



City of Grande Prairie
Development Services
Department

CENTRE WEST BUSINESS PARK
OUTLINE PLAN
OP-02-01

October 1, 2002

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1.0 INTRODUCTION

1.1 OBJECTIVES

This Outline Plan covers all lands within NE 21-71-6-6 near the west end of the city. The study area lies west of 116th Street and south of Highway 43 (100th Avenue). The purpose of this Outline Plan is to provide a description of the existing and proposed land uses and to outline the servicing concepts in accordance with plans and policies adopted by the City of Grande Prairie.

The Outline Plan will provide a detailed plan for development and ensure that land use and servicing concepts are congruent with existing adjacent development while incorporating plans for future development. With the Area Structure Plan in place, the Outline Plan serves as the next step towards re-zoning and subdivision. The final design reports have not been accepted on this development at this time. Any assumptions in this outline report in relation to the specifics of the servicing are subject to change as incorporated in the final acceptance of the design reports.

Specific objectives of this plan are to:

- Identify the existing land use for the study area and adjacent developments;
- Determine existing features that may limit or place restrictions on development;
- Describe the proposed land use and phasing; and
- Provide a general outline of the servicing concepts that reflect the findings of the detailed design and supplementary reports.

2.0 DEVELOPMENT AREA

2.1 LOCATION

The development area (NE21-71-6-6) is located on the west side of the City and is bounded on the north by Highway 43 (100th Ave) and to the east by 116th Street. The gross developable area is 60.85 hectares. Figure 1 shows the development boundaries.

2.2 OWNERSHIP

The entire area included in this Outline Plan is owned by 838308 Alberta Ltd.

2.3 TOPOGRAPHY

The land is relatively flat with a slight slope towards the southeast. The overall slope averages approximately 0.2%. There are no water bodies contained within the proposed development area. A topographic map is shown on Figure 3.

2.4 EXISTING LAND USE

Most of the area is currently farmed with a small portion occupied by an abandoned homestead. The land is designated as Urban Reserve.

The development area is bounded on the north by the airport and agricultural land, on the east by Richmond Industrial Park, and on the south and west by agricultural areas. The agricultural areas are designated Urban Reserve and the industrial parks are a mixture of commercial and industrial uses. The UR land to the south of the proposed development is still located in the County. Figure 2 shows the existing land use.

An airport approach lighting right-of-way and marker site is located in the southwest corner of the development area.

2.5 ENVIRONMENTAL ISSUES

A Level 1 Environmental Site Assessment was conducted for the development area. The area has always been farmland with no developments involving hazardous or toxic substances. There is no evidence of fuel storage or spillage near the abandoned building from farming operations and equipment. The assessment concluded that the potential for contamination was low and does not warrant further investigation.

2.6 APPLICABLE PLANS & POLICIES

There are several documents adopted by the City of Grande Prairie that provide a framework for the Outline Plan, as detailed below.

2.6.1 Municipal Development Plan

The Outline Plan has been developed in accordance with the goals and objectives in the Municipal Development Plan (MDP). The MDP Land Use Map indicates commercial and industrial use for the study area.

2.6.2 Master Plans

The City of Grande Prairie currently has Master Plans that provide a general framework for transportation, water distribution, sanitary sewer and stormwater management systems. The Outline Plan complies with the recently updated Transportation Master Plan. A draft Storm Master Plan is currently under review.

The Water and Sanitary Sewer Master Plans, last updated in 1995, contain some outdated information relating to the proposed development. The City is currently completing an evaluation of the water distribution system for the west end of the city and is expected to provide recommendations regarding the location, sizing and layout of the required pump house, reservoir and transmission lines. It is expected that the Outline Plan will be in compliance with these recommendations.

The Wastewater Collection Master Plan currently shows two possible alignments for a future west trunk main along Wapiti Rd. or 116th Street. The Outline Plan has currently been developed assuming that the sanitary system will make temporary use of un-utilized capacity existing in mains along Highway 43. This capacity has been committed to another property under existing agreements, but is currently not being utilized. The City will monitor capacity, and provision of storage to allow for off-peak pumping may be required in the future. The future developments in this area will be dependent upon the revised Sanitary Sewer Master Plan for this area and the timing and phasing of trunks and other facilities.

2.6.3 Area Structure Plan

The West Industrial Area Structure Plan was adopted in January 2002 and covers the development area along with the remainder of the section to the south and west. The Outline Plan will be consistent with the Area Structure Plan.

2.6.4 Land Use Bylaw

The development area is currently zoned as Urban Reserve (UR). The proposed development will be a mixture of Arterial Commercial (CA) fronting the highway, Industrial Business (IB) North of 97th Avenue, and General Industrial (IG) for the remainder, similar to the neighbouring industrial park. Access to lots shall be via internal roadways. No service road adjacent to Highway 43 will be provided.

An application for amendment of the Land Use Bylaw has been submitted for approval prior to adoption of this Outline Plan.

The southeast and east portion of the quarter section is affected by the airport flight path as shown on Figure 2. The highlighted portion will be affected by building height restrictions as dictated by Transport Canada regulations.

3.0 DEVELOPMENT CONCEPT

3.1 LOT LAYOUT

The proposed lot layout is shown on Figure 4. Lot sizes range from 0.42 hectares to 3.81 hectares depending on the anticipated use. The larger lots are located adjacent to 116th Street.

3.2 PROPOSED LAND USE

All lots fronting the Highway and a portion of 116th street to 97th Avenue will be zoned as Arterial Commercial (CA). The CA district allows for a variety of commercial uses that would benefit from the high visibility location. These lots will have no access to the Highway or 116th Street directly apart from a proposed right-in/right-out access to lot 3. The remaining lots north of 97th Avenue will be zoned as Industrial Business (IB).

The remainder of the lots will be General Industrial (IG). It is expected that development within the IG district will be similar to that of the neighbouring industrial park. Figure 5 shows the proposed land use boundaries. As this area is Commercial and Industrial, all of the required Municipal Reserve (MR) will be provided in the form of cash-in-lieu.

The following table indicates the proposed development area breakdown. Exact areas will be calculated prior to the subdivision application.

Proposed Land Use	Area (ha)
Gross Developable Area	60.85
Required 116 th Street widening (exact area to be determined)	0.37
Airport Lighting PUL	0.31
General Industrial (IG)	23.84
Industrial Business (IB)	9.25
Arterial Commercial (CA)	15.17
Collector Roadways	4.61
Local Roadways	4.80
Storm Pond/Lift Station PUL	2.50
Municipal Reserve (provided as cash-in-lieu)	0.0

Amended October 15, 2012

3.3 PHASING

The subdivision will be constructed in three phases from east to west. Figure 4 shows the proposed phase outlines. The lots located adjacent to 116th street will be developed in Phase I. Phase II boundaries may be adjusted to include all lots fronting the highway including the west intersection.

4.0 TRANSPORTATION

4.1 CIRCULATION

The development area is currently accessed by 116th Street and Highway 43. No roadways exist along the quarter section lines to the south and west.

The proposed road layout is shown on Figure 6. The roadways will be a mixture of urban and rural cross sections with both major and minor collector functions. All major collectors and roads servicing commercial areas will have an urban cross section; all others will have a rural cross section. The proposed road cross section may be subject to change at the detailed design stage.

Roads performing major collector functions include 97th Avenue extending through the subdivision, 120th Street at the west edge of the subdivision and 118th Street providing access to future development to the south. All other roads will be classified as minor collectors.

All access to lots shall be via the internal roadway system, with the exception of Lot 3. The Transportation Design Report discusses the possibility of a Right-in/Right-out for this lot, and the impacts of this on traffic on 116th Street. No service road adjacent to the highway is proposed due to safety concerns at the 116th Street and Highway 43 intersection. The traffic plans are subject to the approval of Alberta Infrastructure and the final acceptance of the Transportation Design Report.

4.2 INTERSECTIONS

All directional access points are proposed at 116th Street and 97th Avenue and 120th Street and Highway 43.

The proposed right-of way for 120th Street is split between the two adjacent quarter sections. If the development of Phase III cannot be coordinated with the adjacent landowner, the right-of-way and corresponding intersection must be shifted to the east. Regardless of the alignment of 120th Street in the two quarters, it must align opposite to the existing access point to the Brochu development north of Highway 43.

4.3 TRANSIT

The existing public transit system extends as far west as 115th Street and 97th Avenue in Richmond Industrial Park. Service may be extended as development progresses.

5.0 SERVICING

5.1 GENERAL

Detailed design reports supporting the following servicing concepts form part of the submission and are currently in the process of acceptance by the Development Engineer. All of the Design Reports shall be accepted by the City prior to registration of the Subdivision.

5.2 WATER DISTRIBUTION SYSTEM

5.2.1 Existing Utilities

There is an existing 250mm waterline along 116th Street. The line extends along the west side of the road allowance to within 250m of Highway 43. There is also a trunk main servicing developments north of Highway 43, which extends from the east to 112th Street.

5.2.2 Flow Requirements

Richmond Industrial Park does not currently meet the City fire flow requirement of 225l/s for industrial/commercial areas. The calibrated flow modelling for the 1995 Water Distribution System Master Plan shows an expected fire flow of 96l/s at the intersection of 96th Ave and 116th Street.

The City of Grande Prairie is currently evaluating the requirements and location for a reservoir and pump house to improve the fire flows in this section and provide for future servicing of the airport and other land development in this area. The timing of the development of this reservoir has not yet been finalized, but is anticipated to be in the near future. If the reservoir and pump house are not operational at the time of the development of the initial lots in Phase 1, the following has been proposed as an interim measure:

- The Fire Underwriter Survey will allow for up to 50% reduction in the required fire flow for complete automatic sprinkler protection. The systems must be fully supervised, designed and installed according to NFPA 13 sprinkler standards. With sprinklers, the fire flow requirements for these lots would be reduced to 112.5l/s, which can be obtained without the reservoir under the proposed piping arrangement.
- The Developer will place a caveat in a form acceptable to the City on the title requiring automatic sprinkler protection. This caveat would be in place until such time as the reservoir and pump house were operational. Once they are operational, the full fire flows of 225 l/s would be available. The caveats would then be discharged from the titles by the Developer.

5.2.3 Modeling

A pump house and reservoir is required in order to provide adequate fire flows to all future development in the west end of the City. The location and capacity of the facility are currently being determined by the City. These facilities must be constructed in order for the area to achieve the necessary fire flows of 225l/s for industrial/commercial areas.

Existing water modelling data for the City was utilized and expanded to include the proposed development area. The system was looped by extending the internal piping up to the highway and east along the highway to the existing transmission main. Under this development, a fire flow of at least 112.5 can be reached for most of Phase I. The lots that are able to meet this flow are identified on Figure 7. No other lots will be developable until the pump house and reservoir are put into commission.

The water mains will also be extended west through the property and up to Highway 43 at the intersection of 120th Street. This line will be utilized by the City to connect to the future reservoir and pump house.

5.2.4 Proposed Piping System and Phasing

The phase I piping system will consist of extending the off-site system along Highway 43 to the East, and up to Highway 43 at 120th Street. Piping will also be connected at two locations on 116th Street. Internal piping will be looped and extended to the phase boundaries shown on Figure 7. Phases II and III will be added systematically as need arises. Phase III will require cooperation with the neighbouring landowner. It is understood that Phase II and III cannot proceed until the completion of the reservoir and pump house by the City of Grande Prairie.

5.3 SANITARY SEWER SYSTEM

5.3.1 Existing Utilities

There are existing sanitary sewer lines along 116th street; however, they do not have sufficient depth or capacity to accommodate the proposed development. Un-utilized capacity is temporarily available in the 375mm trunk main along the highway at 112 Street, which was designed to accommodate flow from future development north of the highway. This capacity has been committed in existing agreements with the City.

5.3.2 Proposed Sewer System & Phasing

The proposed sewer system consists of gravity lines flowing to a lift station in the southeast corner of the development. This location is subject to change, as the Sewage Design Report has not yet been accepted, and the City of Grande Prairie wishes to examine the feasibility of servicing the airport and the Brochu development with the proposed lift station. Wastewater will be temporarily pumped to the 375mm trunk main along the highway, which will require extension to 116th Street. The proposed system is shown on Figure 8.

Phase I will include the off-site upgrades, lift station and force main. Gravity lines will be extended from the lift station to the phase boundaries as they progress. Lines should be designed to accommodate flow from future development to the south and west. The City of Grande Prairie will monitor the loading from the lift station, and will require that storage be added to the lift station when flows increase to the point that the sewer has reached its capacity.

5.4 STORM SEWER SYSTEM

5.4.1 Existing Utilities

There are two existing storm sewer lines adjacent to the proposed development. One is located at 97th Avenue and the second at 96th Avenue. Both lines flow to the east into Richmond Industrial. The Storm Drainage Master Plan modelling currently indicates that there is additional capacity in the 96th Avenue storm sewer, but there is some surcharging in downstream lines during the 1 in 5 year events.

5.4.2 Proposed Catchment Area

The catchment area for ultimate sizing of the storm pond consists of the entire north half of Section 21 and portions of the south half as shown on Figure 3. The area is bounded on the north by the highway, the west by the section line, the east by 116th Street and on the south by the rail line and the high point through SW 21.

5.4.3 Proposed Storm Sewer System

Phase I of the development will tie directly into the existing storm lines on 116th Street. The piping will be connected to the area to the South, so that in the event of surcharging, the storm runoff can flow into storage to the south. The north portion of phase I will connect to the existing manhole at 97th Avenue. The south portion of phase I will connect to the existing manhole at 96th Avenue. A portion of this pipe will also serve as the future outfall line from the storm pond proposed for phase II.

The storage will be located near the southeast corner of the development and is scheduled for phased construction. The storage will be expanded as necessary to accommodate future development. The public utility lot is proposed for the south boundary of the development. The additional area required for the Storm Pond expansion when development occurs to the South will be provided by the developer contiguous to the existing storm pond. The proposed system is shown on Figure 9.

5.5 SHALLOW UTILITIES

An easement shall be provided as required at the front of the lots in order to accommodate natural gas, power and telecommunication lines. All lines shall be underground in accordance with current City of Grande Prairie requirements. Exact utility locations may be subject to change. The existing overhead lines along the development at 116th Street will have to go underground or be relocated outside of the Highway Commercial property in accordance with City policies.

6.0 IMPLEMENTATION

6.1 PHASING

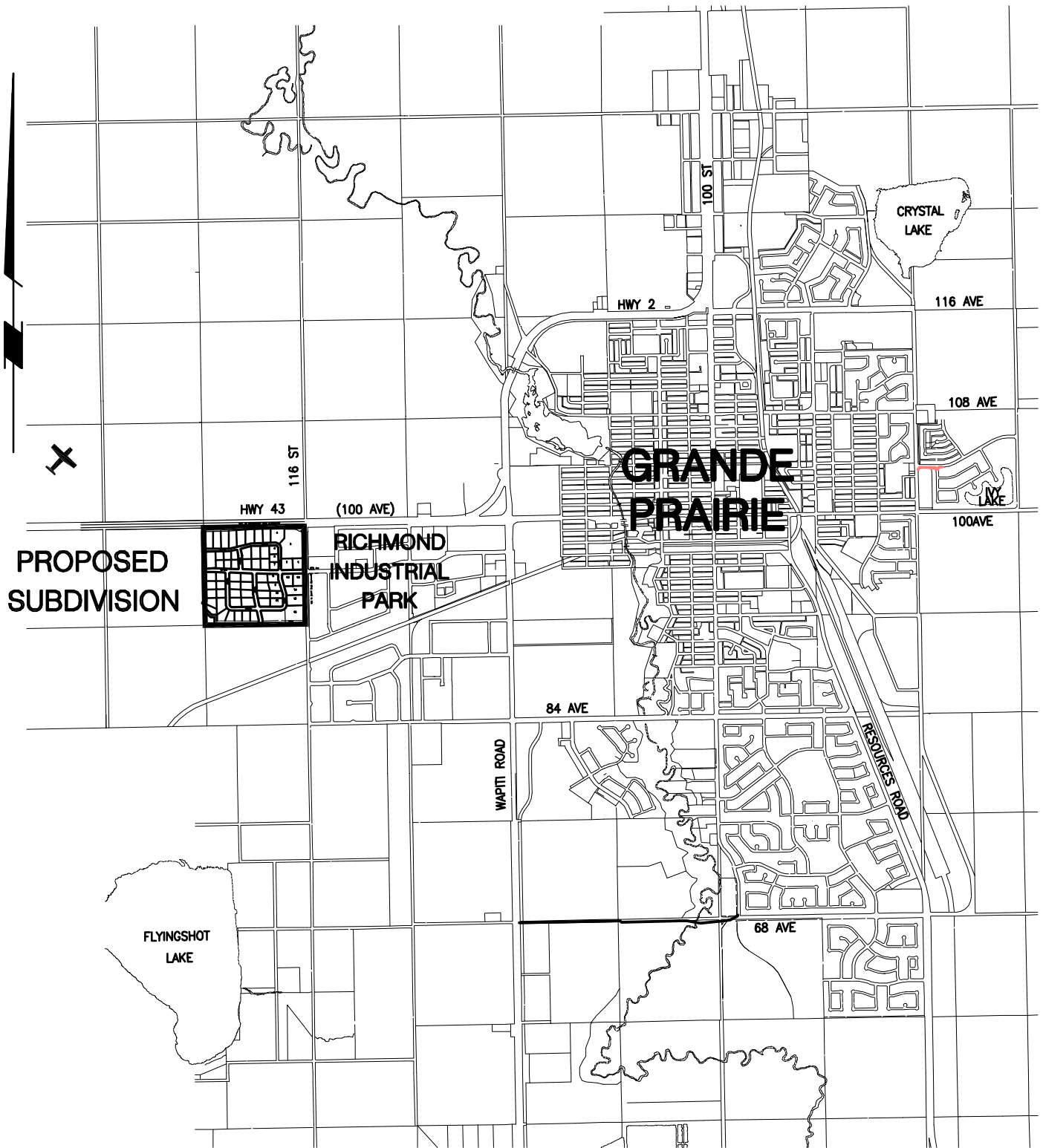
It is expected that development will progress from east to west as demand dictates. The phase boundaries presented in Figure 4 may be subject to change.

6.2 DEVELOPMENT POLICIES

The Outline Plan will be approved by resolution by the City of Grande Prairie Council. The Outline Plan is intended to provide a general outline of development concepts including zoning, traffic circulation, water and sewer servicing and drainage but has some flexibility to allow for minor changes made during the detailed design stage. Major changes to the development concepts presented herein will require an amendment to the plan.

6.3 CLOSURE

The Centre West Business Park Outline Plan was prepared by Stewart, Weir & Co. Ltd. for the City of Grande Prairie on behalf of 838308 Alberta Ltd. The plan was prepared in compliance with the Outline Plan Requirements published by the City of Grande Prairie.

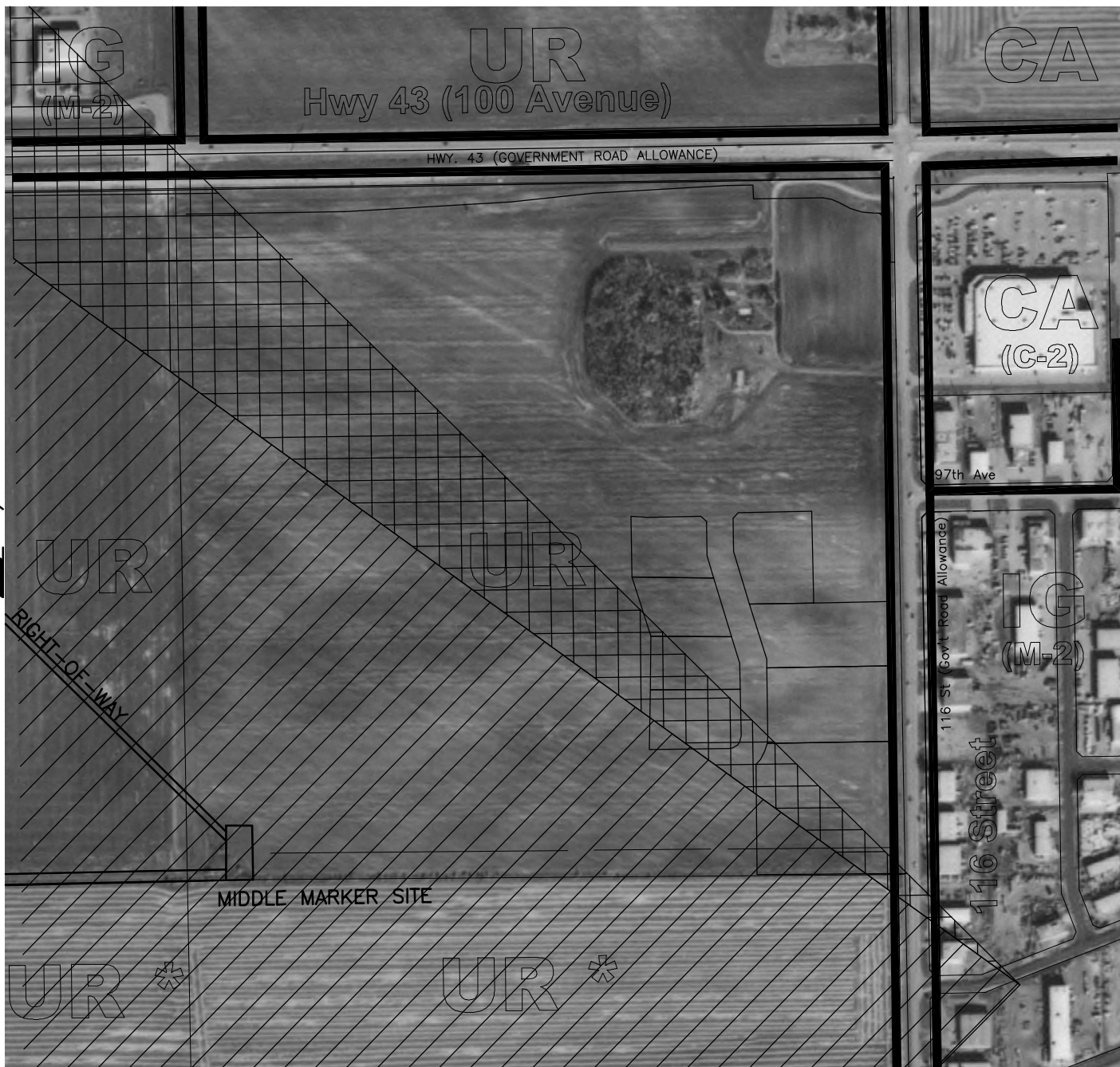


OUTLINE PLAN
CENTRE WEST BUSINESS PARK
 N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE

Figure 1
Location Plan

 **STEWART, WEIR & CO. LTD.**
 11405 - 163 STREET, EDMONTON 451-6465

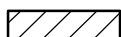
Design: KD/ECP	Scale: NTS
Drawn: Jim/LCW/ECP	Date: Sept 23, 2002
File No. 30.2.27061	Dwg: 1 OF 9



LEGEND



Airport Approach - Transitional Surface (1:7)



Airport Approach - Precision Surface (1:50)

AIRPORT APPROACH PROVIDED BY INFRASTRUCTURE SYSTEMS LTD.

CA

Arterial Commercial

IG

General Industrial

UR

Urban Reserve

UR *

Urban Reserve - County L.U.B.

OUTLINE PLAN CENTRE WEST BUSINESS PARK N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6 CITY OF GRANDE PRAIRIE

Figure 2 Existing Land Use



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Design: KD/ECP

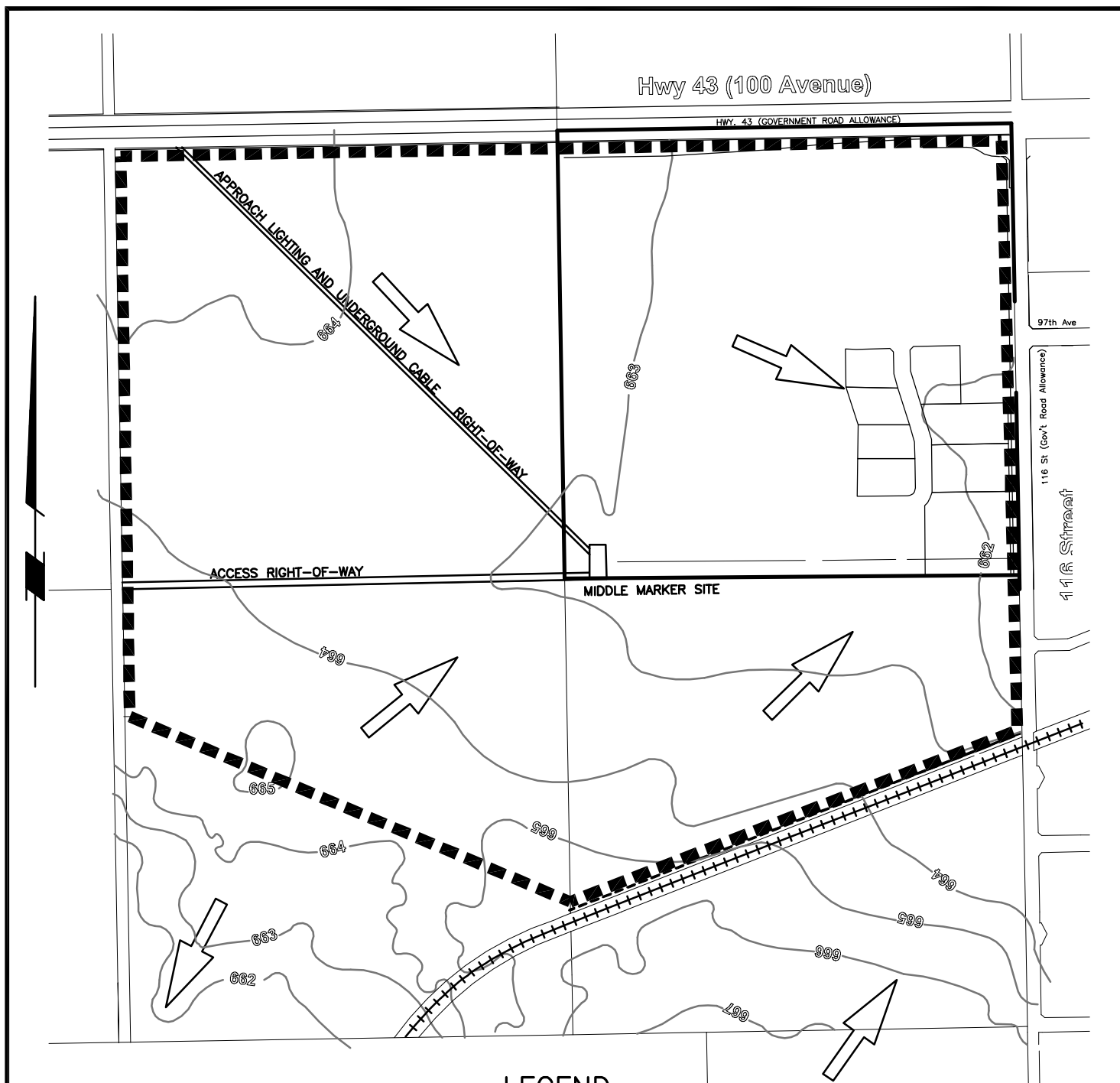
Scale: NTS

Drawn: Jim/LCW/ECP

Date: Sept 23, 2002

File No. 30.2.27061

Dwg: 2 OF 9



LEGEND

- 1m Contours
- ➔ Drainage Route
- - - - - Rail Line
- ===== Airport Lighting Facilities
- ▬▬▬▬▬▬ Catchment Area

BASE MAP PROVIDED BY INFRASTRUCTURE SYSTEMS LTD.

OUTLINE PLAN CENTRE WEST BUSINESS PARK N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6 CITY OF GRANDE PRAIRIE

Figure 3 Topographic Plan

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Drawn: Jim/LCW/ECP	Date: Sept 23, 2002
File No. 30.2.27061	Dwg: 3 OF 9



BASE MAP PROVIDED BY INFRASTRUCTURE SYSTEMS LTD.

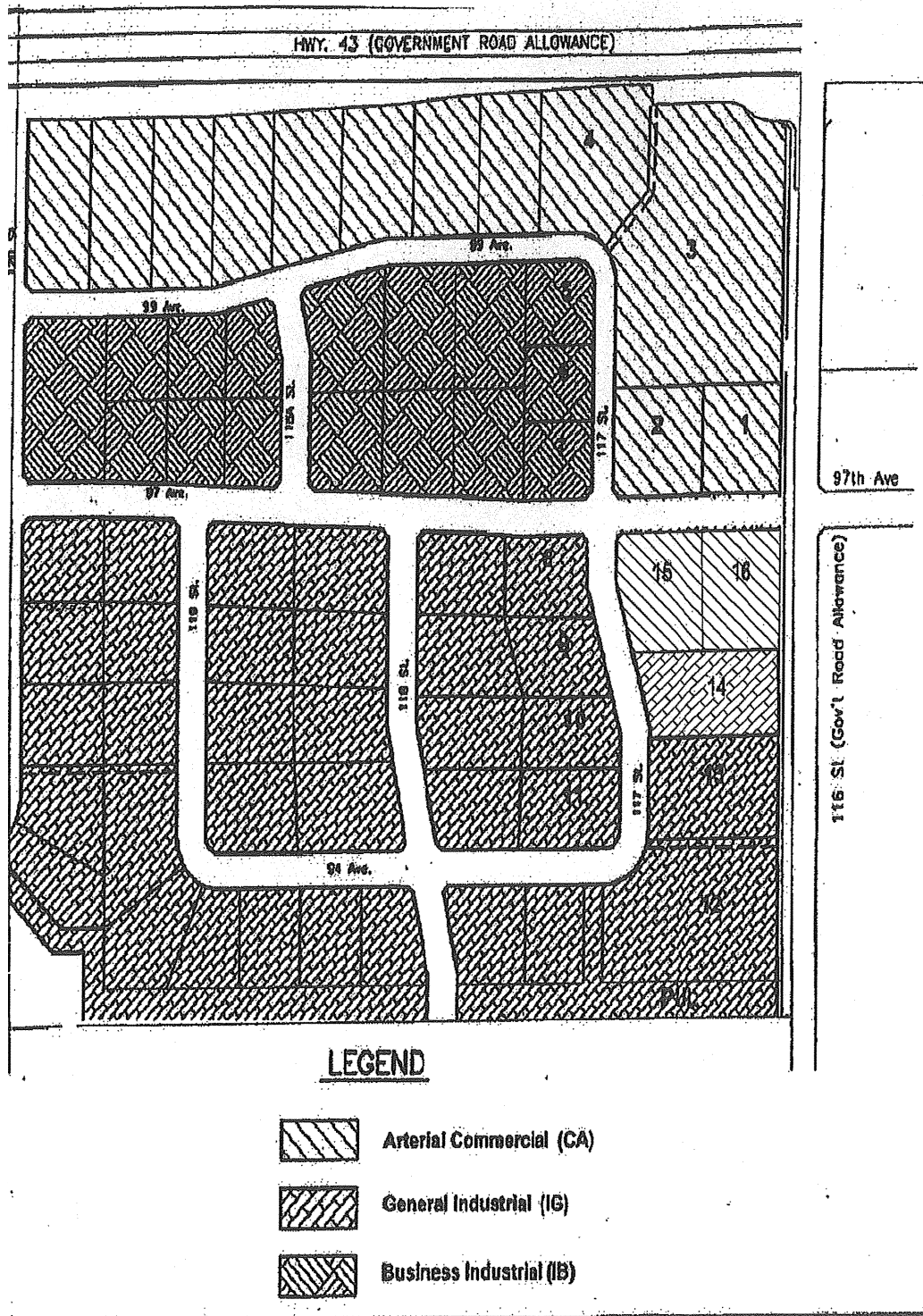
OUTLINE PLAN
CENTRE WEST BUSINESS PARK
N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE



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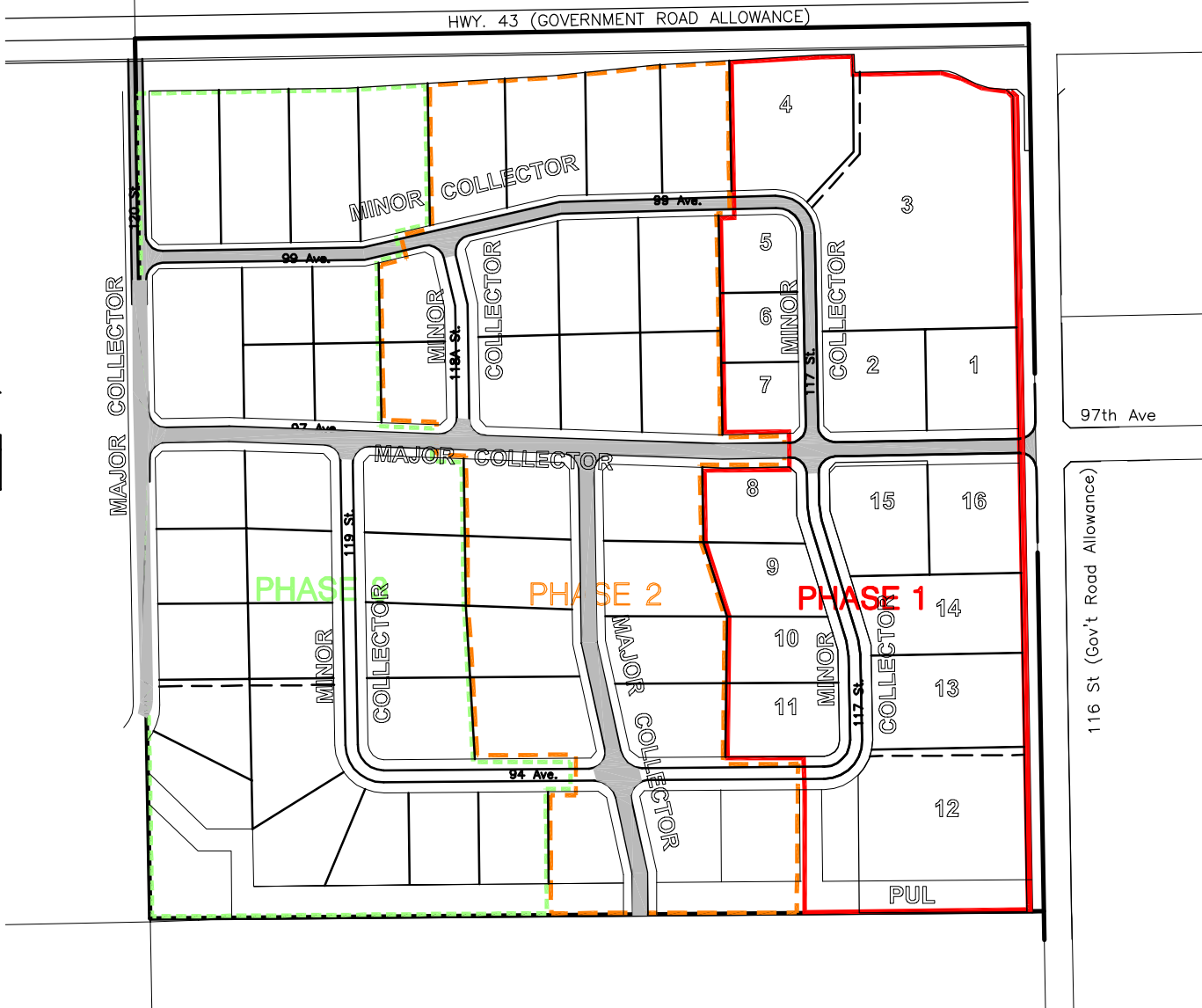
Figure 4
Proposed Lot Layout
& Phasing

Design: KD/ECP	Scale: NTS
Drawn: Jim/ECP	Date: Sept 23, 2002
File No. 30.2.27061	Dwg: 4 OF 9



**OUTLINE PLAN
CENTRE WEST BUSINESS PARK**

Figure 5
Proposed Land Use
OP-02-01B
October 15, 2012

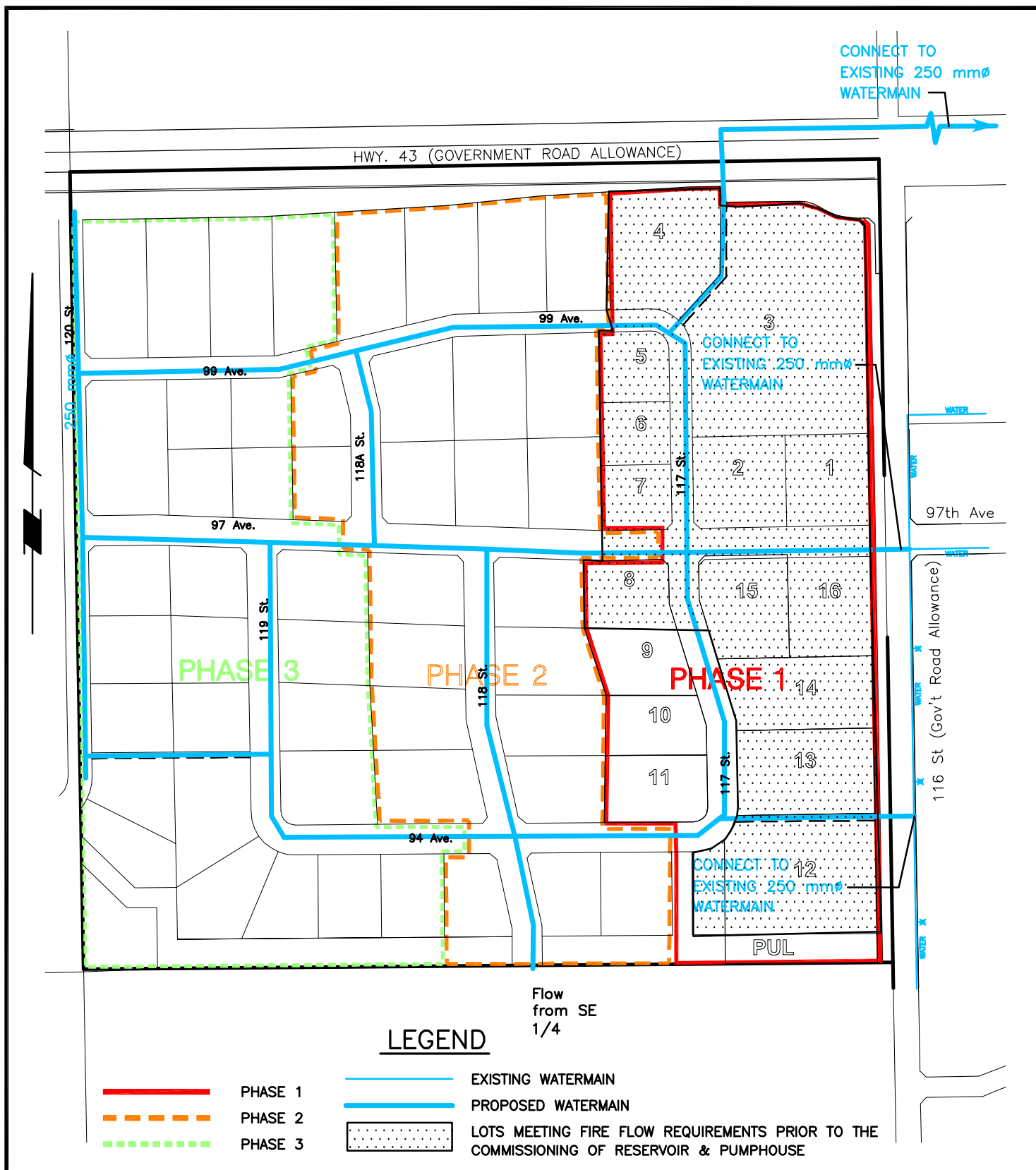


LEGEND

——	PHASE 1		Urban Cross Section
----	PHASE 2		Rural Cross Section
.....	PHASE 3		

OUTLINE PLAN
CENTRE WEST BUSINESS PARK
 NE. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE

Figure 6
Transportation Plan



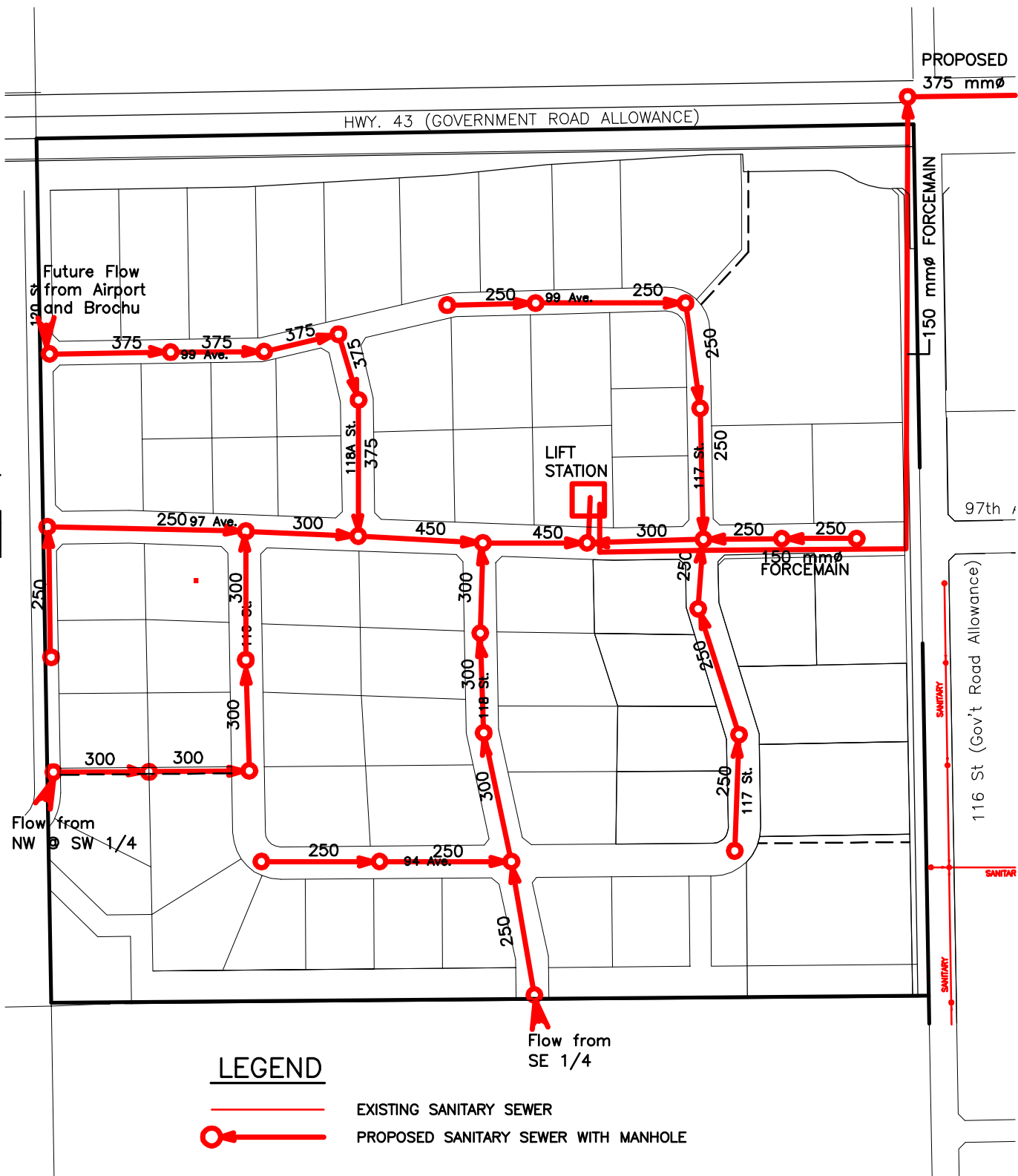
OUTLINE PLAN
CENTRE WEST BUSINESS PARK
 N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE

Figure 7
Water Distribution System



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OUTLINE PLAN
CENTRE WEST BUSINESS PARK
 N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE




Figure 8
Sanitary Sewer System

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Design: KD/ECP	Scale: NTS
Drawn: Jim/LCW/ECP	Date: Sept 23, 2002
File No. 30.2.27061	Dwg: 8 OF 9



LEGEND

-  EXISTING STORM SEWER
-  PROPOSED STORM SEWER WITH MANHOLE
-  SURFACE DRAINAGE FLOW DIRECTION

NOTE: DRAINAGE REVERSES IN SOME PIPE SECTIONS DURING MAJOR STORM EVENTS TO DIRECT EXCESS FLOWS INTO STORM STORAGE

OUTLINE PLAN
CENTRE WEST BUSINESS PARK
 N.E. 1/4 SEC. 21 - TWP. 71 - RGE. 6 - W. 6
CITY OF GRANDE PRAIRIE

Figure 9
Storm Sewer System