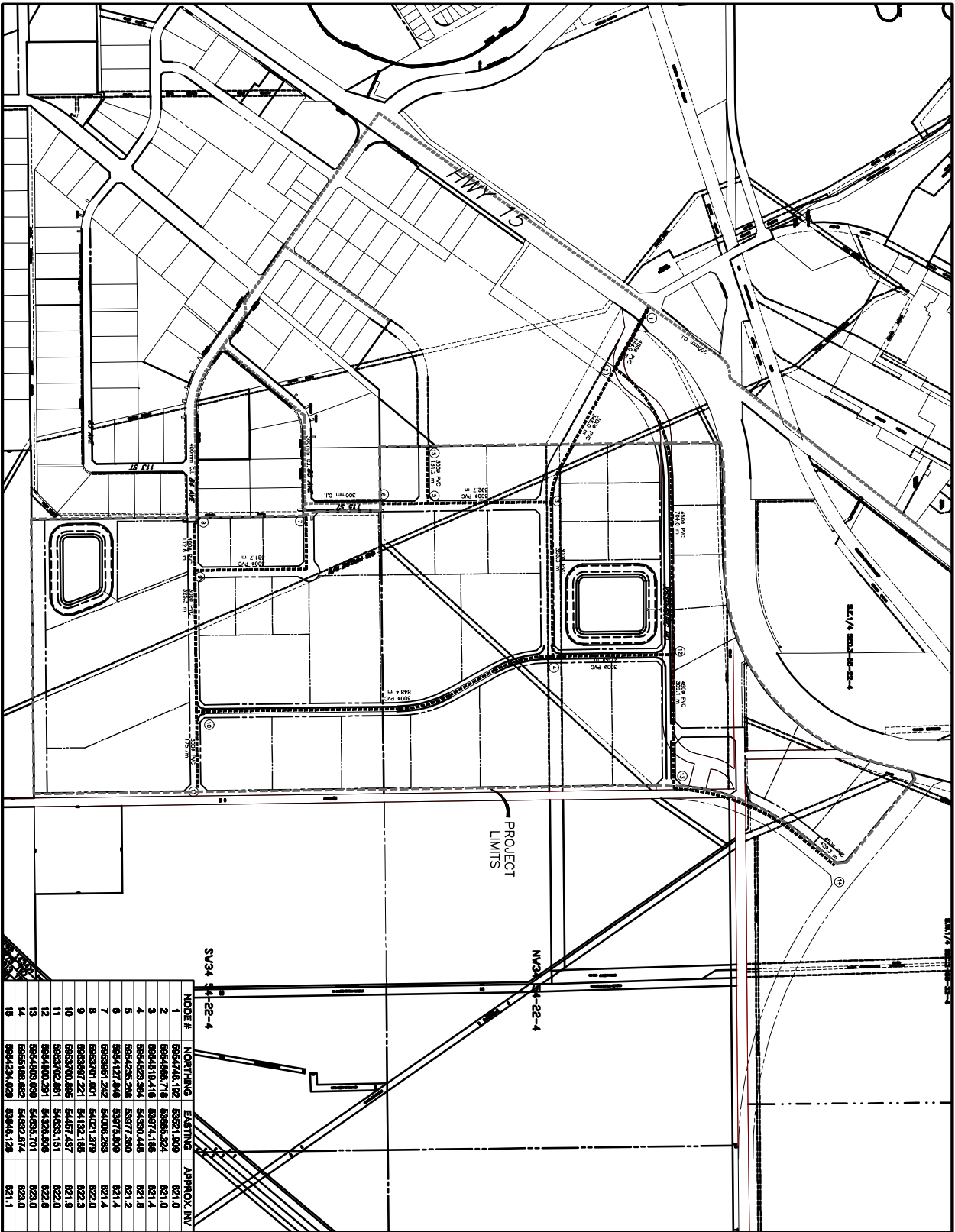
No.

**PERMIT TO PRACTICE
DURRANCE PROJECTS LTD.**

CALE!

NOTE:





Node #	Northings	Eastings	Approx. Inv.
1	6964746.182	639621.809	621.0
2	6964696.718	63966.324	621.0
3	6964518.416	63974.188	621.4
4	6964423.384	64330.448	621.8
5	6964428.288	63977.300	621.2
6	6964127.846	63978.808	621.4
7	6963981.242	64008.288	621.4
8	6963701.001	64021.378	622.0
9	6963697.221	64132.186	622.3
10	6963700.885	64467.437	621.9
11	6963702.881	64653.151	622.0
12	6964000.281	64328.808	622.8
13	6964003.039	64653.701	623.0
14	6965188.882	64852.874	623.0
15	6965224.029	63946.128	621.1



LEGEND

- PROPOSED WATERMAIN
- EXISTING WATERMAIN
- WATERMAIN LENGTH & SIZE
- WATERMAIN INVERT

NOTE

THESE PLANS ARE THE PROPERTY OF TRANS AMERICA GROUP LTD. AND ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF TRANS AMERICA GROUP LTD.

NO.	DESCRIPTION	BY	DATE
1	DESIGN	BY	DATE
2	REVISION	BY	DATE

TRANS AMERICA GROUP

FOOT SOLUTIONS, ALBERTA

ALSTEN LANDS

PROPOSED WATERMAIN NETWORK

DURANCE PROJECTS LTD.

10000 100th Street, Suite 100

Edmonton, Alberta T6E 4E4

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Fax: (780) 443-4444

Email: info@duranceprojects.com

Website: www.duranceprojects.com

ENGINEER

TRANS AMERICA GROUP

FOOT SOLUTIONS, ALBERTA

ALSTEN LANDS

PROPOSED WATERMAIN NETWORK

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10000 100th Street, Suite 100

Edmonton, Alberta T6E 4E4

Phone: (780) 443-4444

Fax: (780) 443-4444

Email: info@duranceprojects.com

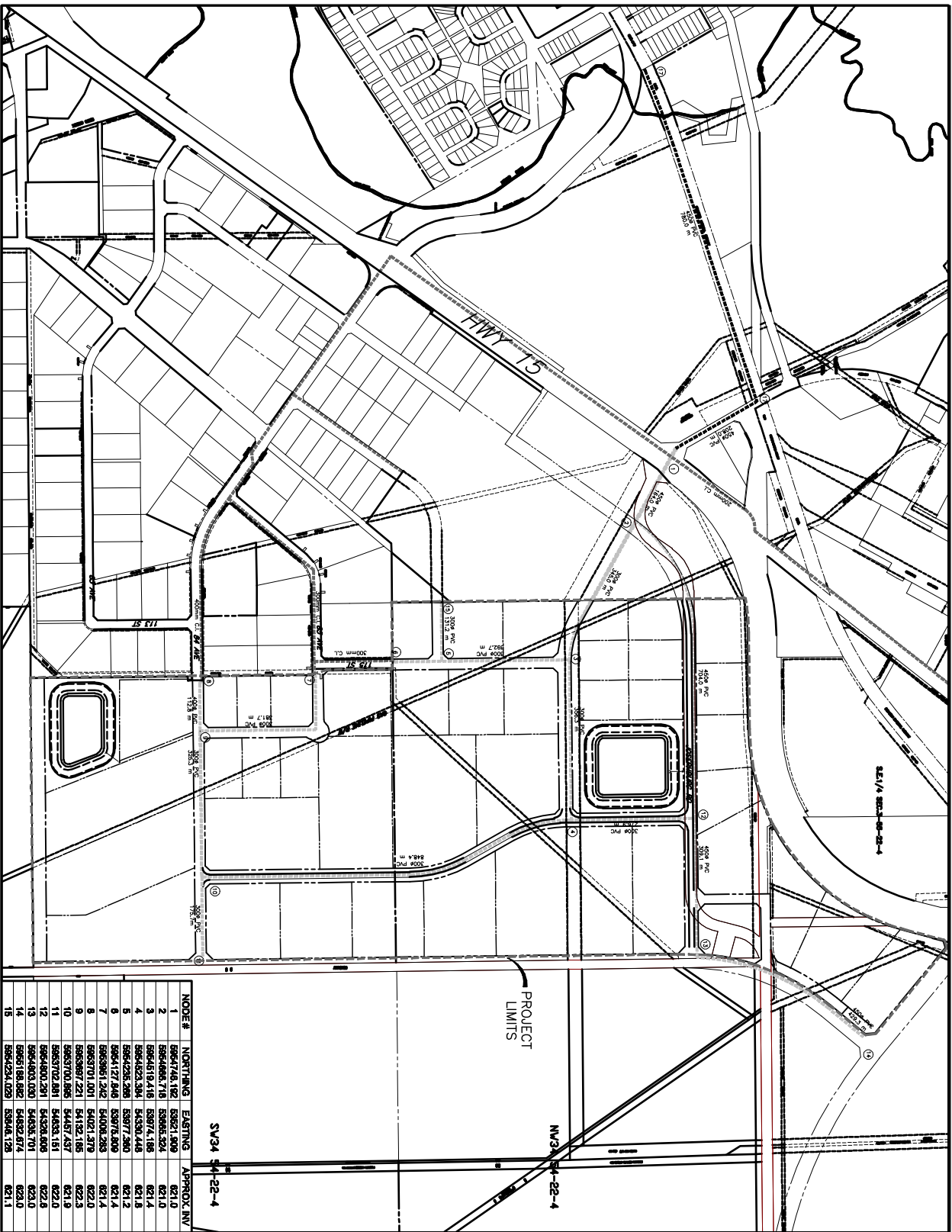
Website: www.duranceprojects.com

DESIGNED BY: TRANS AMERICA GROUP

CHECKED BY: TRANS AMERICA GROUP

DATE: 07/23/23

FIG. 9



NODE #	NORTHING	EASTING	APPROX. INV.
1	5964746.192	539621.809	621.0
2	5964666.718	539663.324	621.0
3	5964518.416	53974.188	621.4
4	5964423.384	54330.448	621.8
5	5964428.288	53973.200	621.2
6	5964127.846	53978.500	621.4
7	5963961.242	54008.288	621.4
8	5963701.001	54021.378	622.0
9	5963697.221	54132.186	622.3
10	5963700.886	54467.457	621.9
11	5963702.881	54653.151	622.0
12	5963400.291	54328.508	622.8
13	5963403.030	54653.701	623.0
14	5963188.882	54832.714	623.0
15	5963224.029	53946.128	621.1

TRANS AMERICA GROUP

LEGEND

PROPOSED OFFICE WATERMAIN

EXISTING WATERMAIN

OFFICE WATERMAIN

WATERMAIN IN LENGTH & SIZE

WATERMAIN IN LENGTH & SIZE

NOTE

OFFICE AND RESIDENTIAL WATERMAIN AND OFFICE WATERMAIN SHALL BE INSTALLED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE WATERMAIN ACT AND THE WATERMAIN REGULATIONS.

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: 07/26/13

FIG. 10

TRANS AMERICA GROUP

FOR: SASKATCHEWAN, ALBERTA

ALSTEN LANDS

PROPOSED WATER NETWORK IMPROVEMENTS

DURANCE PROJECTS LTD.

2000 10th Avenue S.W.

Calgary, Alberta T2C 1P5

Phone: (403) 243-8888

Fax: (403) 243-8889

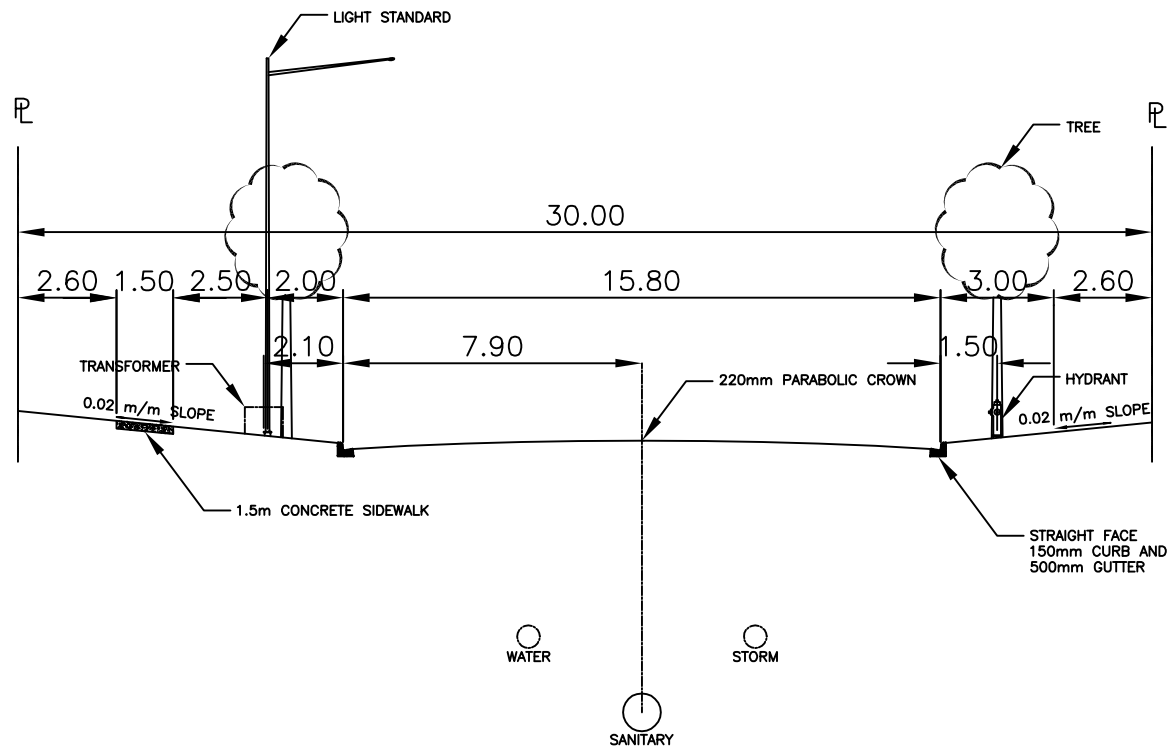
Email: info@durance.ca

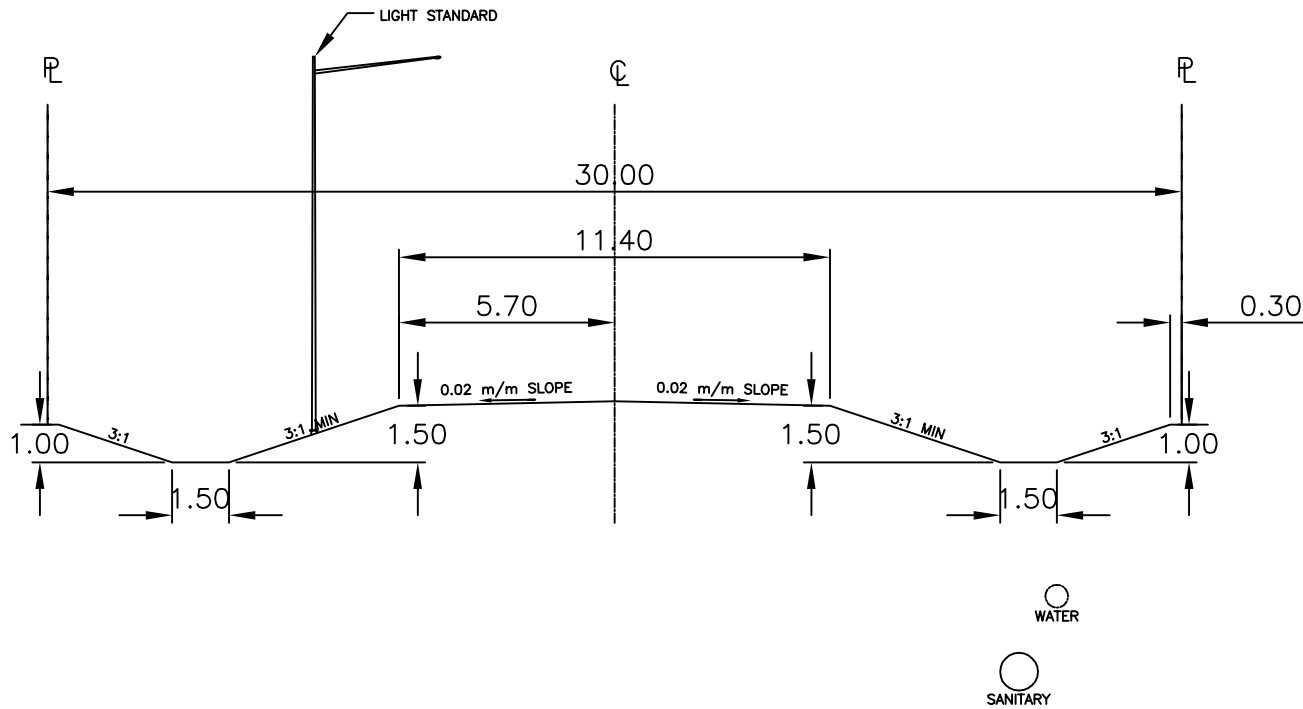
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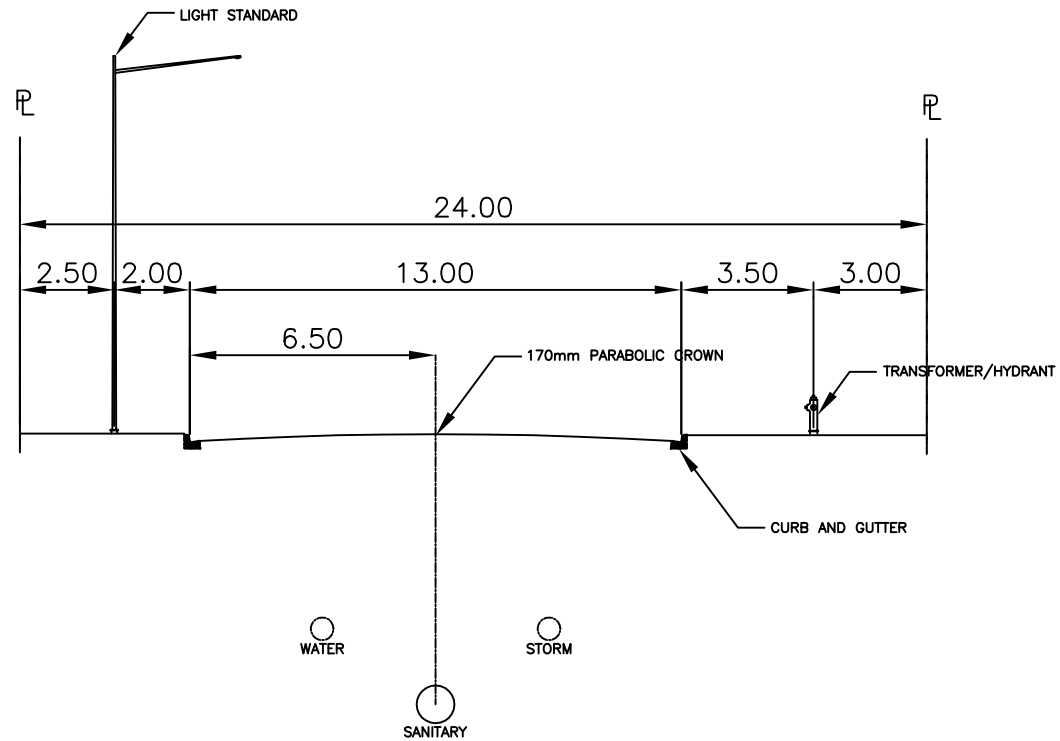
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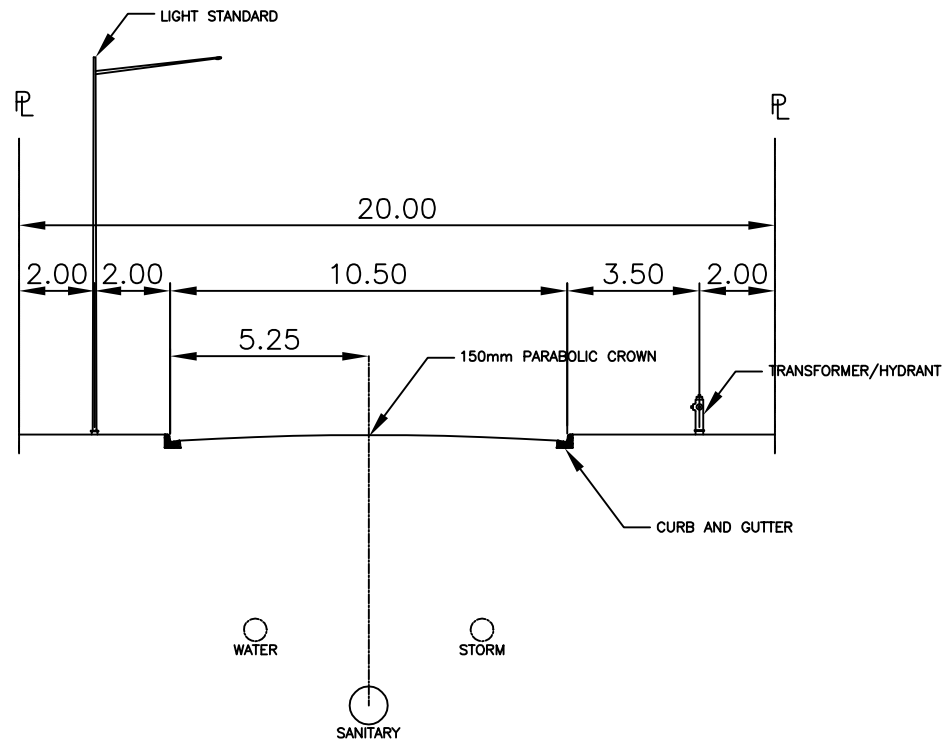
1" = 100'

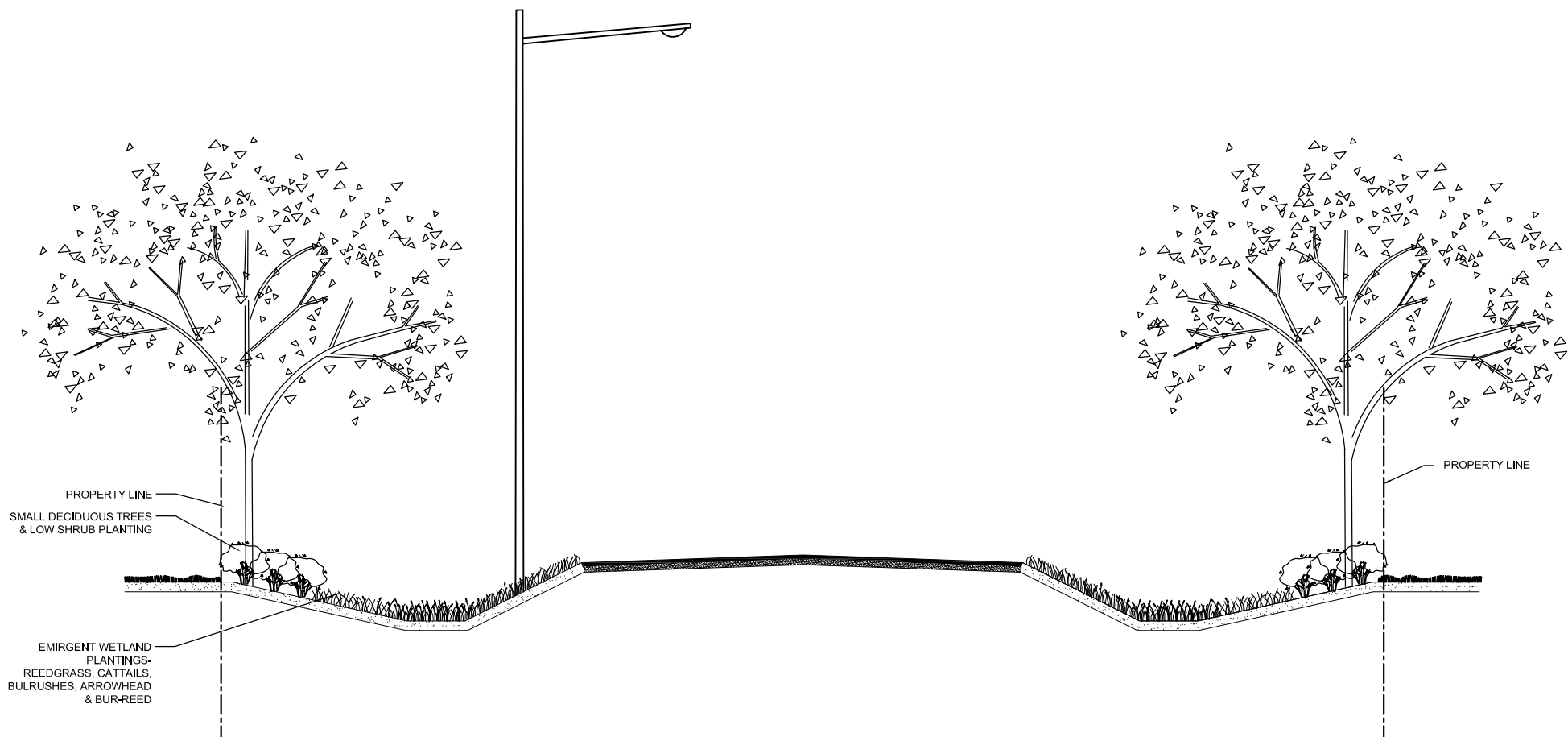
1" = 30.48m











1

30.0m RIGHT OF WAY - RURAL CROSS SECTION

SCALE 1:200

