

WEST CARRIAGE LANE OUTLINE PLAN

OP-08-12
Council Resolution January 26, 2009

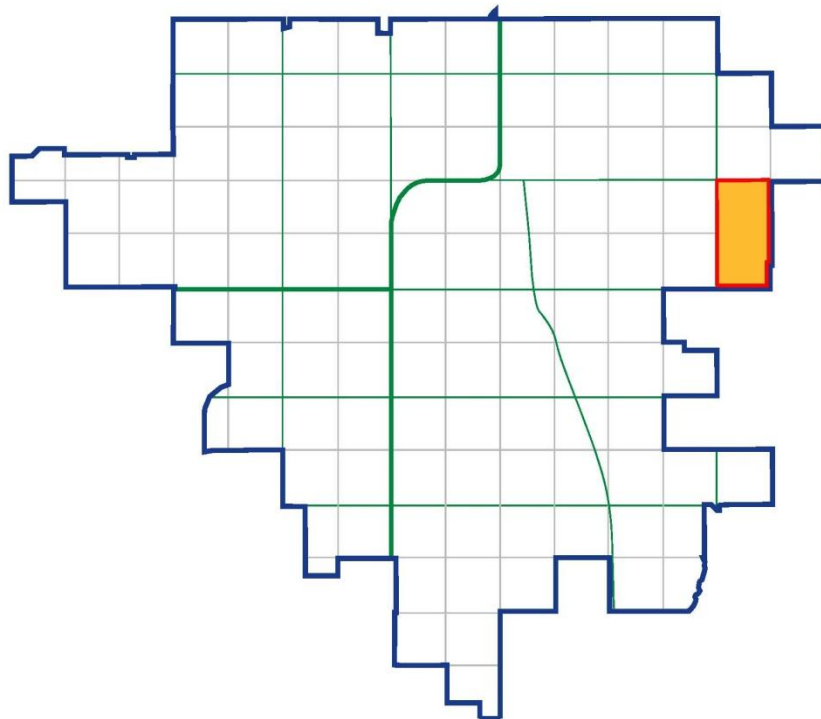


Table of Contents

1.0. INTRODUCTION 4

 1.1. Foreword..... 4

 1.2. Report Format..... 4

2.0. PHYSICAL ANALYSIS..... 4

 2.1. Location & Context 4

 2.2. Topography & Vegetation..... 4

 2.3. Soils 4

 2.4. Land Ownership 5

 2.5. Surrounding Land Uses 5

3.0. POLICY FRAMEWORK 5

 3.1. Municipal Development Plan..... 5

 3.2. Land Use Bylaw 5

 3.3. North East Area Structure Plan 5

4.0. PLAN OBJECTIVES..... 6

 4.1. Overall Objectives 6

 4.2. Residential..... 6

 4.3. Open Space 6

 4.4. Transportation 7

 4.5. Utilities 7

5.0 LAND USE CONCEPT 7

 5.1. Introduction 7

5.2.	Residential.....	7
5.3.	Open Space	8
5.4.	Schools	8
5.5.	Commercial	8
6.0	SERVICING	8
6.1.	Water	8
6.2.	Sanitary Sewers.....	9
6.3.	Sanitary Basin Study.....	9
6.4.	Storm Sewers	10
6.5.	Shallow Utilities.....	11
7.0.	TRANSPORTATION	11
7.1.	General.....	11
7.2.	Arterial Roadways	11
7.3.	Collector Roadways.....	11
7.4.	Pedestrian Connections	12
8.0	IMPLEMENTATION	12
8.1.	Land Use Amendment.....	12
8.2.	Staging.....	12
	Table 1—Land Use Summary	13
	Table 2—Outline Plan Population Estimates	14
	Table 3—Student Generation	15

Figures

- Figure 1 Location Plan Amended OP-08-12A Amended January 13, 2014
- Figure 2 Existing Conditions Amended OP-08-12A Amended January 13, 2014
- Figure 3 Existing Land Uses Amended OP-08-12A Amended January 13, 2014
- Figure 4 Development Concept Amended OP-08-12A Amended January 13, 2014
- Figure 5 Open Space Plan Amended OP-08-12A Amended January 13, 2014
- Figure 6 Water Servicing Amended OP-08-12A Amended January 13, 2014
- Figure 7 Sanitary Servicing Amended OP-08-12A Amended January 13, 2014
- Figure 8 Stormwater Servicing Amended OP-08-12A Amended January 13, 2014
- Figure 9 Transportation Plan Amended OP-08-12A Amended January 13, 2014
- Figure 10 Staging Plan Amended OP-08-12A Amended January 13, 2014
- Figure 11 Zoning Amended OP-08-12A Amended January 13, 2014
- Figure 12 Street Names Amended OP-08-12A Amended January 13, 2014

1.0. INTRODUCTION

1.1. Foreword

This report and proposed Outline Plan (OP) has been prepared on behalf of Carriage Lane Estates Ltd., a major land owner within the plan area. The purpose of the plan is to provide a framework for development of the area that encourages attractive and economical development in a manner that is compatible and complementary to existing development in north eastern Grande Prairie. The project is based on development objectives to achieve the highest urban residential environment standards possible consistent with market requirements. It is the intent to pursue orderly, economical and staged development at the earliest date possible.

1.2. Report Format

This report is divided into eight sections containing the relevant criteria for the evaluation of the project. Sections one through three provide background information necessary for preparation of alternatives. Sections four through seven describe the relevant elements of the plan including the plan objectives, land use, servicing and transportation and Section eight describes the anticipated implementation procedures.

2.0. PHYSICAL ANALYSIS

The following outlines the physical opportunities and constraints which have been evaluated in the preparation of the West Carriage Lane OP.

2.1. Location & Context

The property is located in the eastern most part of the City of Grande Prairie. Located in the western half of Section 29-71-5-W6M, the property was recently annexed to the City (see Figure 1). The area contains approximately 128 hectares of land and is bounded on the south by 100 Avenue, on the west by 84 Street, and on the north by the future extension of 116 Avenue. The Carriage Lane country residential development is immediately east of and adjacent to the plan area in the County of Grande Prairie.

2.2. Topography & Vegetation

The land is gently rolling and gradually slopes from 670m in the northeast to 659m in the southwest with a difference in elevation of approximately 11 meters. Some intermittent mounds occur throughout the property and should not result in any impediments to development. The vegetation on the property is very limited and consists of a few scattered wood lots. Most of the property is under cultivation (see Figure 2).

2.3. Soils

A geotechnical analysis has been performed on the property and indicates the soils are suitable for development. Soils are therefore not expected to have any negative impacts on development.

2.4. Land Ownership

The entire subject property is owned by Ronald Kimble and Cheryl Kimble. No other land ownership exists within the plan boundary and will therefore not pose any constraints to development.

2.5. Surrounding Land Uses

Surrounding land uses are not expected to pose any significant constraints to development. The subject property is surrounded by existing and proposed residential development to the northeast and west. Lands to the south remain within the County of Grande Prairie and are expected to continue to be agricultural for some time (see Figure 3). The lands immediately to the east are occupied by Carriage Lane Estates, which are part of the County of Grande Prairie.

3.0. POLICY FRAMEWORK

There are a number of documents and policies that guide this report and OP proposal. These include the following:

3.1. Municipal Development Plan

The City of Grande Prairie Municipal Development Plan (MDP) was last updated in September of 2008. The subject lands area included in this update and the proposed OP complies with the MDP.

3.2. Land Use Bylaw

The lands are currently districted as Urban Reserve (UR) under the City of Grande Prairie Land Use Bylaw. Re-districting to the appropriate City of Grande Prairie land use districts will have to be undertaken in order to allow development to occur.

3.3. North East Area Structure Plan

The proposed lands were not included in the Northeast Area Structure Plan (ASP) adopted by the City of Grande Prairie in April 2003. As such, an application to amend the ASP to include the subject lands will be submitted concurrently to this OP.

4.0. PLAN OBJECTIVES

The recognition of the potential role of the development area as an important segment of the urban fabric of the City of Grande Prairie leads to the formulation of a number of objectives which should guide the development of the area.

4.1. Overall Objectives

- To develop a community that is consistent and compatible with itself;
- To provide services to standards of the City of Grande Prairie;
- To provide planning flexibility and stimulate innovation in planning and design of residential areas through the use of development controls;
- To encourage energy efficiency in planning with the use of proper site orientation techniques and vegetation wherever possible; and
- To allow for economical phased development at the earliest practical date consistent with City policies.

4.2. Residential

- To create a unique, yet attractive residential neighborhood; and
- To conform to neighborhood planning requirements utilizing quality urban design principles.

4.3. Open Space

- To meet the needs of future residents for parks, both passive and active;
- To recognize the open space opportunity of the stormwater management facility;
- To develop park and open space in accordance with the provisions of the City of Grande Prairie Parks Master Plan; and
- To fulfill the statutory requirements of the Municipal Government Act (MGA) by providing 10% of the area for open space in the form of neighborhood parks, schools with additional space provided in the form of parkways for stormwater conveyance and management with accompanying pedestrian trails and corridors.

4.4. Transportation

- To provide safe and convenient access for vehicles and pedestrians;
- To make available a portion of the land for the future development of a north/south arterial roadway adjacent to the west end of the property;
- To limit the shortcutting of traffic through the residential areas; and
- To provide an efficient hierarchical circulation system for automobiles, pedestrians and bicycles within the neighborhood.

4.5. Utilities

- To provide an economical servicing system and phasing sequence based on extending municipal services and utilities; and
- To incorporate stormwater retention or detention facilities into the plan as amenity areas wherever practical.

5.0 LAND USE CONCEPT

5.1. Introduction

The West Carriage Lane Estates OP has been developed following consultation and advice from the City of Grande Prairie administration, a site reconnaissance and a cursory market analysis. The plan indicates possible design concepts for local road patterns and residential density distribution. The concept is intended to guide the future development of the site area. A number of constraints were identified in the preparation phases and have been incorporated wherever possible into the final design. The following provides a brief explanation of the various land uses and development pattern proposed within the West Carriage Lane OP area, (see Figure 4).

5.2. Residential

It is envisioned the neighborhood will be developed as primarily a low density residential community. Approximately 55.7 hectares of net developable land will be allocated for street oriented single detached dwellings with front attached garages. Lot sizes are expected to range from 10m – 15m in width and will be developed primarily in accordance with the Combined Density (RL) and General Residential (RG) districts of the City of Grande Prairie LUB. In total, an estimated 1010 low density residential dwelling units and 593 multiple family units will be developed resulting in approximately 4,240 people.

5.3. Open Space

In accordance with the requirements of the MGA, 12.4 hectares of land within the plan area (10% of the Gross Developable Area) will be dedicated as municipal reserve. This will include a central park/school site of approximately five hectares in size. In addition, a small entrance feature park and various neighborhood parks totaling approximately 7.4 hectares will be created. The stormwater management facilities will also provide additional open space benefit for area residents in the form of ponds and linear parkways. Linear parks located along the east boundary of the area will provide important pedestrian linkages to the central park, school and trails, as well as serve as a meeting point between the differing land uses of the subject lands and the Carriage Lane Estates to the east. The plan area includes neighborhood parks, linear parks, stormwater ponds and public utility lots adjacent to the ponds and some parks. This will result in over twenty nine hectares of land being allocated for open space within West Carriage Lane Estates (see Figure 5).

5.4. Schools

The West Carriage Lane neighborhood is expected to generate approximately 620 primary (K-9) school students. This is sufficient to warrant development of a school at full build out. Therefore, an elementary school site has been allocated for this area. There are anticipated to be 207 high school students generated, therefore no provisions have been made for junior high or senior high schools

5.5. Commercial

A two hectare neighborhood commercial site has been identified adjacent to the western boundary adjacent to 84 Street. It is envisioned that convenience commercial uses such as a gas bar, convenience retail and local specialty shops could be developed there. Specific details of the actual development uses will be determined as the project proceeds.

6.0 SERVICING

6.1. Water

The plan area will have two main feeds located at the north end on 116 Avenue and at the south end on 100 Avenue. Both of these connections are anticipated to be 300mm diameter. Additional connections and looping will be provided through the existing Carriage Lane Estates development and the future developments of Woodgrove and Crystal Landing. This is illustrated on Figure 6.

Additional information pertaining to the water distribution / fire system is outlined in the design report for water.

6.2. Sanitary Sewers

A network of gravity sanitary sewer mains ranging in size from 200mm to 375mm is proposed to collect sanitary sewerage from this area as illustrated in Figure 7. Servicing will collect flows from this area and from the existing Carriage Lane Estates low pressure system (located to the east of the plan area) to a lift station in the southwest corner of the plan area. From this location a number of servicing options exist.

A 300mm diameter forcemain exists from the southwest corner of the plan area, extending south along Range Road 55 to 68 Avenue, then west to the 88 Street trunk sewer at Countryside North. This forcemain can be utilized for interim servicing to the existing 88 Street trunk sewer. As the basin for the 88 Street trunk sewer develops, there would be a need to either divert the flows from this plan area to another connection point (possibly the treatment plant) or provide storage for off-peak pumping. This will ensure that the interim solution for this plan area will not impact the ultimate servicing for the 88 Street trunk sewer basin area.

Through discussion with Aquatera it has been determined that there may be an opportunity to combine this plan area with other lands located to the south, creating a larger basin which could potentially be serviced by gravity to a point near 68 Avenue. A larger permanent lift station could be located at this location, making the West Carriage Lane lift station a temporary facility. Possible servicing from that point could include storage and off-peak pumping to the 88 Street trunk or alternatively, extending the forcemain from Countryside North to another connection point outside the 88 Street trunk sewer basin. The ultimate servicing solution will be determined through a basin study for the natural drainage area. Additional information pertaining to the sanitary sewer system is outlined in the design report for sanitary sewer.

6.3. Sanitary Basin Study

A network of gravity sanitary sewer mains ranging in size from 200mm to 375mm is proposed to collect sanitary sewerage from this area as illustrated in Figure 7. Servicing will collect flows from this area and from the existing Carriage Lane Estates low pressure system (located to the east of the plan area) to a lift station in the southwest corner of the plan area. From this location a number of servicing options exist.

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The ultimate servicing solution will be determined through a basin study for the natural drainage area.

Additional information pertaining to the sanitary sewer system is outlined in the design report for sanitary sewer.

As indicated in the Sanitary Design Report, interim servicing of this area could have an effect on the development of the lands within the 88 Street trunk sewer basin. As a result, rezoning and development of West Carriage Lane shall not proceed until the Basin Study is complete.

6.4. Storm Sewers

The plan area consists of a single drainage basin. As illustrated on Figure 8, a linear pond concept is being proposed for the area. This system will provide an opportunity for continuous open space and trails through the plan area and reduce the quantity, size and depth of storm sewer required when compared to a conventional pond. The three northern ponds are interconnected and will have the same water levels, both normal and high water. The southwest pond will be designed at a lower elevation, requiring a control structure between this pond and the one to the north.

In addition, a control structure will be provided at the southwest corner of this pond to control the final discharge off-site. The ponds will provide storage for the 1:100 year event with peak flow being attenuated to 5 l/s/ha. The system will ultimately discharge into the Woody Channel. The final discharge location will be resolved at detailed design.

This area is not covered by the City's existing Storm Water Master Plan or license. As a result, the adoption of this OP will serve to amend the storm drainage master plan, and administration will be required to amend the license after adoption. Water quality issues are to be addressed in the storm sewer design report, with the major feature being sediment removal through the long flow paths with the wet ponds.

There are a number of wetlands within the OP area. A wetland assessment has been completed and compensation has been paid in order to allow the development of the wetlands as per this plan.

Additional information on the drainage concept is outlined in the design report for stormwater management.

6.5. Shallow Utilities

All shallow utilities are to be extended into the plan area by the individual franchise holders as required. As previously indicated, the existing overhead power transmission line along 84 Street will remain overhead and all lots/buildings will be placed in accordance with the minimum distance of 7.0m from the existing pole alignment, or from the power line right of way, whichever is greater. ATCO Electric will require a three-phase overhead power line at the south end of the property with the provision that it would be replaced by an underground line as the subdivision develops.

Telus will require 5x5m PUL's within the plan area to accommodate large infrastructure. These areas will be provided at subdivision.

7.0. TRANSPORTATION

7.1. General

The transportation system in West Carriage Lane will facilitate the efficient circulation of people through this area.

7.2. Arterial Roadways

As illustrated in Figure 9, the plan area is served by three arterial roads, 100 Avenue, 84 Street and 116 Avenue. The existing access to 100 Avenue is paved to a rural standard. The 116 Avenue and 84 Street arterial roadways are non-existent at the time of this OP.

Arterial road widening has been allowed for along 100 Avenue and half of the ultimate right of way of 45.5m has been allowed for the future 116 Avenue (currently no right of way exists). There is an existing overhead power line along the east side of the 84 Street right of way which is a transmission line and will remain as is with no plans for relocation. In order to accommodate the future arterial, a road cross section was reviewed and agreed upon by the City, ATCO and the developers with the required widening to be taken from the lands to the west.

The lots backing onto the arterials have been designed with extra depth in order to accommodate noise attenuation.

7.3. Collector Roadways

Collector access to the plan area is provided as illustrated, connecting into 84 Street at two locations, consistent with the Woodgrove and Crystal Landing OP's, and into the existing Carriage Lane Estates country residential neighborhood to the east. The remainder of the area is serviced by local roads. The area indicated as RL may include rear lanes.

7.4. Pedestrian Connections

Accommodation for pedestrians is provided through the development of an asphalt trail system along the stormwater ponds and concrete sidewalks within the development, connecting the open spaces, parks, school site and adjoining neighborhoods. These linkages are illustrated on Figures 5 and 9.

8.0 IMPLEMENTATION

The West Carriage Lane Estates neighborhood can be readily serviced and easily phased. Development is intended to commence in 2009 and depending on market conditions, will take approximately six to ten years to complete.

8.1. Land Use Amendment

The lands are currently zoned Urban Reserve (UR) under the City of Grande Prairie LUB. The lands have recently been annexed into the City of Grande Prairie, so a rezoning to the appropriate residential land use category will be required as the project proceeds.

8.2. Staging

Development in West Carriage Lane is expected to take six to ten years to complete. Due to servicing and access, construction will start in the southwest corner of the neighborhood and extend easterly and northward from there as market demands. Figure 10 depicts the general progression of the development, however specific staging boundaries will be determined as market demands.

Table 1—Land Use Summary

Land Use Category	ha	% of NDA
Gross Developable Area	128.2	
Less Existing Road Widening	3.8	
Net Developable Area (NDA)	124.4	100.0%
Residential	68.3	54.9%
Low Density (RL)	9.0	7.3%
Low Density (RG)	56.5	45.4%
Medium Density	2.8	2.2%
Commercial	2.0	1.6%
Roadways	21.6	17.4%
Storm Ponds	16.9	13.6%
Municipal Reserve	12.4	10.0%
Public Utility Lots	3.2	2.5%

(OP-08-12A – Amended January 13, 2014)

Table 2—Outline Plan Population Estimates

Residential Type	Area (ha)	Density (Units/ha)	Total Units	Population Density/Unit	Total Population	Population Density/ha
Low Density (RL)	9.0	24	216	3.2	691	77
Low Density (RG)	56.5	17	960	3.2	3072	54
Medium Density (RM)	2.8	69	193	1.7	328	117
Total	68.3		1369		4091	60

(OP-08-12A – Amended January 13, 2014)

Table 3—Student Generation

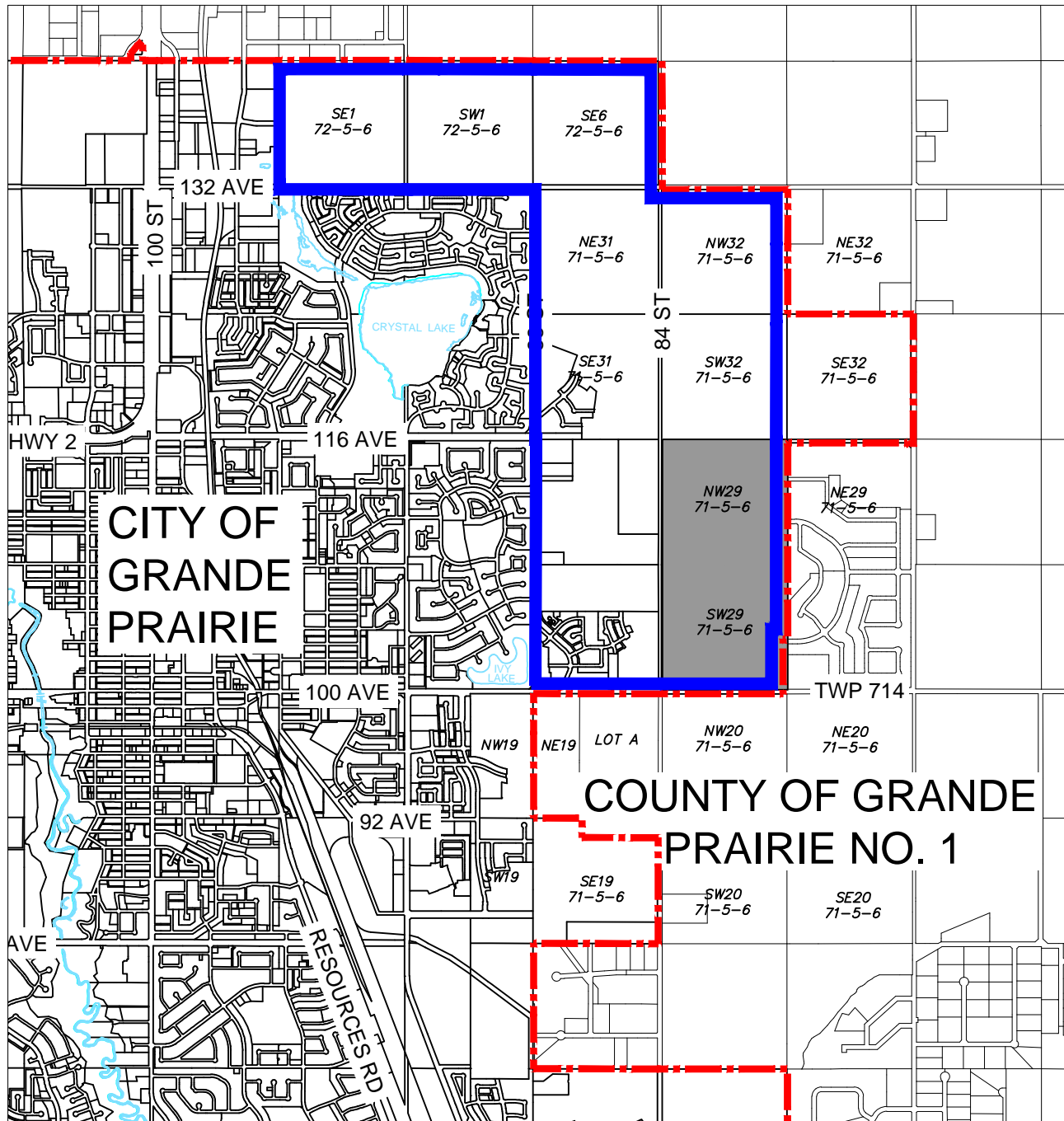
Total Population	4,091
Total Students	798
Public School Students	492
Grades K-9	379
Grades 10-12	113
Catholic School Students	306
Grades K-9	219
Grades 10-12	87
Total K-9	598
Total 10-12	200

Total Students ¹ :	195 students/1,000 population
Public School Students:	61.7% of Total Students
Catholic School Students:	38.3% of Total Students
Public K-9 Students:	77.0% of Total Students
Public 10-12 Students:	23.0% of Total Students
Catholic K-9 Students:	71.7% of Total Public Students
Catholic K-9 Students:	71.7% of Total Public Students
Catholic 10-12 Students:	28.3% of Total Catholic Student

(OP-08-12A – Amended January 13, 2014)

¹ Based on the 2007 Census.

West Carriage Lane Outline Plan



Legend

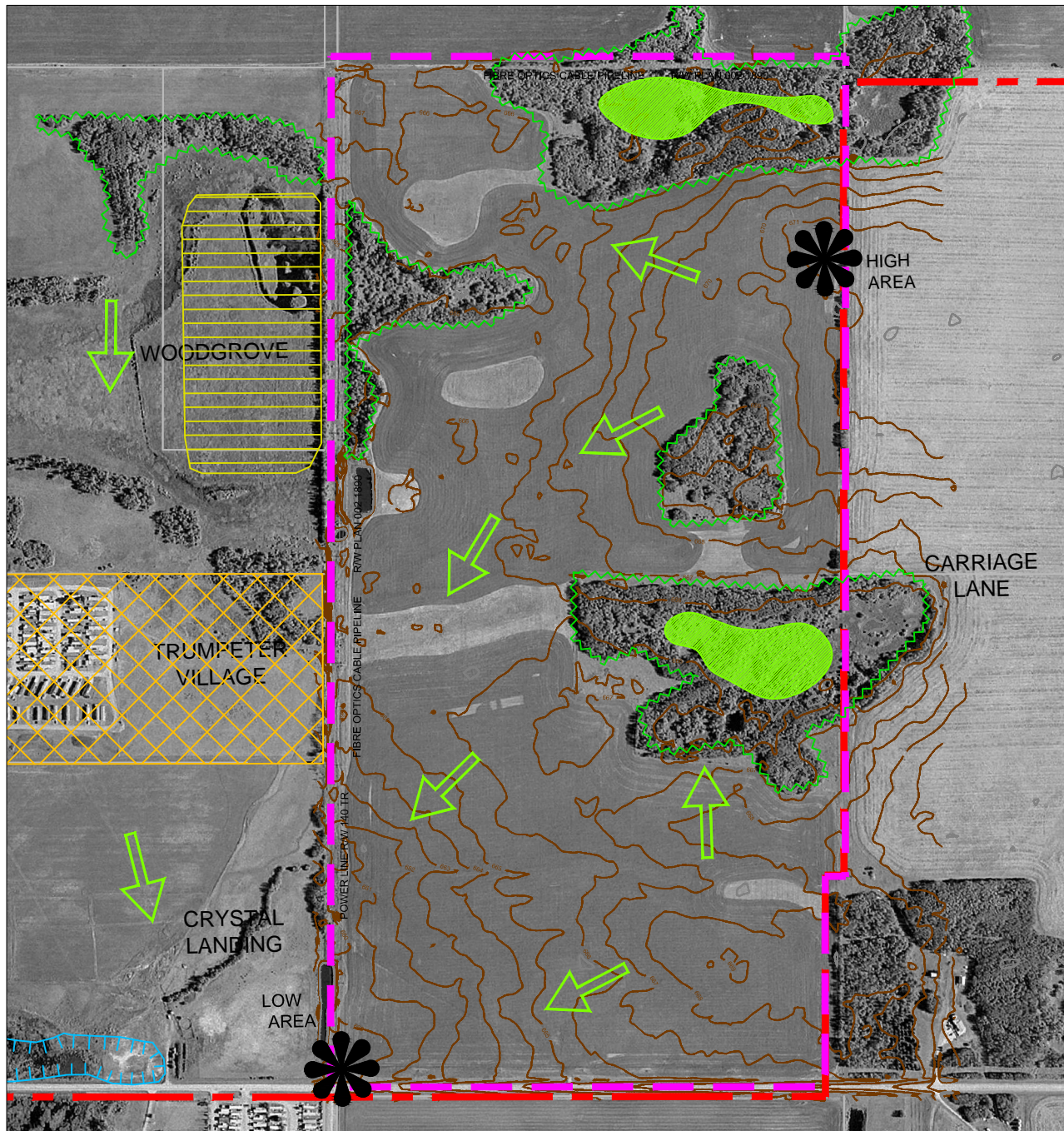
- North East Area Structure Plan Boundary
- Outline Plan Area
- City Boundary

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Figure 1: Location Plan

OP-08-12
January 26, 2009

West Carriage Lane Outline Plan



Legend

- | | | | |
|--|-----------------------|--|------------------------|
| | Outline Plan Boundary | | Treed Area |
| | City Boundary | | Water Body |
| | Direction of Flow | | T & E Mobile Home Park |
| | | | Peat Bog |
| | | | Existing Wetlands |

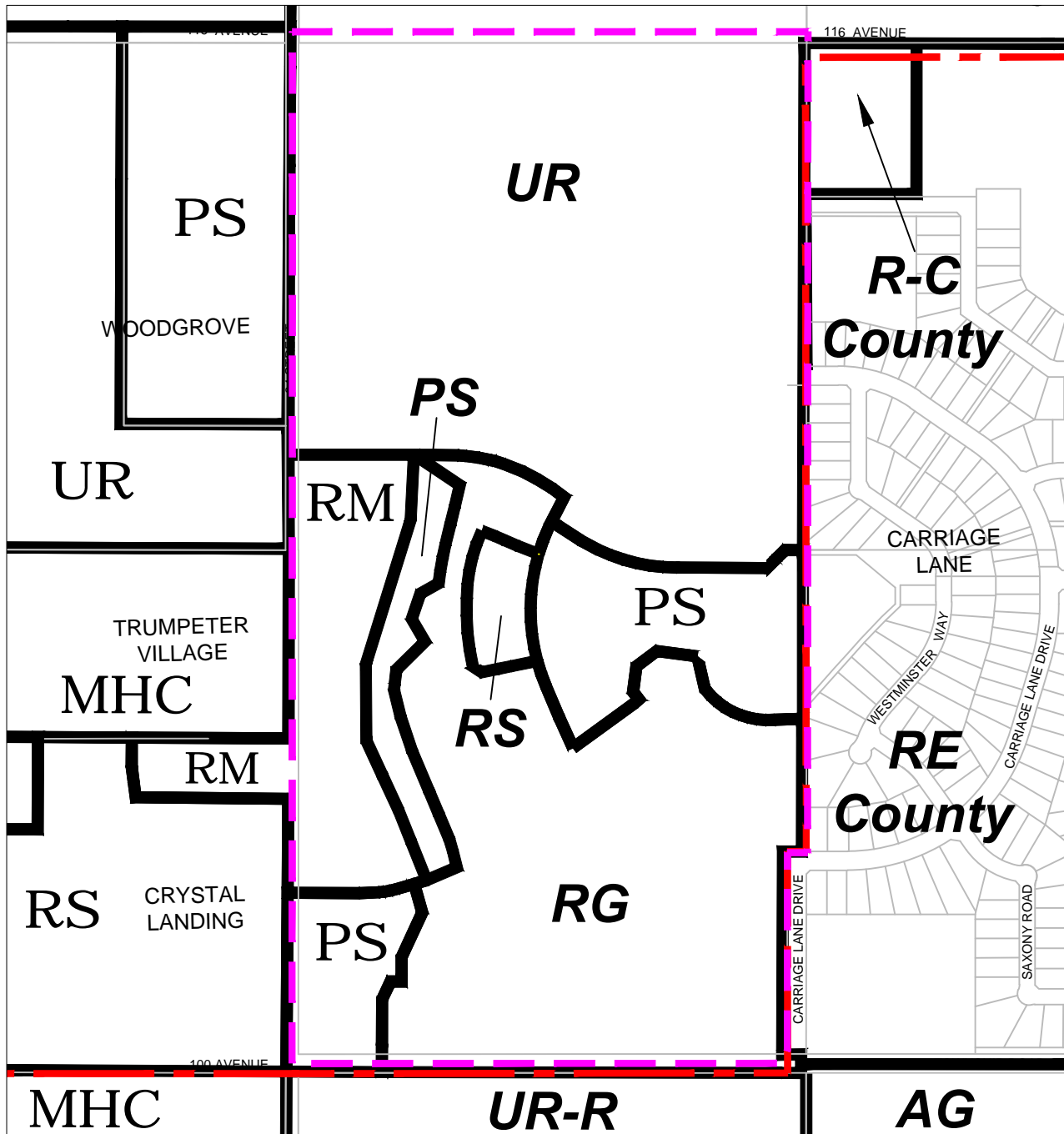


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Figure 2: Existing Conditions

OP-08-12
January 26, 2009

West Carriage Lane Outline Plan



Legend

	Outline Plan Boundary	RS	Small Lot Residential
	Zoning Boundary	RM	Medium Density Residential
	City Boundary	UR	Urban Reserve
MHC	Manufactured Home Community		
PS	Public Service		

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Figure 3: Existing Land Uses

OP-08-12
January 26, 2009

West Carriage Lane Outline Plan



Legend

- | | | | |
|--|--------------------------------|--|--------------------------------|
| | Outline Plan Boundary | | Public Utility Lot |
| | City Boundary | | Low Density Residential |
| | Park | | Low/Medium Density Residential |
| | Stormwater Management Facility | | Medium Density Residential |
| | | | Commercial |

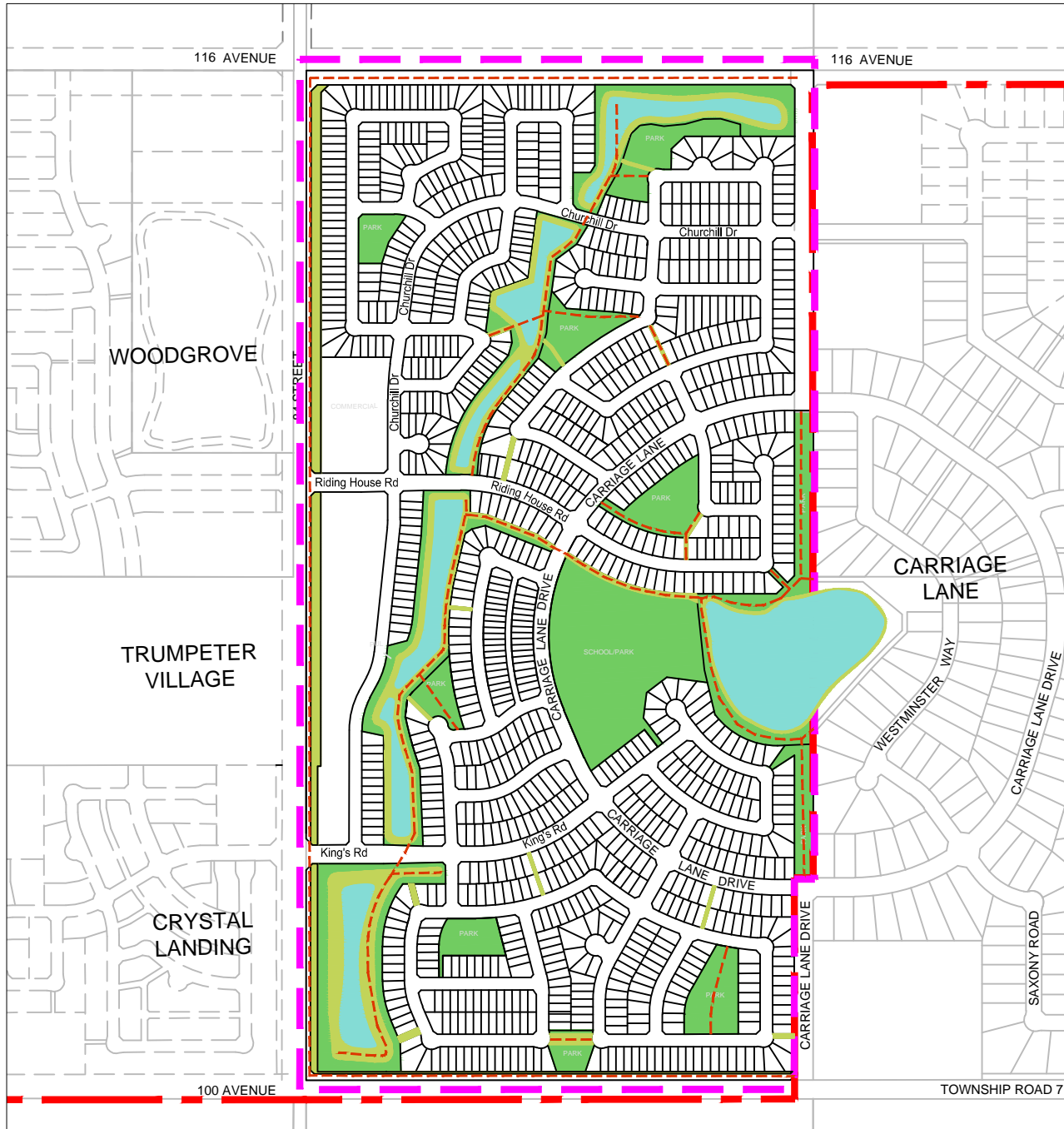


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Figure 4: Development Concept

OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

- Outline Plan Boundary
- City Boundary
- Park
- Stormwater Management Facility
- Public Utility Lot
- Pedestrian Linkage



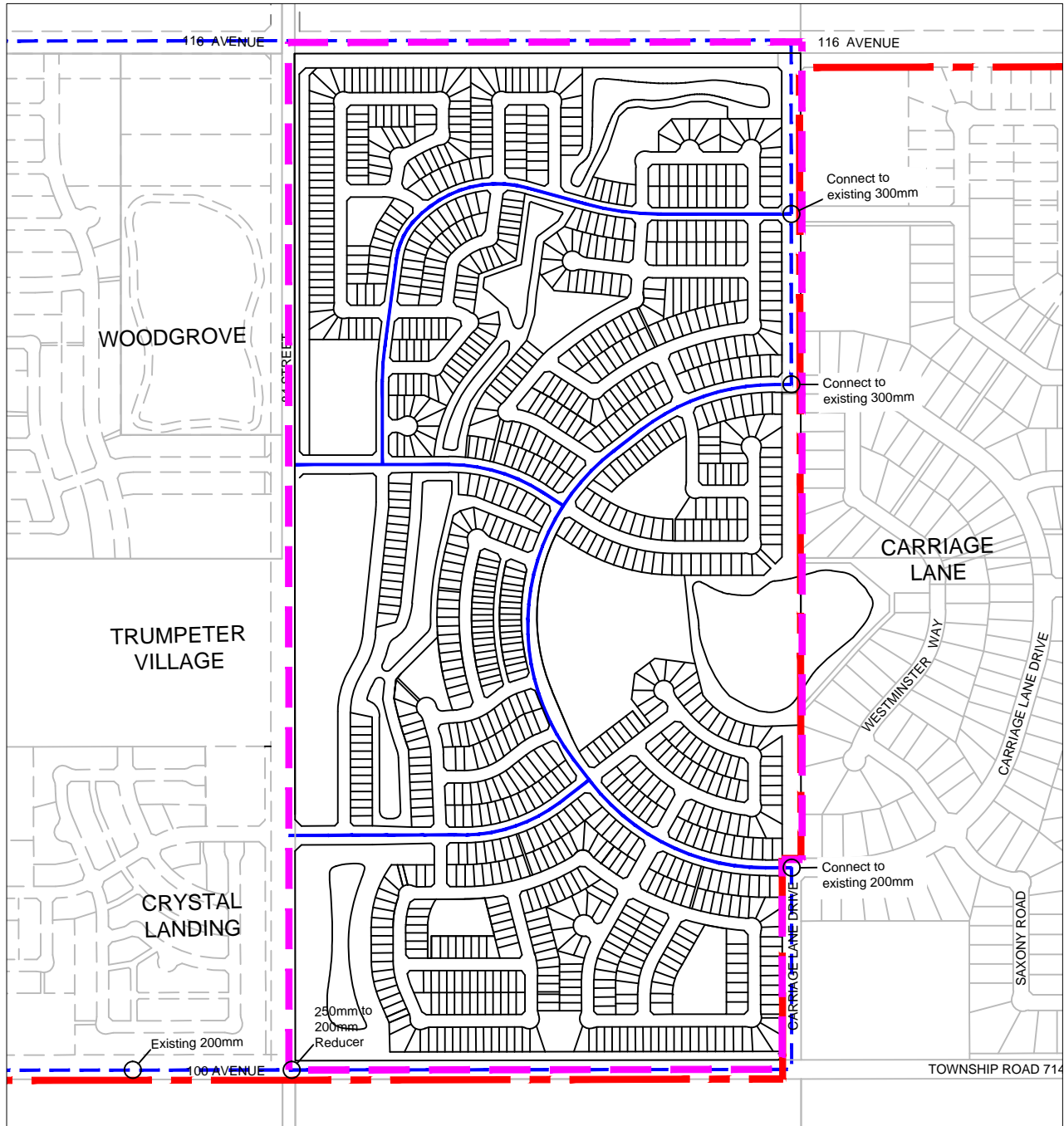
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Figure 5: Open Space Plan

OP-08-12A

January 13, 2014

West Carriage Lane Outline Plan



Legend

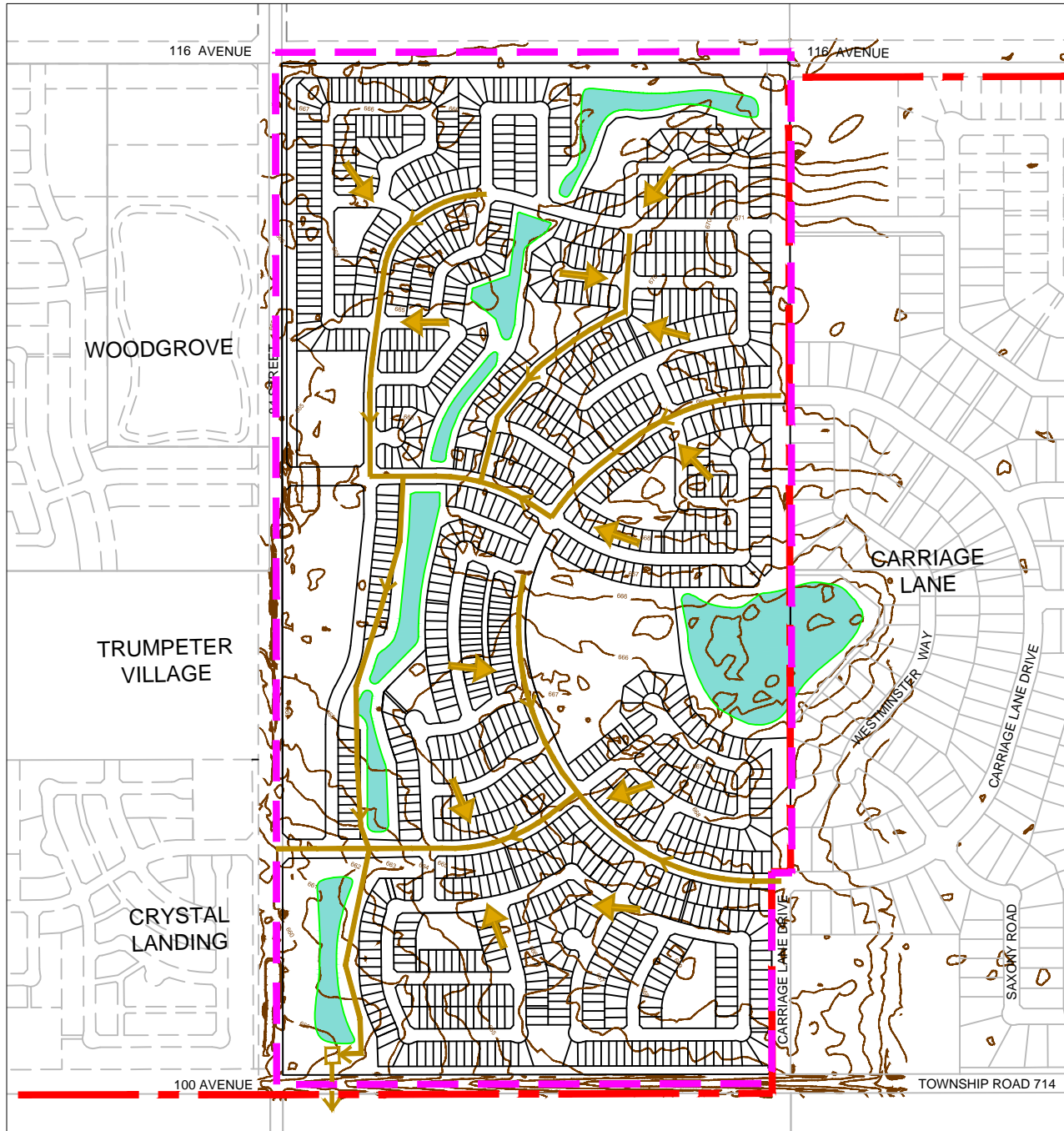
- Outline Plan Boundary
- City Boundary
- Proposed Water Servicing (Major Mains Only)
- Existing Water Servicing
- ← Connect to Neighboring Developments



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Figure 6: Water Servicing
OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

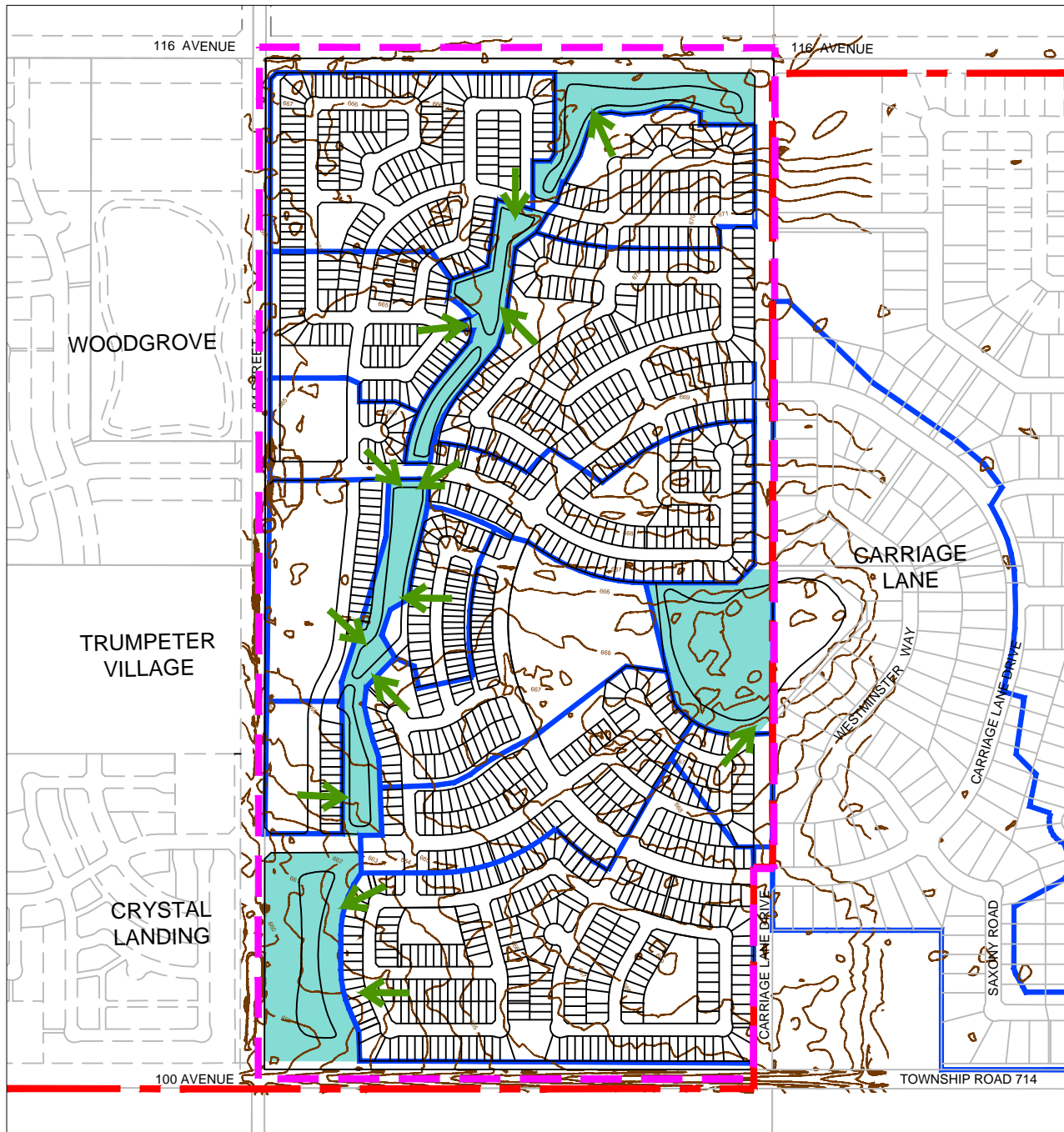
- Outline Plan Boundary
- City Boundary
- Proposed Sanitary Servicing (Major Piping Only)
- Existing Forcemain
- Direction of Flow
- Lift Station



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Figure 7: Sanitary Servicing
OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

- Outline Plan Boundary
- City Boundary
- Direction of Stormwater Flow
- Storm Basin Boundary
- Stormwater Management Facility



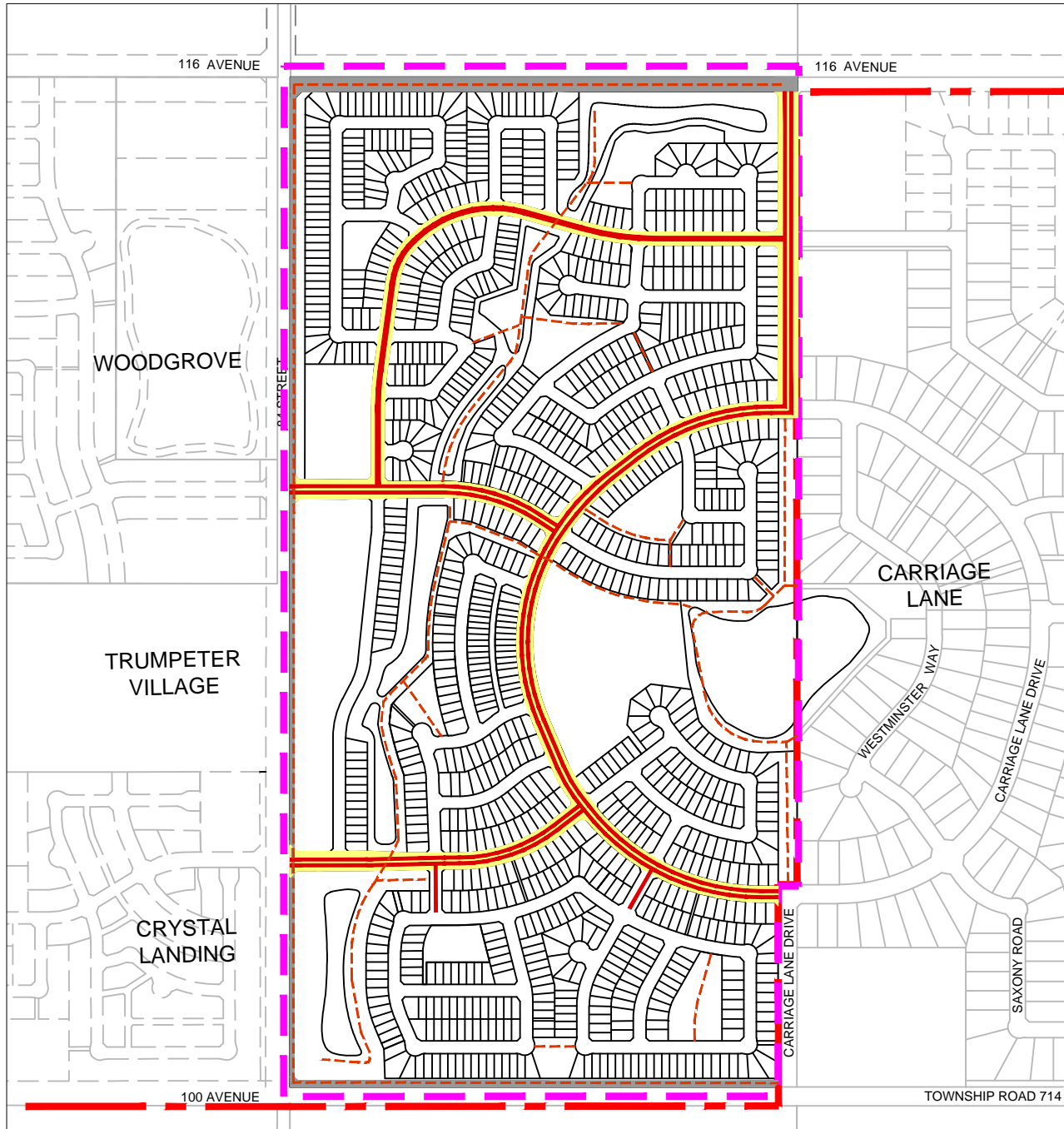
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Figure 8: Stormwater Servicing

OP-08-12A

January 13, 2014

West Carriage Lane Outline Plan



Legend

- | | | | |
|--|-----------------------|--|-----------------------------|
| | Outline Plan Boundary | | Road Widening |
| | City Boundary | | Transit Route (Preliminary) |
| | Major Collector Road | | |
| | Minor Collector Road | | |
| | Pedestrian Linkage | | |

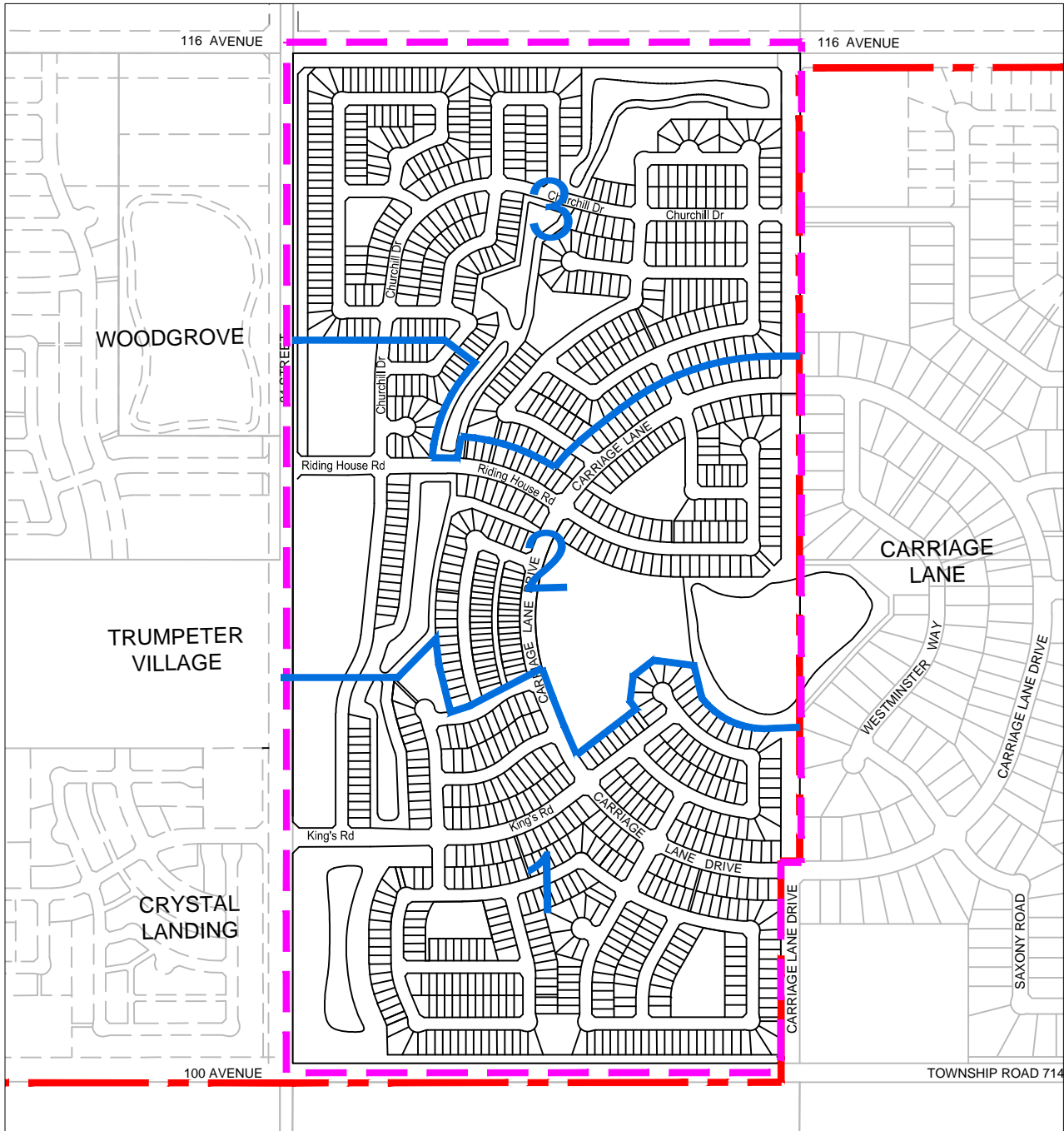


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Figure 9: Transportation Plan

OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

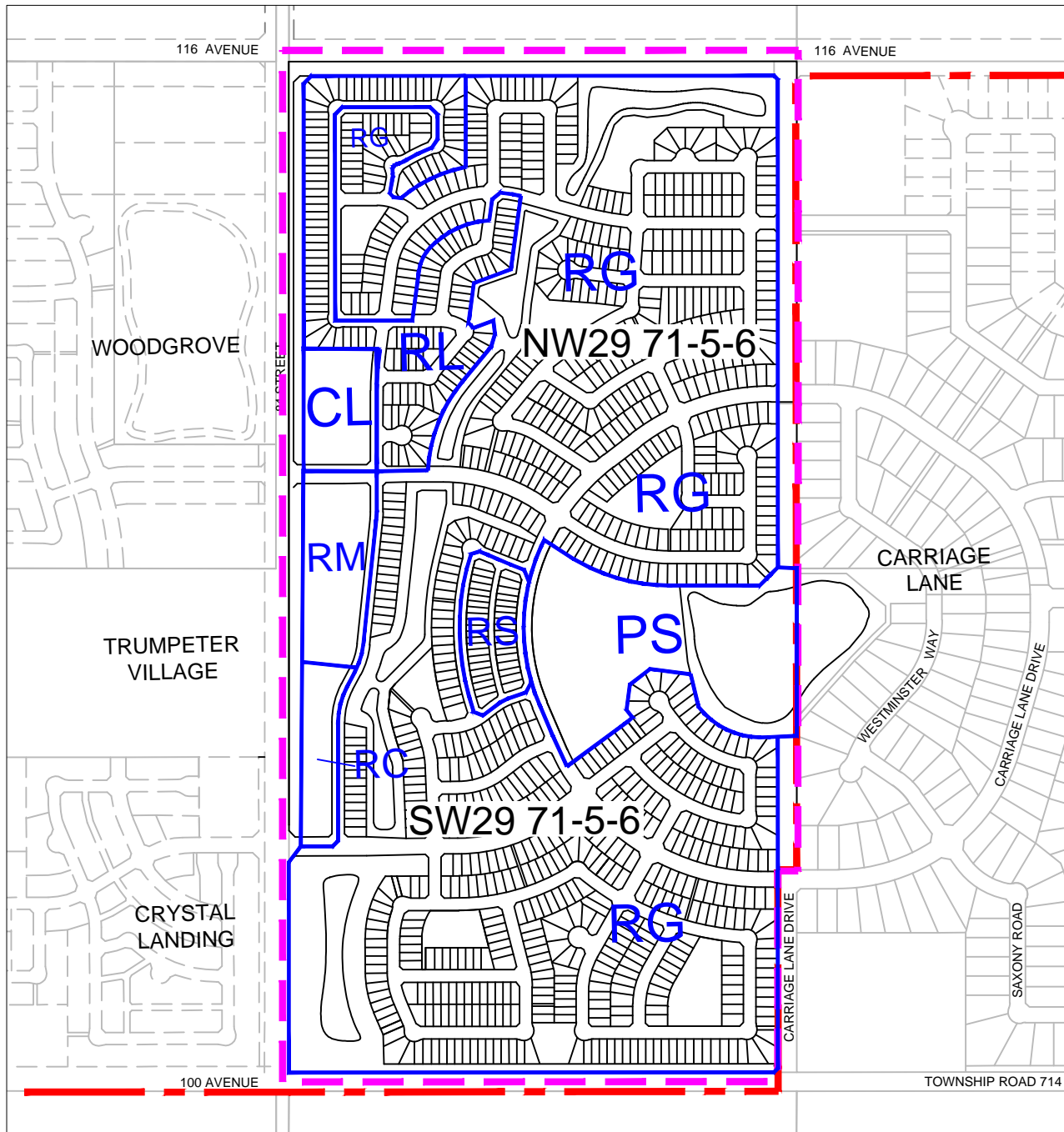
- Outline Plan Boundary
- City Boundary
- Staging Progression



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Figure 10: Staging Plan
OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

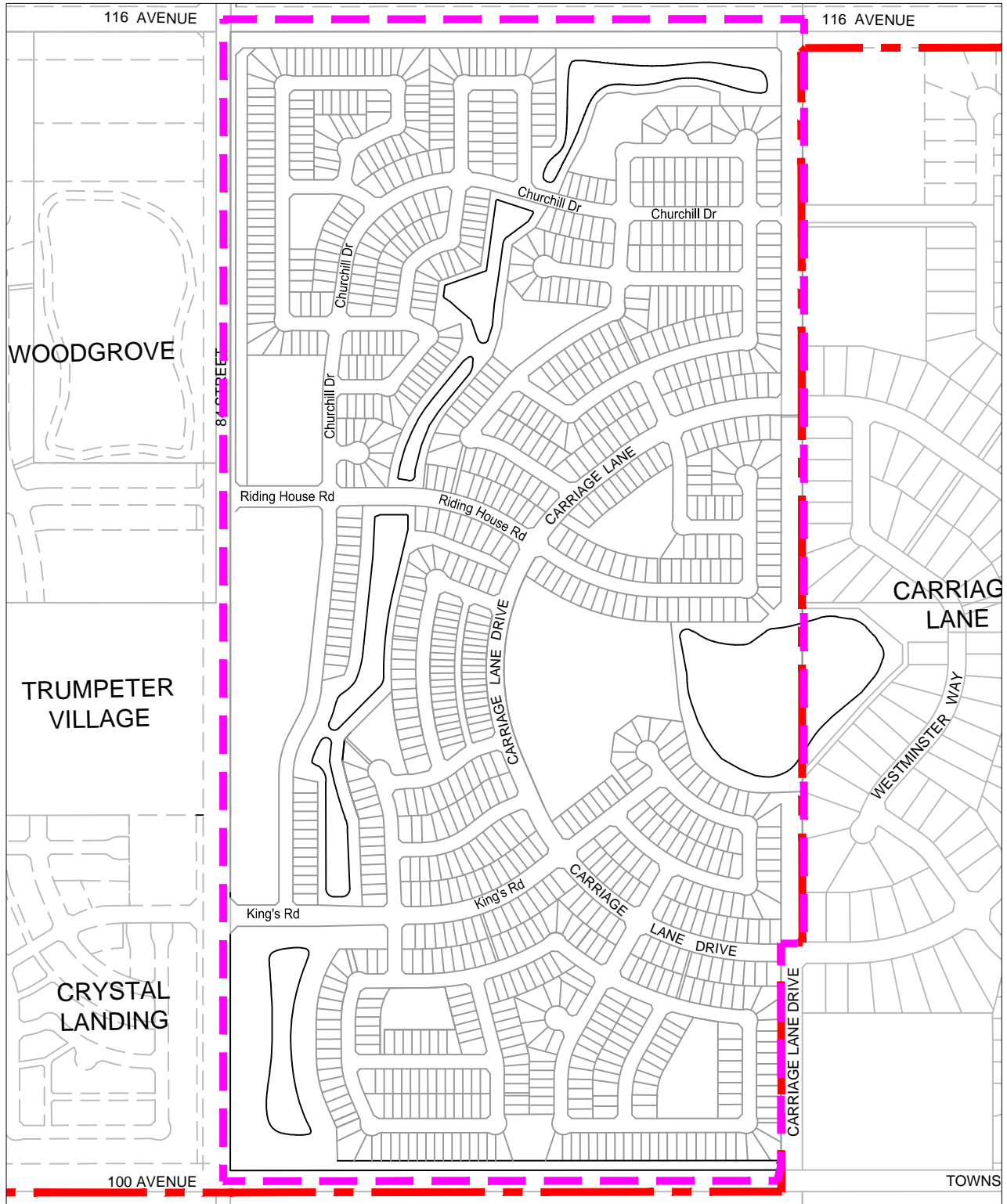
RG	General Residential	CL	Commercial
RS	Small Lot Residential	PS	Public Service
RM	Medium Density Residential		
RC	Low/Medium Density Residential		



0 100 200 300 400 500
1:10,000

Figure 11: Proposed Zoning
OP-08-12A
January 13, 2014

West Carriage Lane Outline Plan



Legend

- Outline Plan Boundary
- City Boundary



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Figure 12: Street Names

OP-08-12A

January 13, 2014